

Plug-in, three-phase switching module for easy integration of modular meters into AMI system



Key features

- Current interruption
- Easy installation onto the meter
- Meter connection port
- Autonomous power supply
- Long exploitation life

Technical data

Current interruption

- The module is a bi-stable switch. Change of the state is the result of disconnect / reconnect command. Current is interrupted across all three phases simultaneously, while neutral remains connected

Simple installation on the meter

- The module is designed for easy installation in direct electricity meters ST-100FD, ST300FD and ST310FD under the terminal protective cover
- Switching module is plug-in connected to the power line and to M-Bus connector
- Meters with built-in SD30S are compliant with DIN 43857 standard on dimensions and mounting points
- Module installation does not affect the meter's protection against water and dust, so that the declared IP54 protection level remains valid after module installation

M-Bus port for communication with the meter

- Communication and module management from the meter is done over M-Bus port. Physical layer is in accordance with EN 13757-2 standard, whereas the communication protocol is in accordance with EN 13757-3. Interface on the meter is M-Bus master, while M-Bus slave is on the switching module
- Module management is done by sending a remote disconnect / reconnect consumer command from the AMI center
- Local disconnection of the consumer occurs as the result of exceeding the power limit in duration longer than the tolerance time. In case of local disconnection, it is possible to manually reconnect the consumer after the penalty time expiry, either manually, by long press on left button on the meter, or automatically, depending on the chosen module operation mode

Independent power supply

- The module is powered directly from the power line voltage

Long exploitation life

- Built-in switching elements ensure long module exploitation life with over 1,000,000 mechanical disconnections / reconnections

Nominal voltage U_n	3x230 / 400 V
Voltage range	$0.8 U_n - 1.15 U_n$
Frequency	50 Hz
Self-consumption	< 0,1 W
Maximum interruption current	120 A
Short-circuit current	$30 I_{max}$
Load category	IEC 62055-31 UC3
Number of mechanical cycles	10 000 under maximum load
Insulation voltage	4 kV, 50 Hz, 1 min
Shock voltage	6 kV; 1.2 / 50 μ s
Burst	4 kV (current terminals) 2 kV (communication port)
Communication port	wired M-Bus (EN 13757-2,3)
Operational temperature range	-40 °C - +70 °C
Storage temperature range	-40 °C - +85 °C
IP protection	IP54, with meter
Dimensions	167 x 80 x 82,3 mm
Weight	0.7 kg

