

ECM800 Series

Intelligent Motor Protection and Control Devices

ECM801

Start overtime	o	o
Overload	o	o
Overcurrent	o	o
Phase failure	o	o
Current unbalance	o	o
Short circuit	o	o
Earth fault	o	o
Underload	-	o
External fault	-	o
Leakage current	-	-
Temperature (PTC/NTC)	-	-
Overvoltage	-	-

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

ECM800 Low Voltage Motor Protection and Control Device

Description

ECM800 low voltage motor protection and control device is designed for protecting the low voltage motors from various fault conditions. It is an intelligent unit with high cost-effective and stability. It integrates relay protection, measurement, control and communication all in one,

ECM800 samples the 3- phase current, 3-phase voltage, zero-sequence

- Build-in CTs for rated current up to 100A
- LED indicators in main module
- Optional panel for local operation
- Reliable electromagnetic compatibility
- DIN rail mounting

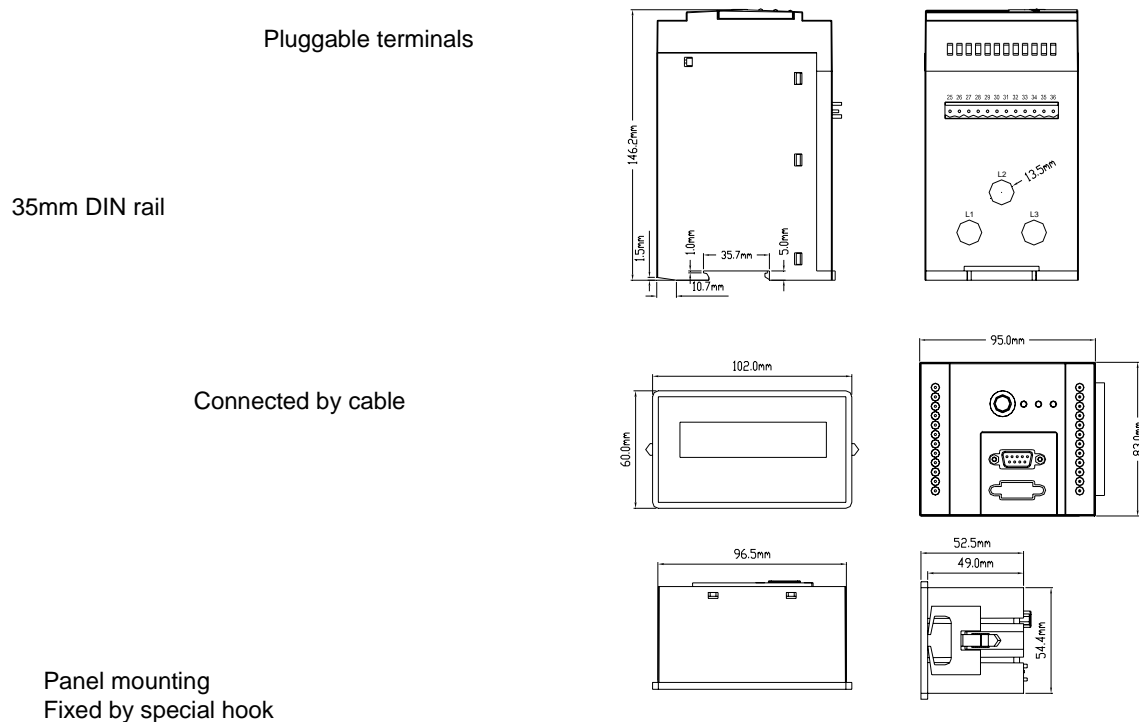
ECM800 -- Components

The whole components include:

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.	
Power Supply Module	If a system has AC and DC power supply to the device at the same time, 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.	
External Current Transformer	When the rated current of a motor is over 100A, external CTs are needed to measure the current of motor.	

Note: Not all the above components are necessary. They can be selected according to requirements.

Dimension and Installation



Order Information

ECM800-æ-ç-è-é-ê (main unit)

æ Rated Current		é : Protection Function	
2	2A	S	<i>Standard Protection</i>
6.3	6.3A	C	<i>Leakage Current Protection</i>
25	25A	X	<i>EEx e Overload Protection</i>
100	100A	L	<i>Underload Protection</i>
ç : Rated Voltage		T	<i>Temperature Protection</i>
0	No Voltage Measurement	V	<i>Voltage Protection</i>
380	380V	ê : Auxiliary Function	
è : 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		

Optional Module

External CTs	3 CTs for motor's current æ100A
ECM800D2	Display panel for local control

Note:

- The functions dedicated with italics can be selected together.
- The standard protections include start overtime protection, overload protection, overcurrent protection, phase failure protection, current unbalance protection, earth fault protection, short circuit protection.
- Voltage protections include overvoltage protection, undervoltage protection, under power factor protection, phase sequence error protection.
- When the rated current of motor is over 100A, external CTs are needed. The CT ratio can be set in the main module. The overload capacity of CT should be over 8 times of the motor's rated current. And the rated current of ECM800 should be selected as 2A or 6.3A to match the external CTs. The external CTs can be provided by the users or by E-Power Technology Co., Ltd..

How to choose the rated current of ECM800 to match your motors?

Rated Power of Motor (kW)	External CTs	Rated Current of ECM800
0.1—1.1	None	2A
1.1—3.1	None	6.3A
3.1--11	None	25A
11--45	None	100A
Above 45kW	Equip the external CTs according to the rated current of motors	If CT secondary output is 1A, choose 2A, If CT secondary output is 5A, choose 6.3A

Typical Connection

