

M-bus three-phase meter for use DSZ12DM-3x65A with display and MID approval

CE

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%.

Maximum current 3x65A. Standby loss 0.5 watt per path only.

Modular device for DIN-EN 60715 TH35 rail mounting in distribution cabinets with IP51 protection class.

4 modules = 70mm wide and 58mm deep.

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

It measures active energy by means of the current between input and output.

The internal power consumption of 0.5 watt active power per path is neither metered nor indicated.

1, 2 or 3 phase conductors with max. currents up to 65A can be connected.

The inrush current is 40mA.

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 shown by a bar flashing at a rate of 1000 times per kWh.

Designed as standard for using as double-tariff meter: Switch over to a second tariff by applying 230V to terminals E1/E2.

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 values of consumption, voltage and current per phase.

Error message (false)

When the phase conductor is missing or the current direction is wrong 'false' and the corresponding phase conductor are indicated on 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:

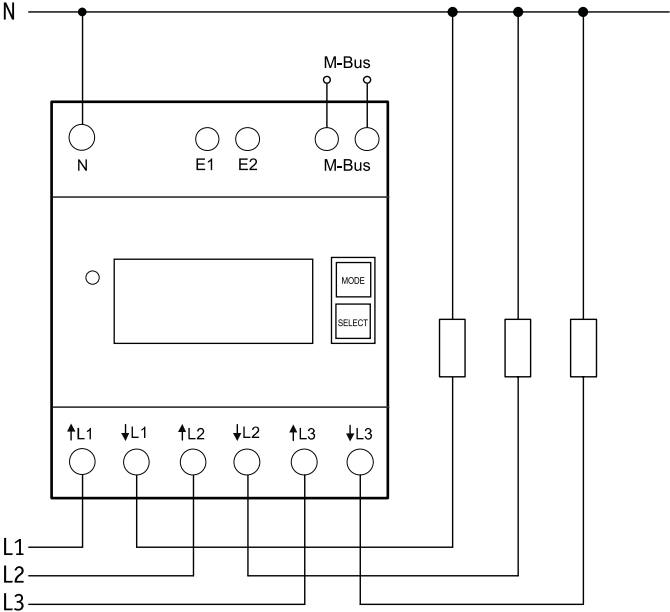
■ It is possible to communicate with the energy meter according to the standard EN13757 with help of the secondary address.

■ The use of wildcards is possible.

Detailed information are available in the operating manuals at [www.eltako.com](http://www.eltako.com).

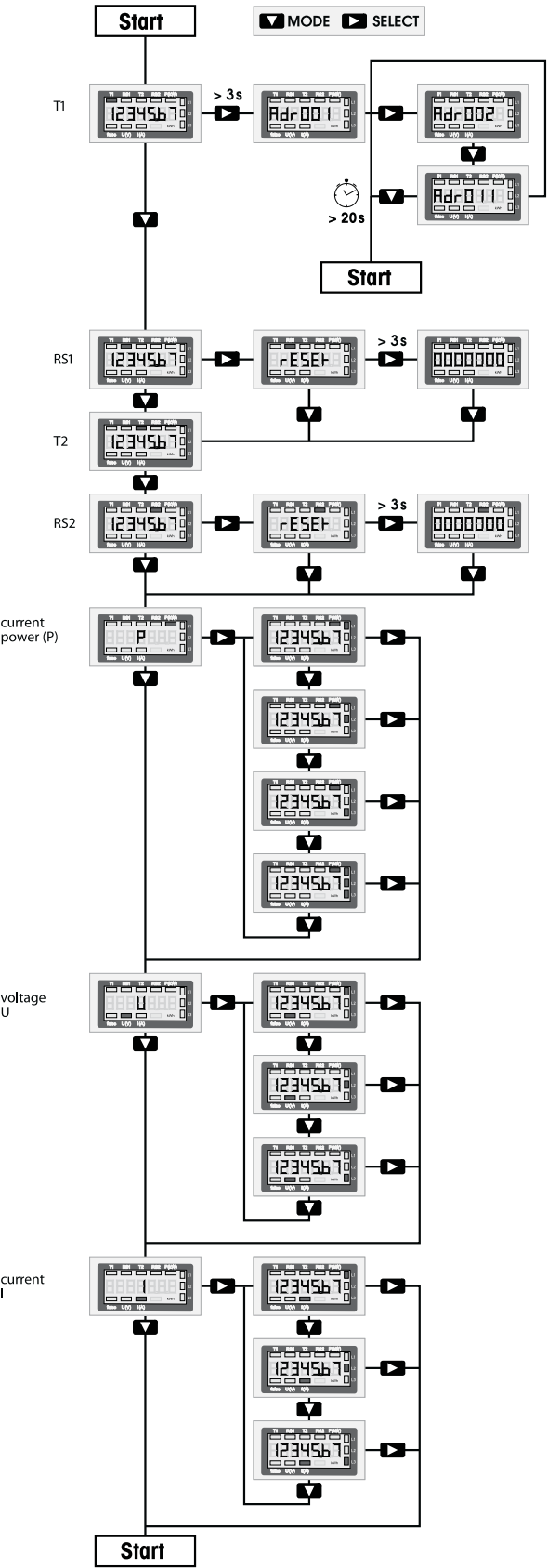
Typical connection:

4-wire-connection 3x230/400V



<b>Technical data</b>	
Rated voltage, extended range	3x230/400V, 50Hz, -20%/+15%
Reference current $I_{ref}$ (Limiting current $I_{max}$ )	3 x 10(65)A
Internal consumption active power	0.5W 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 (system response time)	Write up to 60ms Read up to 60ms
Terminal cover sealable	Terminal cover claps
Protection degree	IP50 for mounting in distribution cabins with protection class IP51
Maximum conductor cross section	N and L terminals 16mm <sup>2</sup> , M-BUS terminals 6mm <sup>2</sup>
EC type examination certificate	TCM221/14-5225
Mechanical environmental conditions	class M1
Electromagnetic environmental conditions	class E2

Menu guidance



EC DECLARATION OF CONFORMITY

File name	FQKZ058
Product	Calibrated electronic M-bus three-phase energy meter with MID approval
Type designation	DSZ12DM-3x65A
EC type examination certificate	TCM 221/14-5225
In accordance with DIN EN 50470, parts 1 and 3: Mai 2007 (electronic meters) and the following Directives of the European Parliament and of the Council (relevant version):	
2004/22/EC	measuring instruments
2004/108/EC	electromagnetic compatibility (EMC Directive)
2011/65/EU	restriction of the use of certain hazardous substances (RoHS Directive)
Notified body	SGS United Kingdom Limited, Number 0120 Unit 202B Worle Parkway, Weston Super Mare, BE226WA. UK
Issuer	ELTAKO GmbH Hofener Straße 54, D-70736 Fellbach
Place, Date	Fellbach, 27. August 2015
signed	Ulrich Ziegler, General Manager

This declaration proves the compliance with the above-mentioned EC Directive(s) but it does not include any assurance of properties. Security advices of the provided product information have to be noticed.

**Must be kept for later use!**  
We recommend the housing for operating instructions GBA12.

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