Weidmuller’s new PRO-M Series Switchmode Power Supplies offer a host of advantages. Available in 10 different versions, the 24 VDC PRO-M power supplies all feature a solid ultra-slim metal housing, and are designed to mount on a DIN-rail with no ventilation gap required between multiple units. This feature provides up to a 50% savings in space and allows the PRO-M to fit into the tightest spaces in control cabinets or machines.

These compact and efficient power supplies are optimized for machinery, with features that include overload resistance and high performance reserves. They also provide an increased level of reliability. Should one phase fail, the three-phase PRO-M power supply modules continue to work reliably in a two-phase operation.

The PRO-M Series power supplies are available in single-phase and three-phase versions from 70 W to 1000 W, making them particularly suited for use in many automation applications. The wide-ranging AC and DC inputs, broad operating temperature range and international approvals make the PRO-M supplies a strong choice.

- Slim housings for space saving installation in the cabinet
- DIN-rail mountable without any gap (no clearance necessary)
- Operating temperature range of -25°C to +70°C
- Autoselect Input for wide input range without any switch; for DC and AC voltages
- Power boost of 120% enables inductive and capacitive loads; additional starting capacity with up to a 2-minute boost
- Parallel connections allow simple power increase for up to five units without diode module
- MTBF > 500,000 Hours
PRO-M SERIES Single Phase Input Power Supplies

Technical Data

General Specifications

Current limiting > 120 % I_

Ambient temp. operating / storage -25 °C ... +70 °C / -40 °C ... +85 °C

Max. peri. air humidity (operation) 20 % ... 95 % RH

Protection class I, with PE connection

Overvoltage category II

Pollution severity 2

Insulation voltage 4 kV I/O / 2 kV I/ground / 0.5 kV O/ground

MTBF > 500,000 acc. to IEC 1709 (SN29500)

Protection against reverse voltages from the load 30...35 V DC

Parallel connection option yes, without diode module

Housing version metal, corrosion resistant

Indication operation, green LED

Mounting position, installation notice horizontal on mounting rail TS35,

50 mm spacing top and bottom for free air circulation, can be mounted side by side with no space in between

EMC / shock / vibration

Noise emission acc. to EN55022 Class B

Noise immunity tests acc. to EN61000-4-2 (ESD), EN61000-4-3 and EN61000-4-8 (Fields), EN61000-4-4 (Burst), EN61000-4-5 (Surge), EN610004-6 (conducted), EN61000-4-11 (Dips)

Limiting of mains voltage harmonic currents Acc. to EN 61000-3-2

Resistance against vibration and shock Acc. to EN50178, shock 5g in all directions

Electrical safety (applied standards)

Electrical equipment of machines Acc. to EN60204

Safety transformers for switched-mode power units Acc. to EN50178 / VDE0160

Machinery with electronic equipment Safety extra-low voltage SELV acc. to EN60950, PELV acc. to EN60204

Protection against dangerous shock currents Acc. to VDE0106-101

Max. limiting average on state current [A]

<table>
<thead>
<tr>
<th>Type</th>
<th>Temp.</th>
<th>45°C</th>
<th>50°C</th>
<th>55°C</th>
<th>60°C</th>
<th>65°C</th>
<th>70°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ph 24V / 3A</td>
<td>3.6</td>
<td>3.3</td>
<td>3.0</td>
<td>2.6</td>
<td>2.2</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>1ph 24V / 5A</td>
<td>6</td>
<td>5.5</td>
<td>5.0</td>
<td>4.4</td>
<td>3.8</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>1ph 24V / 10A</td>
<td>12</td>
<td>11.5</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>1ph 24V / 20A</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>20</td>
<td>18</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>1ph 24V / 40A</td>
<td>48</td>
<td>46</td>
<td>44</td>
<td>40</td>
<td>36</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>3ph 24V / 5A</td>
<td>6</td>
<td>5.75</td>
<td>5.5</td>
<td>5</td>
<td>4.5</td>
<td>3.7</td>
<td></td>
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<tr>
<td>3ph 24V / 10A</td>
<td>12</td>
<td>11.5</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>3ph 24V / 20A</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>20</td>
<td>18</td>
<td>15</td>
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</table>

Project Planning Data

<table>
<thead>
<tr>
<th>Type</th>
<th>24 V / 3 A</th>
<th>24 V / 5 A</th>
<th>24 V / 7.5 A</th>
<th>24 V / 10 A</th>
<th>24 V / 20 A</th>
<th>24 V / 40 A</th>
<th>24 V / 5 A</th>
<th>24 V / 10 A</th>
<th>24 V / 20 A</th>
<th>24 V / 40 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated input voltage</td>
<td>100...240 V AC</td>
<td>3 x 400...500 V AC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mains voltage range</td>
<td>90...230 V AC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mains input current (max/min)</td>
<td>1.9...0.6 A</td>
<td>3.2...1.0 A</td>
<td>4.7...1.6 A</td>
<td>2.2...1.1 A</td>
<td>6.4...2.1 A</td>
<td>12.7...4.1 A</td>
<td>0.4...0.2 A</td>
<td>0.7...0.4 A</td>
<td>1.3...0.7 A</td>
<td>2.6...1.2 A</td>
</tr>
<tr>
<td>6 A</td>
<td>6 A</td>
<td>16 A</td>
<td>16 A</td>
<td>20 A</td>
<td>25 A</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10 A, [B]</td>
<td></td>
</tr>
<tr>
<td>2...4 A, [C]</td>
<td>3...5 A, [C]</td>
<td>5...10 A, [C]</td>
<td>5...10 A, [C]</td>
<td>10...12 A, [C]</td>
<td>14...16 A, [C]</td>
<td>1...2 A, [C]</td>
<td>2...3 A, [C]</td>
<td>3...5 A, [C]</td>
<td>6...8 A, [C]</td>
<td></td>
</tr>
<tr>
<td>Efficiency at 230VAC</td>
<td>88%</td>
<td>99%</td>
<td>90%</td>
<td>&gt; 90%</td>
<td>90%</td>
<td>&gt; 90%</td>
<td>&gt; 90%</td>
<td>&gt; 90%</td>
<td>&gt; 90%</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Installation width [mm]</td>
<td>33</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>121</td>
<td>180</td>
<td>40</td>
<td>60</td>
<td>121</td>
<td>180</td>
</tr>
</tbody>
</table>

Input terminals Screw connection

Conductor, solid min/max mm² | 0.5...6 | 0.5...6 | 0.5...6 | 0.5...6

Conductor, flexible min/max mm² | 0.5...2.5 | 0.5...2.5 | 0.5...2.5 | 0.5...2.5

Conductor, AWG/kcmil min/max 26 / 12 | 26 / 12 | 26 / 12 | 26 / 12

Output terminals Screw connection

Number plus/min 2 / 2 2 / 3

Conductor, solid min/max mm² | 0.5...6 | 0.5...6 | 0.5...6 | 0.5...6 | 0.5...6

Conductor, flexible min/max mm² | 0.5...2.5 | 0.5...2.5 | 2.5...10 | 0.5...2.5 | 2.5...0

Conductor, AWG/kcmil min/max 26 / 12 | 26 / 10 | 26 / 6 | 26 / 12 | 26 / 10 | 26 / 6
Single Phase Input Power Supplies

PRO-M SERIES

Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M SNT 70W 24V 3A</td>
<td>8951330000</td>
</tr>
<tr>
<td>CP M SNT 120W 24V 5A</td>
<td>8951340000</td>
</tr>
</tbody>
</table>

Technical Data

Input Specifications

<table>
<thead>
<tr>
<th>Rated input voltage</th>
<th>100...240 V AC (wide-range input)</th>
</tr>
</thead>
<tbody>
<tr>
<td>85...264 V AC</td>
<td>85...264 V AC</td>
</tr>
<tr>
<td>47...63 Hz</td>
<td>47...63 Hz</td>
</tr>
<tr>
<td>80...370 V DC</td>
<td>80...370 V DC</td>
</tr>
<tr>
<td>1.0 A @ 230 V AC / 1.5 A @ 115 V AC</td>
<td>0.8 A @ 230 V AC / 1.1 A @ 80 V DC</td>
</tr>
<tr>
<td>0.5 A @ 370 V DC / 1.1 A @ 80 V DC</td>
<td>0.25 A @ 370 V DC / 1.1 A @ 80 V DC</td>
</tr>
<tr>
<td>Input fuse (internal)/Inrush current</td>
<td>yes/max. 20 A</td>
</tr>
<tr>
<td>Circuit Protection</td>
<td>2 A / Di, safety fuse</td>
</tr>
<tr>
<td></td>
<td>6 A, Char. B, Circuit breaker</td>
</tr>
<tr>
<td></td>
<td>2...4 A, Char. C, Circuit breaker</td>
</tr>
</tbody>
</table>

Output Specifications

<table>
<thead>
<tr>
<th>Rated output voltage</th>
<th>24 V DC ± 1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.5...29.5 V DC</td>
<td>22.5...29.5 V DC (adjustable via potentiometer on front)</td>
</tr>
<tr>
<td>100 mA @ 24 V DC, I_{DEL}</td>
<td>100 mA @ 24 V DC, I_{DEL}</td>
</tr>
<tr>
<td>3.6 A @ 45 °C</td>
<td>3.6 A @ 45 °C</td>
</tr>
<tr>
<td>3.3 A @ 50 °C</td>
<td>1.8 A @ 70 °C</td>
</tr>
<tr>
<td>3.6 A for 1 min, ED=5 %</td>
<td>3.6 A for 1 min, ED=5 %</td>
</tr>
</tbody>
</table>

General Specifications

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>88 % @ 230 V AC / &gt; 85 % @ 115 V AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power factor (approx.)</td>
<td>&gt; 0.5 @ 230 V AC / &gt; 0.53 @ 115 V AC</td>
</tr>
<tr>
<td>Mains buffering @ T_{rated}</td>
<td>&gt; 100 ms @ 230 V AC / &gt; 20 ms @ 100 V AC</td>
</tr>
</tbody>
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<tr>
<th>CE, cULus, UL508, CSA22.2 no.107</th>
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<tr>
<td>Number of terminals</td>
<td>3 for L/N/PE</td>
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<tr>
<td>Conductor cross-section, rigid min/max</td>
<td>0.5 / 6</td>
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<td>0.5 / 2.5</td>
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**PRO-M SERIES**

**Single-Phase Input Power Supplies**

**Ordering Data**

**Technical Data**

**Input Specifications**
- Rated input voltage
- AC input voltage range
- AC frequency range
- DC input voltage range
- AC current consumption
- DC current consumption
- Input fuse (internal)/Inrush current

**Circuit Protection**
- Circuit Protection

**Output Specifications**
- Rated output voltage
- Output voltage
- Residual ripple, switching peaks
- Rated output current @ Vrated
- Continuous output current @ 24 V DC

**General Specifications**
- Efficiency
- Power factor (approx.)
- Mains buffering @ Irated
- Parallel connection option
- Length x Width x Height
- Weight

**Approvals/Certifications**

**Connection Data**
- Type of connection
- Number of terminals
- Conductor cross-section, rigid min/max
- Conductor cross-section, flexible min/max
- Conductor cross-section, AWG/kcmil min/max

**Derating Curve**

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>65%</th>
<th>70%</th>
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</thead>
<tbody>
<tr>
<td>20%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>30%</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>40%</td>
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<td>20</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>40</td>
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</tr>
<tr>
<td>50%</td>
<td>0</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>60%</td>
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<td>40</td>
<td>50</td>
<td>50</td>
<td>60</td>
<td>60</td>
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<tr>
<td>70%</td>
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<td>50</td>
<td>60</td>
<td>60</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
</tbody>
</table>

**Recommendation**

* Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!
### Single Phase Input Power Supplies

**PRO-M SERIES**

#### Technical Data

**Input Specifications**
- Rated input voltage
- AC input voltage range
- AC frequency range
- DC input voltage range
- AC current consumption
- DC current consumption
- Input fuse (internal)/Inrush current

**Circuit Protection**
- 10 A / DI, safety fuse
- 20 A, Char. B, Circuit breaker
- 10...12 A, Char. C, Circuit breaker

**Output Specifications**
- Rated output voltage
- Residual ripple, switching peaks
- Rated output current @ Vrated
- Continuous output current @ 24 V DC

**General Specifications**
- Efficiency
- Power factor (approx.)
- Mains buffering @ Irated
- Parallel connection option
- Length x Width x Height mm
- Weight

**Approvals/Certifications**
- CE, cULus, UL508, CSA22.2 no.107

**Connection Data**
- Type of connection
- Number of terminals
- Conductor cross-section, rigid min/max mm²
- Conductor cross-section, flexible min/max mm²
- Conductor cross-section, AWG/kcmil min/max

**Connection Data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M SNT 500W 24V 20A</td>
<td>8951370000</td>
</tr>
<tr>
<td>CP M SNT 1000W 24V 40A</td>
<td>8951380000</td>
</tr>
</tbody>
</table>

**Derating Curve**

<table>
<thead>
<tr>
<th>Temperature De-Rating</th>
<th>% of Nominal Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient Temperature (°C)</td>
<td>120%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M SNT 500W 24V 20A</td>
<td>8951370000</td>
</tr>
<tr>
<td>CP M SNT 1000W 24V 40A</td>
<td>8951380000</td>
</tr>
</tbody>
</table>

**Connection Data**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw connection</td>
<td>Screw connection</td>
</tr>
<tr>
<td>3 for L/N/PE</td>
<td>5 (+/+/-)</td>
</tr>
<tr>
<td>0.5 / 6</td>
<td>0.5 / 6</td>
</tr>
<tr>
<td>0.5 / 2.5</td>
<td>0.5 / 2.5</td>
</tr>
<tr>
<td>26 / 10</td>
<td>26 / 10</td>
</tr>
</tbody>
</table>

* Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!
PRO-M SERIES Three-Phase Input Power Supplies

CP M SNT3 120W 24V 5A

Type  Part No.
CP M SNT3 120W 24V 5A 8951390000

Input Specifications
Rated input voltage
3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC

Rated AC input voltage range
3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC

Rated AC frequency range
47...63 Hz

Rated DC input voltage range
450...800 V DC (max. 500 V DC acc. to UL508)

Rated DC current consumption
0.25 A @ 3 x 500 V AC / 0.3 A @ 3 x 400 V AC

Input fuse (internal)
o

Circuit Protection
2 A / DI, safety fuse
1...2 A, Char. C, Circuit breaker

Output Specifications
Rated output voltage
24 V DC ± 1 %

Output voltage
22.5...29.5 V DC (adjustable via potentiometer on front)

Residual ripple, switching peaks
100 mVss @ 24 V DC, IN

Rated output current at Vrated
5 A @ 60 °C
6.0 A @ 45 °C
5.5 A @ 50 °C
3.7 A @ 70 °C
6 A for 1 min, ED=5 %

General Specifications
Efficiency
90 % @ 3 x 500 V AC / 90 % @ 3 x 400 V AC

Power factor (approx.)
> 0.75 @ 3 x 500 V AC / > 0.78 @ 3 x 400 V AC

Mains buffering @ Irated
> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC

Parallel connection option
yes

Length x Width x Height
125 x 40 x 130

Weight
0.55 kg

Approvals/Certifications
CE, cURus, UL508, CSA22.2 no.107

Connection Data
Type of connection
Input Screw connection
Output Screw Connection
4 for L1/L2/L3/PE 5 (can be)-
0.5 / 6 0.5 / 6
0.5 / 2.5 0.5 / 2.5
26 / 12 26 / 12

* Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!

CP M SNT3 250W 24V 10A

Type  Part No.
CP M SNT3 250W 24V 10A 8951400000

Input Specifications
Rated input voltage
3 x 400...3 x 500 V AC (wide-range input)

Rated AC input voltage range
3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC

Rated AC frequency range
47...63 Hz

Rated DC input voltage range
450...800 V DC (max. 500 V DC acc. to UL508)

Rated DC current consumption
0.5 A @ 3 x 500 V AC / 0.6 A @ 3 x 400 V AC

Input fuse (internal)
o

Circuit Protection
2 A / DI, safety fuse
2...3 A, Char. C, Circuit breaker

Output Specifications
Rated output voltage
24 V DC ± 1 %

Output voltage
22.5...29.5 V DC (adjustable via potentiometer on front)

Residual ripple, switching peaks
100 mVss @ 24 V DC, IN

Rated output current at Vrated
10 A @ 60 °C
12 A @ 45 °C
11 A @ 55 °C
7.5 A @ 70 °C
12 A for 1 min, ED=5 %

General Specifications
Efficiency
90 % @ 3 x 500 V AC / > 90 % @ 3 x 400 V AC

Power factor (approx.)
> 0.75 @ 3 x 500 V AC / > 0.78 @ 3 x 400 V AC

Mains buffering @ Irated
> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC

Parallel connection option
yes

Length x Width x Height
150 x 60 x 130

Weight
0.9 kg

Approvals/Certifications
CE, cURus, UL508, CSA22.2 no.107

Connection Data
Type of connection
Input Screw connection
Output Screw Connection
4 for L1/L2/L3/PE 5 (can be)-
0.5 / 6 0.5 / 6
0.5 / 2.5 0.5 / 2.5
26 / 12 26 / 12

* Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!
Three Phase Input Power Supplies

**Technical Data**

**Input Specifications**
- Rated input voltage
- AC input voltage range
- AC frequency range
- DC input voltage range
- AC current consumption
- DC current consumption
- Input fuse (internal)

**Circuit Protection**
- 2 A / Di, safety fuse
- 3...5 A, Char. C, Circuit breaker

**Output Specifications**
- Rated output voltage
- Output voltage
- Residual ripple, switching peaks
- Rated output current @ Vrated
- Continuous output current @ 24 V DC

**General Specifications**
- Efficiency
- Power factor (approx.)
- Mains buffering @ Irated
- Parallel connection option
- Length x Width x Height
- Weight

**Approvals/Certifications**
- CE, cULus, UL508, CSA22.2 no.107

**Connection Data**
- Type of connection
- Number of terminals
- Conductor cross-section, rigid min/max
- Conductor cross-section, flexible min/max
- Conductor cross-section, AWG/kcmil min/max

**Derating Curve**

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>65%</th>
<th>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>120%</td>
<td>200%</td>
<td>180%</td>
<td>160%</td>
<td>140%</td>
<td>120%</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Ordering Data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M SNT3 500W 24V 20A</td>
<td>8951410000</td>
<td>3 x 400...3 x 500 V AC (wide-range input)</td>
</tr>
<tr>
<td>CP M SNT3 1000W 24V 40A</td>
<td>8951420000</td>
<td>3 x 400...3 x 500 V AC (wide-range input)</td>
</tr>
</tbody>
</table>

- *Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!*

---

*Image of three phase input power supplies with diagrams and technical specifications.*
PRO-M: Diode Modules

Technical Data

- **Input Specifications**
  - Rated input voltage: 24 V DC
  - Input voltage range AC: 18…30 V DC
  - Input current: 2 x 10 A or 1 x 20 A

- **Output Specifications**
  - Rated output voltage: 24 V DC
  - Output voltage: Input voltage - 0.7 V
  - Continuous output current @ 24 V DC: 25 A @ 60 °C, 22.5 A @ 55 °C, 15 A @ 70 °C
  - Voltage monitoring: yes, in both inputs
  - Switching thresholds: 21.6 V DC, relay is on for Power Good
  - Potential free, floating contacts: 21.6 V DC, relay is on for Power Good
  - Max. 30 V DC / 1 A, CO contact: 97 % @ 24 V input voltage

- **General Specifications**
  - Degree of efficiency: > 97 % @ 24 V input voltage
  - Length x width x height mm: 150 x 34 x 130

- **Ambient temperature (operational) / Storage temperature**
  - Max. permitted humidity (operational): 5 %…95 % RH

- **Degree of protection**
  - Pollution degree: IP20
  - Class of protection: III, without PE connection, for SELV
  - Insulation voltage I/O to housing: 0.5 kV
  - MTBF: 500,000 h according to IEC 1709 (SN29500)
  - Mounting position, installation notice: Horizontal on TS35 mounting rail, with 50 mm space at top and bottom. Direct side by side mounting allowed.

- **EMC / shock / vibration**
  - Noise emission acc. to EN55022
  - Noise immunity tests acc. to EN55024
  - Vibration resistance: 1 g according to EN50178 / 15 g in all directions

- **Electrical safety (applied standards)**
  - Electrical equipment of machines: CE, TUV, cCSAus, GL, GOST
  - Safety transformers for switched-mode power units: CE, TUV, cCSAus, GL, GOST
  - Safety extra low voltage: CE, TUV, cCSAus, GL, GOST

- **Approvals**
  - Pending: PRO-M: Diode Modules

- **Connection data**
  - Conductor connection system: Screw connection
  - Number of terminals: 4 (1+2+, 1-2-)
  - Conductor cross section, rigid min/max mm²: 0.5 / 16
  - Conductor cross section, flexible min/max mm²: 0.5 / 2.5
  - Conductor cross section, AWG/kcmil min/max: 26 / 12

- **Ordering Data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M DM20</td>
<td>1222210000</td>
</tr>
<tr>
<td>CP M DM40</td>
<td>1222220000</td>
</tr>
</tbody>
</table>

**CP M DM20**

- Rated input voltage: 24 V DC
- Input voltage range AC: 18…30 V DC
- Input current: 2 x 10 A or 1 x 20 A

**CP M DM40**

- Rated input voltage: 24 V DC
- Input voltage range AC: 18…30 V DC
- Input current: 2 x 20 A or 1 x 40 A
Relay Module

PRO-M: Relay Module

Technical Data

Input Specifications
Rated input voltage
24 V DC
Input voltage range DC
18...30 V DC

Output Specifications
Voltage monitoring
21.6 V DC, relay is on for Power Good
20.4 V DC, relay is off for Power Fail

Switching thresholds
Potential free, floating contacts

General Specifications
Length x width x height mm
22 x 33 x 28
Weight
75 g
Ambient temperature (operational) / Storage temperature
-25...+70 °C / -40 °C...+85 °C
Max. permitted humidity (operational)
5%...95% RH
IP protection degree
IP20
Pollution degree
II, without PE connection, for SELV

EMC / shock / vibration
Noise emission acc. to EN55022
Noise immunity tests acc. to IEC 61000-4-4
Resistance against vibration and shock
1 g according to EN60068-2-6

Electrical safety (applied standards)
Class B
Electrical equipment of machines
Safety transformers for switch mode power units
Safety extra low voltage

Approvals
CE, TUV, cULus, Gl, CQC

Connection data
Number of terminals
3
Conductor cross section, rigid min/max mm²
0.2 / 1.5
Conductor cross section, flexible min/max mm²
0.2 / 1.5
Conductor cross section, AWG/kcmil min/max
24 / 16

Ordering Data

Type        Part No.
CP M RM24   1222230000

PRO-M SERIES

Relay Module
Pulse triggering for cable circuit breakers:
with the Weidmuller capacitance module

The following conditions apply to the table entries:
- Ambient temperature of 20 °C
- Inner resistance of the circuit breakers is taken into account
- Half of the rated current flows to a neighbouring circuit before the short circuit is formed
- DC-compatible circuit breakers: Siemens 5SY series

## Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M CAP</td>
<td>1222240000</td>
</tr>
</tbody>
</table>

## Technical Data

### Input Specifications
- Rated input voltage: 24 V DC
- Input voltage range: 18...30 V DC
- Ambient temperature (operational): -25...+70 °C
- Max. permitted humidity (operational): 5 %...95 % RH

### Output Specifications
- Peak current output: Depending on load
- Recovery time for the capacitor: approx. 1 s
- Voltage monitoring: yes
- Switching thresholds: 21.6 V DC, relay is on for Power Good; 20.4 V DC, relay is off for Power Fail
- Potential free, floating contacts: Max. 30 V DC / 1 A, CO contact

## General Specifications
- Length x width x height: 150 x 34 x 130 mm
- Weight: 0.4 kg
- Ambient temperature (operational): -25...+70 °C
- Storage temperature: -40...+85 °C

## EMC / shock / vibration
- Noise emission acc. to EN55022
- Noise immunity tests acc. to EN61000-4-2 (ESD), EN61000-4-3 and EN61000-4-8 (Fields), EN61000-4-4 (Burst), EN61000-4-5 (Surge), EN61000-4-6 (conducted), EN61000-4-11 (Dips)

## Electrical safety (applied standards)
- According to EN60204
- According to EN50178, VDE0160

## Approvals
- CE, TUV, GL
- cULus, GOST

## Connection data
- Conductor connection system: Screw connection
- Number of terminals: 4 (++--)
- Conductor cross section, rigid min/max: 0.5 / 6 mm²
- Conductor cross section, flexible min/max: 0.5 / 4 mm²
- Conductor cross section, AWG/min/max: 26 / 12 guages

## Fuse Tripping

<table>
<thead>
<tr>
<th>Conductor cross section</th>
<th>B6</th>
<th>B10</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.75 mm²</td>
<td>10 m</td>
<td>6 m</td>
</tr>
<tr>
<td>1.0 mm²</td>
<td>14 m</td>
<td>8 m</td>
</tr>
<tr>
<td>1.5 mm²</td>
<td>20 m</td>
<td>9 m</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>30 m</td>
<td>15 m</td>
</tr>
<tr>
<td>4 mm²</td>
<td>50 m</td>
<td>24 m</td>
</tr>
<tr>
<td>6 mm²</td>
<td>16 m</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conductor cross section</th>
<th>C2</th>
<th>C4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.75 mm²</td>
<td>11 m</td>
<td>6 m</td>
</tr>
<tr>
<td>1.0 mm²</td>
<td>14 m</td>
<td>8 m</td>
</tr>
<tr>
<td>1.5 mm²</td>
<td>21 m</td>
<td>12 m</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>34 m</td>
<td>19 m</td>
</tr>
<tr>
<td>4 mm²</td>
<td>50 m</td>
<td>32 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conductor cross section</th>
<th>C6</th>
<th>C10</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.75 mm²</td>
<td>3 m</td>
<td>3 m</td>
</tr>
<tr>
<td>1.0 mm²</td>
<td>3,5 m</td>
<td>2 m</td>
</tr>
<tr>
<td>1.5 mm²</td>
<td>5,5 m</td>
<td>3 m</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>9 m</td>
<td>5 m</td>
</tr>
<tr>
<td>4 mm²</td>
<td>14 m</td>
<td>8 m</td>
</tr>
</tbody>
</table>

Subject to technical changes • 2/12-XM-LTO924