

EMT6-DB-066401

EMT6 Thermistor Overload Relay

Eaton EMT6-DB-066401 is a thermistor machine-protection relay. It monitors a PTC sensor circuit and switches control contacts when motor or equipment temperature reaches the trip condition.

PRODUCT SNAPSHOT

BRAND

Eaton

FAMILY

Eaton Moeller EMT6 machine-protection rela

PART

EMT6-DB-066401

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PRODUCT OVERVIEW

Eaton EMT6-DB-066401 is a thermistor machine-protection relay. It monitors a PTC sensor circuit and switches control contacts when motor or equipment temperature reaches the trip condition.

1

Evaluates a PTC thermistor circuit embedded in protected machinery

2

Changes isolated relay contacts when the configured thermistor threshold is exceeded

3

Supports manual or remote reset after the sensor circuit returns below reset resistance

4

Provides test, mains-status, and fault indication for commissioning

SYSTEM COMPONENTS

PTC thermistor chain

machine contactor or control circuit

230 V AC control supply

remote-reset circuit

TECHNICAL DATA

PARAMETER	VALUE
Catalog number	066401
Control voltage	230 V AC, 50/60 Hz
Measuring circuits	1
Output contacts	1 NC + 1 NO
Trip resistance	3600 Ohm
Reset resistance	1600 Ohm
Measuring range	750 to 12000 Ohm
Rated switch current	6 A
Terminal torque	1.2 N m

PARAMETER	VALUE
Terminal screw	M3.5
Conductor range	0.5 to 2.5 mm ²
Power consumption	3.5 VA AC
Degree of protection	IP20
Operating temperature	-25 to +60 degC
Storage temperature	-45 to +85 degC
Rated insulation voltage	400 V
Pollution degree	3
Overvoltage category	III

TECHNICAL NOTE

Wire the PTC measuring circuit separately from power conductors, confirm the 230 V AC control supply, and prove trip, reset, lock, and contact behavior with the driven machine isolated.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Motor-winding overtemperature protection

Evaluates a PTC thermistor circuit embedded in protected machinery

Pump motor thermal shutdown

Changes isolated relay contacts when the configured thermistor threshold is exceeded

Fan and compressor motor protection

Supports manual or remote reset after the sensor circuit returns below reset resistance

Machine-bearing PTC supervision

Provides test, mains-status, and fault indication for commissioning

PRODUCT PRECAUTIONS

- 1 Verify EMT6-DB-066401 and catalog number 066401 before panel work.
- 2 Isolate the 230 V AC control circuit and prove all terminals de-energized.
- 3 Keep the PTC measuring pair separated from motor power and switching conductors.
- 4 Check total thermistor-loop resistance before energizing the relay.
- 5 Confirm the required manual or remote reset arrangement and lock setting.
- 6 Apply the published terminal torque without damaging fine control conductors.
- 7 Use the TEST function to verify contact transfer and downstream interlock logic.
- 8 Record the trip, reset, LED, and contact results before returning the motor to service.

ENGINEER FAQ

Q1 Which installed hardware must be matched before fitting EMT6-DB-066401?

Match the complete EMT6-DB-066401 marking to PTC thermistor chain and machine contactor or control circuit, then confirm the assigned Eaton Moeller EMT6 machine-protection relay position and approved system configuration.

Q2 How should the field connections for EMT6-DB-066401 be recorded before replacement?

Record terminal or connector identity, polarity, shield, cable tag, channel assignment, and the as-found diagnostic state before disconnecting EMT6-DB-066401.

Q3 What isolation is required before installing EMT6-DB-066401?

Place motor-winding overtemperature protection in the approved maintenance state, isolate every applicable power, signal, and stored-energy source, and prove the work area safe.

Q4 Which configuration check is essential when commissioning EMT6-DB-066401?

Restore only the approved model-specific channel, range, address, scale, or interface settings and compare them with the physical installation before enabling the process function.

Q5 How can an engineer function-test EMT6-DB-066401 after installation?

Apply a controlled input, reference, or limited output appropriate to emt6 thermistor overload relay, observe the system indication and diagnostics, and confirm the intended process response.

Q6 What should be checked if EMT6-DB-066401 reports an unstable or incorrect value?

Check seating, supply, grounding, shielding, matched components, mechanical installation, and the signal path before changing configuration or replacing additional hardware.

Q7 Can EMT6-DB-066401 be replaced by a visually similar model without review?

No. Verify the complete part number, electrical execution, connector arrangement, companion hardware, and approved software or rack configuration.

Q8 What commissioning evidence should be retained for EMT6-DB-066401?

Retain the full EMT6-DB-066401 identity, as-left wiring and settings, measured functional-test results, final diagnostics, and authorization to return the affected equipment to service.

SOURCE Eaton EMT6 Thermistor Machine Protection Relay Product Data | Catalog 066401

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