ENGINE CONTROLLER

EC40CR



This series of controllers are mainly used in engine control systems for water pumps, lighthouses, air compressors and engineering machinery types, applicable to stand-alone automatic control monitoring system, with remote start and stop, data measurement, alarm protection functions.

2.8 inch LCD screen display with brand new UI design is adapted in this controller can display related parameters directly. The LCD screen can display various faults at the same time. Once the unit does not run normally, it can effectively achieve protection.

There are Chinese/English interface options, more language can be set according to user's request. All the parameters can be configured through the front face buttons or use programmable interface by RS485 or USB to adjust via PC.



PARAMETERS DISPLAY

- Engine RPM
- Engine oil pressure
- Engine water temperature
- AUX.sensor parameters
- Engine battery voltage
- Charging voltage
- Cumulative power-on time
- Total Crank times
- Current running time
- Total running time
- Maintenance notice
- 6 switches input status display
- Output status display of 7 relays

PROTECTION

- Over speed
- Under speed
- RPM Lost
- Low oil pressure
- High Engine water temperature
- Low fuel level
- Crank failure
- Stop Failure
- Emergency pull over
- Sensor Open
- ECU alarm failure
- ECU communication Failure
- Low water level alarm
- Failed to charge
- Over battery voltage
- Under battery voltage
- External real-time alarm
- Maintenance expire
- All warnings
- Alarm shutdown

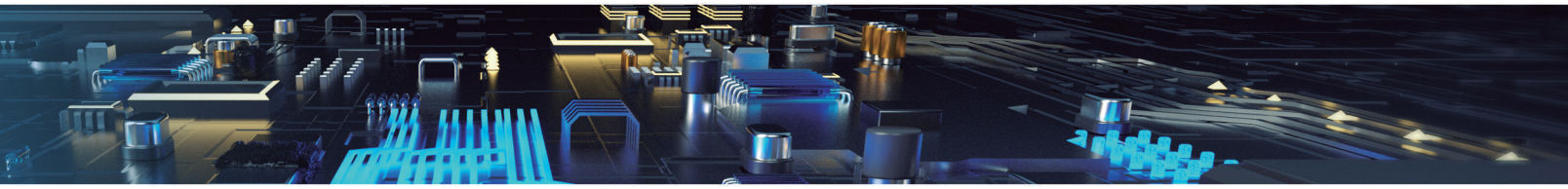
MAIN FEATURES

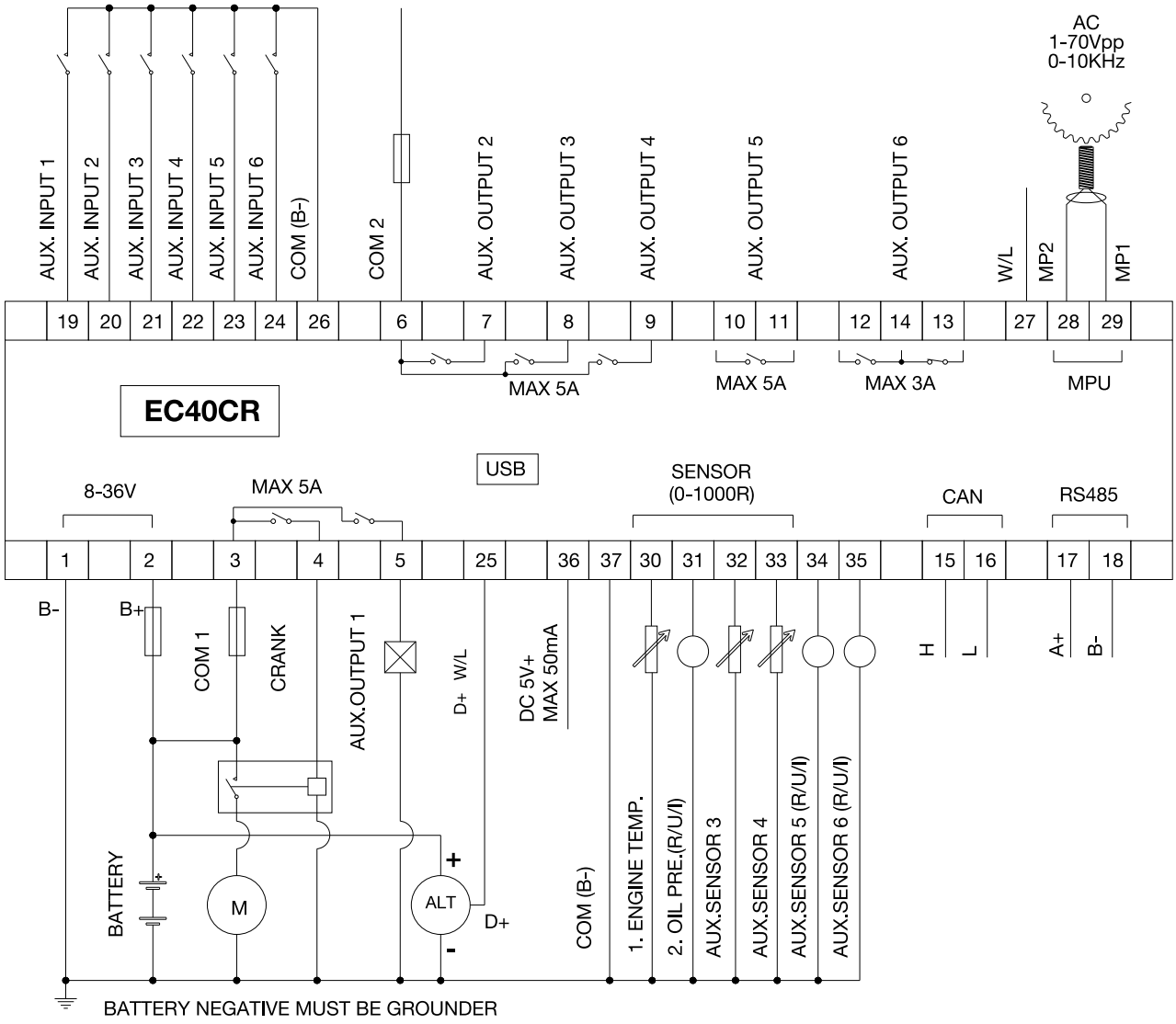
- 32bit high performance single chip microcomputer.
- 2.8 inch LCD screen, It has 16 display languages including Chinese and English, user's language set if necessary.
- Indicator and number display through UI surface.
- Acrylic material is adapted to protect the screen.
- Silicone panels, waterproof, oil-proof, UV-resistant, good operation feel and long service life.
- USB Port: parameters can be set even without power through USD port to monitor in real time.
- With RS485 communication port, can achieve "Three Remote" functions via MODBUS protocol.
- Standard CAN communication port, built-in J1939 protocol.
- Various kinds of parameters display.
- Input/output function, status can be shown directly.
- More categories of surface setting.
- Real time clock inside: preset time operate and auto maintenance is available. Engine working plan can be set as per week or month.
- Protection countdown function, which can set the maintenance time or date.
- Equipped with black box function: capable of storing 100 sets of alarm records, including relevant parameters of the unit when a fault alarm occurs, facilitating the search for the cause of the fault;
- Equipped with event recording function: can save 5000 system operation logs;
- Equipped with operation record storage function: can save 5000 engine operation records for easy understanding of engine operation status;
- Totally 7 relay's output, among which 5 relay output can be self-configurable, each relay can be set as max 80 functions.
- With 6 switches input, up to 50 functions optional.
- 6 sensor simulation input connectors, 3 input types is configurable and various kinds of units can be set.
- Battery charging control function,which can protect the battery according to battery voltage status.
- Sensor can be self-defined by front face button or PC software.
- Various of crank conditions (RPM, External input , Oil Pressure,) can be chosen.
- Control Protection: Auto Start/Stop of unit, perfect failure display and protection.
- Standard water-proof rubber gasket. The waterproof can reach IP54.
- Module design: All the connections are adapted with European connectors so that installation, connection, repair and replacement can be more easily.

APPLICATION CONNECTION DIGRAM

PARAMETERS

Options	Parameters
Working voltage	DC 8V----36V Continuous
Power consumption	Standby:MAX 2W
	Working:MAX 3W
Rotate speed sensor Frequency	50-10000 Hz(AC1~70V)
MAX Accumulating Time	99999.9Hours (Min Store time:6min)
Crank start Relay Output	Max 5Amp/250VAC Non-contact normally Open output
AUX. OUTPUT 1-5	Max 5Amp/250VAC Non-contact normally Open output
AUX. OUTPUT 6	Max 3AMP/250V Non-contact normally Open&Closed output
Sensor INPUT	6 configurable sensor inputs
Excitation output	DC+VE supply voltage
AUX.INPUT 1-6	Available if connecting with Battery -
Working condition	-25-70℃
Storage condition	-30-80℃
Protection Level	IP65: when waterproof rubber gasket is added between controller and its panel
Insulation strength	Apply AC 2.2kV voltage between high voltage terminal and low voltage terminal; The leakage current is not more than 3mA within 1min.
Overall dimension	142mm*105mm*45mm
Panel cutout	116mm*90mm
Weight	0.35Kg





REMARK: 1. The Charger negative needs to be separately connected to the case or the negative terminal of the battery.
2. To ensure reliable operation of the module and the measuring accuracy, Try not to share the power cord with other devices.