



**SALUPO**<sup>®</sup>  
INNOVATION TECHNOLOGY



CATALOGUE 2022





For 25 years, **SALUPO** has been a company engaged in the design and production of control panels for management and protection of water lifting systems.

Aligned with the trends and specifications of the moment, **SALUPO** is committed to provide a wide range of products, allowing to better respond to the development of customized solutions, being able on their side to adapt perfectly to the requests of individual customers, and then fully satisfying their requests and any specific market requirement.

Thanks to the **SALUPO CONNECT** platform, each panel is equipped with cutting-edge technologies, constantly updated to facilitate their use and monitoring their status wherever they are.

**SALUPO** is also very careful reducing its environmental impact by primarily promoting and implementing the use of renewable energy sources for its plants and partners', and the proper disposal of waste materials. Thanks to an experienced and specialized research and development team, relying on the efficiency of young, attentive and motivated staff, **SALUPO** is able to impose its brand on the national and foreign market as a symbol of high quality and professionalism. With our products we are in fact present in over 30 countries, satisfying even the most selective and rigid standards compliant with ISO9001 certifications.



**European Certification Institute**

CERTIFICATE No. **SALU2490Q1801**  
CERTIFICATO N.

WE HEREBY CERTIFY THAT THE MANAGEMENT SYSTEM OF  
SI CERTIFICA CHE IL SISTEMA DI GESTIONE DI

**SALUPO S.r.l.**

REGISTERED OFFICE - SEDE LEGALE  
OPERATIVE UNIT - UNITÀ OPERATIVA  
Contrada Pietra di Roma, Vicolo VI 2  
98070 - Torrenova (ME) - Italia

IS IN COMPLIANCE WITH THE STANDARD  
E' CONFORME ALLA NORMA

**ISO 9001:2015**

FOR THE FOLLOWING ACTIVITIES  
PER LE SEGUENTI ATTIVITÀ

**Design and manufacturing of electronic devices for electric pumps, electric panels and industrial machines including related assembly of electronic components on printed circuit boards**

**Progettazione e produzione di dispositivi elettronici per elettropompe, quadri elettrici e macchine industriali incluso il relativo assemblaggio di componenti elettronici su circuiti stampati**

IAF SECTOR (SETTORE IAF) - 19

THE USE AND THE VALIDITY OF THIS CERTIFICATE SHALL SATISFY THE REQUIREMENTS OF EUX "RULES FOR MANAGEMENT SYSTEMS CERTIFICATION" AND SHALL BE SUBJECT TO ANNUAL AUDIT. PLEASE CHECK ON WWW.EUCI.ORG FOR THE VALIDITY OF THIS CERTIFICATE OR SCAN THE QR CODE ON THE RIGHT WITH YOUR SMARTPHONE OR TABLET. LA VALIDITÀ E L'USO DEL PRESENTE CERTIFICATO SONO SOGGETTE AL "REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE" IPRESSO DA EUX E SONO SOTTOPOSTE A VERIFICHE DI SORVEGLIANZA ANNUALI. CONTROLLARE SU WWW.EUCI.ORG PER LA VALIDITÀ DEL PRESENTE CERTIFICATO O SCANSARE IL QR CODE SULLA DESTRA CON UN PRONTO SMOBYPHONE O TABLET.

First Issue  
Prima Emissione  
2018-09-18

Current Issue  
Emissione Corrente  
2021-09-29

Expiry Date  
Scadenza  
2024-09-17

André Sant  
Director

IAF EUCI



# INDEX

## SIGNALING AND REMOTE CONTROL SYSTEMS

CODE	TYPE	DESCRIPTION	PAG.
SC100.29/xx SC100.39/xx	<b>SMART CONTROL PLUS</b>	GPRS/ETHERNET/WiFi remote control display	15
SC100.19/xx	<b>TOP GSM</b>	GSM remote control device	16
SC101.xx	<b>TOP ALARM</b>	Visual and acoustic alarm indicator with siren shut-off button and buffer battery	17
SC100.xx	<b>BASIC ALARM</b>	Visual and acoustic alarm indicator	18

## ELECTRONIC CONTROL PANELS

CODE	TYPE	INSTRUMENTS	MOTORS	STARTING	2 DRY RUNNING CONTROL COSφ	3 PRESSURE BOOSTER	4 CLEAN WATER	5 SEWAGE	6 4-20mA bar	7 4-20mA meters	8 FIRST RAIN COLLECTION SYSTEMS	PAG.
SA664.xx SA667.xx	<b>MULTI 1</b>	LED		DIRECT			●	●				20
SA674.xx SA677.xx	<b>MULTI 2</b>	LED		DIRECT		●	●	●				22
SA684.xx SA687.xx	<b>MULTIPLUS 1</b>	DISPLAY		DIRECT	●		●	●	●	●		24
SA694.xx SA697.xx	<b>MULTIPLUS 2</b>	DISPLAY		DIRECT		●	●	●	●	●		26
SA696.xx	<b>MULTIPLUS 3</b>	DISPLAY		DIRECT		●	●	●	●	●		28
SA612.xx SA615.xx	<b>LEVEL</b>	LED		DIRECT			●					30
SA672.xx SA675.xx	<b>LEVEL PLUS</b>	DISPLAY		DIRECT			●					32
SA654.xx	<b>TOP DRY</b>	LED		DIRECT	●							34
SA604.xx SA607.xx	<b>DRY CONTROL PLUS</b>	DISPLAY		DIRECT	●							36
SA640.xx SA650.xx	<b>PRESS CONTROL PLUS 4-20</b>	DISPLAY		DIRECT					●			38
SA623.xx SA626.xx	<b>DUAL MOTOR</b>	LED		DIRECT		●						40
SA633.xx SA636.xx	<b>DUAL MOTOR PLUS</b>	DISPLAY		DIRECT		●			●			42
SA656.xx	<b>THREE MOTOR PLUS</b>	DISPLAY		DIRECT		●			●			44
SA682.xx SA685.xx	<b>RAIN PLUS 1</b>	DISPLAY		DIRECT							●	46
SA692.xx SA695.xx	<b>RAIN PLUS 2</b>	DISPLAY		DIRECT							●	48
SQ684/SD.xx SQ687/SD.xx	<b>STAR DELTA PLUS 1</b>	DISPLAY		STAR DELTA	●		●	●	●	●		50
SQ694/SD.xx SQ697/SD.xx	<b>STAR DELTA PLUS 2</b>	DISPLAY		STAR DELTA		●	●	●	●	●		52
SQ696/SD.xx	<b>STAR DELTA PLUS 3</b>	DISPLAY		STAR DELTA		●	●	●	●	●		54
SQ684/I.xx SQ687/I.xx	<b>IMPEDANCE PLUS 1</b>	DISPLAY		IMPEDANCE	●		●	●	●	●		56
SQ684/SS.xx SQ687/SS.xx	<b>SOFT START PLUS 1</b>	DISPLAY		SOFT START	●		●	●	●	●		58
SQ694/SS.xx SQ697/SS.xx	<b>SOFT START PLUS 2</b>	DISPLAY		SOFT START		●	●	●	●	●		60
SQ696/SS.xx	<b>SOFT START PLUS 3</b>	DISPLAY		SOFT START		●	●	●	●	●		62
SQ703.2x SQ704.2x	<b>INVERTER PLUS 1</b>	DISPLAY		INVERTER					●	●		64
SQ714.xx	<b>INVERTER PLUS 2</b>	DISPLAY		INVERTER					●	●		66
SQ724.xx	<b>INVERTER PLUS 3</b>	DISPLAY		INVERTER					●	●		68
SQ707.xx	<b>INVERTER IRIS BLUE 1</b>	DISPLAY		INVERTER					●	●		70
SQ717.xx	<b>INVERTER IRIS BLUE 2</b>	DISPLAY		INVERTER					●	●		72
SQ727.xx	<b>INVERTER IRIS BLUE 3</b>	DISPLAY		INVERTER					●	●		74

# INDEX

## ELECTROMECHANICAL CONTROL PANELS

CODE	TYPE	INSTRUMENTS	MOTORS	STARTING	CAPACITOR	1 COMMON USE	4 CLEAN WATER	3 PRESSURE BOOSTER	5 SEWAGE	PAG.
SA600.xx	BASIC 1 IL			DIRECT						78
SA601.xx	BASIC 1 IC			DIRECT						79
SA602.xx	BASIC 1 CC			DIRECT						80
SA603.xx	BASIC 1 CC AV			DIRECT						81
SA611.xx	BASIC 1 AVC			DIRECT						82
SA610.xx	BASIC 1			DIRECT						83
SA624.xx SA634.xx	DIRECT 1			DIRECT			OPTIONAL			84
SA624.2x SA634.2x	DIRECT 1 T			DIRECT			OPTIONAL			86
SA625.xx SA635.xx	DIRECT 1 AV			DIRECT			OPTIONAL			88
SA625.2x SA635.2x	DIRECT 1 AVT			DIRECT			OPTIONAL			90
SA621.xx SA631.xx	EVO 1			DIRECT			OPTIONAL			92
SA622.xx SA632.xx	EVO 1 AV			DIRECT			OPTIONAL			94
SA700.xx SA701.xx	EVO 1 AVM			DIRECT			OPTIONAL			96
SA651.xx SA661.xx	EVO 2			DIRECT						98
SA653.xx SA663.xx	EVO 2 MULTI			DIRECT						100
SA671.xx SA681.xx	EVO 3			DIRECT						102
SA673.xx SA683.xx	EVO 3 MULTI			DIRECT						104
SQ750.xx	STAR DELTA 1 BASIC			STAR DELTA			OPTIONAL			106
SQ700.xx	STAR DELTA 1			STAR DELTA			OPTIONAL			108
SQ710.xx	STAR DELTA 2			STAR DELTA				OPTIONAL		110
SQ720.xx	STAR DELTA 3			STAR DELTA				OPTIONAL		112
SQ701.xx	IMPEDANCE 1			IMPEDANCE			OPTIONAL			114
SQ705.xx	AUTOTRANSFORME 1			AUTOTRANSFORMER			OPTIONAL			116
SQ702.xx	SOFT START 1			SOFT START			OPTIONAL			118
SQ712.xx	SOFT START 2			SOFT START				OPTIONAL		120
SQ722.xx	SOFT START 3			SOFT START				OPTIONAL		122
<b>ELECTROMECHANICAL CONTROL PANELS OPTIONALS</b>										124

## FIRE-FIGHTING CONTROL PANELS

CODICE	TIPO	DESCRIPTION	PAG.
SA900.xx	EVO 1 EN	Direct starting control panel for fire-fighting units (UNI EN-12845)	126
SQ900.xx	STAR DELTA 1 EN	Star delta starting control panel for fire-fighting units (UNI EN-12845)	127
SQ901.xx	IMPEDANCE 1 EN	Stator impedance starting control panel for fire-fighting units (UNI EN-12845)	128
SQ905.xx	DIESEL 1 EN	Motor pump starting control panel for fire-fighting units (UNI EN-12845)	129
<b>ACCESSORIES</b>			130
<b>PACKAGING</b>			142

# LABORATORIO DI TARATURA METRIX

Metrix Calibration Laboratory

Il Laboratorio Metrologico Metrix Engineering Srl è conforme alle Norme ISO 17025:2018, ISO 9001:2015.

The Metrology Laboratory of Metrix Engineering Srl complies with the ISO 17025:2018, ISO 9001:2015 standards.



## METRIX Engineering Srl

Via Martiri di Nassiriya, s.n.c.

92020 Santo Stefano Quisquina (AG)

Tel.: +39.0922.992053 Fax: +39.0922.1837734

e-mail: info@metrix.it - web: www.metrix.it

### RIEPILOGO VERIFICHE

Test Report Summary

- Data di emissione - Date of issue	2020-03-26	- Oggetto - Item	QUADRI ELETTRONICI LED MONOFASE / TRIFASE ELECTRONIC PANELS SINGLE - PHASE / THREE-PHASE LED QUADRI ELETTRONICI DISPLAY MONOFASE / TRIFASE ELECTRONIC PANELS SINGLE - PHASE / THREE-PHASE DISPLAY
- Destinatario - Addressee	SALUPO S.r.l. C/da Pietra di Roma - via Vicolo VI, 2 98070 TORRENOVA (ME)	- Costruttore - Manufacturer	SALUPO
- Data delle verifiche - Date of tests	dal 2020-03-06 al 2020-03-26	- Modello - Model	SA664.00 / SA674.00 / SA612.00 / SA623.00 SA667.xx / SA677.xx / SA615.xx / SA626.xx SA684.00 / SA694.00 / SA672.00 / SA604.00 / SA640.00 / SA633.00 / SA682.00 / SA692.00 SA687.xx / SA697.xx / SA696.xx / SA675.xx / SA607.xx / SA650.xx / SA636.xx / SA656.xx / SA685.xx SA695.xx
- Luogo delle verifiche - Test working place	LABORATORIO	- Scheda madre - Motherboard	SD664.20/1 / SD674.20/1 / SD612.20/1 / SD623.20/1 SD667.xx/1 / SD677.xx/1 / SD615.xx/1 / SD626.xx/1 SD684.20/1 / SD694.20/1 / SD672.20/1 / SD604.20/1 / SD640.20/1 / SD633.20/1 / SD682.20/1 / SD692.20/1 SD687.xx/1 / SD697.xx/1 / SD696.xx/1 / SD675.xx/1 / SD607.xx/1 / SD650.xx/1 / SD636.xx/1 / SD656.xx/1 SD685.xx/1 / SD695.xx/1
- Certificati emessi: - Certificates issued:	1) V3010320, EMC6010320, IP9010320 2) V3030320, EMC6030320, IP9030320 1) V3020320, EMC6020320, IP9020320 2) V3040320, EMC6040320, IP9040320	- Pannello frontale - Front panel	AC100.24/xx / AC100.25/xx / AC100.20/1/xx / AC100.21/1/xx AC100.22/1/xx

PROVA / TEST	RIFERIMENTO / REQUIREMENTS	ESITO / RESULT
PROVE DI COMPATIBILITÀ ELETTROMAGNETICA EMC TESTS	CEI EN 55015:2014, CEI EN 61000-6-3:2013, CEI EN 61000-6-1:2016, CEI EN 61000-3-3:2014	PROVE SUPERATE CON ESITO POSITIVO TESTS PASSED WITH POSITIVE RESULT
PROVE DI VERIFICA DEL GRADO DI PROTEZIONE IP IP PROTECTION GRADE TESTS	CEI EN 60529	PROVE SUPERATE CON ESITO POSITIVO PER IL GRADO: TESTS PASSED WITH POSITIVE RESULT FOR PROTECTION GRADE: <b>IP 65</b>
PROVE DI VERIFICA, PROVE IN CAMERA CLIMATICA VERIFICATION TESTS, CLIMATIC CHAMBER TESTS	CEI EN 61439-1:2012, CEI EN 61439-2:2012, IEC 60890:2018 (CEI 17-43)	PROVE SUPERATE CON ESITO POSITIVO. INTERVALLO DI TEMPERATURA E UMIDITÀ NON CONDENSATA: TESTS PASSED WITH POSITIVE RESULT. TEMPERATURE AND NON CONDENSED RELATIVE HUMIDITY RANGES: <b>T: (-5 ÷ +50) °C Ur: (10 ÷ 60) %</b>
PROVE DI VERIFICA PER APPARECCHIATURE ELETTRICHE APPROVAL AND TEST FOR ELECTRICAL EQUIPMENT	AS/NZ 3100 : 2017	PROVE SUPERATE CON ESITO POSITIVO PER LE PROVE APPLICABILI TESTS PASSED WITH POSITIVE RESULT FOR ALL APPLICABLE CLAUSES

Il Responsabile del Centro  
Head of the Centre  
Dott. Marco Leto

# LABORATORIO DI TARATURA METRIX

Metrix Calibration Laboratory

Il Laboratorio Metrologico Metrix Engineering Srl è conforme alle Norme ISO 17025:2018, ISO 9001:2015.

The Metrology Laboratory of Metrix Engineering Srl complies with the ISO 17025:2018, ISO 9001:2015 standards.



## METRIX Engineering Srl

Via Martiri di Nassiriya, s.n.c.

92020 Santo Stefano Quisquina (AG)

Tel.: +39.0922.992053 Fax: +39.0922.1837734

e-mail: info@metrix.it - web: www.metrix.it

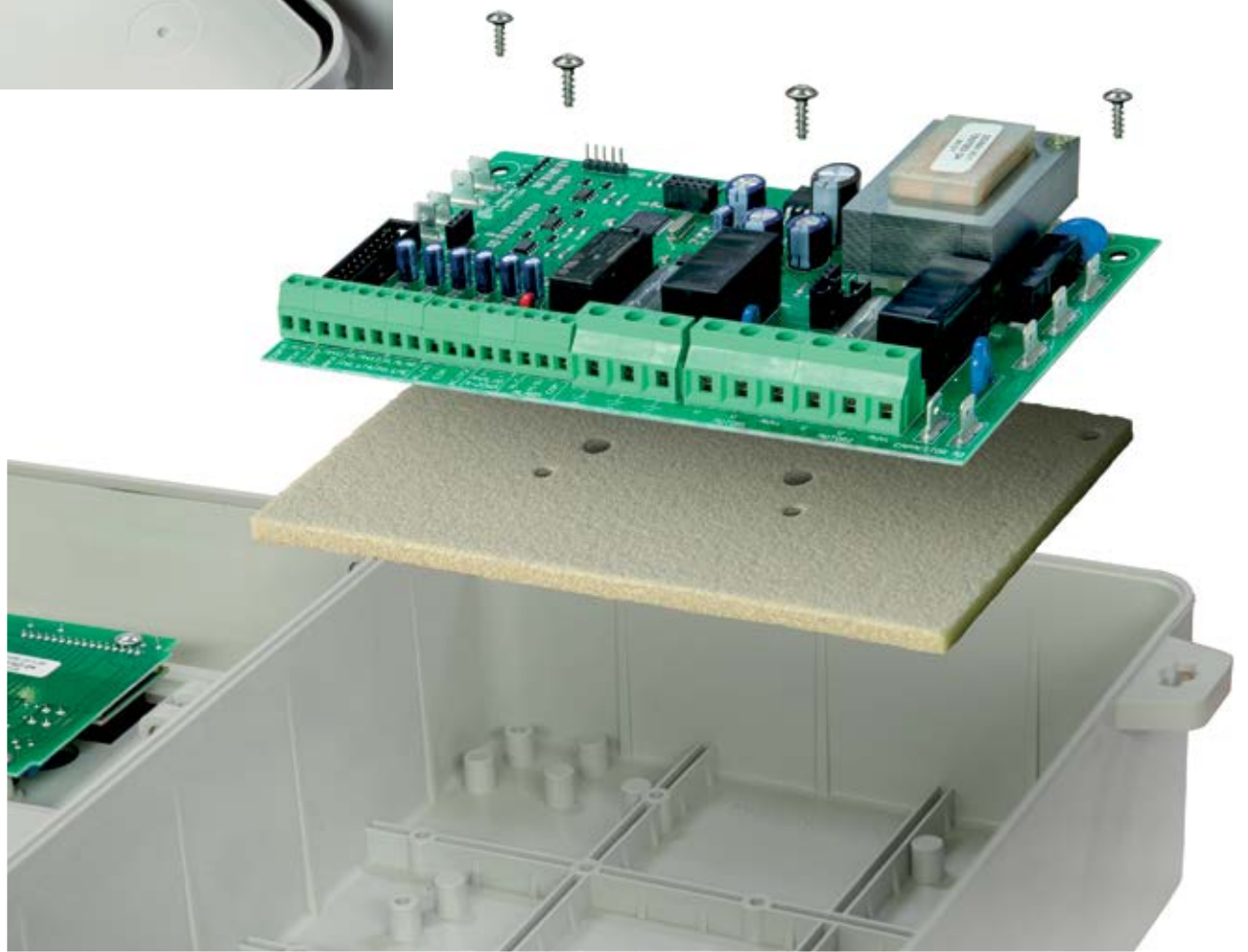
### RIEPILOGO VERIFICHE

Test Report Summary

- Data di emissione - Date of issue	<b>2020-11-13</b>	- Oggetto - Item	<b>INDICATORE DI ALLARME VISIVO E ACUSTICO CON PULSANTE DI SPEGNIMENTO DELLA SIRENA E BATTERIA</b> <b>VISUAL AND ACOUSTIC ALARM INDICATOR WITH SIREN SHUT-OFF BUTTON AND BATTERY</b>
- Destinatario - Addressee	<b>SALUPO S.r.l.</b> <b>C/da Pietra di Roma - via Vicolo VI, 2</b> <b>98070 TORRENOVA (ME)</b>	- Costruttore - Manufacturer	<b>SALUPO</b>
- Data delle verifiche - Date of tests	<b>dal 2020-10-09 al 2020-11-13</b>	- Modello - Model	<b>TOP ALARM VA/VAB</b>
- Luogo delle verifiche - Test working place	<b>LABORATORIO</b>	- Scheda madre - Motherboard	<b>SS101.xx</b>
- Certificati emessi: - Certificates issued:	<b>V7011120, AN7011120, EMC7011120,</b> <b>IP701-1120</b>		

PROVA / TEST	RIFERIMENTO / REQUIREMENTS	ESITO / RESULT
PROVE DI COMPATIBILITÀ ELETTROMAGNETICA EMC TESTS	CEI EN 55015:2014, CEI EN 61000-6-3:2013, CEI EN 61000-6-1:2016, CEI EN 61000-3-3:2014	PROVE SUPERATE CON ESITO POSITIVO TESTS PASSED WITH POSITIVE RESULT
PROVE DI VERIFICA DEL GRADO DI PROTEZIONE IP IP PROTECTION GRADE TESTS	CEI EN 60529	PROVE SUPERATE CON ESITO POSITIVO PER IL GRADO: <b>IP 65</b> TESTS PASSED WITH POSITIVE RESULT FOR PROTECTION GRADE:
PROVE DI VERIFICA, PROVE IN CAMERA CLIMATICA VERIFICATION TESTS, CLIMATIC CHAMBER TESTS	CEI EN 61439-1:2012, CEI EN 61439-2:2012, IEC 60890:2018 (CEI 17-43)	PROVE SUPERATE CON ESITO POSITIVO. INTERVALLO DI TEMPERATURA E UMIDITÀ NON CONDENSATA: TESTS PASSED WITH POSITIVE RESULT. TEMPERATURE AND NON CONDENSED RELATIVE HUMIDITY RANGES: <b>T: (-5 ÷ +50) °C Ur: (10 ÷ 60) %</b>
PROVE DI VERIFICA PER APPARECCHIATURE ELETTRICHE APPROVAL AND TEST FOR ELECTRICAL EQUIPMENT	AS/NZ 3100 : 2017	PROVE SUPERATE CON ESITO POSITIVO PER LE PROVE APPLICABILI TESTS PASSED WITH POSITIVE RESULT FOR ALL APPLICABLE CLAUSES

Il Responsabile del Centro  
Head of the Centre  
Dott. Marco Leto







## ***SIGNALING AND REMOTE CONTROL SYSTEMS***



SALUPO CONNECT is a remote monitoring service that allows supervision and control of the systems from any computer or mobile device through the most common web browsers.

The configuration and maintenance operations, often carried out in difficult or uncomfortable environments, are now simpler for all Salupo products equipped with GPRS or Ethernet communication modules.

Indeed it is possible to connect to them via tablet, smartphone and PC from the website [www.salupo.it](http://www.salupo.it). Through SALUPO CONNECT you can change the setup parameters, the operation status of the motors and check the measurements read by the devices.

It is also possible to view the events and download the data of interest to allow an accurate analysis. The system has the following features:

- Possibility to select the language: Italian, English, French and Spanish;
- Profile customization: allows access to customers and installers with dedicated profiles;

· Simple use: it is easy to install, use and independent of any network connection, no static IP is required and even modify the router settings;

· Proactive monitoring; the control panel sends the reading of its parameters to the platform, the pumps status, the levels, electrical measurements and the anomalies;

· Alarm reporting: all users registered in the system will receive an email notification in the event of alarm. This allows the identification of faults and malfunctions in rapid times;

· Simplified diagnosis, when the customer reports a fault or anomaly, the personnel responsible for the customer care and/or the installer has immediate visibility of the system parameters and the possibility to consult the event history;

· Reduction of management costs: thanks to the remote control it is possible to interact with the system at any time and with the timer function it is possible to set different programmed startups.

## ACCESS TO THE PLATFORM

By entering your login credentials (e-mail and password) on the <https://www.salupo.it> site or on the APP, you can access the SALUPO CONNECT platform:

Reserved area

e-mail

Password

You are not registered [Sign in](#)

Remember

[I forgot the password](#)

Login

### SYSTEM LIST

Once logged in, the user sees the list of all systems registered with their status (Online/Offline) and operation (Regular/Alarm):

**Systems list**

System name	Code	Description	Serial number	State	Funct.
SA684.00 Well Irrigation	SA684.00	MULTIPLUS 1	QMHKNZ	Online	Alarm
Salupo Factory Water Well	SQ704.20	INVERTER PLUS 1	WHBYQT	Online	Regular
IRIS PRESSURIZATION PLANT	SQ707.04	INVERTER IRIS BLUE 1	EKHWPD	Offline	

**Active alerts**

System name	Serial number	Date	Alert
SA684.00 Well Irrigation	QMHKNZ	25/02/2020 16:44:13	Motor 1 maximum current alarm

### MONITORING

By selecting the system, you enter the "Monitoring" page from which you can change the status of the motors (Stop/ Auto), view all the operating parameters of the control panel and reset any alarms:

**SA684.00 Well Irrigation [QMHKNZ]**

Online Alarm

**Stop** MOTOR 1 STATUS

**MAINS VOLTAGE** 226 V

**MOTOR 1 CURRENT** 0 A

**COSFI MOTOR** 1

**MOTOR 1 HOURS** 0 h

**EXTERNAL COMMAND** ON

**Active alerts**

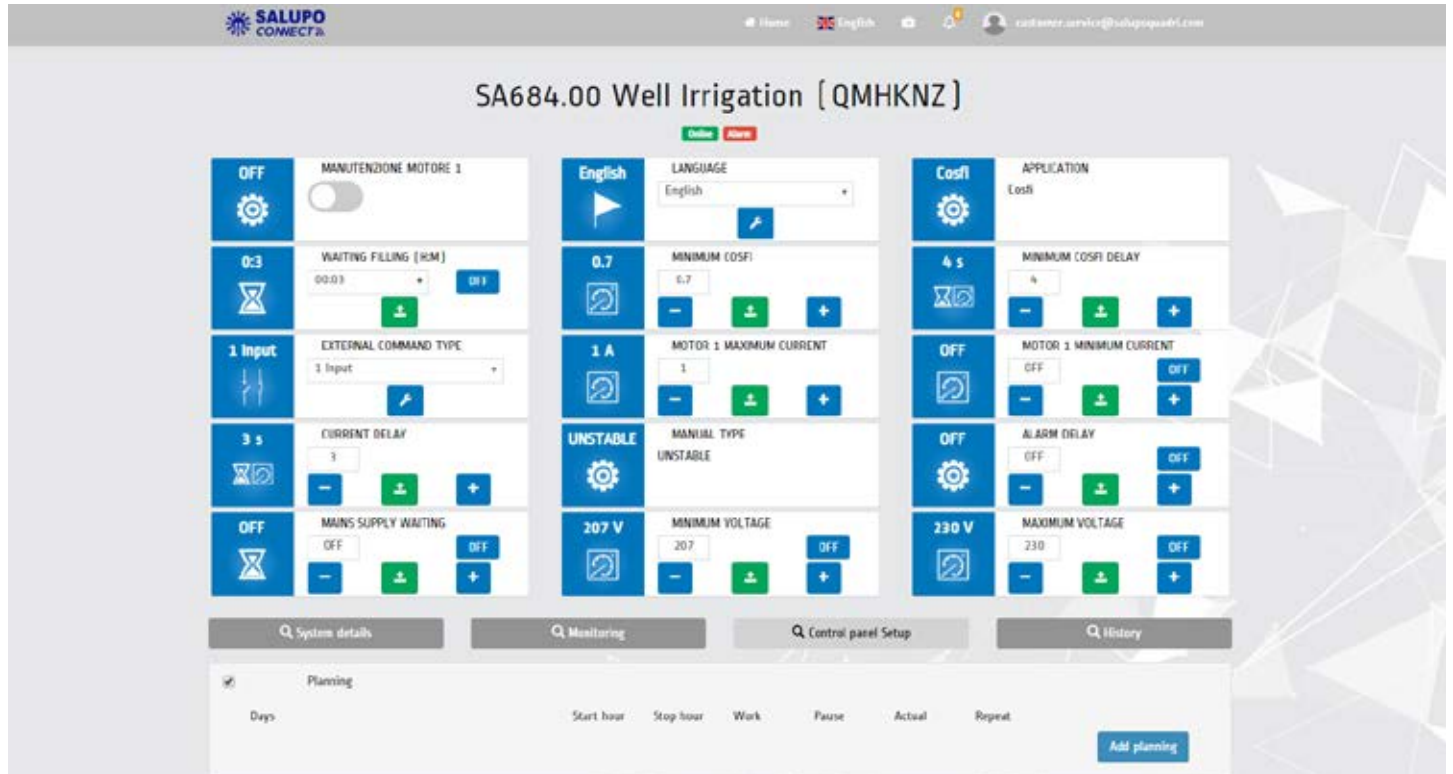
System name	Serial number	Date	Alert
SA684.00 Well Irrigation	QMHKNZ	25/02/2020 16:44:13	Motor 1 maximum current alarm

System details | Monitoring | Control panel Setup | History

Last update 25/02/2020 16:44:15

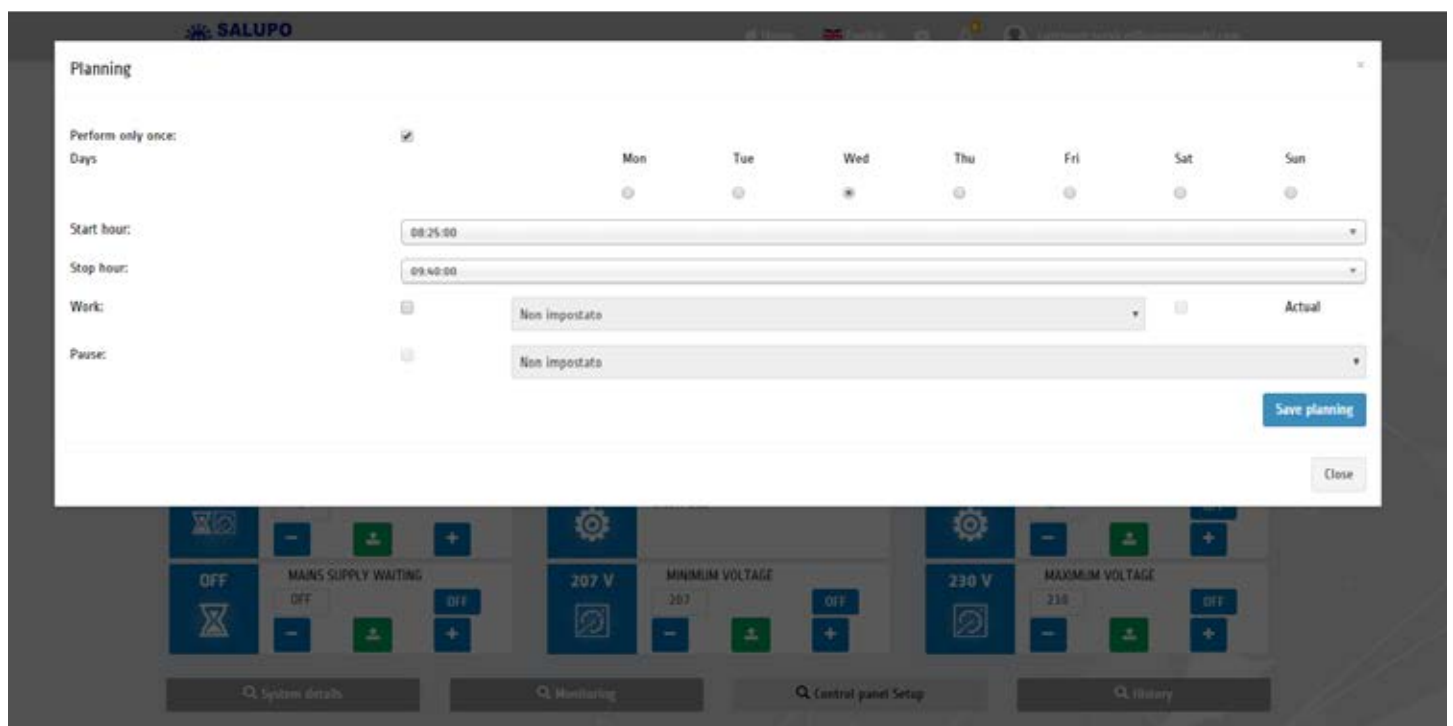
## CONTROL PANEL SETUP

In the "Control panel setup" menu, authorized users can change the value of the various system setup parameters:



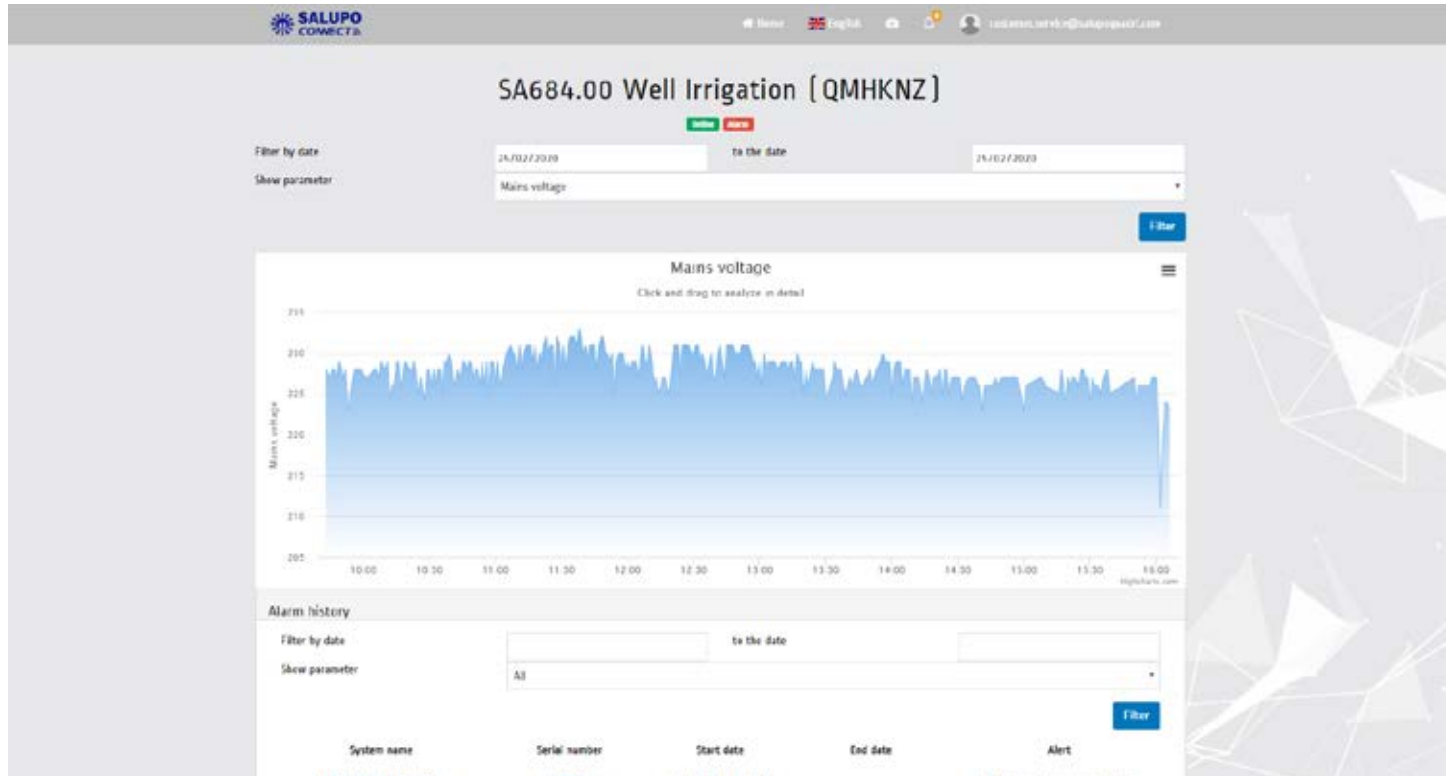
## ADD PLANNING

In the "Add planning" menu it is possible to set timers to enable operation of the control panel on set days and times:



## HISTORY

With the "History" menu, you can view some parameters of the control panel in the form of a graph and download a file containing all the saved data:



## SYSTEM DETAILS

The "System details" menu allows you to connect new users or select other submenus (Monitoring, Control panel Setup, History and Geolocalization):

The screenshot displays the 'System details' view for the 'SA684.00 Well Irrigation (QMHNZ)' system. The main heading is 'SA684.00 Well Irrigation (QMHNZ)'. Below this, there are filters for 'Filter by date' and 'Show parameter' (All). A 'Filter' button is present. The central part of the page features a 'System detail' form with the following fields: System name (SA684.00 Well Irrigation), Serial number (QMHNZ), SIM Number, Address, ZIP Code, City, State, and Time zone ([UTC+01:00] Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna). Below the form are buttons for Monitoring, Control panel Setup, History, and Show on map. There is also a checkbox for 'Activate the receipt of e-mail alerts' and buttons for 'Dissociate from this system' and 'Save'. Below the form is a 'User list' table with columns: Name, Surname, e-mail, Role, and Actions. The table contains one user: Customer, Salupo, customer.service@salupoquadri.com, Administrator. An 'Add user' button is at the bottom right.

## ADD USERS

With the "Add users" menu it is possible to associate new users to the system; each one can be assigned a dedicated profile with specific authorizations:

The screenshot displays the SALUPO CONNECT web interface. At the top, there is a navigation bar with the logo, a home icon, a language selector (English), a notification bell, and a user profile icon with the email address customer.service@salupoquadril.com.

The main content area is divided into three sections:

- User card:** A form for adding a new user. It includes a note: "Fill in the following fields to add the desired user. If he is not registered, a password must be entered to allow the user to log in for the first time." The form fields are: e-mail: \*, Name: \*, Surname: \*, Mobile: (with a plus icon), New password: \*, and Repeat Password: \*. There are empty input boxes for each field.
- Systems list:** A table listing installed systems. Each row includes the system name, code, description, serial number, and a permissions dropdown menu. The systems listed are:
 

System name	Code	Description	Serial number	Permissions
Salupo Factory Water Well	SQ704.20	INVERTER PLUS 1	WHBYQT	Disabled
IRIS PRESSURIZATION PLANT	SQ707.04	INVERTER IRIS BLUE 1	EKHWPD	Disabled
SA684.00 Well Irrigation	SA684.00	MULTIPLUS 1	OMHKNZ	Disabled

 Below the table are "Save" and "Cancel" buttons.
- Authorization legend:** A table defining user roles and their permissions.
 

	Display	Modify motors' status	Modify setup	Add users
Administrator	✗	✗	✗	✗
Super User	✗	✗	✗	
Manager	✗	✗		
Guest	✗			
Disabled				

## Signaling and remote control systems

# SMART CONTROL PLUS

GPRS/ETHERNET/WiFi remote control device with display

- Remote control
- Customizable inputs and outputs
- Programmable analog inputs
- Events data logger
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 24Vdc/230Vac
- General disconnecting switch with door lock
- Quad-band GSM module (SC100.29/xx)
- GSM/GPRS antenna with magnetic base and 3m cable
- Ethernet module (SC100.39/xx)
- Ethernet/WiFi module (SC100.59/xx)
- RJ45 connector (SC100.39/xx-SC100.59/xx)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+40° C
- Relative humidity 60% at 50°C (not condensed)



## INPUTS / OUTPUTS

- N°12 completely programmable low voltage inputs
- N°4 inputs for 4-20mA probe
- N°4 outputs max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Digital inputs logic status
  - Digital outputs logic status
  - Percentage value detected by analog inputs
- Possibility to remote control any type of system
- Customization of the names of the inputs and outputs
- Customization of the measurement range detected by the 4-20mA probes
- Possibility to receive notifications in case of variation of the inputs

CODE	TYPE	INPUTS		OUTPUTS	POWER SUPPLY	DIMENSIONS mm			WEIGHT Kg	BOX
		DIGITAL	ANALOG			A-H	L-W	P-D		
SC100.29/024	SMART CONTROL PLUS GPRS	12	4	4	24Vdc	285	245	140	2,2	03
SC100.29/230	SMART CONTROL PLUS GPRS	12	4	4	230Vac	285	245	140	2,2	03
SC100.39/024	SMART CONTROL PLUS ETHERNET	12	4	4	24Vdc	285	245	140	2,2	03
SC100.39/230	SMART CONTROL PLUS ETHERNET	12	4	4	230Vac	285	245	140	2,2	03
SC100.59/024	SMART CONTROL PLUS ETHERNET - WiFi - RS-485	12	4	4	24Vdc	285	245	140	2,2	03
SC100.59/230	SMART CONTROL PLUS ETHERNET - WiFi - RS-485	12	4	4	230Vac	285	245	140	2,2	03

# TOP GSM

### GSM remote control device

- Customizable SMS texts
- No supply mains signaling via SMS
- Output command via SMS or call



## GENERAL SPECIFICATIONS

- Operating voltage 12Vdc/230Vac
- Quad-band GSM module
- N°9 telephone numbers for inputs status communication
- N°9 telephone numbers for power failure communication (only with buffer battery)
- ECHO function for checking SIM expiration and residual credit
- Buffer battery (SC100.19/P1/xxx)
- GSM/GPRS antenna with magnetic base and 3m cable
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+40°C

## INPUTS / OUTPUTS

- N°4 completely programmable low voltage inputs
- N°2 inputs for temperature probe
- N°2 outputs max 5A NC-COM-NO (pure contact)
- N°2 outputs max 5A COM-NO (pure contact)

CODE	TYPE	INPUTS	OUTPUTS	POWER SUPPLY	DIMENSIONS mm			WEIGHT Kg	BOX
					A-H	L-W	P-D		
SC100.19/1	TOP GSM 4/1	4	1	230Vac	180	140	80	0,6	01
SC100.19/4	TOP GSM 4/4	4	4	230Vac	180	140	80	0,6	01

## OPTIONALS

CODE	TYPE
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh



# TOP ALARM

Visual and acoustic alarm indicator with siren shut-off button and buffer battery



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac
- Deactivable supply mains absence alarm signaling
- Siren shut-off button
- Alarm delay trimmer OFF/1÷18min
- Visual Led indicator
- Acoustic indicator
- Buffer battery 12Vdc 1,3Ah with charger (SS101.01)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature -5/+40°C

## INPUTS / OUTPUTS

- Very low voltage input for external command
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Supply mains absence signaling
- Adjustable alarm delay
- Siren shut-off

CODE	TYPE	INDICATOR		AUTONOMY	POWER SUPPLY	DIMENSIONS mm			WEIGHT Kg	BOX
		VISUAL	ACOUSTIC			A-H	L-W	P-D		
SS101.00	TOP ALARM VA 230	Led	90dB	-	230Vac	180	140	110	0,7	02
SS101.01	TOP ALARM VAB 230	Led	90dB	24h	230Vac	180	140	110	1,3	02

## SPARE PARTS

CODE	TYPE
SD101.230	Single-phase TOP ALARM electronic board

# BASIC ALARM

Visual and acoustic alarm indicator



## GENERAL SPECIFICATIONS

- Operating voltage 12±24Vac/dc-230Vac
- Visual Led indicator
- Acoustic indicator
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature -5/+40°C



## INPUTS / OUTPUTS

- Input for external command

CODE	TYPE	INDICATOR		POWER SUPPLY	DIMENSIONS mm			WEIGHT Kg	BOX
		VISUAL	ACOUSTIC		A-H	L-W	P-D		
SS100.00	BASIC ALARM VA 012	Led	90dB	12Vdc	180	140	110	0,5	02
SS100.01	BASIC ALARM VA 024	Led	90dB	24Vac	180	140	110	0,5	02
SS100.02	BASIC ALARM VA 230	Led	90dB	230Vac	180	140	110	0,5	02
SS100.03	BASIC ALARM V 012	Led	-	12Vdc	180	140	110	0,5	02
SS100.04	BASIC ALARM V 024	Led	-	24Vac	180	140	110	0,5	02
SS100.05	BASIC ALARM V 230	Led	-	230Vac	180	140	110	0,5	02
SS100.06	BASIC ALARM A 012	-	90dB	12Vdc	180	140	80	0,5	01
SS100.07	BASIC ALARM A 024	-	90dB	24Vac	180	140	80	0,5	01
SS100.08	BASIC ALARM A 230	-	90dB	230Vac	180	140	80	0,5	01



## ***ELECTRONIC CONTROL PANELS***



## Electronic control panels

# MULTI 1 RANGE 0,5÷20HP

**Direct starting electronic control panel 1 motor for clean water and sewage**

- Multi application control panel
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA664.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA667.xx)
- General disconnecting switch with door lock
- Button for automatic -0- manual operation
- Siren shut-off button
- Maximum current trimmer
- Timed probe trimmer 1÷240min
- Probe sensitivity trimmer 1÷100kohm
- "POWER" Led light (supply mains)
- Running Led light
- Motor overload Led light
- Motor klixon intervention Led light
- Motor status Led light
- "FUNCTION" Led light (inputs status)
- "ALARM" Led light (level status)
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA667.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

### INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Very low voltage input for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

### ADVANTAGES

- Configuration via Dip switch
- Dry running with 3 or 2 timed probes level control
- Adjustable probe sensitivity
- Emptying (1 input)/ Filling (2 inputs) function
- Siren shut-off
- Operation with pressure switches, float switches and probes

### PROTECTIONS

- Maximum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Deactivable minimum and maximum voltage protection with automatic reset and alarm
- Motor klixon protection with automatic reset and alarm

**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA664.00	MULTI 1 230	0,37÷2,2	0,5÷3	2÷18	285	245	140	2,2	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA667.02L	MULTI 1 400 10	0,37÷7,5	0,5÷10	0,5÷16	285	245	140	2,7	03
SA667.03L	MULTI 1 400 15	2,2÷11	3÷15	4÷25	345	285	165	3,3	04
SA667.04L	MULTI 1 400 20	7,5÷15	10÷20	16÷32	345	285	165	3,4	04

**OPTIONALS**

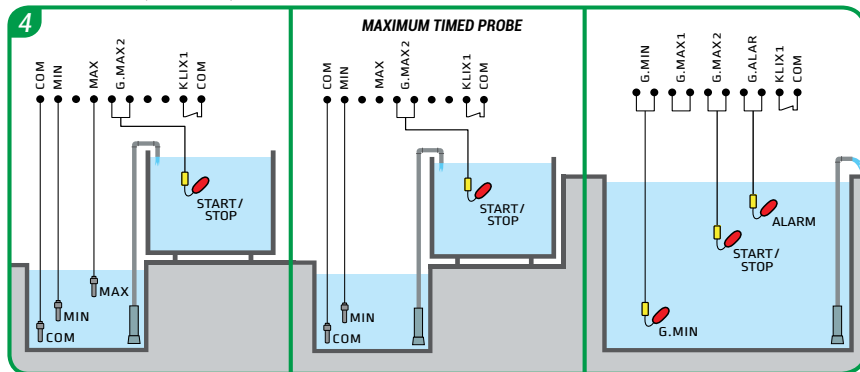
CODE	TYPE
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <b>see page 18</b>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

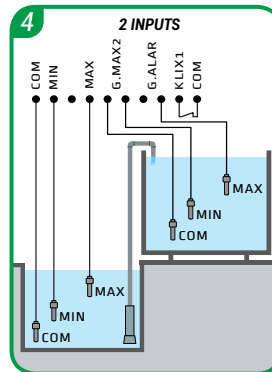
**SPARE PARTS**

CODE	TYPE
AC100.24/30	Led electronic board 1 pump with siren shut-off button and flat cable 16pin 30cm
SD664.20/1	Single-phase MULTI 1 electronic board
SD667.20/1	Three-phase MULTI 1 electronic board 20A
SD667.30-40/1	Three-phase MULTI 1 electronic board 30-40A

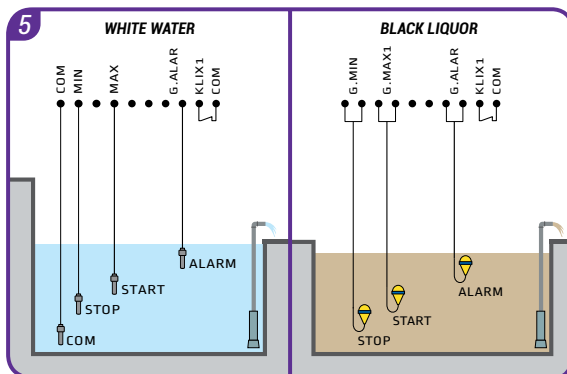
**CLEAN WATER (EMPTYING) - 1 INPUT**






**CLEAN WATER (FILLING)**



**SEWAGE**



**COMPONENTS KEY**

-  Float switch for clean water
-  Float switch for sewage
-  Level probe

## Electronic control panels

# MULTI 2 RANGE 0,5÷20HP

**Direct starting electronic control panel 2 motors for pressure booster, clean water and sewage**

- Multi application control panel
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA674.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA677.xx)
- General disconnecting switch with door lock
- N°2 buttons for automatic -0- manual operation
- Siren shut-off button
- Maximum current trimmer for each motor
- 1÷100kohm probe sensitivity trimmer
- "POWER" Led light (supply mains)
- N°2 running Led lights
- N°2 motors' overload Led lights
- N°2 motors' klixon intervention Led lights
- N°2 motors' status Led lights
- "FUNCTION" Led light (inputs status)
- "ALARM" Led light (level status)
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°2 contactors (SA677.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

### INPUTS / OUTPUTS

- N°4 very low voltage inputs
- N°2 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

### ADVANTAGES

- Configuration via Dip switch
- Dry running with level control
- Adjustable probe sensitivity
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automating switching in case of motor failure
- Siren shut-off
- Operation with pressure switches, float switches and probes

### PROTECTIONS

- Maximum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Deactivable minimum and maximum voltage protection with automatic reset and alarm
- Motor klixon protection with automatic reset and alarm

**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA674.00	MULTI 2 230	0,37÷2,2	0,5÷3	2x(2÷18)	285	245	140	2,3	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA677.02L	MULTI 2 400 10	0,37÷7,5	0,5÷10	2x(0,5÷16)	345	285	165	3,7	04
SA677.03L	MULTI 2 400 15	2,2÷11	3÷15	2x(4÷25)	380	300	150	5,2	05
SA677.04L	MULTI 2 400 20	7,5÷15	10÷20	2x(16÷32)	460	380	150	6,5	07

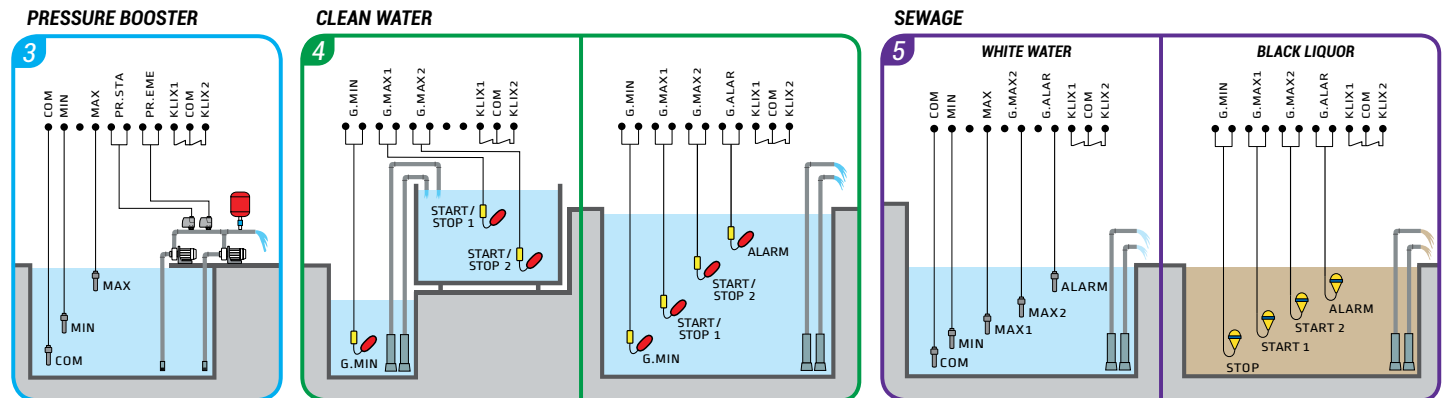
**OPTIONALS**

CODE	TYPE
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <b>see page 18</b>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.25/30	Led electronic board 2 pumps with siren shut-off button and flat cable 16pin 30cm
SD674.20/1	Single-phase MULTI 2 electronic board
SD677.20/1	Three-phase MULTI 2 electronic board 20A
SD677.30-40/1	Three-phase MULTI 2 electronic board 30-40A



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**
- Level probe**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# MULTIPLUS 1 RANGE 0,5÷20HP

**Direct starting electronic control panel 1 motor for the dry running control, clean water and sewage with display**

- Multi application control panel
- Motor's data auto learning
- Adaptive filling system of the well
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA684.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA687.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA687.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- Very low voltage input for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Cosφ
  - Hour counter
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motor
- Motor's data autolearning:
  - Cosφ
  - Maximum and minimum current
- Adaptive filling system of the well
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control, cosφ and minimum current
- Adjustable probe sensitivity
- Emptying (1 input)/ Filling (2 inputs) function
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Motor klixon protection with automatic reset and alarm



**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA684.00	MULTIPLUS 1 230	0,37÷2,2	0,5÷3	2÷18	285	245	140	2,3	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA687.02L	MULTIPLUS 1 400 10	0,37÷7,5	0,5÷10	0,5÷16	285	245	140	2,8	03
SA687.03L	MULTIPLUS 1 400 15	2,2÷11	3÷15	4÷25	345	285	165	3,4	04
SA687.04L	MULTIPLUS 1 400 20	7,5÷15	10÷20	16÷32	345	285	165	3,5	04

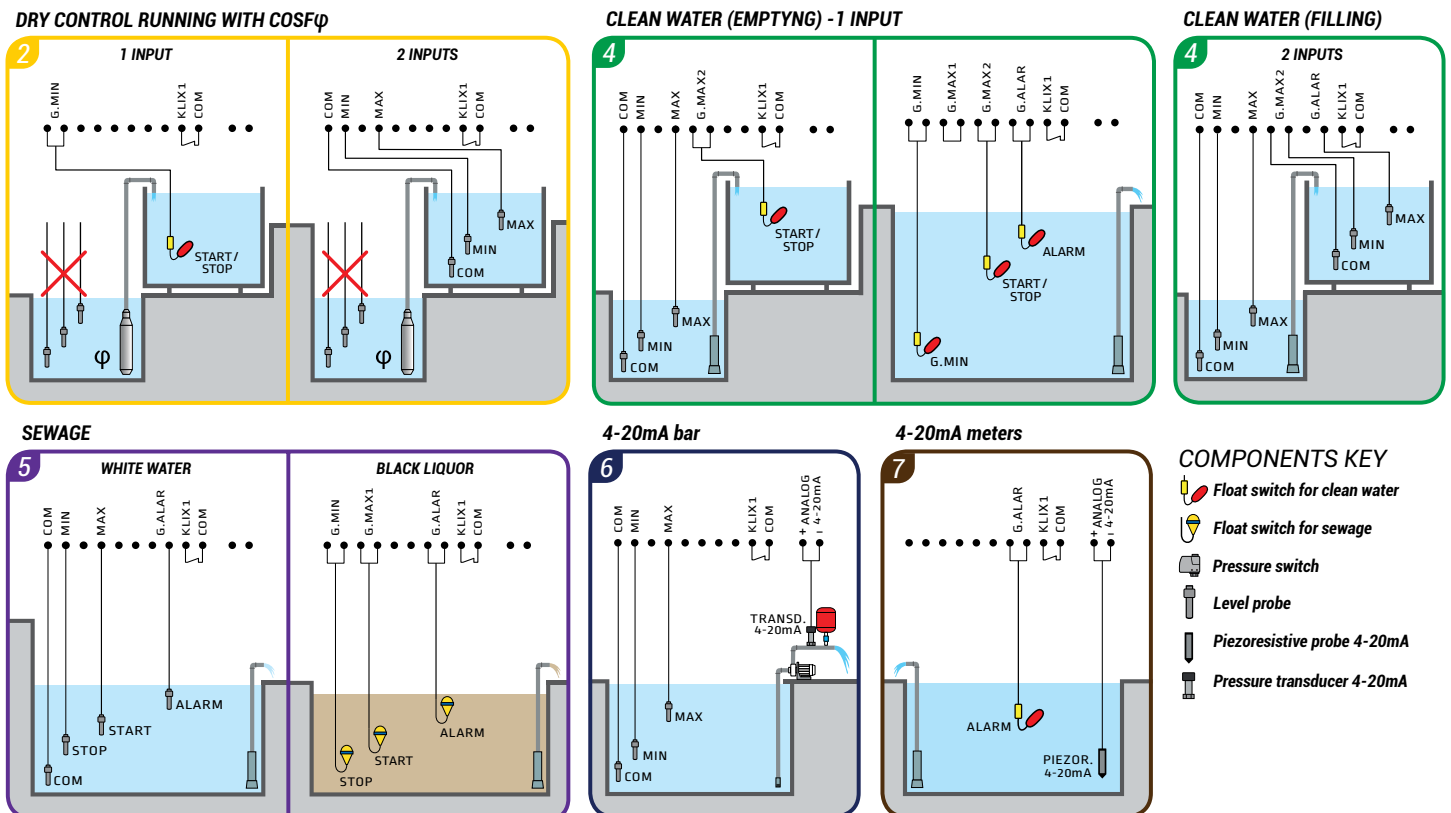
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD684.20/1	Single-phase MULTIPLUS 1 electronic board
SD687.20/1	Three-phase MULTIPLUS 1 electronic board 20A
SD687.30-40/1	Three-phase MULTIPLUS 1 electronic board 30-40A



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# MULTIPLUS 2 RANGE 0,5÷20HP

**Direct starting electronic control panel 2 motors for pressure booster, clean water and sewage with display**

- Multi application control panel
- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA694.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA697.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°2 contactors (SA697.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- N°2 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Display LCD multilingua per la visualizzazione di:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control, cosφ and minimum current
- Adjustable probe sensitivity
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automatic switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA694.00	MULTIPLUS 2 230	0,37÷2,2	0,5÷3	2x(2÷18)	285	245	140	2,4	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA697.02L	MULTIPLUS 2 400 10	0,37÷7,5	0,5÷10	2x(0,5÷16)	345	285	165	3,8	04
SA697.03L	MULTIPLUS 2 400 15	2,2÷11	3÷15	2x(4÷25)	380	300	150	5,3	05
SA697.04L	MULTIPLUS 2 400 20	7,5÷15	10÷20	2x(16÷32)	460	380	150	6,6	07

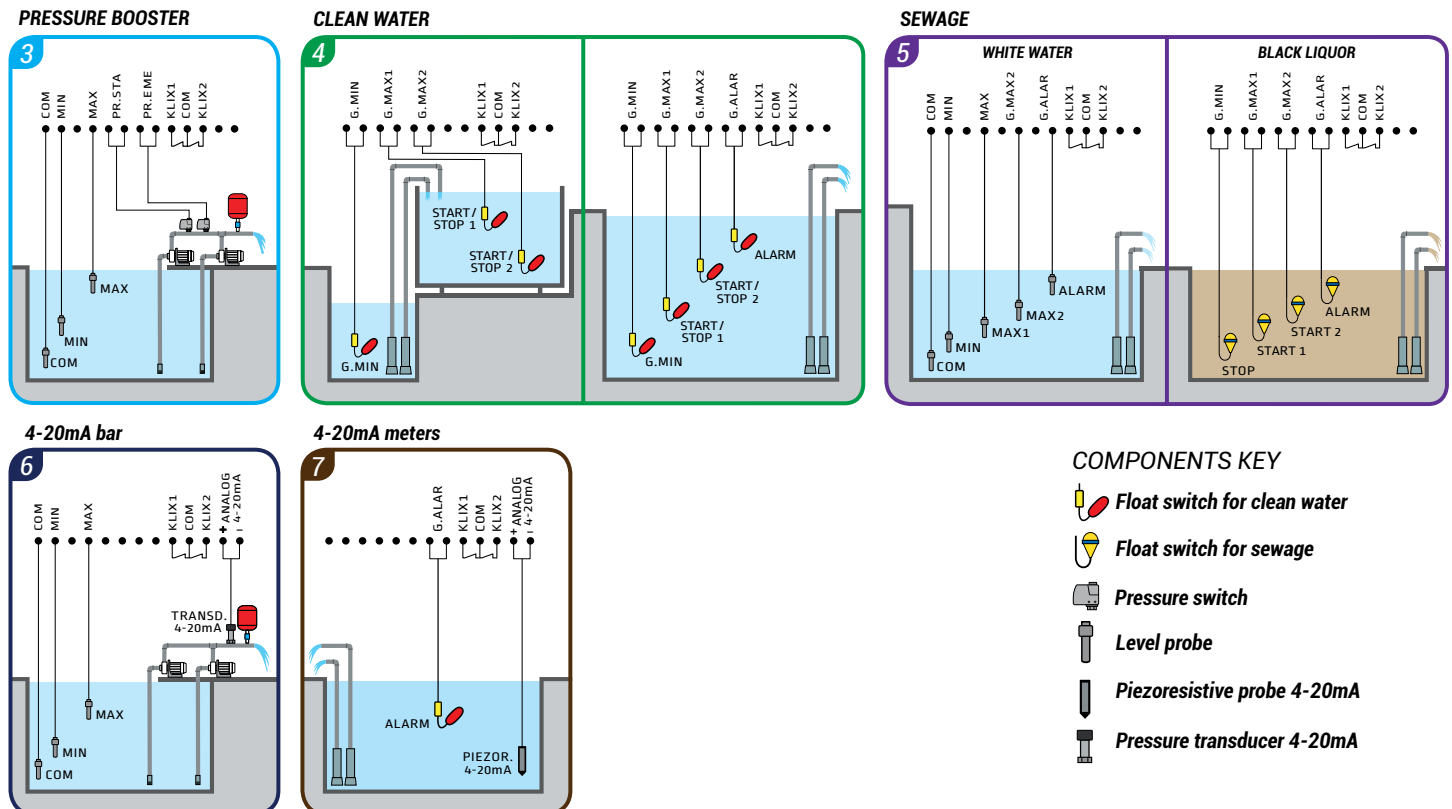
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD694.20/1	Single-phase MULTIPLUS 2 electronic board
SD697.20/1	Three-phase MULTIPLUS 2 electronic board 20A
SD697.30-40/1	Three-phase MULTIPLUS 2 electronic board 30-40A



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# MULTIPLUS 3 RANGE 0,5÷20HP

**Direct starting electronic control panel 3 motors for pressure booster, clean water and sewage with display**

- Multi application control panel
- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac +15/-20% 50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°3 contactors
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+40°C

## ADVANTAGES

- Display LCD multilingua per la visualizzazione di:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Dry running with level control,  $\cos\phi$  and minimum current
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automatic switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## INPUTS / OUTPUTS

- N°5 very low voltage inputs
- Input 4-20mA
- N°3 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA696.02L	MULTIPLUS 3 400 10	0,37÷7,5	0,5÷10	3x(0,5÷16)	380	300	150	6,4	05
SA696.03L	MULTIPLUS 3 400 15	2,2÷11	3÷15	3x(4÷25)	460	380	150	7,4	07
SA696.04L	MULTIPLUS 3 400 20	7,5÷15	10÷20	3x(16÷32)	460	380	150	7,5	07

**OPTIONALS**

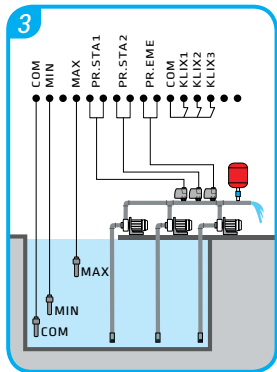
CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.05/1	Wired three-phase surge arrester type 2
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <i>see page 18</i>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

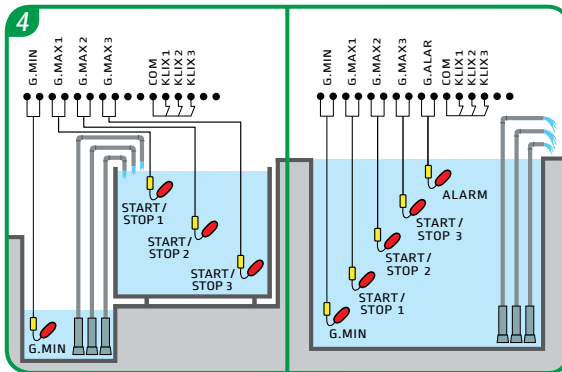
**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD696.20	Three-phase MULTIPLUS 3 electronic board 20A
SD696.30-40	Three-phase MULTIPLUS 3 electronic board 30-40A

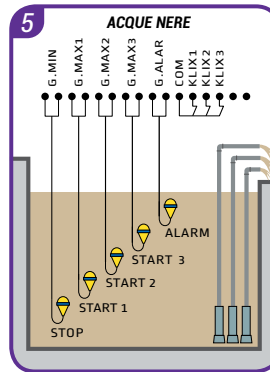
**PRESSURE BOOSTER**



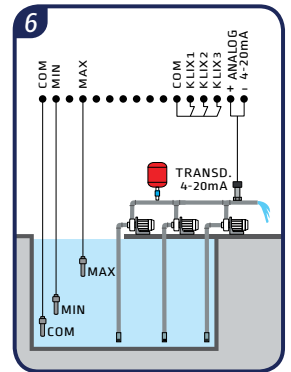
**CLEAN WATER**



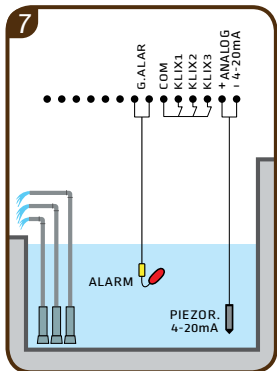
**SEWAGE**



**4-20mA bar**



**4-20mA meters**



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**
- Level probe**
- Piezoresistive probe 4-20mA**
- Pressure transducer 4-20mA**

## Electronic control panels

# LEVEL RANGE 0,5÷20HP

**Direct starting electronic control panel 1 motor for clean water**

- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA612.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA615.xx)
- General disconnecting switch with door lock
- Button for automatic -0- manual operation
- Maximum current trimmer
- Timed probe trimmer 1÷240min
- Probe sensitivity trimmer 1÷100kohm
- "POWER" Led light (supply mains)
- Running Led light
- Motor overload Led light
- Motor status Led light
- "EXTERNAL CONTROL" Led light (pressure switch or float switch status)
- "LEVEL" Led light (level status)
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA615.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

### INPUTS / OUTPUTS

- Very low voltage input for level control (3 or 2 timed probes)
- Very low voltage input for pressure switch or float switch

### ADVANTAGES

- Configuration via Dip switch
- Dry running with 3 or 2 timed probes level control
- Adjustable probe sensitivity
- Function Emptyng/Filling
- Operation with pressure switch, float switch and probes

### PROTECTIONS

- Maximum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Deactivable minimum and maximum voltage protection with automatic reset and alarm

### SINGLE-PHASE 230Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA612.00	LEVEL 230	0,37÷2,2	0,5÷3	2÷18	285	245	140	2,2	03

### THREE-PHASE 400Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA615.02L	LEVEL 400 10	0,37÷7,5	0,5÷10	0,5÷16	285	245	140	2,7	03
SA615.03L	LEVEL 400 15	2,2÷11	3÷15	4÷25	345	285	165	3,3	04
SA615.04L	LEVEL 400 20	7,5÷15	10÷20	16÷32	345	285	165	3,4	04

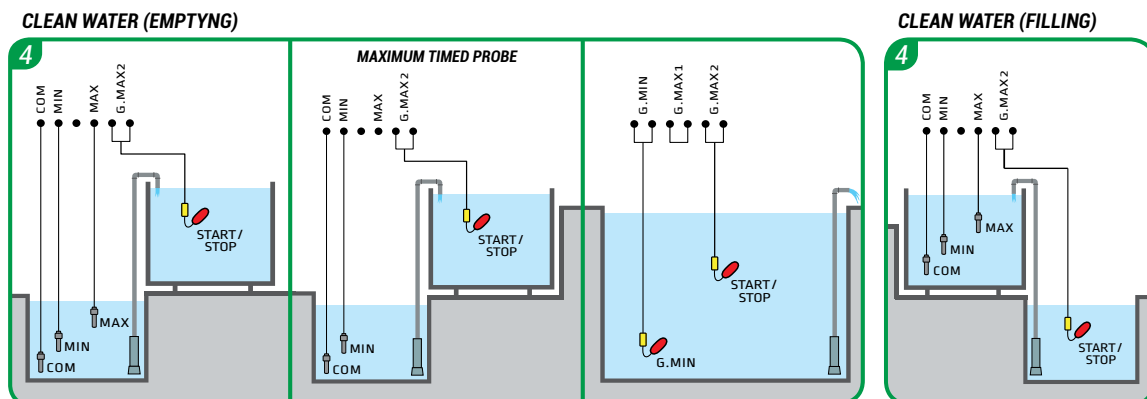
### OPTIONALS

CODE	TYPE
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <i>see page 20</i>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

### SPARE PARTS

CODE	TYPE
AC100.20/1/30	Led electronic board 1 pump with flat cable 16pin 30cm
SD612.20/1	Single-phase LEVEL electronic board
SD615.20/1	Three-phase LEVEL electronic board 20A
SD615.30-40/1	Three-phase LEVEL electronic board 30-40A



### COMPONENTS KEY

- Float switch for clean water
- Level probe

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# LEVEL PLUS

RANGE 0,5÷30HP

Direct starting electronic control panel 1 motor for clean water with display

- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA672.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA675.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA675.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Hour counter
  - Level status
  - All information concerning the operation of the motor
- Maximum and minimum motor current autolearning
- Dry running with 3 or 2 timed probes level control and minimum current
- Adjustable probe sensitivity
- Emptyng/Filling function
- Loss of pressure control
- Adjustable supply mains waiting
- Operation with pressure switches, float switches and probes

## INPUTS / OUTPUTS

- Very low voltage input for level control (3 or 2 timed probes)
- N°2 very low voltage inputs for pressure switch or float switches or probes

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm



### SINGLE-PHASE 230Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA672.00	LEVEL PLUS 230	0,37±2,2	0,5÷3	2÷18	285	245	140	2,3	03

### THREE-PHASE 400Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA675.02L	LEVEL PLUS 400 10	0,37±7,5	0,5÷10	0,5÷16	285	245	140	2,8	03
SA675.03L	LEVEL PLUS 400 15	2,2±11	3÷15	4÷25	345	285	165	3,4	04
SA675.04L	LEVEL PLUS 400 20	7,5±15	10÷20	16÷32	345	285	165	3,5	04
SA675.05L	LEVEL PLUS 400 22	7,5±16	10÷22	16÷36	380	300	150	4,9	05
SA675.06L	LEVEL PLUS 400 25	7,5±18,5	10÷25	16÷45	380	300	210	5,8	06
SA675.07L	LEVEL PLUS 400 30	7,5±22	10÷30	16÷52	460	380	210	7,1	08

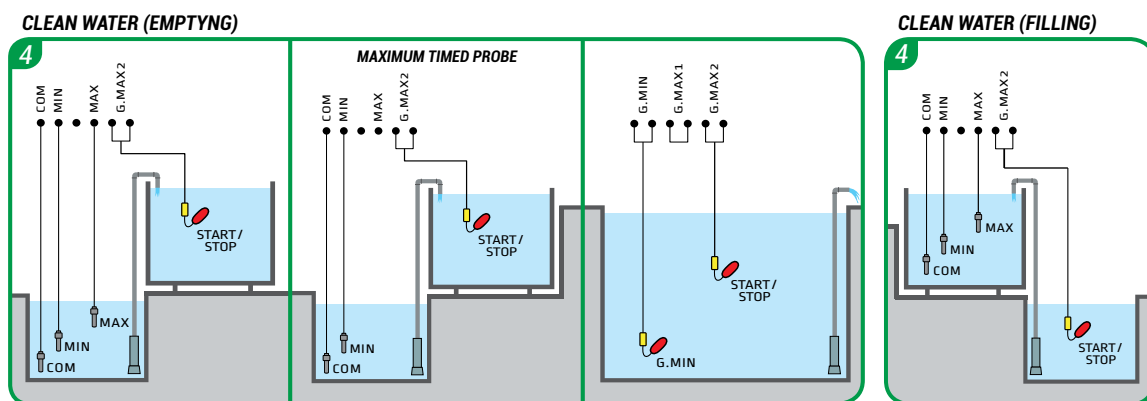
### OPTIONALS

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

### SPARE PARTS

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD672.20/1	Single-phase LEVEL PLUS electronic board
SD675.20/1	Three-phase LEVEL PLUS electronic board 20A
SD675.30-40/1	Three-phase LEVEL PLUS electronic board 30-40A
SD675.60/1	Three-phase LEVEL PLUS electronic board 60A



### COMPONENTS KEY

- Float switch for clean water
- Level probe

## Electronic control panels

# TOP DRY RANGE 0,5÷3HP

Direct starting electronic control panel 1 motor for the dry running control (cosφ and minimum current)

- Easy to program
- Motor's data autolearning



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac ±10% 50/60Hz
- Button for Start operation
- Button for Stop/Reset operation
- Dry running with cosφ
- Waiting filling trimmer OFF/5÷180min
- Running Led light
- Overload Led light
- "NO WATER" Led indicator
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C

### ADVANTAGES

- Dry running with cosφ and minimum current

### INPUTS / OUTPUTS

- Input for pressure switch or float switch

### PROTECTIONS

- Maximum and minimum current protection with alarm

**SINGLE-PHASE 230Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA654.00	TOP DRY 230	0,37±2,2	0,5±3	2÷18	180	140	80	0,5	01

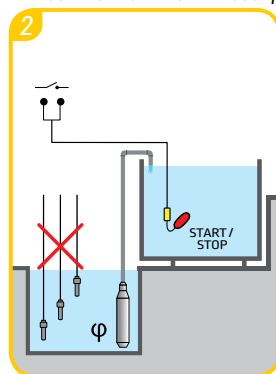
**OPTIONALS**

CODE	TYPE
OP100.03/16	Wired capacitor 16µF
OP100.03/20	Wired capacitor 20µF
OP100.03/25	Wired capacitor 25µF
OP100.03/30	Wired capacitor 30µF
OP100.03/35	Wired capacitor 35µF
OP100.03/40	Wired capacitor 40µF
OP100.03/45	Wired capacitor 45µF
OP100.03/50	Wired capacitor 50µF
OP100.03/55	Wired capacitor 55µF
OP100.03/60	Wired capacitor 60µF
OP100.03/70	Wired capacitor 70µF
OP100.03/75	Wired capacitor 75µF
OP100.03/80	Wired capacitor 80µF



**SPARE PARTS**

CODE	TYPE
SD654.20	Single-phase TOP DRY electronic board

**DRY CONTROL RUNNING WITH COSφ**



**COMPONENTS KEY**

-  **Float switch for clean water**
-  **Level probe**

## Electronic control panels

# DRY CONTROL PLUS RANGE 0,5÷30HP

**Direct starting electronic control panel 1 motor for the dry running control (cosφ and minimum current) with display**

- Unbalance protection with current reading on 3 phases
- Motor's data autolearning
- Adaptive filling system of the well
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA604.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA607.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA607.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Cosφ
  - Hour counter
  - All information concerning the operation of the motor
- Motor's data auto learning:
  - Cosφ
  - Minimum and maximum current
- Dry running with cosφ and minimum current
- Adaptive filling system of the well
- Adjustable supply mains waiting
- Operation with pressure switch, float switches and probes

## INPUTS / OUTPUTS

- N°2 very low voltage inputs for pressure switch or float switches or probes

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Unbalance protection with reading of 3 phases and alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm

### SINGLE-PHASE 230Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA604.00	DRY CONTROL PLUS 230	0,37÷2,2	0,5÷3	2÷18	285	245	140	2,3	03

### THREE-PHASE 400Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA607.02L	DRY CONTROL PLUS 400 10	0,37÷7,5	0,5÷10	0,5÷16	285	245	140	2,8	03
SA607.03L	DRY CONTROL PLUS 400 15	2,2÷11	3÷15	4÷25	345	285	165	3,4	04
SA607.04L	DRY CONTROL PLUS 400 20	7,5÷15	10÷20	16÷32	345	285	165	3,5	04
SA607.05L	DRY CONTROL PLUS 400 22	7,5÷16	10÷22	16÷36	380	300	150	4,9	05
SA607.06L	DRY CONTROL PLUS 400 25	7,5÷18,5	10÷25	16÷45	380	300	210	5,8	06
SA607.07L	DRY CONTROL PLUS 400 30	7,5÷22	10÷30	16÷52	460	380	210	7,1	08

### OPTIONALS

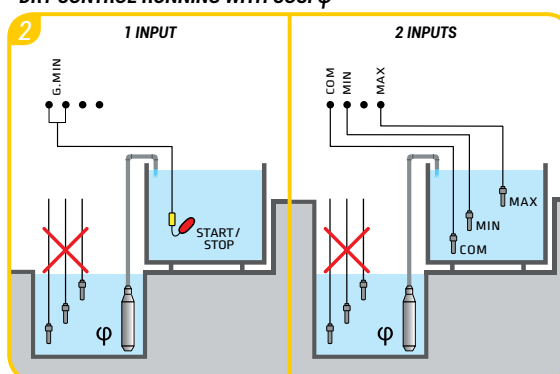
CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

### SPARE PARTS

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD604.20/1	Single-phase DRY CONTROL PLUS electronic board
SD607.20/1	Three-phase DRY CONTROL PLUS electronic board 20A
SD607.30-40/1	Three-phase DRY CONTROL PLUS electronic board 30-40A
SD607.60/1	Three-phase DRY CONTROL PLUS electronic board 60A

### DRY CONTROL RUNNING WITH COSφ



### COMPONENTS KEY

- Float switch for clean water
- Level probe

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# PRESS CONTROL PLUS 4-20 RANGE 0,5÷30HP

Direct starting electronic control panel 1 motor for pressurization with display and pressure transducer

- Unbalance protection with current on 3 phases
- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA640.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA650.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Pressure transducer 0-10bar output 4-20mA  
(It is possible to supply pressure transducer of 16 and 25 bar on demand)
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA650.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Hour counter
  - System pressure with pressure transducer
- All information concerning the operation of the motor
- Maximum and minimum motor current autolearning
- Adjustable maximum number of starts per hour
- Dry running with level control and minimum current
- Loss of pressure control
- Adjustable supply mains waiting
- Operation with pressure switch, float switches and probes

## INPUTS / OUTPUTS

- Input 4-20mA
- N°2 very low voltage inputs for float switches or probes

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Unbalance protection with current reading on 3 phases and alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm

**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA640.00	PRESS CONTROL PLUS 4-20 230	0,37÷2,2	0,5÷3	2÷18	285	245	140	2,3	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA650.02L	PRESS CONTROL PLUS 4-20 400 10	0,37÷7,5	0,5÷10	0,5÷16	285	245	140	2,8	03
SA650.03L	PRESS CONTROL PLUS 4-20 400 15	2,2÷11	3÷15	4÷25	345	285	165	3,4	04
SA650.04L	PRESS CONTROL PLUS 4-20 400 20	7,5÷15	10÷20	16÷32	345	285	165	3,5	04
SA650.05L	PRESS CONTROL PLUS 4-20 400 22	7,5÷16	10÷22	16÷36	380	300	150	4,9	05
SA650.06L	PRESS CONTROL PLUS 4-20 400 25	7,5÷18,5	10÷25	16÷45	380	300	210	5,8	06
SA650.07L	PRESS CONTROL PLUS 4-20 400 30	7,5÷22	10÷30	16÷52	460	380	210	7,1	08

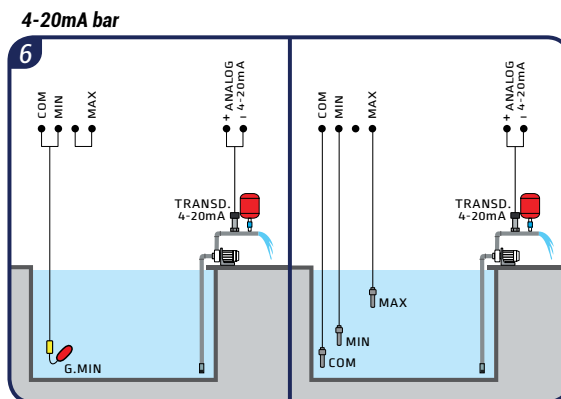
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.17/230	Wired 230Vac relay complete with socket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <b>see page 18</b>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD640.20/1	Single-phase PRESS CONTROL PLUS 4-20 electronic board
SD650.20/1	Three-phase PRESS CONTROL PLUS 4-20 electronic board 20A
SD650.30-40/1	Three-phase PRESS CONTROL PLUS 4-20 electronic board 30-40A
SD650.60/1	Three-phase PRESS CONTROL PLUS 4-20 electronic board 60A



**COMPONENTS KEY**

- Float switch for clean water**
- Level probe**
- Pressure transducer 4-20mA**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# DUAL MOTOR RANGE 0,5÷20HP

**Direct starting electronic control panel 2 motors for pressure booster**

- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA623.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA626.xx)
- General disconnecting switch with door lock
- N°2 buttons for automatic -0- manual operation
- Maximum current trimmer for each motor
- "POWER" Led light (supply mains)
- N°2 running Led lights
- N°2 motors' overload Led lights
- N°2 motors' status Led lights
- "ALTERNANCE" Led light (pressure switches status)
- "LEVEL" Led light (level status)
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°2 contactors (SA626.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

### INPUTS / OUTPUTS

- Very low voltage input for start pressure
- Very low voltage input for emergency pressure
- N°2 very low voltage inputs for float switches or probes

### ADVANTAGES

- Configuration via Dip switch
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automating switching in case of motor failure
- Operation with pressure switches, float switches and probes
- Dry running with level control

### PROTECTIONS

- Maximum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Deactivable minimum and maximum voltage protection with automatic reset and alarm



### SINGLE-PHASE 230Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA623.00	DUAL MOTOR 230	0,37÷2,2	0,5÷3	2x(2÷18)	285	245	140	2,3	03

### THREE-PHASE 400Vac +15/-20% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA626.02L	DUAL MOTOR 400 10	0,37÷7,5	0,5÷10	2x(0,5÷16)	345	285	165	3,7	04
SA626.03L	DUAL MOTOR 400 15	2,2÷11	3÷15	2x(4÷25)	380	300	150	5,2	05
SA626.04L	DUAL MOTOR 400 20	7,5÷15	10÷20	2x(16÷32)	460	380	150	6,5	07

### OPTIONALS

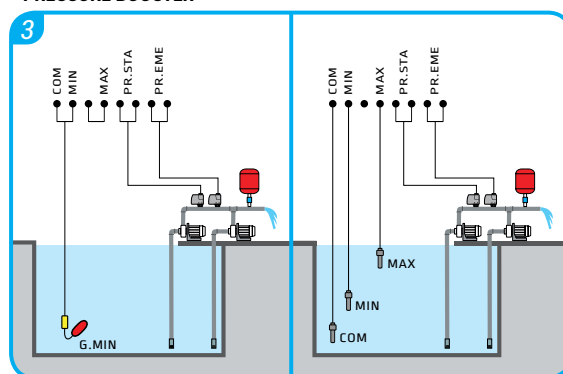
CODE	TYPE
OP100.01	3 level probes kit
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

### SPARE PARTS

CODE	TYPE
AC100.21/1/30	Led electronic board 2 pumps with flat cable 16pin 30cm
SD623.20/1	Single-phase DUAL MOTOR electronic board
SD626.20/1	Three-phase DUAL MOTOR electronic board 20A
SD626.30-40/1	Three-phase DUAL MOTOR electronic board 30-40A

### PRESSURE BOOSTER



### COMPONENTS KEY

- Float switch for clean water
- Pressure switch
- Level probe

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# DUAL MOTOR PLUS RANGE 0,5÷20HP

**Direct starting electronic control panel 2 motors for pressure booster with display**

- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA633.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA636.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°2 contactors (SA636.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Adjustable maximum number of starts per hour
- Dry running with level control and minimum current
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automating switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Operation with pressure switches, float switches, probes and pressure transducer

## INPUTS / OUTPUTS

- Very low voltage input for start pressure switch
- Very low voltage input for emergency pressure switch
- Input 4-20mA
- N°2 very low voltage inputs for float switches or probes

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm

**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA633.00	DUAL MOTOR PLUS 230	0,37÷2,2	0,5÷3	2x(2÷18)	285	245	140	2,4	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA636.02L	DUAL MOTOR PLUS 400 10	0,37÷7,5	0,5÷10	2x(0,5÷16)	345	285	165	3,8	04
SA636.03L	DUAL MOTOR PLUS 400 15	2,2÷11	3÷15	2x(4÷25)	380	300	150	5,3	05
SA636.04L	DUAL MOTOR PLUS 400 20	7,5÷15	10÷20	2x(16÷32)	460	380	150	6,6	07

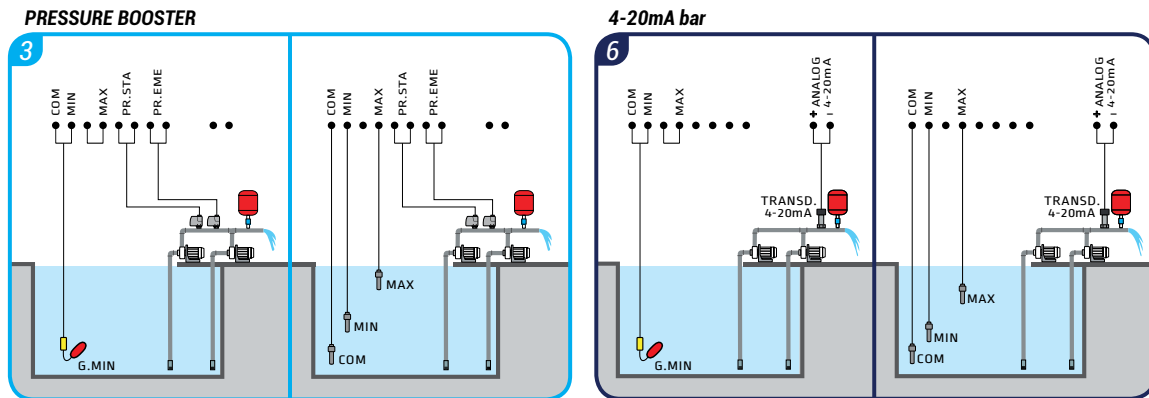
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board Ethernet - WiFi - RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.01	3 level probes kit
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD633.20/1	Single-phase DUAL MOTOR PLUS electronic board
SD636.20/1	Three-phase DUAL MOTOR PLUS electronic board 20A
SD636.30-40/1	Three-phase DUAL MOTOR PLUS electronic board 30-40A



**COMPONENTS KEY**

- Float switch for clean water**
- Pressure switch**
- Level probe**
- Pressure transducer 4-20mA**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# THREE MOTORS PLUS RANGE 0,5÷20HP

**Direct starting electronic control panel 3 motors for pressure booster with display**

- Multi application control panel
- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac +15/-20% 50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°3 contactors
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+40°C

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - All information concerning the operation of the motors
- Maximum and minimum motor current auto learning
- Dry running control with level control and minimum current
- Deactivable alternance of the 3 motors
- 3s delay between the starting of the 3 motors
- Automating switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Operation with pressure switches, float switches, probes and pressure transducer

## INPUTS / OUTPUTS

- Very low voltage input for start 1 pressure switch
- Very low voltage input for start 2 pressure switch
- Very low voltage input for emergency pressure switch
- Input 4-20mA
- N°2 very low voltage inputs for float switches or probes

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA656.02L	THREE MOTORS PLUS 400 10	0,37÷7,5	0,5÷10	3x(0,5÷16)	380	300	150	6,4	05
SA656.03L	THREE MOTORS PLUS 400 15	2,2÷11	3÷15	3x(4÷25)	460	380	150	7,4	07
SA656.04L	THREE MOTORS PLUS 400 20	7,5÷15	10÷20	3x(16÷32)	460	380	150	7,5	07

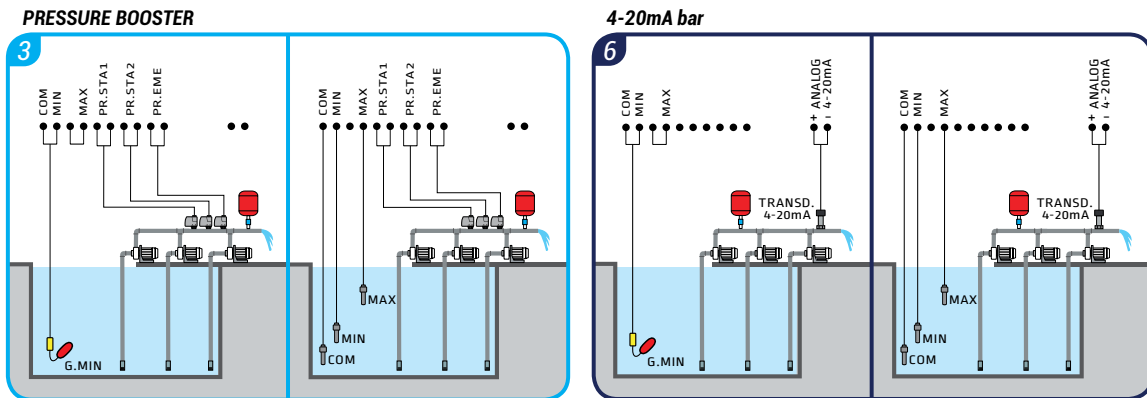
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.01	3 level probes kit
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <b>see page 18</b>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable





For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD656.20/1	Three-phase THREE MOTORS PLUS electronic board 20A
SD656.30-40/1	Three-phase THREE MOTORS PLUS electronic board 30-40A



**COMPONENTS KEY**

-  **Float switch for clean water**
-  **Pressure switch**
-  **Level probe**
-  **Pressure transducer 4-20mA**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# RAIN PLUS 1 RANGE 0,5÷20HP

**Direct starting electronic control panel 1 motor for first rain collection systems with display**

- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA682.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA685.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor (SA685.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Hour counter
  - Level status
  - All information concerning the operation of the motor
- Maximum and minimum current auto learning for each motor
- Dry running with level control and minimum current
- Adjustable probe sensitivity
- Waiting for motor start-up adjustable by decanting
- Adjustable supply mains waiting
- Operation with float switches and probes

## INPUTS / OUTPUTS

- N°2 very low voltage inputs for float switches or probes (minimum/maximum)
- Very low voltage input for rain sensor
- Very low voltage input for motor klaxon
- Alarms output 12Vdc max 200mA for rain sensor
- Alarms output 12Vdc max 200mA for flashing LED
- Alarms output max 5A NC-COM-NO (pure contact)

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Motor klaxon protection with automatic reset and alarm

**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA682.00	RAIN PLUS 1 230	0,37±2,2	0,5÷3	2÷18	285	245	140	2,3	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA685.02L	RAIN PLUS 1 400 10	0,37±7,5	0,5÷10	0,5÷16	285	245	140	2,8	03
SA685.03L	RAIN PLUS 1 400 15	2,2±11	3÷15	4÷25	345	285	165	3,4	04
SA685.04L	RAIN PLUS 1 400 20	7,5±15	10÷20	16÷32	345	285	165	3,5	04

**OPTIONALS**

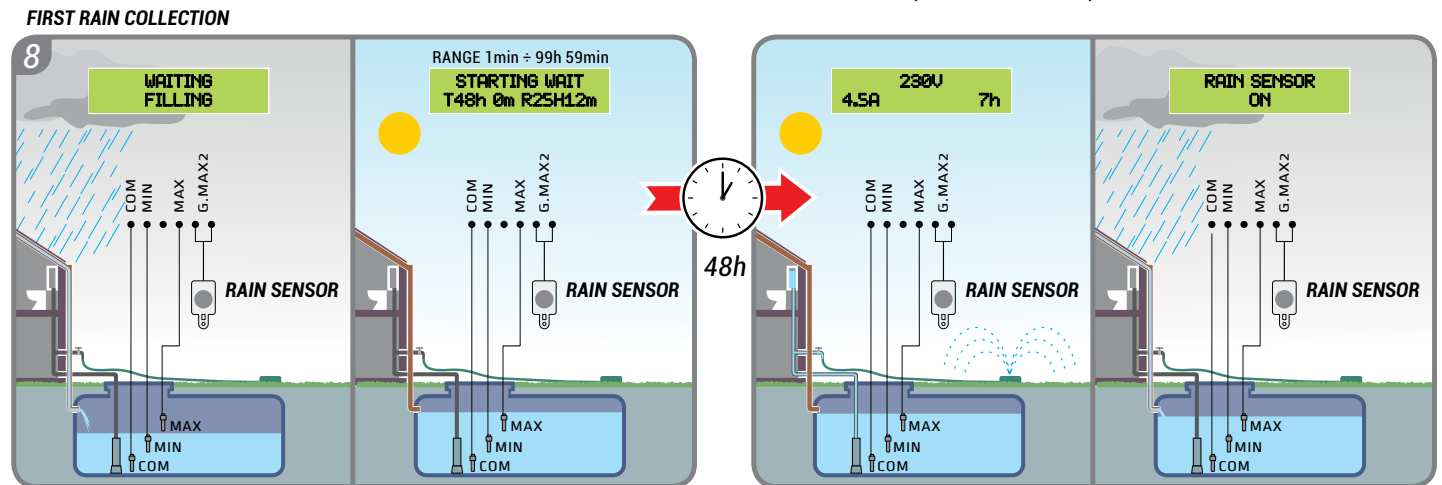
CODICE	TIPO
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP101.00	Rain sensor with 2m cable and fixing bracket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (riferimento BOX 03-04)

For further optionals see page 76

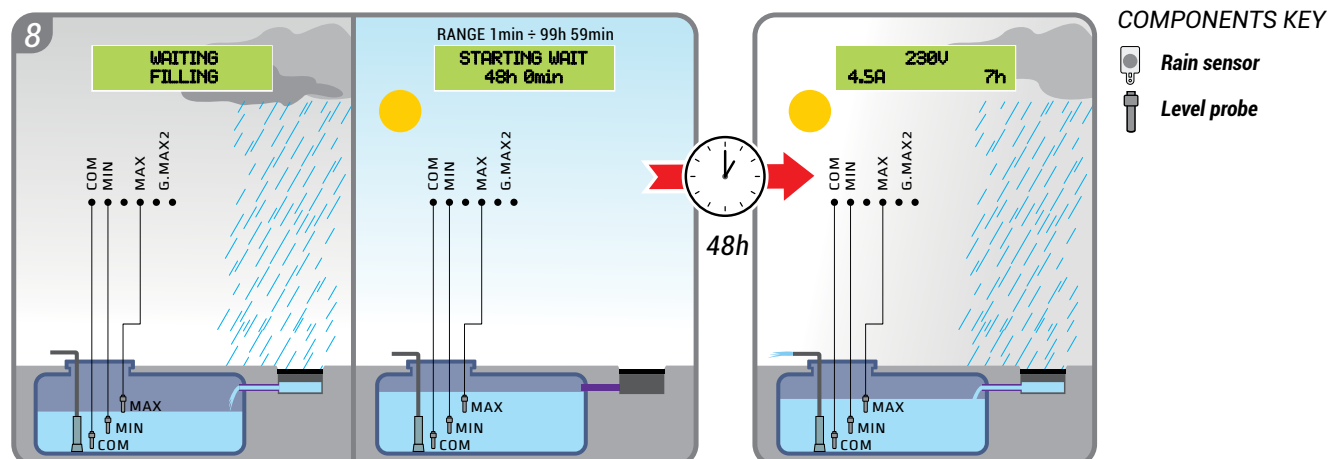
**SPARE PARTS**

CODICE	TIPO
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD682.20	Single-phase RAIN PLUS 1 electronic board
SD685.20	Three-phase RAIN PLUS 1 electronic board 20A
SD685.30-40	Three-phase RAIN PLUS 1 electronic board 30-40A

**CONTROL PANEL WITH OPTIONAL: OP101.00 (RAIN SENSOR)**



**WITHOUT RAIN SENSOR**



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# RAIN PLUS 2 RANGE 0,5÷20HP

**Direct starting electronic control panel 2 motors for first rain collection system with display**

- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Single-phase version equipped with power relay for inductive loads (up to 31A)
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac +15/-20% 50/60Hz (SA692.xx)
- Operating voltage 400Vac +15/-20% 50/60Hz (SA695.xx)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Auxiliary circuit protection fuse
- Motors' protection fuse
- N°2 contactors (SA695.xx)
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature -5/+50°C
- Relative humidity 60% at 50°C (not condensed)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Level status
  - All information concerning the operation of the motors
- Maximum and minimum motor current auto learning
- Dry running with level control and minimum current
- Adjustable probe sensitivity
- Waiting for motor start-up adjustable by decanting
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automating switching in case of motor failure
- Adjustable supply mains waiting
- Operation with float switches and probes

## INPUTS / OUTPUTS

- N°3 very low voltage inputs for float switches or probes (minimum/maximum1/maximum2)
- Very low voltage input for rain sensor
- N°2 very low voltage input for motor klixon
- Alarms output 12Vdc max 200mA for rain sensor
- Alarms output 12Vdc max 200mA for flashing LED
- Alarms output max 5A NC-COM-NO (pure contact)

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm



**SINGLE-PHASE 230Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA692.00	RAIN PLUS 2 230	0,37÷2,2	0,5÷3	2x(2÷18)	285	245	140	2,4	03

**THREE-PHASE 400Vac +15/-20% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA695.02L	RAIN PLUS 2 400 10	0,37÷7,5	0,5÷10	2x(0,5÷16)	345	285	165	3,8	04
SA695.03L	RAIN PLUS 2 400 15	2,2÷11	3÷15	2x(4÷25)	380	300	150	5,3	05
SA695.04L	RAIN PLUS 2 400 20	7,5÷15	10÷20	2x(16÷32)	460	380	150	6,6	07

**OPTIONALS**

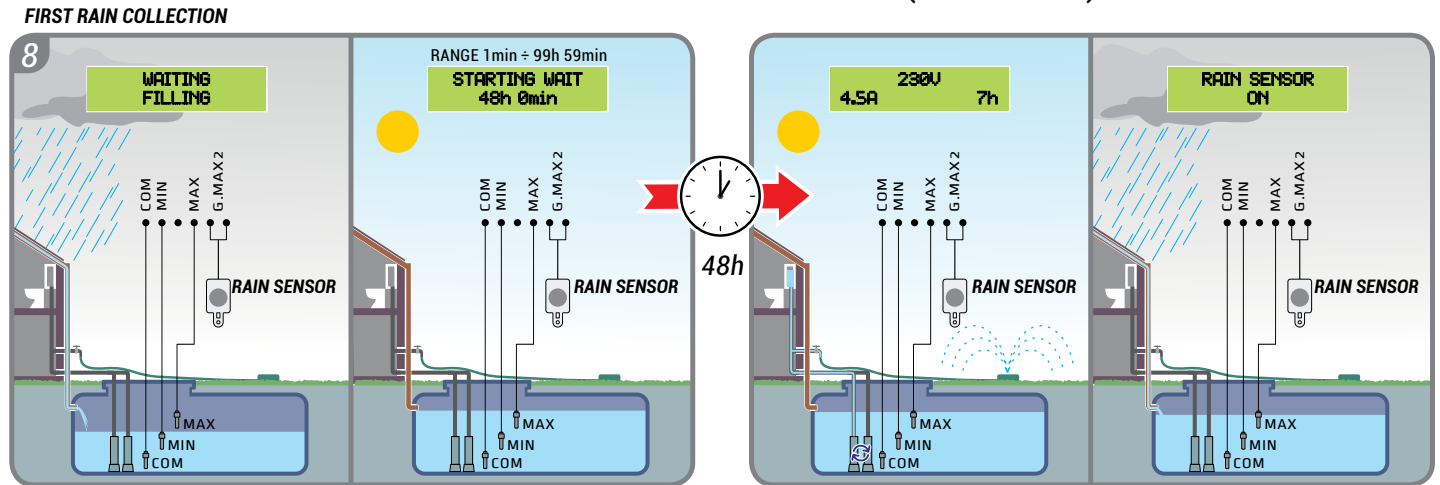
CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP101.00	Rain sensor with 2m cable and fixing bracket
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP200.00	Alarm output 12Vdc 200mA and pure contact
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 76

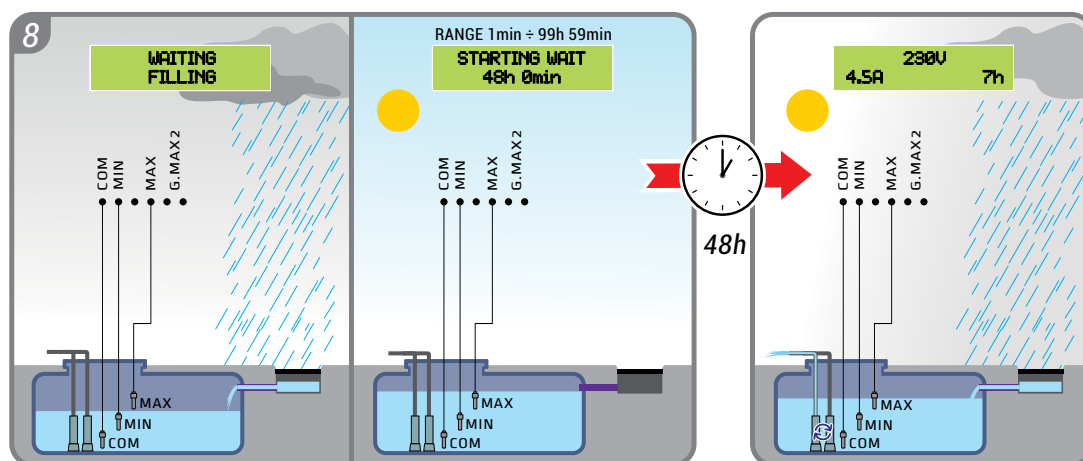
**SPARE PARTS**

CODE	TYPE
AC100.22/1/30	Display electronic board with flat cable 20pin 30cm
SD692.20	Single-phase RAIN PLUS 2 electronic board
SD695.20	Three-phase RAIN PLUS 2 electronic board 20A
SD695.30-40	Three-phase RAIN PLUS 2 electronic board 30-40A

**CONTROL PANEL WITH OPTIONAL: OP101.00 (RAIN SENSOR)**



**WITHOUT RAIN SENSOR**



**COMPONENTS KEY**

- Rain sensor
- Level probe

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# STAR DELTA PLUS 1 RANGE 7,5÷100HP

Star delta starting electronic control panel 1 motor for the dry running control, clean water and sewage with display

- Multi application control panel
- Motor's data auto learning
- Adaptive filling system of the well
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Adjustable star delta timer
- Auxiliary circuit protection fuse
- Motor protection fuse
- N°3 contactors
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- Very low voltage input for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Cos $\phi$
  - Hour counter
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motor
- Motor's data autolearning:
  - Cos $\phi$
  - Maximum and minimum current
- Adaptive filling system of the well
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control, cos $\phi$  and minimum current
- Adjustable probe sensitivity
- Emptying (1 input)/ Filling (2 inputs) function
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Motor klixon protection with automatic reset and alarm

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ687.00/SD	STAR DELTA PLUS 1 400 7,5	5,5	7,5	10÷17	500	400	230	15	50
SQ687.01/SD	STAR DELTA PLUS 1 400 10	7,5	10	13÷21	500	400	230	15	50
SQ687.02/SD	STAR DELTA PLUS 1 400 12,5	9,2	12,5	19÷26	500	400	230	15	50
SQ687.03/SD	STAR DELTA PLUS 1 400 15	11	15	22÷30	500	400	230	15	50
SQ687.04/SD	STAR DELTA PLUS 1 400 17,5	13	17,5	25÷33	500	400	230	15	50
SQ687.05/SD	STAR DELTA PLUS 1 400 20	15	20	32÷40	500	400	230	16	50
SQ687.06/SD	STAR DELTA PLUS 1 400 25	18,5	25	38÷50	500	400	230	16	50
SQ687.07/SD	STAR DELTA PLUS 1 400 35	22÷26	30÷35	45÷65	600	400	230	18	60
SQ687.08/SD	STAR DELTA PLUS 1 400 40	30	40	60÷75	600	400	230	19	60
SQ687.09/SD	STAR DELTA PLUS 1 400 50	37	50	65÷90	700	500	240	20	70
SQ687.10/SD	STAR DELTA PLUS 1 400 60	45	60	70÷105	700	500	290	32	71
SQ687.11/SD	STAR DELTA PLUS 1 400 75	51,5÷55	70÷75	75÷110	800	600	290	36	80
SQ687.12/SD	STAR DELTA PLUS 1 400 80	60	80	80÷150	800	600	290	38	80
SQ687.13/SD	STAR DELTA PLUS 1 400 90	66	90	80÷150	1000	600	370	49	101
SQ687.14/SD	STAR DELTA PLUS 1 400 100	75	100	90÷180	1000	600	370	52	101

**OPTIONALS**

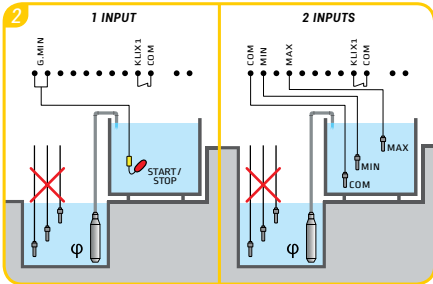
CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

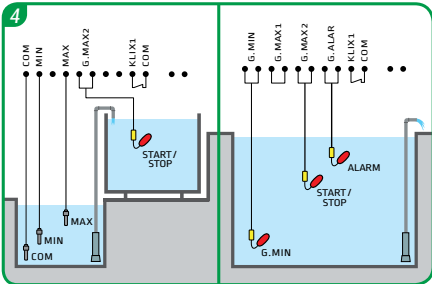
**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD687.20/1	Three-phase MULTIPLUS 1 electronic board 20A
SD687.30-40/1	Three-phase MULTIPLUS 1 electronic board 30-40A
SD687.60/1	Three-phase MULTIPLUS 1 electronic board 60A
SD687.100/1	Three-phase MULTIPLUS 1 electronic board 100A
SD687.200/1	Three-phase MULTIPLUS 1 electronic board 200A

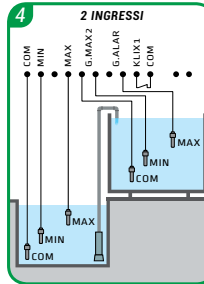
**DRY CONTROL RUNNING WITH COSφ**



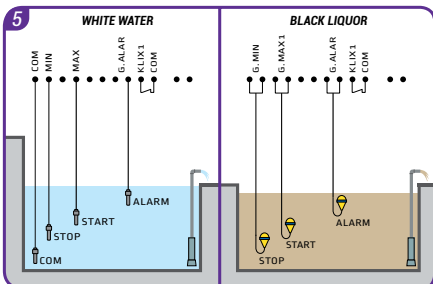
**CLEAN WATER (EMPTYNG) - 1 INPUT**



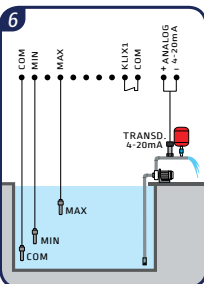
**CLEAN WATER (FILLING)**



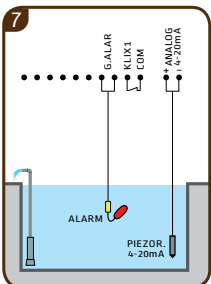
**SEWAGE**



**4-20mA bar**



**4-20mA meters**



**COMPONENTS KEY**

- Float switch for clean water
- Float switch for sewage
- Level probe
- Piezoresistive probe 4-20mA
- Pressure transducer 4-20mA

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# STAR DELTA PLUS 2 RANGE 7,5÷100HP

Star delta starting electronic control panel 2 motors for pressure booster, clean water and sewage with display

- Multi application control panel
- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- N°2 adjustable star delta timers
- Auxiliary circuit protection fuse
- Protection fuse for each motor
- N°6 contactors
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- N°2 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control and minimum current
- Adjustable probe sensitivity
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automatic switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ697.00/SD	STAR DELTA PLUS 2 400 7,5	5,5	7,5	2x(10÷17)	600	400	230	18	60
SQ697.01/SD	STAR DELTA PLUS 2 400 10	7,5	10	2x(13÷21)	600	400	230	18	60
SQ697.02/SD	STAR DELTA PLUS 2 400 12,5	9,2	12,5	2x(19÷26)	600	400	230	18	60
SQ697.03/SD	STAR DELTA PLUS 2 400 15	11	15	2x(22÷30)	600	400	230	18	60
SQ697.04/SD	STAR DELTA PLUS 2 400 17,5	13	17,5	2x(25÷33)	600	400	230	18	60
SQ697.05/SD	STAR DELTA PLUS 2 400 20	15	20	2x(32÷40)	700	500	240	26	70
SQ697.06/SD	STAR DELTA PLUS 2 400 25	18,5	25	2x(38÷50)	700	500	240	27	70
SQ697.07/SD	STAR DELTA PLUS 2 400 35	22÷26	30÷35	2x(45÷65)	800	600	290	27	80
SQ697.08/SD	STAR DELTA PLUS 2 400 40	30	40	2x(60÷75)	800	600	290	28	80
SQ697.09/SD	STAR DELTA PLUS 2 400 50	37	50	2x(65÷90)	800	600	290	40	80
SQ697.10/SD	STAR DELTA PLUS 2 400 60	45	60	2x(70÷105)	800	600	290	42	80
SQ697.11/SD	STAR DELTA PLUS 2 400 75	51,5÷55	70÷75	2x(75÷110)	1000	800	370	65	103
SQ697.12/SD	STAR DELTA PLUS 2 400 80	60	80	2x(80÷150)	1000	800	370	67	103
SQ697.13/SD	STAR DELTA PLUS 2 400 90	66	90	2x(80÷150)	1200	800	370	68	122
SQ697.14/SD	STAR DELTA PLUS 2 400 100	75	100	2x(90÷180)	1200	800	370	72	122

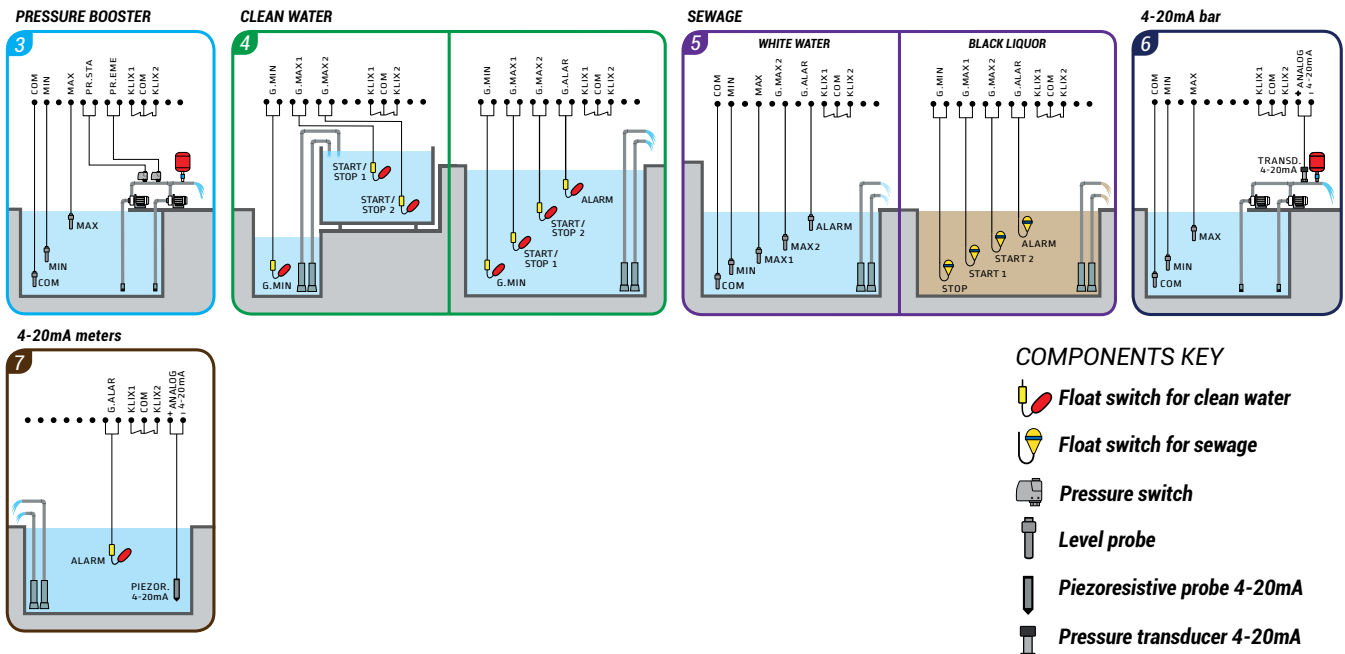
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD697.20/1	Three-phase MULTIPLUS 2 electronic board 20A
SD697.30-40/1	Three-phase MULTIPLUS 2 electronic board 30-40A
SD697.60/1	Three-phase MULTIPLUS 2 electronic board 60A
SD697.100/1	Three-phase MULTIPLUS 2 electronic board 100A
SD697.200/1	Three-phase MULTIPLUS 2 electronic board 200A



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# STAR DELTA PLUS 3 RANGE 7,5÷60HP

Star delta starting electronic control panel 3 motors for pressure booster, clean water and sewage with display

- Multi application control panel
- Motor's data auto learning
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- N°3 adjustable star delta timers
- Auxiliary circuit protection fuse
- Protection fuse for each motor
- N°9 contactors
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Dry running with level control and minimum current
- Deactivable alternance of the 3 motors
- 3s delay between the starting of the 2 motors
- Automatic switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## INPUTS / OUTPUTS

- N°5 very low voltage inputs
- Input 4-20mA
- N°3 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ696.00/SD	STAR DELTA PLUS 3 400 7,5	5,5	7,5	3x(10÷17)	800	600	290	33	80
SQ696.01/SD	STAR DELTA PLUS 3 400 10	7,5	10	3x(13÷21)	800	600	290	33	80
SQ696.02/SD	STAR DELTA PLUS 3 400 12,5	9,2	12,5	3x(19÷26)	800	600	290	33	80
SQ696.03/SD	STAR DELTA PLUS 3 400 15	11	15	3x(22÷30)	800	600	290	33	80
SQ696.04/SD	STAR DELTA PLUS 3 400 17,5	13	17,5	3x(25÷33)	800	600	290	33	80
SQ696.05/SD	STAR DELTA PLUS 3 400 20	15	20	3x(32÷40)	800	600	290	34	80
SQ696.06/SD	STAR DELTA PLUS 3 400 25	18,5	25	3x(38÷50)	800	600	290	35	80
SQ696.07/SD	STAR DELTA PLUS 3 400 35	22÷26	30÷35	3x(45÷65)	1000	800	370	40	103
SQ696.08/SD	STAR DELTA PLUS 3 400 40	30	40	3x(60÷75)	1000	800	370	41	103
SQ696.09/SD	STAR DELTA PLUS 3 400 50	37	50	3x(65÷90)	1000	800	370	64	103
SQ696.10/SD	STAR DELTA PLUS 3 400 60	45	60	3x(70÷105)	1000	800	370	66	103

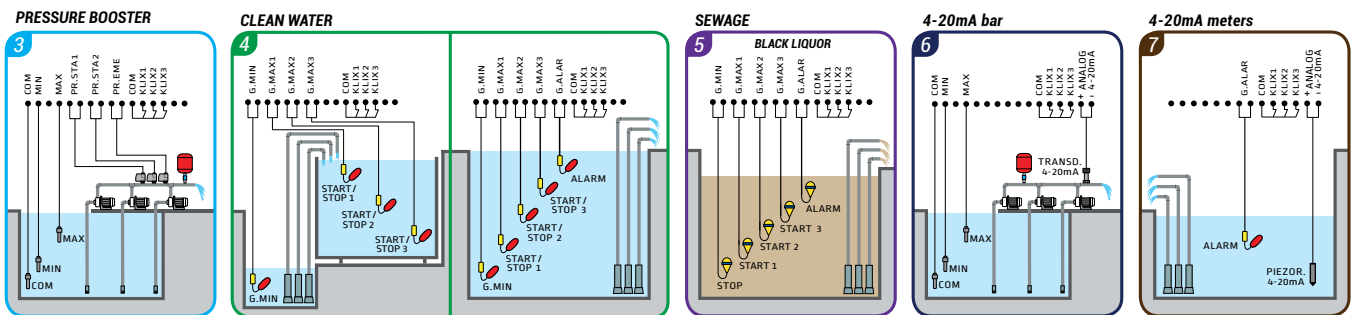
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <b>see page 18</b>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD696.20	Three-phase MULTIPLUS 3 electronic board 20A
SD696.30-40	Three-phase MULTIPLUS 3 electronic board 30-40A
SD696.60	Three-phase MULTIPLUS 3 electronic board 60A
SD696.100	Three-phase MULTIPLUS 3 electronic board 100A
SD696.200	Three-phase MULTIPLUS 3 electronic board 200A



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**
- Level probe**
- Piezoresistive probe 4-20mA**
- Pressure transducer 4-20mA**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# IMPEDANCE PLUS 1 RANGE 3÷100HP

**Stator impedance starting electronic control panel 1 motor for the dry running control, clean water and sewage with display**

- Multi application control panel
- Motor's data auto learning
- Adaptive filling system of the well
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Adjustable star delta timer
- Auxiliary circuit protection fuse
- Motor protection fuse
- N°2 contactors
- Three-phase impedance with thermostat
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- Very low voltage input for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - Cos $\phi$
  - Hour counter
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motor
- Motor's data autolearning:
  - Cos $\phi$
  - Maximum and minimum current
- Adaptive filling system of the well
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control, cos $\phi$  and minimum current
- Adjustable probe sensitivity
- Emptying (1 input)/ Filling (2 inputs) function
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Motor klixon protection with automatic reset and alarm



### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ687.00/I	IMPEDANCE PLUS 1 400 3	2,2	3	4÷9	500	400	230	17	50
SQ687.01/I	IMPEDANCE PLUS 1 400 5,5	4	5,5	8÷12,5	500	400	230	17	50
SQ687.02/I	IMPEDANCE PLUS 1 400 7,5	5,5	7,5	10÷17	500	400	230	17	50
SQ687.03/I	IMPEDANCE PLUS 1 400 10	7,5	10	13÷21	500	400	230	20	50
SQ687.04/I	IMPEDANCE PLUS 1 400 12,5	9,2	12,5	19÷26	500	400	230	20	50
SQ687.05/I	IMPEDANCE PLUS 1 400 15	11	15	22÷30	500	400	230	22	50
SQ687.06/I	IMPEDANCE PLUS 1 400 17,5	13	17,5	25÷33	500	400	230	23	50
SQ687.07/I	IMPEDANCE PLUS 1 400 20	15	20	30÷38	600	400	230	24	60
SQ687.08/I	IMPEDANCE PLUS 1 400 25	18,5	25	38÷50	700	500	240	31	70
SQ687.09/I	IMPEDANCE PLUS 1 400 30	22	30	45÷58	700	500	240	33	70
SQ687.10/I	IMPEDANCE PLUS 1 400 35	26	35	50÷65	700	500	240	33	70
SQ687.11/I	IMPEDANCE PLUS 1 400 40	30	40	60÷75	700	500	240	37	70
SQ687.12/I	IMPEDANCE PLUS 1 400 50	37	50	65÷90	800	600	290	48	80
SQ687.13/I	IMPEDANCE PLUS 1 400 60	45	60	70÷105	1000	800	370	82	103
SQ687.14/I	IMPEDANCE PLUS 1 400 70	51,5	70	75÷110	1000	800	370	88	103
SQ687.15/I	IMPEDANCE PLUS 1 400 75	55	75	75÷110	1000	800	370	88	103
SQ687.16/I	IMPEDANCE PLUS 1 400 80	60	80	80÷150	1000	800	370	90	103
SQ687.17/I	IMPEDANCE PLUS 1 400 90	66	90	80÷150	1000	800	370	100	103
SQ687.18/I	IMPEDANCE PLUS 1 400 100	75	100	90÷180	1000	800	370	100	103

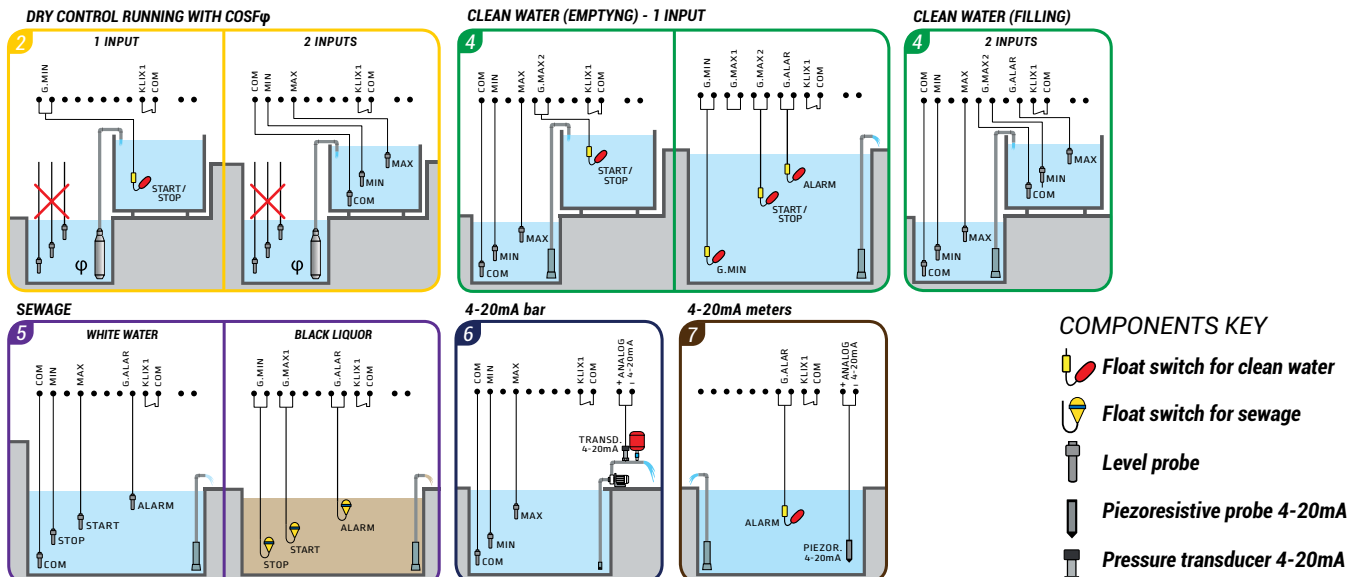
### OPTIONALS

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.17/O24	Wired 24Vac relay complete with socket
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) see page 18
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

### SPARE PARTS

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD687.20/1	Three-phase MULTIPLUS 1 electronic board 20A
SD687.30-40/1	Three-phase MULTIPLUS 1 electronic board 30-40A
SD687.60/1	Three-phase MULTIPLUS 1 electronic board 60A
SD687.100/1	Three-phase MULTIPLUS 1 electronic board 100A
SD687.200/1	Three-phase MULTIPLUS 1 electronic board 200A



The addition of some optional can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# SOFT START PLUS 1 RANGE 3÷100HP

**Soft start starting electronic control panel 1 motor for the dry running control, clean water and sewage with display**

- Multi application control panel
- Motor's data auto learning
- Adaptive filling system of the well
- Adjustable acceleration and deceleration ramp
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Auxiliary circuit protection fuse
- Protection fuse for each motor
- Soft start with by-pass contacts
- Forced ventilation with filters (from 25Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- Very low voltage input for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current
  - $\text{Cos}\phi$
  - Hour counter
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motor
- Motor's data autolearning:
  - $\text{Cos}\phi$
  - Maximum and minimum current
- Adaptive filling system of the well
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control,  $\text{cos}\phi$  and minimum current
- Adjustable probe sensitivity
- Emptyng (1 input)/ Filling (2 inputs) function
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Adjustable acceleration and deceleration ramp by trimmer
- Adjustable starting voltage by trimmer
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ687.00/SS	SOFT START PLUS 1 400 5,5	2,2÷4	3÷5,5	5÷12,5	500	400	230	16	50
SQ687.01/SS	SOFT START PLUS 1 400 12,5	5,5÷9,2	7,5÷12,5	10÷25	500	400	230	16	50
SQ687.02/SS	SOFT START PLUS 1 400 17,5	11÷13	15÷17,5	17÷32	500	400	230	16	50
SQ687.03/SS	SOFT START PLUS 1 400 20	15	20	23÷38	500	400	230	16	50
SQ687.04/SS	SOFT START PLUS 1 400 25	18,5	25	22,5÷45	600	400	280	22	61
SQ687.05/SS	SOFT START PLUS 1 400 35	22÷26	30÷35	22,5÷63	600	400	280	22	61
SQ687.06/SS	SOFT START PLUS 1 400 40	30	40	34,5÷72	600	400	280	22	61
SQ687.07/SS	SOFT START PLUS 1 400 50	37	50	46÷106	700	500	290	29	71
SQ687.08/SS	SOFT START PLUS 1 400 60	45	60	46÷106	700	500	290	29	71
SQ687.09/SS	SOFT START PLUS 1 400 70	51,5	70	46÷106	700	500	290	29	71
SQ687.10/SS	SOFT START PLUS 1 400 80	60	80	59÷134	800	600	340	45	81
SQ687.11/SS	SOFT START PLUS 1 400 90	66	90	59÷134	800	600	340	48	81
SQ687.12/SS	SOFT START PLUS 1 400 100	75	100	87÷162	800	600	340	51	81

**N.B.:** When ordering, check the power and the rated current of the motor

**OPTIONALS**

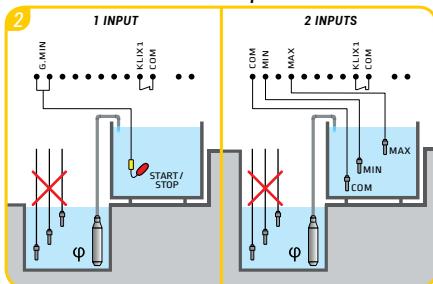
CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

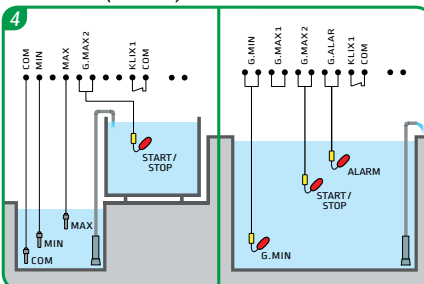
**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD687.20/1	Three-phase MULTIPLUS 1 electronic board 20A
SD687.30-40/1	Three-phase MULTIPLUS 1 electronic board 30-40A
SD687.60/1	Three-phase MULTIPLUS 1 electronic board 60A
SD687.100/1	Three-phase MULTIPLUS 1 electronic board 100A
SD687.200/1	Three-phase MULTIPLUS 1 electronic board 200A

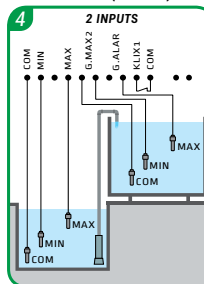
**2 DRY CONTROL RUNNING WITH COSφ**



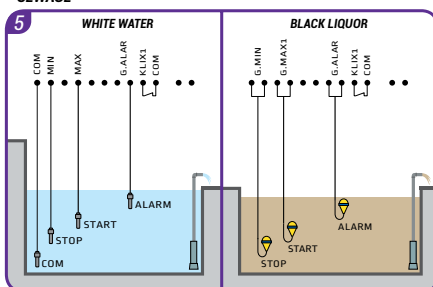
**4 CLEAN WATER (EMPTYNG) - 1 INPUT**



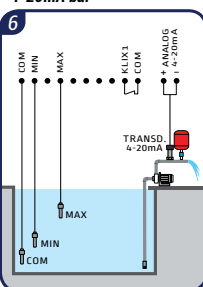
**4 CLEAN WATER (FILLING)**



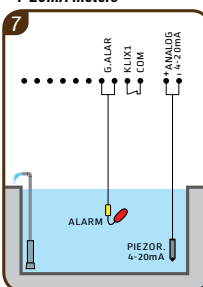
**5 SEWAGE**



**6 4-20mA bar**



**7 4-20mA meters**



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Level probe**
- Piezoresistive probe 4-20mA**
- Pressure transducer 4-20mA**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# SOFT START PLUS 2 RANGE 3÷100HP

Soft start starting electronic control panel 2 motors for pressure booster, clean water and sewage with display

- Multi application control panel
- Motor's data auto learning
- Adjustable acceleration and deceleration ramp
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Auxiliary circuit protection fuse
- Protection fuse for each motor
- N°2 soft start with by-pass contacts
- Forced ventilation with filters (from 25Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- N°4 very low voltage inputs
- Input 4-20mA
- N°2 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Adjustable maximum number of starts per hour
- Adjustable motor start test (24-48-72-96h)
- Dry running with level control and minimum current
- Adjustable probe sensitivity
- Deactivable alternance of the 2 motors
- 3s delay between the starting of the 2 motors
- Automatic switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Adjustable acceleration and deceleration ramp by trimmer
- Adjustable starting voltage by trimmer
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ697.00/SS	SOFT START PLUS 2 400 5,5	2,2÷4	3÷5,5	2x(5÷12,5)	600	400	230	18	60
SQ697.01/SS	SOFT START PLUS 2 400 12,5	5,5÷9,2	7,5÷12,5	2x(10÷25)	600	400	230	18	60
SQ697.02/SS	SOFT START PLUS 2 400 17,5	11÷13	15÷17,5	2x(17÷32)	600	400	230	18	60
SQ697.03/SS	SOFT START PLUS 2 400 20	15	20	2x(23÷38)	700	500	290	23	71
SQ697.04/SS	SOFT START PLUS 2 400 25	18,5	25	2x(22,5÷45)	800	600	290	27	80
SQ697.05/SS	SOFT START PLUS 2 400 35	22÷26	30÷35	2x(22,5÷63)	800	600	290	27	80
SQ697.06/SS	SOFT START PLUS 2 400 40	30	40	2x(34,5÷72)	800	600	290	29	80
SQ697.07/SS	SOFT START PLUS 2 400 50	37	50	2x(46÷106)	1000	600	370	33	101
SQ697.08/SS	SOFT START PLUS 2 400 60	45	60	2x(46÷106)	1000	600	370	41	101
SQ697.09/SS	SOFT START PLUS 2 400 70	51,5	70	2x(46÷106)	1000	600	370	42	101
SQ697.10/SS	SOFT START PLUS 2 400 80	60	80	2x(59÷134)	1200	800	370	72	122
SQ697.11/SS	SOFT START PLUS 2 400 90	66	90	2x(59÷134)	1200	800	370	73	122
SQ697.12/SS	SOFT START PLUS 2 400 100	75	100	2x(87÷162)	1200	800	370	75	122

**N.B.:** When ordering, check the power and the rated current of the motor

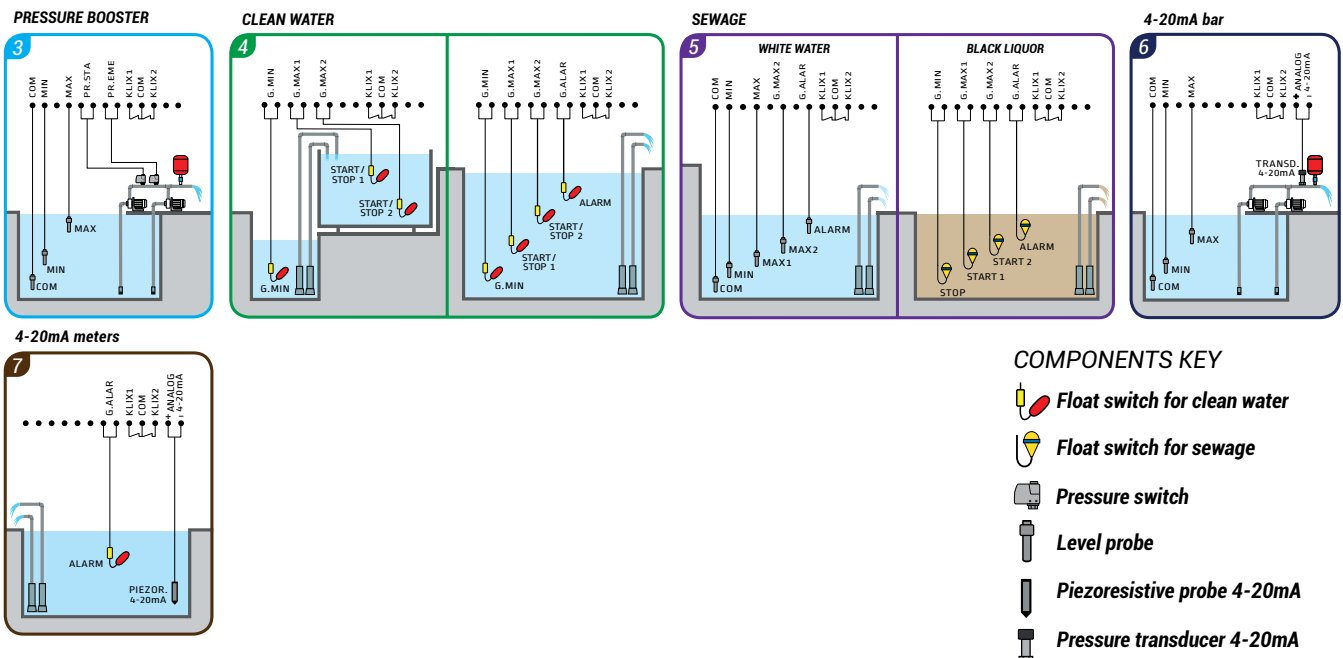
**OPTIONALS**

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) see page 18
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD697.20/1	Three-phase MULTIPLUS 2 electronic board 20A
SD697.30-40/1	Three-phase MULTIPLUS 2 electronic board 30-40A
SD697.60/1	Three-phase MULTIPLUS 2 electronic board 60A
SD697.100/1	Three-phase MULTIPLUS 2 electronic board 100A
SD697.200/1	Three-phase MULTIPLUS 2 electronic board 200A



The addition of some optional can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# SOFT START PLUS 3 RANGE 3÷60HP

Soft start starting electronic control panel 3 motors for pressure booster, clean water and sewage with display

- Multi application control panel
- Motor's data auto learning
- Adjustable acceleration and deceleration ramp
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation (stable/unstable)
- Siren shut-off button
- Auxiliary circuit protection fuse
- Protection fuse for each motor
- N°3 soft start with by-pass contacts
- Forced ventilation with filters (from 25Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current for each motor
  - Hour counter for each motor
  - Pressure switches status
  - Level status
  - System pressure with pressure transducer
  - Tank level in meters with piezoresistive probe
  - All information concerning the operation of the motors
- Maximum and minimum current auto learning for each motor
- Dry running with level control and minimum current
- Deactivable alternance of the 3 motors
- 3s delay between the starting of the 3 motors
- Automatic switching in case of motor failure
- Loss of pressure control
- Adjustable supply mains waiting
- Siren shut-off
- Adjustable acceleration and deceleration ramp by trimmer
- Adjustable starting voltage by trimmer
- Operation with pressure switches, float switches, probes, pressure transducer and piezoresistive probe 4-20mA

## INPUTS / OUTPUTS

- N°5 very low voltage inputs
- Input 4-20mA
- N°2 very low voltage inputs for motor klixon
- N°2 alarm outputs 12Vdc max 200mA for siren and flashing Led lamp
- Alarm output max 5A NC-COM-NO (pure contact)

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Minimum and maximum voltage protection with automatic reset and alarm
- Klixon protection for each motor with automatic reset and alarm

### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ696.00/SS	SOFT START PLUS 3 400 5,5	2,2÷4	3÷5,5	3x(5÷12,5)	800	600	290	25	80
SQ696.01/SS	SOFT START PLUS 3 400 12,5	5,5÷9,2	7,5÷12,5	3x(10÷25)	800	600	290	25	80
SQ696.02/SS	SOFT START PLUS 3 400 17,5	11÷13	15÷17,5	3x(17÷32)	800	600	290	25	80
SQ696.03/SS	SOFT START PLUS 3 400 20	15	20	3x(23÷38)	800	600	290	25	80
SQ696.04/SS	SOFT START PLUS 3 400 25	18,5	25	3x(22,5÷45)	800	600	290	34	80
SQ696.05/SS	SOFT START PLUS 3 400 35	22÷26	30÷35	3x(22,5÷63)	800	600	290	34	80
SQ696.06/SS	SOFT START PLUS 3 400 40	30	40	3x(34,5÷72)	800	600	290	35	80
SQ696.07/SS	SOFT START PLUS 3 400 50	37	50	3x(46÷106)	1000	600	370	38	101
SQ696.08/SS	SOFT START PLUS 3 400 60	45	60	3x(46÷106)	1000	600	370	45	101

N.B.: When ordering, check the power and the rated current of the motor

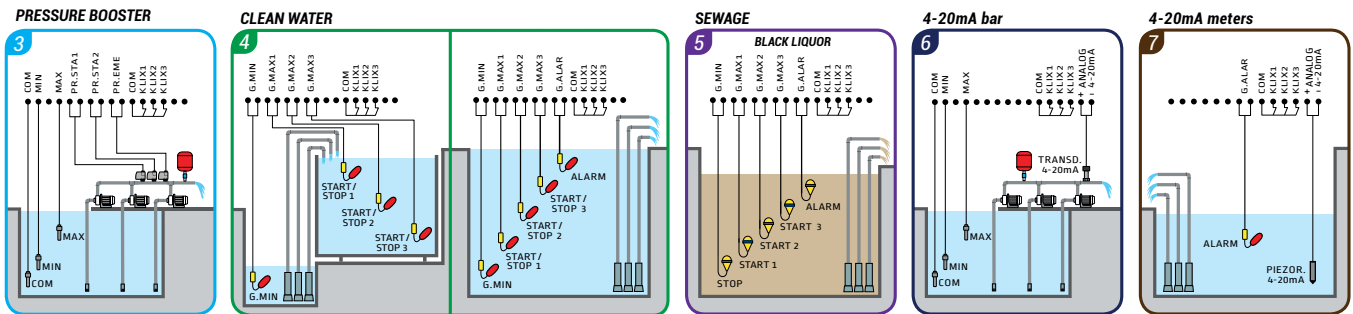
### OPTIONALS

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.39/B	On board Ethernet expansion
OP100.49/B	On board MODBUS - RS-485 - BMS expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.05/1	Wired three-phase surge arrester type 2
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) see page 18
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA with 4m cable
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA with 4m cable
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA with 4m cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

### SPARE PARTS

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD696.20	Three-phase MULTIPLUS 3 electronic board 20A
SD696.30-40	Three-phase MULTIPLUS 3 electronic board 30-40A
SD696.60	Three-phase MULTIPLUS 3 electronic board 60A
SD696.100	Three-phase MULTIPLUS 3 electronic board 100A
SD696.200	Three-phase MULTIPLUS 3 electronic board 200A



### COMPONENTS KEY

- Float switch for clean water
- Float switch for sewage
- Pressure switch
- Level probe
- Piezoresistive probe 4-20mA
- Pressure transducer 4-20mA

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# INVERTER PLUS 1 RANGE 1÷30HP

**Inverter starting electronic control panel 1 motor with display**

- Easy to program
- Programmable set-point
- Anti-clogging system with reverse running at start-up and in case of blockage
- Digital thermostat
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SQ703.2x)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SQ704.2x)
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation
- Auxiliary circuit protection fuse
- Inverter protection fuse
- Inverter
- Forced ventilation with filters
- Connection terminal board
- External metal box
- Protection degree IP54
- Operating temperature  $-5/+40^{\circ}\text{C}$

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Frequency
  - Current
  - Cos $\phi$
  - Hour counter
  - System pressure with pressure transducer
  - water level in the tank in meters by means of a piezoresistive probe
  - Internal temperature of the control panel
  - All information concerning the operation of the motors
- Anti-clogging system with reverse running at start-up and in case of blockage
- Dry control running with cos $\phi$
- Up to 4 programmable set-point
- Loss of pressure control
- Adjustable supply mains waiting
- PID operation
- Operation with potentiometer

## INPUTS / OUTPUTS

- Input 4-20mA
- Very low voltage galvanically isolated input for control external
- N°4 very low voltage galvanically isolated inputs for set-point

## PROTECTIONS

- Maximum current protection with alarm
- Lack phases protection with alarm
- Earth leakage protection with alarm



**SINGLE-PHASE 230Vac ±10% / USCITA 3~230Vac 50/60Hz**

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ703.20	INVERTER PLUS 1 230 1	0,75	1	4,2	400	300	230	12	41
SQ703.21	INVERTER PLUS 1 230 2	1,5	2	7,5	400	300	230	13	41
SQ703.22	INVERTER PLUS 1 230 3	2,2	3	10	400	300	230	14	41

N.B.: When ordering, check the power and the rated current of the motor

**THREE-PHASE 400Vac ±10% / USCITA 3~400Vac 50/60Hz**

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ704.20	INVERTER PLUS 1 400 1	0,75	1	2,5	400	300	230	11	41
SQ704.21	INVERTER PLUS 1 400 2	1,5	2	4	400	300	230	12	41
SQ704.22	INVERTER PLUS 1 400 3	2,2	3	6	400	300	230	13	41
SQ704.23	INVERTER PLUS 1 400 5,5	4	5,5	9	400	300	230	13	41
SQ704.24	INVERTER PLUS 1 400 7,5	5,5	7,5	12	500	400	230	18	50
SQ704.25	INVERTER PLUS 1 400 10	7,5	10	16	500	400	230	18	50
SQ704.26	INVERTER PLUS 1 400 15	11	15	24	700	500	290	31	71
SQ704.27	INVERTER PLUS 1 400 20	15	20	30	700	500	290	32	71
SQ704.28	INVERTER PLUS 1 400 25	18,5	25	39	800	600	290	45	80
SQ704.29	INVERTER PLUS 1 400 30	22	30	45	800	600	290	46	80

N.B.: When ordering, check the power and the rated current of the motor

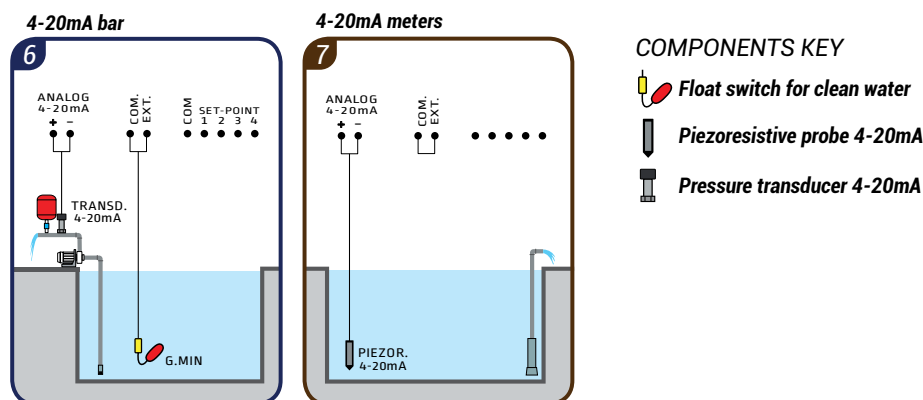
**OPTIONALS**

CODE	TYPE
OP100.29/M	Modular GPRS expansion
OP100.39/M	Modular Ethernet expansion
OP100.49/M	Modular MODBUS RS-485 - BMS expansion
OP100.59/M	Modular Ethernet - WiFi expansion
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.02/7	Wired selector switch 0-1 (set-point)
OP100.17/024	Wired 24Vac relay complete with socket (set-point)
OP100.02/3	Potentiometer to adjust the frequency
OP200.01	24Vac alarm output and pure contact
OP100.05/1	Wired three-phase surge arrester type 2
OP100.22/05	Wired three-phase inductance DV/DT 5,25A with cooling fan
OP100.22/08	Wired three-phase inductance DV/DT 8,4A with cooling fan
OP100.22/11	Wired three-phase inductance DV/DT 11A with cooling fan
OP100.22/17	Wired three-phase inductance DV/DT 17A with cooling fan
OP100.22/32	Wired three-phase inductance DV/DT 32A with cooling fan
OP100.22/43	Wired three-phase inductance DV/DT 43A with cooling fan
AC300.10.10-004.00	Pressure transducer 0-10bar connector and 4m FRAF cable
AC300.10.16-004.00	Pressure transducer 0-16bar connector and 4m FRAF cable
AC300.10.25-004.00	Pressure transducer 0-25bar connector and 4m FRAF cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 100cm
SD703.024	INVERTER PLUS 1 230 MODBUS-RTU electronic board 24Vac
SD704.024	INVERTER PLUS 1 400 MODBUS-RTU electronic board 24Vac



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# INVERTER PLUS 2 RANGE 1÷30HP

**Inverter starting electronic control panel 2 motors with display and alternance**

- Easy to program
- Programmable set-point
- Anti-clogging system with reverse running
- Digital thermostat
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation
- Auxiliary circuit protection fuse
- Protection fuse for each inverter
- N°2 inverters
- Forced ventilation with filters
- Connection terminal board
- External metal box
- Protection degree IP54
- Operating temperature  $-5/+40^{\circ}\text{C}$

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Frequency for each motor
  - Current for each motor
  - Hour counter for each motor
  - System pressure with pressure transducer
  - Water level in the tank in meters by means of a piezoresistive probe
  - Internal temperature of the control panel
  - All information concerning the operation of the motors
- Anti-clogging system with reverse running at start-up and in case of blockage
- Alternance of the 2 motors
- Automatic switching in case of motor failure
- Up to 4 programmable set-point
- Loss of pressure control
- Adjustable supply mains waiting
- PID operation

## INPUTS / OUTPUTS

- Input 0-10V
- Very low voltage galvanically isolated input for control external
- N°4 very low voltage galvanically isolated inputs for set-point

## PROTECTIONS

- Maximum and minimum current protection for each motor with alarm
- Lack and sequence of phases protection with automatic reset and alarm
- Earth leakage protection with alarm

**THREE-PHASE 400Vac ±10% / USCITA 3~400Vac 50/60Hz**

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ714.00	INVERTER PLUS 2 400 1	0,75	1	2x(2,5)	500	400	230	17	50
SQ714.01	INVERTER PLUS 2 400 2	1,5	2	2x(4)	500	400	230	18	50
SQ714.02	INVERTER PLUS 2 400 3	2,2	3	2x(6)	600	400	230	20	60
SQ714.03	INVERTER PLUS 2 400 5,5	4	5,5	2x(9)	600	400	230	21	60
SQ714.04	INVERTER PLUS 2 400 7,5	5,5	7,5	2x(12)	700	500	290	33	71
SQ714.05	INVERTER PLUS 2 400 10	7,5	10	2x(16)	700	500	290	34	71
SQ714.06	INVERTER PLUS 2 400 15	11	15	2x(24)	1000	800	370	54	103
SQ714.07	INVERTER PLUS 2 400 20	15	20	2x(30)	1000	800	370	55	103
SQ714.08	INVERTER PLUS 2 400 25	18,5	25	2x(39)	1000	800	370	82	103
SQ714.09	INVERTER PLUS 2 400 30	22	30	2x(45)	1000	800	370	83	103

**N.B.:** When ordering, check the power and the rated current of the motor

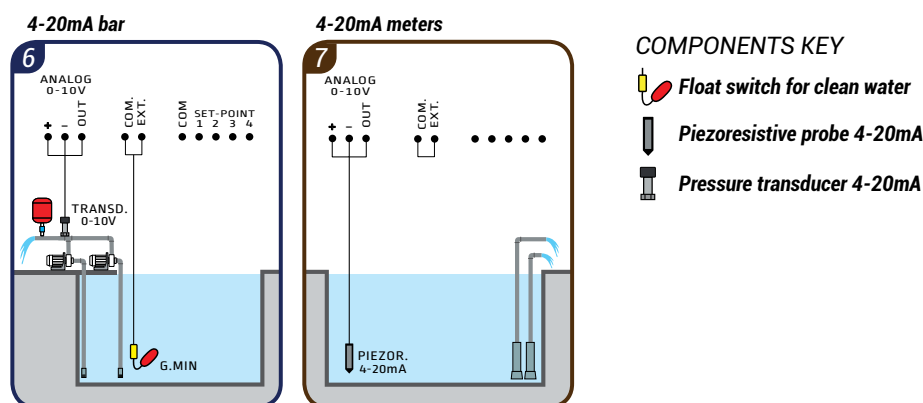
**OPTIONALS**

CODE	TYPE
OP100.29/M	Modular GPRS expansion
OP100.39/M	Modular Ethernet expansion
OP100.49/M	Modular MODBUS RS-485 - BMS expansion
OP100.59/M	Modular Ethernet - WiFi expansion
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.02/7	Wired selector switch 0-1 (set-point)
OP100.17/024	Wired 24Vac relay complete with socket (set-point)
OP200.01	24Vac alarm output and pure contact
OP100.05/1	Wired three-phase surge arrester type 2
AC300.13.10-004.20	Pressure transducer 0-10bar 0-10V with 4m cable
AC300.13.16-004.20	Pressure transducer 0-16bar 0-10V with 4m cable
AC300.13.25-004.20	Pressure transducer 0-25bar 0-10V with 4m cable
AC300.21.01-005.00	0-10V piezoresistive probe with 5m cable
AC300.21.01-010.00	0-10V piezoresistive probe with 10m cable
AC300.21.02-010.20	0-10V piezoresistive probe with 10 cable for sewage

For further optionals see page 76

**SPARE PARTS**

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 110cm
SD714.024	INVERTER PLUS 2 400 MODBUS-RTU 24Vac electronic board



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# INVERTER PLUS 3 RANGE 1÷30HP

**Inverter starting electronic control panel 3 motors with display and alternance**

- Easy to program
- Programmable set-point
- Anti-clogging system with reverse running
- Digital thermostat
- Events and alarms data logger
- Remote control
- Motherboard protection



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Button for automatic operation
- Button for manual operation
- Auxiliary circuit protection fuse
- Protection fuse for each inverter
- N°3 inverters
- Forced ventilation with filters
- Extraction tower (from 15Hp)
- Connection terminal board
- External metal box
- Protection degree IP54
- Operating temperature  $-5/+40^{\circ}\text{C}$

## ADVANTAGES

- Multilingual Display LCD to visualize:
  - Frequency for each motor
  - Current for each motor
  - Hour counter for each motor
  - System pressure with pressure transducer
  - Water level in the tank in meters by means of a piezoresistive probe
  - Internal temperature of the control panel
  - All information concerning the operation of the motors
- Anti-clogging system with reverse running at start-up and in case of blockage
- Alternance of the 3 motors
- Automatic switching in case of motor failure
- Up to 4 programmable set-point
- Loss of pressure control
- Adjustable supply mains waiting
- PID operation

## INPUTS / OUTPUTS

- Input 0-10V
- Very low voltage galvanically isolated input for control external
- N°4 very low voltage galvanically isolated inputs for set-point

### THREE-PHASE 400Vac ±10% / USCITA 3~400Vac 50/60Hz

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ724.00	INVERTER PLUS 3 400 1	0,75	1	3x(2,5)	800	600	290	33	80
SQ724.01	INVERTER PLUS 3 400 2	1,5	2	3x(4)	800	600	290	34	80
SQ724.02	INVERTER PLUS 3 400 3	2,2	3	3x(6)	800	600	290	36	80
SQ724.03	INVERTER PLUS 3 400 5,5	4	5,5	3x(9)	800	600	290	36	80
SQ724.04	INVERTER PLUS 3 400 7,5	5,5	7,5	3x(12)	1000	800	370	64	103
SQ724.05	INVERTER PLUS 3 400 10	7,5	10	3x(16)	1000	800	370	66	103
SQ724.06	INVERTER PLUS 3 400 15	11	15	3x(24)	1150	800	370	83	103 T
SQ724.07	INVERTER PLUS 3 400 20	15	20	3x(30)	1150	800	370	85	103 T
SQ724.08	INVERTER PLUS 3 400 25	18,5	25	3x(39)	1350	1000	370	118	124 T
SQ724.09	INVERTER PLUS 3 400 30	22	30	3x(45)	1350	1000	370	120	124 T

N.B.: When ordering, check the power and the rated current of the motor

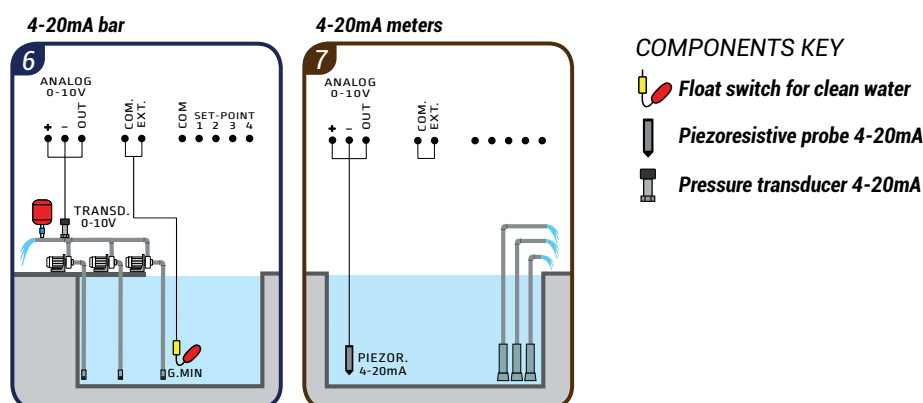
### OPTIONALS

CODE	TYPE
OP100.29/M	Modular GPRS expansion
OP100.39/M	Modular Ethernet expansion
OP100.49/M	Modular MODBUS RS-485 - BMS expansion
OP100.59/M	Modular Ethernet - WiFi expansion
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.02/7	Wired selector switch 0-1 (set-point)
OP100.17/024	Wired 24Vac relay complete with socket (set-point)
OP200.01	24Vac alarm output and pure contact
OP100.05/1	Wired three-phase surge arrester type 2
AC300.13.10-004.20	Pressure transducer 0-10bar 0-10V with 4m cable
AC300.13.16-004.20	Pressure transducer 0-16bar 0-10V with 4m cable
AC300.13.25-004.20	Pressure transducer 0-25bar 0-10V with 4m cable
AC300.21.01-005.00	0-10V piezoresistive probe with 5m cable
AC300.21.01-010.00	0-10V piezoresistive probe with 10m cable
AC300.21.02-010.20	0-10V piezoresistive probe with 10 cable for sewage

For further optionals see page 76

### RICAMBI

CODE	TYPE
AC100.22/1/50	Display electronic board with flat cable 20pin 50cm
AC100.22/1/80	Display electronic board with flat cable 20pin 80cm
AC100.22/1/100	Display electronic board with flat cable 20pin 110cm
SD724.024	INVERTER PLUS 3 400 MODBUS-RTU 24Vac electronic board



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# INVERTER IRIS BLUE 1 RANGE 3÷220HP

### *Inverter starting control panel 1 motor with display*

- *Specific software for pumping and water management applications*
- *Alarms data logger*
- *Remote control*



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation (stable)
- Running Led light
- Inverter alarm Led light
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Inverter protection fuse
- Inverter IRIS BLUE with front display
- Forced ventilation complete with filters
- Extraction tower (from 50Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP54
- Operating temperature -5/+40°C

## ADVANTAGES

- Double initial ramp
- Pipe filling control
- Fire mode (forced operation in case of alarm)
- Sleep/wake up mode (it prolongs the pump delay time to save energy)
- Safe Torque Off (function for the freewheel stop)
- Dry running with cos $\phi$
- Loss of pressure control
- PID operation

## INPUTS / OUTPUTS

- Input 4-20mA
- Very low voltage input for external command

## PROTECTIONS

- Maximum current protection with alarm
- Lack of phase protection with alarm
- Earth leakage protection with alarm

### THREE-PHASE 400Vac ±10% / OUTPUT 3~400Vac 50/60Hz

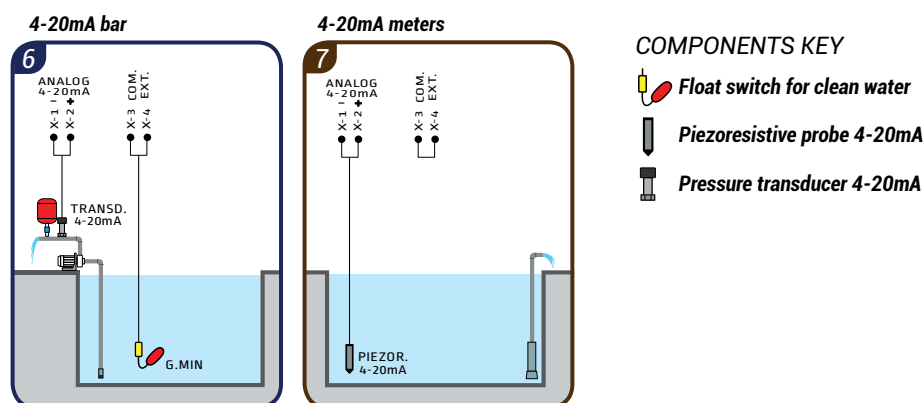
CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ707.00/01	INVERTER IRIS BLUE 1 400 5,5	2,2÷4	3÷5,5	10,5	600	400	280	24	61
SQ707.02	INVERTER IRIS BLUE 1 400 7,5	5,5	7,5	12,5	600	400	280	24	61
SQ707.03	INVERTER IRIS BLUE 1 400 10	7,5	10	16,5	600	400	280	24	61
SQ707.04/05	INVERTER IRIS BLUE 1 400 20	11÷15	15÷20	30	800	600	290	42	80
SQ707.06	INVERTER IRIS BLUE 1 400 25	18,5	25	41	800	600	290	43	80
SQ707.07	INVERTER IRIS BLUE 1 400 30	22	30	57	800	600	290	43	80
SQ707.08	INVERTER IRIS BLUE 1 400 40	30	40	60	800	600	290	43	80
SQ707.09	INVERTER IRIS BLUE 1 400 50	37	50	80	1150	800	430	92	104 T
SQ707.10	INVERTER IRIS BLUE 1 400 60	45	60	88	1350	800	470	106	123 T
SQ707.11	INVERTER IRIS BLUE 1 400 75	55	75	120	1350	800	470	111	123 T
SQ707.12	INVERTER IRIS BLUE 1 400 100	75	100	145	1350	800	470	115	123 T
SQ707.13	INVERTER IRIS BLUE 1 400 125	92	125	195	1950	800	670	191	187 T
SQ707.14	INVERTER IRIS BLUE 1 400 150	110	150	215	1950	800	670	201	187 T
SQ707.15	INVERTER IRIS BLUE 1 400 180	132	180	240	1950	800	670	211	187 T
SQ707.16	INVERTER IRIS BLUE 1 400 220	160	220	300	1950	800	670	266	187 T

N.B.: When ordering, check the power and the rated current of the motor

### OPTIONALS

CODE	TYPE
OP100.29/KIT	GPRS 24Vac DIN board with 2m serial cable
OP100.39/KIT	Ethernet 24Vac DIN board with 2m serial cable
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.02/7	Wired selector switch 0-1 (set-point)
OP100.17/024	Wired 24Vac relay complete with socket (set-point)
OP100.02/3	Potentiometer to adjust the frequency
OP200.01	24Vac alarm output and pure contact
OP100.05/1	Wired three-phase surge arrester type 2
OP100.22/05	Wired three-phase inductance DV/DT 5,25A with cooling fan
OP100.22/08	Wired three-phase inductance DV/DT 8,4A with cooling fan
OP100.22/11	Wired three-phase inductance DV/DT 11A with cooling fan
OP100.22/17	Wired three-phase inductance DV/DT 17A with cooling fan
OP100.22/32	Wired three-phase inductance DV/DT 32A with cooling fan
OP100.22/43	Wired three-phase inductance DV/DT 43A with cooling fan
OP100.22/68	Wired three-phase inductance DV/DT 68A with cooling fan
OP100.21/92	Wired three-phase inductance DV/DT 92A
OP100.21/142	Wired three-phase inductance DV/DT 142A
OP100.21/252	Wired three-phase inductance DV/DT 252A
OP200.43	Wired optoisolated analog converter 0÷20mA / 0÷10V with power supply
AC300.10.10-004.00	Pressure transducer 0-10bar 4-20mA with connector and 4m FRAF cable
AC300.10.16-004.00	Pressure transducer 0-16bar 4-20mA with connector and 4m FRAF cable
AC300.10.25-004.00	Pressure transducer 0-25bar 4-20mA with connector and 4m FRAF cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# INVERTER IRIS BLUE 2 RANGE 3÷50HP

**Inverter control panel + 1 fixed frequency starting with display**

- Specific software for pumping and water management applications
- Alarms data logger
- Remote control



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- N°2 selector switches for automatic -0- manual operation (stable)
- N°2 running Led lights
- Inverter alarm Led light
- Overload Led lights
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Inverter protection fuse
- Motor protection fuse
- Inverter IRIS BLUE with front display
- N°2 direct startings (up to 20Hp)
- N°2 soft start startings with by-pass contacts (from 25Hp)
- Forced ventilation complete with filters
- Extraction tower (from 50Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP54
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- Input 4-20mA
- Very low voltage input for external command

## ADVANTAGES

- Double initial ramp
- Pipe filling control
- Fire mode (forced operation in case of alarm)
- Sleep/wake up mode (it prolongs the pump delay time to save energy)
- Safe Torque Off (function for the freewheel stop)
- Dry running with cos $\phi$
- Loss of pressure control
- PID operation
- Adjustable acceleration and deceleration ramp by trimmer (from 25Hp on)
- Adjustable starting voltage by trimmer (from 25Hp on)

## PROTECTIONS

- Maximum current protection for each motor with alarm
- Lack of phase protection with alarm
- Earth leakage protection with alarm



**THREE-PHASE 400Vac ±10% / OUTPUT 3~400Vac 50/60Hz**

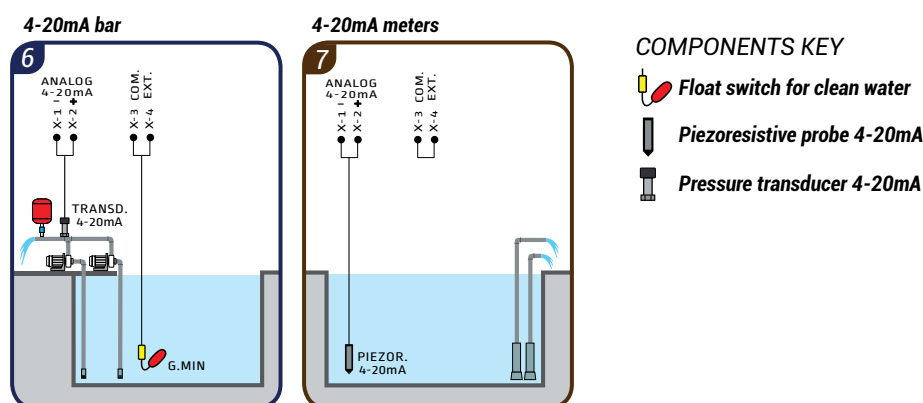
CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ717.00/01	INVERTER IRIS BLUE 2 400 5,5	2,2÷4	3÷5,5	10,5	700	500	290	33	71
SQ717.02	INVERTER IRIS BLUE 2 400 7,5	5,5	7,5	12,5	700	500	290	33	71
SQ717.03	INVERTER IRIS BLUE 2 400 10	7,5	10	16,5	700	500	290	33	71
SQ717.04/05	INVERTER IRIS BLUE 2 400 20	11÷15	15÷20	30	800	600	290	46	80
SQ717.06	INVERTER IRIS BLUE 2 400 25	18,5	25	41	800	600	290	48	80
SQ717.07	INVERTER IRIS BLUE 2 400 30	22	30	57	1000	600	370	71	101
SQ717.08	INVERTER IRIS BLUE 2 400 40	30	40	60	1000	600	370	72	101
SQ717.09	INVERTER IRIS BLUE 2 400 50	37	50	80	1350	800	470	97	123 T

**N.B.:** When ordering, check the power and the rated current of the motor

**OPTIONALS**

CODE	TYPE
OP100.29/KIT	GPRS 24Vac DIN board with 2m serial cable
OP100.39/KIT	Ethernet 24Vac DIN board with 2m serial cable
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.02/3	Potentiometer to adjust the frequency
OP200.01	24Vac alarm output and pure contact
OP100.05/1	Wired three-phase surge arrester type 2
OP100.22/05	Wired three-phase inductance DV/DT 5,25A with cooling fan
OP100.22/08	Wired three-phase inductance DV/DT 8,4A with cooling fan
OP100.22/11	Wired three-phase inductance DV/DT 11A with cooling fan
OP100.22/17	Wired three-phase inductance DV/DT 17A with cooling fan
OP100.22/32	Wired three-phase inductance DV/DT 32A with cooling fan
OP100.22/43	Wired three-phase inductance DV/DT 43A with cooling fan
OP100.22/68	Wired three-phase inductance DV/DT 68A with cooling fan
OP100.21/92	Wired three-phase inductance DV/DT 92A
OP200.43	Wired optoisolated analog converter 0÷20mA / 0÷10V with power supply
AC300.10.10-004.00	Pressure transducer 0-10bar 4-20mA with connector and 4m FRAF cable
AC300.10.16-004.00	Pressure transducer 0-16bar 4-20mA with connector and 4m FRAF cable
AC300.10.25-004.00	Pressure transducer 0-25bar 4-20mA with connector and 4m FRAF cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electronic control panels

# INVERTER IRIS BLUE 3 RANGE 3÷50HP

**Inverter control panel + 2 fixed frequencies startings with display**

- Specific software for pumping and water management applications
- Alarms data logger
- Remote control



## GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- N°3 selector switches for automatic -0- manual operation (stable)
- N°3 running Led lights
- Inverter alarm Led light
- N°2 overload Led lights
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Inverter protection fuse
- Motor protection fuse
- Inverter IRIS BLUE with front display
- N°2 direct startings (up to 20Hp)
- N°2 soft start startings with by-pass contacts (from 25Hp)
- Forced ventilation complete with filters
- Extraction tower (from 50Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP54
- Operating temperature  $-5/+40^{\circ}\text{C}$

## INPUTS / OUTPUTS

- Input 4-20mA
- Very low voltage input for external command

## ADVANTAGES

- Double initial ramp
- Pipe filling control
- Fire mode (forced operation in case of alarm)
- Sleep/wake up mode (it prolongs the pump delay time to save energy)
- Safe Torque Off (function for the freewheel stop)
- Dry running with cos $\phi$
- Loss of pressure control
- PID operation
- Adjustable acceleration and deceleration ramp by trimmer (from 25Hp on)
- Adjustable starting voltage by trimmer (from 25Hp on)

## PROTECTIONS

- Maximum current protection for each motor with alarm
- Lack of phase protection with alarm
- Earth leakage protection with alarm

**THREE-PHASE 400Vac ±10% / OUTPUT 3~400Vac 50/60Hz**

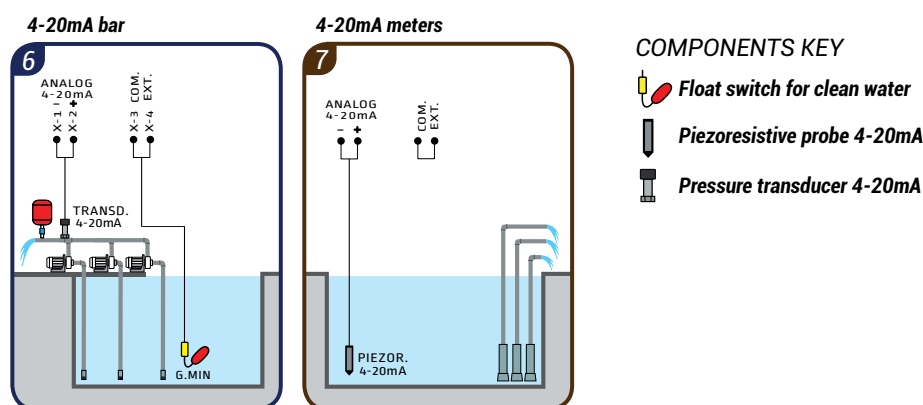
CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ727.00/01	INVERTER IRIS BLUE 3 400 5,5	2,2÷4	3÷5,5	10,5	800	600	290	37	80
SQ727.02	INVERTER IRIS BLUE 3 400 7,5	5,5	7,5	12,5	800	600	290	37	80
SQ727.03	INVERTER IRIS BLUE 3 400 10	7,5	10	16,5	800	600	290	37	80
SQ727.04/05	INVERTER IRIS BLUE 3 400 20	11÷15	15÷20	30	1000	600	370	66	101
SQ727.06	INVERTER IRIS BLUE 3 400 25	18,5	25	41	1000	600	370	68	101
SQ727.07	INVERTER IRIS BLUE 3 400 30	22	30	57	1200	800	370	76	122
SQ727.08	INVERTER IRIS BLUE 3 400 40	30	40	60	1200	800	370	78	122
SQ727.09	INVERTER IRIS BLUE 3 400 50	37	50	80	1350	800	470	100	123 T

**N.B.:** When ordering, check the power and the rated current of the motor

**OPTIONALS**

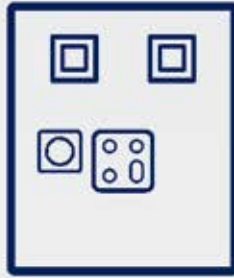
CODE	TYPE
OP100.29/KIT	GPRS 24Vac DIN board with 2m serial cable
OP100.39/KIT	Ethernet 24Vac DIN board with 2m serial cable
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.02/3	Potentiometer to adjust the frequency
OP200.01	24Vac alarm output and pure contact
OP100.05/1	Wired three-phase surge arrester type 2
OP100.22/05	Wired three-phase inductance DV/DT 5,25A with cooling fan
OP100.22/08	Wired three-phase inductance DV/DT 8,4A with cooling fan
OP100.22/11	Wired three-phase inductance DV/DT 11A with cooling fan
OP100.22/17	Wired three-phase inductance DV/DT 17A with cooling fan
OP100.22/32	Wired three-phase inductance DV/DT 32A with cooling fan
OP100.22/43	Wired three-phase inductance DV/DT 43A with cooling fan
OP100.22/68	Wired three-phase inductance DV/DT 68A with cooling fan
OP100.21/92	Wired three-phase inductance DV/DT 92A
OP200.43	Wired optoisolated analog converter 0÷20mA / 0÷10V with power supply
AC300.10.10-004.00	Pressure transducer 0-10bar 4-20mA with connector and 4m FRAF cable
AC300.10.16-004.00	Pressure transducer 0-16bar 4-20mA with connector and 4m FRAF cable
AC300.10.25-004.00	Pressure transducer 0-25bar 4-20mA with connector and 4m FRAF cable
AC300.20.01-005.00	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.00	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For further optionals see page 76



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

CODE	TYPE
OP100.03/16	Wired capacitor 16 $\mu$ F
OP100.03/20	Wired capacitor 20 $\mu$ F
OP100.03/25	Wired capacitor 25 $\mu$ F
OP100.03/30	Wired capacitor 30 $\mu$ F
OP100.03/35	Wired capacitor 35 $\mu$ F
OP100.03/40	Wired capacitor 40 $\mu$ F
OP100.03/45	Wired capacitor 45 $\mu$ F
OP100.03/50	Wired capacitor 50 $\mu$ F
OP100.03/55	Wired capacitor 55 $\mu$ F
OP100.03/60	Wired capacitor 60 $\mu$ F
OP100.03/70	Wired capacitor 70 $\mu$ F
OP100.03/75	Wired capacitor 75 $\mu$ F
OP100.03/80	Wired capacitor 80 $\mu$ F
OP100.02/2	Wired automatic-manual selector switch
OP100.02/7	Wired selector switch 0-1
OP100.02/8/421	Wired selector switch 0-1 with key 421
OP100.02/8/467	Wired selector switch 0-1 with key 467
OP100.02/8/470	Wired selector switch 0-1 with key 470
OP100.02/8/477	Wired selector switch 0-1 with key 477
OP100.02/8/502	Wired selector switch 0-1 with key 502
OP100.02/8/504	Wired selector switch 0-1 with key 504
OP100.02/8/505	Wired selector switch 0-1 with key 505
OP100.02/5	Wired selector switch 1-0-2 (unstable)
OP100.02/6	Wired selector switch 1-0-2 (stable)
OP100.07/1	Wired green button
OP100.07/2	Wired black button
OP100.07/3	Wired mushroom emergency button (stable)
OP100.06/1/024	Wired green Led light 24Vac
OP100.06/1/110	Wired green Led light 110Vac
OP100.06/1/230	Wired green Led light 230Vac
OP100.06/1/400	Wired green Led light 400Vac
OP100.06/2/024	Wired red Led 24Vac
OP100.06/2/110	Wired red Led 110Vac
OP100.06/2/230	Wired red Led 230Vac
OP100.06/2/400	Wired red Led 400Vac
OP100.06/3/024	Wired blue Led light 24Vac
OP100.06/3/110	Wired blue Led light 110Vac
OP100.06/3/230	Wired blue Led light 230Vac
OP100.06/3/400	Wired blue Led light 400Vac
OP100.06/4/024	Wired yellow Led light 24Vac
OP100.06/4/110	Wired yellow Led light 110Vac
OP100.06/4/230	Wired yellow Led light 230Vac
OP100.06/4/400	Wired yellow Led light 400Vac
OP100.06/5/024	Wired white Led light 24Vac
OP100.06/5/110	Wired white Led light 110Vac
OP100.06/5/230	Wired white Led light 230Vac
OP100.06/5/400	Wired white Led light 400Vac
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.15/230	Wired hour counter 230Vac 48x48
OP100.15/400	Wired hour counter 400Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.16/3	Wired analog weekly timer 72x72 without reserve
OP100.16/4	Wired analog daily timer DIN with reserve
OP100.16/5	Wired transformer 230/400Vac 24Vac 30VA
OP100.17/024	Relay 24Vac complete with plinth
OP100.17/110	Relay 110Vac complete with plinth
OP100.17/230	Relay 230Vac complete with plinth
OP100.18	Wired starting delay timer
OP100.18/1	Wired multifunction timer
OP100.18/2	Wired work break timer
OP100.20	Fuse holder 10x38 3P 32A for each motor



# ***ELECTROMECHANICAL CONTROL PANEL***



## Electromechanical control panels

# BASIC 1 IL RANGE 0,5÷3HP

Direct starting electromechanical control panel 1 motor with capacitor and illuminated switch

### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz
- General illuminated switch
- Running capacitor
- Thermal circuit breaker (external reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### INPUTS / OUTPUT

- Input for pressure switch or float switch

### PROTECTIONS

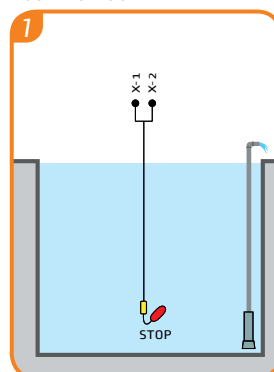
- Maximum current protection



#### SINGLE-PHASE 230Vac $\pm 10\%$ 50/60Hz

CODE	TYPE	POWER		THERMAL PROTECTION [A]	CAPACITOR	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp			A-H	L-W	P-D		
SA600.04/16	BASIC 1 IL 230 0,5	0,37	0,5	4	16 $\mu\text{F}$	180	140	80	0,5	01
SA600.04/20	BASIC 1 IL 230 0,5	0,37	0,5	4	20 $\mu\text{F}$	180	140	80	0,6	01
SA600.06/20	BASIC 1 IL 230 0,75	0,55	0,75	6	20 $\mu\text{F}$	180	140	80	0,6	01
SA600.06/25	BASIC 1 IL 230 0,75	0,55	0,75	6	25 $\mu\text{F}$	180	140	80	0,6	01
SA600.07/30	BASIC 1 IL 230 1	0,75	1	7	30 $\mu\text{F}$	180	140	80	0,6	01
SA600.07/35	BASIC 1 IL 230 1	0,75	1	7	35 $\mu\text{F}$	180	140	80	0,6	01
SA600.10/40	BASIC 1 IL 230 1,5	1,1	1,5	10	40 $\mu\text{F}$	180	140	80	0,6	01
SA600.13/50	BASIC 1 IL 230 2	1,5	2	13	50 $\mu\text{F}$	180	140	80	0,7	01
SA600.13/60	BASIC 1 IL 230 2	1,5	2	13	60 $\mu\text{F}$	180	140	80	0,7	01
SA600.15/60	BASIC 1 IL 230 2	1,5	2	15	60 $\mu\text{F}$	180	140	80	0,7	01
SA600.18/70	BASIC 1 IL 230 3	2,2	3	18	70 $\mu\text{F}$	180	140	80	0,7	01
SA600.18/80	BASIC 1 IL 230 3	2,2	3	18	80 $\mu\text{F}$	180	140	80	0,8	01

#### COMMON USE



#### COMPONENTS KEY

 Float switch for clean water

## Electromechanical control panels

# BASIC 1 IC RANGE 0,5÷3HP

Direct starting electromechanical control panel 1 motor with capacitor and cam switch

### GENERAL SPECIFICATIONS

- Operating voltage 230Vac ±10% 50/60Hz
- General bipolar cam switch
- Supply mains light
- Running capacitor
- Thermal circuit breaker (external reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree
- Operating temperature -5/+40°C

### INPUTS / OUTPUT

- Input for pressure switch or float switch

### PROTECTIONS

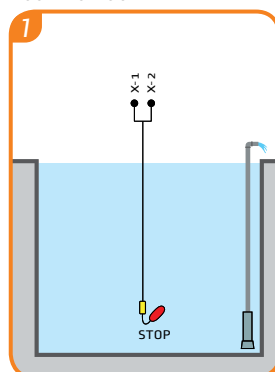
- Maximum current protection



#### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		THERMAL PROTECTION [A]	CAPACITOR	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp			A-H	L-W	P-D		
SA601.04/16	BASIC 1 IC 230 0,5	0,37	0,5	4	16µF	180	140	95	0,6	02
SA601.04/20	BASIC 1 IC 230 0,5	0,37	0,5	4	20µF	180	140	95	0,7	02
SA601.06/20	BASIC 1 IC 230 0,75	0,55	0,75	6	20µF	180	140	95	0,7	02
SA601.06/25	BASIC 1 IC 230 0,75	0,55	0,75	6	25µF	180	140	95	0,7	02
SA601.07/30	BASIC 1 IC 230 1	0,75	1	7	30µF	180	140	95	0,7	02
SA601.07/35	BASIC 1 IC 230 1	0,75	1	7	35µF	180	140	95	0,7	02
SA601.10/40	BASIC 1 IC 230 1,5	1,1	1,5	10	40µF	180	140	95	0,7	02
SA601.13/50	BASIC 1 IC 230 2	1,5	2	13	50µF	180	140	95	0,8	02
SA601.13/60	BASIC 1 IC 230 2	1,5	2	13	60µF	180	140	95	0,8	02
SA601.15/60	BASIC 1 IC 230 2	1,5	2	15	60µF	180	140	95	0,8	02
SA601.18/70	BASIC 1 IC 230 3	2,2	3	18	70µF	180	140	95	0,8	02

#### COMMON USE



#### COMPONENTS KEY

 Float switch for clean water

# Electromechanical control panels

## BASIC 1 CC RANGE 0,5÷3HP

Direct starting electromechanical control panel 1 motor with capacitor and cam commutator

### GENERAL SPECIFICATIONS

- Operating voltage 230Vac ±10% 50/60Hz
- Commutator for the automatic -0- manual operation
- Running light
- Running capacitor
- Thermal circuit breaker (external reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature -5/+40°C

### INPUTS / OUTPUT

- Input for pressure switch or float switch

### PROTECTIONS

- Maximum current protection



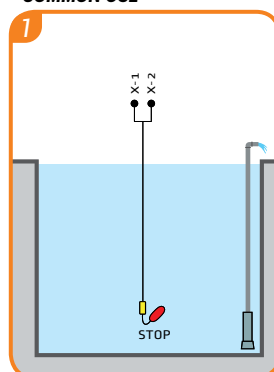
#### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		THERMAL PROTECTION [A]	CAPACITOR	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp			A-H	L-W	P-D		
SA602.04/16	BASIC 1 CC 230 0,5	0,37	0,5	4	16µF	285	245	140	1,8	03
SA602.04/20	BASIC 1 CC 230 0,5	0,37	0,5	4	20µF	285	245	140	1,9	03
SA602.06/20	BASIC 1 CC 230 0,75	0,55	0,75	6	20µF	285	245	140	1,9	03
SA602.06/25	BASIC 1 CC 230 0,75	0,55	0,75	6	25µF	285	245	140	1,9	03
SA602.07/30	BASIC 1 CC 230 1	0,75	1	7	30µF	285	245	140	1,9	03
SA602.07/35	BASIC 1 CC 230 1	0,75	1	7	35µF	285	245	140	1,9	03
SA602.10/40	BASIC 1 CC 230 1,5	1,1	1,5	10	40µF	285	245	140	1,9	03
SA602.13/50	BASIC 1 CC 230 2	1,5	2	13	50µF	285	245	140	2	03
SA602.13/60	BASIC 1 CC 230 2	1,5	2	13	60µF	285	245	140	2	03
SA602.15/60	BASIC 1 CC 230 2	1,5	2	15	60µF	285	245	140	2	03
SA602.18/70	BASIC 1 CC 230 3	2,2	3	18	70µF	285	245	140	2	03
SA602.18/80	BASIC 1 CC 230 3	2,2	3	18	80µF	285	245	140	2,1	03

#### OPTIONALS

CODE	TYPE
OP00.10	Couple of brackets for collar (reference BOX 03-04)

#### COMMON USE



#### COMPONENTS KEY

 Float switch for clean water



# Electromechanical control panels

## BASIC 1 CC AV RANGE 0,5÷3HP

Direct starting electromechanical control panel 1 motor with capacitor, voltmeter, ammeter and cam commutator

### GENERAL SPECIFICATIONS

- Operating voltage 230Vac ±10% 50/60Hz
- Commutator for the automatic -0- manual operation
- Running light
- Analog ammeter 72x72
- Analog voltmeter 72x72
- Running capacitor
- Thermal circuit breaker (external reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature -5/+40°C

### INPUTS / OUTPUT

- Input for pressure switch or float switch

### PROTECTIONS

- Maximum current protection



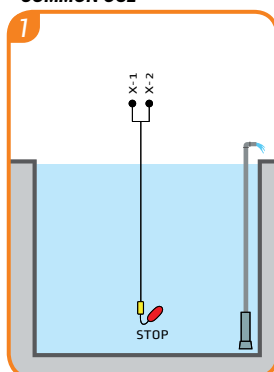
#### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		THERMAL PROTECTION [A]	CAPACITOR	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp			A-H	L-W	P-D		
SA603.04/16	BASIC 1 CC AV 230 0,5	0,37	0,5	4	16µF	285	245	140	2,1	03
SA603.04/20	BASIC 1 CC AV 230 0,5	0,37	0,5	4	20µF	285	245	140	2,2	03
SA603.06/20	BASIC 1 CC AV 230 0,75	0,55	0,75	6	20µF	285	245	140	2,2	03
SA603.06/25	BASIC 1 CC AV 230 0,75	0,55	0,75	6	25µF	285	245	140	2,2	03
SA603.07/30	BASIC 1 CC AV 230 1	0,75	1	7	30µF	285	245	140	2,2	03
SA603.07/35	BASIC 1 CC AV 230 1	0,75	1	7	35µF	285	245	140	2,2	03
SA603.10/40	BASIC 1 CC AV 230 1,5	1,1	1,5	10	40µF	285	245	140	2,2	03
SA603.13/50	BASIC 1 CC AV 230 2	1,5	2	13	50µF	285	245	140	2,3	03
SA603.13/60	BASIC 1 CC AV 230 2	1,5	2	13	60µF	285	245	140	2,3	03
SA603.15/60	BASIC 1 CC AV 230 2	1,5	2	15	60µF	285	245	140	2,3	03
SA603.18/70	BASIC 1 CC AV 230 3	2,2	3	18	70µF	285	245	140	2,3	03
SA603.18/80	BASIC 1 CC AV 230 3	2,2	3	18	80µF	285	245	140	2,4	03

#### OPTIONALS

CODE	TYPE
OP00.10	Couple of brackets for collar (reference BOX 03-04)

#### COMMON USE



#### COMPONENTS KEY

 Float switch for clean water

## Electromechanical control panels

# BASIC 1 AVC RANGE 0,5÷3HP

Direct starting electromechanical control panel 1 motor with capacitor, voltmeter, ammeter and contactor

### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz
- Commutator for the automatic -0- manual operation (stable)
- Running light
- Analog ammeter 72x72
- Analog voltmeter 72x72
- Running capacitor
- Contactor
- Thermal circuit breaker (external reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### INPUTS / OUTPUT

- Input for pressure switch or float switch

### PROTECTIONS

- Maximum current protection



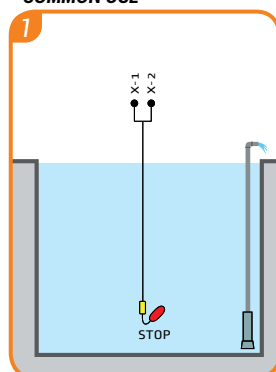
#### SINGLE-PHASE 230Vac $\pm 10\%$ 50/60Hz

CODE	TYPE	POWER		THERMAL PROTECTION [A]	CAPACITOR	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp			A-H	L-W	P-D		
SA611.04/16L	BASIC 1 AVC 230 0,5	0,37	0,5	4	16 $\mu\text{F}$	285	245	140	2,4	03
SA611.04/20L	BASIC 1 AVC 230 0,5	0,37	0,5	4	20 $\mu\text{F}$	285	245	140	2,5	03
SA611.06/20L	BASIC 1 AVC 230 0,75	0,55	0,75	6	20 $\mu\text{F}$	285	245	140	2,5	03
SA611.06/25L	BASIC 1 AVC 230 0,75	0,55	0,75	6	25 $\mu\text{F}$	285	245	140	2,5	03
SA611.07/30L	BASIC 1 AVC 230 1	0,75	1	7	30 $\mu\text{F}$	285	245	140	2,5	03
SA611.07/35L	BASIC 1 AVC 230 1	0,75	1	7	35 $\mu\text{F}$	285	245	140	2,5	03
SA611.10/40L	BASIC 1 AVC 230 1,5	1,1	1,5	10	40 $\mu\text{F}$	285	245	140	2,5	03
SA611.13/50L	BASIC 1 AVC 230 2	1,5	2	13	50 $\mu\text{F}$	285	245	140	2,6	03
SA611.13/60L	BASIC 1 AVC 230 2	1,5	2	13	60 $\mu\text{F}$	285	245	140	2,6	03
SA611.15/60L	BASIC 1 AVC 230 2	1,5	2	15	60 $\mu\text{F}$	285	245	140	2,6	03
SA611.18/70L	BASIC 1 AVC 230 3	2,2	3	18	70 $\mu\text{F}$	285	245	140	2,6	03
SA611.18/80L	BASIC 1 AVC 230 3	2,2	3	18	80 $\mu\text{F}$	285	245	140	2,7	03


#### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP00.10	Couple of brackets for collar (reference BOX 03-04)

#### COMMON USE



#### COMPONENTS KEY

 Float switch for clean water

## Electromechanical control panels

# BASIC 1

RANGE 0,5÷17,5HP

Direct starting electromechanical control panel 1 motor

### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm$ 10% 50/60Hz
- Start-stop button
- Contactor
- Thermal relay (internal reset)
- External thermoplastic box
- Protection degree IP55
- Operating temperature -5/+40°C

### PROTEZIONI

- Maximum current protection



#### THREE-PHASE 400Vac $\pm$ 10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA610.00	BASIC 1 400 0,5	0,37	0,5	0,9÷1,5	184	88	140	0,8	-
SA610.01/02	BASIC 1 400 1	0,55÷0,75	0,75÷1	1,4÷2,3	184	88	140	0,8	-
SA610.03/04	BASIC 1 400 2	1,1÷1,5	1,5÷2	3÷5	184	88	140	0,8	-
SA610.05/06	BASIC 1 400 3	1,8÷2,2	2,5÷3	4,5÷7,5	184	88	140	0,8	-
SA610.07/08	BASIC 1 400 5	3÷3,7	4÷5	6÷10	184	88	140	0,8	-
SA610.09	BASIC 1 400 5,5	4	5,5	9÷15	184	88	140	0,8	-
SA610.10	BASIC 1 400 7,5	5,5	7,5	13÷18	202	88	155	1	-
SA610.11	BASIC 1 400 10	7,5	10	17÷23	234	110	170	1,2	-
SA610.12	BASIC 1 400 12,5	9,2	12,5	20÷25	234	110	170	1,2	-
SA610.13/14	BASIC 1 400 17,5	11÷13	15÷17,5	24÷32	234	110	170	1,3	-

## Electromechanical control panels

# **DIRECT 1** RANGE 0,5÷17,5HP

**Direct starting electromechanical control panel 1 motor**

- Predisposition for the installation of an additional LEVEL control relay



### **GENERAL SPECIFICATIONS**

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA624.2x)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA634.2x)
- Selector switch for automatic -0- manual operation (stable)
- Running light
- Overload light
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### **PROTECTIONS**

- Maximum current protection with alarm

### **INPUTS / OUTPUT**

- Input for pressure switch or float switch

### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA624.00L	DIRECT 1 230 0,5	0,37	0,5	2,5÷4	285	245	140	2,3	03
SA624.01L	DIRECT 1 230 0,75	0,55	0,75	4÷6,5	285	245	140	2,3	03
SA624.02L	DIRECT 1 230 1	0,75	1	6,3÷10	285	245	140	2,3	03
SA624.03L	DIRECT 1 230 1,5	1,1	1,5	6,3÷10	285	245	140	2,3	03
SA624.04L	DIRECT 1 230 2	1,5	2	9÷14	285	245	140	2,3	03
SA624.05L	DIRECT 1 230 3	2,2	3	13÷18	285	245	140	2,3	03

### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA634.00L	DIRECT 1 400 0,5	0,37	0,5	1,1÷1,6	285	245	140	2,4	03
SA634.01/02L	DIRECT 1 400 1	0,55÷0,75	0,75÷1	1,6÷2,5	285	245	140	2,4	03
SA634.03L	DIRECT 1 400 1,5	1,1	1,5	2,5÷4	285	245	140	2,4	03
SA634.04L	DIRECT 1 400 2	1,5	2	4÷6,5	285	245	140	2,4	03
SA634.06/07L	DIRECT 1 400 4	2,2÷3	3÷4	6,3÷10	285	245	140	2,4	03
SA634.09L	DIRECT 1 400 5,5	4	5,5	9÷14	285	245	140	2,4	03
SA634.10L	DIRECT 1 400 7,5	5,5	7,5	13÷18	285	245	140	2,4	03
SA634.11L	DIRECT 1 400 10	7,5	10	17÷23	285	245	140	2,4	03
SA634.12L	DIRECT 1 400 12,5	9,2	12,5	20÷25	285	245	140	2,4	03
SA634.13/14L	DIRECT 1 400 17,5	11÷13	15÷17,5	24÷32	285	245	140	2,5	03

### OPTIONALS

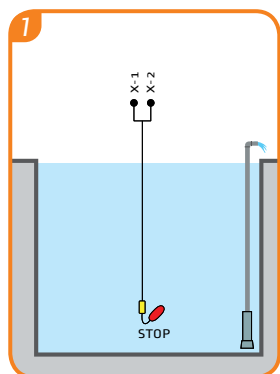
CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.03/16	Wired capacitor 16µF
OP100.03/20	Wired capacitor 20µF
OP100.03/25	Wired capacitor 25µF
OP100.03/30	Wired capacitor 30µF
OP100.03/35	Wired capacitor 35µF
OP100.03/40	Wired capacitor 40µF
OP100.03/50	Wired capacitor 50µF
OP100.03/60	Wired capacitor 60µF
OP100.03/70	Wired capacitor 70µF
OP100.03/80	Wired capacitor 80µF
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP331.230/1	Wired LEVEL 230Vac control relay
OP331.400/1	Wired LEVEL 400Vac control relay
OP100.01	3 level probes kit
OP00.10	Couple of brackets for collar (reference BOX 03-04)

STANDARD CONTROL PANEL

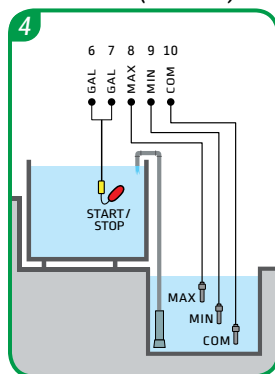
CONTROL PANEL WITH OPTIONAL: **OP331.230/1**  
**OP331.400/1**



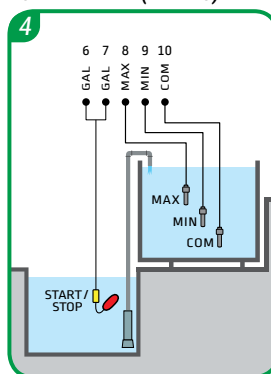
COMMON USE



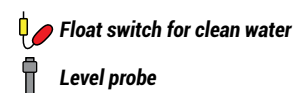
CLEAN WATER (EMPTYING)



CLEAN WATER (FILLING)



COMPONENTS KEY



## Electromechanical control panels

# **DIRECT 1 T** RANGE 0,5÷17,5HP

**Direct starting electromechanical control panel 1 motor with transformer**



### **GENERAL SPECIFICATIONS**

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA624.2x)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA634.2x)
- Selector switch for automatic -0- manual operation (stable)
- Running light
- Overload light
- Transformer for auxiliary circuit
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### **PROTECTIONS**

- Maximum current protection with alarm

### **INPUTS / OUTPUT**

- Very low voltage input for pressure switch or float switch

### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA624.20L	DIRECT 1 T 230 0,5	0,37	0,5	2,5÷4	285	245	140	3,3	03
SA624.21L	DIRECT 1 T 230 0,75	0,55	0,75	4÷6,5	285	245	140	3,3	03
SA624.22L	DIRECT 1 T 230 1	0,75	1	6,3÷10	285	245	140	3,3	03
SA624.23L	DIRECT 1 T 230 1,5	1,1	1,5	6,3÷10	285	245	140	3,3	03
SA624.24L	DIRECT 1 T 230 2	1,5	2	9÷14	285	245	140	3,3	03
SA624.25L	DIRECT 1 T 230 3	2,2	3	13÷18	285	245	140	3,3	03

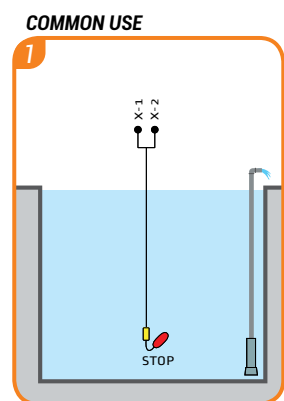
### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA634.20L	DIRECT 1 T 400 0,5	0,37	0,5	1,1÷1,6	285	245	140	3,4	03
SA634.21/22L	DIRECT 1 T 400 1	0,55÷0,75	0,75÷1	1,6÷2,5	285	245	140	3,4	03
SA634.23L	DIRECT 1 T 400 1,5	1,1	1,5	2,5÷4	285	245	140	3,4	03
SA634.24L	DIRECT 1 T 400 2	1,5	2	4÷6,5	285	245	140	3,4	03
SA634.26/27L	DIRECT 1 T 400 4	2,2÷3	3÷4	6,3÷10	285	245	140	3,4	03
SA634.29L	DIRECT 1 T 400 5,5	4	5,5	9÷14	285	245	140	3,4	03
SA634.30L	DIRECT 1 T 400 7,5	5,5	7,5	13÷18	285	245	140	3,4	03
SA634.31L	DIRECT 1 T 400 10	7,5	10	17÷23	285	245	140	3,4	03
SA634.32L	DIRECT 1 T 400 12,5	9,2	12,5	20÷25	285	245	140	3,4	03
SA634.33/34L	DIRECT 1 T 400 17,5	11÷13	15÷17,5	24÷32	285	245	140	3,5	03

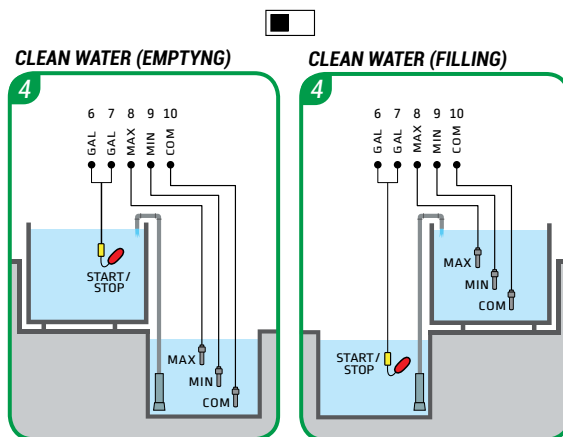
### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.03/16	Wired capacitor 16µF
OP100.03/20	Wired capacitor 20µF
OP100.03/25	Wired capacitor 25µF
OP100.03/30	Wired capacitor 30µF
OP100.03/35	Wired capacitor 35µF
OP100.03/40	Wired capacitor 40µF
OP100.03/50	Wired capacitor 50µF
OP100.03/60	Wired capacitor 60µF
OP100.03/70	Wired capacitor 70µF
OP100.03/80	Wired capacitor 80µF
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP331.230/1	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP00.10	Couple of brackets for collar (reference BOX 03-04)

STANDARD CONTROL PANEL



CONTROL PANEL WITH OPTIONAL: **OP331.230/1**



### COMPONENTS KEY

- Float switch for clean water
- Level probe

## Electromechanical control panels

# **DIRECT 1 AV** RANGE 0,5÷17,5HP

**Direct starting electromechanical control panel 1 motor with voltmeter and ammeter**



### **GENERAL SPECIFICATIONS**

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA625.2x)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA635.2x)
- Selector switch for automatic -0- manual operation (stable)
- Running light
- Overload light
- Analog ammeter 72x72
- Analog voltmeter 72x72
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature -5/+40°C

### **PROTECTIONS**

- Maximum current protection with alarm

### **INPUTS / OUTPUT**

- Very low voltage input for pressure switch or float switch



### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA625.00L	DIRECT 1 AV 230 0,5	0,37	0,5	2,5÷4	285	245	140	2,6	03
SA625.01L	DIRECT 1 AV 230 0,75	0,55	0,75	4÷6,5	285	245	140	2,6	03
SA625.02L	DIRECT 1 AV 230 1	0,75	1	6,3÷10	285	245	140	2,6	03
SA625.03L	DIRECT 1 AV 230 1,5	1,1	1,5	6,3÷10	285	245	140	2,6	03
SA625.04L	DIRECT 1 AV 230 2	1,5	2	9÷14	285	245	140	2,6	03
SA625.05L	DIRECT 1 AV 230 3	2,2	3	13÷18	285	245	140	2,6	03

### THREE-PHASE 400Vac ±10% 50/60Hz

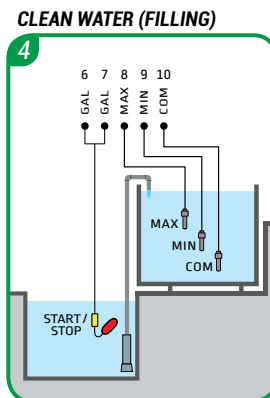
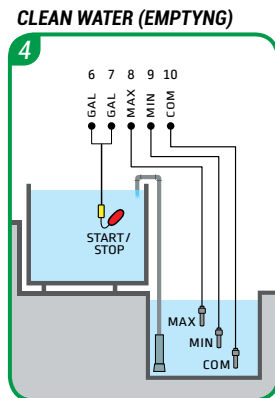
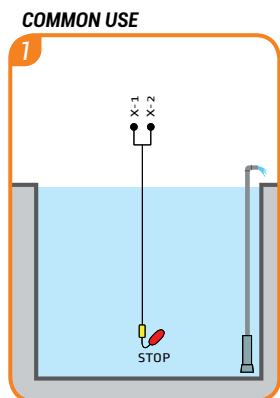
CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA635.00L	DIRECT 1 AV 400 0,5	0,37	0,5	1,1÷1,6	285	245	140	2,7	03
SA635.01/02L	DIRECT 1 AV 400 1	0,55÷0,75	0,75÷1	1,6÷2,5	285	245	140	2,7	03
SA635.03L	DIRECT 1 AV 400 1,5	1,1	1,5	2,5÷4	285	245	140	2,7	03
SA635.04L	DIRECT 1 AV 400 2	1,5	2	4÷6,5	285	245	140	2,7	03
SA635.06/07L	DIRECT 1 AV 400 4	2,2÷3	3÷4	6,3÷10	285	245	140	2,7	03
SA635.09L	DIRECT 1 AV 400 5,5	4	5,5	9÷14	285	245	140	2,7	03
SA635.10L	DIRECT 1 AV 400 7,5	5,5	7,5	13÷18	285	245	140	2,7	03
SA635.11L	DIRECT 1 AV 400 10	7,5	10	17÷23	285	245	140	2,7	03
SA635.12L	DIRECT 1 AV 400 12,5	9,2	12,5	20÷25	285	245	140	2,7	03
SA635.13/14L	DIRECT 1 AV 400 17,5	11÷13	15÷17,5	24÷32	285	245	140	2,8	03

### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.03/16	Wired capacitor 16uF
OP100.03/20	Wired capacitor 20uF
OP100.03/25	Wired capacitor 25uF
OP100.03/30	Wired capacitor 30uF
OP100.03/35	Wired capacitor 35uF
OP100.03/40	Wired capacitor 40uF
OP100.03/50	Wired capacitor 50uF
OP100.03/60	Wired capacitor 60uF
OP100.03/70	Wired capacitor 70uF
OP100.03/80	Wired capacitor 80uF
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP331.230/1	Wired LEVEL 230Vac control relay
OP331.400/1	Wired LEVEL 400Vac control relay
OP100.01	3 level probes kit
OP00.10	Couple of brackets for collar (reference BOX 03-04)

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP331.230/1**  
**OP331.400/1**



### COMPONENTS KEY

- Float switch for clean water
- Level probe

## Electromechanical control panels

# **DIRECT 1 AVT** RANGE 0,5÷17,5HP

**Direct starting electromechanical control panel 1 motor with voltmeter, ammeter and transformer**



### **GENERAL SPECIFICATIONS**

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA625.2x)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA635.2x)
- Selector switch for automatic -0- manual operation (stable)
- Running light
- Overload light
- Analog ammeter 72x72
- Analog voltmeter 72x72
- Transformer for auxiliary circuit
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature -5/+40°C

### **PROTECTIONS**

- Maximum current protection with alarm

### **INPUTS / OUTPUT**

- Very low voltage input for pressure switch or float switch

**SINGLE-PHASE 230Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA625.20L	DIRECT 1 AVT 230 0,5	0,37	0,5	2,5÷4	345	285	165	4,2	04
SA625.21L	DIRECT 1 AVT 230 0,75	0,55	0,75	4÷6,5	345	285	165	4,2	04
SA625.22L	DIRECT 1 AVT 230 1	0,75	1	6,3÷10	345	285	165	4,2	04
SA625.23L	DIRECT 1 AVT 230 1,5	1,1	1,5	6,3÷10	345	285	165	4,2	04
SA625.24L	DIRECT 1 AVT 230 2	1,5	2	9÷14	345	285	165	4,2	04
SA625.25L	DIRECT 1 AVT 230 3	2,2	3	13÷18	345	285	165	4,2	04

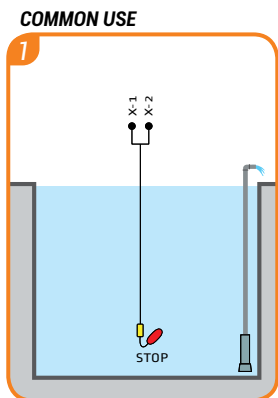
**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA635.20L	DIRECT 1 AVT 400 0,5	0,37	0,5	1,1÷1,6	345	285	165	4,3	04
SA635.21/22L	DIRECT 1 AVT 400 1	0,55÷0,75	0,75÷1	1,6÷2,5	345	285	165	4,3	04
SA635.23L	DIRECT 1 AVT 400 1,5	1,1	1,5	2,5÷4	345	285	165	4,3	04
SA635.24L	DIRECT 1 AVT 400 2	1,5	2	4÷6,5	345	285	165	4,3	04
SA635.26/27L	DIRECT 1 AVT 400 4	2,2÷3	3÷4	6,3÷10	345	285	165	4,3	04
SA635.29L	DIRECT 1 AVT 400 5,5	4	5,5	9÷14	345	285	165	4,3	04
SA635.30L	DIRECT 1 AVT 400 7,5	5,5	7,5	13÷18	345	285	165	4,3	04
SA635.31L	DIRECT 1 AVT 400 10	7,5	10	17÷23	345	285	165	4,3	04
SA635.32L	DIRECT 1 AVT 400 12,5	9,2	12,5	20÷25	345	285	165	4,3	04
SA635.33/34L	DIRECT 1 AVT 400 17,5	11÷13	15÷17,5	24÷32	345	285	165	4,4	04

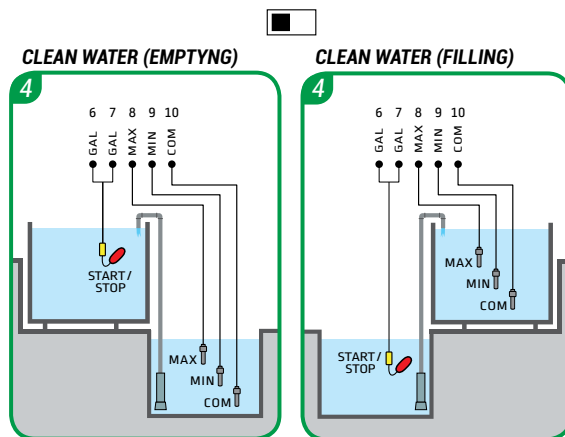
**OPTIONALS**

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.03/16	Wired capacitor 16uF
OP100.03/20	Wired capacitor 20uF
OP100.03/25	Wired capacitor 25uF
OP100.03/30	Wired capacitor 30uF
OP100.03/35	Wired capacitor 35uF
OP100.03/40	Wired capacitor 40uF
OP100.03/50	Wired capacitor 50uF
OP100.03/60	Wired capacitor 60uF
OP100.03/70	Wired capacitor 70uF
OP100.03/80	Wired capacitor 80uF
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP331.230/1	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP00.10	Couple of brackets for collar (reference BOX 03-04)

STANDARD CONTROL PANEL



CONTROL PANEL WITH OPTIONAL: **OP331.230/1**



**COMPONENTS KEY**

- Float switch for clean water
- Level probe

## Electromechanical control panels

# EVO 1

RANGE 0,5÷25HP

Direct starting electromechanical control panel 1 motor



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA621.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA631.xx)
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation (stable)
- Mains supply Led light
- Running Led light
- Overload Led light
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### PROTECTIONS

- Maximum current protection with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum level)

**SINGLE-PHASE 230Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA621.00L	EVO 1 230 0,5	0,37	0,5	2,5÷4	345	285	165	5,4	04
SA621.01L	EVO 1 230 0,75	0,55	0,75	4÷6,5	345	285	165	5,4	04
SA621.02L	EVO 1 230 1	0,75	1	6,3÷10	345	285	165	5,4	04
SA621.03L	EVO 1 230 1,5	1,1	1,5	6,3÷10	345	285	165	5,4	04
SA621.04L	EVO 1 230 2	1,5	2	9÷14	345	285	165	5,4	04
SA621.05L	EVO 1 230 3	2,2	3	13÷18	345	285	165	5,4	04

**THREE-PHASE 400Vac ±10% 50/60Hz**

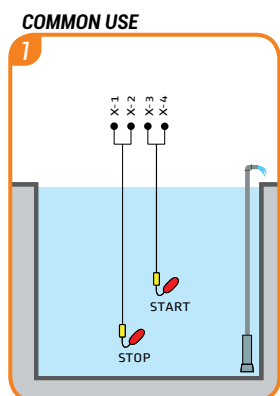
CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA631.00L	EVO 1 400 0,5	0,37	0,5	1,1÷1,6	345	285	165	5,4	04
SA631.01/02L	EVO 1 400 1	0,55÷0,75	0,75÷1	1,5÷2,5	345	285	165	5,4	04
SA631.03L	EVO 1 400 1,5	1,1	1,5	2,5÷4	345	285	165	5,4	04
SA631.04L	EVO 1 400 2	1,5	2	4÷6,5	345	285	165	5,4	04
SA631.06/07L	EVO 1 400 4	2,2÷3	3÷4	6,3÷10	345	285	165	5,4	04
SA631.09L	EVO 1 400 5,5	4	5,5	9÷14	345	285	165	5,4	04
SA631.10L	EVO 1 400 7,5	5,5	7,5	13÷18	345	285	165	5,4	04
SA631.11L	EVO 1 400 10	7,5	10	17÷23	345	285	165	5,4	04
SA631.12L	EVO 1 400 12,5	9,2	12,5	20÷25	345	285	165	5,4	04
SA631.13/14L	EVO 1 400 17,5	11÷13	15÷17,5	24÷32	345	285	165	5,5	04
SA631.15L	EVO 1 400 20	15	20	32÷38	380	300	150	6,5	05
SA631.16L	EVO 1 400 25	18,5	25	35÷50	380	300	210	8,1	06

**OPTIONALS**

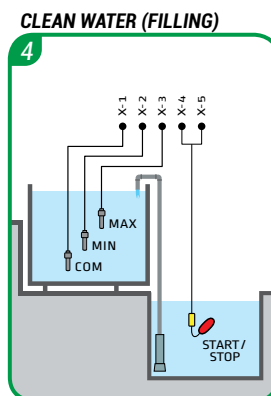
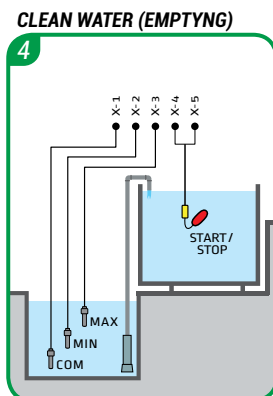
CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 124

STANDARD CONTROL PANEL



CONTROL PANEL WITH OPTIONAL: **OP331.230**



**COMPONENTS KEY**

Float switch for clean water

Level probe

## Electromechanical control panels

# EVO 1 AV RANGE 0,5÷25HP

**Direct starting electromechanical control panel 1 motor with voltmeter and ammeter**



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA622.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA632.xx)
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation (stable)
- Running Led light
- Overload Led light
- Analog ammeter 72x72
- Analog voltmeter 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### PROTECTIONS

- Maximum current protection with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum level)

**SINGLE-PHASE 230Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA622.00L	EVO 1 AV 230 0,5	0,37	0,5	2,5÷4	345	285	165	5,7	04
SA622.01L	EVO 1 AV 230 0,75	0,55	0,75	4÷6,5	345	285	165	5,7	04
SA622.02L	EVO 1 AV 230 1	0,75	1	6,3÷10	345	285	165	5,7	04
SA622.03L	EVO 1 AV 230 1,5	1,1	1,5	6,3÷10	345	285	165	5,7	04
SA622.04L	EVO 1 AV 230 2	1,5	2	9÷14	345	285	165	5,7	04
SA622.05L	EVO 1 AV 230 3	2,2	3	13÷18	345	285	165	5,7	04

**THREE-PHASE 400Vac ±10% 50/60Hz**

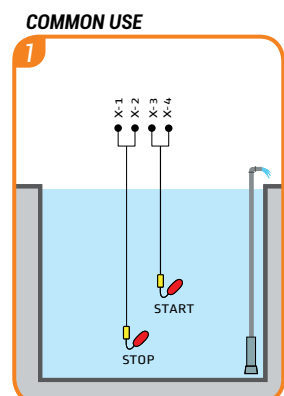
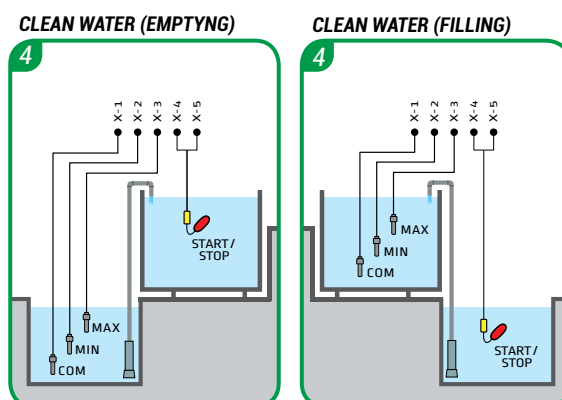
CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA632.00L	EVO 1 AV 400 0,5	0,37	0,5	1,1÷1,6	345	285	165	5,7	04
SA632.01/02L	EVO 1 AV 400 1	0,55÷0,75	0,75÷1	1,6÷2,5	345	285	165	5,7	04
SA632.03L	EVO 1 AV 400 1,5	1,1	1,5	2,5÷4	345	285	165	5,7	04
SA632.04L	EVO 1 AV 400 2	1,5	2	4÷6,5	345	285	165	5,7	04
SA632.06/07L	EVO 1 AV 400 4	2,2÷3	3÷4	6,3÷10	345	285	165	5,7	04
SA632.09L	EVO 1 AV 400 5,5	4	5,5	9÷14	345	285	165	5,7	04
SA632.10L	EVO 1 AV 400 7,5	5,5	7,5	13÷18	345	285	165	5,7	04
SA632.11L	EVO 1 AV 400 10	7,5	10	17÷23	345	285	165	5,7	04
SA632.12L	EVO 1 AV 400 12,5	9,2	12,5	20÷25	345	285	165	5,7	04
SA632.13/14L	EVO 1 AV 400 17,5	11÷13	15÷17,5	24÷32	345	285	165	5,8	04
SA632.15L	EVO 1 AV 400 20	15	20	32÷38	380	300	150	6,8	05
SA632.16L	EVO 1 AV 400 25	18,5	25	35÷50	380	300	210	8,4	06

**OPTIONALS**

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>
OP00.10	Couple of brackets for collar (reference BOX 03-04)

For further optionals see page 124

STANDARD CONTROL PANEL


 CONTROL PANEL WITH OPTIONAL: **OP331.230**

**COMPONENTS KEY**
**Float switch for clean water**
**Level probe**

## Electromechanical control panels

# EVO 1 AVM RANGE 0,5÷50HP

**Direct starting electromechanical control panel 1 motor with voltmeter, ammeter and metal box**



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA700.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA701.xx)
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation (stable)
- Running Led light
- Overload Led light
- Analog ammeter 72x72
- Analog voltmeter 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- Contactor
- Thermal relay (internal reset)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### PROTECTIONS

- Maximum current protection with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum level)



### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA700.00L	EVO 1 AVM 230 0,5	0,37	0,5	2,5÷4	400	300	180	10,7	40
SA700.01L	EVO 1 AVM 230 0,75	0,55	0,75	4÷6,5	400	300	180	10,7	40
SA700.02L	EVO 1 AVM 230 1	0,75	1	6,3÷10	400	300	180	10,7	40
SA700.03L	EVO 1 AVM 230 1,5	1,1	1,5	6,3÷10	400	300	180	10,7	40
SA700.04L	EVO 1 AVM 230 2	1,5	2	9÷14	400	300	180	10,7	40
SA700.05L	EVO 1 AVM 230 3	2,2	3	13÷18	400	300	180	10,7	40

### THREE-PHASE 400Vac ±10% 50/60Hz

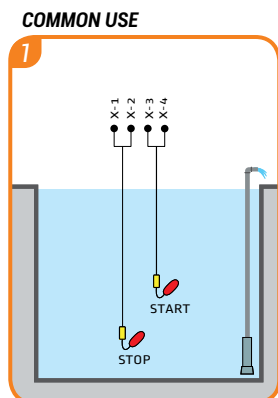
CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA701.00L	EVO 1 AVM 400 0,5	0,37	0,5	1,1÷1,6	400	300	180	10,7	40
SA701.01/02L	EVO 1 AVM 400 1	0,55÷0,75	0,75÷1	1,5÷2,5	400	300	180	10,7	40
SA701.03L	EVO 1 AVM 400 1,5	1,1	1,5	2,5÷4	400	300	180	10,7	40
SA701.04L	EVO 1 AVM 400 2	1,5	2	4÷6,5	400	300	180	10,7	40
SA701.06/07L	EVO 1 AVM 400 4	2,2÷3	3÷4	6,3÷10	400	300	180	10,7	40
SA701.09L	EVO 1 AVM 400 5,5	4	5,5	9÷14	400	300	180	10,7	40
SA701.10L	EVO 1 AVM 400 7,5	5,5	7,5	13÷18	400	300	180	10,7	40
SA701.11L	EVO 1 AVM 400 10	7,5	10	17÷23	400	300	180	10,7	40
SA701.12L	EVO 1 AVM 400 12,5	9,2	12,5	20÷25	400	300	180	10,7	40
SA701.13/14L	EVO 1 AVM 400 17,5	11÷13	15÷17,5	24÷32	400	300	180	10,8	40
SA701.15L	EVO 1 AVM 400 20	15	20	32÷38	400	300	180	11,4	40
SA701.16L	EVO 1 AVM 400 25	18,5	25	35÷50	500	400	230	17,4	50
SA701.17L	EVO 1 AVM 400 35	22÷26	30÷35	46÷65	500	400	230	17,4	50
SA701.18L	EVO 1 AVM 400 40	30	40	60÷82	500	400	230	17,4	50
SA701.19L	EVO 1 AVM 400 50	37	50	70÷95	500	400	230	17,4	50

### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klaxon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

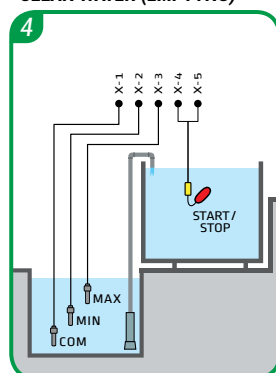
STANDARD CONTROL PANEL



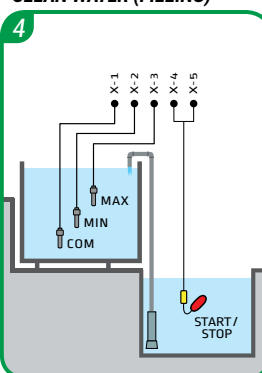
CONTROL PANEL WITH OPTIONAL: **OP331.230**



**CLEAN WATER (EMPTYING)**



**CLEAN WATER (FILLING)**



### COMPONENTS KEY

- Float switch for clean water
- Level probe

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electromechanical control panels

# EVO 2

RANGE 0,5÷20HP

### Direct starting electromechanical control panel 2 motors

- Protection fuse for each motor



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA651.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA661.xx)
- General disconnecting switch with door lock
- N°2 selector switches for automatic -0- manual operation (stable)
- Mains supply Led light
- N°2 running Led lights
- N°2 overload Led lights
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°2 contactors
- N°2 thermal relays (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature  $-5/+40^{\circ}\text{C}$

## PROTECTIONS

- Maximum current protection for each motor with alarm

## INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 2 level)

### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODICE	TIPO	POTENZA		CAMPO D'IMPIEGO [A]	DIMENSIONI mm			PESO Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA651.00L	EVO 2 230 0,5	0,37	0,5	2x(2,5÷4)	380	300	150	6,4	05
SA651.01L	EVO 2 230 0,75	0,55	0,75	2x(4÷6,5)	380	300	150	6,4	05
SA651.02L	EVO 2 230 1	0,75	1	2x(6,3÷10)	380	300	150	6,4	05
SA651.03L	EVO 2 230 1,5	1,1	1,5	2x(6,3÷10)	380	300	150	6,4	05
SA651.04L	EVO 2 230 2	1,5	2	2x(9÷14)	380	300	150	6,4	05
SA651.05L	EVO 2 230 3	2,2	3	2x(13÷18)	380	300	150	6,4	05

### THREE-PHASE 400Vac ±10% 50/60Hz

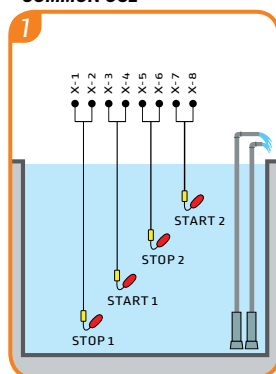
CODICE	TIPO	POTENZA		CAMPO D'IMPIEGO [A]	DIMENSIONI mm			PESO Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA661.00L	EVO 2 400 0,5	0,37	0,5	2x(1,1÷1,6)	380	300	150	6,4	05
SA661.01/02L	EVO 2 400 1	0,55÷0,75	0,75÷1	2x(1,6÷2,5)	380	300	150	6,4	05
SA661.03L	EVO 2 400 1,5	1,1	1,5	2x(2,5÷4)	380	300	150	6,4	05
SA661.04L	EVO 2 400 2	1,5	2	2x(4÷6,5)	380	300	150	6,4	05
SA661.06/07L	EVO 2 400 4	2,2÷3	3÷4	2x(6,3÷10)	380	300	150	6,4	05
SA661.09L	EVO 2 400 5,5	4	5,5	2x(9÷14)	380	300	150	6,4	05
SA661.10L	EVO 2 400 7,5	5,5	7,5	2x(13÷18)	380	300	150	6,4	05
SA661.11L	EVO 2 400 10	7,5	10	2x(17÷23)	380	300	150	6,8	05
SA661.12L	EVO 2 400 12,5	9,2	12,5	2x(20÷25)	380	300	150	6,8	05
SA661.13/14L	EVO 2 400 17,5	11÷13	15÷17,5	2x(24÷32)	460	380	150	7,1	07
SA661.15L	EVO 2 400 20	15	20	2x(32÷38)	460	380	150	7,3	07

### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP210.01	Wired very low voltage input for motor klaxon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

### COMMON USE



### COMPONENTS KEY

 Float switch for clean water

## Electromechanical control panels

# EVO 2 MULTI RANGE 0,5÷20HP

**Direct starting electromechanical control panel 2 motors for pressure booster and sewage**

- Multi application control panel
- Motors alternance
- 3s delay between the starting of the 2 motors
- Protection fuse for each motor



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA653.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA663.xx)
- General disconnecting switch with door lock
- N°2 selector switches for automatic -0- manual operation (stable)
- Mains supply Led light
- N°2 running Led lights
- N°2 overload Led lights
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°2 contactors
- N°2 thermal relays (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature  $-5/+40^{\circ}\text{C}$

### ADVANTAGES

- Configuration via Dip switch
- Alternance of the 2 motors
- 3s delay between the starting of the 2 motors

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 2 level)

### PROTECTIONS

- Maximum current protection for each motor with alarm

### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA653.00L	EVO 2 MULTI 230 0,5	0,37	0,5	2x(2,5÷4)	380	300	150	6,5	05
SA653.01L	EVO 2 MULTI 230 0,75	0,55	0,75	2x(4÷6,5)	380	300	150	6,5	05
SA653.02L	EVO 2 MULTI 230 1	0,75	1	2x(6,3÷10)	380	300	150	6,5	05
SA653.03L	EVO 2 MULTI 230 1,5	1,1	1,5	2x(6,3÷10)	380	300	150	6,5	05
SA653.04L	EVO 2 MULTI 230 2	1,5	2	2x(9÷14)	380	300	150	6,5	05
SA653.05L	EVO 2 MULTI 230 3	2,2	3	2x(13÷18)	380	300	150	6,5	05

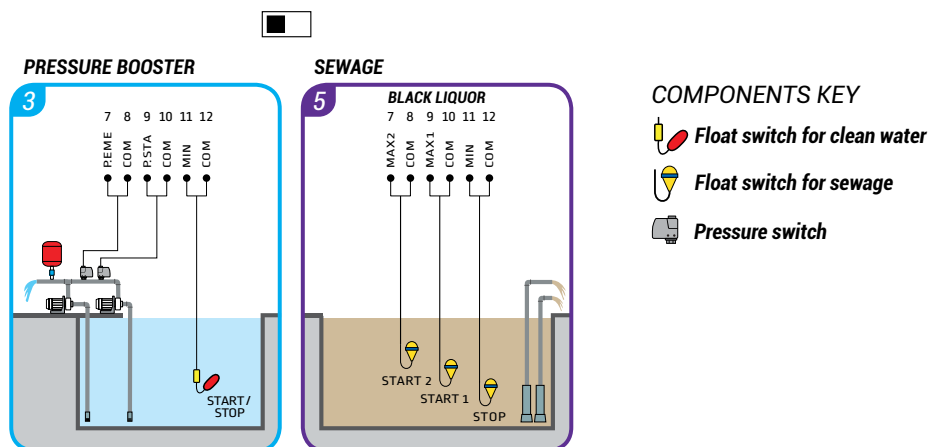
### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA663.00L	EVO 2 MULTI 400 0,5	0,37	0,5	2x(1,1÷1,6)	380	300	150	6,5	05
SA663.01/02L	EVO 2 MULTI 400 1	0,55÷0,75	0,75÷1	2x(1,6÷2,5)	380	300	150	6,5	05
SA663.03L	EVO 2 MULTI 400 1,5	1,1	1,5	2x(2,5÷4)	380	300	150	6,5	05
SA663.04L	EVO 2 MULTI 400 2	1,5	2	2x(4÷6,5)	380	300	150	6,5	05
SA663.06/07L	EVO 2 MULTI 400 4	2,2÷3	3÷4	2x(6,3÷10)	380	300	150	6,5	05
SA663.09L	EVO 2 MULTI 400 5,5	4	5,5	2x(9÷14)	380	300	150	6,5	05
SA663.10L	EVO 2 MULTI 400 7,5	5,5	7,5	2x(13÷18)	380	300	150	6,5	05
SA663.11L	EVO 2 MULTI 400 10	7,5	10	2x(17÷23)	380	300	150	6,9	05
SA663.12L	EVO 2 MULTI 400 12,5	9,2	12,5	2x(20÷25)	380	300	150	6,9	05
SA663.13/14L	EVO 2 MULTI 400 17,5	11÷13	15÷17,5	2x(24÷32)	460	380	150	7,2	07
SA663.15L	EVO 2 MULTI 400 20	15	20	2x(32÷38)	460	380	150	7,4	07

### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP210.01	Wired very low voltage input for motor klaxon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electromechanical control panels

# EVO 3

RANGE 0,5÷17,5HP

### Direct starting electromechanical control panel 3 motors

- Protection fuse for each motor



## GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA671.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA681.xx)
- General disconnecting switch with door lock
- N°3 selector switches for automatic -0- manual operation (stable)
- Mains supply Led light
- N°3 running Led lights
- N°3 overload Led lights
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°3 contactors
- N°3 thermal relays (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature  $-5/+40^{\circ}\text{C}$

## PROTECTIONS

- Maximum current protection for each motor with alarm

## INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 2 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 3 level)

### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA671.00L	EVO 3 230 0,5	0,37	0,5	3x(2,5÷4)	460	380	150	10,6	07
SA671.01L	EVO 3 230 0,75	0,55	0,75	3x(4÷6,5)	460	380	150	10,6	07
SA671.02L	EVO 3 230 1	0,75	1	3x(6,3÷10)	460	380	150	10,6	07
SA671.03L	EVO 3 230 1,5	1,1	1,5	3x(6,3÷10)	460	380	150	10,6	07
SA671.04L	EVO 3 230 2	1,5	2	3x(9÷14)	460	380	150	10,6	07
SA671.05L	EVO 3 230 3	2,2	3	3x(13÷18)	460	380	150	10,6	07

### THREE-PHASE 400Vac ±10% 50/60Hz

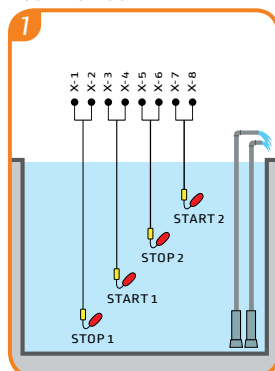
CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA681.00L	EVO 3 400 0,5	0,37	0,5	3x(1,1÷1,6)	460	380	150	10,6	07
SA681.01/02L	EVO 3 400 1	0,55÷0,75	0,75÷1	3x(1,6÷2,5)	460	380	150	10,6	07
SA681.03L	EVO 3 400 1,5	1,1	1,5	3x(2,5÷4)	460	380	150	10,6	07
SA681.04L	EVO 3 400 2	1,5	2	3x(4÷6,5)	460	380	150	10,6	07
SA681.06/07L	EVO 3 400 4	2,2÷3	3÷4	3x(6,3÷10)	460	380	150	10,6	07
SA681.09L	EVO 3 400 5,5	4	5,5	3x(9÷14)	460	380	150	10,6	07
SA681.10L	EVO 3 400 7,5	5,5	7,5	3x(13÷18)	460	380	150	10,6	07
SA681.11L	EVO 3 400 10	7,5	10	3x(17÷23)	460	380	150	10,6	07
SA681.12L	EVO 3 400 12,5	9,2	12,5	3x(20÷25)	460	380	150	10,6	07
SA681.13/14L	EVO 3 400 17,5	11÷13	15÷17,5	3x(24÷32)	460	380	150	10,9	07

### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

### COMMON USE



### COMPONENTS KEY

 Float switch for clean water

## Electromechanical control panels

# EVO 3 MULTI RANGE 0,5÷17,5HP

**Direct starting electromechanical control panel 3 motors for pressure booster and sewage**

- Multi application control panel
- Motors alternance
- 3s delay between the starting of the 2 motors
- Protection fuse for each motor



### GENERAL SPECIFICATIONS

- Operating voltage 230Vac  $\pm 10\%$  50/60Hz (SA673.xx)
- Operating voltage 400Vac  $\pm 10\%$  50/60Hz (SA683.xx)
- General disconnecting switch with door lock
- N°3 selector switches for automatic -0- manual operation (stable)
- Mains supply Led light
- N°3 running Led lights
- N°3 overload Led lights
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°3 contactors
- N°3 thermal relays (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature  $-5/+40^{\circ}\text{C}$

### ADVANTAGES

- Configuration via Dip switch
- Alternance of the 3 motors
- 3s delay between the starting of the 3 motors

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 2 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 3 level)

### PROTECTIONS

- Maximum current protection for each motor with alarm



### SINGLE-PHASE 230Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA673.00L	EVO 3 MULTI 230 0,5	0,37	0,5	3x(2,5÷4)	460	380	150	10,7	07
SA673.01L	EVO 3 MULTI 230 0,75	0,55	0,75	3x(4÷6,5)	460	380	150	10,7	07
SA673.02L	EVO 3 MULTI 230 1	0,75	1	3x(6,3÷10)	460	380	150	10,7	07
SA673.03L	EVO 3 MULTI 230 1,5	1,1	1,5	3x(6,3÷10)	460	380	150	10,7	07
SA673.04L	EVO 3 MULTI 230 2	1,5	2	3x(9÷14)	460	380	150	10,7	07
SA673.05L	EVO 3 MULTI 230 3	2,2	3	3x(13÷18)	460	380	150	10,7	07

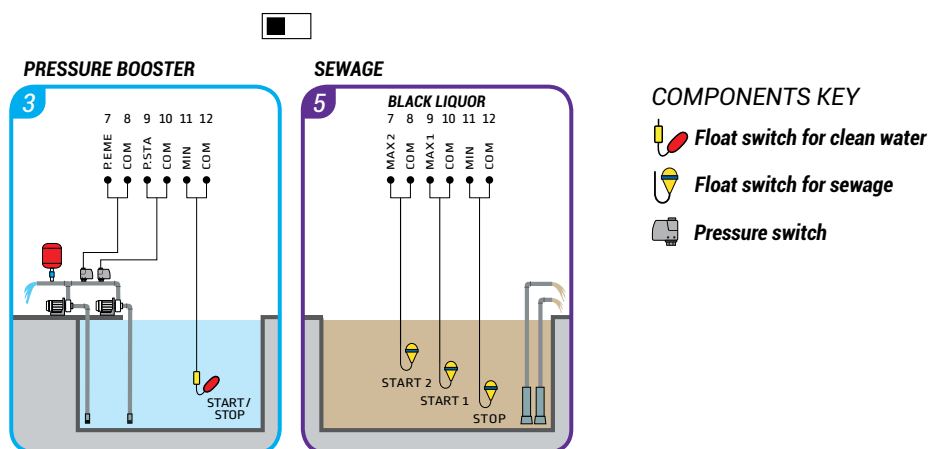
### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA683.00L	EVO 3 MULTI 400 0,5	0,37	0,5	3x(1,1÷1,6)	460	380	150	10,7	07
SA683.01/02L	EVO 3 MULTI 400 1	0,55÷0,75	0,75÷1	3x(1,6÷2,5)	460	380	150	10,7	07
SA683.03L	EVO 3 MULTI 400 1,5	1,1	1,5	3x(2,5÷4)	460	380	150	10,7	07
SA683.04L	EVO 3 MULTI 400 2	1,5	2	3x(4÷6,5)	460	380	150	10,7	07
SA683.06/07L	EVO 3 MULTI 400 4	2,2÷3	3÷4	3x(6,3÷10)	460	380	150	10,7	07
SA683.09L	EVO 3 MULTI 400 5,5	4	5,5	3x(9÷14)	460	380	150	10,7	07
SA683.10L	EVO 3 MULTI 400 7,5	5,5	7,5	3x(13÷18)	460	380	150	10,7	07
SA683.11L	EVO 3 MULTI 400 10	7,5	10	3x(17÷23)	460	380	150	10,7	07
SA683.12L	EVO 3 MULTI 400 12,5	9,2	12,5	3x(20÷25)	460	380	150	10,7	07
SA683.13/14L	EVO 3 MULTI 400 17,5	11÷13	15÷17,5	3x(24÷32)	460	380	150	11	07

### OPTIONALS

CODE	TYPE
OP100.02/0	Automatic -0- manual selector switch (from stable to unstable)
OP100.02/1	Wired start-stop button
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05	Wired single-phase surge arrester type 2
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124



The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# **STAR DELTA 1 BASIC** RANGE 7,5÷20HP

**Star delta starting electromechanical control panel 1 motor**



## **GENERAL SPECIFICATIONS**

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation (stable)
- Adjustable star delta timer
- Mains supply Led light
- Running Led light
- Overload Led light
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- N°3 contactors
- Thermal relay (internal reset)
- Connection terminal board
- External thermoplastic box
- Cable glands
- Protection degree IP65
- Operating temperature  $-5/+40^{\circ}\text{C}$

## **PROTECTIONS**

- Maximum current protection with alarm

## **INPUTS / OUTPUT**

- N°2 very low voltage inputs for pressure switch or float switch

### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ750.00L	STAR DELTA 1 BASIC 400 7,5	5,5	7,5	14	460	380	150	8,3	07
SQ750.01L	STAR DELTA 1 BASIC 400 10	7,5	10	18	460	380	150	8,3	07
SQ750.02L	STAR DELTA 1 BASIC 400 12,5	9,2	12,5	21	460	380	150	8,3	07
SQ750.03L	STAR DELTA 1 BASIC 400 15	11	15	25	460	380	150	8,3	07
SQ750.04L	STAR DELTA 1 BASIC 400 17,5	13	17,5	29	460	380	150	8,3	07
SQ750.05L	STAR DELTA 1 BASIC 400 20	15	20	34	460	380	150	8,5	07

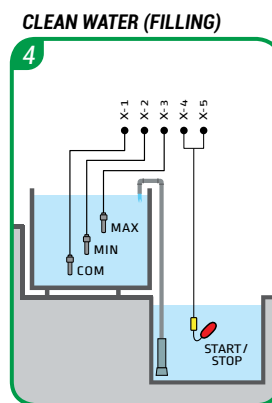
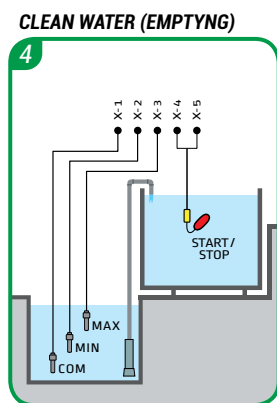
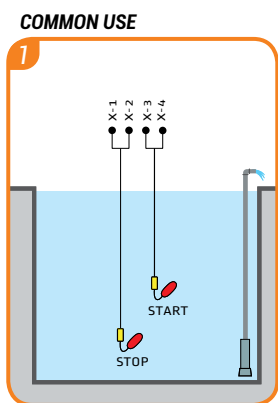
### OPTIONALS

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP331.230**



#### COMPONENTS KEY

- Float switch for clean water
- Level probe

## Electromechanical control panels

# STAR DELTA 1 RANGE 7,5÷200HP

Star delta starting electromechanical control panel 1 motor with voltmeter and ammeter



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation
- Start-stop button for manual operation
- Adjustable star delta timer
- Running Led light
- Overload Led light
- Analog voltmeter 72x72
- Voltmeter selector switch
- Analog ammeter 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- N°3 contactors
- Thermal relay (internal reset)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

### PROTECTIONS

- Maximum current protection with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum level)

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ700.00	STAR DELTA 1 400 7,5	5,5	7,5	14	500	400	230	17	50
SQ700.01	STAR DELTA 1 400 10	7,5	10	18	500	400	230	17	50
SQ700.20	STAR DELTA 1 400 12,5	9,2	12,5	21	500	400	230	17	50
SQ700.02	STAR DELTA 1 400 15	11	15	25	500	400	230	17	50
SQ700.21	STAR DELTA 1 400 17,5	13	17,5	29	500	400	230	17	50
SQ700.03	STAR DELTA 1 400 20	15	20	34	500	400	230	18	50
SQ700.04	STAR DELTA 1 400 25	18,5	25	41	500	400	230	18	50
SQ700.05	STAR DELTA 1 400 35	22÷26	30÷35	58	600	400	230	21	60
SQ700.06	STAR DELTA 1 400 40	30	40	66	600	400	230	21	60
SQ700.07	STAR DELTA 1 400 50	37	50	82	700	500	240	29	70
SQ700.08	STAR DELTA 1 400 60	45	60	100	700	500	290	36	71
SQ700.09	STAR DELTA 1 400 75	51,5÷55	70÷75	121	800	600	290	39	80
SQ700.10	STAR DELTA 1 400 80	60	80	132	800	600	290	39	80
SQ700.11	STAR DELTA 1 400 90	66	90	146	1000	600	370	50	101
SQ700.12	STAR DELTA 1 400 100	75	100	165	1000	600	370	52	101
SQ700.13	STAR DELTA 1 400 125	92	125	203	1200	800	370	80	122
SQ700.14	STAR DELTA 1 400 150	110	150	242	1200	800	370	86	122
SQ700.15	STAR DELTA 1 400 180	132	180	291	1200	800	370	88	122
SQ700.16	STAR DELTA 1 400 200	150	200	330	1200	800	370	90	122

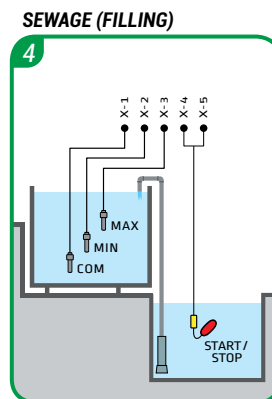
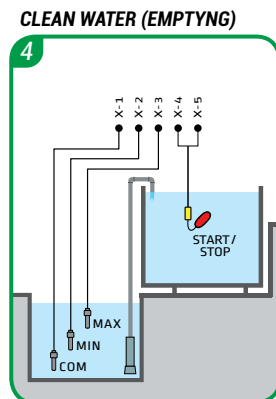
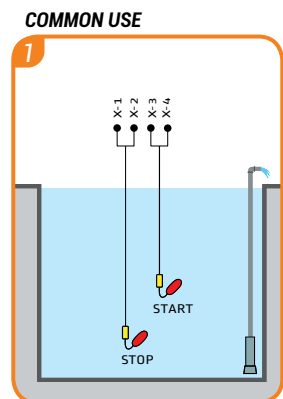
**OPTIONALS**

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP331.230**



**COMPONENTS KEY**

- Float switch for clean water**
- Level probe**

## Electromechanical control panels

# STAR DELTA 2 RANGE 7,5÷125HP

Star delta starting electromechanical control panel 2 motors with voltmeter and ammeters



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- N°2 selector switches for automatic -0- manual operation
- N°2 start-stop buttons for manual operation
- N°2 adjustable star delta timers
- N°2 running Led lights
- N°2 overload Led lights
- Analog voltmeter 72x72
- Voltmeter selector switch
- N°2 analog ammeters 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°6 contactors
- N°2 thermal relays (internal reset)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

### PROTECTIONS

- Maximum current protection for each motor with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 2 level)

**THREE-PHASE 400Vac ±10% 50/60Hz**

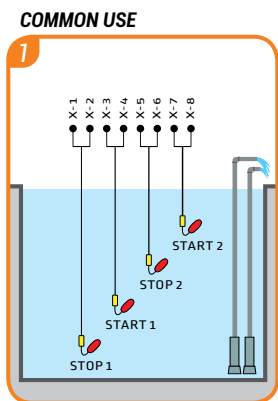
CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ710.00	STAR DELTA 2 400 7,5	5,5	7,5	2x(14)	600	400	230	22	60
SQ710.01	STAR DELTA 2 400 10	7,5	10	2x(18)	600	400	230	22	60
SQ710.14	STAR DELTA 2 400 12,5	9,2	12,5	2x(21)	600	400	230	22	60
SQ710.02	STAR DELTA 2 400 15	11	15	2x(25)	600	400	230	22	60
SQ710.15	STAR DELTA 2 400 17,5	13	17,5	2x(29)	600	400	230	22	60
SQ710.03	STAR DELTA 2 400 20	15	20	2x(34)	700	500	240	29	70
SQ710.04	STAR DELTA 2 400 25	18,5	25	2x(41)	700	500	240	29	70
SQ710.05	STAR DELTA 2 400 35	22÷26	30÷35	2x(58)	800	600	290	39	80
SQ710.06	STAR DELTA 2 400 40	30	40	2x(66)	800	600	290	39	80
SQ710.07	STAR DELTA 2 400 50	37	50	2x(82)	800	600	290	43	80
SQ710.08	STAR DELTA 2 400 60	45	60	2x(100)	800	600	290	45	80
SQ710.09	STAR DELTA 2 400 75	51,5÷55	70÷75	2x(121)	1000	800	370	66	103
SQ710.10	STAR DELTA 2 400 80	60	80	2x(132)	1000	800	370	68	103
SQ710.11	STAR DELTA 2 400 90	66	90	2x(146)	1200	800	370	74	122
SQ710.12	STAR DELTA 2 400 100	75	100	2x(165)	1200	800	370	78	122
SQ710.13	STAR DELTA 2 400 125	92	125	2x(203)	1200	800	370	85	122

**OPTIONALS**

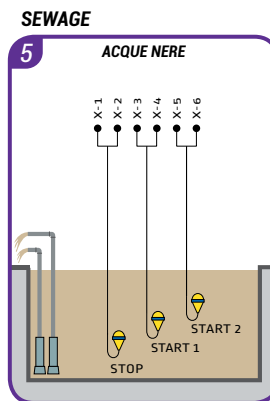
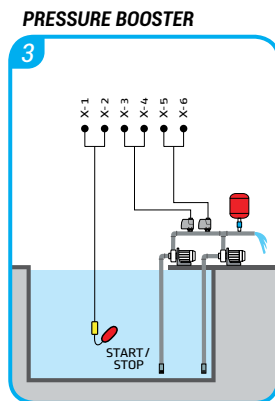
CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP332.230	Wired 230Vac MULTI 2 control relay for pressure booster and sewage
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <i>see page 18</i>

For further optionals see page 124

STANDARD CONTROL PANEL



CONTROL PANEL WITH OPTIONAL: **OP332.230/1**



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**

## Electromechanical control panels

# STAR DELTA 3 RANGE 7,5÷60HP

Star delta starting electromechanical control panel 3 motors with voltmeter and ammeters



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- N°3 selector switches for automatic -0- manual operation
- N°3 start-stop buttons for manual operation
- N°3 adjustable star delta timers
- N°3 running Led lights
- N°3 overload Led lights
- Analog voltmeter 72x72
- Voltmeter selector switch
- N°3 analog ammeters 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°9 contactors
- N°3 thermal relays (internal reset)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

### PROTECTIONS

- Maximum current protection for each motor with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 2 level)
- N°2 very low voltage input for pressure switch or float switches (minimum/maximum motor 3 level)



**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ720.00	STAR DELTA 3 400 7,5	5,5	7,5	3x(14)	800	600	290	39	80
SQ720.01	STAR DELTA 3 400 10	7,5	10	3x(18)	800	600	290	39	80
SQ720.09	STAR DELTA 3 400 12,5	9,2	12,5	3x(21)	800	600	290	39	80
SQ720.02	STAR DELTA 3 400 15	11	15	3x(25)	800	600	290	39	80
SQ720.10	STAR DELTA 3 400 17,5	13	17,5	3x(29)	800	600	290	39	80
SQ720.03	STAR DELTA 3 400 20	15	20	3x(34)	800	600	290	41	80
SQ720.04	STAR DELTA 3 400 25	18,5	25	3x(41)	800	600	290	41	80
SQ720.05	STAR DELTA 3 400 35	22÷26	30÷35	3x(58)	1000	800	370	65	103
SQ720.06	STAR DELTA 3 400 40	30	40	3x(66)	1000	800	370	67	103
SQ720.07	STAR DELTA 3 400 50	37	50	3x(82)	1000	800	370	72	103
SQ720.08	STAR DELTA 3 400 60	45	60	3x(100)	1000	800	370	74	103

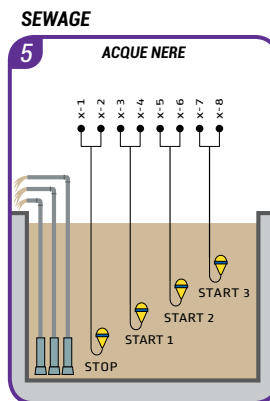
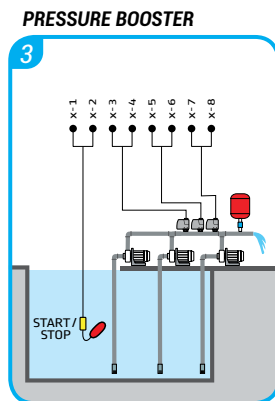
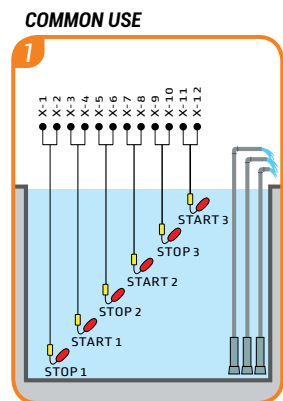
**OPTIONALS**

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP333.230	Wired 230Vac MULTI 3 control relay for pressure booster and sewage
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <b>see page 18</b>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP333.230/1**



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**

## Electromechanical control panels

# IMPEDANCE 1 RANGE 3÷200HP

**Stator impedance starting electromechanical control panel 1 motor with voltmeter and ammeter**



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation
- Start-stop button for manual operation
- Adjustable impedance timer
- Running Led light
- Overload Led light
- Analog voltmeter 72x72
- Voltmeter selector switch
- Analog ammeter 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- N°2 contactors
- Three-phase impedance with thermostat
- Thermal relay (internal reset)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature  $-5/+40^{\circ}\text{C}$

### PROTECTIONS

- Maximum current protection with alarm

### INPUTS / OUTPUT

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum level)

### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ701.00	IMPEDANCE 1 400 3	2,2	3	5,5÷8	500	400	230	11	50
SQ701.01	IMPEDANCE 1 400 5,5	4	5,5	9÷12,5	500	400	230	20	50
SQ701.02	IMPEDANCE 1 400 7,5	5,5	7,5	11÷16	500	400	230	20	50
SQ701.03	IMPEDANCE 1 400 10	7,5	10	14÷20	500	400	230	23	50
SQ701.19	IMPEDANCE 1 400 12,5	9,2	12,5	20÷25	500	400	230	23	50
SQ701.04	IMPEDANCE 1 400 15	11	15	23÷28	500	400	230	25	50
SQ701.20	IMPEDANCE 1 400 17,5	13	17,5	27÷32	500	400	230	26	50
SQ701.05	IMPEDANCE 1 400 20	15	20	30÷36	600	400	230	27	60
SQ701.06	IMPEDANCE 1 400 25	18,5	25	40÷50	700	500	240	35	70
SQ701.07	IMPEDANCE 1 400 30	22	30	47÷57	700	500	240	37	70
SQ701.21	IMPEDANCE 1 400 35	26	35	54÷65	700	500	240	37	70
SQ701.08	IMPEDANCE 1 400 40	30	40	62÷73	700	500	240	41	70
SQ701.09	IMPEDANCE 1 400 50	37	50	70÷90	800	600	290	53	80
SQ701.10	IMPEDANCE 1 400 60	45	60	50÷200	1000	800	370	87	103
SQ701.11	IMPEDANCE 1 400 70	51,5	70	50÷200	1000	800	370	92	103
SQ701.22	IMPEDANCE 1 400 75	55	75	50÷200	1000	800	370	92	103
SQ701.12	IMPEDANCE 1 400 80	60	80	50÷200	1000	800	370	95	103
SQ701.13	IMPEDANCE 1 400 90	66	90	50÷200	1000	800	370	104	103
SQ701.14	IMPEDANCE 1 400 100	75	100	50÷200	1000	800	370	104	103
SQ701.15	IMPEDANCE 1 400 125	92	125	55÷250	1200	800	370	122	122
SQ701.16	IMPEDANCE 1 400 150	110	150	160÷630	1800	800	470	197	185
SQ701.17	IMPEDANCE 1 400 180	132	180	160÷630	1800	800	470	207	185
SQ701.18	IMPEDANCE 1 400 200	150	200	160÷630	1800	800	470	212	185

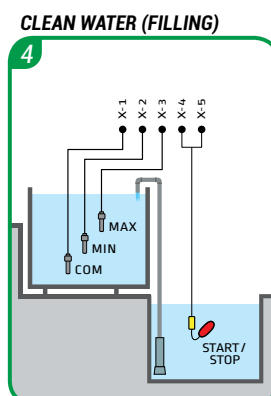
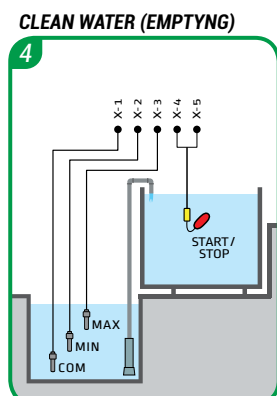
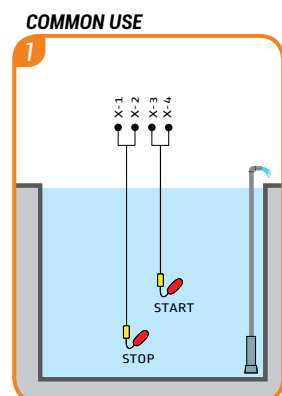
### OPTIONALS

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP331.230**



#### COMPONENTS KEY

- Float switch for clean water**
- Level probe**

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# **AUTOTRANSFORMER 1** RANGE 10÷200HP

**Autotransformer starting electromechanical control panel 1 motor with voltmeter and ammeter**



## **GENERAL SPECIFICATIONS**

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation
- Start-stop button for manual operation
- Adjustable autotransformer timer
- Running Led light
- Overload Led light
- Analog voltmeter 72x72
- Voltmeter selector switch
- Analog ammeter 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- N°3 contactors
- Three-phase autotransformer with thermostat
- Thermal relay (internal reset)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

## **PROTECTIONS**

- Maximum current protection with alarm

## **INPUTS / OUTPUT**

- N°2 very low voltage input for pressure switch or float switches (minimum/maximum level)

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ705.00	AUTOTRANSFORMER 1 400 10	7,5	10	14÷20	700	500	290	29	71
SQ705.01	AUTOTRANSFORMER 1 400 12,5	9,2	12,5	20÷25	700	500	290	29	71
SQ705.02	AUTOTRANSFORMER 1 400 15	11	15	23÷28	700	500	290	31	71
SQ705.03	AUTOTRANSFORMER 1 400 17,5	13	17,5	27÷32	700	500	290	32	71
SQ705.04	AUTOTRANSFORMER 1 400 20	15	20	30÷36	700	500	290	33	71
SQ705.05	AUTOTRANSFORMER 1 400 25	18,5	25	40÷50	700	500	290	40	71
SQ705.06	AUTOTRANSFORMER 1 400 30	22	30	47÷57	800	600	290	42	80
SQ705.07	AUTOTRANSFORMER 1 400 35	26	35	54÷65	800	600	290	42	80
SQ705.08	AUTOTRANSFORMER 1 400 40	30	40	62÷73	800	600	290	46	80
SQ705.09	AUTOTRANSFORMER 1 400 50	37	50	70÷90	800	600	290	58	80
SQ705.10	AUTOTRANSFORMER 1 400 60	45	60	50÷200	1000	800	370	85	103
SQ705.11	AUTOTRANSFORMER 1 400 70	51,5	70	50÷200	1000	800	370	90	103
SQ705.12	AUTOTRANSFORMER 1 400 75	55	75	50÷200	1000	800	370	90	103
SQ705.13	AUTOTRANSFORMER 1 400 80	60	80	50÷200	1000	800	370	93	103
SQ705.14	AUTOTRANSFORMER 1 400 90	66	90	50÷200	1000	800	370	103	103
SQ705.15	AUTOTRANSFORMER 1 400 100	75	100	50÷200	1000	800	370	103	103
SQ705.16	AUTOTRANSFORMER 1 400 125	92	125	55÷250	1200	800	370	120	122
SQ705.17	AUTOTRANSFORMER 1 400 150	110	150	160÷630	1800	800	470	195	185
SQ705.18	AUTOTRANSFORMER 1 400 180	132	180	160÷630	1800	800	470	205	185
SQ705.19	AUTOTRANSFORMER 1 400 200	150	200	160÷630	1800	800	470	210	185

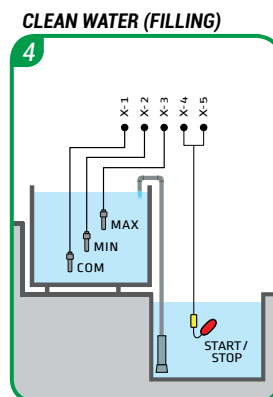
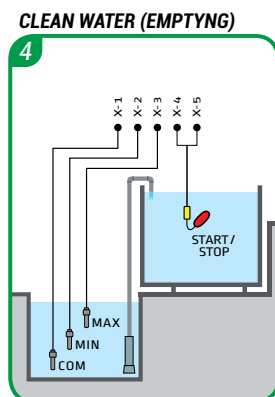
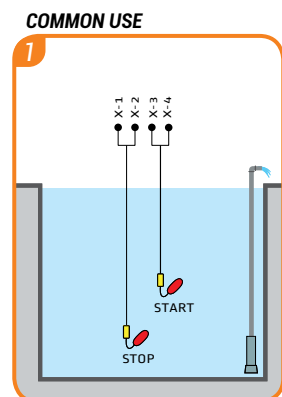
**OPTIONALS**

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP331.230**



**COMPONENTS KEY**

- Float switch for clean water**
- Level probe**

## Electromechanical control panels

# SOFT START 1 RANGE 3÷200HP

**Soft star starting electromechanical control panel 1 motor with voltmeter and ammeter**

- *Easy to program*
- *Adjustable acceleration and deceleration ramp*



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- Selector switch for automatic -0- manual operation
- Start-stop button for manual operation
- Running Led light
- Overload Led light
- Analog voltmeter 72x72
- Voltmeter selector switch
- Analog ammeter 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Motor protection fuse
- Soft start with by-pass contacts
- Forced ventilation complete with filters (from 25Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

### INPUTS / OUTPUT

- N°2 very low voltage inputs for pressure switch or float switches (minimum/maximum level)

### ADVANTAGES

- Adjustable acceleration and deceleration ramp by trimmer
- Adjustable starting voltage by trimmer

### PROTECTIONS

- Maximum current protection with phases unbalance
- Protection against lack of phase and missing load

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ702.00	SOFT START 1 400 5,5	2,2÷4	3÷5,5	5÷12,5	500	400	230	17	50
SQ702.01	SOFT START 1 400 12,5	5,5÷9,2	7,5÷12,5	10÷25	500	400	230	17	50
SQ702.02	SOFT START 1 400 17,5	11÷13	15÷17,5	17÷32	500	400	230	17	50
SQ702.03	SOFT START 1 400 20	15	20	23÷38	500	400	230	17	50
SQ702.04	SOFT START 1 400 25	18,5	25	22,5÷45	600	400	280	22	61
SQ702.05	SOFT START 1 400 35	22÷26	30÷35	22,5÷63	600	400	280	22	61
SQ702.06	SOFT START 1 400 40	30	40	34,5÷72	600	400	280	22	61
SQ702.07	SOFT START 1 400 50	37	50	42,5÷80	700	500	290	28	71
SQ702.07/2	SOFT START 1 400 50	37	50	46÷106	700	500	290	28	71
SQ702.08	SOFT START 1 400 60	45	60	46÷106	700	500	290	29	71
SQ702.09	SOFT START 1 400 70	51,5	70	46÷106	700	500	290	30	71
SQ702.10	SOFT START 1 400 80	60	80	59÷134	1000	600	370	51	101
SQ702.11	SOFT START 1 400 90	66	90	59÷134	1000	600	370	54	101
SQ702.12	SOFT START 1 400 100	75	100	87÷162	1000	600	370	57	101
SQ702.13	SOFT START 1 400 125	92	125	130÷230	1200	800	370	80	122
SQ702.14	SOFT START 1 400 150	110	150	130÷230	1200	800	370	84	122
SQ702.15	SOFT START 1 400 180	132	180	130÷280	1200	800	370	84	122
SQ702.16	SOFT START 1 400 200	150	200	130÷356	1800	800	470	150	185

N.B.: When ordering, check the power and the rated current of the motor

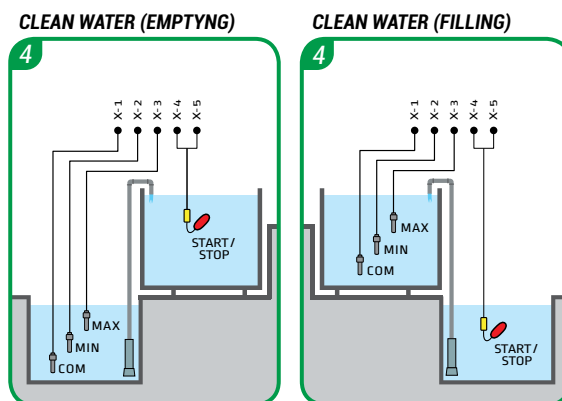
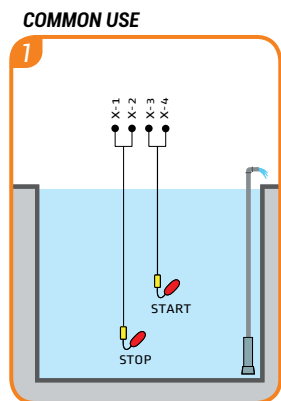
**OPTIONALS**

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/1T	Wired analog daily timer 72x72 without reserve (timed function)
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP331.230	Wired LEVEL 230Vac control relay
OP100.01	3 level probes kit
OP100.17/024	Wired 24Vac relay complete with socket
OP210.01	Wired very low voltage input for motor klaxon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP331.230**



**COMPONENTS KEY**

- Float switch for clean water
- Level probe

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Electromechanical control panels

# SOFT START 2 RANGE 3÷125HP

**Soft star starting electromechanical control panel 2 motors with voltmeter and ammeters**

- *Easy to program*
- *Adjustable acceleration and deceleration ramp*



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- N°2 selector switches for automatic -0- manual operation
- N°2 start-stop buttons for manual operation
- N°2 running Led lights
- N°2 overload Led lights
- Analog voltmeter 72x72
- Voltmeter selector switch
- N°2 analog ammeters 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°2 soft start with by-pass contacts
- Forced ventilation complete with filters (from 25Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

### INPUTS / OUTPUT

- N°2 very low voltage inputs for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage inputs for pressure switch or float switches (minimum/maximum motor 2 level)

### ADVANTAGES

- Adjustable acceleration and deceleration ramp by trimmer
- Adjustable starting voltage by trimmer

### PROTECTIONS

- Maximum current protection for each motor with phases unbalance
- Protection against lack of phase and missing load



**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ712.00	SOFT START 2 400 5,5	2,2÷4	3÷5,5	2x(5÷12,5)	700	500	290	27	71
SQ712.01	SOFT START 2 400 12,5	5,5÷9,2	7,5÷12,5	2x(10÷25)	700	500	290	27	71
SQ712.02	SOFT START 2 400 17,5	11÷13	15÷17,5	2x(17÷32)	700	500	290	27	71
SQ712.03	SOFT START 2 400 20	15	20	2x(23÷38)	700	500	290	27	71
SQ712.04	SOFT START 2 400 25	18,5	25	2x(22,5÷45)	800	600	290	38	80
SQ712.05	SOFT START 2 400 35	22÷26	30÷35	2x(22,5÷63)	800	600	290	38	80
SQ712.06	SOFT START 2 400 40	30	40	2x(34,5÷72)	800	600	290	40	80
SQ712.07	SOFT START 2 400 50	37	50	2x(42,5÷80)	1000	600	370	62	101
SQ712.07/2	SOFT START 2 400 50	37	50	2x(46÷106)	1000	600	370	63	101
SQ712.08	SOFT START 2 400 60	45	60	2x(46÷106)	1000	600	370	65	101
SQ712.09	SOFT START 2 400 70	51,5	70	2x(46÷106)	1000	600	370	66	101
SQ712.10	SOFT START 2 400 80	60	80	2x(59÷134)	1200	800	370	80	122
SQ712.11	SOFT START 2 400 90	66	90	2x(59÷134)	1200	800	370	82	122
SQ712.12	SOFT START 2 400 100	75	100	2x(87÷162)	1200	800	370	84	122
SQ712.13	SOFT START 2 400 125	92	125	2x(130÷230)	1200	800	370	96	122

**N.B.:** When ordering, check the power and the rated current of the motor

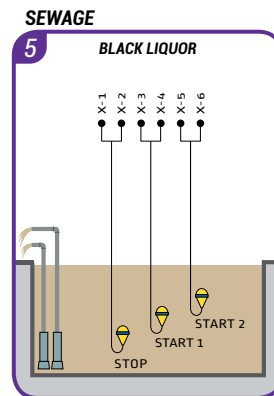
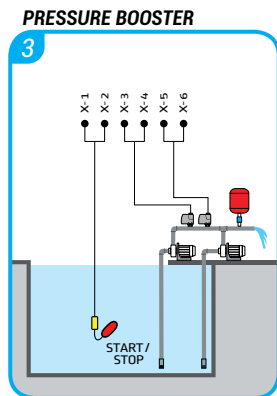
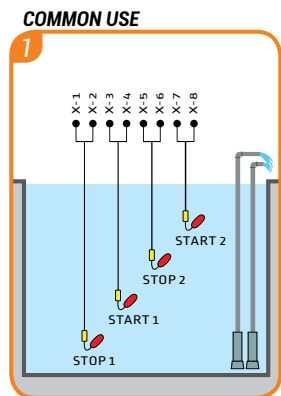
**OPTIONALS**

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP332.230	Wired 230Vac MULTI 2 control relay for pressure booster and sewage
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP332.230**



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**

## Electromechanical control panels

# SOFT START 3 RANGE 3÷60HP

Soft star starting electromechanical control panel 3 motors with voltmeter and ammeters

- Easy to program
- Adjustable acceleration and deceleration ramp



### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm 10\%$  50/60Hz
- General disconnecting switch with door lock
- N°3 selector switches for automatic -0- manual operation
- N°3 start-stop buttons for manual operation
- N°3 running Led lights
- N°3 overload Led lights
- Analog voltmeter 72x72
- Voltmeter selector switch
- N°3 analog ammeters 72x72
- Auxiliary circuit protection fuse
- Transformer for auxiliary circuit
- Protection fuse for each motor
- N°3 soft start with by-pass contacts
- Forced ventilation complete with filters (from 25Hp)
- Thermostat for fan
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C

### INPUTS / OUTPUT

- N°2 very low voltage inputs for pressure switch or float switches (minimum/maximum motor 1 level)
- N°2 very low voltage inputs for pressure switch or float switches (minimum/maximum motor 2 level)
- N°2 very low voltage inputs for pressure switch or float switches (minimum/maximum motor 3 level)

### ADVANTAGES

- Adjustable acceleration and deceleration ramp by trimmer
- Adjustable starting voltage by trimmer

### PROTECTIONS

- Maximum current protection for each motor with phases unbalance
- Protection against lack of phase and missing load

**THREE-PHASE 400Vac ±10% 50/60Hz**

CODE	TYPE	POWER		OPERATING CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ722.00	SOFT START 3 400 5,5	2,2÷4	3÷5,5	3x(5÷12,5)	800	600	290	35	80
SQ722.01	SOFT START 3 400 12,5	5,5÷9,2	7,5÷12,5	3x(10÷25)	800	600	290	35	80
SQ722.02	SOFT START 3 400 17,5	11÷13	15÷17,5	3x(17÷32)	800	600	290	35	80
SQ722.03	SOFT START 3 400 20	15	20	3x(23÷38)	800	600	290	35	80
SQ722.04	SOFT START 3 400 25	18,5	25	3x(22,5÷45)	1000	800	370	60	103
SQ722.05	SOFT START 3 400 35	22÷26	30÷35	3x(22,5÷63)	1000	800	370	62	103
SQ722.06	SOFT START 3 400 40	30	40	3x(34,5÷72)	1000	800	370	64	103
SQ722.07	SOFT START 3 400 50	37	50	3x(42,5÷80)	1200	800	370	73	122
SQ722.07/2	SOFT START 3 400 50	37	50	3x(46÷106)	1200	800	370	74	122
SQ722.08	SOFT START 3 400 60	45	60	3x(46÷106)	1200	800	370	75	122

**N.B.:** When ordering, check the power and the rated current of the motor

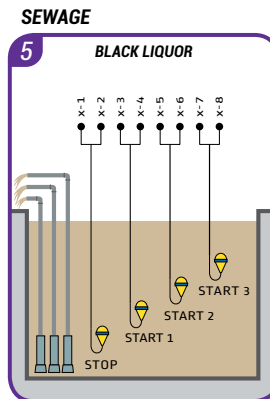
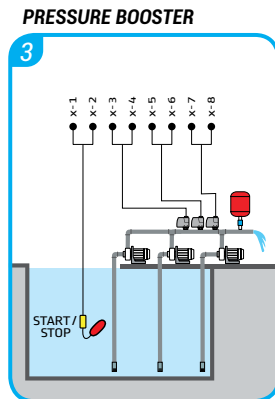
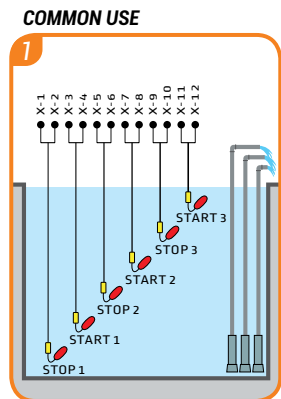
**OPTIONALS**

CODE	TYPE
OP100.04/4	Wired lack, sequence and asymmetry of phases relay
OP100.04/5	Wired lack, sequence and asymmetry of phases relay, minimum and maximum voltage
OP100.05/1	Wired three-phase surge arrester type 2
OP100.15/024	Wired hour counter 24Vac 48x48
OP100.15/110	Wired hour counter 110Vac 48x48
OP100.16/1	Wired analog daily timer 72x72 without reserve
OP100.16/2	Wired analog daily timer 72x72 with reserve
OP100.18	Wired starting delay timer (supply mains waiting)
OP100.19/4	Wired module GSM 4 inputs/4 outputs
OP100.09/2	Wired lithium battery 3,7Vdc 600mAh
OP333.230	Wired 230Vac MULTI 3 control relay for pressure booster and sewage
OP210.01	Wired very low voltage input for motor klixon
OP200.01	Alarm output 24Vac and pure contact
OP100.13/1	Wired siren shut-off button
OP100.13/1/24	Wired siren 24Vac/dc
OP100.13/2/24L	Wired flashing Led lamp 24Vac
SS100.01	Visual and acoustic alarm indicator (BASIC ALARM VA 024) <a href="#">see page 18</a>

For further optionals see page 124

STANDARD CONTROL PANEL

CONTROL PANEL WITH OPTIONAL: **OP333.230**



**COMPONENTS KEY**

- Float switch for clean water**
- Float switch for sewage**
- Pressure switch**

CODICE	TIPO
OP100.03/16	Wired capacitor 16 $\mu$ F
OP100.03/20	Wired capacitor 20 $\mu$ F
OP100.03/25	Wired capacitor 25 $\mu$ F
OP100.03/30	Wired capacitor 30 $\mu$ F
OP100.03/35	Wired capacitor 35 $\mu$ F
OP100.03/40	Wired capacitor 40 $\mu$ F
OP100.03/45	Wired capacitor 45 $\mu$ F
OP100.03/50	Wired capacitor 50 $\mu$ F
OP100.03/55	Wired capacitor 55 $\mu$ F
OP100.03/60	Wired capacitor 60 $\mu$ F
OP100.03/70	Wired capacitor 70 $\mu$ F
OP100.03/75	Wired capacitor 75 $\mu$ F
OP100.03/80	Wired capacitor 80 $\mu$ F
OP100.02/7	Wired selector switch 0-1
OP100.02/8/421	Wired selector switch 0-1 with key 421
OP100.02/8/467	Wired selector switch 0-1 with key 467
OP100.02/8/470	Wired selector switch 0-1 with key 470
OP100.02/8/477	Wired selector switch 0-1 with key 477
OP100.02/8/502	Wired selector switch 0-1 with key 502
OP100.02/8/504	Wired selector switch 0-1 with key 504
OP100.02/8/505	Wired selector switch 0-1 with key 505
OP100.02/8/506	Wired selector switch 0-1 with key 506
OP100.02/8/507	Wired selector switch 0-1 with key 507
OP100.02/8/701	Wired selector switch 0-1 with key 701E
OP100.02/5	Wired selector switch 1-0-2 (unstable)
OP100.02/6	Wired selector switch 1-0-2 (stable)
OP100.07/1	Wired green button
OP100.07/2	Wired black button
OP100.07/3	Wired mushroom emergency button (stable)
OP100.06/1/024	Wired green Led light 24Vac
OP100.06/1/110	Wired green Led light 110Vac
OP100.06/2/024	Wired red Led light 24Vac
OP100.06/2/110	Wired red Led light 110Vac
OP100.06/3/024	Wired blue Led light 24Vac
OP100.06/3/110	Wired blue Led light 110Vac
OP100.06/4/024	Wired yellow Led light 24Vac
OP100.06/4/110	Wired yellow Led light 110Vac
OP100.06/5/024	Wired white Led light 24Vac
OP100.06/5/110	Wired white Led light 110Vac
OP100.10	Wired frequency meter 400Vac 72x72
OP100.11	Wired voltmeter selector switch
OP100.11/300	Wired voltmeter 300Vac 72x72
OP100.11/500	Wired voltmeter 500Vac 72x72
OP100.12/03	Wired direct ammeter 5in 3A 72x72
OP100.12/06	Wired direct ammeter 5in 6A 72x72
OP100.12/10	Wired direct ammeter 5in 10A 72x72
OP100.12/15	Wired direct ammeter 5in 15A 72x72
OP100.12/25	Wired direct ammeter 5in 25A 72x72
OP100.12/40	Wired direct ammeter 5in 40A 72x72
OP100.16/3	Wired analog daily timer DIN with reserve
OP100.16/4	Wired analog weekly timer 72x72 with reserve
OP100.16/10	Timer predisposition 72x72
OP100.16/5	Wired transformer 230/400Vac 24Vac 30VA
OP100.17/024	Relay 24Vac complete with plinth
OP100.17/110	Relay 110Vac complete with plinth
OP100.17/230	Relay 230Vac complete with plinth
OP100.18	Wired starting delay timer
OP100.18/1	Wired multifunction timer
OP100.18/2	Wired work break timer
OP200.10	Battery charger kit with alarm output 12Vdc, pure contact and buffer battery 1,3Ah
OP200.40	Relay kit for water detection in the oil chamber with signal light
OP200.41	Relay kit for temperature monitoring PT100



## ***FIRE-FIGHTING CONTROL PANELS***



## Fire-fighting control panels

# EVO 1 EN RANGE 1÷20HP

Direct starting control panel for fire-fighting units (UNI EN-12845)

· Events data logger

### GENERAL SPECIFICATIONS

- Operating voltage 400Vac ±10% 50/60Hz
- General disconnecting switch with door lock
- Key selector switch for automatic -0- manual operation
- Start-stop button for manual motor starting
- Led test button
- N°3 Led lights for mains supply
- Led light starting request
- Led light failed start
- Running motor Led light
- Auxiliary circuit protection fuse
- Motor protection fuse
- Contactor
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C



### INPUTS / OUTPUT

- N°2 very low voltage inputs normally closed for start pressure switches

### ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current on 3 phases
  - Frequency
  - Power
  - Partial and total hours
  - Dater
  - All information concerning the operation of the motor
- Alarms specifications and delays adjustable from keyboard

#### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SA900.00	EVO 1 EN 400 1	0,75	1	2	500	400	230	16	50
SA900.01	EVO 1 EN 400 1,5	1,1	1,5	3	500	400	230	16	50
SA900.02	EVO 1 EN 400 2	1,5	2	4	500	400	230	16	50
SA900.03	EVO 1 EN 400 3	2,2	3	5	500	400	230	16	50
SA900.04	EVO 1 EN 400 4	3	4	9	500	400	230	16	50
SA900.05	EVO 1 EN 400 5,5	4	5,5	12	500	400	230	16	50
SA900.06	EVO 1 EN 400 7,5	5,5	7,5	14	500	400	230	16	50
SA900.07	EVO 1 EN 400 10	7,5	10	18	500	400	230	16	50
SA900.08	EVO 1 EN 400 15	11	15	25	500	400	230	16	50
SA900.09	EVO 1 EN 400 20	15	20	34	500	400	230	16,5	50

#### OPTIONALS

CODE	TYPE
OP200.10/1	Charge battery kit with 12Vdc 1,3Ah buffer battery
OP100.13/4/12	4 relays kit
OP100.13/1	Wired siren shut-off button
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Fire-fighting control panels

# STAR DELTA 1 EN RANGE 7,5÷50HP

Star delta starting control panel for fire-fighting units (UNI EN-12845)

· Events data logger

### GENERAL SPECIFICATIONS

- Operating voltage 400Vac ±10% 50/60Hz
- General disconnecting switch with door lock
- Key selector switch for automatic -0- manual operation
- Start-stop button for manual motor starting
- Led test button
- N°3 Led lights for mains supply
- Led light starting request
- Led light failed start
- Running motor Led light
- N°3 amperometric transformers
- Auxiliary circuit protection fuse
- Motor protection fuse
- N°3 contactors
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C



### INPUTS / OUTPUT

- N°2 very low voltage inputs normally closed for start pressure switches

### ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current on 3 phases
  - Frequency
  - Power
  - Partial and total hours
  - Dater
  - All information concerning the operation of the motor
- Alarms specifications and delays adjustable from keyboard

#### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kw	Hp		A-H	L-W	P-D		
SQ900.00	STAR DELTA 1 EN 400 7,5	5,5	7,5	14	500	400	230	17	50
SQ900.01	STAR DELTA 1 EN 400 10	7,5	10	18	500	400	230	17	50
SQ900.02	STAR DELTA 1 EN 400 15	11	15	25	500	400	230	17	50
SQ900.03	STAR DELTA 1 EN 400 20	15	20	34	500	400	230	17,5	50
SQ900.04	STAR DELTA 1 EN 400 25	18,5	25	41	500	400	230	17,5	50
SQ900.05	STAR DELTA 1 EN 400 35	22÷26	30÷35	58	600	400	230	23	60
SQ900.06	STAR DELTA 1 EN 400 40	30	40	66	600	400	230	23	60
SQ900.07	STAR DELTA 1 EN 400 50	37	50	82	600	400	230	28	60

#### OPTIONALS

CODE	TYPE
OP200.10/1	Charge battery kit with 12Vdc 1,3Ah buffer battery
OP100.13/4/12	4 relays kit
OP100.13/1	Wired siren shut-off button
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) <a href="#">see page 18</a>

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

## Fire-fighting control panels

# IMPEDANCE 1 EN RANGE 7,5÷50HP

Stator impedance starting control panel for fire-fighting units (UNI EN-12845)

· Events data logger

### GENERAL SPECIFICATIONS

- Operating voltage 400Vac ±10% 50/60Hz
- General disconnecting switch with door lock
- Key selector switch for automatic -0- manual operation
- Start-stop button for manual motor starting
- Led test button
- N°3 Led lights for mains supply
- Led light starting request
- Led light failed start
- Running motor Led light
- N°3 amperometric transformers
- Auxiliary circuit protection fuse
- Motor protection fuse
- N°2 contactors
- Three-phase impedance with thermostat
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C



### INPUTS / OUTPUT

- N°2 very low voltage inputs normally closed for start pressure switches

### ADVANTAGES

- Multilingual Display LCD to visualize:
  - Operating voltage
  - Current on 3 phases
  - Frequency
  - Power
  - Partial and total hours
  - Dater
  - All information concerning the operation of the motor
- Alarms specifications and delays adjustable from keyboard

#### THREE-PHASE 400Vac ±10% 50/60Hz

CODE	TYPE	POWER		MAX CURRENT [A]	DIMENSIONS mm			WEIGHT Kg	BOX
		kW	Hp		A-H	L-W	P-D		
SQ901.00	IMPEDANCE 1 EN 400 7,5	5,5	7,5	14	500	400	230	18	50
SQ901.01	IMPEDANCE 1 EN 400 10	7,5	10	18	500	400	230	21	50
SQ901.02	IMPEDANCE 1 EN 400 15	11	15	25	500	400	230	23	50
SQ901.03	IMPEDANCE 1 EN 400 20	15	20	34	600	400	230	24	60
SQ901.04	IMPEDANCE 1 EN 400 25	18,5	25	41	700	500	240	29	70
SQ901.05	IMPEDANCE 1 EN 400 30	22	30	49	700	500	240	30	70
SQ901.06	IMPEDANCE 1 EN 400 40	30	40	66	700	500	240	33	70
SQ901.07	IMPEDANCE 1 EN 400 50	37	50	82	800	600	290	42	80

#### OPTIONALS

CODE	TYPE
OP200.10/1	Charge battery kit with 12Vdc 1,3Ah buffer battery
OP100.13/4/12	4 relays kit
OP100.13/1	Wired siren shut-off button
OP100.13/1/12	Wired siren 12Vdc
OP100.13/2/12L	Wired flashing Led lamp 12Vdc
SS100.00	Visual and acoustic alarm indicator (BASIC ALARM VA 012) see page 18

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.



## Fire-fighting control panels

# DIESEL 1 EN RANGE 12÷24V

Motor pump starting control panel for fire-fighting units (UNI EN-12845)

· Events data logger

### GENERAL SPECIFICATIONS

- Operating voltage 400Vac  $\pm$  10% 50 / 60Hz
- General disconnecting switch with door lock
- Key selector for automatic/emergency operation
- Emergency start button under breakable glass
- Siren shut-off
- N°2 automatic battery chargers 6A
- Diode bridge 30A
- N°3 relaunch relays
- N°2 power relays to power the starter motor
- Auxiliary circuit protection fuse
- Battery charger protection fuse
- ILME 16-pole socket for connection to the motor (plug supplied)
- Connection terminal board
- External metal box
- Protection degree IP55
- Operating temperature -5/+40°C



### INPUTS / OUTPUT

- N°2 very low voltage inputs normally closed for start pressure switches
- Input for command from priming tank
- Input for fuel reserve signaling contact

### ADVANTAGES

- Multilingual Display LCD to visualize:
  - Battery A voltage
  - Battery B voltage
  - Motor revs
  - Motor temperature
  - Fuel level
  - Oil pressure
  - Oil temperature
  - Local temperature
  - Water pressure
  - Startings counter
  - Work hour counter
- Three-phase or single-phase mains supply
- Alarms specifications and delays adjustable from keyboard
- List of events up to 250 storable

#### SINGLE-PHASE 230Vac $\pm$ 10% 50/60Hz

CODE	TYPE	STARTING RELAY CURRENT (A)	POWER SUPPLY	BATTERY	DIMENSIONS mm			WEIGHT Kg	BOX
					A-H	L-W	P-D		
SQ905.00	DIESEL 1 EN 12	800	230Vac	12Vdc	500	400	230	18	50
SQ905.01	DIESEL 1 EN 24	800	230Vac	24Vdc	500	400	230	18	50

The addition of some optionals can imply changes on the size of the control panel. For further details please contact our technical/commercial department.

# ACCESSORIES



## LEVEL CONTROL RELAY WITH ADJUSTABLE PROBE SENSITIVITY DIN SERIES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD331.024	LEVEL 24Vac	90	35	58
SD331.230	LEVEL 230Vac	90	35	58
SD331.400	LEVEL 400Vac	90	35	58



## 2 MOTORS DIN SERIES CONTROL RELAY FOR PRESSURE BOOSTER AND SEWAGE

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD332.024	MULTI 2 24Vac	90	53	58
SD332.230	MULTI 2 230Vac	90	53	58
SD332.400	MULTI 2 400Vac	90	53	58



## 3 MOTORS DIN SERIES CONTROL RELAY FOR PRESSURE BOOSTER AND SEWAGE

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD333.230	MULTI 3 230Vac	90	70	58
SD333.400	MULTI 3 400Vac	90	70	58



## 4 MOTORS DIN SERIES CONTROL RELAY FOR PRESSURE BOOSTER AND SEWAGE

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD334.230	MULTI 4 230Vac	90	70	58
SD334.400	MULTI 4 400Vac	90	70	58



## PROTECTION RELAYS DIN SERIES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD320.10	Relay for water detection in the oil chamber	90	18	66



## PHASES PROTECTION RELAYS DIN SERIES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD322.00	Lack, sequence and asymmetry of phases relay	90	18	66
SD322.10	Lack, sequence and asymmetry of phases relay, and min. and max. voltage	90	18	66



## BATTERY CHARGERS DIN SERIES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
SD304.024	BATTERY CHARGER 24Vac/dc	90	53	58



## WIRELESS AND POWERLINE DEVICES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC505.17.01-300.00	Wireless access point repeater	110	60	90
AC505.18.01-200.00	Kit 2 powerline extender adapters	53	53	27
AC505.31.15-020.00	2m ethernet cable category 5E U/UTP	-	-	-
AC505.31.15-030.00	3m ethernet cable category 5E U/UTP	-	-	-
AC505.31.15-050.00	5m ethernet cable category 5E U/UTP	-	-	-
AC507.11.02-300.00	GSM/GPRS 2dB antenna with magnetic base and 3m cable	-	30	88
AC507.11.05-300.00	GSM/GPRS 5dB antenna with 3m cable and wall fixing bracket	-	34	250



## RAIN SENSORS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
OP101.00	Rain sensor with 2m cable and wall fixing bracket	93	39	30

# ACCESSORIES

## UNIPOLAR PROBES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC300.00.00-000.00	Unipolar probe	-	21	103



## ELECTRICAL FLOAT SWITCHES FOR CLEAN WATER

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC300.01.01-002.25	Float switch 2m PVC cable (H05VV-F)	153	92	43
AC300.01.01-005.25	Float switch 5m PVC cable (H05VV-F)	153	92	43
AC300.01.01-010.25	Float switch 10m PVC cable (H05VV-F)	153	92	43
AC300.01.01-020.25	Float switch 20m PVC cable (H05VV-F)	153	92	43
AC300.01.02-005.25	Float switch 5m neoprene cable (H07RN-F)	153	92	43
AC300.01.02-010.25	Float switch 10m neoprene cable (H07RN-F)	153	92	43
AC300.01.02-020.25	Float switch 20m neoprene cable (H07RN-F)	153	92	43
AC300.01.00-130.25	130g counterweight	-	50	57
AC300.01.20-003.25	Vertical float switch with 3m string and counterweight	87	62	80



## ELECTRICAL FLOAT SWITCHES FOR SEWAGE

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC300.02.01-005.25	Float switch for sewage 5m PVC cable (H05VV-F)	-	195	80
AC300.02.01-010.25	Float switch for sewage 10m PVC cable (H05VV-F)	-	195	80
AC300.02.01-020.25	Float switch for sewage 20m PVC cable (H05VV-F)	-	195	80
AC300.02.02-005.25	Float switch for sewage 5m neoprene cable (H07RN-F)	-	195	80
AC300.02.02-010.25	Float switch for sewage 10m neoprene cable (H07RN-F)	-	195	80
AC300.02.02-020.25	Float switch for sewage 20m neoprene cable (H07RN-F)	-	195	80



## INSTANTANEOUS CLOSURE MECHANICAL FLOAT SWITCHES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC300.03.10-000.19	Float switch QuickStop 1/2"	80	300	50
AC300.03.11-000.19	Float switch QuickStop 3/4"	150	380	70
AC300.03.12-000.19	Float switch QuickStop 1"	150	380	70
AC300.03.13-000.19	Float switch QuickStop 1-1/2"	150	380	70



## PRESSURE TRANSDUCERS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC300.10.10-000.20	Pressure transducer 0-10bar 4-20mA with connector	38	22	76
AC300.10.16-000.20	Pressure transducer 0-16bar 4-20mA with connector	38	22	76
AC300.10.25-000.20	Pressure transducer 0-25bar 4-20mA with connector	38	22	76
AC300.11.10-004.20	Pressure transducer 0-10bar 4-20mA 4m cable	-	22	62
AC300.11.16-004.20	Pressure transducer 0-16bar 4-20mA 4m cable	-	22	62
AC300.11.25-004.20	Pressure transducer 0-25bar 4-20mA 4m cable	-	22	62
AC300.11.40-004.20	Pressure transducer 0-40bar 4-20mA 4m cable	-	22	62
AC300.13.10-004.20	Pressure transducer 0-10bar 0-10V 4m cable	-	22	62
AC300.13.16-004.20	Pressure transducer 0-16bar 0-10V 4m cable	-	22	62
AC300.13.25-004.20	Pressure transducer 0-25bar 0-10V 4m cable	-	22	62
AC300.10.10-004.00	Pressure transducer 0-10bar 4-20mA with connector and 4m FRAF cable	38	22	76
AC300.10.16-004.00	Pressure transducer 0-16bar 4-20mA with connector and 4m FRAF cable	38	22	76
AC300.10.25-004.00	Pressure transducer 0-25bar 4-20mA with connector and 4m FRAF cable	38	22	76



## PIEZORESISTIVE PROBES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC300.20.01-005.00	4-20mA piezoresistive probe 5m cable	-	21	74
AC300.20.01-010.00	4-20mA piezoresistive probe 10m cable	-	21	74
AC300.21.01-005.00	0-10V piezoresistive probe 5m cable	-	21	74
AC300.21.01-010.00	0-10V piezoresistive probe 10m cable	-	21	74
AC300.20.02-010.20	4-20mA piezoresistive probe 10m cable for sewage	-	32	91
AC300.21.02-010.20	0-10V piezoresistive probe 10m cable for sewage	-	32	91



# ACCESSORIES



## SWITCHES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC200.00.31-230.00	Illuminated switch 16A	30	25	40
AC200.00.30-000.00	Cap for illuminated switch IP55	35	30	10



## SWITCHES AND COMMUTATORS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC200.00.12-020.02	Cam switch 20A	35	44	48
AC200.00.10-000.02	Yellow-red plaque 48x48	48	48	29
AC201.00.01-020.02	Linee commutator 1-0-2 20A	35	44	48
AC201.00.10-000.02	Grey automatic -0- manual plaque 48x48	48	48	29



## THERMAL CIRCUIT BREAKERS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC221.00.00-004.00	Circuit breaker 4A	58	35	15
AC221.00.00-006.00	Circuit breaker 6A	58	35	15
AC221.00.00-007.00	Circuit breaker 7A	58	35	15
AC221.00.00-008.00	Circuit breaker 8A	58	35	15
AC221.00.00-010.00	Circuit breaker 10A	58	35	15
AC221.00.00-013.00	Circuit breaker 13A	58	35	15
AC221.00.00-015.00	Circuit breaker 15A	58	35	15
AC221.00.00-018.00	Circuit breaker 18A	58	35	15
AC221.00.00-001.00	Cap for thermal circuit breaker IP55	23	19	19



## SINGLE-PHASE CAPACITORS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC220.00.00-016.21	Capacitor 16µF	-	36	70
AC220.00.00-020.21	Capacitor 20µF	-	40	70
AC220.00.00-025.21	Capacitor 25µF	-	40	93
AC220.00.00-030.21	Capacitor 30µF	-	40	93
AC220.00.00-035.21	Capacitor 35µF	-	44	93
AC220.00.00-040.21	Capacitor 40µF	-	44	93
AC220.00.00-045.21	Capacitor 45µF	-	44	118
AC220.00.00-050.21	Capacitor 50µF	-	44	118
AC220.00.00-055.21	Capacitor 55µF	-	44	118
AC220.00.00-060.21	Capacitor 60µF	-	50	118
AC220.00.00-070.21	Capacitor 70µF	-	50	118
AC220.00.00-075.21	Capacitor 75µF	-	50	118
AC220.00.00-080.21	Capacitor 80µF	-	55	119



## THREE-PHASE CYLINDRICAL CAPACITORS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC220.01.01-001.21	Cylindrical capacitor 1,5KVar	-	65	215
AC220.01.01-002.21	Cylindrical capacitor 2,5KVar	-	65	215
AC220.01.01-005.21	Cylindrical capacitor 5KVar	-	75	215
AC220.01.01-007.21	Cylindrical capacitor 7,5KVar	-	75	318
AC220.01.01-010.21	Cylindrical capacitor 10KVar	-	75	318
AC220.01.01-012.21	Cylindrical capacitor 12,5KVar	-	85	318
AC220.01.01-015.21	Cylindrical capacitor 15KVar	-	90	318
AC220.01.01-020.21	Cylindrical capacitor 20KVar	-	100	318
AC220.01.01-025.21	Cylindrical capacitor 25KVar	-	120	318
AC220.01.01-030.21	Cylindrical capacitor 30KVar	-	120	350



## THREE-PHASE MODULAR CAPACITORS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC220.01.02-005.21	Modular capacitor 5KVar	218	230	79
AC220.01.02-010.21	Modular capacitor 10KVar	218	230	79
AC220.01.02-015.21	Modular capacitor 15KVar	218	230	79
AC220.01.02-020.21	Modular capacitor 20KVar	218	230	79
AC220.01.02-025.21	Modular capacitor 25KVar	218	230	148
AC220.01.02-030.21	Modular capacitor 30KVar	218	230	148
AC220.01.02-040.21	Modular capacitor 40KVar	218	230	148
AC220.01.02-050.21	Modular capacitor 50KVar	218	230	217
AC220.90.00-000.21	Parallel kit for modular capacitor	-	-	-

# ACCESSORIES



## ILLUMINATED LIGHTS WITH CABLE

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC210.06.41-024.10	Green light 24Vac with $\phi$ 10mm cable	-	20	33
AC210.06.41-230.10	Green light 230Vac with $\phi$ 10mm cable	-	20	33
AC210.06.41-400.10	Green light 380Vac with $\phi$ 10mm cable	-	20	33
AC210.06.42-024.10	Red light 24Vac with $\phi$ 10mm cable	-	20	33
AC210.06.42-230.10	Red light 230Vac with $\phi$ 10mm cable	-	20	33
AC210.06.42-400.10	Red light 380Vac with $\phi$ 10mm cable	-	20	33



## ILLUMINATED LIGHTS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC210.06.51-024.02	Green single lamp Led 24Vac/dc $\phi$ 22mm	-	30	52
AC210.06.51-110.02	Green single lamp Led 110Vac/dc $\phi$ 22mm	-	30	52
AC210.06.51-230.02	Green single lamp Led 230Vac/dc $\phi$ 22mm	-	30	52
AC210.06.51-400.02	Green single lamp Led 400Vac/dc $\phi$ 22mm	-	30	52
AC210.06.52-024.02	Red single lamp Led 24Vac/dc $\phi$ 22mm	-	30	52
AC210.06.52-110.02	Red single lamp Led 110Vac/dc $\phi$ 22mm	-	30	52
AC210.06.52-230.02	Red single lamp Led 230Vac/dc $\phi$ 22mm	-	30	52
AC210.06.52-400.02	Red single lamp Led 400Vac/dc $\phi$ 22mm	-	30	52
AC210.06.53-024.02	Blue single lamp Led 24Vac/dc $\phi$ 22mm	-	30	52
AC210.06.53-110.02	Blue single lamp Led 110Vac/dc $\phi$ 22mm	-	30	52
AC210.06.53-230.02	Blue single lamp Led 230Vac/dc $\phi$ 22mm	-	30	52
AC210.06.53-400.02	Blue single lamp Led 400Vac/dc $\phi$ 22mm	-	30	52
AC210.06.54-024.02	Yellow single lamp Led 24Vac/dc $\phi$ 22mm	-	30	52
AC210.06.54-110.02	Yellow single lamp Led 110Vac/dc $\phi$ 22mm	-	30	52
AC210.06.54-230.02	Yellow single lamp Led 230Vac/dc $\phi$ 22mm	-	30	52
AC210.06.54-400.02	Yellow single lamp Led 400Vac/dc $\phi$ 22mm	-	30	52
AC210.06.55-024.02	White single lamp Led 24Vac/dc $\phi$ 22mm	-	30	52
AC210.06.55-110.02	White single lamp Led 110Vac/dc $\phi$ 22mm	-	30	52
AC210.06.55-230.02	White single lamp Led 230Vac/dc $\phi$ 22mm	-	30	52
AC210.06.55-400.02	White single lamp Led 400Vac/dc $\phi$ 22mm	-	30	52



## SELECTOR SWITCHES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC210.03.30-011.02	Green selector switch 0-1 $\phi$ 22mm	-	30	49
AC210.03.30-021.02	Green selector switch 0-1-2 (stable) $\phi$ 22mm	-	30	49
AC210.03.30-031.02	Green selector switch 0-1-2 (unstable) $\phi$ 22mm	-	30	49
AC210.03.33-421.02	Selector switch 0-1 with key 421 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-467.02	Selector switch 0-1 with key 467 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-470.02	Selector switch 0-1 with key 470 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-477.02	Selector switch 0-1 with key 477 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-502.02	Selector switch 0-1 with key 502 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-504.02	Selector switch 0-1 with key 504 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-505.02	Selector switch 0-1 with key 505 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-506.02	Selector switch 0-1 with key 506 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-507.02	Selector switch 0-1 with key 507 (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.03.33-701.02	Selector switch 0-1 with key 701E (key extraction on 0) $\phi$ 22mm	-	30	39
AC210.05.01-000.02	Contact element N.O.	40	36	10
AC210.05.10-000.02	Contact element N.C.	40	36	10



## BUTTONS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC210.01.20-001.02	Green flush button $\phi$ 22mm	-	30	33
AC210.01.20-007.02	Black flush button $\phi$ 22mm	-	30	33
AC210.01.22-000.02	Double flush button 0-1 $\phi$ 22mm	55	30	33
AC210.01.24-002.02	Red mushroom button (stable) diameter 40mm $\phi$ 22mm	-	40	50
AC210.05.01-000.02	Contact element N.O.	40	36	10
AC210.05.10-000.02	Contact element N.C.	40	36	10



## ANALOG TIMERS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC211.01.11-230.11	Analog daily timer with reserve 230Vac	72	72	38
AC211.01.12-230.11	Analog daily timer without reserve 230Vac	72	72	38
AC211.01.31-230.01	Analog daily timer with reserve 230Vac DIN	83	18	70
AC211.01.21-230.11	Analog weekly timer with reserve 230Vac	72	72	38

# ACCESSORIES



## ANALOG MEASURING INSTRUMENTS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC201.02.00-012.02	Voltmetric switch for 3F	44	52	65
AC201.02.10-000.02	Grey plaque 48x48 3F	48	48	29
AC209.01.11-300.08	Analog voltmeter 300Vac	72	72	60
AC209.01.11-500.08	Analog voltmeter 500Vac	72	72	60
AC201.01.00-012.02	Amperometric switch for 3F	44	52	65
AC201.01.10-000.02	Grey plaque 48x48 3F	48	48	29
AC209.01.21-003.08	Analog direct ammeter 3A 5In	72	72	60
AC209.01.21-006.08	Analog direct ammeter 6A 5In	72	72	60
AC209.01.21-010.08	Analog direct ammeter 10A 5In	72	72	60
AC209.01.21-015.08	Analog direct ammeter 15A 5In	72	72	60
AC209.01.21-025.08	Analog direct ammeter 25A 5In	72	72	60
AC209.01.21-040.08	Analog direct ammeter 40A 5In	72	72	60
AC209.01.23-060.08	Analog ammeter 60/5A 5In	72	72	60
AC209.00.01-060.00	Amperometric transformer 60/5A	66	52	44
AC209.01.23-080.08	Analog ammeter 80/5A 5In	72	72	60
AC209.00.01-080.00	Amperometric transformer 80/5A	66	52	44
AC209.01.23-100.08	Analog ammeter 100/5A 5In	72	72	60
AC209.00.01-100.00	Amperometric transformer 100/5A	66	52	44
AC209.01.23-150.08	Analog ammeter 150/5A 5In	72	72	60
AC209.00.01-150.00	Amperometric transformer 150/5A	66	52	44
AC209.01.23-200.08	Analog ammeter 200/5A 5In	72	72	60
AC209.00.01-200.00	Amperometric transformer 200/5A	66	52	44
AC209.01.23-250.08	Analog ammeter 250/5A 5In	72	72	60
AC209.00.01-250.00	Amperometric transformer 250/5A	66	52	44
AC209.01.23-400.08	Analog ammeter 400/5A 5In	72	72	60
AC209.00.01-400.00	Amperometric transformer 400/5A	66	52	44

## HOUR COUNTERS



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC209.01.30-024.00	Hour counter 24Vac	48	48	41
AC209.01.30-110.00	Hour counter 110Vac	48	48	41
AC209.01.30-230.00	Hour counter 230Vac	48	48	41
AC209.01.30-400.00	Hour counter 400Vac	48	48	41

## DISCONNECTING SWITCHES WITH DOOR LOCK



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC200.00.02-016.02	Disconnecting switch 2P 16A	53	65	67
AC200.00.02-032.02	Disconnecting switch 2P 32A	53	65	67
AC200.00.03-016.02	Disconnecting switch 3P 16A	53	65	67
AC200.00.03-032.02	Disconnecting switch 3P 32A	53	65	67
AC200.00.04-016.02	Disconnecting switch 4P 16A	53	65	67
AC200.00.04-032.02	Disconnecting switch 4P 32A	53	65	67
AC200.00.05-085.02	Extension shaft L.85mm D.5	5	5	85
AC200.00.05-110.02	Extension shaft L.110mm D.5	5	5	110
AC200.00.05-185.02	Extension shaft L.185mm D.5	5	5	185
AC200.00.05-300.02	Extension shaft L.300mm D.5	5	5	300
AC200.00.03-063.02	Disconnecting switch 3P 63A	108	83	85
AC200.00.03-100.02	Disconnecting switch 3P 100A	108	83	85
AC200.00.04-100.02	Disconnecting switch 4P 100A	108	83	85
AC200.00.06-085.02	Extension shaft L.85mm D.6	6	6	85
AC200.00.06-185.02	Extension shaft L.185mm D.6	6	6	185
AC200.00.06-300.02	Extension shaft L.300mm D.6	6	6	300
AC200.00.10-002.02	Yellow-red lockable plaque 67x67	67	67	33
AC200.01.03-125.01	3P 125A (1) D.8	113	142	71
AC200.01.25-001.01	Top terminal cover protection (1)	56	135	37
AC200.01.25-011.01	Bottom terminal cover protection (1)	56	135	37
AC200.01.03-160.01	3P 160A (2) D.8	151	167	74
AC200.01.03-200.01	3P 200A (2) D.8	151	167	74
AC200.01.03-250.01	3P 250A (2) D.8	151	167	74
AC200.01.04-160.01	4P 160A (2) D.8	151	167	74
AC200.01.04-250.01	4P 250A (2) D.8	151	167	74
AC200.01.25-002.01	Top terminal cover protection (2)	60	166	45
AC200.01.25-012.01	Bottom terminal cover protection (2)	60	166	45

# ACCESSORIES

## DISCONNECTING SWITCHES WITH DOOR LOCK



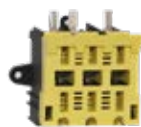
CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC200.01.08-200.01	Extension shaft L.200mm (1/2) D.8	8	8	200
AC200.01.08-400.01	Extension shaft L.400mm (1/2) D.8	8	8	400
AC200.01.21-001.01	Black door coupling m.(1/2) D.8	77	115	76
AC200.01.03-315.01	3P 315A (3) D.12	197	235	94
AC200.01.03-400.01	3P 400A (3) D.12	197	235	94
AC200.01.03-630.01	3P 630A (4) D.12	230	279	118
AC200.01.04-315.01	4P 315A (3) D.12	197	235	94
AC200.01.25-003.01	Top terminal cover protect. (3)	54	231	70
AC200.01.25-013.01	Bottom terminal cover protect. (3)	54	231	70
AC200.01.12-200.01	Extension shaft L.200mm (3/4/5) D.12	12	12	200
AC200.01.12-400.01	Extension shaft L.400mm (3/4/5) D.12	12	12	400
AC200.01.21-002.01	Black door coupling m.(3/4) D.12	94	170	104

## DISCONNECTING SWITCHES WITH DOOR LOCK WITH FUSES HOLDERS



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC200.01.13-063.01	3P 63A (1) D.8	114	142	91
AC200.01.25-001.01	Top terminal cover protect. (1)	56	135	37
AC200.01.25-011.01	Bottom terminal cover protect. (1)	56	135	37
AC200.01.26-001.01	Fuse protection shield (1)	101	101	66
AC200.01.13-125.01	3P 125A (2) D.8	149	168	101
AC200.01.13-160.01	3P 160A (2) D.8	149	168	101
AC200.01.25-002.01	Top terminal cover protect. (2)	60	166	45
AC200.01.25-012.01	Bottom terminal cover protect. (2)	60	166	45
AC200.01.26-002.01	Fuse protection shield (2)	126	133	74
AC200.01.08-200.01	Extension shaft L.200mm (1/2) D.8	8	8	200
AC200.01.08-400.01	Extension shaft L.400mm (1/2) D.8	8	8	400
AC200.01.21-001.01	Black door coupling m.(1/2) D.8	77	115	76
AC200.01.13-200.01	3P 200A (3) D.12	196	235	132
AC200.01.13-250.01	3P 250A (3) D.12	196	235	132
AC200.01.25-003.01	Top terminal cover protect. (3)	54	231	70
AC200.01.25-013.01	Bottom terminal cover protect. (3)	54	231	70
AC200.01.26-003.01	Fuse protection shield (3)	179	147	79
AC200.01.13-400.01	3P 400A (4) D.12	235	280	154
AC200.01.25-004.01	Top terminal cover protect. (4)	59	277	77
AC200.01.25-014.01	Bottom terminal cover protect. (4)	59	277	77
AC200.01.26-004.01	Fuse protection shield (4)	204	162	88
AC200.01.12-200.01	Extension shaft L.200mm (3/4/5) D.12	12	12	200
AC200.01.12-400.01	Extension shaft L.400mm (3/4/5) D.12	12	12	400
AC200.01.21-002.01	Black door coupling m.(3/4) D.12	94	170	104
AC200.01.13-630.01	3P 630A (5) D.12	289	357	190
AC200.01.25-005.01	Top terminal cover protect. (5)	90	350	110
AC200.01.25-015.01	Bottom terminal cover protect. (5)	90	350	110
AC200.01.26-005.01	Fuse protection shield (5)	260	218	106
AC200.01.12-200.01	Extension shaft L.200mm (3/4/5) D.12	12	12	200
AC200.01.12-400.01	Extension shaft L.400mm (3/4/5) D.12	12	12	400
AC200.01.21-003.01	Black door coupling m.(5) D.12	94	200	107

## FUSES HOLDERS



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC202.51.03-032.02	Fuse holder 10x38 3P 32A TF323	68	74	61
AC202.51.01-032.01	Fuse holder 10x38 1P 32A	85	18	71
AC202.51.11-032.01	Fuse holder 10x38 1P+N 32A	85	18	71
AC202.51.02-032.01	Fuse holder 10x38 2P 32A	85	36	71
AC202.51.03-032.01	Fuse holder 10x38 3P 32A	85	53	71
AC202.51.13-032.01	Fuse holder 10x38 3P+N 32A	85	53	71
AC202.52.03-050.01	Fuse holder 14x51 3P 50A	95	81	76
AC202.52.13-050.01	Fuse holder 14x51 3P+N 50A	95	108	76
AC202.53.03-100.01	Fuse holder 22x58 3P 100A	115	106	76
AC202.53.13-100.01	Fuse holder 22x58 3P+N 100A	115	142	76
AC202.55.03-160.01	Fuse holder 3P 160A NH00	140	100	85
AC202.56.03-250.01	Fuse holder 3P 250A NH1	200	162	107
AC202.58.01-400.01	Fuse holder 1P 400A NH2	223	48	85
AC202.60.01-630.01	Fuse holder 1P 630A NH3	240	48	100

# ACCESSORIES



## FUSES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC202.10.10-002.00	Fuse 2A aM	-	10	38
AC202.10.10-004.00	Fuse 4A aM	-	10	38
AC202.10.10-006.00	Fuse 6A aM	-	10	38
AC202.10.10-010.00	Fuse 10A aM	-	10	38
AC202.10.10-016.00	Fuse 16A aM	-	10	38
AC202.10.10-020.00	Fuse 20A aM	-	10	38
AC202.10.10-025.00	Fuse 25A aM	-	10	38
AC202.10.10-032.00	Fuse 32A aM	-	10	38
AC202.10.11-002.00	Fuse 2A gG	-	10	38
AC202.10.11-004.00	Fuse 4A gG	-	10	38
AC202.10.11-008.00	Fuse 8A gG	-	10	38
AC202.10.11-012.00	Fuse 12A gG	-	10	38
AC202.10.11-016.00	Fuse 16A gG	-	10	38
AC202.10.11-020.00	Fuse 20A gG	-	10	38
AC202.10.11-025.00	Fuse 25A gG	-	10	38
AC202.10.11-032.00	Fuse 32A gG	-	10	38
AC202.14.10-040.01	Fuse 40A aM	-	14	51
AC202.14.10-050.01	Fuse 50A aM	-	14	51
AC202.14.11-040.01	Fuse 40A gG	-	14	51
AC202.14.11-050.01	Fuse 50A gG	-	14	51
AC202.22.10-063.00	Fuse 63A aM	-	22	58
AC202.22.10-080.00	Fuse 80A aM	-	22	58
AC202.22.10-100.00	Fuse 100A aM	-	22	58
AC202.22.11-063.00	Fuse 63A gG	-	22	58
AC202.22.11-080.00	Fuse 80A gG	-	22	58
AC202.22.11-100.00	Fuse 100A gG	-	22	58
AC202.00.10-100.00	Fuse NH00 100 aM	79	30	60
AC202.00.10-125.00	Fuse NH00 125 aM	79	30	60
AC202.00.10-160.00	Fuse NH00 160 aM	79	30	60
AC202.00.11-100.00	Fuse NH00 100 gG	79	30	60
AC202.00.11-125.00	Fuse NH00 125 gG	79	30	60
AC202.00.11-160.00	Fuse NH00 160 gG	79	30	60
AC202.01.10-160.00	Fuse NH1 160 aM	125	30	60
AC202.01.10-200.00	Fuse NH1 200 aM	125	30	60
AC202.01.10-250.00	Fuse NH1 250 aM	125	30	60
AC202.01.11-160.00	Fuse NH1 160 gG	125	30	60
AC202.01.11-200.00	Fuse NH1 200 gG	125	30	60
AC202.01.11-250.00	Fuse NH1 250 gG	125	30	60
AC202.02.10-250.00	Fuse NH2 250 aM	150	58	71
AC202.02.10-315.00	Fuse NH2 315 aM	150	58	71
AC202.02.10-400.00	Fuse NH2 400 aM	150	58	71
AC202.02.11-250.00	Fuse NH2 250 gG	150	58	71
AC202.02.11-315.00	Fuse NH2 315 gG	150	58	71
AC202.02.11-400.00	Fuse NH2 400 gG	150	58	71
AC202.03.10-400.00	Fuse NH3 400 aM	150	67	85
AC202.03.10-500.00	Fuse NH3 500 aM	150	67	85
AC202.03.10-630.00	Fuse NH3 630 aM	150	67	85
AC202.03.11-400.00	Fuse NH3 400 gG	150	67	85
AC202.03.11-500.00	Fuse NH3 500 gG	150	67	85
AC202.03.11-630.00	Fuse NH3 630 gG	150	67	85

## TRANSFORMERS



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC207.11.20-030.00	Transformer 0-230/400Vac - 0-24Vac 30VA	68	68	83
AC207.11.20-050.00	Transformer 0-230/400Vac - 0-24Vac 50VA	74	68	83
AC207.11.21-050.00	Transformer 0-230/400Vac - 0-110Vac 50VA	74	68	83
AC207.11.20-100.00	Transformer 0-230/400Vac - 0-24Vac 100VA	72	96	104
AC207.11.21-100.00	Transformer 0-230/400Vac - 0-110Vac 100VA	72	96	104
AC207.11.20-150.04	Transformer 0-230/400Vac - 0-24Vac 150VA	93	96	106
AC207.11.21-150.04	Transformer 0-230/400Vac - 0-110Vac 150VA	93	96	106



# ACCESSORIES



## TRANSFORMERS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC207.11.20-200.04	Transformer 0-230/400Vac - 0-24Vac 200VA	97	96	106
AC207.11.21-200.04	Transformer 0-230/400Vac - 0-110Vac 200VA	97	96	106
AC207.11.20-300.04	Transformer 0-230/400Vac - 0-24Vac 300VA	101	120	114
AC207.11.21-300.04	Transformer 0-230/400Vac - 0-110Vac 300VA	101	120	114
AC207.11.20-400.04	Transformer 0-230/400Vac - 0-24Vac 400VA	123	120	114
AC207.11.21-400.04	Transformer 0-230/400Vac - 0-110Vac 400VA	123	120	114

## SIEMENS

## CONTACTORS



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC203.00.01-024.01	Contacteur 4kW S00 1NO 9A 24Vac	58	45	74
AC203.00.01-230.01	Contacteur 4kW S00 1NO 9A 230Vac	58	45	74
AC203.00.01-400.01	Contacteur 4kW S00 1NO 9A 400Vac	58	45	74
AC203.00.10-024.01	Contacteur 4kW S00 1NC 9A 24Vac	58	45	74
AC203.00.10-400.01	Contacteur 4kW S00 1NC 9A 400Vac	58	45	74
AC203.01.01-024.01	Contacteur 5,5kW S00 1NO 12A 24Vac	58	45	74
AC203.01.01-230.01	Contacteur 5,5kW S00 1NO 12A 230Vac	58	45	74
AC203.01.01-400.01	Contacteur 5,5kW S00 1NO 12A 400Vac	58	45	74
AC203.01.10-024.01	Contacteur 5,5kW S00 1NC 12A 24Vac	58	45	74
AC203.01.10-400.01	Contacteur 5,5kW S00 1NC 12A 400Vac	58	45	74
AC203.02.01-024.01	Contacteur 7,5kW S00 1NO 16A 24Vac	58	45	74
AC203.02.01-230.01	Contacteur 7,5kW S00 1NO 16A 230Vac	58	45	74
AC203.02.01-400.01	Contacteur 7,5kW S00 1NO 16A 400Vac	58	45	74
AC203.02.10-024.01	Contacteur 7,5kW S00 1NC 16A 24Vac	58	45	74
AC203.02.10-400.01	Contacteur 7,5kW S00 1NC 16A 400Vac	58	45	74
AC203.10.11-024.01	Contacteur 4kW S0 1NO+1NC 9A 24Vac	85	45	96
AC203.10.11-110.01	Contacteur 4kW S0 1NO+1NC 9A 110Vac	85	45	96
AC203.11.11-024.01	Contacteur 5,5kW S0 1NO+1NC 12A 24Vac	85	45	96
AC203.11.11-110.01	Contacteur 5,5kW S0 1NO+1NC 12A 110Vac	85	45	96
AC203.12.11-024.01	Contacteur 7,5kW S0 1NO+1NC 17A 24Vac	85	45	96
AC203.12.11-110.01	Contacteur 7,5kW S0 1NO+1NC 17A 110Vac	85	45	96
AC203.12.11-230.01	Contacteur 7,5kW S0 1NO+1NC 17A 230Vac	85	45	96
AC203.13.11-024.01	Contacteur 11kW S0 1NO+1NC 25A 24Vac	85	45	96
AC203.13.11-110.01	Contacteur 11kW S0 1NO+1NC 25A 110Vac	85	45	96
AC203.13.11-230.01	Contacteur 11kW S0 1NO+1NC 25A 230Vac	85	45	96
AC203.13.11-400.01	Contacteur 11kW S0 1NO+1NC 25A 400Vac	85	45	96
AC203.14.11-024.01	Contacteur 15kW S0 1NO+1NC 32A 24Vac	85	45	96
AC203.14.11-110.01	Contacteur 15kW S0 1NO+1NC 32A 110Vac	85	45	96
AC203.14.11-400.01	Contacteur 15kW S0 1NO+1NC 32A 400Vac	85	45	96
AC203.15.11-024.01	Contacteur 18,5kW S0 1NO+1NC 38A 24Vac	85	45	96
AC203.15.11-110.01	Contacteur 18,5kW S0 1NO+1NC 38A 110Vac	85	45	96
AC203.15.11-400.01	Contacteur 18,5kW S0 1NO+1NC 38A 400Vac	85	45	96
AC203.16.11-024.01	Contacteur 18,5kW S2 1NO+1NC 40A 24Vac	110	55	130
AC203.16.11-110.01	Contacteur 18,5kW S2 1NO+1NC 40A 110Vac	110	55	130
AC203.16.11-400.01	Contacteur 18,5kW S2 1NO+1NC 40A 400Vac	110	55	130
AC203.17.11-024.01	Contacteur 22kW S2 1NO+1NC 50A 24Vac	110	55	130
AC203.17.11-110.01	Contacteur 22kW S2 1NO+1NC 50A 110Vac	110	55	130
AC203.17.11-400.01	Contacteur 22kW S2 1NO+1NC 50A 400Vac	110	55	130
AC203.18.11-024.01	Contacteur 30kW S2 1NO+1NC 65A 24Vac	110	55	130
AC203.18.11-110.01	Contacteur 30kW S2 1NO+1NC 65A 110Vac	110	55	130
AC203.18.11-400.01	Contacteur 30kW S2 1NO+1NC 65A 400Vac	110	55	130
AC203.19.11-024.01	Contacteur 37kW S2 1NO+1NC 80A 24Vac	110	55	130
AC203.19.11-110.01	Contacteur 37kW S2 1NO+1NC 80A 110Vac	110	55	130
AC203.19.11-400.01	Contacteur 37kW S2 1NO+1NC 80A 400Vac	110	55	130
AC203.20.11-110.01	Contacteur 45kW S3 1NO+1NC 95A 110Vac	165	70	140
AC203.21.22-110.01	Contacteur 55kW S6 2NO+2NC 115A 110Vac	175	120	167
AC203.22.22-110.01	Contacteur 75kW S6 2NO+2NC 150A 110Vac	175	120	167
AC203.23.22-110.01	Contacteur 90kW S6 2NO+2NC 185A 110Vac	175	120	167
AC203.24.22-110.01	Contacteur 110kW S10 2NO+2NC 225A 110Vac	200	145	200
AC203.25.22-110.01	Contacteur 132kW S10 2NO+2NC 265A 110Vac	200	145	200
AC203.26.22-110.01	Contacteur 160kW S10 2NO+2NC 300A 110Vac	200	145	200
AC203.27.22-110.01	Contacteur 200kW S12 2NO+2NC 400A 110Vac	220	160	210

# ACCESSORIES

## SIEMENS THERMAL RELAYS



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC204.00.00-01,6.01	Thermal relay S00 1,1÷1,6A	76	45	70
AC204.00.00-002.01	Thermal relay S00 1,4÷2A	76	45	70
AC204.00.00-02,5.01	Thermal relay S00 1,8÷2,5A	76	45	70
AC204.00.00-03,2.01	Thermal relay S00 2,2÷3,2A	76	45	70
AC204.00.00-004.01	Thermal relay S00 2,8÷4A	76	45	70
AC204.00.00-005.01	Thermal relay S00 3,5÷5A	76	45	70
AC204.00.00-06,3.01	Thermal relay S00 4,5÷6,3A	76	45	70
AC204.00.00-008.01	Thermal relay S00 5,5÷8A	76	45	70
AC204.00.00-010.01	Thermal relay S00 7÷10A	76	45	70
AC204.00.00-12,5.01	Thermal relay S00 9÷12,5A	76	45	70
AC204.00.00-016.01	Thermal relay S00 11÷16A	76	45	70
AC204.01.00-016.01	Thermal relay S0 11÷16A	85	45	84
AC204.01.00-020.01	Thermal relay S0 14÷20A	85	45	84
AC204.01.00-025.01	Thermal relay S0 20÷25A	85	45	84
AC204.01.00-028.01	Thermal relay S0 23÷28A	85	45	84
AC204.01.00-032.01	Thermal relay S0 27÷32A	85	45	84
AC204.01.00-036.01	Thermal relay S0 30÷36A	85	45	84
AC204.01.00-045.01	Thermal relay S2 36÷45A	88	55	104
AC204.01.00-050.01	Thermal relay S2 40÷50A	88	55	104
AC204.01.00-057.01	Thermal relay S2 47÷57A	88	55	104
AC204.01.00-065.01	Thermal relay S2 54÷65A	88	55	104
AC204.01.00-073.01	Thermal relay S2 62÷73A	88	55	104
AC204.01.00-080.01	Thermal relay S2 70÷80A	88	55	104
AC204.01.00-090.01	Thermal relay S3 70÷90A	106	70	120
AC204.01.00-100.01	Thermal relay S3 80÷100A	106	70	120
AC204.01.00-200.01	Thermal relay S6 50÷200A	115	120	150
AC204.01.00-250.01	Thermal relay S10/12 55÷250A	145	145	150
AC204.01.00-630.01	Thermal relay S10/12 160÷630A	145	145	150

## THREE-PHASE IMPEDANCES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC207.00.01-005.04	Three-phase impedance 5,5HP with thermostat	140	127	50
AC207.00.01-007.04	Three-phase impedance 7,5HP with thermostat	140	127	50
AC207.00.01-010.04	Three-phase impedance 10HP with thermostat	170	190	107
AC207.00.01-012.04	Three-phase impedance 12,5HP with thermostat	170	190	107
AC207.00.01-015.04	Three-phase impedance 15HP with thermostat	170	190	107
AC207.00.01-017.04	Three-phase impedance 17,5HP with thermostat	170	190	107
AC207.00.01-020.04	Three-phase impedance 20HP with thermostat	170	190	107
AC207.00.01-025.04	Three-phase impedance 25HP with thermostat	170	190	107
AC207.00.01-030.04	Three-phase impedance 30HP with thermostat	170	190	116
AC207.00.01-035.04	Three-phase impedance 35HP with thermostat	170	190	116
AC207.00.01-040.04	Three-phase impedance 40HP with thermostat	170	190	133
AC207.00.01-050.04	Three-phase impedance 50HP with thermostat	240	258	133
AC207.00.01-060.04	Three-phase impedance 60HP with thermostat	240	260	170
AC207.00.01-070.04	Three-phase impedance 70HP with thermostat	240	260	170
AC207.00.01-075.04	Three-phase impedance 75HP with thermostat	240	260	170
AC207.00.01-080.04	Three-phase impedance 80HP with thermostat	240	260	185
AC207.00.01-090.04	Three-phase impedance 90HP with thermostat	290	330	160
AC207.00.01-100.04	Three-phase impedance 100HP with thermostat	290	330	160
AC207.00.01-125.04	Three-phase impedance 125HP with thermostat	310	335	190
AC207.00.01-150.04	Three-phase impedance 150HP with thermostat	310	335	190
AC207.00.01-180.04	Three-phase impedance 180HP with thermostat	320	335	190
AC207.00.01-200.04	Three-phase impedance 200HP with thermostat	320	335	190

## SIEMENS SOFT START WITH THERMAL PROTECTION 3RW40...SERIES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC206.01.00-12,5.01	Soft start 5,5kW S0 5÷12,5A 24Vac/dc	125	45	155
AC206.01.00-025.01	Soft start 11kW S0 10÷25A 24Vac/dc	125	45	155
AC206.01.00-032.01	Soft start 15kW S0 17÷32A 24Vac/dc	125	45	155
AC206.01.00-038.01	Soft start 18,5kW S0 23÷38A 24Vac/dc	125	45	155

# ACCESSORIES

SIEMENS

## SOFT START WITH THERMAL PROTECTION 3RW40...SERIES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC206.01.00-045.01	Soft start 22kW S2 22,5÷45A 24Vac/dc	160	55	170
AC206.01.00-063.01	Soft start 30kW S2 22,5÷63A 24Vac/dc	160	55	170
AC206.01.00-072.01	Soft start 37kW S2 34,5÷72A 24Vac/dc	160	55	170
AC206.01.00-080.01	Soft start 45kW S3 42,5÷80A 24Vac/dc	170	70	190
AC206.01.00-106.01	Soft start 55kW S3 46÷106A 24Vac/dc	170	70	190

## SOFT START WITH THERMAL PROTECTION 3RW50...SERIES

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC206.01.02-134.01	Soft start 75kW S6 59÷134A 110Vac	198	120	250
AC206.01.02-162.01	Soft start 90kW S6 87÷162A 110Vac	198	120	250
AC206.01.02-230.01	Soft start 132kW S12 130÷230A 110Vac	230	160	278
AC206.01.02-280.01	Soft start 160kW S12 130÷280A 110Vac	230	160	278
AC206.01.02-356.01	Soft start 200kW S12 130÷356A 110Vac	230	160	278
AC206.01.02-432.01	Soft start 250kW S12 207÷432A 110Vac	230	160	278

## GRID FILTER



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC208.11.03-011.05	EMC class B 11A grid filter for 0,75-4kW inverter	147	177	45
AC208.11.03-030.05	EMC class B 30A grid filter for 5,5-7,5kW inverter	186	266	55
AC208.11.03-051.05	EMC class B 51A grid filter for 11-15kW inverter	186	266	55
AC208.11.03-060.05	EMC class B 60A grid filter for 18,5kW inverter	267	460	65
AC208.11.03-070.05	EMC class B 70A grid filter for 22kW inverter	267	460	65

## SINGLE-PHASE/THREE-PHASE; THREE-PHASE/THREE-PHASE INVERTER



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC208.04.02-000.05	Inverter MO/TR 0,75kW 4,2A 230Vac	163	85	123
AC208.04.02-001.05	Inverter MO/TR 1,5kW 7,5A 230Vac	190	100	140
AC208.04.02-002.05	Inverter MO/TR 2,2kW 10A 230Vac	190	100	140
AC208.00.03-000.05	Inverter TR/TR 0,75kW 2,5A 400Vac	128	70	130
AC208.00.03-001.05	Inverter TR/TR 1,5kW 4A 400Vac	128	100	130
AC208.00.03-002.05	Inverter TR/TR 2,2kW 6A 400Vac	128	140	155
AC208.00.03-004.05	Inverter TR/TR 4kW 9A 400Vac	128	140	155
AC208.00.03-005.05	Inverter TR/TR 5,5kW 12A 400Vac	220	180	170
AC208.00.03-007.05	Inverter TR/TR 7,5kW 16A 400Vac	220	180	170
AC208.00.03-011.05	Inverter TR/TR 11kW 24A 400Vac	320	235	189
AC208.00.03-015.05	Inverter TR/TR 15kW 30A 400Vac	320	235	189
AC208.00.03-018.05	Inverter TR/TR 18,5kW 39A 400Vac	410	260	208
AC208.00.03-022.05	Inverter TR/TR 22kW 45A 400Vac	410	260	208
AC208.91.00-000.05	Remote kit with keyboard	95	72	26

## THREE-PHASE/THREE-PHASE INVERTER IRIS BLUE SERIES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC208.01.03-004.05	Inverter TR/TR 4kW S05 10,5A 400Vac	340	170	175
AC208.01.03-005.05	Inverter TR/TR 5,5kW S05 12,5A 400Vac	340	170	175
AC208.01.03-007.05	Inverter TR/TR 7,5kW S05 16,5A 400Vac	340	170	175
AC208.01.03-015.05	Inverter TR/TR 15kW S12 30A 400Vac	401	215	225
AC208.01.03-018.05	Inverter TR/TR 18,5kW S12 41A 400Vac	401	215	225
AC208.01.03-022.05	Inverter TR/TR 22kW S12 57A 400Vac	401	215	225
AC208.01.03-030.05	Inverter TR/TR 30kW S12 60A 400Vac	401	215	225
AC208.01.03-037.05	Inverter TR/TR 37kW S15 80A 400Vac	466	225	331
AC208.01.03-045.05	Inverter TR/TR 45kW S20 88A 400Vac	610	279	332
AC208.01.03-055.05	Inverter TR/TR 55kW S20 120A 400Vac	610	279	332
AC208.01.03-075.05	Inverter TR/TR 75kW S20 145A 400Vac	610	279	332
AC208.01.03-092.05	Inverter TR/TR 93kW S30 195A 400Vac	748	302	421
AC208.01.03-110.05	Inverter TR/TR 110kW S30 215A 400Vac	748	302	421
AC208.01.03-132.05	Inverter TR/TR 132kW S30 240A 400Vac	748	302	421
AC208.01.03-160.05	Inverter TR/TR 160kW S41 300A 400Vac	882	500	409
AC208.01.03-200.05	Inverter TR/TR 200kW S41 345A 400Vac	882	500	409
AC208.01.03-220.05	Inverter TR/TR 220kW S41 375A 400Vac	882	500	409
AC208.01.03-250.05	Inverter TR/TR 250kW S41 425A 400Vac	882	500	409
AC208.90.00-000.05	Remote kit	170	150	20

# ACCESSORIES



## VENTILATION SYSTEMS

CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC213.96.11-006.00	Thermostat 1 contact N.O.	60	33	43
AC213.90.12-230.00	Fan 145mc/h 230Vac	120	120	38
AC213.91.08-000.00	Ventilation grille with filter	80	80	120
AC213.91.12-000.00	Ventilation grille with filter	120	120	12
AC213.91.15-000.00	Ventilation grille with filter	150	150	30
AC213.91.25-000.00	Ventilation grille with filter	250	250	40
AC213.91.32-000.00	Ventilation grille with filter	320	320	40
AC213.92.25-230.00	Fan with filter 125mc/h 230Vac	250	250	110
AC213.94.30-230.00	Extraction tower 450+500mc/h 230Vac	308	308	135
AC213.94.36-230.00	Extraction tower 800+860mc/h 230Vac	365	365	110
AC213.94.48-230.00	Extraction tower 1470+1560mc/h 230Vac	480	470	110

## PLASTIC BOXES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC213.01.01-015.17	Plastic box IP65	150	110	70
AC213.01.01-019.17	Plastic box IP65	190	140	75
AC213.01.01-024.17	Plastic box IP65	240	190	90
AC213.01.01-029.17	Plastic box IP65	300	220	120
AC213.01.01-050.17	Plastic box IP65 (05)	380	300	120
AC213.01.01-060.17	Plastic box IP65 (06)	380	300	180
AC213.01.01-070.17	Plastic box IP65 (07)	460	380	120
AC213.01.01-080.17	Plastic box IP65 (08)	460	380	180

## METAL BOXES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC213.02.01-040.12	Metal box (40)	400	300	150
AC213.02.01-041.12	Metal box (41)	400	300	200
AC213.02.01-050.12	Metal box (50)	500	400	200
AC213.02.01-060.12	Metal box (60)	600	400	200
AC213.02.01-061.12	Metal box (61)	600	400	250
AC213.02.01-070.12	Metal box (70)	700	500	200
AC213.02.01-071.12	Metal box (71)	700	500	250
AC213.02.01-080.12	Metal box (80)	800	600	250
AC213.02.01-081.12	Metal box (81)	800	600	300
AC213.02.01-101.12	Metal box (101)	1000	600	300
AC213.02.01-103.12	Metal box (103)	1000	800	300
AC213.02.01-104.12	Metal box (104)	1000	800	400
AC213.02.01-122.12	Metal box (122)	1200	800	300
AC213.02.01-123.12	Metal box (123)	1200	800	400
AC213.02.06-000.12	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15

## POLYESTER BOXES



CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC213.03.01-040.13	Polyester box (40)	400	300	170
AC213.03.02-040.13	Polyester box with porthole (40)	400	300	170
AC213.03.04-040.13	Bottom plate (40)	350	250	2
AC213.03.05-040.13	Blind panel for double doors (40)	380	260	38
AC213.03.07-000.13	Hinge kit for blind panel	-	-	-
AC213.03.06-000.13	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15
AC213.03.01-050.13	Polyester box (50)	500	400	230
AC213.03.02-050.13	Polyester box with porthole (50)	500	400	230
AC213.03.04-050.13	Bottom plate (50)	450	350	2
AC213.03.05-050.13	Blind panel for double doors (50)	480	360	38
AC213.03.07-000.13	Hinge kit for blind panel	-	-	-
AC213.03.06-000.13	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15

# ACCESSORIES

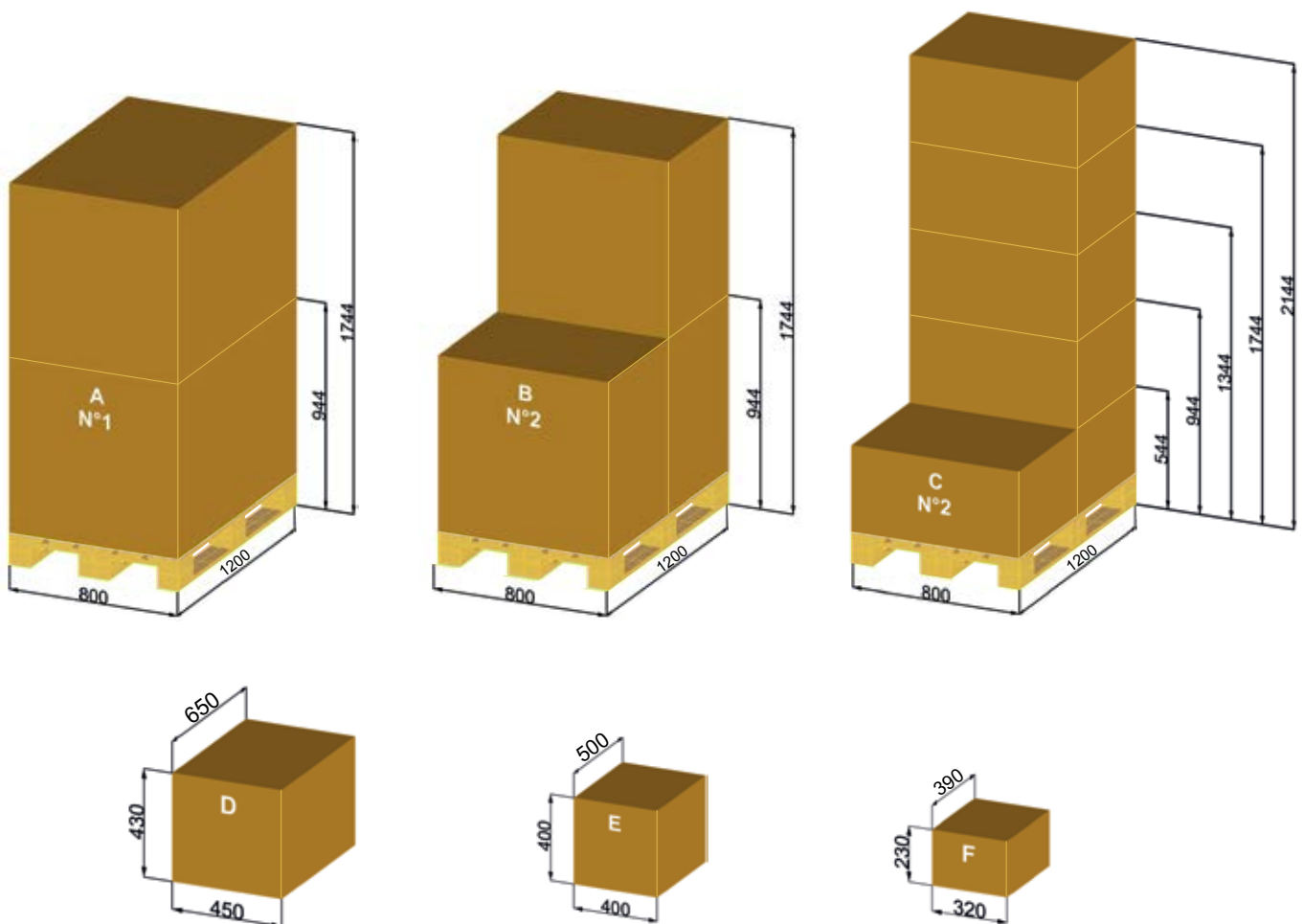


## POLYESTER BOXES

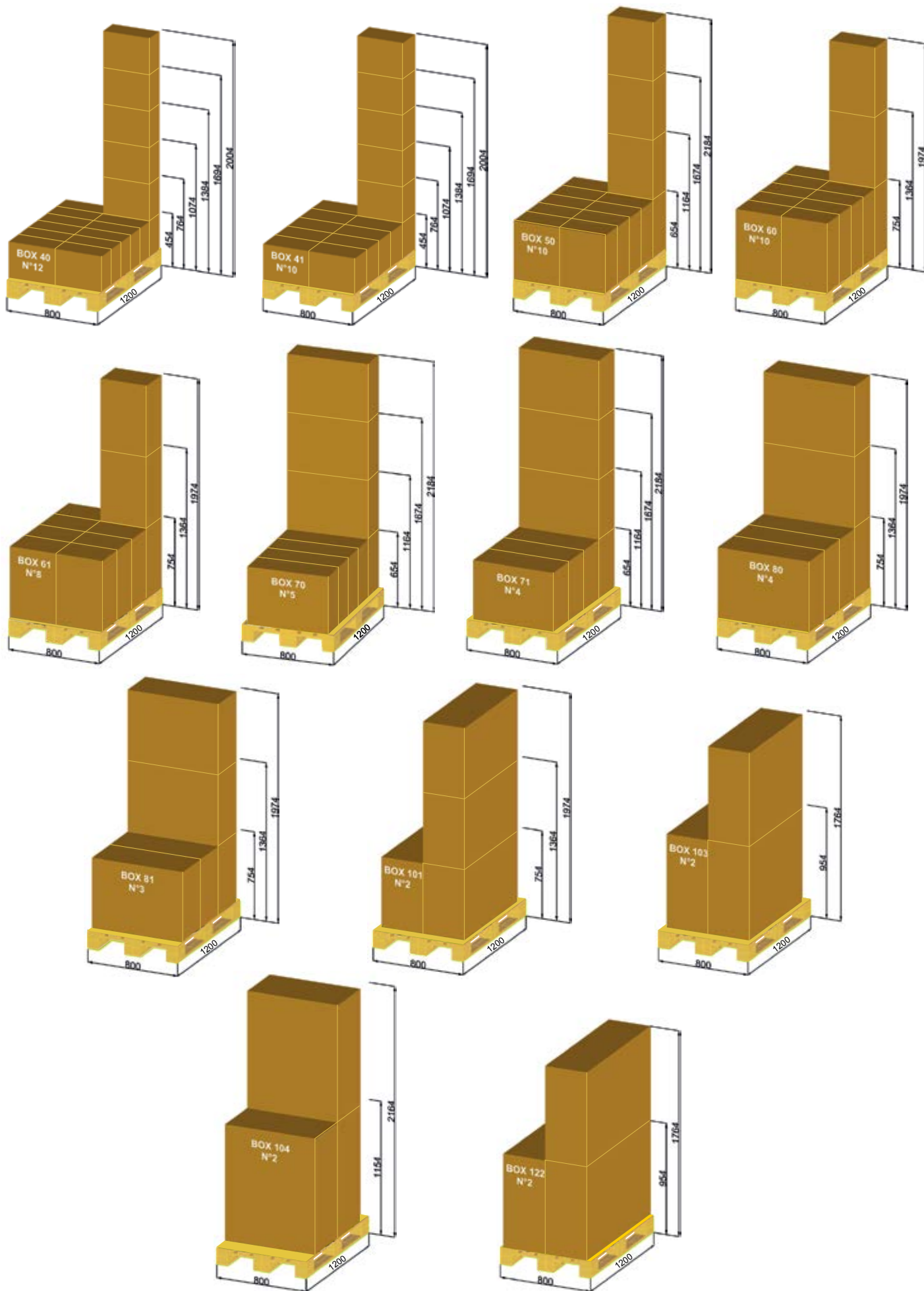
CODE	TYPE	DIMENSIONS mm		
		A-H	L-W	P-D
AC213.03.01-060.13	Polyester box (60)	600	400	230
AC213.03.02-060.13	Polyester box with porthole (60)	600	400	230
AC213.03.04-060.13	Bottom plate (60)	550	350	2
AC213.03.05-060.13	Blind panel for double doors (60)	560	360	38
AC213.03.07-000.13	Hinge kit for blind panel	-	-	-
AC213.03.06-000.13	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15
AC213.03.01-070.13	Polyester box (70)	700	500	270
AC213.03.02-070.13	Polyester box with porthole (70)	700	500	270
AC213.03.04-070.13	Bottom plate (70)	650	450	13
AC213.03.05-070.13	Blind panel for double doors (70)	660	460	38
AC213.03.07-000.13	Hinge kit for blind panel	-	-	-
AC213.03.06-000.13	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15
AC213.03.01-080.13	Polyester box (80)	800	600	300
AC213.03.02-080.13	Polyester box with porthole (80)	800	600	300
AC213.03.04-080.13	Bottom plate (80)	750	550	13
AC213.03.05-080.13	Blind panel for double doors (80)	760	560	38
AC213.03.07-000.13	Hinge kit for blind panel	-	-	-
AC213.03.06-000.13	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15
AC213.03.01-100.13	Polyester box (100)	1000	800	300
AC213.03.02-100.13	Polyester box with porthole (100)	1000	800	300
AC213.03.04-100.13	Bottom plate (100)	950	750	13
AC213.03.05-100.13	Blind panel for double doors (100)	970	760	38
AC213.03.07-000.13	Hinge kit for blind panel	-	-	-
AC213.03.06-000.13	Wall fixing bracket 4pcs	-	-	-
AC213.80.00-070.00	Floor fixing column	70	30	15

# PACKAGING

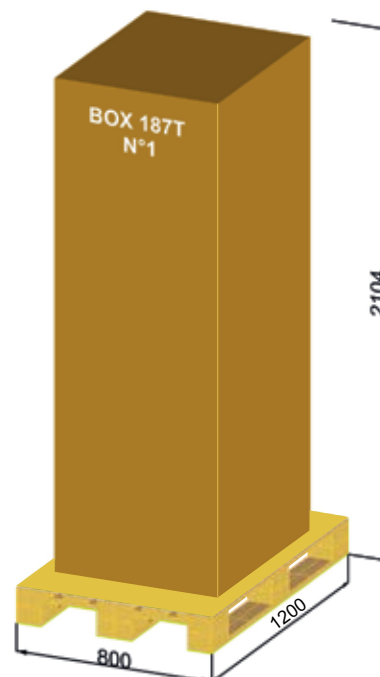
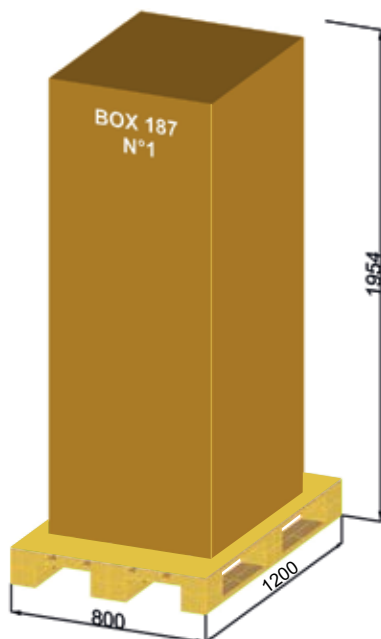
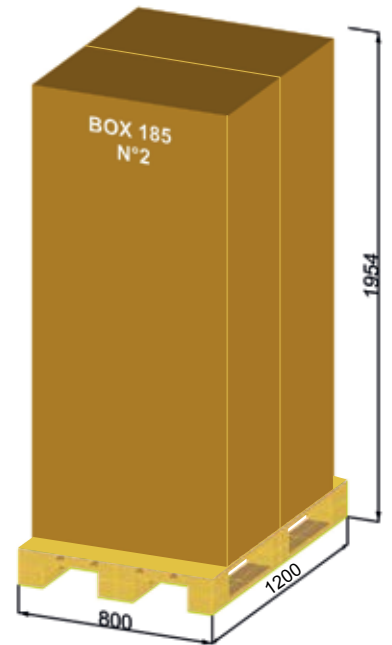
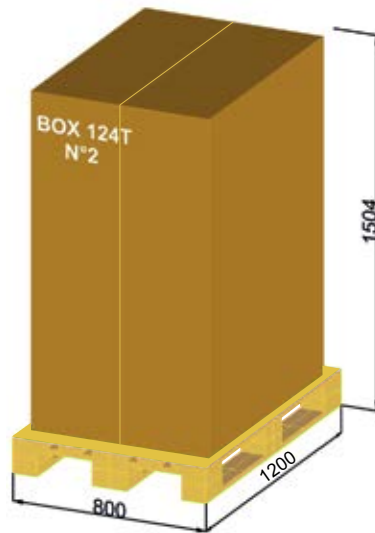
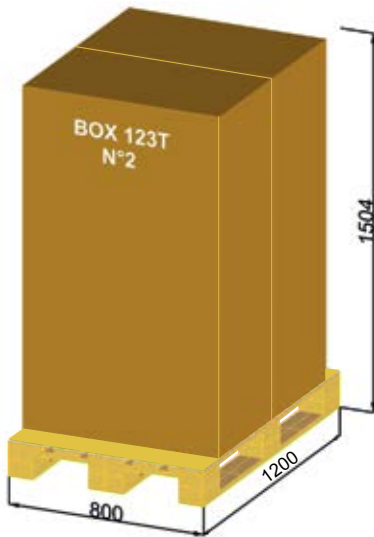
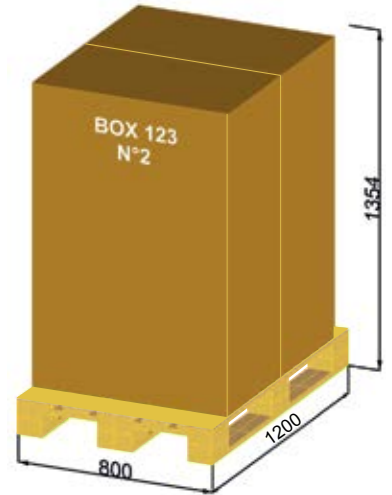
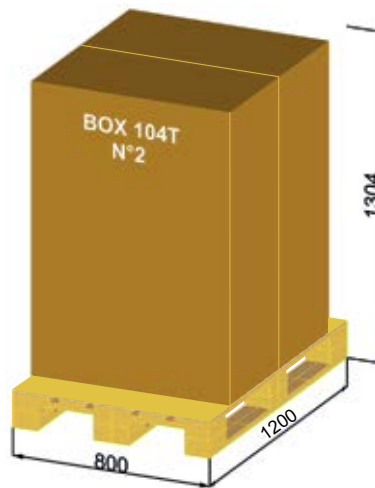
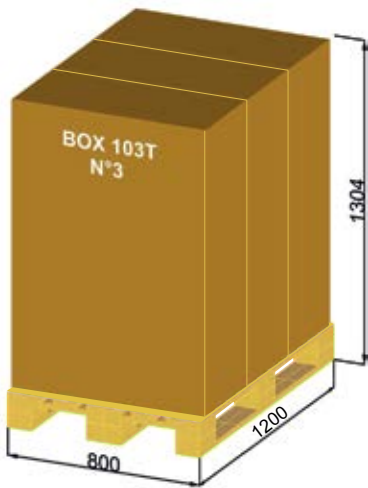
DIMENSIONS mm	1200x800x800	800x600x800	800x600x400	650x450x430	500x400x400	390x320x230
VOLUME m <sup>3</sup>	0,768	0,384	0,192	0,126	0,08	0,0287
MODEL	A	B	C	D	E	F
BOX 01	270	142	70	40	26	08
BOX 02	186	93	45	26	18	06
BOX 03	52	25	10	06	03	01
BOX 04	32	16	08	04	03	01
BOX 05	27	14	06	04	03	-
BOX 06	20	10	05	02	02	-
BOX 07	13	10	05	02	-	-
BOX 08	06	04	02	01	-	-



# PACKAGING



# PACKAGING





# GENERAL CONDITIONS

## **1. ORDERS**

All the orders executed through our sales network or directly send by the purchaser to our company are definitive only when regularly accepted through written order confirmation.

## **2. PRICES**

The prices don't include taxes and they could change according to the market run, production costs and exchange rate between Euro and other currencies.

## **3. DELIVERY**

Delivery terms are not binding but they depend on the manufacture possibilities or acts of God (labour movements, machine failures, supplier's late delivery, raw materials general conditions, fires, inundations or others). Delay don't allow forms of compensation or indemnity for damages.

## **4. FORWARDING**

Goods will be delivered at buyer's risk even for carriage paid shipment. Salupo s.r.l. declines every responsibility for theft, breakdown or tampering during the carriage. In this case the only responsible for carriage failure is the carrier.

Before taking goods the addressee must control them and in case of problems he must inform in writing Salupo s.r.l.

After 8 days from date goods are received no claims can be accepted.

## **5. OWNERSHIP RIGHT**

Goods supplied will be Salupo s.r.l. property until complete payment of price, interest rates and freights due. In case of lack of payment or default goods, they must return to Salupo s.r.l. The ownership right is also valid if goods have been transformed or modified.

## **6. GUARANTEE**

Salupo s.r.l. products are all of high quality and conform to the standards mentioned in the catalogue. Merchandise is guarantee only according to the law. Anyway the buyer has to control it before the use, testing it when necessary.

## **7. PAYMENT**

Payments can't be deferred. In case of late payment Salupo s.r.l. will apply interest rates according to the current bank rates. In case of foreign supplies, payments will be through irrevocable letter of credit or conditions agreed.

## **8. IMPOSSIBILITY OF ACTION**

The client can't refuse or suspend the payment, even in case of contests or complaints. He can't start a judicial action without having paid the amount according to the defined tems.

## **9. TECHNICAL CHARACTERISTICS**

Technical information, measures and illustration in this catalogue are only as indication.

## **10. COMPETENT COURT**

The Court of Patti (Messina) – Italy shall be competent for any legal controversy.

## **11. CLAIMS**

Before taking the merchandise the addressee must control it and in case of problems he must inform Salupo s.r.l. through a written document, indicating the invoice number. Claims must be done in writing within 8 days from the date merchandise is received.

The articles presented in this catalogue can change concerning both shape and characteristics without prior notice.

In the event that a product doesn't fully comply with your expectations, we will always try to find a way to completely satisfy our customers. The use of texts, either partial or complete, images, drawings or anything else that is part of this catalogue is prohibited.



Via Pietra di Roma (z. ind.) - 98070 Torrenova (ME) - Italy  
Tel. +39 0941. 950216 - Fax +39 0941. 958777 - [salupoquadri.com](http://salupoquadri.com)