



EPLC-6 Control Panel

1. Product Information

EPLC-6 is a pump control panel having 4.3" TFT touch screen , specifically designed PLC main board and relay module. Touch screen control panel is mounted on the front cover of control unit while relay module is assembled in the control unit. PLC control panel and relay module is connected to each other with data transfer cable. EPLC-6 control panel has the ability to drive and show status up to 6 pumps via relays and contactors. System parameters can be set easily using Settings menu on touch screen.

EPLC-6 control panel, can be used on constant pressure booster or differential pressure circulation systems with the help of receiving data from analog pressure sensor. The panel especially recommended to use with frequency inverted pump applications. Apart from that, it is also possible to use the panel on constant cycle pump systems. It is possible to control six pumps with one single control unit consisting EPLC-6 control panel.

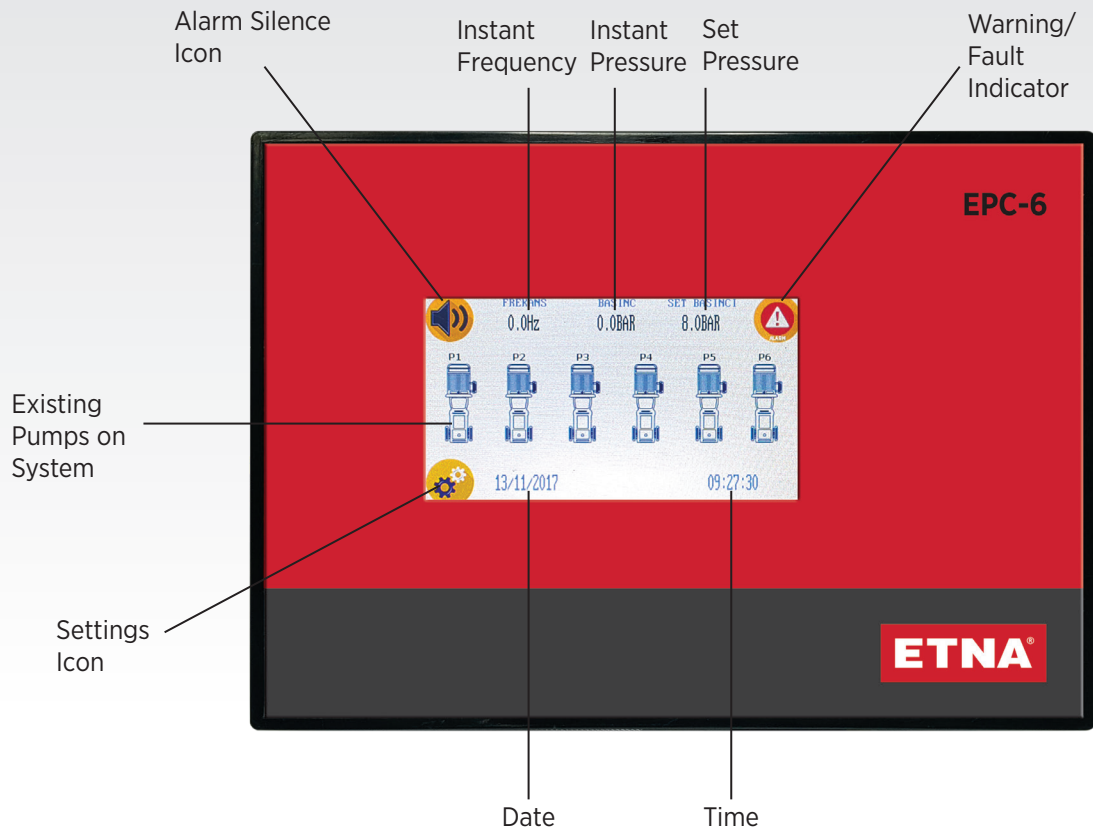


Figure 1 : EPLC-6 main menu screen and icons

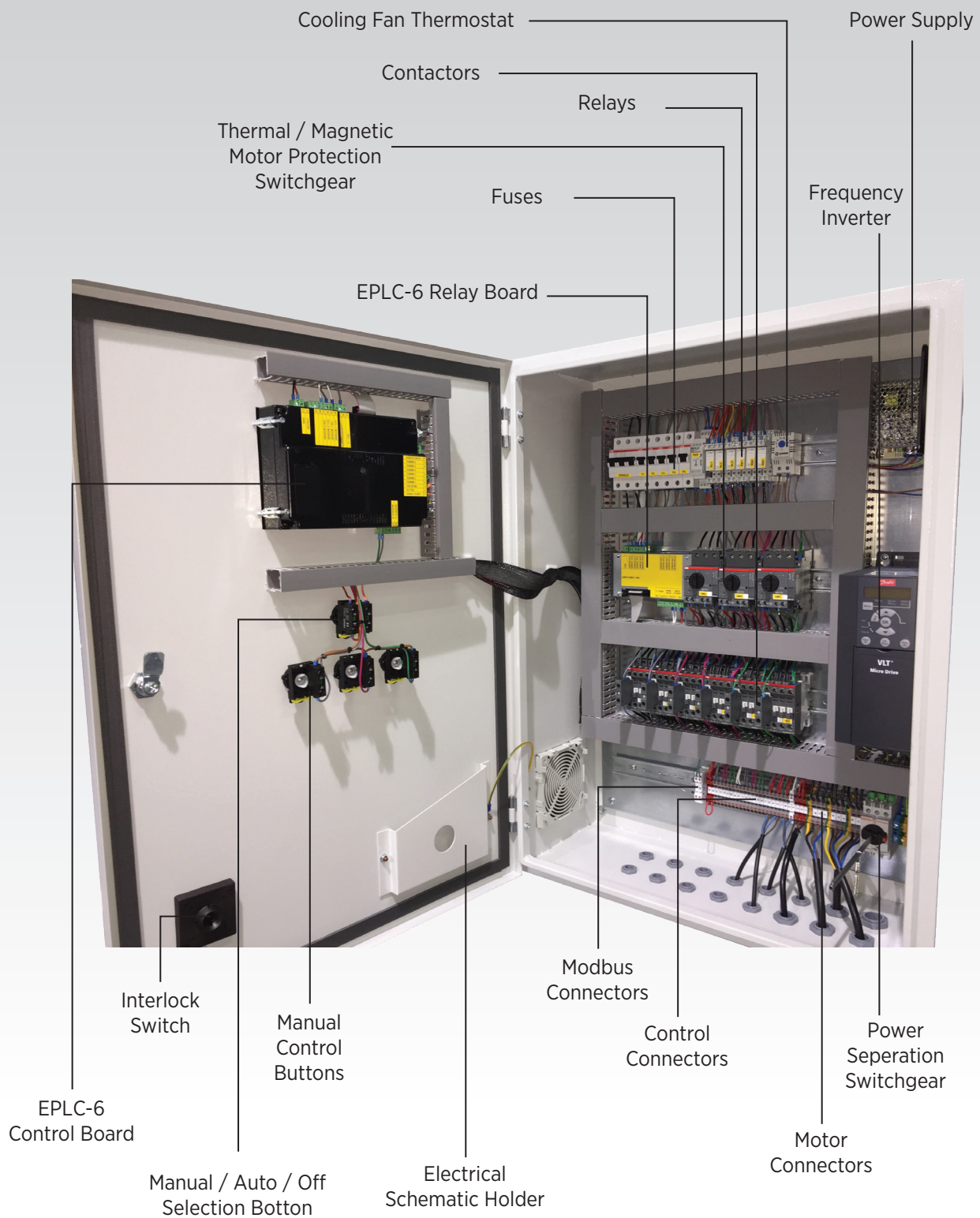


Figure 2: EPLC-6 Panel Internal View

2. Dimensions

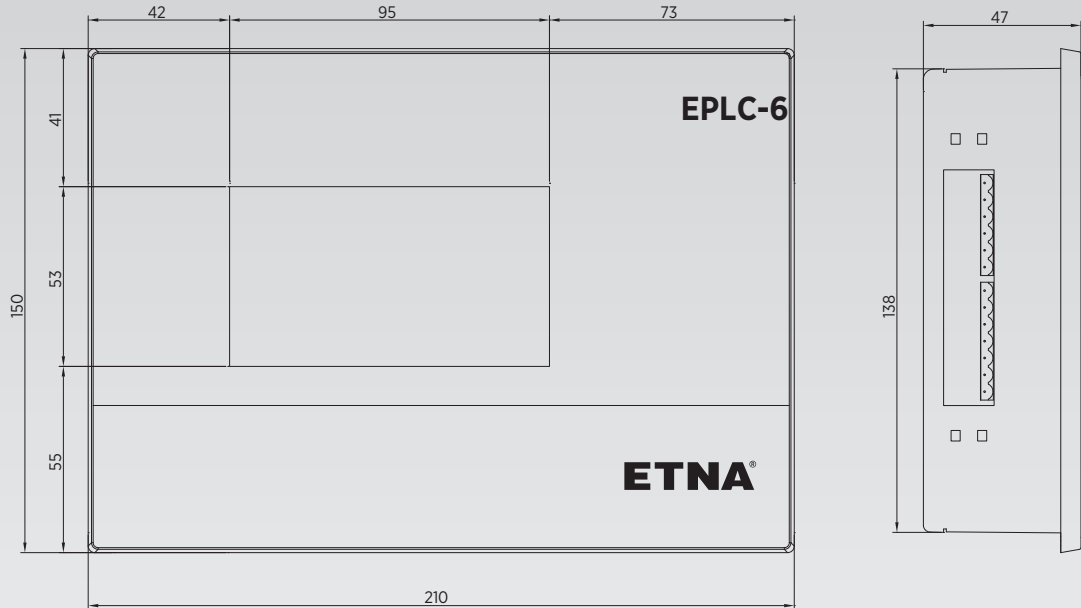


Figure 2: EPLC-6 control panel dimensions

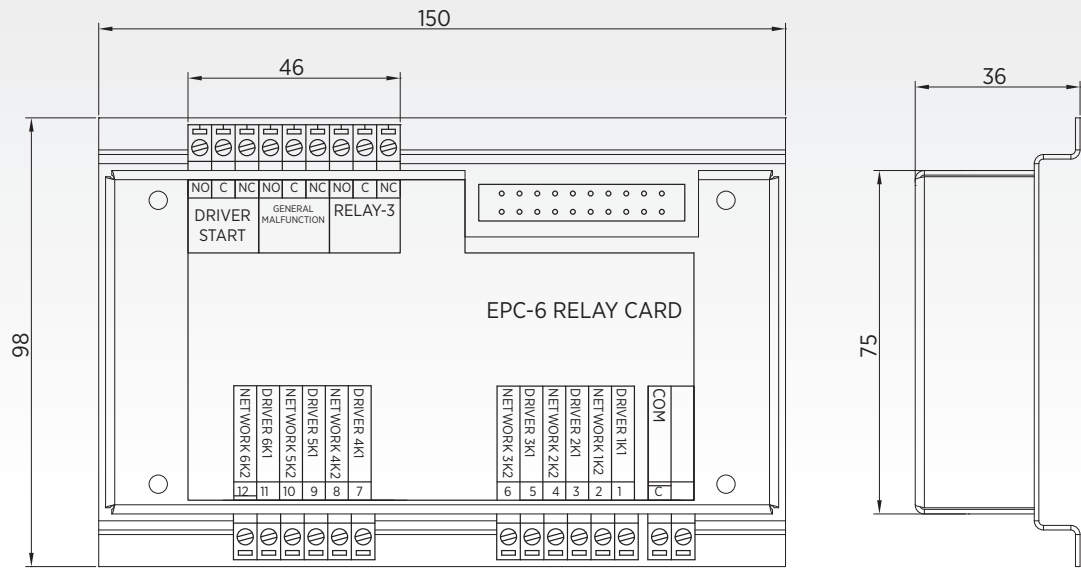


Figure 3: EPC-6 relay board dimensions

3. Technical Specifications

3.1 General Specifications

- Easy to use with state of the art TFT touch display
- Ability to view ; number of pumps working, pump mode, driver frequency, set pressure, instant pressure , fault indications and date-time information.
- Preventing unauthorized access thanks to password protection support
- Possibility to change settings while system running
- Ability to view working hours of each pump
- Capability of collecting data with high precision using wide range of pressure sensor calibration and off-set menu
- High pressure protection with adjustable value and duration
- Low pressure protection with adjustable value and duration against low water level and cavitation
- Control capability up to 6 pumps
- Optimum reaction time according to system needs with the help of adjustable pump on/off time
- Adjustable wake-up pressure
- Adjustable cyclic change over time
- Manual pump back up
- Booster and circulating mode selection
- Selection mode of with / without driver
- Adjustable PID reaction speed
- Adjustable maximum driver working frequency
- Adjustable minimum driver working frequency
- Ability to run pumps with maximum speed via mains supply contactors in case driver in fault mode
- Periodic maintenance reminder
- Turkish / English language option
- 100 events history logging capacity
- Real-time date / time information
- Possibility to transfer parameters to building automation system via MODBUS

3.2 Hardware Specifications

- 4.3" TFT touch display
- 24 V DC power supply
- 12 V DC internal isolated 4-20mA transmitter supply ve two transmitter inputs
- Single 0-10 V output
- External start digital input
- External low-water-level digital input
- External phase fault digital input
- Thermal protector fault digital input for each pump
- Driver fault digital input
- RS 485 modbus output
- Relay output dedicated to each pump for mains supply and driver contactor up to 6 pumps
- Driver start relay output
- General fault relay output

REGISTER ADDRESS	UNIT	RATIO	VALUE RANGE	DESCRIPTION
4000	-	-	0 - 1	After sales service maintenance alarm. If output is 1 alarm exists, If output is 0 alarm does not exist.
4001	-	-	0 - 1	Panel start - stop. If output is 1, panel is in start mode, If output is 0, panel is in stop mode
4002	-	-	0 - 1	Blockage fault information. If output is 1, blockage fault exists; If output is 0, blockage fault does not exist
4003	-	-	0 - 1	Phase fault information. If output is 1, phase fault exists; If output is 0, phase fault does not exist.
4004	-	-	0 - 1	No water fault information. If output is 1, no water fault exists; If output is 0, no water fault does not exist
4005	-	-	0 - 1	Sensor 1 fault information. If output is 1, sensor 1 fault exists; If output is 0, sensor 1 fault does not exist.
4006	-	-	0 - 1	Sensor 2 fault information. If output is 1, sensor 2 fault exists; If output is 0, sensor 2 fault does not exist.
4007	-	-	0 - 1	High pressure fault information. If output is 1, high pressure fault exists; If output is 0, high pressure fault does not exist.
4008	-	-	0 - 1	Driver fault. If output is 1, driver fault exists; If output is 0, driver fault does not exist.
4009	Second	-	0 - 65535	Low pressure countdown. In case low pressure fault, countdown starts
4010	Hz	0,1	450 - 650	Driver frequency
4011	-	-	0 - 1	Operating Mode. If output is 1, circulation mode; If output is 0, booster mode
4012	Bar	0,1	0 - 65535	Line pressure.
4013	Bar	0,1	0 - 65535	Set pressure.
4014	-	-	0 - 65535	Pump 1 data. 11 Pump Run Mode, 22 Pump Standby Mode, 33 Pump Backup, 44 Thermal Protector Fault
4015	-	-	0 - 65535	Pump 2 data. 11 Pump Run Mode, 22 Pump Standby Mode, 33 Pump Backup, 44 Thermal Protector Fault
4016	-	-	0 - 65535	Pump 3 data. 11 Pump Run Mode, 22 Pump Standby Mode, 33 Pump Backup, 44 Thermal Protector Fault
4017	-	-	0 - 65535	Pump 4 data. 11 Pump Run Mode, 22 Pump Standby Mode, 33 Pump Backup, 44 Thermal Protector Fault
4018	-	-	0 - 65535	Pump 5 data. 11 Pump Run Mode, 22 Pump Standby Mode, 33 Pump Backup, 44 Thermal Protector Fault
4019	-	-	0 - 65535	Pump 6 data. 11 Pump Run Mode, 22 Pump Standby Mode, 33 Pump Backup, 44 Thermal Protector Fault
4020	-	-	0 - 65535	Number of pumps on the system
4021	Minutes	6	0 - 65535	Pump 1 total run time
4022	Minutes	6	0 - 65535	Pump 2 total run time
4023	Minutes	6	0 - 65535	Pump 3 total run time
4024	Minutes	6	0 - 65535	Pump 4 total run time
4025	Minutes	6	0 - 65535	Pump 5 total run time
4026	Minutes	6	0 - 65535	Pump 6 total run time
4027	-	-	0 - 1	Low pressure fault. . If output is 1, low pressure fault exists; If output is 0, low pressure fault does not exist.

Table 1: EPLC-6 Control Panel Modbus Address Table



After-Sales Services

With our more than 35 years of sector experience, 97 service points all around Turkey, and customer-oriented after-sales approach to service, we are with you (commissioning, maintenance and repair, spare part supply).



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