Weidmuller offers two categories of Power Delivery Solutions: General Purpose and Advanced Features products. General Purpose Products fulfill minimum power delivery requirements, while Advanced Features products are designed for more demanding applications. All power supplies are certified for safe use in industry and small installations. They are tested under harsh environmental conditions and have a proven performance record.

General Purpose
Power Delivery Solutions:

- Market includes OEMs, panel shops and control manufacturers
- Fulfill the power and current demands of the application
- Have an efficient form factor
- Provide a cost-effective power delivery solution for basic functionality requirements

Advanced Features
Power Delivery Products:

- 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

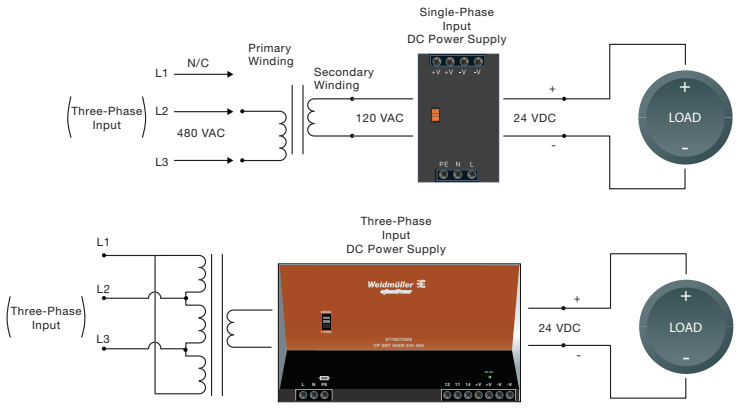
Three-Phase Input Power Supplies

Weidmuller offers three-phase input DC power supplies in both General Purpose and Advanced Features models. Use of a three-phase power supply in your application eliminates the need for a step-down transformer.

Advanced feature models range from the compact CP-SNT 55W and 160W, to the 300W, 600W and 1000W three-phase supplies. These supplies feature a high output surge capability, over current protection, output status LED, and rugged metal housings.

General purpose three-phase power supplies are available in 250W, 500W and 1000W models.

Eliminate Step-Down Transformers



- By using a DC power supply with three phase input capability, you can reduce wiring material and component cost
- Eliminates the need for step-down transformers (480V down to 120V)
- Frees up room in the control panel
- Reduces weight of assembly
- Simplifies design

Power Supplies Mounting Kits

A mounting bracket kit is available for use with the CP-DCDC 50W, CP-SNT 55W and CP-SNT 160W families of power supplies that allow them to be mounted flat on a panel. The power supplies are not available from the factory with the bracket installed - it is ordered separately and installed by the customer. The DIN rail mounting foot must be removed. Center-to-center dimension for mounting holes is 61mm (2.4").

connectPower
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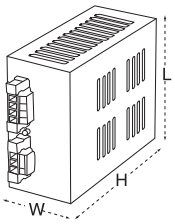


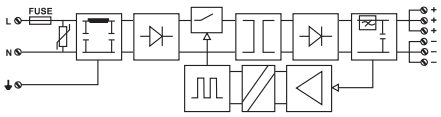
Approvals:

LISTED

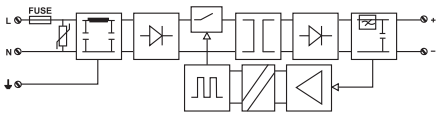
CP SNT 12W 0.5A

CP SNT 24W

Diagram/Schematic Circuit Diagram



– secondary through plug-in jumpers ZQV
cross-connectable to other WAVE-modules



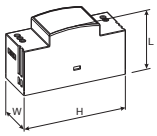
Ordering Data	Type	Order No.
	CP SNT 12W 0.5A	
Output voltage/maximum current	**24 VDC / 0.5 A**	**9918840024**

Type	Order No.
CP SNT 24W	
24 VDC / 1 A	**9928890024**
28 VDC / 1 A	**9928890028**
15 VDC / 1.5 A	**9928890015**
12 VDC / 1.5 A	**9928890012**
5 VDC / 2 A	**9928890005**

Technical Data			
Input voltage	**Minimum**	**85 VAC, 120 VDC**	**85 VAC, 120 VDC**
	Typical	**115-230 VAC ± 10%, 50/60 Hz**	**115-230 VAC ± 10%, 50/60 Hz**
	Maximum	**265 VAC, 300 VDC**	**265 VAC, 300 VDC**
Input current	**at 115 VAC**	**260 mA RMS ± 20%**	**480 mA RMS ± 20%**
(Average values for reference only)	**at 230 VAC**	**180 mA RMS ± 20%**	**270 mA RMS ± 20%**
	at 125 VDC	**125 mA ± 20%**	**280 mA ± 20%**
	at 250 VDC	**65 mA ± 20%**	**140 mA ± 20%**
Input protection	Fuse	2 A slow fuse (internal, not user serviceable)	2 A slow fuse (internal, not user serviceable)
	Inrush current	Thermistor	Thermistor
	Overvoltage protection	Varistor	Varistor
Switching frequency		100 kHz PWM	100 kHz PWM
Efficiency at maximum load		80%	78%
Maximum ripple		0.1% RMS V_{p-p}	0.3% RMS V_{p-p}
Regulation	Load (10-100% load)	0.2%	2% (12, 15 and 5 V) 0.5% (24 and 28 V)
	at input voltage	0.2% 85 VAC - 265 VAC In	0.2%
Overload protection		Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit	Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit
Maximum capacitance at output		8000 µF	8000 µF
Hold time	at 115 VAC	30 ms	35 ms
(Maximum output current following input loss)	at 230 VAC	80 ms	160 ms
Temperature	Storage	-40°C…+85°C (-40°F…+185°F)	-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)	-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	20…85% RH non-condensing
	Storage temperature	20…90% RH	20…90% RH
Galvanic isolation	Input-output	3 kV RMS	3 kV RMS
	Input/output to mounting rail	4 kV RMS	4 kV RMS
	Input to ground	1.5 kV RMS	1.5 kV RMS
	Output to ground	500 V RMS	500 V RMS
Wire size		0.1…4.0 mm^2 (26…12 AWG)	0.1…4.0 mm^2 (26…12 AWG)
Dimensions (L x W x H)		90 x 18 x 112.5 mm (3.54 x 0.71 x 4.43 in.)	90.5 x 52 x 62.5 mm (3.56 x 2.05 x 2.46 in.)
Weight		140 g (0.311 lbs.)	160 g (0.35 lbs.)
Mounting position		Horizontal on mounting rail TS35	Horizontal on mounting rail TS35

Approvals/Certifications	
CSA, UL 508 Listed, CE	CSA, UL 508 Listed, CE
	CSA Class 1 Div. 2 and Zone 2 for 9928890012 and 9928890024
	UL 1310 (Class 2) for 9928890024

connectPower 1-phase INSTAPOWER



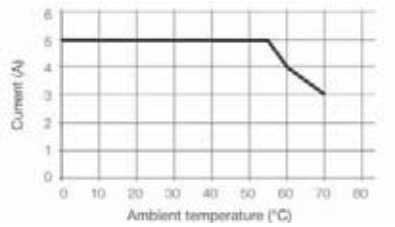
Approvals:

CP SNT 25W 5A

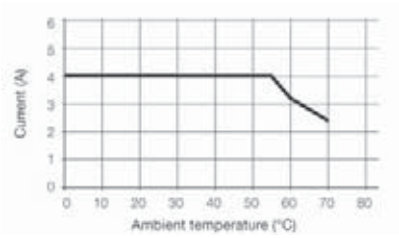
CP SNT 48W

Diagram/Schematic Circuit Diagram

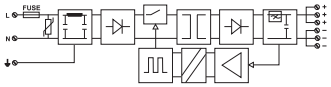
Derating Curves



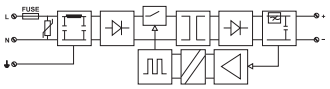
Derating Curves



Diagram/Schematic Circuit Diagram



Diagram/Schematic Circuit Diagram



Ordering Data	Type	Order No.	Type	Order No.
	CP SNT 25W 5V 5A		CP SNT 48W	
Output voltage/maximum current	**4…8 VDC (adjustable via potentiometer) / 5 A**	**8754960000**	**9…15 VDC (adjustable via potentiometer)/4A**	**8754970000**
			15…28 VDC (adjustable via potentiometer)/2A	**8739140000**
			46…55 VDC (adjustabe via potentiometer)/1A	**8879230000**

Technical Data			
Input voltage	**Minimum**	**85 VAC, 110 VDC**	**85 VAC, 110 VDC**
	Typical	**115/230 VAC**	**115/230 VAC**
	Maximum	**264 VAC, 370 VDC**	**264 VAC, 370 VDC**
Input current	**at 115 VAC**	**950 mA**	**950 mA**
(Average values for reference only)	**at 230 VAC**	**500 mA**	**500 mA**
	at 125 VDC		
	at 250 VDC		
Input protection	Fuse	Fuse 2.5A (T) / 250V	Fuse 2.5A (T) /250V
	Inrush current	Varistor	Varistor
	Overvoltage protection	limited	limited
Switching frequency		100 kHz PWM	100 kHz PWM
Efficiency at maximum load		78%	78%
Maximum ripple		120 mV_{p-p}	120 mV_{p-p}
Regulation	Load (10-100% load)	1%	1%
	at input voltage	0.2%	0.2%
Overload protection		105%…150% max. rated output power, automatic restart	105%…150% max. rated output power, automatic restart
Maximum capacitance at output		>70%	>75% / >78% / >80%
Hold time	at 115 VAC	35 ms	35 ms
(Maximum output current following input loss)	at 230 VAC	>50 ms	>50 ms
Temperature	Storage	-40°C…+85°C (-40°F…+185°F)	-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)	-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	20…85% RH non-condensing
	Storage temperature	20…90% RH	20…90% RH
Galvanic isolation	Input-output	3 kV RMS	3 kV RMS
	Input/output to mounting rail	4 kV RMS	4 kV RMS
	Input to ground	1.5 kV RMS	1.5 kV RMS
	Output to ground	500 V RMS	500 V RMS
Wire size		0.1…4.0 mm^2 (26…12 AWG)	0.1…4.0 mm^2 (26…12 AWG)
Dimensions (L x W x H)		62.5 x 70 x 90.5 mm (24.6 x 27.6 x 35.6 in.)	62.5 x 70 x 90.5 mm (24.6 x 27.6 x 35.6 in.)
Weight		Ca. 2 kg	Ca. 2 kg
Mounting position		Horizontal on mounting rail TS35	Horizontal on mounting rail TS35
Clearance		>30 mm above and below	>30 mm above and below
Approvals/Certifications			
		CSA / CE / UL 508 / cURus 60950 / GS	CSA / CE / UL 508 / cURus 60950 / GS
		UL 1310 (Class 2)	UL 1310 (Class 2)

connectPower
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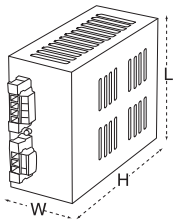


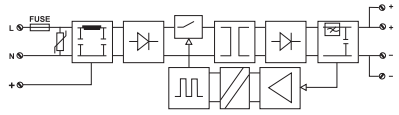
Approvals:

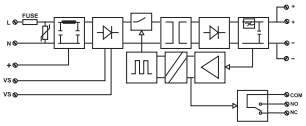
LISTED

CP SNT 55W

CP SNT 160W

Diagram/Schematic Circuit Diagram





Ordering Data		Type	Order No.	Type	Order No.
		CP SNT 55W		CP SNT 160W	
Output voltage/maximum current		**24 VDC-28 VDC / 2.3 A**	**9927480024**	**24 VDC-28 VDC / 6.5 A**	**9925340024**
		48 VDC / 1.04 A	**9927480048**	**5 VDC / 10 A**	**9925340005**
		12 VDC - 15 VDC / 3 A	**9927480012**	**12 VDC / 10 A**	**9925340012**
		5 VDC / 3 A	**9927480005**	**48 VDC / 3.25 A**	**9925340048**

Technical Data			
Input voltage	**Minimum**	**85 VAC, 120 VDC**	**85 VAC / 195 VAC**
	Typical	**115-230 VAC ± 10%, 50/60 Hz**	**115 VAC / 230 VAC ± 10%, (selectable) 50/60Hz**
	Maximum	**265 VAC, 300 VDC**	**138 VAC / 250 VAC**
Input current	**at 115 VAC**	**1.10 A RMS ± 20%**	**2.9 A RMS ± 20%**
(Average values for reference only)	**at 230 VAC**	**0.55 A RMS ± 20%**	**1.45 A RMS ± 20%**
	at 125 VDC	**590 mA ± 20%**	
	at 250 VDC	**315 mA ± 20%**	
Input protection	Fuse	2 A slow fuse (internal, not user serviceable)	6.3 A slow fuse (internal, not user serviceable)
	Inrush Current	Thermistor	Thermistor
	Overvoltage	Varistor	Varistor
Switching frequency		100 kHz PWM	65 kHz PWM
Efficiency at maximum load		80%	85%
Maximum ripple		0.1% RMS V_{p-p}	0.2% RMS V_{p-p}
Regulation	load (10-100% load)	1.0%	2.0%
	at Input voltage	0.8%	0.5%
Overload protection		Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit	Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit
Output surge capability			13 A / 1 sec
Maximum capacitance at output		10,000 µF	6000 µF
Parallel connection for load sharing			up to 3 devices (passive current division)
Hold time	at 115 VAC	30 ms	30 ms
(Maximum output current following input loss)	at 230 VAC	180 ms	30 ms
Temperature	Storage	-40°C…+85°C (-40°F…+185°F)	-40°C…+85°C (-40°F…+185°F)
	Operating	-20°C…+50°C (-4°F…+122°F) full rated load	-10°C…+50°C (40°F…+122°F) max. full rated load
		Derating: 24 V-1.5 A at 60°C (140°F)	Derating: 24 V-5.2 A at 60°C (140°F)
Humidity	Operating temperature	20…85% RH non-condensing	20…85% RH non-condensing
	Storage temperature	20…90% RH	20…90% RH
Galvanic isolation	Input-output	3 kV RMS	3 kV RMS
	Input/output to mounting rail	3 kV RMS	3 kV RMS
	Input to ground	1.5 kV RMS	1.5 kV RMS
	Output to ground	500 V RMS	500 V RMS
Wire size		0.1…4.0 mm^2 (26…12 AWG)	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.)	127 x 57 x 175 mm (5.00 x 2.24 x 6.9 in.)
Weight		478 g (1.05 lbs.)	880 g (1.94 lbs.)
Mounting position		Horizontal on mounting rail TS35, Chassis	Horizontal on mounting rail TS35, Chassis
Fault relay			Changeover contact, 30 VDC / 125 VAC @ 1 A max.
			Passive Power Factor Correction

Approvals/Certifications		
	CSA, UL 508 Listed, CE	CSA, UL 508 Listed, CE
	CSA Class 1 Div. 2 and Zone 2 for 9927480012 and 9927480024	CSA Class 1 Div. 2 and Zone 2 for 9925340024 and 9925340012
	UL 1310 (Class 2) for 9927480024	

Accessories	Order No.	Order No.
Chassis Mounting Kit	**7920560000**	**7920560000**
Side mount Bracket—DIN rail		**7940000542**

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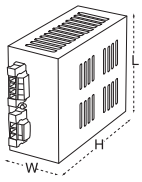
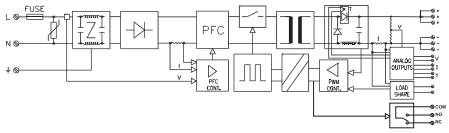


Approvals:

CP SNT 300W

Diagram/Schematic Circuit Diagram



Ordering Data	Type	Order 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		
	Overvoltage	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	Overvoltage	V_{out} > 30 VDC		
	Undervoltage	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		
LED indicator		Current limiting: LED yellow	Fault: LED red	On: LED green
Shut down		Power supply goes to fault mode overvoltage, undervoltage or over temperature for more than 2 sec. fault relay drops out/short circuit		
The 300 W power supply offers		– universal input voltage with PFC (active power factor corrections)		
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		

Approvals/Certifications

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

Accessories	Order No.
Chassis Mounting Kit	**7920560000**[1)]

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

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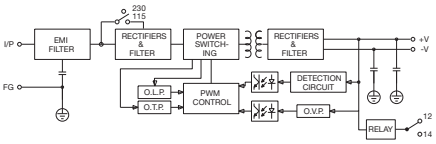
Approvals: CE cULus LISTED

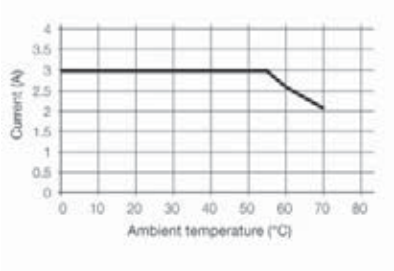
CP SNT 70W 24V 3A

CP SNT 120W 24V 5A

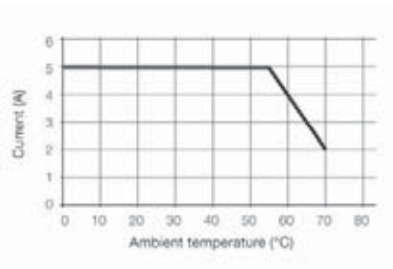


Block diagram for supplies with switchable input voltage

Derating Curves



Derating Curves



Ordering Data	Type	Qty.	Order No.
	CP SNT 70W 24V 3A	1	**8708660000**
	CP SNT 120W 24V 5A	1	**8708670000**

Technical Data			
Input	Input voltage	85…264 VAC; 120…370 VDC	88…132 VAC/176…264 VAC reversible; 250...370 VDC
	Input current	2.0 A @ 100…240 VAC	3.0 A @ 115 VAC; 2.0 A @ 230 VAC
	Input frequency	50/60 Hz	50/60 Hz
	Recommended mains fuse/internal fuse	Fusible link 2.5 A (T) / 250 V	Fusible link 4 A (T) / 250 V
	Overvoltage protection	Varistor	Varistor
Output	Output voltage	24…28 VDC (adjustable via potentiometer)	24…28 VDC (adjustable via potentiometer)
	Output current	3.0 A	5 A
	max. output power	72 W	120 W
	max. residual ripple	100 mV_{p-p} / bandwidth 20 Mhz V RMS	100 mV_{p-p} / bandwidth 20 Mhz V RMS
	Surge capability	105%…150% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart	105%…150% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart
	Overvoltage protection	29…34 V with automatic restart	29…34 V with automatic restart
	Holdup time by mains failure: 115 VAC / 230 VAC	10 ms / 20 ms	20 ms / 20 ms
	Load regulation	2%	2%
	Redundancy or load sharing	With diode module recommended	With diode module recommended
	Status relay/change-over contact	250 VAC (max. 30 VDC) / 1A	250 VAC (max. 30 VDC) / 1A
Insulation co-ordination			
	Galvanic isolation output-ground	0.5 kVAC	0.5 kVAC
	Galvanic isolation input-ground	1.5 kVAC	1.5 kVAC
	Galvanic isolation input-output	3 kVAC	3 kVAC

General Specifications			
Temperature	Operating	-10°C…+55°C (+14°F…+131°F)	-10°C…+55°C (+14°F…+131°F)
	Storage	-20°C…+85°C (-4°F…+185°F)	-20°C …+85°C (-4°F…+185°F)
Efficiency under max. load		80%	84%
Status display		LED green	LED green
Standards		EN 60950	EN 60950
EMC standards		EN 55011, EN 55022, EN 55024, EN 61000-6-2, 3	EN 55011, EN 55022, EN 55024, EN 61000-6-2, 3
Power factor correction		no	no
Mounting position		Horizontal on mounting rail TS35	Horizontal on mounting rail TS35
Mounting clearance		above/below ≥ 3 cm	above/below ≥ 3 cm
Weight		approx. 0.55 kg (1.21 lbs.)	approx. 0.65 kg (1.43 lbs)
Type of connection		Screw	Screw
Clamping area		0.1…4.0 mm^2 (26…12 AWG)	0.1…4.0 mm^2 (26…12 AWG)
Dimensions (L x W x H)		125 x 55.5 x 110.0 mm (4.92 x 2.18 x 4.33 in.)	125 x 65.5 x 110.0 mm (4.92 x 2.58 x 4.33 in.)

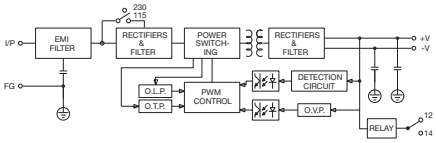
Approvals/Certifications		
	CE cULus 508 GL 60950, GL	CE cULus 508 GL 60950, GL

connectPower
POWER FOR AUTOMATION

Approvals: CE cULus LISTED

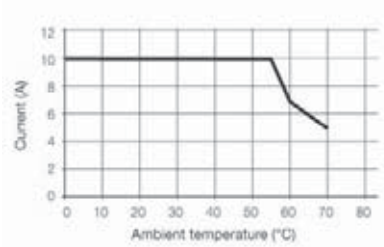
CP SNT 250W 24V 10A

CP SNT 500W 24V 20A

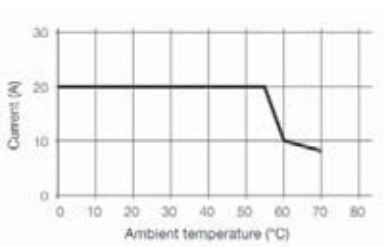


Block diagram for supplies with switchable input voltage

Derating Curves



Derating Curves



Ordering Data	Type	Qty.	Order No.	Type	Qty.	Order No.
	CP SNT 250W 24V 10A	1	**8708680000**	CP SNT 500W 24V 20A	1	**8778870000**

Technical Data			
Input	Input voltage	88…132 VAC / 176…264 VAC reversible; 250…370 VDC	88…132 VAC / 176…264 VAC reversible; 250…370 VDC
	Input current	3.6 A @ 115 VAC / 2.0 A @ 230 VAC	9.0 A @ 115 VAC / 6.0 A @ 230 VAC
	Input frequency	50/60 Hz	50/60 Hz
	Recommended mains fuse/internal fuse	Fusible link 5 A (T) / 250 V	Fusible link 10 A (T) / 250 V
	Overvoltage protection	Varistor	Varistor
Output	Output voltage	24…28 VDC (adjustable via potentiometer)	24…28 VDC (adjustable via potentiometer)
	Output current	10 A	20 A up to 40°C @ 110 VAC
	max. output power	240 W	240–480 W
	max. residual ripple	100 mV_{p-p} / bandwidth 20 Mhz	100 mV_{p-p} / bandwidth 20 Mhz
	Surge capability	105%…150% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart	105%…150% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart
	Overvoltage protection	30…36 V with automatic restart	30…36 V with automatic restart
	Holdup time by mains failure: 115 VAC / 230 VAC	10 ms / 15 ms	10 ms / 15 ms
	Load regulation	2%	2%
	Redundancy or load sharing	With diode module recommended	With diode module recommended
	Status relay/change-over contact	250 VAC (max. 30 VDC) / 1A	250 VAC (max. 30 VDC) / 1A
Insulation co-ordination	Galvanic isolation output-ground	0.5 kVAC	0.5 kVAC
	Galvanic isolation input-ground	1.5 kVAC	1.5 kVAC
	Galvanic isolation input-output	3 kVAC	3 kVAC

General Specifications			
Temperature	Operating	-10°C…+55°C (+14°F…+131°F)	-10°C…+55°C (+14°F…+131°F)
	Storage	-20°C…+85°C (-4°F…+185°F)	-20°C…+85°C (-4°F…+185°F)
Efficiency under max. load		84%	86%
DC output status display		LED green	LED green
Standards		EN 60950	EN 60950
EMC standards		EN 55011, EN 55022, EN 55024, EN 61000-6-2, 3	EN 55011, EN 55022, EN 55024, EN 61000-6-2, 3
Power factor correction		yes	yes
Mounting position		Horizontal on mounting rail TS35	Horizontal on mounting rail TS35
Mounting clearance		above/below ≥ 3 cm	above/below ≥ 3 cm
Weight		approx. 1.6 kg (3.5 lbs.)	approx. 2 kg (4.4 lbs.)
Type of connection		Screw	Screw
Clamping area		0.1…4.0 mm^2 (26…12 AWG)	0.1…4.0 mm^2 (26…12 AWG)
Dimensions (L x W x H)		125 x 125.5 x 110.0 mm (4.92 x 4.94 x 4.33 in.)	125 x 227.5 x 110.0 (4.92 x 8.96 x 4.33 in.)

Approvals/Certifications		
	CE cULus 508 60950, GL	CE cULus 508 60950, GL

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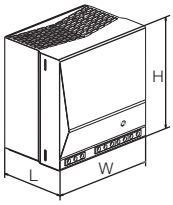
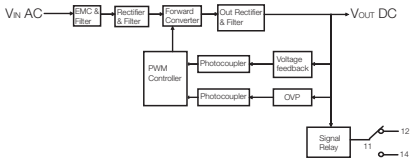
POWER FOR AUTOMATION

CP SNT 1000W 24V 40A

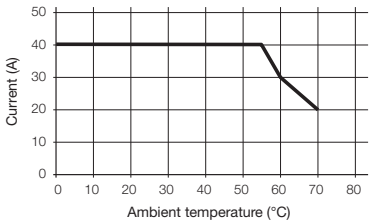


Approvals: CE cULus LISTED



Block diagram for supplies with switchable input voltage

Derating Curves



Ordering Data	Type	Qty.	Order No.
	CP SNT 1000W 24V 40A	1	**8862780000**

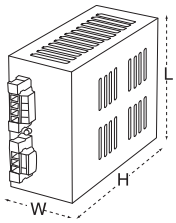
Technical Data		
Input	Input voltage	85…264 V AC
	Input current	12 A @ 115 V AC / 4,8 A @ 230 V AC
	Input frequency	50/60 Hz
	Recommended mains fuse/internal fuse	Fusible link 15 A (T) / 250 V
	Overvoltage protection	Varistor
Output	Output voltage	24…28 VDC (adjustable via potentiometer)
	Output current	40 A
	max. output power	960 W
	max. residual ripple	< 100 mV_{SS} / bandwidth 20 Mhz
	Surge capability	105%…125% $I_{const.}$ of max. output power, automatic restart
	Overvoltage protection	29...34 V
	Holdup time by mains failure: 115 VAC / 230 VAC	20 ms @ 115 V AC / 20 ms @ 230 V AC
	Load regulation	< 2%
	Redundancy or load sharing	With diode module recommended
	Status relay/change-over contact	250 VAC (max. 30 VDC) / 1A
Insulation co-ordination	Galvanic isolation output-ground	0.5 kV
	Galvanic isolation input-ground	1.5 kV
	Galvanic isolation input-output	3 kV

General Specifications		
Temperature	Operating	-10°C…+55°C (+14°F…+131°F)
	Storage	-20°C…+85°C (-4°F…+185°F)
Efficiency under max. load		89%
DC output status display		LED green
Standards		EN 60950 (SELV)
EMC standards		EN 55011, EN 55022, EN 55024, EN 61000-6-2, 3
Power factor correction		yes
Mounting position		Horizontal on mounting rail TS35
Mounting clearance		above/below ≥ 3 cm
Weight		4.4 kg (9.7 lbs.)
Type of connection		Screw
Clamping area		4 / 0.13 / 6
Dimensions (L x W x H)		125 x 240 x 150 mm (4.92 x 9.44 x 5.90 in.)

Approvals/Certifications	
	CE / UL pending cULus 508 VDE 60950 pending

Note: For redundancy or correct function of the signal relays use a diode module

connectPower
POWER FOR AUTOMATION

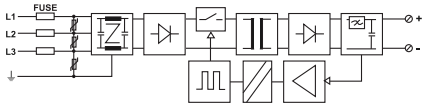


Approvals:

CP SNT 55W 2.3A
3 Phase Input

CP SNT 160W 6.5A
3 Phase Input

Diagram/Schematic Circuit Diagram



Ordering Data	Type	Order No.	Type	Order No.
	CP SNT 55W 2.3A 3 Phase		CP SNT 160W 6.5A 3 Phase	
Output voltage/maximum current	24 VDC / 2.3 A	**9917790324**	**24 VDC-28 VDC / 6.5 A**	**9925340324**

Technical Data			
Input voltage	**Minimum**	**306 VAC**	**342 VAC**
	Typical	**360 - 480 VAC**	**480 VAC**
	Maximum	**550 VAC**	**528 VAC**
Input current	**at 360 VAC**	**120 mA / Phase**	**0.36 A / Phase**
(Average values for reference only)	**at 230 VAC**	**100 mA / Phase**	**0.34 A / Phase**
Input protection	Fuse	3 x 1 A slow fuse (internal)	3 x 12 A slow fuse (internal)
	Inrush Current	Thermistor	Thermistor
	Overvoltage	Varistor	Varistor
Switching frequency		100 kHz	100 kHz PWM
Efficiency at maximum load		85%	83%
Maximum ripple		0.1% RMS	0.2% RMS
Regulation	Load (10-100% load)	1.0%	2%
	at Input voltage	0.8%	0.5%
Fault relay			Changeover contact, 30 VDC / 125 VAC @ 1 A max.
Output surge		10A / 180 ms typ.	13A / 1 sec.
Overload protection		Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit	Overcurrent shutdown with automatic restart plus thermal shutdown/short circuit
Maximum capacitance at output		10,000 µF	10,000 µF
Parallel connection for load sharing			up to 3 devices (passive current division)
Hold time	at 360 VAC	120 ms	10 ms
(Maximum output current following input loss)	at 480 VAC	120 ms	15 ms
Temperature	Storage	-40°C…+85°C (-40°F…+185°F)	-40°C…+85°C (-40°F…+185°F)
	Operating	-25°C…+50°C (-13°F…+122°F) full rated load Derating: 10% at 60°C (140°F)	-20°C…+50°C (-4°F…+122°F)
Humidity	Operating	20…85% RH non-condensing	20…85% RH non-condensing
	Storage	20…90% RH non-condensing	20…90% RH
Galvanic isolation	Input-output	3 kV RMS	3 kV RMS
	Input/output to mounting rail	3 kV RMS	3 kV RMS
	Input to ground	1.5 kV RMS	1.5 kV RMS
	Output to ground	500 V RMS	500 V RMS
Wire size		0.1…4.0 mm² (26…12 AWG)	0.1…4.0 mm² (26…12 AWG)
Dimensions (L x W x H)		108 x 60 x 168 mm (4.25 x 2.36 x 6.61 in.)	138.2 x 58.4 x 177.8 mm (5.44 x 2.3 x 7 in.)
Weight		526 g (1.16 lbs.)	993 g (2.2 lbs.)
Mounting position		Horizontal on mounting rail TS35, Chassis	Horizontal on mounting rail TS35, Chassis

Approvals/Certifications		
	CSA, cULus 508 Listed, CE	cULus 508 Listed, CE

Accessories	Order No.	Order No.
Chassis Mounting Kit	**7920560000**	**7920560000**
L Bracket Mounting Kit—Panelmount	**7940000543**	**7940000543**
Side mount Bracket—DIN rail		**7940000542**

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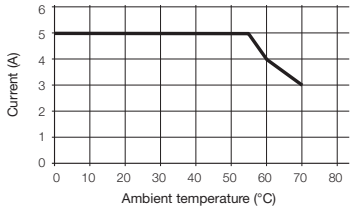
POWER FOR AUTOMATION

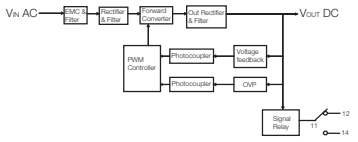
Approvals: CE cULus LISTED cURus

CP SNT3 120W 24V 5A

Derating Curves



Diagram/Schematic Circuit Diagram



Ordering Data	Type	Qty.	Order No.
	CP SNT3 120W 24V 5A	1	**8862730000**

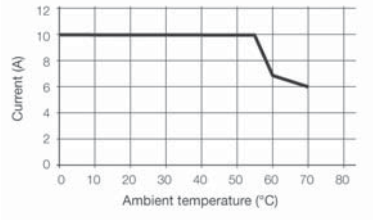
Technical Data		
Input	Input voltage	3x400 VAC / 340…575 VAC
	Input current	0.8 A @ 400 VAC
	Input frequency	47…63 Hz
	Recommended mains fuse	external via 3 circuit-breakers up to 6…16 A, char. C
Output	Output voltage	24…28 VDC (adjustable via potentiometer)
	Output current	5 A
	max. output power	120 W
	max. residual ripple	< 100 mV_{SS} / bandwidth 20 MHz
	Surge capability	105%…130% $I_{const.}$ of max. output power, automatic restart
	Overvoltage protection	29...34 V with automatic restart
	Holdup time when 400 VAC mains fail	> 20 ms at nominal load
	Load regulation	< 2%
	Redundancy or load sharing	recommended with diode module
	Status relay/change-over contact	250 VAC (max. 30 VDC) / 1 A
Insulation co-ordination	Galvanic isolation output-ground	0.5 kVAC
	Galvanic isolation input-ground	1.5 kVAC
	Galvanic isolation input-output	3 kVAC

General Specifications		
Temperature	Operating	-10°C…+55°C (+14°F…+131°F)
	Storage	-20°C…+85°C (-4°F…+185°F)
Efficiency under max. load		85% @400 VAC
Status display		LED green
Standards		EN 60950 (SELV)
EMC standards		EN 55011, EN 55022, EN 55024, EN 61000-6-2,-3
Power factor correction		
Mounting position		Horizontal on mounting rail TS 35
Mounting clearance		above/below ≥ 3 cm
Weight		1.5 kg (3.31 lbs.)
Type of connection		Screw
Clamping area		4 / 0.13 / 4 mm^2 (12 / 26 / 12 AWG)
Dimensions (L x W x H)		110 x 90 x 125 mm (4.33 x 3.54 x 4.92 in.)

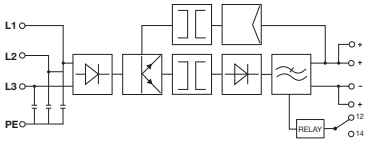
Approvals/Certifications	
	CE, cULus 508, cURus 60950 Note: For redundant operation or for maintaining fault signalling function - operate with diode module only.

CP SNT3 250W 24V 10A

Derating Curves



Diagram/Schematic Circuit Diagram



Ordering Data	Type	Qty.	Order No.
	CP SNT3 250W 24V 10A	1	**8708700000**

Technical Data		
Input	Input voltage	3 x 400 VAC / 340 min…575 max VAC
	Input current	0.95 A @ 400 VAC
	Input frequency	47…63 Hz
	Recommended mains fuse	external via 3 circuit breakers up to 6 A, trip curve characteristic C
Output	Output voltage	24…28 VDC (adjustable via potentiometer)
	Output current	10 A
	max. output power	250 W
	max. residual ripple	< 100 mV_{p-p} / bandwidth 20 MHz
	Surge capability	105%…130% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart
	Overvoltage protection	29...34 V with automatic restart
	Holdup time when 400 VAC mains fail	> 10 ms at nominal load
	Load regulation	< 2%
	Redundancy or load sharing	directly with same type (maximum 2 power supplies of same rating), alternatively with diode module
	Status relay/change-over contact	250 VAC (max. 30 VDC) / 1 A
Insulation co-ordination	Galvanic isolation output-ground	0.5 kVAC
	Galvanic isolation input-ground	1.5 kVAC
	Galvanic isolation input-output	3 kVAC

General Specifications		
Temperature	Operating	-10°C…+55°C (+14°F…+131°F)
	Storage	-20°C…+85°C (-4°F…+185°F)
Efficiency under max. load		88%
Status display		LED green
Standards		EN 60950 (SELV)
EMC standards		EN 55011, EN 55022, EN 55024, EN 61000-6-2,-3
Power factor correction		yes
Mounting position		Horizontal on mounting rail TS 35
Mounting clearance		above/below ≥ 3 cm
Weight		approx. 1.5 kg (3.31 lbs.)
Type of connection		Screw
Clamping area		4 / 0.13 / 6 mm^2 (12 / 26 / 10 AWG)
Dimensions (L x W x H)		125 x 125.5 x 110 mm (4.92 x 4.94 x 4.33 in.)

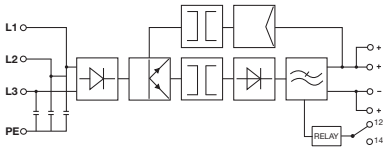
Approvals/Certifications	
	cULus 508 Listed, cURus 60950, CE, GL

connectPower
POWER FOR AUTOMATION

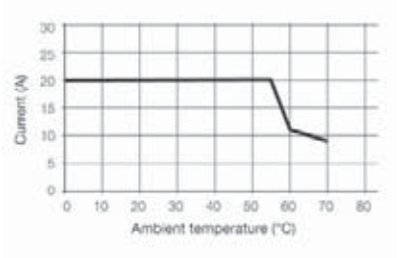
CP SNT3 500W 24V 20A

Approvals: CE, cULus LISTED, cURus

Block diagram

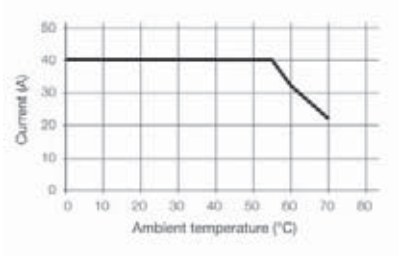


Derating Curves



CP SNT3 1000W 24V 40A

Derating Curves



Ordering Data	Type	Qty.	Order No.	Type	Qty.	Order No.
	CP SNT3 500 W 24V 20A	1	**8708710000**	CP SNT3 1000W 24V 40A	1	**8708730000**

Technical Data			
Input	Input voltage	3 x 400 VAC / 340 min…575 max VAC	3 x 400 VAC / 340 min…575 max VAC
	Input current	1.7 A @ 400 VAC	3.4 A @ 400 VAC
	Input frequency	47…63 Hz	47…63 Hz
	Recommended mains fuse	external via 3 circuit breakers up to 16 A, trip curve characteristic C	external via 3 circuit breakers up to 16 A, trip curve characteristic C
Output	Output voltage	24…28 VDC (adjustable via potentiometer)	24…28 VDC (adjustable via potentiometer)
	Output current	20 A	40 A
	max. output power	480 W	960 W
	max. residual ripple	< 100 mV_{p-p} / bandwidth 20 MHz	< 100 mV_{p-p} / bandwidth 20 MHz
	Surge capability	105%…130% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart	105%…130% $I_{const.}$ of max. output power for up to 5 seconds, automatic restart
	Overvoltage protection	29...34 V with automatic restart	29...34 V with automatic restart
	Holdup time when 400 VAC mains fail	> 10 ms at nominal load	> 10 ms at nominal load
	Load regulation	< 2%	< 2%
	Redundancy or load sharing	directly with same type (maximum 2 power supplies of same rating), alternatively with diode module	directly with same type (maximum 2 power supplies of same rating)
	Status relay/change-over contact	250 VAC (max. 30 VDC) / 1 A	250 VAC (max. 30 VDC) / 1 A
Insulation co-ordination	Galvanic isolation output-ground	0.5 kVAC	0.5 kVAC
	Galvanic isolation input-ground	1.5 kVAC	1.5 kVAC
	Galvanic isolation input-output	3 kVAC	3 kVAC

General Specifications			
Temperature	Operating	-10°C…+55°C (+14°F…+131°F)	-10°C…+55°C (+14°F…+131°F)
	Storage	-20°C …+85°C (-4°F…+185°F)	-20°C…+85°C (-4°F…+185°F)
Efficiency under max. load		88%	88%
Status display		LED green	LED green
Standards		EN 60950 (SELV)	EN 60950 (SELV)
EMC standards		EN 55011, EN 55022, EN 55024, EN 61000-6-2,-3	EN 55011, EN 55022, EN 55024, EN 61000-6-2,-3
Power factor correction		yes	yes
Mounting position		Horizontal on mounting rail TS 35	Horizontal on mounting rail TS 35
Mounting clearance		above/below ≥ 3 cm	above/below ≥ 3 cm
Weight		approx. 3.0 kg (6.6 lbs.)	approx. 3.0 kg (6.6 lbs.)
Type of connection		Screw	Screw
Clamping area		4 / 0.13 / 6 mm^2 (12 / 26 / 10 AWG)	4 / 0.13 / 6 mm^2 (12 / 26 / 10 AWG)
Dimensions (L x W x H)		125 x 227.5 x 110.0 mm (4.92 x 8.96 x 4.33 in.)	125 x 280 x 150 mm (4.92 x 11.02 x 5.91 in.)

Approvals/Certifications		
	cULus 508 Listed, cURus 60950, CE, GL	cULus 508 Listed, cURus 60950, CE, GL