

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

INSTAPOWERS

The INSTAPOWERS 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.

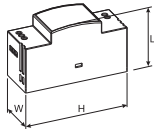
- Fulfill the demand for high quality power delivery solutions
- Designed with packaging advantages that include a rugged housing, ability to panel mount, pluggable connectors and load sharing capability
- Feature up to 200% of maximum rated output for a specified amount of time (power boost)
- Available 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, and 48V versions



INSTAPOWER – Single Phase Input Supplies

CP SNT 25W 5A

CP SNT 48W



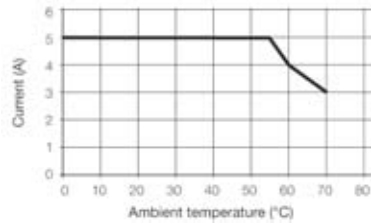
Approvals:



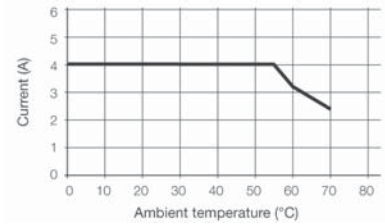
Diagram/Schematic Circuit Diagram



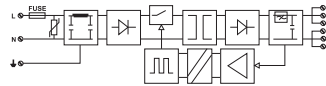
Derating Curves



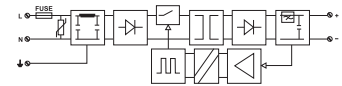
Derating Curves



Diagram/Schematic Circuit Diagram



Diagram/Schematic Circuit Diagram



Ordering Data

Output voltage/maximum current

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	
	at 250 VDC	
Input protection	Fuse	Fuse 2.5A (T) / 250V
	Inrush current	Varistor
	Overvoltage protection	limited
Switching frequency		100 kHz PWM
Efficiency at maximum load		78%
Maximum ripple		120 mV _{p-p}
Regulation	Load (10-100% load)	1%
	at input voltage	0.2%
Overload protection		105%...150% max. rated output power, automatic restart
Maximum capacitance at output		>70%
Hold time	at 115 VAC	35 ms
	(Maximum output current following input loss) at 230 VAC	>50 ms
Temperature	Storage	-40°C...+85°C (-40°F...+185°F)
	Operating	-20°C...+50°C (-4°F...+122°F) full rated load Derating: 33% at 60°C (140°F)
Humidity	Operating temperature	20...85% RH non-condensing
	Storage temperature	20...90% RH
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 mm ² (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		Ca. 2 kg
Mounting position		Horizontal on mounting rail TS35
Clearance		>30 mm above and below

Approvals/Certifications

Type

CP SNT 25W 5V 5A

4...8 VDC (adjustable via potentiometer) / 5 A 8754960000

Part No.

Type

CP SNT 48W

9...15 VDC (adjustable via potentiometer)/4A 8754970000

15...28 VDC (adjustable via potentiometer)/2A 8739140000

46...55 VDC (adjustable via potentiometer)/1A 8879230000

Part No.

Type

CP SNT 48W

9...15 VDC (adjustable via potentiometer)/4A

15...28 VDC (adjustable via potentiometer)/2A

46...55 VDC (adjustable via potentiometer)/1A

Fuse 2.5A (T) / 250V

Varistor

limited

100 kHz PWM

78%

120 mV_{p-p}

1%

0.2%

105%...150% max. rated output power,

automatic restart

>75% / >80%

35 ms

>50 ms

-40°C...+85°C (-40°F...+185°F)

-20°C...+50°C (-4°F...+122°F) full rated load

Derating: 33% at 60°C (140°F)

20...85% RH non-condensing

20...90% RH

3 kV RMS

4 kV RMS

1.5 kV RMS

500 V RMS

0.1...4.0 mm² (26...12 AWG)

62.5 x 70 x 90.5 mm (2.46 x 2.76 x 3.56 in.)

Ca. 2 kg

Horizontal on mounting rail TS35

>30 mm above and below

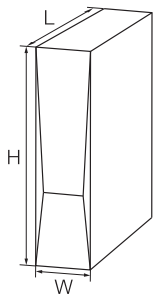
CSA / CE / UL 508 / cURus 60950 / GS

UL 1310 (Class 2)

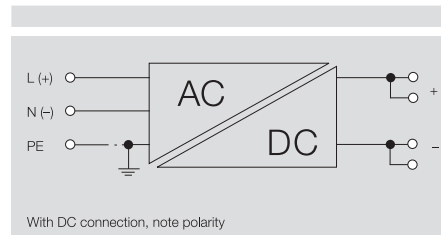
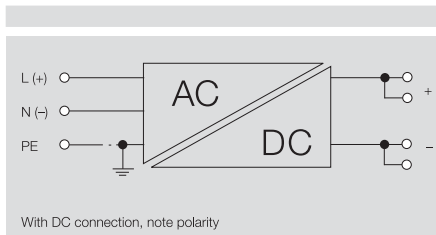
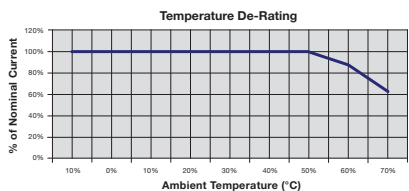
PRO-M – Single Phase Input Supplies

CP M SNT 70W 24V 3A

CP M SNT 120W 24V 5A



Derating Curve



Ordering Data

Type	Part No.
CP M.SNT 70W 24V 3A	8951330000

Type	Part No.
CP M.SNT 120W 24V 5A	8951340000

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	0.80 A @ 230 V AC / 1.5A @ 115 V AC
DC current consumption	0.25 A @ 370 V DC / 1.1 A @ 80 V DC
Input fuse (internal)/Inrush current	yes/max. 20 A
Circuit Protection	2 A / DI, safety fuse 6 A, Char. B, Circuit breaker

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	0.80 A @ 230 V AC / 1.5A @ 115 V AC
DC current consumption	0.25 A @ 370 V DC / 1.1 A @ 80 V DC
Input fuse (internal)/Inrush current	yes/max. 20 A
Circuit Protection	2 A / DI, safety fuse 6 A, Char. B, Circuit breaker

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	1.3 A @ 230 V AC / 2.4 A @ 115 V AC
DC current consumption	0.5 A @ 370 V DC / 1.8 A @ 80 V DC
Input fuse (internal)/Inrush current	yes/max. 30 A
Circuit Protection	4 A / DI, safety fuse 6 A, Char. B, 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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	3 A @ 55 °C
Continuous output current @ 24 V DC	3.6 A @ 45 °C 3.3 A @ 50 °C 1.8 A @ 70 °C
Power boost @ 24 V DC, 60 °C	3.6 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	5 A @ 55 °C
Continuous output current @ 24 V DC	6.0 A @ 45 °C 5.5 A @ 50 °C 3.1 A @ 70 °C
Power boost @ 24 V DC, 60 °C	6 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	5 A @ 55 °C
Continuous output current @ 24 V DC	6.0 A @ 45 °C 5.5 A @ 50 °C 3.1 A @ 70 °C
Power boost @ 24 V DC, 60 °C	6 A for 1 min, ED=5 %

General Specifications

Efficiency	88 % @ 230 V AC / > 85 % @ 115 V AC
Power factor (approx.)	> 0.5 @ 230 V AC / > 0.53 @ 115 V AC
Mains buffering @ I _{rated}	> 100 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	mm 125 x 33 x 130
Weight	0.69 kg

Efficiency	88 % @ 230 V AC / > 85 % @ 115 V AC
Power factor (approx.)	> 0.5 @ 230 V AC / > 0.53 @ 115 V AC
Mains buffering @ I _{rated}	> 100 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	mm 125 x 33 x 130
Weight	0.69 kg

Efficiency	89 % @ 230 V AC / > 85 % @ 115 V AC
Power factor (approx.)	> 0.5 @ 230 V AC / > 0.53 @ 115 V AC
Mains buffering @ I _{rated}	> 100 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	mm 125 x 40 x 130
Weight	0.8 kg

Approvals/Certifications

CE, cURus, cULus Listed to UL508 and CSA C22.2 No. 107.1
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CE, cURus, cULus Listed to UL508 and CSA C22.2 No. 107.1
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CE, cURus, cULus Listed to UL508 and CSA C22.2 No. 107.1
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Connection Data

Type of connection	Input	Output
Screw connection	3 for L/N/PE	4 (+/-)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6	0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 12	26 / 12

Type of connection	Input	Output
Screw connection	3 for L/N/PE	5 (+/-)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6	0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 12	26 / 26

Type of connection	Input	Output
Screw connection	3 for L/N/PE	5 (+/-)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6	0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 12	26 / 26

Accessories

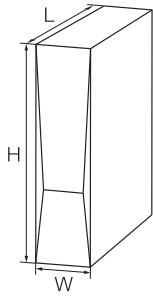
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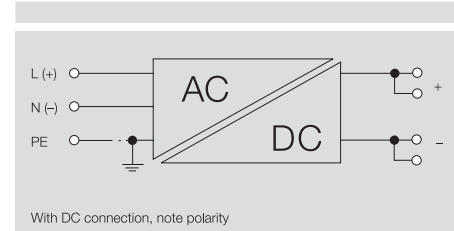
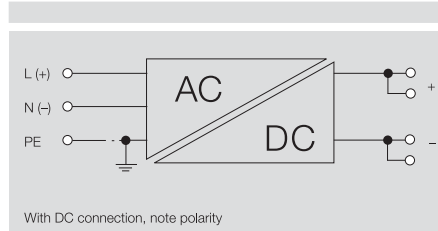
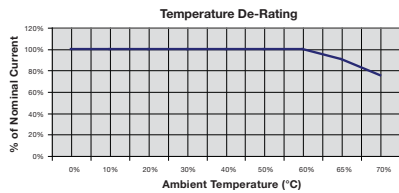
PRO-M – Single Phase Input Supplies

CP M SNT 180W 24V 7.5A

CP M SNT 250W 24V 10A



Derating Curve



Ordering Data

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

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

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	1.9 A @ 230 V AC / 3.6 A @ 115 V AC
DC current consumption	0.6 A @ 370 V DC / 2.6 A @ 80 V DC
Input fuse (internal)/Inrush current	yes
Circuit Protection	6 A / DI, safety fuse 16 A, Char. B, Circuit breaker 5...10 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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	7.5 A @ 60 °C
Continuous output current @ 24 V DC	9.0 A @ 45 °C 8.2 A @ 55 °C 5.6 A @ 70 °C
Power boost @ 24 V DC, 60 °C	9 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	10 A @ 60 °C
Continuous output current @ 24 V DC	12 A @ 45 °C 11 A @ 55 °C 7.5 A @ 70 °C
Power boost @ 24 V DC, 60 °C	12 A for 1 min, ED=5 %

General Specifications

Efficiency	90 % @ 230 V AC / > 85 % @ 115 V AC
Power factor (approx.)	> 0.5 @ 230 V AC / > 0.53 @ 115 V AC
Mains buffering @ I _{rated}	> 40 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	150 x 50 x 130 mm
Weight	1.0 kg

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}	> 40 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	150 x 60 x 130 mm
Weight	1.2 kg

Approvals/Certifications

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

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

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

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
Screw connection	3 for L/N/PE	0.5 / 6 mm ²	0.5 / 2.5 mm ²	26 / 12

Input	Output
Screw connection	Screw Connection
3 for L/N/PE	5 (+/-)
0.5 / 6	0.5 / 6
0.5 / 2.5	0.5 / 2.5
26 / 12	26 / 12

Input	Output
Screw connection	Screw Connection
3 for L/N/PE	5 (+/-)
0.5 / 6	0.5 / 6
0.5 / 2.5	0.5 / 2.5
26 / 12	26 / 12

Accessories

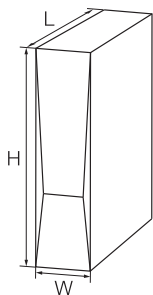
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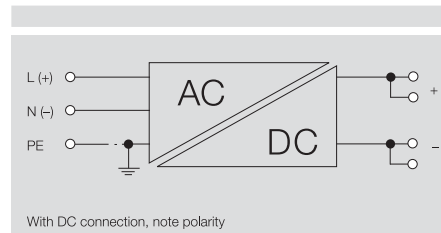
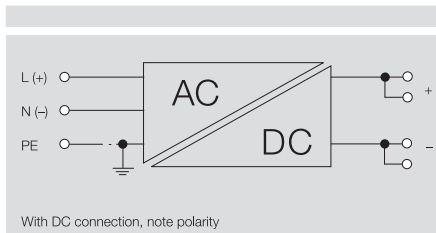
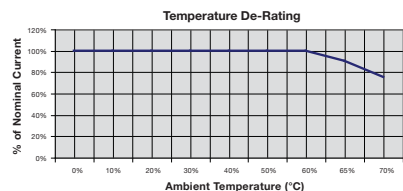
PRO-M – Single Phase Input Supplies

CP M SNT 500W 24V 20A

CP M SNT 1000W 24V 40A



Derating Curve



Ordering Data

Type	Part No.
CP M.SNT 500W 24V 20A	8951370000

Type	Part No.
CP M.SNT 1000W 24V 40A	8951380000

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

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

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	4.9 A @ 230 V AC / 9.6 A @ 115 V AC
DC current consumption	3.0 A @ 370 V DC / 13.5 A @ 80 V DC
Input fuse (internal)/Inrush current	yes
Circuit Protection	16 A / DI, safety fuse

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	20 A @ 60 °C
Continuous output current @ 24 V DC	24 A @ 45 °C
	22 A @ 55 °C
	15 A @ 70 °C
Power boost @ 24 V DC, 60 °C	24 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	20 A @ 60 °C
Continuous output current @ 24 V DC	24 A @ 45 °C
	22 A @ 55 °C
	15 A @ 70 °C
Power boost @ 24 V DC, 60 °C	24 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	40 A @ 60 °C
Continuous output current @ 24 V DC	48 A @ 45 °C
	44 A @ 55 °C
	30 A @ 70 °C
Power boost @ 24 V DC, 60 °C	48 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}	> 40 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	mm 150 x 121 x 130
Weight	1.5 kg

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}	> 40 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	mm 150 x 180 x 130
Weight	1.5 kg

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}	> 40 ms @ 230 V AC / > 20 ms @ 100 V AC
Parallel connection option	yes
Length x Width x Height	mm 150 x 180 x 130
Weight	1.5 kg

Approvals/Certifications

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

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	mm ² 0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 10

Type of connection	Screw Connection
Number of terminals	5 (+/-/-)
Conductor cross-section, rigid min/max	0.5 / 6
Conductor cross-section, flexible min/max	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 10

Type of connection	Screw Connection
Number of terminals	5 (+/-/-)
Conductor cross-section, rigid min/max	0.5 / 16
Conductor cross-section, flexible min/max	2.5 / 10
Conductor cross-section, AWG/kcmil min/max	26 / 6

Accessories

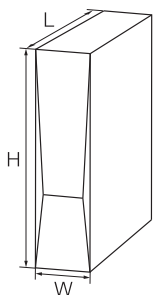
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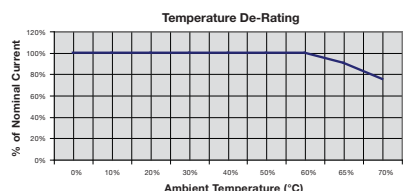
PRO-M – Three Phase Input Supplies

CP M SNT3 120W 24V 5A

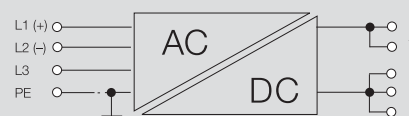
CP M SNT3 250W 24V 10A



Derating Curve



With DC connection, note polarity
Two-phase operation also possible



With DC connection, note polarity
Two-phase operation also possible

Ordering Data

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

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

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	

3 x 400...3 x 500 V AC (wide-range input)
3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
47...63 Hz
450...800 V DC (max. 500 V DC acc. to UL508)
0.25 A @ 3 x 500 V AC / 0.3 A @ 3 x 400 V AC
0.2 A @ 800 V DC / 0.4 A @ 450 V DC
no
2 A / DI, safety fuse
1...2 A, Char. C, Circuit breaker

3 x 400...3 x 500 V AC (wide-range input)
3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
47...63 Hz
450...800 V DC (max. 500 V DC acc. to UL508)
0.5 A @ 3 x 500 V AC / 0.6 A @ 3 x 400 V AC
0.4 A @ 800 V DC / 0.7 A @ 450 V DC
no
2 A / DI, safety fuse
2...3 A, Char. C, Circuit breaker

Output Specifications

Rated output voltage	
Output voltage	
Residual ripple, switching peaks	
Rated output current @ V_{rated}	
Continuous output current @ 24 V DC	
Power boost @ 24 V DC, 60 °C	

24 V DC \pm 1 %
22.5...29.5 V DC (adjustable via potentiometer on front)
100 mV _{SS} @ 24 V DC, I _N
5 A @ 60 °C
6.0 A @ 45 °C
5.5 A @ 55 °C
3.7 A @ 70 °C
6 A for 1 min, ED=5 %

24 V DC \pm 1 %
22.5...29.5 V DC (adjustable via potentiometer on front)
100 mV _{SS} @ 24 V DC, I _N
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	
Power factor (approx.)	
Mains buffering @ I _{rated}	
Parallel connection option	
Length x Width x Height	mm
Weight	

90 % @ 3 x 500 V AC / > 90 % @ 3 x 400 V AC
> 0.75 @ 3 x 500 V AC / > 0.78 @ 3 x 400 V AC
> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC
yes
125 x 40 x 130
0.55 kg

90 % @ 3 x 500 V AC / > 90 % @ 3 x 400 V AC
> 0.75 @ 3 x 500 V AC / > 0.78 @ 3 x 400 V AC
> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC
yes
150 x 60 x 130
0.9 kg

Approvals/Certifications

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

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

Connection Data

Type of connection	Input	Output
Number of terminals	4 for L1/L2/L3/PE	5 (++)/(-/-)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6	0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 12	26 / 12

Type of connection	Input	Output
Number of terminals	4 for L1/L2/L3/PE	5 (++)/(-/-)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6	0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 12	26 / 12

Type of connection	Input	Output
Number of terminals	4 for L1/L2/L3/PE	5 (++)/(-/-)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6	0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5	0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 12	26 / 12

Accessories

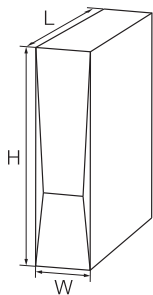
* Recommendation applies only for AC operation; the max. permissible operating voltage is to be observed in all cases!

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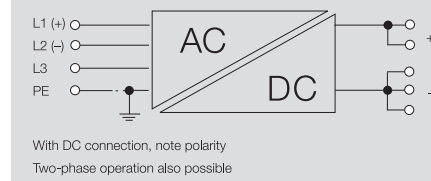
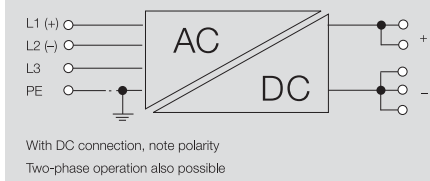
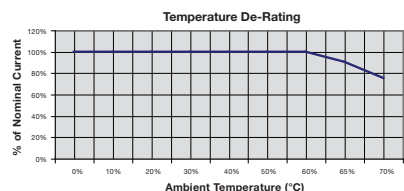
PRO-M – Three Phase Input Supplies

CP M SNT3 500W 24V 20A

CP M SNT3 1000W 24V 40A



Derating Curve



Ordering Data

Type	Part No.
CP M.SNT3 500W 24V 20A	8951410000

Type	Part No.
CP M.SNT3 1000W 24V 40A	8951420000

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	0.9 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

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	3...5 A, Char. C, Circuit breaker

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 %
Output voltage	22.5...29.5 V DC (adjustable via potentiometer on front)
Residual ripple, switching peaks	100 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	20 A @ 60 °C
Continuous output current @ 24 V DC	24 A @ 45 °C 22 A @ 55 °C 15 A @ 70 °C
Power boost @ 24 V DC, 60 °C	24 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	40 A @ 60 °C
Continuous output current @ 24 V DC	48 A @ 45 °C 44 A @ 55 °C 30 A @ 70 °C
Power boost @ 24 V DC, 60 °C	48 A for 1 min, ED=5 %

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 mV _{SS} @ 24 V DC, I _N
Rated output current @ V _{rated}	40 A @ 60 °C
Continuous output current @ 24 V DC	48 A @ 45 °C 44 A @ 55 °C 30 A @ 70 °C
Power boost @ 24 V DC, 60 °C	48 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 @ I _{rated}	> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC
Parallel connection option	yes
Length x Width x Height	mm 150 x 121 x 130
Weight	1.5 kg

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 @ I _{rated}	> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC
Parallel connection option	yes
Length x Width x Height	mm 150 x 180 x 130
Weight	2.9 kg

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 @ I _{rated}	> 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC
Parallel connection option	yes
Length x Width x Height	mm 150 x 180 x 130
Weight	2.9 kg

Approvals/Certifications

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

CE, cURus, 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	mm ² 0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 10

Type of connection	Screw Connection
Number of terminals	5 (++)
Conductor cross-section, rigid min/max	mm ² 0.5 / 6
Conductor cross-section, flexible min/max	mm ² 0.5 / 2.5
Conductor cross-section, AWG/kcmil min/max	26 / 10

Type of connection	Screw Connection
Number of terminals	5 (++)
Conductor cross-section, rigid min/max	mm ² 0.5 / 16
Conductor cross-section, flexible min/max	mm ² 0.5 / 10
Conductor cross-section, AWG/kcmil min/max	26 / 6

Accessories

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

Redundancy, Load Sharing, Increased Power Delivery

Weidmüller'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.

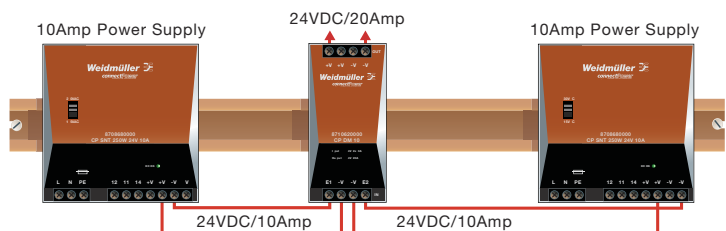
Diode modules can increase the reliability of a Power Delivery Solution by preventing current feedbacks between paralleled power supplies.

It is important to keep in mind that before paralleling power supplies, their output voltage must be calibrated to be within $\pm 50\text{mV}$ of each other, and the parallel connection must be positioned as close as possible to the load.



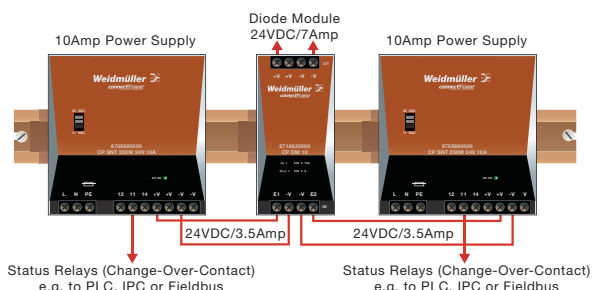
Introduction – Diode Modules for Redundancy

Parallel Connection for Increased Power Delivery



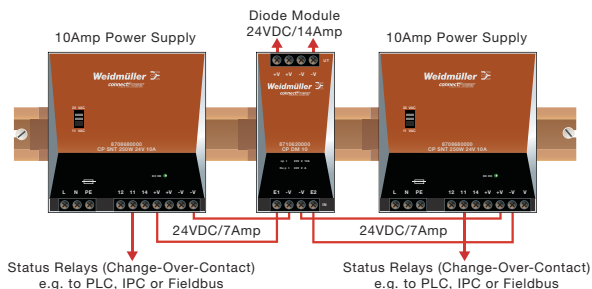
- The amount of power needed is provided by two power supplies combined in parallel

Provide Uninterrupted DC Power with Redundancy and Fault Indication (this example supplying 7A to load)



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

Increase DC Power Delivery to Control Systems (this example supplying 14A to load)



- 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 (this example supplying 3A to critical load)



- 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.



CP DM 10
10A per Input Diode Module

CP DM 20
20A per Input Diode Module

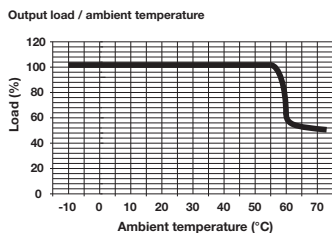


Approvals:

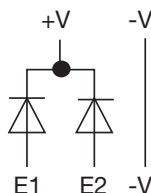


Derating Curve

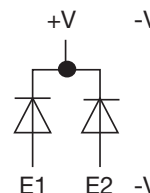
3/5/10/20A



Schematic



Schematic



Ordering Data	

Type	Qty.	Part No.
CP DM 10	1	8710620000

Type	Qty.	Part No.
CP DM 20	1	8768650000

Technical Data	
Input	Input voltage
	Input current
Output	Output voltage
	Output current

	40 VDC max.
	10 A per input max.
	$V_{in} - 0.5$ typ.
	20 A max.

	40 VDC max.
	20 A per input max.
	$V_{in} - 0.5$ typ.
	40 A max.

General Specifications	
Temperature	Operating
	Storage
Efficiency under max. load	
Mount onto mounting rail	
Mounting position	
Mounting	
Weight	
Dimensions (L x W x H)	
Type of Connection	
Clamping area input (nominal / min. / max.)	
Clamping area output (nominal / min. / max.)	
Indication signals	Voltage
	Alarm
Fault Relay	Voltage
	Current
	Configuration
	Set point
Other	Voltage drop input-output
	Fan

	-10°C...+55°C (+14°F...+131°F)
	-20°C...+85°C (-4°F...+185°F)
	approx. 95.5% at 24 VDC
	Mounting rail TS35 to DIN 50022
	Horizontal
	Clearance: side ≥ 4 cm; above/below ≥ 10 cm
	approx. 0.15 kg (0.33 lbs.)
	125.0 x 55.5 mm x 110.0 (4.92 x 2.19 x 4.33 in.)
	Screw
	4 / 0.13 / 6 mm ² (12 / 26 / 10 AWG)
	4 / 0.13 / 6 mm ² (12 / 26 / 10 AWG)
	None
	None
	None
	None
	None
	None
	0.5 V typ.
	None

	-10°C...+55°C (+14°F...+131°F)
	-20°C...+85°C (-4°F...+185°F)
	approx. 95% at 24 VDC
	Mounting rail TS35 to DIN 50022
	Horizontal
	Clearance: side ≥ 4 cm; above/below ≥ 10 cm
	approx. 0.5 kg (1.1 lbs.)
	125.0 x 55.5 mm x 110.0 (4.92 x 2.19 x 4.33 in.)
	Screw
	4 / 0.13 / 6 mm ² (12 / 26 / 10 AWG)
	10.0 / 0.32 / 16.0 mm ² (8 / 22 / 6 AWG)
	None
	None
	None
	None
	None
	0.5 V typ.
	None

Terminations	Input/output
	Alarm contact

	N/A
	N/A

	N/A
	N/A

Approvals/Certifications	
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	CE, cURus, cULus Listed to UL508 and CSA C22.2 No. 107.1
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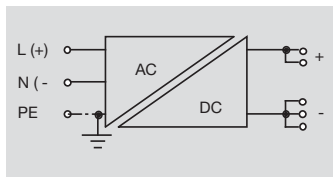
	CE, cURus, cULus Listed to UL508 and CSA C22.2 No. 107.1
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T-Series – Single Phase Input Supplies

CP T SNT 70W 12V 6A

CP T SNT 140W 12V 12A

CP T SNT 90W 24V 3.8A



Ordering Data	
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<12A @ 115VAC; <20A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	6A
Efficiency	87% typ.
Output Specifications	
Output voltage	12 VDC
Output voltage adj. range	12-14 VDC
Output current	6.5A
Output power max.	70W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} ., constant current, automatic recovery
Output overvoltage protection	20V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	9–11 V
– active output signal: (reference to -Vout)	11.0 V ±1.0 V (20 mA max.)
– relay output	rated: 30 VDC/1.0 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>1.8 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	35 x 110 x 110 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	0.5kg
Approvals	
cULus Listed to UL508, CSA C22.2 No. 14	
cRUus to ANSI/UL60950, CSA60950	
CSA to C22.2 No. 107.1	
cCSAus to CSA60950, ANSI/UL60950	
cCSAus C1D2 to C22.2 No. 213	
cCSAus C1Z2 to CSA60079-15	
& ANSI/ISA 12.012.01	
CE marked	

Type	Part No.
CP T SNT 70W 12V 6A	1105430000
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<12A @ 115VAC; <20A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	6A
Efficiency	87% typ.
Output Specifications	
Output voltage	12 VDC
Output voltage adj. range	12-14 VDC
Output current	6.5A
Output power max.	70W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} ., constant current, automatic recovery
Output overvoltage protection	20V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	9–11 V
– active output signal: (reference to -Vout)	11.0 V ±1.0 V (20 mA max.)
– relay output	rated: 30 VDC/1.0 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>1.8 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	35 x 110 x 110 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	0.5kg
Approvals	
cULus Listed to UL508, CSA C22.2 No. 14	
cRUus to ANSI/UL60950, CSA60950	
CSA to C22.2 No. 107.1	
cCSAus to CSA60950, ANSI/UL60950	
cCSAus C1D2 to C22.2 No. 213	
cCSAus C1Z2 to CSA60079-15	
& ANSI/ISA 12.012.01	
CE marked	

Type	Part No.
CP T SNT 140W 12V 12A	1105440000
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<13A @ 115VAC; <25A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	6A
Efficiency	87% typ.
Output Specifications	
Output voltage	12 VDC
Output voltage adj. range	12-14 VDC
Output current	13.0A
Output power max.	140W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} ., constant current, automatic recovery
Output overvoltage protection	20V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	9–11 V
– active output signal: (reference to -Vout)	11.0 V ±1.0 V (20 mA max.)
– relay output	rated: 30 VDC/1.0 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>1.2 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	54 x 110 x 110 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	0.7kg
Approvals	
cULus Listed to UL508, CSA C22.2 No. 14	
cRUus to ANSI/UL60950, CSA60950	
CSA to C22.2 No. 107.1	
cCSAus to CSA60950, ANSI/UL60950	
cCSAus C1D2 to C22.2 No. 213	
cCSAus C1Z2 to CSA60079-15	
& ANSI/ISA 12.012.01	
CE marked	

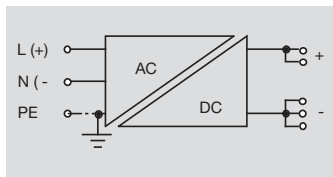
Type	Part No.
CP T SNT 90W 24V 3.8A	1105790000
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<12A @ 115VAC; <20A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	6A
Efficiency	87% typ.
Output Specifications	
Output voltage	24 VDC
Output voltage adj. range	24-28 VDC
Output current	3.75A
Output power max.	90W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} ., constant current, automatic recovery
Output overvoltage protection	35V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	18-22 V
– active output signal: (reference to -Vout)	22.0 V ±2.0 V (10 mA max.)
– relay output	rated: 30 VDC/1.0 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>1.8 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	35 x 110 x 110 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	0.5kg
Approvals	
cULus Listed to UL508, CSA C22.2 No. 14	
cRUus to ANSI/UL60950, CSA60950	
CSA to C22.2 No. 107.1	
cCSAus to CSA60950, ANSI/UL60950	
cCSAus C1D2 to C22.2 No. 213	
cCSAus C1Z2 to CSA60079-15	
& ANSI/ISA 12.012.01	
CE marked	

T-Series – Single Phase Input Supplies

CP T SNT 180W 48V 4A

CP T SNT 360W 48V 7.5A

CP T SNT 600W 48V 12.5A



Ordering Data	
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<13A @ 115VAC; <25A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	6A
Efficiency	87% typ.
Output Specifications	
Output voltage	48 VDC
Output voltage adj. range	48-56 VDC
Output current	4.0A
Output power max.	180W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} , constant current, automatic recovery
Output overvoltage protection	60V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	36-46 V
– active output signal: (reference to -Vout)	44.0 V ±4.0 V (15 mA max.)
– relay output	rated: 48 VDC/0.5 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>0.9 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	54 x 110 x 110 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	0.7kg
Approvals	
	cULus Listed to UL508, CSA C22.2 No. 14
	cRUus to ANSI/UL60950, CSA60950
	CSA to C22.2 No. 107.1
	cCSAus to CSA60950, ANSI/UL60950
	cCSAus C1D2 to C22.2 No. 213
	cCSAus C1Z2 to CSA60079-15
	& ANSI/ISA 12.012.01
	CE marked

Type	Part No.
CP T SNT 180W 48V 4A	1105850000
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<13A @ 115VAC; <25A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	6A
Efficiency	87% typ.
Output Specifications	
Output voltage	48 VDC
Output voltage adj. range	48-56 VDC
Output current	4.0A
Output power max.	180W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} , constant current, automatic recovery
Output overvoltage protection	60V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	36-46 V
– active output signal: (reference to -Vout)	44.0 V ±4.0 V (15 mA max.)
– relay output	rated: 48 VDC/0.5 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>0.9 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	54 x 110 x 110 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	0.7kg
Approvals	
	cULus Listed to UL508, CSA C22.2 No. 14
	cRUus to ANSI/UL60950, CSA60950
	CSA to C22.2 No. 107.1
	cCSAus to CSA60950, ANSI/UL60950
	cCSAus C1D2 to C22.2 No. 213
	cCSAus C1Z2 to CSA60079-15
	& ANSI/ISA 12.012.01
	CE marked

Type	Part No.
CP T SNT 360W 48V 7.5A	1105860000
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<16A @ 115VAC; <25A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	10A
Efficiency	87% typ.
Output Specifications	
Output voltage	48 VDC
Output voltage adj. range	48-56 VDC
Output current	7.5A
Output power max.	360W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} , constant current, automatic recovery
Output overvoltage protection	60V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	36-46 V
– active output signal: (reference to -Vout)	44.0 V ±4.0 V (15 mA max.)
– relay output	rated: 48 VDC/0.5 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>0.9 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	80 x 125 x 125 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	1.1kg
Approvals	
	cULus Listed to UL508, CSA C22.2 No. 14
	cRUus to ANSI/UL60950, CSA60950
	CSA to C22.2 No. 107.1
	cCSAus to CSA60950, ANSI/UL60950
	cCSAus C1D2 to C22.2 No. 213
	cCSAus C1Z2 to CSA60079-15
	& ANSI/ISA 12.012.01
	CE marked

Type	Part No.
CP T SNT 600W 48V 12.5A	1105870000
Technical Data	
Input Specifications	
Input voltage	115VAC/230VAC autoselect
Input voltage range	85-132/187-264 VAC autoselect (output current derating below 100VAC)
Input voltage frequency	47Hz - 63Hz
Harmonic limits	EN 61000-3-2, Class A (for limited output power)
Hold up time	20ms min. 115/230 VAC
Inrush current	<25A @ 115VAC; <30A @ 230VAC
Recommended Circuit breaker, Curve 1 or fuse, slow blow type	15A
Efficiency	87% typ.
Output Specifications	
Output voltage	48 VDC
Output voltage adj. range	48-56 VDC
Output current	12.5A
Output power max.	600W
Regulation – Input variation	0.5 % max.
– Load variation (10–100 %)	0.5 % max.
Ripple and Noise (20MHz Bandwidth)	100 mV pk-pk typ. (200 mV pk-pk max. at I _{max})
Electronic short circuit protection	Current limitation at I _{max} , constant current, automatic recovery
Output overvoltage protection	60V
Overload protection	electronic overload protection
Overtemperature protection	Switch off at overtemperature, automatic restart
Status indicator	Dual color LED (green: DC ok; red: DC off)
Power OK signal – trigger threshold:	36-46 V
– active output signal: (reference to -Vout)	44.0 V ±4.0 V (15 mA max.)
– relay output	rated: 48 VDC/0.5 A
General Specifications	
Operating temperature range	-25 °C to +70 °C max. (-13 °F to +158°F)
Cooling	convection cooling, no internal fan
Mounting	TS35 DIN-rail (Horizontal) to allow for cooling
Storage temperature	-25 °C to +85 °C (- 13°F to +185°F)
Humidity (non condensing)	95 % rel. H max.
Pollution degree	2
Temperature coefficient	0.02 %/K
Reliability, calculated MTBF @ 25°C acc. to IEC 61709	>0.9 Million hours, max. load
Remote On/Off	by ext. contact.
(See LIT0917 - Installation Instructions)	DC on: -S contact open
Isolation	DC off: -S connected via 1Kohm to -Vout according to IEC/EN 60950-1, UL 60950-1, UL 508
Environment – Vibration acc. IEC 60068-2-6	3 axis, sine sweep, 10–55 Hz, 1 g, 1 oct/min
– Shock acc. IEC 60068-2-27	3 axis, 15 g half sine, 11 ms
Dimension (W x D x H)	165 x 125 x 125 mm
Clearances – Above/Below	80 mm (3.15 in)
– Sides	10 mm (0.39 in)
Weight	2.8kg
Approvals	
	cULus Listed to UL508, CSA C22.2 No. 14
	cRUus to ANSI/UL60950, CSA60950
	CSA to C22.2 No. 107.1
	cCSAus to CSA60950, ANSI/UL60950
	cCSAus C1D2 to C22.2 No. 213
	cCSAus C1Z2 to CSA60079-15
	& ANSI/ISA 12.012.01
	CE marked

T-Series – Diode Modules for Redundancy

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

CP T RM 10 Redundancy Module



CP T RM 20 Redundancy Module



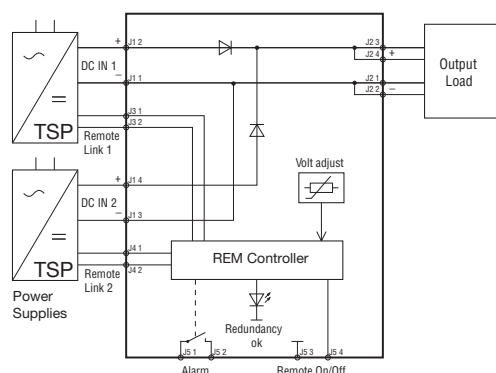
Technical Data

Input Specifications	CP T RM 10	CP T RM 20
Input	2 x 24 VDC	2 x Control Input
Input current	15A	25A
Output Specifications		
Output voltage	24 VDC	24 VDC
Output voltage adj. range	24-27 VDC	24-27 VDC
Output power max.	360 W	600 W
Output current	15A @ 24VDC, @ 40°C	25A @ 24VDC, @ 40°C
General Data		
Status indicator	LED	LED
Operating temperature	-25 °C to 70 °C max. (-13 °F...+158 °F) derating above 40 °C (104 °F): 1.5 %/K	-25 °C to 70 °C max. (-13 °F...+158 °F) derating above 40 °C (104 °F): 1.5 %/K
Redundancy OK signal (Alarm)	trigger threshold at 18...22VDC, contact open if both inputs failed	trigger threshold at 18...22VDC, contact open if both inputs failed
MTBF in acc. To IEC 61709	>350,000 hours, max. load	>350,000 hours, max. load
Alarm relay contact	30VDC/1A	
Environment - Vibration	3 axis, sine sweep, 10...55Hz, 1g, 1oct/min.	3 axis, sine sweep, 10...55Hz, 1g, 1oct/min.
- Shock	3 axis, 15g half sine, 11ms	3 axis, 15g half sine, 11ms
Dimension (W x D x H)	35 x 110 x 110 mm	54 x 110 x 110 mm
Weight	0.5kg	0.7kg
Remote link cable (0.5m)	2 cables included	2 cables included
Remote On/Off	by ext. contact: contact open = On, contact closed = Off	by ext. contact: contact open = On, contact closed = Off
Approvals	Agency Approvals Pending	Agency Approvals Pending

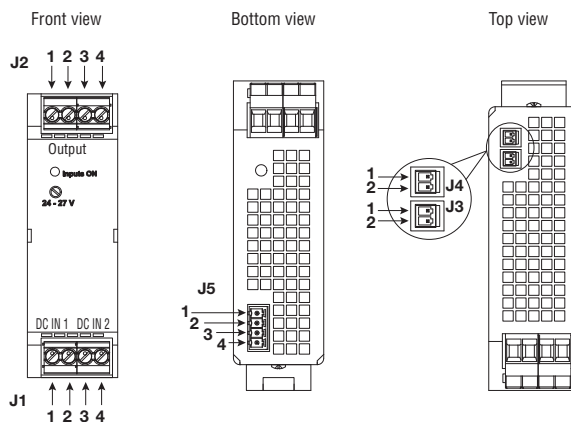
Ordering Data

Type	Part No.	Type	Part No.
CP T RM 10	1105880000	CP T RM 20	1105890000

Function Diagram



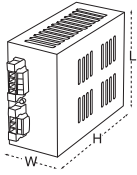
Connector Positions



	J1	J2	J3 Voltage Control 1 For Input 1	J4 Voltage Control 2 For Input 2	J5
Pin 1	Input 1 -Vin	GND (-)	S+	S+	DC-OK Signal
Pin 2	Input 1 +Vin	GND (-)	S-	S-	DC-OK Relay Contact
Pin 3	Input 2 -Vin	Vout (+)	-	-	Remote ON/OFF
Pin 4	Input 2 +Vin	Vout (+)	-	-	Remote ON/OFF

For detailed installation instructions, please visit www.weidmuller.com/power_supplies and download LIT0917

connectPower – Single Phase Input Supplies

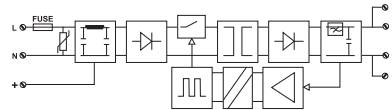


Approvals:

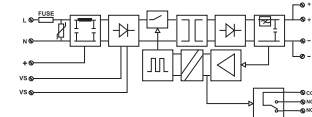


Diagram/Schematic Circuit Diagram

CP SNT 55W



CP SNT 160W



Ordering Data

Output voltage/maximum current

Technical Data

Input voltage	Minimum	85 VAC, 120 VDC
	Typical	115-230 VAC $\pm 10\%$, 50/60 Hz
	Maximum	265 VAC, 300 VDC
Input current	at 115 VAC	1.10 A RMS $\pm 20\%$
	(Average values for reference only) at 230 VAC	0.55 A RMS $\pm 20\%$
	at 125 VDC	590 mA $\pm 20\%$
	at 250 VDC	315 mA $\pm 20\%$
Input protection	Fuse	2 A slow fuse (internal, not user serviceable)
	Inrush Current	Thermistor
Switching frequency	Varistor	100 kHz PWM
	Efficiency at maximum load	80%
Maximum ripple	0.1% RMS V_{p-p}	
Regulation	load (10-100% load)	1.0%
	at Input voltage	0.8%
Overload protection	Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit	
Output surge capability	10,000 μ F	
Maximum capacitance at output	30 ms	
Parallel connection for load sharing	Hold time	180 ms
	(Maximum output current following input loss)	-40°C...+85°C (-40°F...+185°F)
Temperature	Storage	-20°C...+50°C (-4°F...+122°F) full rated load
	Operating	Derating: 24 V-1.5 A at 60°C (140°F)
Humidity	Operating temperature	20...85% RH non-condensing
	Storage temperature	20...90% RH
Galvanic isolation	Input-output	3 kV RMS
	Input/output to mounting rail	3 kV RMS
	Input to ground	1.5 kV RMS
	Output to ground	500 V RMS
Wire size	0.1...4.0 mm ² (26...12 AWG)	
Dimensions (L x W x H)	98 x 57 x 131 mm (3.86 x 2.24 x 5.16 in.)	
Weight	478 g (1.05 lbs.)	
Mounting position	Horizontal on mounting rail TS35, Chassis	
Clearance	20 mm left and right	
	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)	

Ordering Data

Type	Part No.
CP SNT 55W	
24 VDC-28 VDC / 2.3 A	9927480024
48 VDC / 1.04 A	9927480048
12 VDC - 15 VDC / 3 A	9927480012
5 VDC / 3 A	9927480005

Ordering Data

Type	Part No.
CP SNT 160W	
24 VDC-28 VDC / 6.5 A	9925340024
5 VDC / 10 A	9925340005
12 VDC / 10 A	9925340012
48 VDC / 3.25 A	9925340048

Approvals/Certifications

Accessories

Chassis Mounting Kit	
Side mount Bracket—DIN rail	

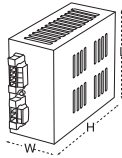
CSA, UL 508 Listed, CE	
CSA Class 1 Div. 2 and Zone 2 for 9927480012 and 9927480024	
UL 1310 (Class 2) for 9927480024	

	Part No.
	7920560000

CSA, UL 508 Listed, CE	
CSA Class 1 Div. 2 and Zone 2 for 9925340024 and 9925340012	

	Part No.
	7920560000
	7940000542

connectPower – Single Phase Input Supplies



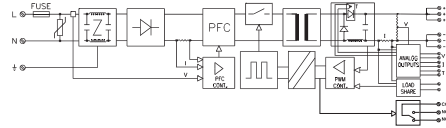
Approvals:



CP SNT 300W



Diagram/Schematic Circuit Diagram



Ordering Data

Type	Part No.
CP SNT 300W	9916250024

Technical Data

Input voltage	Minimal	86 VAC, 100 VDC		
	Typical	115-230 VAC ± 10% 50/60 Hz		
	Maximum	265 VAC, 200 VDC		
Input current at 300 W	at 115 VAC	3.3 A ± 10%		
	at 230 VAC	1.65 A ± 10%		
	at 100 VDC	3.7 A ± 10%		
	at 200 VDC	1.85 A ± 10%		
Input power factor		0.99 (under all load conditions)		
Input current		Sinusoidal (active power factor corrected)		
Topology		Boost PFC / forward PWM		
Input protection	Fuse	5 A slow blow 5x20 mm		
	Inrush current	Thermistor		
	Oversvoltage	Varistor		
Switching frequency		100 kHz ± 5%		
Efficiency	at max.load	80% typical		
Output ripple		at 100 kHz: 2 mV _{p-p}		
Regulation	Load (10-100%)	1%		
	Line (86-265 VAC RMS)	0.2%		
Protection	Oversvoltage	V _{out} > 30 VDC		
	Undersvoltage	V _{out} < 14 VDC		
	Overload	at V _{out} = 22 VDC, I _{out} > 13.8 A	at V _{out} = 24 VDC, I _{out} > 13.5 A	at V _{out} = 28 VDC, I _{out} > 11.6 A
Output surge capability		18.5 A / 300 mSec		
	Thermal	Heat sink temperature > 100°C (212°F)		
Adjustable output voltage		22 VDC...28 VDC (pot. adj.)		
Rated output current		at V_{out} = 22 VDC...13.6 A		
		at V_{out} = 24 VDC...12.5 A		
		at V_{out} = 28 VDC...10.7 A		
	Current limiting:	LED yellow	Fault: LED red	On: LED green
LED indicator	Power supply goes to fault mode oversvoltage, undervoltage or over temperature for more than 2 sec. fault relay drops out/short circuit			
Shut down	– universal input voltage with PFC (active power factor corrections)			
The 300 W power supply offers the following additional functions	– analog monitoring function of the output voltage 0...30 V corresponds to 0...10 V ± 3%			
	of the output current 0...15 A corresponds to 0...10 V ± 3%			
	of the internal temperature 0°C...+100°C (+32°F...+212°F) corresponds to 0...10 V ± 3%			
	– Fault relay, 1 changeover, closed-circuit current principle			
Monitoring output impedance	10 kΩ min. or 5 mA max.			
Load share	Current increase up to 60 A by wiring up to 5 300 W power supplies in parallel (active current division)			
Maximum capacitance at output	10,000 µF			
Hold time	at 115 VAC	30 ms		
	at 230 VAC	30 ms		
Temperature	Storage	-40°C...+85°C (-40°F...+185°F)		
	Operating	-20°C...+50°C (-4°F...+122°F)		
	Derating	Output current derating of approx. 20% at 60°C (140°F)		
Galvanic isolation	Input-output	3 kV RMS		
	Input/output to mounting rail	3 kV RMS		
	Input to ground	1.5 kV RMS		
	Output to ground	500 V RMS		
Dimensions (L x W x H)	104 x 240 x 155 mm (4.10 x 9.45 x 6.10 in.)			
Weight	1180 g (2.60 lbs.)			
Mounting position	Horizontal on mounting rail TS35, chassis			
Clearance	20 mm left and right; 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)			

Approvals/Certifications

UL 508 Listed, CE, CSA Class 1, Div 2 and Zone 2

Accessories

Chassis Mounting Kit

Part No.

7920560000¹⁾

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

