Description

The Mertech Electrical Fire Pump Control Panels have been designed to offer state-of-the-art functions for the management of electric engine pumps on fire fighting applications according to EN 12845. Built with dedicated components and extremely compact. The FP-EP panel includes the FFL700EP digital controller with a modern designed front panel with a LCD screen providing a clear and intuitive user interface. The panel includes the motor starter suitable for locked rotor currents to TB210:EN 12845.
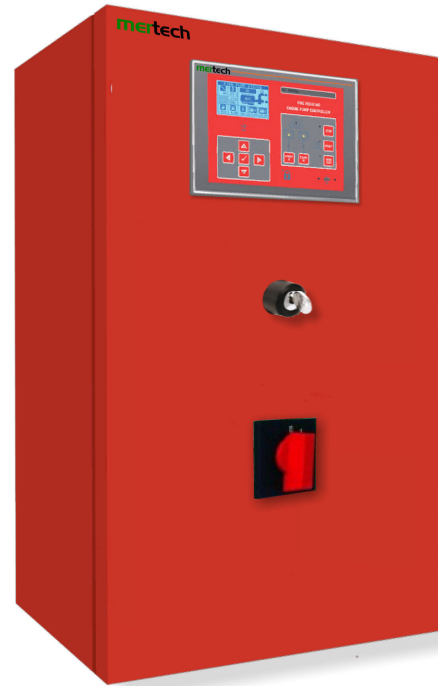
Features

- Designed in accordance to EN 12845
- 3 phase voltage measure inputs
- 3 phase current measure inputs
- 24VAC or *230VAC power supply
- Advaced programmable functions for fire fighting systems
- Possibility of setup via NFC technology and APP
- *Built-in RS485 communication
- PLC logic integrated.

Ratings

Fire Pump Panel Ref.	Motor Rating 400V (kW)	Type of Starter	Approx Full Load Current @ 400V (A)	Locked Rotor Current @ 13.5s (A)
FP-EP-7.5	7.5	Y/Δ	13.55	105
FP-EP-11	11	Y/Δ	19.87	152
FP-EP-15	15	Y/Δ	27.10	205
FP-EP-18.5	18.5	Y/Δ	33.42	245
FP-EP-22	22	Y/Δ	39.74	311
FP-EP-30	30	Y/Δ	54.19	417
FP-EP-37	37	Y/Δ	66.84	499
FP-EP-45	45	Y/Δ	81.29	588
FP-EP-55	55	Y/Δ	99.35	671
FP-EP-75	75	Y/Δ	135.48	948
FP-EP-90	90	Y/Δ	162.57	1156
FP-EP-110	110	Y/Δ	198.70	1277
FP-EP-160	160	Y/Δ	289.02	1908

*Only on FFL800EP digital controller

Design

The controller integrates all the functions required by the EN 12845 standard regarding the electric fire pump management and help the user to monitor and maintain the performance of the entire firefighting system.

The backlit graphic LCD display 128x80 pixel ensures high visibility in low light conditions.

Inputs and outputs are programmable and the number can be increased with the I/O expansion modules, moreover they can be managed in the PLC logic integrated.

This all means an integrated solution with less wiring, less components and less programming to set up the firefighting system. Within the main page, it is possible to see all the information about the electrical fire pump. Functions for the maintenance and the test of the firefighting system are available directly on the display with the possibility to receive remotely this information by the digital outputs or the *Modbus communication through the built-in RS485.

The controller monitors constantly the temperature inside the pump room using the integrated or an external temperature sensor.

Key Points

- Electric fire pump controller according to EN12845.

- Graphic LCD display 128x80 pixels, back lighted, 4 levels of gray.

- 8 Keys for functions and setup.

- 7 LEDs to display operating modes and status.

- Texts for measurements, settings and messages in 5 languages.

- Expansion bus with 2 slots for expansion modules EXP... T series (only for FFL800EP):

  o Communication interface RS485, Ethernet, GSM/GPRS;
  o Additional digital I/O, static or relay outputs;
  o PT100 temperature, current, voltage analog I/O.

- Advanced programmable I/O functions.

- Integrated PLC logic with thresholds, counters, alarms, status.

- Fully user-definable alarms.

- 24 VAC auxiliary power supply.

- 100...240VAC auxiliary supply (only for FFL800EP).

- Three-phase voltage measuring inputs 100-600VAC.

- Three-phase current measuring input from external CTs.

- 8 programmable digital inputs.

- Digital outputs:

  o 6 changeover relay outputs for FFL800EP, 4 for FFL700EP
  o 3 NO relay outputs 16A
  o 1 static output.

- Ambient temperature sensor:

  o 1 built-in NTC
  o 1 remote NTC.

- Front optical programming interface, galvanically isolated, high speed, IP65,

- USB and Wi-Fi compatible.

- Isolated RS485 communication interface built in.

- Wireless setup with NFC technology.

- Calendar-clock (RTC) with backup reserve energy.

- Tropicalized PCB.

- Degree of protection IP65 on front.

- Storage of last 128 events.

- Support for remoting the alarms and for remote annunciator.

- Keyboard functions

  o A. 5 keys for navigation and setup
  o B. Key for manual START
  o C. Key for manual STOP
  o D. Key to silence the alarms.

■ Electric fire pump controller display