

E-POWER

ECM800 Series

Intelligent Motor Protection and Control Devices

➔ ECM801
ECM800



35mm DIN rail mounting
Reliable electromagnetic compatibility
Optional display module for local operation
Pluggable terminals, easy to install and maintain
Measurement, protection, control and communication

E-Power Technology Ltd.

<http://www.e-powertech.ca>



Breaker direct starter		
DI	ECM800	ECM801
DIs in main module	8	9
Extended digital module can provide 11 DIs at the most.		








ECM801 Intelligent Motor Protection and Control Device

- Statistic data from the motors, trip events logging
- LED indicators in main module
- Optional display module for local operation

Performance Index

- Power frequency withstand voltage: AC2kV/ min. ~1mA
- Insulation resistance > 50M
- Impulse withstand voltage: 5kV (peak), 1.2/50uS
- Digital input: standard 9 routes, can be extended to 20 routes. ECM801 provides internal 30VDC power supply for digital input.
- Relay output: 5 relays, 4NO, 1NC, can be extended to 9 routes.
- Output capacity of control relay:
AC type: 250VAC/12A, 380VAC/5A
DC type: 220VDC/3A
- Output capacity of signal relay:
250VAC/10A or 30VDC/5A
- Analog output load resistance: 350
- Power supply input: 85~265VAC, 80~ 300VDC
- Communication protocol: RS485 port/ MODBUS protocol, or PROFIBUS-DP protocol
- Electrical fast transient/burst immunity test: IEC61000-4-4, Level 4
- Surge immunity test: IEC61000-4-5, Level-3
- Electrostatic discharge immunity test: IEC61000-4-2, Level 3
- Radiated immunity test: IEC61000-4-3, Level 3
- Operating temperature: -20~ 55 , humidity: 10~90%, non-condensing
- Storage temperature: -40~70 , humidity: 10~95%, non-condensing

ECM801-- Components

Main Module	Measurements, control, protection and communication functions etc	
Display Module	Read parameters from main module, set parameters to main module, or send control command to main module.	
CT Module	The CT module is used to measure the current of motor. It is independent from main module and connected with main module with cables.	
Digital Module	The number of DI and DO can be added via the extended digital module.	
Analog Module	The analog current input and the temperature resistance input can be added via the extended analog module.	
Power Supply Module	If a system has AC and DC power supply to the device at the same time or the restart function is needed, the power supply module can be selected.	
Leakage Current Transformer	The leakage current transformer is used to measure leakage current of a motor circuit. It is needed, if the leakage current protection function is selected.	

Note: The main module and CT module are necessary. The other modules can be selected according to requirements.

Dimension and Installation

Order Information

ECM801-- -- -- -- (main unit)

: Rated Current				: Other Protection Function	
2	2A	250	250A	C	<i>Leakage Current Protection</i>
6.3	6.3A	500	500A	X	<i>EEx e Overload Protection</i>
25	25A	820	820A	V	<i>Voltage Protection</i>
100	100A			: Accessorial Function	
: Communication Protocol				A	<i>One 4-20mA Analog Output</i>
N	No communication			E	<i>Trip Events</i>
M	MODBUS-RTU			S	<i>Statistic Information</i>
P	PROFIBUS-DP			R	<i>Restart Function</i>
F	Two MODBUS-RTU			: Control Relay Type	
				Z	220VDC/3A

Notes:

1. The basic protection function include start overtime protection, overload protection, overcurrent protection, phase failure protection, current unbalance protection, earth fault protection, short circuit protection, underload protection, external error input protection.
2. The functions dedicated with italics can be selected together.
3. The leakage current protection needs an additional leakage CT.
4. Voltage protection function includes overvoltage, undervoltage, underpower, phase sequence error protection. If voltage protection function or restart function are selected, voltage measurement function will be active automatically.
5. If temperature protection function or analog input protection function is needed, the extended analog module EA1 should be selected.
6. If the control circuit is DC system, the "Z" item can be selected.

Accessorial Modules

Display Module	ECM801D1	Display panel for local control.
Extended Digital Module	ED1	4DI, 4DO
	ED2	8DI, 2DO
	ED3	11DI
Extended Analog Module	EA1	One 4~20mA analog input, one PTC/NTC input (temperature protection)
	EA2	Two 4~20mA analog input
Power Supply Module	PL1	When the system voltage is interrupted, it provides power to ECM801 to work for 3~6s. It is proper for 220VAC or 220VDC input.
	PL2	It is proper for 380VAC input.
	PL3	When the system voltage is interrupted, it provides power to ECM801 to work for 9s. It is proper for 220VAC input.
Leakage CT	LCT100	The inside diameter is 50mm. It is proper for motor with rated current 10~100A.
	LCT250	The inside diameter is 75mm. It is proper for motor with rated current 100~250A.
	LCT400	The inside diameter is 100mm. It is proper for motor with rated current 250~400A.
	LCT630	Foursquare CT . It is proper for motor with rated current >400A.

