



# SCF830-E-U

## ELECTRIC MOTOR DRIVEN CONFIGURABLE-ROGRAMMABLE FIRE PUMP CONTROL PANEL



**SCF830-E-U** control panels are **high performance** user friendly and configurable instruments, useful for automatically operate any power **electric motor driven fire pumps** in any environment.

**SCF830-E-U** control panels automatically start and stop main 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 of the operator and both the contour elements and the remoted manned centre.



### SCF830-E(x)-U MODELS

e.g. SCF830	EY	0750	JD	055	U	EN	
	Pump start	Electric Pump power	Jockey start	Jockey	Standard	Language	
SCF830-E(X) SERIES	D: Direct on line (DOL)	0055: 5,5 kW	D: Direct on line (DOL)	- No Jockey	U:	UNE-EN 12845 Ed. 2015	EN: English
	Y: Star-Delta	0075: 7,5 kW	Y: Star-Delta	J22: Up to 2,2 kW		UNE 23500 Ed.2018	FR: Français
	S: Soft starter	0110: 11 kW	S: Soft starter	J55: Up to 5,5 kW		UNI 10779 Ed. 2014	ES: Español
		0150: 15 kW				B LPC TB210 / FOC	IT: Italiano
		.....				AS AS 2941 Ed. 2013	PT: Português
		2500: 250 kW				N NFPA-20	

# SCF830-E-U

## ELECTRIC MOTOR DRIVEN CONFIGURABLE-PROGRAMMABLE FIRE PUMP CONTROL PANEL



### MAIN FEATURES

Standards and technical regulations	
Compliance with standards and technical regulations	UNE-EN 12845 Ed.2016
	UNE 23500 Ed. 2018
	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
Mains and pump motor	
Incoming line voltage	From 200 VAC to 600 VAC (depending on model)
Mains frequency	50Hz / 60Hz. (depending on model)
Main pump motor size	Up to 560kW
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
Wiring	Halogen free
	In compliance with UNE-EN 50525-3-31
	Wires up to 1,5mm <sup>2</sup> : 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	500V AC or 800V AC (depending on model)
Isolation rating between phases and ground	4.500 VAC
Isolation impedance between phases and ground	680k Ohm between one phase and ground
Earthing system	Does not required neutral connection
Pump protections	
Total system alarms	23
Main pump protection	Fuses/Magnetic Breaker (depending on model)
	Overcurrent alarm
	Low Cos Phi Alarm
	Undercurrent alarm
	Tripped protection alarm
	Low water level alarm
	Pump start failure Alarm / Low discharge pressure
Jockey pump protection	Fuses
	Overcurrent alarm
	Low Cos Phi Alarm
	Undercurrent alarm
	Tripped protection alarm with pump stop
	Low water level alarm. (Pump stop optional)

# SCF830-E-U



## ELECTRIC MOTOR DRIVEN CONFIGURABLE-PROGRAMMABLE FIRE PUMP CONTROL PANEL

Start up methods for main pump	
<b>Automatic Mode</b>	Pressure sensor Line 1: Low system pressure. Short and open circuit detection
	Pressure sensor Line 2: Low system pressure. Short and open circuit detection (Optional not offered in standard models)
	Water level sensor: Low priming tank level
	Remote start contact (Optional not offered in standard models)
	Monometer: System pressure
<b>Manual Mode</b>	"Start" press button
Start up methods for jockey pump	
<b>Automatic Mode</b>	Pressure sensor. Low system pressure.
	Monometer: System pressure
Measuring instruments	
<b>General</b>	3 Voltmeter: voltage for every phase L1-L2-L3
	1 pump rotation/phase rotation
	1 Mains frequency meter
	1 Manometer pump discharge pressure (pressure sensor required with 4-20mA signal)
	1 Flowmeter (pulse emitter or 4/ 20 mA sensor) (Optional not offered in standard models)
<b>Main Pump</b>	1 Ammeter: pump current
	1 Active power in KW
	1 Power factor (Cos φ)
<b>Jockey Pump</b>	1 Ammeter: pump current
	1 Active power in KW
	1 Power factor (Cos φ)
<b>Control module</b>	1 Voltmeter: Incoming line voltage
<b>Internal battery</b>	1 Voltmeter: battery voltage
	1 Ammeter: battery charging electrical current
Other information on display	
Main pump working hours and minutes	150 system pressure register log 16.0000 recorded
Jockey pump start count & working hours and minutes	50 pump test
Current date and time (RTC with independent battery)	Input / Output test
150 last events (pump starts, alarms, etc.). 500 recorded	Calibration of measuring instruments
Battery and battery charger: status:	Commissioning register / maintenance performed records
Communications	
<b>USB (standard feature)</b>	Communication SAF830-D←→ PC
	Communication SAF830-D←-> Pendrive
<b>ETHERNET Modbus / TCP-IP</b>	LAN (Local network) Optional SCOM903 module
	WAN Optional SCOM903 module
	Point to point Optional SCOM903 module
<b>RS485 Modbus / RTU</b>	Optional SCOM901 module
<b>Voltage free contacts</b>	6 Voltage free Switched contacts I: 30Vdc - 0.3A

# SCF830-E-U



## ELECTRIC MOTOR DRIVEN CONFIGURABLE-PROGRAMMABLE FIRE PUMP CONTROL PANEL

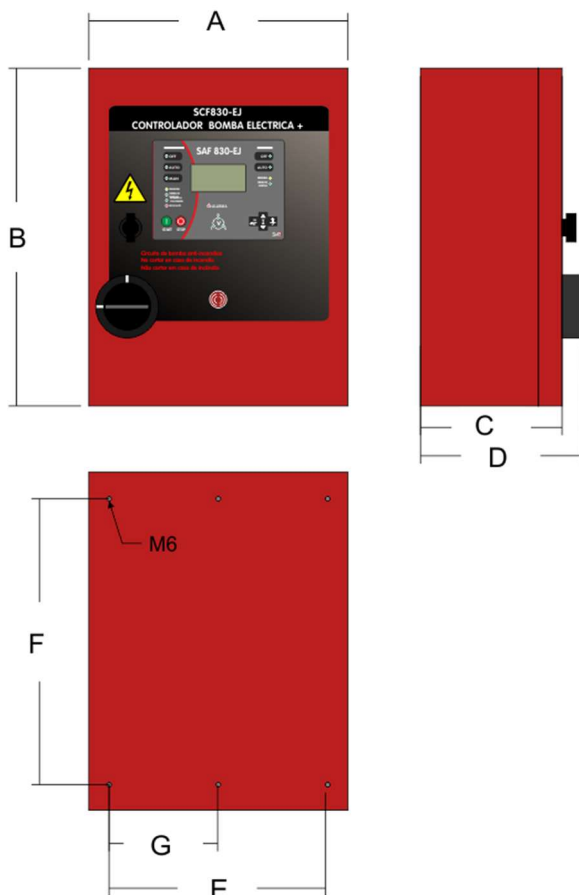
### Monitoring signals on front panel

Operating modes Main Pump	Off
	Auto
	Manual
Operating modes Jockey Pump	Off
	Auto
Main pump status	Demand
	Start order
	Running with discharge pressure
Jockey pump status	Demand
	Running 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 7 hour autonomy

### Languages

ENGLISH / SPANISH / FRANÇAIS / ITALIANO / PORTUGUES

## DIMENSIONS AND FIXING



### Dimensions (mm)

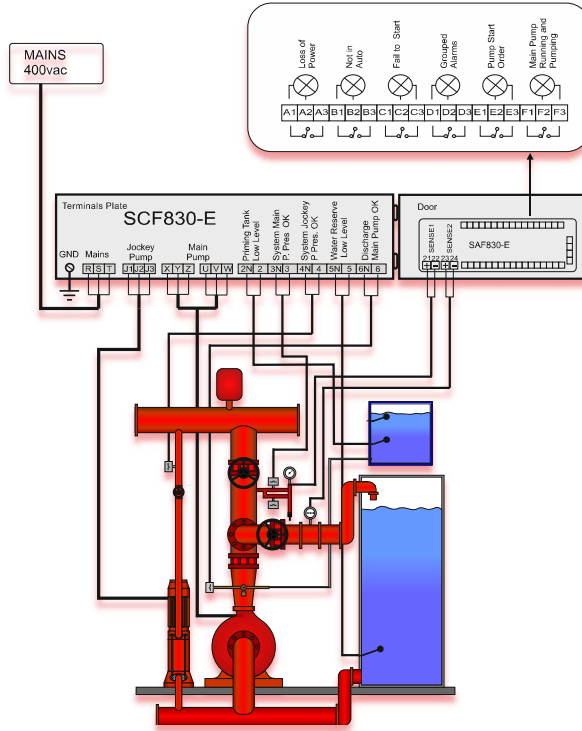
	Up to 30kW	Up to 90 kW	Up to 200 kW	Up to 355 kW
<b>Y-Δ</b>				
<b>Soft Starter</b>	Up to 15kW	Up to 55 kW	Up to 90 kW	Up to 315 kW
<b>A</b>	380	525	750	950
<b>B</b>	450	500	700	850
<b>C</b>	180	200	300	400
<b>D</b>	250	290	365	470
<b>E</b>	290	430	630	830
<b>F</b>	390	432	640	790
<b>G</b>	-	-	-	415

# SCF830-E-U

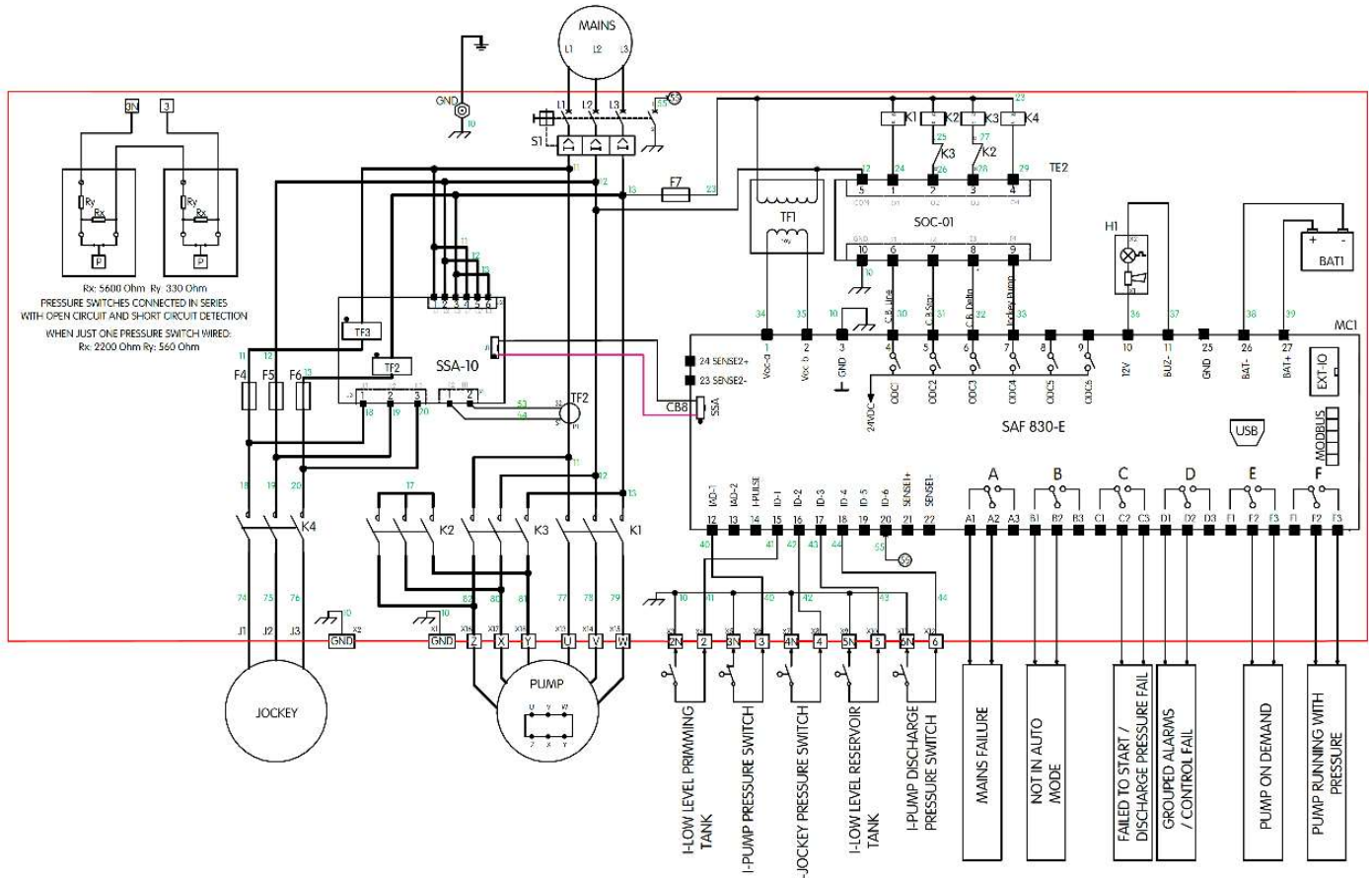
## ELECTRIC MOTOR DRIVEN CONFIGURABLE-PROGRAMMABLE FIRE PUMP CONTROL PANEL



### EXTERNAL WIRING DIAGRAM



### INTERNAL WIRING CONNECTION DIAGRAM



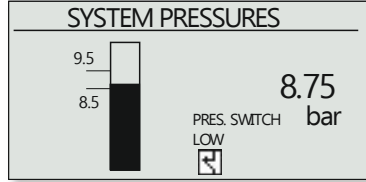
# SCF830-E-U



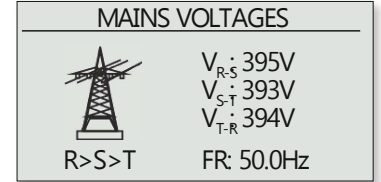
## ELECTRIC MOTOR DRIVEN CONFIGURABLE-PROGRAMMABLE FIRE PUMP CONTROL PANEL

### DISPLAYS

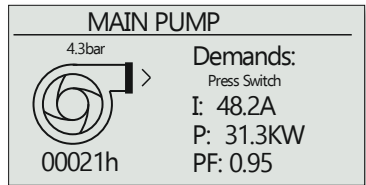
System pressures



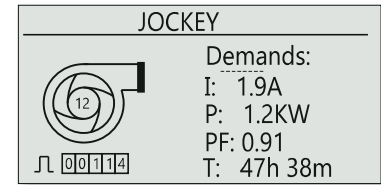
Incoming electrics line voltage and frequency



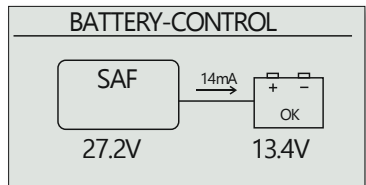
Electric pump parameters



Jockey pump parameters



Battery control and current



Event history

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 pressure 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	

Last alarms

LAST ALARMS

NO ACTIVE ALARMS

- AL01-NORMAL POWER LOSS
- AL10-LOW PRIMING TANK LEVEL

[L] [S] [X] RESET

Maintenance menu

MAINTENANCE

[X] ACCES

Maintenance menu

MAINTENANCE

- Pump Test
- > Download Info.
- Test In-Out

Digital input status

DIGITAL INPUTS

[113] ●	[125] ○	[305] ○	[04] ○
[115] ○	[127] ●	[310] ●	[05] ●
[117] ●	[301] ●	[311] ●	[122] ○
[119] ○	[302] ●	[312] ●	[27] ○
[121] ○	[303] ●	[02] ●	
[123] ●	[304] ○	[03] ○	

Digital output status

DIGITAL OUTPUTS

[01] ●	[19] ●	[63] ○	[B] ○
[09] ○	[20] ●	[H] ●	[B] ○
[10] ○	[23] ●	[G] ○	[A] ○
[11] ●	[24] ○	[F] ●	●
[12] ●	[28] ○	[E] ●	
[17] ○	[29] ●	[D] ○	

### SOFTWARE





**SVE Corp.**

Albert Einstein 36-B  
Parque Tecnológico de Álava  
01510 Vitoria-Gasteiz  
SPAIN

**[www.svecorp.com](http://www.svecorp.com)**