Weidmüller offers a full range of power supplies for process control and manufacturing automation applications.

**INSTAPOWER**
The INSTAPOWER family of power supplies is designed in compact and robust housings for quick and easy TS35 DIN-rail mounting.
- Output voltage adjustable via potentiometer
- Wide-range input: 85…264 VAC /120…300 VDC (24 W) / 110…370 VDC (25/48W)
- LED status indicator (25/48 W)
- Option for connecting in parallel
- International approvals for use world-wide

**PRO-M Series**
Weidmüller’s new compact PRO-M Series Switchmode Power Supplies are optimized for machinery and offer a host of advantages.
- 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

**T-SERIES**
The T-SERIES is a new generation of high performance DIN-rail mounted single-phase power supplies designed to work reliably even under demanding factory floor conditions.
- Autoselect input eliminates the possibility of selecting the wrong input type
- Hazardous approvals - designed for use in process automation and other harsh industrial environments.
- Operating temperature range of -25°C to +70°C
- Capable of cold start-up at full load at -25°C.
- Indefinite short circuit, overvoltage and overtemperature protection
- Remote On/Off
- Shock and vibration proof
- Variable output voltage automatically adjusts and overcomes voltage drops/dips
- Easy installation with detachable screw terminal block and snap-on DIN-rail mounting
- DC-OK signal and external shut down function

**connectPower**
The connectPower Series power supplies are available in both single phase and three phase, and offer a number of features designed for demanding applications.
- Fulfill the demand for high quality power delivery solutions
- Designed with packaging advantages that include a rugged housing, ability to panel mount, pluggable connectors and load sharing capability
- Feature up to 200% of maximum rated output for a specified amount of time (power boost)
- Available with low residual ripple (< 10mV in some cases)
- Most models have universal AC/DC input
- Longer hold-up time for most models
- Feature greater galvanic isolation between input and output
- Operate over a broader range of ambient temperatures
- Many available in 5, 12, 24, 28, and 48V versions
## INSTAPOWER—Single Phase Input Supplies

**Technical Data**

<table>
<thead>
<tr>
<th>Input voltage</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>115-230 VAC</td>
<td>±10%</td>
<td>±10%</td>
<td>±20%</td>
</tr>
<tr>
<td>50/60 Hz</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ordering Data

**Type** | **Part No.** | **Output voltage/maximum current** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CP SNT 12W 0.5A</td>
<td>9918840024</td>
<td>24 VDC / 0.5 A</td>
</tr>
<tr>
<td>CP SNT 24W</td>
<td>9928890024</td>
<td>24 VDC / 1 A</td>
</tr>
</tbody>
</table>

### Technical Data

**Input voltage**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 VAC</td>
<td>120 VDC</td>
<td>115-230 VAC ± 10%, 50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>265 VAC</td>
<td>300 VDC</td>
<td>260 mA RMS ± 20%</td>
<td></td>
</tr>
<tr>
<td>180 VDC</td>
<td>265 VAC</td>
<td>180 mA RMS ± 20%</td>
<td></td>
</tr>
<tr>
<td>125 VDC</td>
<td>250 VDC</td>
<td>125 mA ± 20%</td>
<td></td>
</tr>
<tr>
<td>65 mA</td>
<td>250 VDC</td>
<td>65 mA ± 20%</td>
<td></td>
</tr>
</tbody>
</table>

**Input current at 115 VAC**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 VAC</td>
<td>120 VDC</td>
<td>260 mA RMS ± 20%</td>
<td></td>
</tr>
<tr>
<td>265 VAC</td>
<td>300 VDC</td>
<td>270 mA RMS ± 20%</td>
<td></td>
</tr>
<tr>
<td>180 VDC</td>
<td>265 VAC</td>
<td>280 mA ± 20%</td>
<td></td>
</tr>
<tr>
<td>125 VDC</td>
<td>250 VDC</td>
<td>140 mA ± 20%</td>
<td></td>
</tr>
</tbody>
</table>

**Input protection**

- Fuse: 2 A slow fuse (internal, not user serviceable)
- Inrush current: 2 A slow fuse (internal, not user serviceable)
- Overvoltage protection: Thermistor
- Varistor
- 100 kHz PWM
- 80% efficiency at maximum load
- 0.1% RMS Vp-p
- 0.2% maximum ripple
- 0.2% maximum load at 115 VAC
- 0.1% RMS Vp-p
- 2% (12, 15 and 5 V) 0.5% (24 and 28 V)

**Switching frequency**

- 100 kHz PWM

**Efficiency at maximum load**

- 80%

**Maximum ripple**

- 0.1% RMS Vp-p
- 0.2%
- 0.2% 115 VAC - 265 VAC

**Regulation**

- Load (10-100% load) at input voltage
- Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit
- 800 µF
- 35 ms
- 160 ms

**Hold time**

- -40°C...+85°C (-40°F...+185°F)
- -20°C...+50°C (-4°F...+122°F)
- Derating: 33% at 60°C (140°F)
- 20...80% RH non-condensing
- 20...90% RH
- 3 kV RMS
- 4 kV RMS
- 1.5 kV RMS
- 500 V RMS

**Galvanic isolation**

- Input/output: 3 kV RMS
- Input/to ground: 4 kV RMS
- Output to ground: 1.5 kV RMS

**Wire size**

- 0.1...4.0 mm² (26...12 AWG)
- 90.5 x 52 x 62.5 mm (3.56 x 2.05 x 2.46 in.)
- 500 g (1.1 lbs.)

**Dimensions (L x W x H)**

- 90 x 18 x 112.5 mm (3.54 x 0.71 x 4.43 in.)

**Weight**

- 140 g (0.31 lbs.)
- 30 mm above and below if next to non-heat producing (low-power) module
- 60 mm above and below if next to high heat producing module (i.e., another power supply)

**Mounting position**

- Horizontal on mounting rail TS35
- 20 mm left and right

**Clearance**

- 60 mm above and below if next to high heat producing module (i.e., another power supply)

**Approvals/Certifications**

- CSA, UL 508 Listed, CE
- CSA Class 1 Div. 2 and Zone 2 for 9028890012 and 9028890024
- UL 1310 (Class 2) for 9028890024

**Diagram/Schematic Circuit Diagram**

- Secondary through plug-in jumper ZQV cross-connectable to other WAVE-modules
### INSTAPOWER—Single Phase Input Supplies

**Diagram/Schematic Circuit Diagram**

### Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP SNT 25W 5V 5A</td>
<td>4…8 VDC (adjustable via potentiometer) / 5 A 8754960000</td>
</tr>
<tr>
<td>CP SNT 48W</td>
<td>9…15 VDC (adjustable via potentiometer) /4 A 8754970000</td>
</tr>
</tbody>
</table>

### Technical Data

#### Input voltage
- **Minimum**: 85 VAC, 110 VDC
- **Typical**: 115/230 VAC
- **Maximum**: 264 VAC, 370 VDC

#### Input current
- **at 115 VAC**: 950 mA
- **at 230 VAC**: 500 mA
- **at 125 VDC**: 950 mA
- **at 250 VDC**: 500 mA

#### Input protection
- Fuse
- Inrush current
- Overvoltage protection

#### Switching frequency
- 100 kHz PWM

#### Efficiency at maximum load
- 78%
- 70% at input voltage

#### Maximum ripple
- 120 mVp-p
- 1% at input voltage

#### Overload protection
- 105%…150% max. rated output power, automatic restart
- >70% / >78% / >80%

#### Maximum capacitance at output
- 35 ms
- >50 ms
- >35 ms

#### Temperature
- Operating: -40°C...+85°C (-40°F...+185°F)
- Storage: -60°C...+125°C (-76°F...+257°F)

#### Derating
- 20...85% RH non-condensing
- 20...90% RH

#### Hold time
- 30 ms
- >50 ms
- >30 ms

#### Humidity
- Operating temperature: 30°C...+50°C (86°F...+122°F)
- Storage temperature: 30°C...+60°C (86°F...+140°F)

#### Galvanic isolation
- Input-output: 3 kV RMS
- Input/output to mounting rail: 4 kV RMS
- Input to ground: 1.5 kV RMS
- Output to ground: 500 V RMS

#### Wire size
- 0.1...4.0 mm² (26...12 AWG)

#### Dimensions (L x W x H)
- 62.5 x 70 x 90.5 mm (2.46 x 2.76 x 3.56 in.)

#### Weight
- 2 kg

#### Mounting position
- Horizontal on mounting rail TS35

#### Clearance
- >30 mm above and below

#### Approvals/Certifications
- CSA / CE / UL 508 / cURus 60950 / GS
- UL 1310 (Class 2)
## Technical Data

### Input Specifications

- **Rated input voltage**: 100...240 V AC (wide-range input)
- **Frequency**: 47...63 Hz
- **Input voltage range**: 85...264 V AC
- **Frequency range**: 47...63 Hz
- **DC input voltage range**: 80...370 V DC
- **DC current consumption**: 0.80 A @ 230 V AC / 1.5 A @ 115 V AC
- **Input fuse (internal)/Inrush current**: yes / max. 20 A
- **Circuit Protection**: 2 A / DI, safety fuse
- **AC current consumption**: 0.25 A @ 370 V DC / 1.1 A @ 80 V DC

### 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 mVpp @ 24 V DC, \( I_o \)
- **Rated output current @ Vrated**: 3 A @ 55 °C
- **Continuous output current @ 24 V DC**: 3.6 A for 1 min, ED=5 %

### General Specifications

- **Efficiency**: 88 % @ 230 V AC / > 85 % @ 115 V AC
- **Mains buffering @ Irated**: yes
- **Power factor (approx.)**: > 0.5 @ 230 V AC / > 0.53 @ 115 V AC
- **Weight**: 0.69 kg
- **Length x Width x Height**: 125 x 33 x 130 mm
- **Ambient Temperature (°C)**: 0% 10% 20% 30% 40% 50% 60% 70%

### Approvals/Certifications

- **CE, cURus, cULus Listed to UL508 and CSA C22.2 No. 107.1**

### Connection Data

- **Type of connection**: Screw connection
- **Number of terminals**: 3 for L/N/PE
- **Conductor cross-section, rigid min/max**: 0.5 / 6 mm²
- **Conductor cross-section, flexible min/max**: 0.5 / 2.5 mm²
- **Conductor cross-section, AWG/kcmil min/max**: 26 / 12

### Accessories

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

### 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>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C</td>
<td>120%</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

### Connection Diagrams

- **CP M SNT 70W 24V 3A**: With DC connection, no polarity
- **CP M SNT 120W 24V 5A**: With DC connection, no polarity

### Ordering Data

- **Type** | **Part No.** | **Type** | **Part No.**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CP M SNT 70W 24V 3A</td>
<td>8951330000</td>
<td>CP M SNT 120W 24V 5A</td>
<td>8951340000</td>
</tr>
</tbody>
</table>
PRO-M—Single Phase Input Supplies

CP M SNT 180W 24V 7.5A
Type: CP M SNT 180W 24V 7.5A
Part No.: 8951350000

Rated input voltage:
- 100...240 V AC (wide-range input)
- 85...264 V AC

AC input voltage range:
- 47...63 Hz
- 80...370 V DC

AC frequency range:

DC input voltage range:
- 1.9 A @ 230 V AC / 3.6 A @ 115 V AC
- 0.6 A @ 370 V DC / 2.6 A @ 80 V DC

AC current consumption:
- 1.9 A @ 230 V AC / 3.6 A @ 115 V AC
- 0.6 A @ 370 V DC / 2.6 A @ 80 V DC

Input fuse (internal)/Inrush current:
- 6 A / DI, safety fuse
- 16 A, Char. B, Circuit breaker
- 5...10 A, Char. C, Circuit breaker

Circuit Protection:
- yes

Output Specifications:

Rated output voltage:
- 24 V DC ± 1 %
- 22.5...29.5 V DC (adjustable via potentiometer on front)

Residual ripple, switching peaks:
- 100 mVrms @ 24 V DC, \( i_L \)
- 7.5 A @ 60 °C

Rated output current @ 24 V DC:
- 9.0 A @ 45 °C
- 8.2 A @ 55 °C
- 5.6 A @ 70 °C

AC current consumption:
- 8 A for 1 min, ED=5 %

Power boost @ 24 V DC, 60 °C:
- 90 % @ 230 V AC / > 85 % @ 115 V AC
- > 85 % @ 230 V AC / > 60 % @ 115 V AC

Parallel connection option:
- yes

Length x Width x Height mm:
- 150 x 80 x 130

Weight:
- 1.0 kg

Approvals/Certifications:
- CE, cULus Listed to UL508 and CSA C22.2 No. 107.1

Connection Data:

Type of connection:
- Screw connection

Number of terminals:
- 5 (++/---)

Conductor cross-section, rigid min/max mm²:
- 0.5 / 6

Conductor cross-section, flexible min/max mm²:
- 0.5 / 2.5

Conductor cross-section, AWG/kcmil min/max:
- 26 / 12

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

CP M SNT 250W 24V 10A
Type: CP M SNT 250W 24V 10A
Part No.: 8951360000

Rated input voltage:
- 100...240 V AC (wide-range input)
- 85...264 V AC

AC input voltage range:
- 47...63 Hz
- 80...370 V DC

AC frequency range:

DC input voltage range:
- 1.3 A @ 230 V AC / 2.5 A @ 115 V AC
- 0.9 A @ 370 V DC / 3.4 A @ 80 V DC

AC current consumption:
- 1.3 A @ 230 V AC / 2.5 A @ 115 V AC
- 0.9 A @ 370 V DC / 3.4 A @ 80 V DC

Input fuse (internal)/Inrush current:
- 6 A / DI, safety fuse
- 16 A, Char. B, Circuit breaker
- 5...10 A, Char. C, Circuit breaker

Circuit Protection:
- yes

Output Specifications:

Rated output voltage:
- 24 V DC ± 1 %
- 22.5...29.5 V DC (adjustable via potentiometer on front)

Residual ripple, switching peaks:
- 100 mVrms @ 24 V DC, \( i_L \)
- 7.5 A @ 60 °C

Rated output current @ 24 V DC:
- 10 A @ 45 °C
- 11 A @ 55 °C
- 7.5 A @ 70 °C

AC current consumption:
- 12 A for 1 min, ED=5 %

Power boost @ 24 V DC, 60 °C:
- 90 % @ 230 V AC / > 85 % @ 115 V AC
- > 85 % @ 230 V AC / > 60 % @ 115 V AC

Parallel connection option:
- yes

Length x Width x Height mm:
- 150 x 60 x 130

Weight:
- 1.2 kg

Approvals/Certifications:
- CE, cULus Listed to UL508 and CSA C22.2 No. 107.1

Connection Data:

Type of connection:
- Screw connection

Number of terminals:
- 5 (++/---)

Conductor cross-section, rigid min/max mm²:
- 0.5 / 6

Conductor cross-section, flexible min/max mm²:
- 0.5 / 2.5

Conductor cross-section, AWG/kcmil min/max:
- 26 / 12

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

* Derating Curve
**PRO-M—Single Phase Input Supplies**

**Technical Data**

**Input Specifications**
- **Rated input voltage**: 100...240 V AC wide-range input
- **AC input voltage range**: 85...264 V AC
- **AC frequency range**: 47...63 Hz
- **DC input voltage range**: 80...370 V DC
- **AC current consumption**: 2.5 A @ 230 V AC / 4.9 A @ 115 V AC
- **DC current consumption**: 1.6 A @ 370 V DC / 6.8 A @ 80 V DC
- **Input fuse (internal)/Inrush current**: Yes
- **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**: 24 V DC ± 1 %
- **Output voltage**: 22.5...29.5 V DC (adjustable via potentiometer on front)
- **Residual ripple, switching peaks**: 100 mVpp @ 24 V DC, I_{IN}
- **Rated output current @ \text{Vrated}**: 20 A @ 60 °C
- **Continuous output current @ 24 V DC**:
  - 24 A @ 45 °C
  - 22 A @ 55 °C
  - 15 A @ 70 °C
  - 24 A for 1 min, ED=5 %

**General Specifications**
- **Efficiency**: > 90 % @ 230 V AC / > 85 % @ 115 V AC
- **Power factor (approx.)**: > 0.98 @ 230 V AC / > 0.98 @ 115 V AC
- **Mains buffering @ I_{rated}**: Yes
- **Parallel connection option**: Yes
- **Length x Width x Height**: 150 x 121 x 130 mm
- **Weight**: 1.5 kg

**Approvals/Certifications**
- CE, cULus, cULus Listed to UL508 and CSA C22.2 No. 107.1

**Connection Data**
- **Type of connection**: Screw connection
- **Number of terminals**: 3 for L/N/PE
- **Conductor cross-section, rigid min/max**: 0.5 / 6 mm²
- **Conductor cross-section, flexible min/max**: 0.5 / 2.5 mm²
- **Conductor cross-section, AWG/kcmil min/max**: 26 / 10

**Accessories**

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

**CP M SNT3 120W 24V 5A**

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

**Technical Data**

- **Input Specifications**
  - Rated input voltage: 3 x 400...3 x 500 V AC (wide-range input)
  - AC input voltage range: 3 x 520...3 x 575 V AC / 2 x 360...2 x 575 V AC
  - AC frequency range: 47...63 Hz
  - DC input voltage range: 450...800 V DC (max. 500 V DC acc. to UL508)
  - AC current consumption: 0.25 A @ 3 x 500 V AC / 0.3 A @ 3 x 400 V AC
  - DC current consumption: 0.2 A @ 800 V DC / 0.4 A @ 450 V DC
  - Input fuse (internal): 2 A / DI, safety fuse
  - Circuit Protection: 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 mVpp ± 24 V DC, \( I_p \)
  - Rated output current: 5 A @ 60 °C
  - Continuous output current @ 24 V DC: 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: yes
  - Parallel connection option: yes
  - Length x Width x Height: 125 x 40 x 130 mm
  - Weight: 0.55 kg

- **Approvals/Certifications**
  - CE, cULus Listed to UL508 and CSA C22.2 No. 107.1

**Connection Data**

- **Type of connection**: Screw connection
- **Number of terminals**: 4 for L1/L2/L3/PE
- **Conductor cross-section, rigid min/max**: 0.5 / 6 mm²
- **Conductor cross-section, flexible min/max**: 0.5 / 2.5 mm²
- **Accessories**: Connection Data

**Accessories**

- **Input**: Screw connection
- **Output**: Screw Connection

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

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**CP M SNT3 250W 24V 10A**

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

**Technical Data**

- **Input Specifications**
  - Rated input voltage: 3 x 400...3 x 500 V AC (wide-range input)
  - AC input voltage range: 3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
  - AC frequency range: 47...63 Hz
  - DC input voltage range: 450...800 V DC (max. 500 V DC acc. to UL508)
  - AC current consumption: 0.5 A @ 3 x 500 V AC / 0.6 A @ 3 x 400 V AC
  - DC current consumption: 0.4 A @ 800 V DC / 0.7 A @ 450 V DC
  - Input fuse (internal): 2 A / DI, safety fuse
  - Circuit Protection: 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 mVpp ± 24 V DC, \( I_p \)
  - Rated output current: 10 A @ 60 °C
  - Continuous output current @ 24 V DC: 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: yes
  - Parallel connection option: yes
  - Length x Width x Height: 150 x 60 x 130 mm
  - Weight: 0.9 kg

- **Approvals/Certifications**
  - CE, cULus Listed to UL508 and CSA C22.2 No. 107.1

**Connection Data**

- **Type of connection**: Screw connection
- **Number of terminals**: 4 for L1/L2/L3/PE
- **Conductor cross-section, rigid min/max**: 0.5 / 6 mm²
- **Conductor cross-section, flexible min/max**: 0.5 / 2.5 mm²
- **Accessories**: Connection Data

**Accessories**

- **Input**: Screw connection
- **Output**: Screw Connection

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

**CP M SNT3 500W 24V 20A**

- **Type**: CP M SNT3 500W 24V 20A
- **Part No.**: 8951410000
- **Input specifications**
  - **Rated input voltage**: 3 x 400...3 x 500 V AC (wide range input)
  - **AC input voltage range**: 3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
  - **AC frequency range**: 47...63 Hz
  - **DC input voltage range**: 450...800 V DC (max. 500 V DC acc. to UL508)
  - **AC current consumption**: 0.9 A @ 3 x 500 V AC / 1.1 A @ 3 x 400 V AC
  - **DC current consumption**: 0.7 A @ 800 V DC / 1.3 A @ 450 V DC
  - **Input fuse (internal)**: no
  - **Circuit Protection**: 2 A / DI, safety fuse
  - **Output specifications**
    - **Rated output voltage**: 24 V DC ± 1 %
    - **Residual ripple, switching peaks**: 22.5...29.5 V DC (adjustable via potentiometer on front)
    - **Rated output current @ Vrated**: 100 mA/V @ 24 V DC, I_o
    - **Continuous output current @ 24 V DC**: 20 A @ 60 °C
    - **Power boost @ 24 V DC, 60 °C**: 24 A for 1 min, ED=5 %
  - **General specifications**
    - **Efficiency**: > 90 % @ 3 x 500 V AC / > 91 % @ 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**: yes
    - **Parallel connection option**: yes
    - **Length x Width x Height**: 150 x 121 x 130 mm
    - **Weight**: 1.5 kg

**CP M SNT3 1000W 24V 40A**

- **Type**: CP M SNT3 1000W 24V 40A
- **Part No.**: 8951420000
- **Input specifications**
  - **Rated input voltage**: 3 x 400...3 x 500 V AC (wide range input)
  - **AC input voltage range**: 3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
  - **AC frequency range**: 47...63 Hz
  - **DC input voltage range**: 450...800 V DC (max. 500 V DC acc. to UL508)
  - **AC current consumption**: 1.8 A @ 3 x 500 V AC / 2.1A @ 3 x 400 V AC
  - **DC current consumption**: 1.4 A @ 800 V DC / 2.5A @ 450 V DC
  - **Input fuse (internal)**: no
  - **Circuit Protection**: 4 A / DI, safety fuse
  - **Output specifications**
    - **Rated output voltage**: 24 V DC ± 1 %
    - **Residual ripple, switching peaks**: 22.5...29.5 V DC (adjustable via potentiometer on front)
    - **Rated output current @ Vrated**: 100 mA/V @ 24 V DC, I_o
    - **Continuous output current @ 24 V DC**: 48 A @ 60 °C
    - **Power boost @ 24 V DC, 60 °C**: 48 A for 1 min, ED=5 %
  - **General specifications**
    - **Efficiency**: > 90 % @ 3 x 500 V AC / 92 % @ 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**: yes
    - **Parallel connection option**: yes
    - **Length x Width x Height**: 150 x 180 x 130 mm
    - **Weight**: 2.9 kg

**Approvals/Certifications**

- **CE, eLURus, eULus Listed to UL508 and CSA C22.2 No. 107.1**

**Connection Data**

- **Type of connection**: Screw connection
- **Number of terminals**: 4 for L1/L2/L3/PE
- **Conductor cross-section, rigid min/max**: 0.5 / 6 mm²
- **Conductor cross-section, flexible min/max**: 0.5 / 2.5 mm²
- **Conductor cross-section, AWG/kcmil min/max**: 26 / 10

**Accessories**

- **Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!**
Redundancy, Load Sharing, Increased Power Delivery

Weidmuller’s diode modules are designed to enhance the ConnectPower series of DC power supplies and provide a more reliable Power Delivery Solution. They are cost effective products that enable redundancy as well as load sharing between power supplies, thus extending the useful life of the power supply.

Diode modules can increase the reliability of a Power Delivery Solution by preventing current feedbacks between paralleled power supplies.

It is important to keep in mind that before paralleling power supplies, their output voltage must be calibrated to be within ±50mV of each other, and the parallel connection must be positioned as close as possible to the load.
Introduction—Diode Modules for Redundancy

Parallel Connection for Increased Power Delivery

- The amount of power needed is provided by two power supplies combined in parallel.

Provide Uninterrupted DC Power with Redundancy and Fault Indication

- Diode modules provide galvanic isolation between power supplies.
- Use status relays for remote alarm indication.

Increase DC Power Delivery to Control Systems

- The amount of power needed is provided by two power supplies combined in parallel.
- Use status relays for remote alarm indication

Guarantee DC Power to Critical Loads

- Under normal operating conditions, the critical load is provided by both the 10A and 3A power supply.
- If the larger power supply fails, the critical load will continue to be maintained by the 3A power supply.
- This ensures uninterrupted power to the critical load.

Note: Two power supplies in parallel must be calibrated to within ±50 mv of each other.
**Diode Modules for Redundancy**

**CP DM 10**
10A per Input Diode Module

<table>
<thead>
<tr>
<th>Type</th>
<th>Qty.</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP DM 10</td>
<td>1</td>
<td>8710620000</td>
</tr>
</tbody>
</table>

- Input voltage: 40 VDC max.
- Input current: 10 A per input max.
- Output voltage: Vin - 0.5 typ.
- Output current: 20 A max.
- Temperature range: -10°C…+55°C (+14°F…+131°F) / -20°C…+85°C (-4°F…+185°F)
- Efficiency under max. load: approx. 95.5% at 24 VDC
- Mount onto mounting rail: TS35 to DIN 50022
- Mounting position: Horizontal
- Weight: approx. 0.15 kg (0.33 lbs.)
- Dimensions (L x W x H): 125.0 x 55.5 mm x 110.0 (4.92 x 2.19 x 4.33 in.)
- Type of Connection: Screw
- Clamping area input (nominal / min. / max.): 4 / 0.13 / 6 mm² (12 / 26 / 10 AWG)
- Clamping area output (nominal / min. / max.): 4 / 0.13 / 6 mm² (12 / 26 / 10 AWG)
- Indication signals: Voltage
  - Alarm: None
  - Fault Relay: Voltage: None
  - Current: None
  - Configuration: None
  - Set point: None
  - Other: Voltage drop input-output: 0.5 V typ.
  - Fan: None
- Terminations: Input/output: N/A
  - Alarm contact: N/A
- Approvals/Certifications: CE, cULus Listed to UL508 and CSA C22.2 No. 107.1

**CP DM 20**
20A per Input Diode Module

<table>
<thead>
<tr>
<th>Type</th>
<th>Qty.</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP DM 20</td>
<td>1</td>
<td>8768650000</td>
</tr>
</tbody>
</table>

- Input voltage: 40 VDC max.
- Input current: 20 A per input max.
- Output voltage: Vin - 0.5 typ.
- Output current: 40 A max.
- Temperature range: -10°C…+55°C (+14°F…+131°F) / -20°C…+85°C (-4°F…+185°F)
- Efficiency under max. load: approx. 95% at 24 VDC
- Mount onto mounting rail: TS35 to DIN 50022
- Mounting position: Horizontal
- Weight: approx. 0.5 kg (1.1 lbs.)
- Dimensions (L x W x H): 125.0 x 55.5 mm x 110.0 (4.92 x 2.19 x 4.33 in.)
- Type of Connection: Screw
- 10.0 / 0.32 / 16.0 mm² (8 / 22 / 6 AWG)
- Clamping area input (nominal / min. / max.): 4 / 0.13 / 6 mm² (12 / 26 / 10 AWG)
- Clamping area output (nominal / min. / max.): 4 / 0.13 / 6 mm² (12 / 26 / 10 AWG)
- Indication signals: Voltage
  - Alarm: None
  - Fault Relay: Voltage: None
  - Current: None
  - Configuration: None
  - Set point: None
  - Other: Voltage drop input-output: 0.5 V typ.
  - Fan: None
- Terminations: Input/output: N/A
  - Alarm contact: N/A
- Approvals/Certifications: CE, cULus Listed to UL508 and CSA C22.2 No. 107.1
Reliability, calculated MTBF @ 25°C acc. – relay output
– active output signal: (reference to –Vout)
Power OK signal – trigger threshold:
Recommended Circuit breaker, (See LIT0917 - Installation Instructions)
Remote On/Off to IEC 61709/Curve 1 or fuse, slow blow type
Technical Data
Approvals
Weight
Clearances  – Above/Below
Dimension (W x D x H)
Isolation
Humidity (non condensing)
Pollution degree
Temperature coefficient
Reliability, calculated MTBF @ 25°C acc. to IEC 61709
Remote On/Off
(See LIT0917 - Installation Instructions)
General Specifications
Operating temperature range
Cooling
Mounting
Storage temperature
Humidity (non condensing)
Pollution degree
Temperature coefficient
Shock acc. IEC 60068-2-27
Electrical Specifications
Input voltage
Input voltage range
Input voltage frequency
Harmonic limits
Hold up time
Inrush current
Ordering Data
Type | Part No.
--- | ---
CP T SNT 70W 12V 6A | 1105430000
CP T SNT 140W 12V 12A | 1105440000
CP T SNT 90W 24V 3.8A | 1105790000

Input voltage: 115VAC/230VAC auto select
85-132/187-264 VAC auto select (output current derating below 100VAC)

Power OK signal – trigger threshold:
- Reliability, calculated MTBF @ 25°C acc. – relay output
- active output signal: (reference to –Vout)

Power OK signal – trigger threshold:
- Reliability, calculated MTBF @ 25°C acc. – relay output
- active output signal: (reference to –Vout)

Power OK signal – trigger threshold:
- Reliability, calculated MTBF @ 25°C acc. – relay output
- active output signal: (reference to –Vout)
### Technical Data

#### Input Specifications
- **Input voltage**: 115VAC/230VAC autoselect
- **Input voltage range**: 85-132/187-264 VAC autoselect (output current derating below 100VAC)
- **Harmonic limits**: EN 61000-3-2, Class A for limited output power
- **Hold up time**: 20ms min. 115/230 VAC
- **Input current**: <13A @ 115VAC; <25A @ 230VAC
- **Reliability, calculated MTBF @ 25°C acc.**: 6A

#### Output Specifications
- **Output voltage**: 24VDC
- **Output power max.**: 100 mV pk-pk typ., 200 mV pk-pk max. at Imax
- **Current limitation at Imax., constant current, automatic recovery**: 0.5 % max.
- **Temperature coefficient**: 0.02 %/K
- **Pollution degree**: 2
- **Humidity (non condensing)**: 95 % rel. H max.
- **Environment**: –25 °C to +85 °C (–13°F to +185°F)

#### General Specifications
- **Mounting**: TS35 DIN-rail (Horizontal) to allow for cooling
- **Mounting**: Convection cooling, no internal fan
- **Cooling**: –25 °C to +70 °C max. (–13 °F to +158°F)

#### Approvals
- **CE marked**: IEC 61000-3-2, Class A for limited output power
- **CE marked**: EN 61000-3-2, Class A for limited output power
- **CE marked**: by ext. contact.
- **CE marked**: Switch off at overtemperature, automatic restart

### Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
<th>CP T SNT 180W 24V 7.5A</th>
<th>CP T SNT 360W 24V 15A</th>
<th>CP T SNT 600W 24V 25A</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP T SNT 180W 24V 7.5A</td>
<td>1105810000</td>
<td>CP T SNT 360W 24V 15A</td>
<td>1105820000</td>
<td>CP T SNT 600W 24V 25A</td>
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<th>CP T SNT 360W 24V 15A</th>
<th>CP T SNT 600W 24V 25A</th>
</tr>
</thead>
</table>
Technical Specifications

**Input Specifications**

- **Input voltage**: 115VAC/230VAC autoselect
- **Input voltage range**: 85-132/187-264 VAC autoselect (output current derating below 100VAC)
- **Input frequency**: 47Hz - 63Hz
- **Input voltage trigger threshold**: EN 61000-3-2, Class A (for limited input power)
- **Input current**: 20ms min. 115/230 VAC

**Power Specifications**

- **Output voltage**: -25°C to +70°C max. (–13°F to +158°F)
- **Output voltage range**: 36-46 VDC
- **Current limitation at Imax.**: 100 mV pk-pk typ. (200 mV pk-pk max. at Imax)
- **Auto recovery**: System will automatically recover from overcurrent conditions when Imax is not exceeded.

**Protection Features**

- **Overvoltage protection**: 60V
- **Overcurrent protection**: 12.5A
- **Rate limiting**: 87% typ. at 12.5A
- **Short circuit protection**: 15A

**Environmental Specifications**

- **Humidity (non-condensing)**: 95% rel. max.
- **Temperature range**:
  - Operating: –25°C to +85°C (–13°F to +185°F)
  - Storage: –25°C to +85°C (–13°F to +185°F)
- **Vibration**:
  - 3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
  - 3 axis, 15 g half sine, 11 ms
  - 3 axis, 4 g half sine, 26 ms
  - 3 axis, 15 g half sine, 11 ms

**Certifications and Approvals**

- **CE marked** & ANSI/ISA 12.01

**Ordering Information**

- **Type and Part Number**:
  - CP T SNT 180W 48V 4A
    - 1105860000
  - CP T SNT 360W 48V 7.5A
    - 1105860000
  - CP T SNT 600W 48V 12.5A
    - 1105870000

---

NEW

T-Series—Single Phase Input Supplies
Redundancy Modules*
With a redundancy module and two T-SERIES power supplies (of same type) you can configure a highly reliable, truly redundant power system without any additional components. This module enforces the equivalent sharing of the output current by each power supply. The system is fully redundant and provides output power even if one power supply has completely failed e.g. by short circuit on the output. In the event that either power supply fails or is disconnected, the second unit will automatically supply the full current to the load. The redundancy of the system is monitored and if lost, indicated by an alarm output. The inputs are hot swappable and can be loaded up to 15 A each.

* Agency Approvals Pending

### Technical Data

#### Input Specifications
- **Input current**: 2 x 24 VDC, 15A
- **Output voltage**: 24 VDC
- **Output voltage adj. range**: 24-27 VDC
- **Output power max.**: 360 W
- **Output current**: 15A @ 24VDC, @ 40°C

#### General Data
- **Status indicator**: LED
- **Operating temperature**: – 25 °C to 70 °C max. (–13 °F...+158 °F)
- **Redundancy OK signal (Alarm)**: derating above 40 °C (104 °F): 1.5 %/K
- **Trigger threshold at 18...22VDC**: contact open if both inputs failed
- **MTBF in acc. To IEC 61709**: >350,000 hours, max. load
- **Alarm relay contact**: 3 axis, sine sweep, 10…55Hz, 1g, 1oct/min. 3 axis, 15g half sine, 11ms
- **Environment - Vibration**: 54 x 110 x 110 mm
- **Environment - Shock**: 0.5kg
- **Weight**: 0.7kg
- **Remote link cable (0.5m)**: by ext. contact: contact open = On, contact closed = Off
- **2 cables included**

### Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP T RM 10</td>
<td>1105880000</td>
</tr>
<tr>
<td>CP T RM 20</td>
<td>1105890000</td>
</tr>
</tbody>
</table>

For detailed installation instructions, please visit www.weidmuller.com/power_supplies and download LIT0917
## connectPower—Single Phase Input Supplies

### CP SNT 55W

#### Technical Data

<table>
<thead>
<tr>
<th>Input voltage</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 VAC, 120 VDC</td>
<td>110-230 VAC ± 10%, 50/60 Hz</td>
<td>125 VAC, 300 VDC</td>
<td>1.10 A RMS ± 20%</td>
</tr>
<tr>
<td>0.55 A RMS ± 20%</td>
<td>590 mA ± 20%</td>
<td>315 mA ± 20%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input protection</th>
<th>Fuse</th>
<th>Inrush Current</th>
<th>Overvoltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 A slow fuse (internal, not user serviceable)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Switching frequency</th>
<th>100 kHz PWM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency at maximum load</td>
<td>80%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum ripple</th>
<th>0.1% RMS Vp-p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load (10-100% load)</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overload protection</th>
<th>Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 µF</td>
<td>13 A / 1 sec</td>
</tr>
<tr>
<td>30 ms</td>
<td>6000 µF</td>
</tr>
<tr>
<td>180 ms</td>
<td>up to 3 devices (passive current division)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40°C…+85°C (-40°F…+185°F)</td>
<td>40°C…+50°C (40°F…+122°F)</td>
</tr>
<tr>
<td>-20°C…+50°C (-4°F…+122°F)</td>
<td>full rated load</td>
</tr>
<tr>
<td>Denaturing: 24 V 1.5 A at 60°C (140°F)</td>
<td>20…90% RH non-condensing</td>
</tr>
<tr>
<td>20…85%</td>
<td>non-condensing</td>
</tr>
<tr>
<td>20…90% RH</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Galvanic isolation</th>
<th>Input/output, Input/output to mounting rail, Input to ground, Output to ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 KV RMS</td>
<td>3 KV RMS</td>
</tr>
<tr>
<td>1.5 KV RMS</td>
<td>1.5 KV RMS</td>
</tr>
<tr>
<td>500 V RMS</td>
<td>500 V RMS</td>
</tr>
<tr>
<td>0.1…4.0 mm² (26…12 AWG)</td>
<td>0.1…4.0 mm² (26…12 AWG)</td>
</tr>
<tr>
<td>98 x 57 x 131 mm (3.86 x 2.24 x 5.16 in.)</td>
<td>127 x 57 x 175 mm (5.00 x 2.24 x 6.9 in.)</td>
</tr>
<tr>
<td>478 g (1.05 lbs.)</td>
<td>880 g (1.94 lbs.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal on mounting rail TS35, Chassis</td>
<td>Horizontal on mounting rail TS35, Chassis</td>
</tr>
<tr>
<td>20 mm left and right</td>
<td>20 mm left and right</td>
</tr>
<tr>
<td>30 mm above and below if next to non-heat producing (low-power) module</td>
<td>30 mm above and below if next to high heat producing module, i.e., another power supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fault relay</th>
<th>Changeover contact, 30 VDC / 125 VAC @ 1 A max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive Power Factor Correction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approvals/Certifications</th>
<th>CSA, UL 508 Listed, CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA Class 1 Div. 2 and Zone 2 for 9927480024 and 9927480012</td>
<td>CSA Class 1 Div. 2 and Zone 2 for 992753400024 and 99275340012</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis Mounting Kit</td>
<td>7920560000</td>
</tr>
<tr>
<td>Side mount Bracket—DIN rail</td>
<td>7940000542</td>
</tr>
</tbody>
</table>

### CP SNT 160W

#### Technical Data

<table>
<thead>
<tr>
<th>Input voltage</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 VAC, 195 VAC</td>
<td>115 VAC / 230 VAC ± 10%, (selectable) 50/60Hz</td>
<td>138 VAC / 250 VAC</td>
<td>2.9 A RMS ± 20%</td>
</tr>
<tr>
<td>1.45 A RMS ± 20%</td>
<td>6.3 A slow fuse (internal, not user serviceable)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input protection</th>
<th>Fuse</th>
<th>Inrush Current</th>
<th>Overvoltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 kHz PWM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2% RMS Vp-p</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5%</td>
<td></td>
<td></td>
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<thead>
<tr>
<th>Switching frequency</th>
<th>65 kHz PWM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency at maximum load</td>
<td>85%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum ripple</th>
<th>0.2% RMS Vp-p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load (10-100% load)</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overload protection</th>
<th>Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 A / 1 sec</td>
<td>13 A / 1 sec</td>
</tr>
<tr>
<td>6000 µF</td>
<td>6000 µF</td>
</tr>
<tr>
<td>up to 3 devices (passive current division)</td>
<td>up to 3 devices (passive current division)</td>
</tr>
<tr>
<td>30 ms</td>
<td>30 ms</td>
</tr>
<tr>
<td>30 ms</td>
<td>30 ms</td>
</tr>
<tr>
<td>-10°C…50°C (14°F…122°F) max. full rated load</td>
<td>-10°C…50°C (14°F…122°F) max. full rated load</td>
</tr>
<tr>
<td>Denaturing: 24 V 5-2 A at 60°C (140°F)</td>
<td>Denaturing: 24 V 5-2 A at 60°C (140°F)</td>
</tr>
<tr>
<td>20…85% RH non-condensing</td>
<td>20…85% RH non-condensing</td>
</tr>
<tr>
<td>20…90% RH</td>
<td>20…90% RH</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40°C…+85°C (-40°F…+185°F)</td>
<td>40°C…+50°C (40°F…+122°F)</td>
</tr>
<tr>
<td>-10°C…50°C (14°F…122°F)</td>
<td>full rated load</td>
</tr>
<tr>
<td>Denaturing: 24 V 5-2 A at 60°C (140°F)</td>
<td>20…85% RH non-condensing</td>
</tr>
<tr>
<td>20…90% RH</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Galvanic isolation</th>
<th>Input/output, Input/output to mounting rail, Input to ground, Output to ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 KV RMS</td>
<td>3 KV RMS</td>
</tr>
<tr>
<td>1.5 KV RMS</td>
<td>1.5 KV RMS</td>
</tr>
<tr>
<td>500 V RMS</td>
<td>500 V RMS</td>
</tr>
<tr>
<td>0.1…4.0 mm² (26…12 AWG)</td>
<td>0.1…4.0 mm² (26…12 AWG)</td>
</tr>
<tr>
<td>127 x 57 x 175 mm (5.00 x 2.24 x 6.9 in.)</td>
<td>127 x 57 x 175 mm (5.00 x 2.24 x 6.9 in.)</td>
</tr>
<tr>
<td>880 g (1.94 lbs.)</td>
<td>880 g (1.94 lbs.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal on mounting rail TS35, Chassis</td>
<td>Horizontal on mounting rail TS35, Chassis</td>
</tr>
<tr>
<td>20 mm left and right</td>
<td>20 mm left and right</td>
</tr>
<tr>
<td>30 mm above and below if next to non-heat producing (low-power) module</td>
<td>30 mm above and below if next to high heat producing module, i.e., another power supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fault relay</th>
<th>Changeover contact, 30 VDC / 125 VAC @ 1 A max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive Power Factor Correction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approvals/Certifications</th>
<th>CSA, UL 508 Listed, CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA Class 1 Div. 2 and Zone 2 for 9925340024 and 9925340012</td>
<td>CSA Class 1 Div. 2 and Zone 2 for 9925340024 and 9925340012</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis Mounting Kit</td>
<td>7920560000</td>
</tr>
<tr>
<td>Side mount Bracket—DIN rail</td>
<td>7940000542</td>
</tr>
</tbody>
</table>
### Ordering Data

**Type**
- CP SNT 300W

**Part No.**
- 9916250024

### Technical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimal</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input voltage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Input current at 300 W</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 115 VAC</td>
<td>3.3 A ± 10%</td>
<td>1.65 A ± 10%</td>
<td>1.85 A ± 10%</td>
</tr>
<tr>
<td>at 230 VAC</td>
<td>1.65 A ± 10%</td>
<td>0.99 A ± 10%</td>
<td>1.11 A ± 10%</td>
</tr>
<tr>
<td>at 100 VDC</td>
<td>3.7 A ± 10%</td>
<td>1.94 A ± 10%</td>
<td>2.16 A ± 10%</td>
</tr>
<tr>
<td>at 200 VDC</td>
<td>1.94 A ± 10%</td>
<td>1.11 A ± 10%</td>
<td>1.23 A ± 10%</td>
</tr>
<tr>
<td><strong>Input power factor</strong></td>
<td>0.99 (under all load conditions)</td>
<td>Sinusoidal (active power factor corrected)</td>
<td>Boost PFC / forward PWM</td>
</tr>
<tr>
<td><strong>Input current</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Topology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Input protection</strong></td>
<td>Fuse</td>
<td>Inrush current</td>
<td>Overvoltage</td>
</tr>
<tr>
<td><strong>Switching frequency</strong></td>
<td>100 kHz ± 5%</td>
<td>80% typical</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at max. load</td>
<td>80% typical</td>
<td>79% typical</td>
<td>78% typical</td>
</tr>
<tr>
<td><strong>Output ripple</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regulation</strong></td>
<td>Load (10-100%)</td>
<td>Line (85-265 VAC RMS)</td>
<td>Line (90-265 VAC RMS)</td>
</tr>
<tr>
<td><strong>Protection</strong></td>
<td>Overvoltage</td>
<td>Undervoltage</td>
<td>Overload</td>
</tr>
<tr>
<td><strong>Output surge capability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thermal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Adjustable output voltage

<table>
<thead>
<tr>
<th>Parameter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rated output current</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LED indicator</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Shut down</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Monitoring output impedance</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Load share</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum capacitance at output</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hold time</strong></td>
<td></td>
</tr>
<tr>
<td>at 115 VAC</td>
<td>10,000 µF</td>
</tr>
<tr>
<td>at 230 VAC</td>
<td>10,000 µF</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td></td>
</tr>
<tr>
<td>-20°C…+55°C</td>
<td></td>
</tr>
<tr>
<td><strong>Operating</strong></td>
<td></td>
</tr>
<tr>
<td>-10°C…+60°C</td>
<td></td>
</tr>
<tr>
<td><strong>Galvanic isolation</strong></td>
<td></td>
</tr>
<tr>
<td>Input/output</td>
<td></td>
</tr>
<tr>
<td>Input/output to mounting rail</td>
<td></td>
</tr>
<tr>
<td>Input to ground</td>
<td></td>
</tr>
<tr>
<td>Output to ground</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions (L x W x H)</strong></td>
<td>104 x 240 x 155 mm (4.10 x 9.45 x 6.10 in)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>1180 g (2.60 lbs)</td>
</tr>
<tr>
<td><strong>Mounting position</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Clearance</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Approvals/Certifications

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP SNT 300W</td>
<td>7920560000</td>
</tr>
</tbody>
</table>

1) Order 2 mounting kits for power supply shown above.
### Technical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>CP SNT 55W 2.3A</th>
<th>CP SNT 160W 6.5A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input voltage</strong></td>
<td>360 - 480 VAC</td>
<td>480 VAC</td>
</tr>
<tr>
<td><strong>Input current at 360 VAC</strong></td>
<td>120 mA / Phase</td>
<td>0.36 A / Phase</td>
</tr>
<tr>
<td><strong>Input protection</strong></td>
<td>3 x 1 A slow fuse (internal)</td>
<td>5 x 12 A slow fuse (internal)</td>
</tr>
<tr>
<td><strong>Switching frequency</strong></td>
<td>100 kHz</td>
<td>100 kHz-PWM</td>
</tr>
<tr>
<td><strong>Efficiency at maximum load</strong></td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td><strong>Maximum ripple</strong></td>
<td>0.1% RMS</td>
<td>0.1% RMS</td>
</tr>
<tr>
<td><strong>Fault relay</strong></td>
<td>10A / 180 ms typ.</td>
<td>20A / 180 ms typ.</td>
</tr>
<tr>
<td><strong>Output surge</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overload protection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum capacitance at output</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parallel connection for load sharing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hold time at 360 VAC</strong></td>
<td>120 ms</td>
<td>10 ms</td>
</tr>
<tr>
<td><strong>Maximum output current following input loss</strong> at 480 VAC</td>
<td>120 ms</td>
<td>15 ms</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Galvanic isolation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Input/output to mounting rail</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Input to ground</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output to ground</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wire size</strong></td>
<td>0.1…4.0 mm² (26…12 AWG)</td>
<td>0.1…4.0 mm² (26…12 AWG)</td>
</tr>
<tr>
<td><strong>Dimensions (L x W x H)</strong></td>
<td>138.2 x 58.4 x 177.8 mm (5.44 x 2.3 x 7 in.)</td>
<td>138.2 x 58.4 x 177.8 mm (5.44 x 2.3 x 7 in.)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>993 g (2.2 lbs.)</td>
<td>993 g (2.2 lbs.)</td>
</tr>
<tr>
<td><strong>Mounting position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clearance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approvals/Certifications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chassis Mounting Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L Bracket Mounting Kit — Panelmount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side mount Bracket — DIN rail</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## CP DM 30 (SP-RS-RED./PARR.30A)
**15A per Input Diode Module**

### Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP DM 30 with voltage sensing and fault relay</td>
<td>9987390000</td>
</tr>
<tr>
<td>CP DM 30 without voltage sensing</td>
<td>9987860000</td>
</tr>
</tbody>
</table>

### Technical Data

<table>
<thead>
<tr>
<th>Input / Output</th>
<th>Input voltage</th>
<th>Output voltage</th>
<th>Input current</th>
<th>Output current</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-24 VDC</td>
<td>24 VDC</td>
<td>15 A per input max.</td>
<td>30A Maximum</td>
<td></td>
</tr>
</tbody>
</table>

### General Specifications

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Operating</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C…+50°C</td>
<td>0°C…+80°C-4°F…+185°F</td>
<td></td>
</tr>
<tr>
<td>(32°F…+122°F)</td>
<td>(4°F…+185°F)</td>
<td></td>
</tr>
</tbody>
</table>

### Mounting

- Mount onto mounting rail
- Mounting position: Horizontal
- Weight: 226.8 g (0.5 lbs.)
- Dimensions (L x W x H): 70 x 110 x 90 mm (2.75 x 4.33 x 3.5 in.)
- Type of Connection: Screw
- Weight: 317.5 g (0.7 lbs.)
- Dimensions (L x W x H): 109.2 x 109.2 x 99 mm (4.3 x 4.3 x 3.9 in.)
- Type of Connection: Screw

### Approvals/Certifications

- UL recognized, cULus Listed
- cULus Listed

## RSD-40A
**20A per Input or 40A Input per Unit Diode Module with Status Indication**

### Ordering Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSD-40A (20 A per input max.)</td>
<td>7940005219</td>
</tr>
<tr>
<td>RSD-40A (40 A input per unit max., 2 units required)</td>
<td>7940005218</td>
</tr>
</tbody>
</table>

### Technical Data

<table>
<thead>
<tr>
<th>Input / Output</th>
<th>Input voltage</th>
<th>Output voltage</th>
<th>Input current</th>
<th>Output current</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 VDC nominal</td>
<td>40 A Maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 A per input max. / 40 A</td>
<td>24 VDC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### General Specifications

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Operating</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C…+40°C</td>
<td>0°C…+100°C</td>
<td></td>
</tr>
<tr>
<td>(32°F…+104°F)</td>
<td>(32°F…+212°F)</td>
<td></td>
</tr>
</tbody>
</table>

### Mounting

- Mount onto mounting rail
- Mounting position: Horizontal
- Weight: 317.5 g (0.7 lbs.)
- Dimensions (L x W x H): 109.2 x 109.2 x 99 mm (4.3 x 4.3 x 3.9 in.)
- Type of Connection: Screw
- Weight: 13 mm² (22…6 AWG)
- Dimensions (L x W x H): 26…14 AWG

### Approvals/Certifications

- UL recognized, cULus Listed
- cULus Listed

---

**RSD-40A Schematics**

![RSD-40A Schematics Diagram]