



Single pump controller

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Product

The FPC100 pump control unit is designed for control and supervision of submersible pumps. Pump operation is automated without the use of floats or level sensors. The moment the pump begins to "snore" (i.e. pump air instead of liquid), the pump cycle is halted. The pump controller continually calculates an appropriate "off-time" and restarts the pump after the established time delay. By optimizing the pump cycle, both pump wear and power consumption will be reduced.

Features

Supervision functions

- Stator winding temperature
- Phase sequence
- Phase voltage asymmetry
- Current from current transformer
- Overvoltage and undervoltage check at start up

High level switch can be used to trigger start

Two relay outputs (PUMP and ALARM)

Software controlled settings via a keypad

- Relay functions
- Start- and stop delays
- Pause time adjustments
- Parameter lock for unintentional change of set parameters

Display indication

- Total pumping time and number of pump starts
- Pumping time after the latest start
- Calculated time to start after the latest stop
- Power and peak power in % of measurement range
- Supply voltage
- Parameter settings

Approvals and Standards

EMC	EN50081-1, EN50082-2
Electrical safety	IEC 947-5-1:1990 + A1:1994
Compliance	CE and cUL

Environment

Operating temperature range	-20 °C to 50 °C
Storage temperature range	-30 °C to 80 °C
Protection class	IP20

Performance

Temperature tolerance	< 0.1 % in window 04 / °C
Repeatability power measurement	±1 unit in window 04, 24 h, 20 °C

Dimensions**Dimension (W×H×D)** 45 × 90 × 115 mm (1.77" × 3.54" × 4.53")**Weight** 0.3 kg (10.5 oz)**Power supply****Supply voltage (VAC)** 3 × 100-240
3 × 380-500
3 × 525-690
Note! UL recognized only up to 600 V**Frequency** 45-65 Hz**Current input** Current transformers
10/0.055A
25/0.055A
50/0.055A
100/0.055A
If current > 100 A, a 10A transformer is used with an outer standard transformer**Power consumption** Max 6 VA**Fuse** Max 10 A**Digital input**Terminal 3, for a closing contact
Internal supply 15-30VDC
Shortcircuit current 10-20mA**Analogue input**Terminal 5, temperature input
Internal supply 15-30VDC
Short-circuit current 2-2.5mA**Relay outputs****Pump relay** 5 A, 240 VAC resistive. 1.5 A 240 VAC pilot duty / AC12**Alarm relay** 5 A, 240 VAC resistive. 1.5 A 240 VAC pilot duty / AC12**Terminal wire size** Use 75 °C copper (Cu) wire only
0.2-4 mm² single core,
0.2-2.5 mm² flexible core,
stripped length 8 mm**Part numbers****Table 1: FPC 100 including current transformer (CT)**

Pump main voltage (50/60 Hz)	CT primary rating (A)	Part number
3×100-240V	10	652 02 01
	25	652 02 02
	50	652 02 03
	100	652 02 04

Pump main voltage (50/60 Hz)	CT primary rating (A)	Part number
3×380-500V	10	652 02 05
	25	652 02 06
	50	652 02 07
	100	652 02 08
3×525-690V	10	652 02 09
	25	652 02 10
	50	652 02 11
	100	652 02 12

Table 2: FPC 100 base unit

Pump main voltage (50/60 Hz)	Part number
3×100-240V	84 03 74
3×380-500V	84 03 75
3×525-690V	84 03 76

Table 3: Current transformer (CT)

CT primary rating (A)	Part number
10	83 95 85
25	83 95 86
50	83 95 87
100	83 95 59

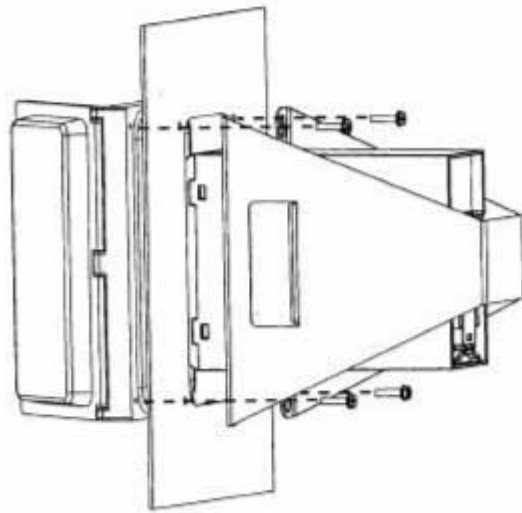


Figure 1: Front panel kit

Table 4: Part number 83 94 12

Contains	Dimension	Parts
Plastic door (IP54)	130x77 mm (5.12"x3.03")	1 pcs
Mounting plate	128x108 mm (5.04"x4.25")	1 pcs
Screws		4 pcs

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- 1) The tissue in plants that brings water upward from the roots
- 2) A leading global water technology company

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The original instruction is in English. All non-English instructions are translations of the original instruction.

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