

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
- 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
- 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

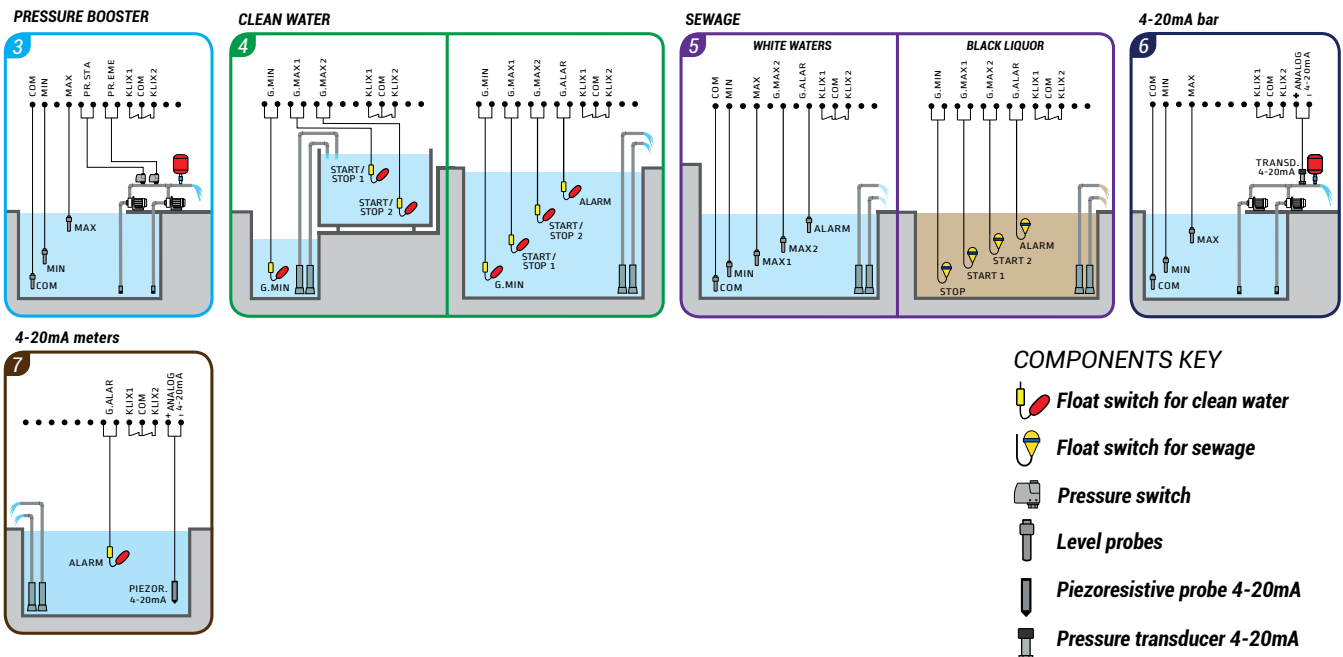
OPTIONALS

CODE	TYPE
OP100.29/B	On board GPRS expansion
OP100.49/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
OP100.05/1	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 per SEWAGE

For more optionals see page 78

SPARE PARTS

CODE	TYPE
AC100.22/1/50	Scheda elettronica display con cavo flat 20pin 50cm
AC100.22/1/80	Scheda elettronica display con cavo flat 20pin 80cm
AC100.22/1/100	Scheda elettronica display con cavo flat 20pin 100cm
SD697.20/1	Scheda elettronica MULTIPLUS 2 trifase 20A
SD697.30-40/1	Scheda elettronica MULTIPLUS 2 trifase 30-40A
SD697.60/1	Scheda elettronica MULTIPLUS 2 trifase 60A
SD697.100/1	Scheda elettronica MULTIPLUS 2 trifase 100A
SD697.200/1	Scheda elettronica MULTIPLUS 2 trifase 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.