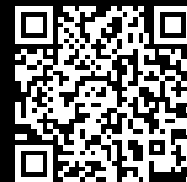


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DK 7859.420

PSM measurement modules with CAN bus

State: 5/09/2025 (Source: rittal.com/ie-en)

ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



DK 7859.420 - PSM measurement modules with CAN bus for PSM busbars

PSM measurement modules with switching functions for outputs and energy measurement. Versions with IEC 60320 C13 & C19 slots and CEE 7/3 (earthing contact socket) available.



Features

| | |
|---------------------|---|
| Model No. | DK 7859.420 |
| Product description | A power meter and switching functions for the output slots can be added to any PSM busbar with these PSM plug-in modules. The modules are also suitable for upgrading existing PSM installations if it becomes necessary to record the power data or add a switching option for the connected equipment. There are three variants available with different socket types. In the PSM busbar, the PSM modules occupy two module slots each. Measurements are displayed locally on a backlit LC display. For quick checks, the colour changes to red if current and power limits are exceeded. |

Features

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|--------------------------------|---|
| Benefits | <p>Simple, shock-hazard-protected, plug & play installation with the system operational</p> <p>PSM module is easily fitted into and removed from the PSM busbar, allowing it to be used at changing locations</p> <p>Compatible with the European PSM busbar range</p> <p>CAN bus for direct connection to CMC III system (RJ 45, 2 x socket)</p> <p>In redundant systems, the circuit may be switched over by rotating the module</p> <p>Suitable for use at ambient temperatures of up to +60 °C</p> <p>Facilitates the implementation of requirements to ISO 50001 and EN 50600-2-2</p> |
| Function principle | <p>Measurement of power consumption per module</p> <p>Output slots may be switched individually and in groups via CMC III</p> <p>Status LEDs for CAN bus communication per module</p> <p>LC matrix display with multi-coloured backlight for local display</p> <p>Location sensor for correct display and Web view in 90° increments</p> <p>Adjustable limits for voltage, current and active power</p> <p>Configurable overload detection per module</p> <p>High level of measurement accuracy</p> <p>Alarm signalling via the display</p> <p>Universal connector lock, IEC 60320, C13 and C19 slots that are not needed may be closed</p> |
| Material | <p>Socket inserts: Plastic (PA6 GF 30 V1)</p> <p>Section: Aluminium, anodised</p> |
| Supply includes | <p>PSM measurement modules with CAN bus</p> <p>CAN bus connection cable, 1 m</p> |
| Distribution output per module | 3,680 W |
| Switching load per relay | 4,000 VA |
| Length | 500 mm |
| Contamination level | 2 |
| Interface bus system | <p>2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)</p> <p>2 x RJ45 (connection to CMC)</p> |
| Qty. | 1 |
| Relay version | Dual coil, bistable |

Features

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|--|---|
| Rated operating voltage | 18 V (DC) - 24 V (DC), power supply via CMC III system |
| Input voltage | 230 V AC |
| Tolerance of input voltage | 10 % |
| Rated current | 16 A |
| Required number of module slots | 2 |
| No. of participating PU compact (max.) | 4 |
| No. of participating PU (max.) | 8 |
| Directives | Low Voltage Directive 2014/35/EU EMC Directive 2014/30/EU |
| IP protection category to IEC 60529 | IP 20 |
| Monitoring | Alarm management via CMC III (e.g. e-mail or text message) Visualisation of the switching status on the CMC III website and RiZone Up to 16 PSM modules on one CMC III PU (per IP address) Rights management via CMC III (e.g. restriction of the switching function) |
| Standards | EN 50 600-2-2 EN 60950 |
| Measurement functions, description | Voltage V, current A, frequency Hz Active power kW, active energy kWh Reactive power kVar, reactive energy kVarh Apparent power kVA, apparent energy kVAh Power factor cosPhi, crest factor Operating hours meter d, h, min Measurement accuracy of $\pm 1\%$ Resettable measurement functions / reset via software / interval measurement: Active energy kWh, operating hours meter h, threshold values (voltage, current, power) freely configurable |
| Protocols | Network functionality (only in conjunction with CMC III system): IPv4, IPv6, SNMPv3, Modbus/TCP, OPC-UA |

Features

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| Dimensions | Width: 53 mm Depth: 45 mm Length: 500 mm |
| Maximum operating altitude | 2,000 m |
| Operating temperature range | 5 °C...60 °C |
| Ambient humidity (non-condensing) | 90 % |
| Sockets | 2 x C13 / 4 x C19 |
| Relative humidity (non-condensing) | 10 % |
| Storage temperature range | -20 °C...70 °C |
| Packs of | 1 pc(s). |
| Net weight | 0.782 |
| Gross weight | 0.992 |
| PCF per pack (cradle-to-gate) | 3.8 kg CO2 eq (Cat B) |
| Note on PCF category | Category B: PCF value (cradle-to-gate) based on the product weight, approximately calculated and self-declared |
| Customs tariff number | 85369001 |
| EAN | 4028177801851 |
| ETIM 9 | EC000330 |
| ECLASS 8.0 | 27371306 |

Approvals

| | |
|--------------|---------------------------|
| Explanations | Declaration of conformity |
|--------------|---------------------------|