LMM-2540 LOAD MANAGEMENT MODULE
PRELIMINARY DATASHEET

The Load Management Module LMM-2540 has been designed to replace traditional ripple control receivers of residential and small commercial energy consumers. They set a new standard for load and tariff management by integrating a rich set of operating features and by enabling full integration into the Networked Energy Services (NES)[1] infrastructure.

FEATURES

- Replaces traditional ripple control receivers
- Supports up to four 25A or 40A latching relays with normally open, normally closed or switch over contacts
- 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 on-site or remotely via the NES system
- Bidirectional communication between the utility central service and the Load Management Module ensures reliable remote configuration
- Supports assignment of relays to switching groups
- Supports asynchronous unicast, multicast and broadcast addressing of switching groups
- Astronomical calendar ensures reliable execution of street lighting applications
- Permits automatic device discovery and management 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 an M-Bus interface that enables direct connection to Echelon IEC Electricity Meters[2]
- Supports encrypted and non-encrypted M-Bus data messages

[1] NES is a trademark of Echelon Corporation
[2] IEC Electricity Meters are products from Echelon corporation

ORDERING INFORMATION

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

SPECIFICATIONS

Functional Specifications

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 φ = 1, normally open or closed 25 A, 400V, cos φ = 1, change over 40 A, 400V, cos φ = 1, normally open or closed
M-Bus interface	Mains protected, complies with EN 13757-2, EN 13757-3
Data storage	Non-volatile memory
Time keeping accuracy	Realtime clock accurate per EN 62054-21 to ± 0.5 seconds
Operation reserve	Time keeping battery ensures > 8 years

Mechanical Specifications

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 terminal covers of ancillary equipment according to DIN 43857-5 and 35 mm DIN rails
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

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