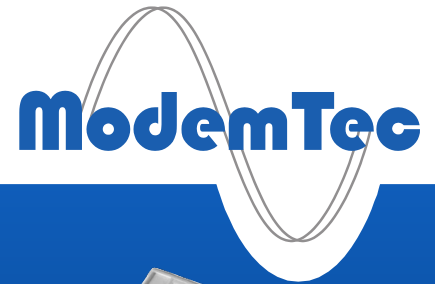


MT34A-R

Three-phase PLC modem



The MT34A-R modem is designed to realise a data connection over an existing 230/400 V power lines. It has RS485, RS422 or RS232 serial interface, which can transfer almost any protocol, thanks to the transparent mode.

The device can be operated not only in pair mode for interconnected two points, but it is also possible to create larger networks containing repeaters.



Typical applications

- Smart grid (e.g. remote meter readings)
- Home automation
- Industrial automation
- Perfect for transfer of Modbus, IEC 62056-21, DLMS...

Key features

- Designed for 230/400 V, 50 Hz power lines
- Communication rate 10 kbit/s
- RS485/RS422/RS232 interface
- Excellent noise immunity thanks to advanced error correction – FEC
- High output power

Reliable communication

The communication channel provided by the MT34A-R is characterized by its excellent noise immunity, very long reach without repeaters or protocol flexibility thanks to transparent data transfer. There are also possibilities including routing, addressing and repeating.

Easy configuration

The MT34A-R uses the RSet configuration tool as well as other MTEC based modems. This tool is simple and easy to use Windows application which allows modem configuration via the RS232 interface (or a USB to serial converter) from a PC.



Technical data

Power supply

Voltage	3x230/230 V ± 10 %
Frequency	50 Hz ± 3 %

Consumption

Reception	< 8 VA
Transmission	Max. 40 VA

PLC communication

Carrier frequency	40, 50, 60, 70, 80, 90, 100, 110, 120 kHz
Modulation	D-BPSK
PLC standard	MTEC
Output amplitude	128 dB/μV ($R_L = 12 \Omega$)
Bandwidth	10 kHz
Output current	Max. 2 A _{PP}
Input sensitivity	1 mV
Amplitude adjustment	Yes, manual
Minimal SNR	> 9 dB (BER 10 ⁻⁴)
Protection	Over-current, thermal
FEC error correction	Reed-Solomon
PLC coupler	Built-in internal
Output to an external coupler	On request

Data interface

Standard	RS485, RS422, RS232 (User-selectable)
Galvanic isolation	Yes
Protocol	Transparent mode
Baudrate	300 – 230400 bps
Data bits	7, 8
Parity	None, odd, even
Stop bits	1, 2
Data buffer	64 kB
Configuration interface	RS232

Product compatibility

MT49R	Single-phase PLC modem
MT1044	Binary state transfer

Safety

Electrical appliance class II – double insulated	
Comply with	EN 61010 EN 60529 EN 61000 EN 60870 EN 50065

Environment

Operating temperature	-40 to +60 °C
Limit temperature	-40 to +70 °C
Storage temperature	-40 to +70 °C
Relative humidity*	0 – 80 %

*No water condensation

Mounting

Enclosure	Bopla CombiCard 6000
Material	Plastic
Protection class	IP65

Dimensions and Weight

Dimensions	250 x 235 x 150 mm (W x H x D)
Weight	1500 g