

M-bus three-phase meter for use DSZ15DM-3x80A  
with display and MID approval

**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 3x80A. 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 80A 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.

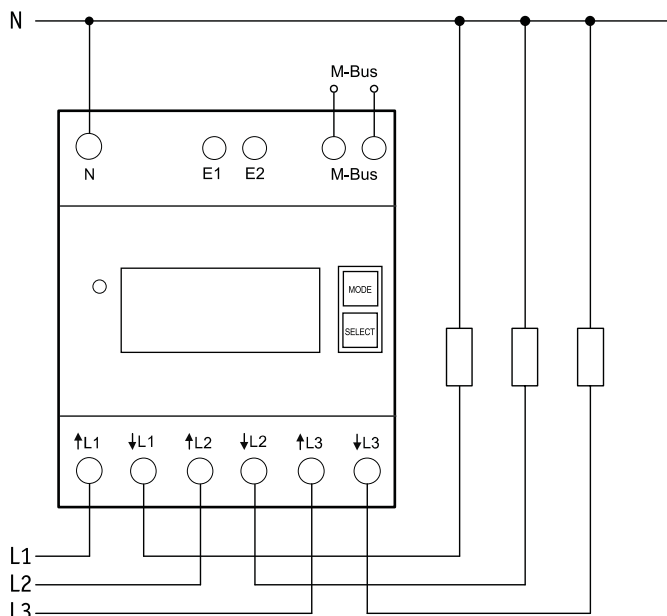
#### Secondary address:

- 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



#### Technical data

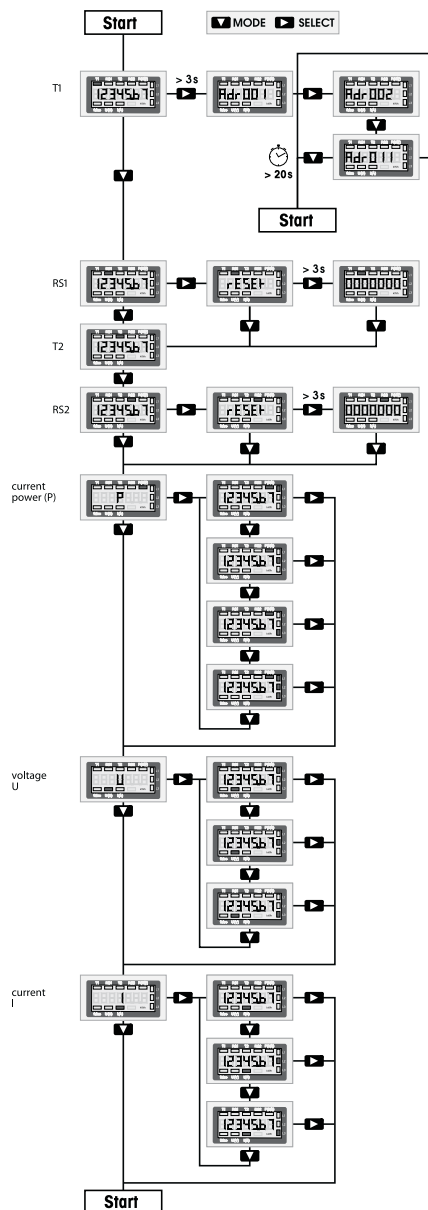
|   |  |
|---|--|
| Rated voltage, extended range                             | 3x230/400V, 50Hz,<br>-20%/+15%   |
| Reference current $I_{ref}$ (Limiting current $I_{max}$ ) | 3x0.5 - 10(80)A  |
| Internal consumption active power                         | 0.5W per path  |
| Display   | LC display 7 digits,<br>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<br>(system response time)                   | Write up to 60ms<br>Read up to 60ms  |
| Terminal cover sealable                                   | Terminal cover claps   |
| Protection degree   | IP50 for mounting in distribution cabins<br>with protection class IP51   |
| Maximum conductor cross section <sup>1)</sup>             | L terminals 25 mm <sup>2</sup> ,<br>N terminals 16 mm <sup>2</sup> ,<br>M-bus terminals and tariff terminals 6 mm <sup>2</sup> |
| Recommended torque <sup>2)</sup>                          | L terminals 2,0Nm (max. 2,5Nm)<br>N terminals 1,5Nm (max. 2,0Nm)<br>M-bus terminals and tariff terminals 0,8Nm (max. 1,2Nm)    |
| EC type examination certificate                           | 0120/SGS0204   |
| The energy meter is used indoors.                         |  |
| Mechanical environmental conditions                       | class M1   |
| Electromagnetic environmental conditions                  | class E2   |

<sup>1)</sup> The carrying capacity of cables and wires is defined in DIN VDE 0298-4.

<sup>2)</sup> The torques for screw terminals are mentioned in DIN EN 60999-1.

**To avoid damages at the energy meter, the recommended torque values for each terminal  
must not be exceeded!**

## Menu guidance



## EC DECLARATION OF CONFORMITY

|  |   |
|--|---|
| File name  | FQKZ085-CR  |
| Product  | Calibrated electronic M-bus three-phase energy meter with MID approval    |
| Type designation   | DSZ15DM-3x80A   |
| EC-type examination certificate  | 0120/SGS0204  |
| The manufacturer herewith declares, on his own responsibility that the designated products which this certificate refers to, are in accordance with the following harmonized standards or normative documents as well as with the following Directives of the European Parliament and of the Council ( relevant version ): |   |
| DIN EN 50470   | parts 1 and 3 : May 2007 ( electronic meters )                            |
| 2014 / 32 / EU   | measuring instruments   |
| 2014 / 30 / EU   | electromagnetic compatibility   |
| 2011 / 65 / EU   | restriction of the use of certain hazardous substances ( RoHS Directive ) |

The designated products are placed on the market by ELTAKO GmbH ,  
Hofener Straße 54 , 70736 Fellbach, Germany.

Notified body : SGS United Kingdom Limited , No. 0120  
Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA, UK

Manufacturer : Shenzhen Chuangren Technology Co. Ltd.  
Building 33, No.3 Industrial Area, Mashenlou, Gongming Street,  
New Guangming District, Shenzhen City, Guangdong Province, 518106, China

Place, Date : Shenzhen, 02 January 2018

Signature



This declaration proves the compliance with the above-mentioned EC Directives 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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