



SCF8M-E-U

ELECTRIC MOTOR DRIVEN PROGRAMMABLE-CONFIGURABLE FIRE PUMP CONTROL PANEL



SCF8M-E-U control panels, are **complete** user friendly and configurable instruments, useful for automatically operate up to medium power **electric motor driven fire-fighting pump sets** in any environment

SCF8M-E-U control panels automatically start and stop main fire pumps and/or jockey pumps depending on the system's demand; protect them by means of the connected and controller-generated alarms, visualize the most relevant values and information, also manage the communication with both the contour elements and the remoted manned centre.

MODELS

e.g. SCF8M	EY	0750	JD	055	U	EN
	Electric pump starter	Electric pump	Jockey pump starter	Jockey pump	Standard	Language
SCF8M-E-U SERIES	D: Direct on line (DOL)	0055: 5,5 kW	D: Direct on line (DOL)	- No Jockey pump	U	UNE-EN 12845:2016 EN: English
	Y: Star-Delta	0075: 7,5 kW	Y: Star-Delta	J22: Up to 2,2 kW	U	UNE 23500:2018 UNE 23500:2012 FR: Français
	S: Soft starter	0110: 11 kW	S: Soft starter	J55: Up to 5,5 kW	U	UNI 10779:2014 ES: Español
		0150: 15 kW			B	LPC TB210 / FOC IT:Italiano
		0185: 18,5 kW			AS	AS 2941 Ed. 2013 PT:Portugues
		0220: 22 kW			N	NFPA-20
		0300: 30 kW				
		0370: 37kW				
		0450: 45 kW				
		0550: 55kW				
	0750: 75 kW					



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MAIN FEATURES

Standards and technical regulations	
Standard, Technical regulations	EN 12845 Ed.2016
	UNE 23500 Ed. 2018- Ed.2012
	UNI 10779 Ed. 2014
	LPC-TB210 / FOC
	CEPREVEN R.T.2-ABA Ed. 2006 / CEPREVEN R.T.1-ROC Ed. 2007
	CEA-4001 Sprinkler Systems
UNE-EN 61439-1 Low-voltage switchgear	
Electric and pump motor	
Incoming line voltage	400 V AC
Electrics frequency	50Hz / 60Hz. (depending on model)
Electric pump motor size	Up to 75kW
Jockey pump motor size	Up to 5,5kW
Design features	
Enclosure	IP65 Protected from total dust ingress (NEMA 4) Impact rating: IK10 (except for display) Fireproof grade: Fire extinguishes <30s
Display	Transflective: Visible under direct sunlight Halogen free
Wiring	In compliance with UNE-EN 50525-3-31 Wires up to 1,5mm ² : H05Z1-K flame retardant. Power supply: H07Z1-K Fire resistant:(830° C during 90min)
Pump room temperature	20°F to 104°F (-5°C to 40°C) ,Tested up to 140°F (60°C)
Isolation rating between phases	500 VAC
Isolation rating between phases and ground	2.500 VAC
Isolation impedance between phases and ground	2M Ohm between one phase and ground
Earthing system	Does not required neutral connection
Electromagnetic environment	ECM-1
Pump protections	
Total system alarms	21
Mains	Under / Over Voltage
	Under / Over Frequency
	Phases rotation sense
Electric pump protection	Fuses/Magnetic relays (depending on model)
	Overcurrent alarm
	Low Cos φ Alarm
	Undercurrent alarm
	Low water level alarm
	Pump start failure Alarm / Low discharge pressure
Jockey pump protection	Pump pressure switch: Short circuit / Open circuite
	Fuses
	Overcurrent alarm
	Low Cos φ Alarm
	Undercurrent alarm
	Tripped protection alarm with pump stop
Low water level alarm. (Pump stop optional)	

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Start up methods for electric pump

Automatic Mode	Pressure switch: Low system pressure. Short and open circuit detection Water level sensor: Low priming tank level Manometer: System pressure 4-20mA (0-100bar)
Manual Mode	"Start" press button

Start up methods for jockey pum

Automatic Mode	Pressure switch: Low system pressure. Short and open circuit detection Manometer: System pressure 4-20mA (0-100bar)
Manual Mode	"Start" press button

Measuring instruments

General	3 True RMS Voltmeter: voltage for every phase L1-L2-L3 1 pump rotation/phase rotation sense 1 Electric frequency meter 1 Manometer pump discharge pressure (pressure sensor required with 4-20mA signal)
Electric Pump	1 True RMS Ammeter: pump current 1 True RMS Active power in KW 1 Power factor (Phi Cos)
Jockey Pump	1 True RMS Ammeter: pump current 1 True RMS Active power in KW 1 Power factor (Phi Cos)
Control module	1 Voltmeter: Incoming line voltage
Internal battery	1 Voltmeter: battery voltage 1 Ammeter: battery charging electrical current

Other information in display

Electric pump working hours and minutes	16,000 pressure registers: 150 on display
Jockey pump start count & working hours and minutes	50 pump test registers
Current date and time (RTC with independent battery)	Active demands: pressure switches and sensor
500 last events (pump starts, alarms, etc.): 150 on display	Active alarms
Input & Output. Digital / Analog test on display	Calibration of measuring instruments
Battery and battery charger: charging process and status	Commissioning register / maintenance performed records

Front panel lights and acoustic alarms

Operating modes Electric Pump	Off Auto Manual
Operating modes Jockey Pump	Off Auto Demand
Electric pump status	Start order Running with discharge pressure
Jockey pump status	Demand Start order
Alarm	Red led indicator lamp and 80dB buzzer
Incoming line voltage and phase connections	One led light for each phase / phase rotation
Buzzer	80dB 1 hour autonomy

Communications

Micro USB connector AB type	SAF8M-D↔ PC Communication
Micro USB connector AB type	SAF8M-D↔ PENDRIVE Communication
Ethernet Modbus Protocol/ TCP-IP	LAN (local area network) / WAN (Ethernet) Point-to-point Optional
RS485 Modbus Protocol/ RTU	Optional module SCOM901 not included
Voltage free contacts	6 Voltage-free switched contacts: 30Vdc – 0.3A

Language

ENGLISH / ESPAÑOL / FRANÇAIS / ITALIANO / PORTUGUES

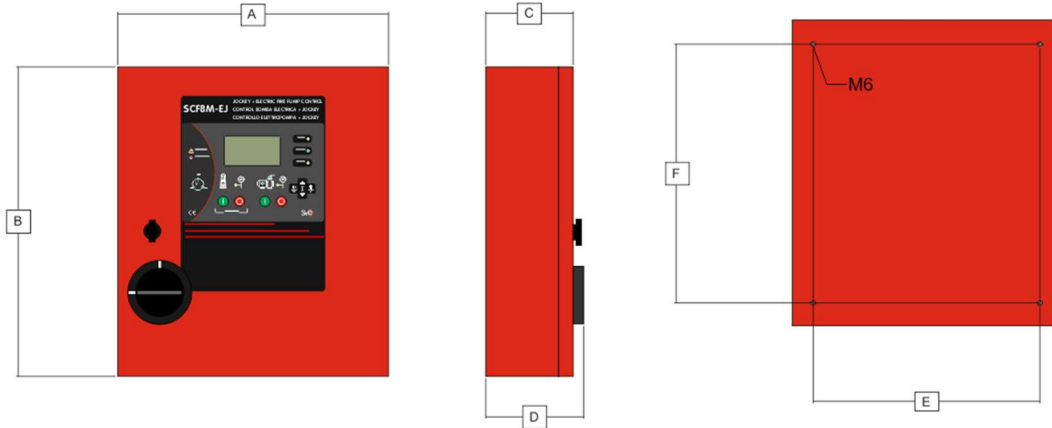


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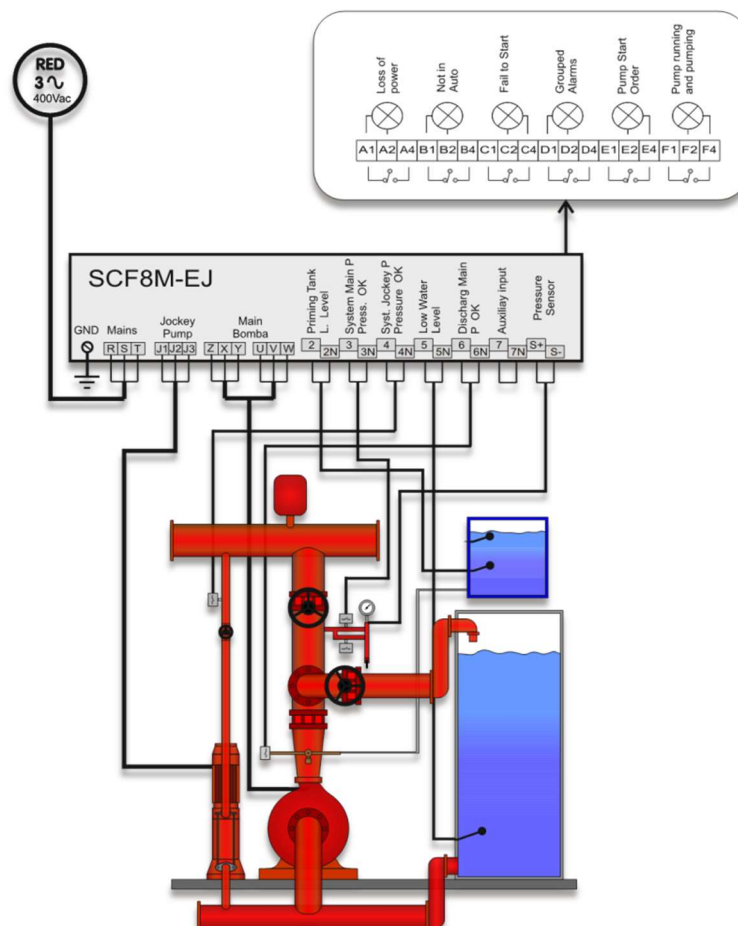
DIMENSIONS



Dimensions and attachments (mm)

	A	B	C	D	E	F
Up to 30 kW	340	430	182	214	290	335
From 37kW to 75 kW	500	500	200	240	430	430

EXTERNAL ELECTRIC WIRING DIAGRAM

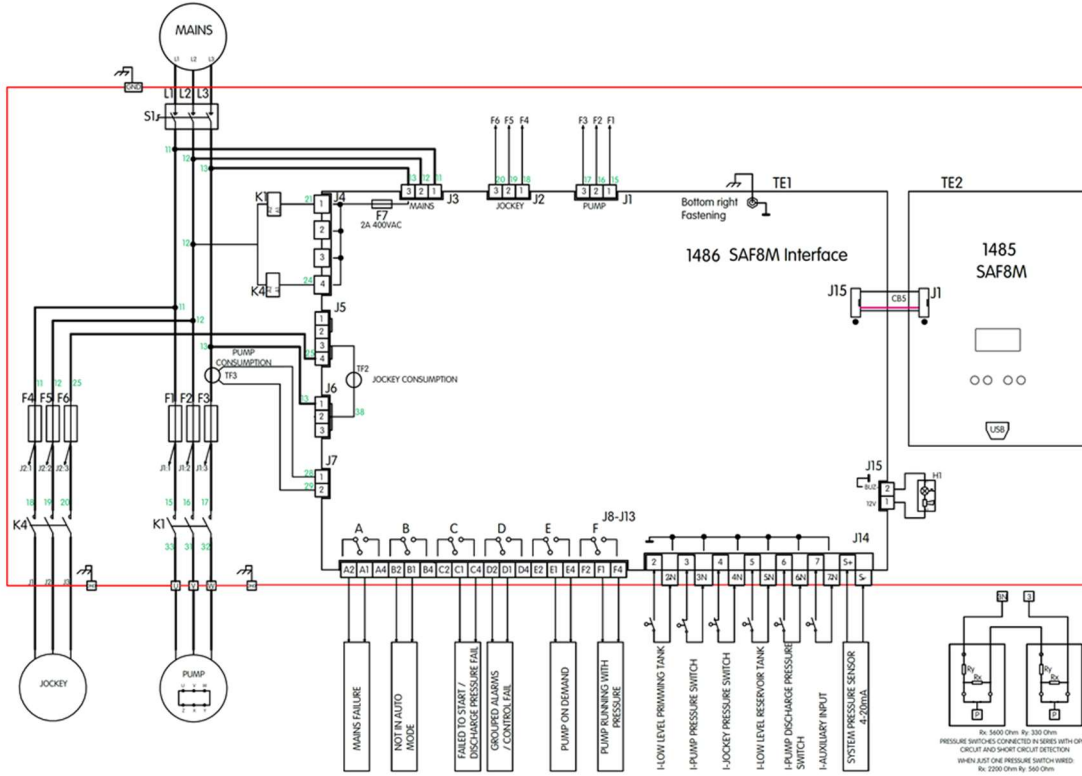


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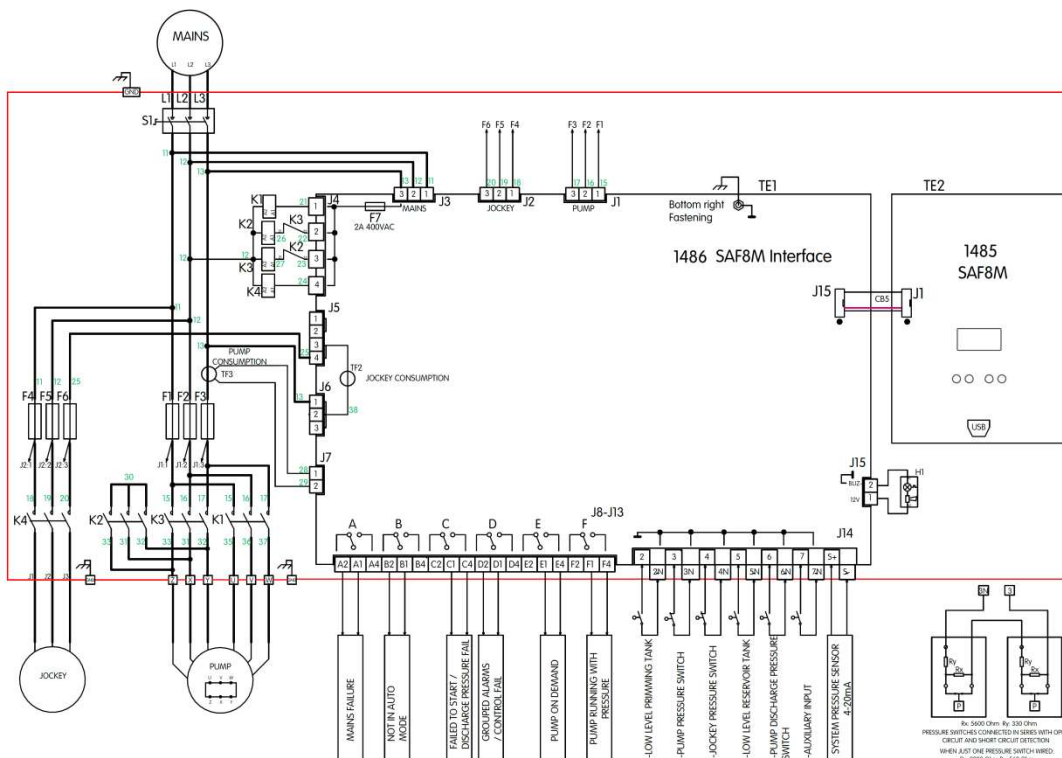
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INTERNAL WIRING CONNECTION DIAGRAM: DOL STARTER ELECTRIC PUMP UP TO 7,5 kW AND JOCKEY UP TO 5,5 kW



INTERNAL WIRING CONNECTION DIAGRAM: Star-Delta Starter Electric Pump up to 75 kW AND JOCKEY up to 5,5 kW



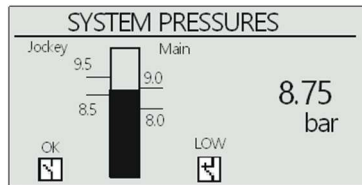
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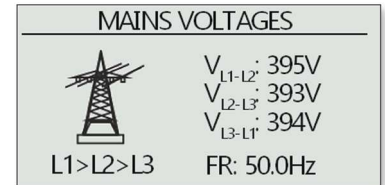


DISPLAYS

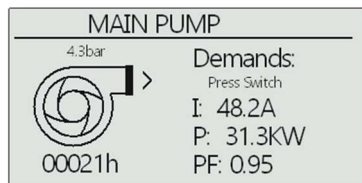
System pressures



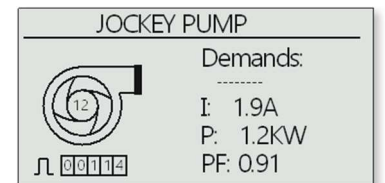
Incoming electric line voltage and frequency



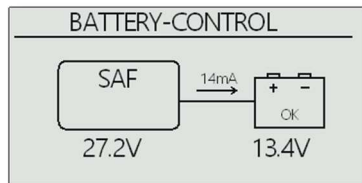
Electric pump parameters



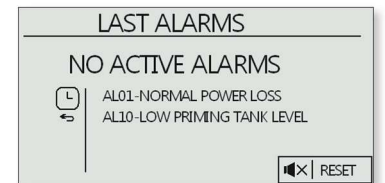
Jockey pump parameters



Battery and current control



Last alarms



Events log

EVENTS	
OFF MODE M. PUMP	09:10 15/05/04
AL01-NORMAL POWER LOSS	08:32 15/05/04
PRIMING TANK L.L. ON	06:50 15/05/04
PRIMING TANK L.L. OFF	06:28 15/05/04
AL10-L PRIMING TANK LEVEL	06:28 15/05/04
OFF MODE M. PUMP	06:10 15/05/04

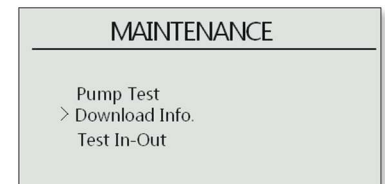
System pressures log

PRESSURES LOG				
hh:mm:ss	AA/MM/DD	Pres	Start	Stop
15/05/04	09:10:00	010.0	08.0	012.0
15/05/04	09:20:00	010.1	08.0	012.0
15/05/04	09:30:00	010.3	08.0	012.0
15/05/04	09:40:00	010.3	08.0	012.0
15/05/04	09:50:00	010.2	08.0	012.0

Maintenance menu



Maintenance menu



COMMUNICATIONS

USB	SCF8M-E(X)-U <====> PC	Monitoring / Configuration via SSW1005 software
	SCF8M-E(X)-U <====> Pendrive	Bootloader: SCF8-E(X)-U firmware update
	Pendrive <====> PC	Information download from SCF8-E(X)-U to PENDRIVE
Ethernet MODBUS TCP/IP	SCF8M-E(X)-U <====> PC	Information transfer from PENDRIVE to PC
RS485 MODBUS / RTU	SCF8M-E(X)-U <====> PC	Monitoring / Configuration via SSW1004 software Data can be monitored using customer's SCADA system
	SCF8M-E(X)-U <====> PC	Monitoring / Configuration via SSW1004 software Data can be monitored using customer's SCADA system





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