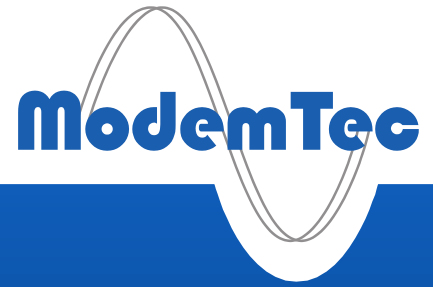


# MT49R

PLC communication module



The MT-49R modem is designed to provide a data connection via existing 230 V power lines. It is equipped with RS485 / RS232 serial interface, which is used to transfer practically any protocol, thanks to the transparent mode.

The device can be operated not only in pair mode for interconnect 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

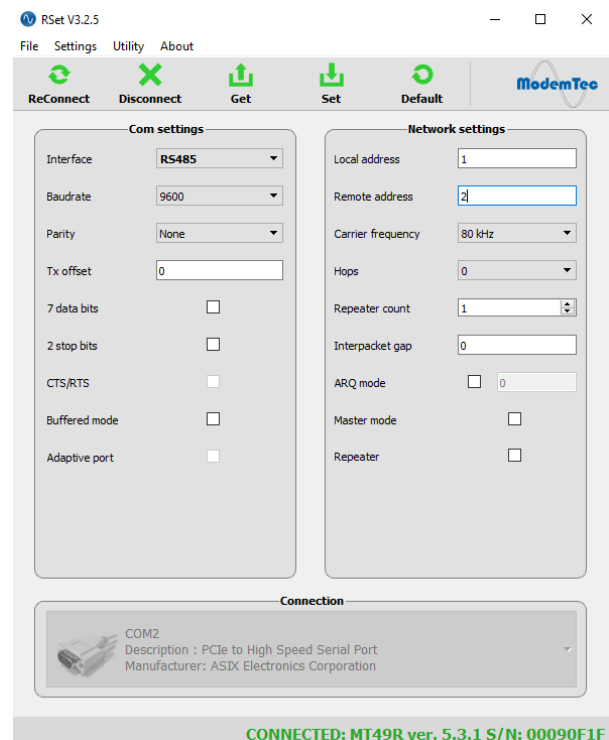
- Designed for 230 V / 50 Hz lines
- Communication rate 10 kbit/s
- RS485/RS232 interface
- Excellent noise immunity thanks to advanced error correction – FEC
- High output power

## Reliable communication

The communication channel provided by the MT49R 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 MT49R 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	85 – 305 VAC 120 – 430 VDC
Frequency	47 – 440 Hz

### Consumption

Reception	< 1 VA
Transmission	Max. 15 VA

### PLC communication

Carrier frequency	40, 50, 60, 70, 80, 90, 100, 110, 120 kHz
Modulation	D-BPSK
PLC standard	MTEC
Output amplitude	134 dB/ $\mu$ V ( $R_L = 12 \Omega$ )
Bandwidth	10 kHz
Output current	Max. 1 A <sub>PP</sub>
Input sensitivity	1 mV
Amplitude adjustment	Yes, manual
Minimal SNR	> 9 dB (BER 10 <sup>-4</sup> )
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 or RS232 (User-selectable)
Galvanically isolated	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

MT34A-R	Three-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
Storage temperature	-40 to +70 °C
Relative humidity*	0 – 80 %

\*No water condensation

### Mounting

DIN 35 rail mounting	
Enclosure	Plastic
Protection class	IP30

### Dimensions and Weight

Dimensions	106 x 90 x 57 mm (W x H x D)
Weight	450 g