

M-bus three-phase meter for use with CT
DSZ12WDM-3x5A with display



Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location: -25°C up to +55°C.
Storage temperature: -25°C up to +70°C.
Relative humidity: annual average value <75%.

**CT operated energy meter with settable CT ratio and MID.
Maximum current 3x5A. Standby loss 0.5 watt per path only.**

Modular device for DIN-EN 60715 TH35 rail mounting.
4 modules = 70mm wide and 58mm deep.

Accuracy class B (1%). With M-bus interface.

This three-phase meter measures active energy by means of the currents flowing between inputs and outputs. The internal power consumption of 0.5 watt active power per path is neither metered nor indicated.

1, 2 or 3 converters with secondary currents of up to 5 A can be connected.
The inrush current is 10mA. The N terminal must always be connected.

The 7 segment LC display is also legible twice within a period of 2 weeks without power supply.

Power consumption is indicated by an LED flashing at a rate of 10 times per kWh. Designed as standard for using as double-tariff meter: Switch over to a second tariff by applying 230V to terminals JUMPER.

On the right next to the display are the keys MODE and SELECT. Press them to scroll through the menu. First the background lighting switches on. The display then shows the total active energy per tariff, the active energy of the resettable memory RS1 or RS2 as well as the instantaneous value of consumption, voltage and current per phase.

At last the CT ratio can also be set. To adjust the CT ratio to the installed transformer remove the bridge and reset the energy meter according to the operation manual. Then block it again with the bridge. Adjustable current transformer ratios: 5:5, 50:5, 100:5, 150:5, 200:5, 250:5, 300:5, 400:5, 500:5, 600:5, 750:5, 1000:5, 1250:5 and 1500:5.

It should be noted that CT is multiplexed with T2 and EDIT is multiplexed with RS2.

Error message (false)

If there is no outer conductor of the current direction is incorrect, 'false' and the related outer conductor are indicated in the display.

M-bus data transfer

■ On read-out all values are transferred in a telegram.

■ The following telegrams are supported:

- Initialisation: SND_NKE Reply: ACK
- Read out meter: REQ_UD2 Reply: RSP_UD
- Change primary address: SND_UD Reply: ACK
- Reset RS1: SND_UD Reply: ACK
- Slave selection for the secondary address Reply: ACK

■ The device does not reply to unknown requests

■ The transfer rate is detected automatically

■ The device has a voltage monitor. In case of voltage loss, all registers are saved in the EEPROM.

Changing the M-bus primary address:

To change the M-bus primary address, hold down SELECT for 3 s. In the menu that appears, press MODE to increment the address by 10. Press SELECT to increment by 1. When the required primary address is set, wait until the main menu reappears.

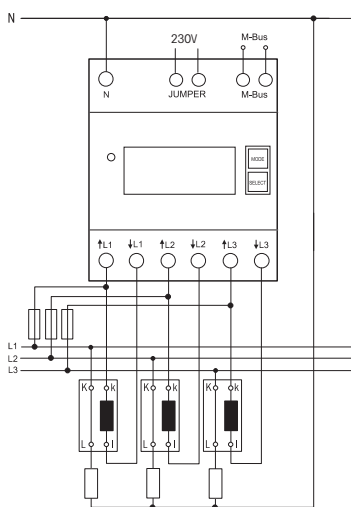
Secondary address:

- It is possible to communicate with the energy meter according to the standard EN13757 with help of the secondary address.
- The use of wildcards is possible.

Important! Before working on the current transformers disconnect the voltage paths of the energy meters.

Typical connection:

4-wire-connection 3x230/400V



The secondary current converter terminals on the mains side must be connected to the outer conductors measured. These connections for the meter power supply must be protected according to local installation regulations.

Technical data

Rated voltage, extended range	3x230/400V, 50Hz, -20%/+15%
Reference current I_{ref} (Limiting current I_{max})	3x5 (6)A
Internal consumption active power	0.5 W per path
Display	LC display 7 digits, therefrom 1 digit after the decimal point
Accuracy class $\pm 1\%$	B
Inrush current according to accuracy class B	10mA
Operating temperature	-25/+55°C
Bus system	M-Bus
Bus length	According to M-bus specifications
Transfer rates	300, 2400, 9600 baud.
Response time	Write up to 60ms
(system response time)	Read up to 60ms

Terminal cover sealable

Terminal cover claps

Protection degree

IP50 for mounting in distribution cabinets
with protection class IP51

Maximum conductor cross section

N and L terminals 16mm²,
M-BUS terminals 6mm²

Type examination certificate

Mechanical environmental conditions

class M1

Electromagnetic environmental conditions

class E2

Menu guidance

