

# MP8000

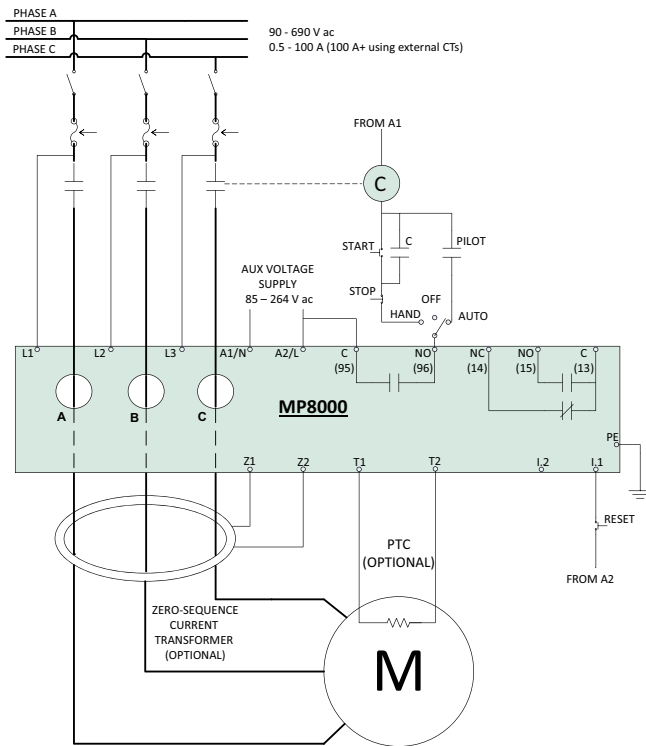
## Bluetooth Overload Relay



Patent Pending

### Wiring Diagram

TYPICAL WIRING DIAGRAM FOR 3-PHASE



### Description

The MP8000 is an advanced motor protection electronic overload relay that is fully programmable via Bluetooth\* using the Littelfuse app on an Android\* or iPhone\* mobile device. It is easy to use and arc-flash safety is increased because the app allows settings to be modified and real-time operational information viewed. Viewing operational information and faults on the app does not require the user to open the control panel.

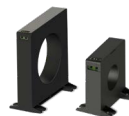
The MP8000 protects any motor drawing 0.5-1,000 full load amperes (external CTs are required above 100 amperes). It is designed for single or 3-phase systems with operating voltages of 90-690 V ac (use of external potential transformers can extend upper voltage range above 690 V ac). Common applications include conveyor systems, HVAC equipment, saws and grinders, fan motors, and almost any pumping application.

Protection is unsurpassed by combining overload, voltage, phase loss and reversal, voltage and current unbalance, power monitoring, and underload in one package. For standalone applications, the Bluetooth interface can be used when paired with a smartphone or tablet. The units also feature an Ethernet communications port that can be used to form an Ethernet Modbus TCP/IP network or Ethernet/IP. Units can be remotely monitored and controlled from a PC, or SCADA system, and data logging through a PC with the optional MP8000 software or other software program using the MP8000 memory map. This capability allows for a simple cost-effective way to further enhance arc-flash safety.

### Features & Benefits

| FEATURES   | BENEFITS  |
|--|---|
| <b>Bluetooth interface</b>                       | Visual indication for programming, viewing real-time voltage or current, and last fault information (date and time stamped) |
| <b>Programmable voltage and current settings</b> | Allows usage on wide range of systems   |
| <b>3 selectable restart options</b>              | Choose from automatic, semi-automatic, or manual to best meet individual application needs                                  |
| <b>4 programmable delay timers</b>               | Program separate delay times for power up, rapid cycle protection, motor cool down, and underload restarting                |
| <b>Flexible reset</b>                            | Reset can be done through pushbutton on panel, remotely via the network   |
| <b>Network communications capability</b>         | Compatible with Ethernet Modbus TCP/IP and Ethernet/IP  |

### Accessories



#### ZSCT Series Current Transformer

Used with Littelfuse relays to detect low levels of earth-leakage current.

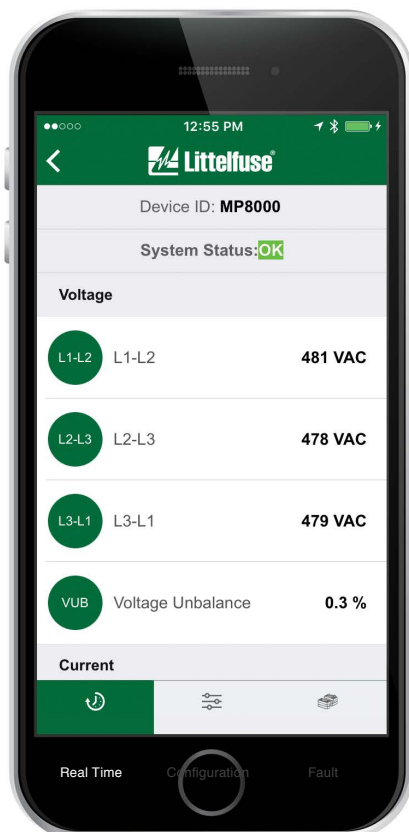
### Ordering Information

| MODEL  | LINE VOLTAGE  | MOTOR FULL AMP RANGE                             | DESCRIPTION   |
|--------|---|--|---|
| MP8000 | 90-690 V ac<br>(use of external potential transformers can extend upper voltage range above 690 V ac) | 0.5-1,000 A+ (external CTs required above 100 A) | Provides remote wired communication via Ethernet Modbus TCP/IP or Ethernet/IP |

# MP8000

## Advanced Features

- Overload/Overpower (49)
- Underload/Underpower (37P)
- Overcurrent (51)/Jam
- Undercurrent (37)
- Current Unbalance/Phase Loss (46)
- Phase Reversal (47)
- Overvoltage (59)
- Undervoltage (27)
- Voltage Unbalance (47)
- Rapid Cycling/Jog
- Contactor Failure
- Zero-Sequence Ground Fault (50Ns)
- PTC Motor Overtemperature (49)



MP8000  
Littelfuse App icon



## Specifications

### Functional Characteristics

**Frequency** 50/60 Hz  
**TC- Overcurrent Trip Class** Trip class 02-60 or linear

### Output Characteristics

#### Output Contact Rating

**Control relay** SPST - Form A  
**Auxiliary relay** SPDT - Form C  
**Pilot Duty Rating** B300  
**General Purpose** 5 A @ 240 V ac

### General Characteristics

#### Ambient Temperature Range

**Operating** -40 °C to 70 °C (-40 °F to 158 °F)  
**Storage** -40 °C to 85 °C (-40 °F to 185 °F)

#### Accuracy

**Voltage** ±1 % of reading ±0.5 V  
**Current** ±2 % (2 to 100 amperes direct)  
**Timing** +/-0.5 % of setting +/- 1second  
**GF Current** ±5 %

#### Repeatability

**Voltage** ±0.5 %  
**Current** ±1 % (2 to 100 A direct)

#### Power Consumption

**Pollution Degree** 3 (conformal coating standard)  
**Class of Protection** IP20

**Relative Humidity** 10-95 %, non-condensing per IEC 68-2-3

#### Terminal Torque (depluggable terminal blocks)

5.5 in.-lbs.

#### Terminal Torque (Earth Ground)

7.9 in.-lbs.

### Standards Passed

**Electrostatic Discharge (ESD)** IEC 61000-4-2, Level 3, 6 kV contact, 8 kV air

**Radio Frequency Immunity (RFI), Conducted** IEC 61000-4-6, Level 3 10 V/m

**Radio Frequency Immunity (RFI), Radiated** IEC 61000-4-3, Level 3 10 V/m

**Fast Transient Burst Surge** IEC 61000-4-4, Level 3, 3.5 kV input power  
 IEC 61000-4-5, Level 3, 2 kV line-to-line;  
 Level 4, 4 kV line-to-ground

#### FCC Rating

Part 15.107 for emissions,  
 Part 15.247 for intentional radiators

#### Short Circuit Withstand Rating

100 kA symmetrical at 690 V ac  
 Meets UL 508 (2 x rated V +1000 V for 1 minute)

#### Hi-Potential Test

#### Safety Marks

**cULus** UL 60947, UL 1053, C22.2 (File #E68520)  
**CE** IEC 60947 Edition 5.2, IEC 60947-8

#### Maximum Conductor Size (with insulation)

0.63"

#### Dimensions

**H** 74.42 mm (2.93"); **W** 103.63 mm (4.08");  
**D** 121.67 mm (4.79")

#### Weight

0.85 lbs (13.6 oz, 385.6 g)

#### Mounting Method

Surface mount (4 - #8 screws)  
 or DIN-rail mount

**Disclaimer Notice** – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at [www.littelfuse.com/product-disclaimer](http://www.littelfuse.com/product-disclaimer).



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.