

LMM-2540 LOAD MANAGEMENT MODULE / M-BUS

PRODUCT DATASHEET

The Load Management Module LMM-2540 has been designed to replace traditional ripple control receivers of residential and small commercial energy consumers and permits on the basis of bi-directional communication reliable remote configuration and proper execution of asynchronous switching commands. In addition to standard ripple control functions the LMM-2540 also supports customer specific and autonomous, time based switching actions. Furthermore, full integration into the Networked Energy Services (NES)¹ infrastructure enables automatic device discovery and registration.

FEATURES

- Replaces traditional ripple control receivers
- Equipped with up to four 25A or 40A latching relays with normally open, normally closed or switch over contacts
- Reliable remote configuration on basis of bi-directional communication
- Integrated time switch enables autonomous operation
- Extensively supports daily, weekly, monthly, yearly, seasonal, holiday based and customer specific switching schedules
- Switching schedules may be updated locally or remotely
- Supports assignment of relays to switching groups
- Supports asynchronous unicast, multicast and broadcast addressing
- Astronomical calendar ensures reliable execution of street lighting applications
- Permits automatic device discovery and registration on the basis of the NES infrastructure
- Configurable behaviour during power outage and return
- Configurable random delays ensure reduced peak demand during equal switching times
- Reliable tamper detect features permit detection of device manipulations
- Supports firmware updates via the NES infrastructure
- Equipped with a M-Bus interface that enables integration into the NES infrastructure



ORDERING INFORMATION

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|--------------|---------------------------------|
| Product | LMM-2540 LOAD MANAGEMENT MODULE |
| Model number | 50010-235200 |

SPECIFICATIONS

Functional Specifications

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|-----------------------|---|
| Mains supply | 230 V (-20 % to +15 %), 50 Hz (± 2 %) |
| Power consumption | < 3 W, 25 VA according to EN 62052-21[2004] |
| Relays | Up to 4 plug in polarized latching relays 25 A, 400V, $\cos \varphi = 1$, normally open or closed 25 A, 400V, $\cos \varphi = 1$, change over 40 A, 400V, $\cos \varphi = 1$, normally open or closed |
| M-Bus interface | Conform to EN 13757-2 and EN 13757-3 |
| Data storage | Non-volatile memory |
| Time keeping accuracy | Real-time clock accurate per EN 62054-21 to ± 0.5 seconds |
| Operation reserve | Time keeping battery; operation reserve > 8 years |

Mechanical Specifications

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|------------------------|---|
| Enclosure | Insulating sealable enclosure of protection class II, IP 52 |
| Dimensions | Complies with DIN 43861-2, 105 x 180 x 80 |
| Fixing triangle | 125 x 83 mm according to DIN 43857-5 |
| Mounting | Mountable on walls, 35 mm DIN rails and on terminal covers for ancillary equipment according to DIN 43857-5 |
| Relay wiring terminals | Up to 2 x 2,5 mm ² or 1 x 6 mm ² |
| Power wiring terminal | Up to 1 x 6 mm ² |
| M-Bus wiring terminals | Up to 1 x 2,5 mm ² |

Environmental Specifications

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|-------------------------|--|
| Temperature range | -25 °C to +70 °C operating temperature range -40 °C to +70 °C limit for storage and transport |
| Humidity | $\leq 95\%$ relative humidity, non condensing |
| Surge immunity | 6 kV, 1.2/50 μ s |
| Electrostatic discharge | 15 kV air, 8 kV contact |
| Certifications | EN 62052-21[2004], EN 62054-21[2005] EN 13757-2 [2005], EN 13757-3 [2005], |
| Safety | EN 61010-1 [2001], EN 13757-2 [2005], CE marked |

¹ NES is a trademark of Echelon Corporation