

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
- Motors maintenance 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
- Emptying (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	25,5÷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

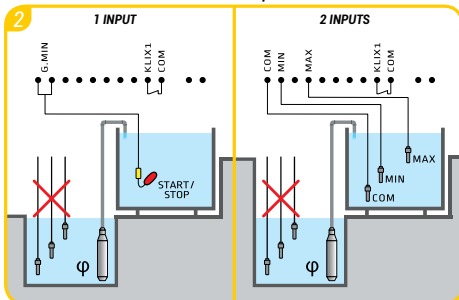
CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.49/B	On board MODBUS RS-485 expansion
OP100.59/B	On board Ethernet - WiFi expansion
OP100.69/B	On board BMS expansion up to 3 motors
OP100.99/B	On board expansion to detect water in the oil chamber up to 3 motors
OP100.01	3 level probes kit
OP100.17/024	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) see page 20
SS101.01	Visual and acoustic alarm indicator with buffer battery (TOP ALARM VAB 230) see page 19
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
AC300.20.01-005.31	Piezoresistive probe 4-20mA with 5m cable
AC300.20.01-010.31	Piezoresistive probe 4-20mA with 10m cable
AC300.20.02-010.20	Piezoresistive probe 4-20mA with 10m cable for sewage

For more optionals see page 78

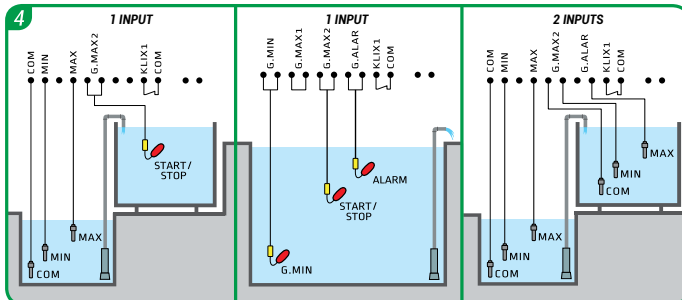
SPARE PARTS

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

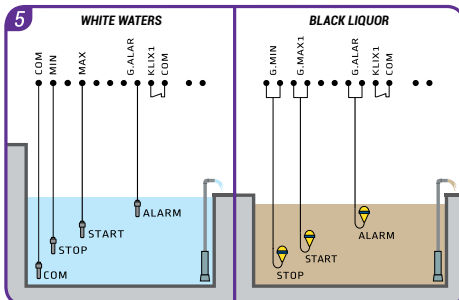
DRY CONTROL RUNNING WITH COSFφ



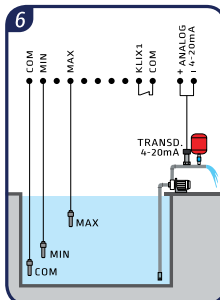
CLEAN WATER



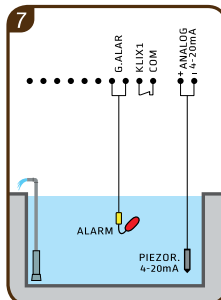
SEWAGE



4-20mA bar



4-20mA meters



COMPONENTS KEY

- Float switch for clean water
- Float switch for sewage
- Level probes
- 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.