



Power Supplies - Switching CPS 3-Phase Series



CPSB3-120-24

Overview

LUTZE 3-phase Compact power supply series are reliable 24VDC and equipped with an efficiency rating of over 91%, resulting in low power loss and low heat dissipation. The integrated power boost function allows for higher peak loads to be energized for a short period of time. An advantage of the remote on/off function is the convenience to remotely switch the unit on and off, therefore significantly reducing energy consumption. Additionally, status indication via a status output relay allows for remote monitoring.

Features

- Aluminum housing
- 35mm DIN rail mount
- IP20 rated
- 5 year warranty
- Superior power output to size ratio



Power Supplies - Switching CPS 3-Phase Series Selection Chart

Part Number	Price	Output Voltage	Output Current	Output Power	Input Voltage	Power Boost	Remote On/Off Function	Dimensions (W x H x D)	Drawing Link
CPSB3-120-24	\$165.00	24VDC	5A	120W	350-575 VAC	150% for 5s	Yes	55 x 129 x 133mm [2.16 x 5.07 x 5.23 in]	PDF
CPSB3-240-24	\$215.00		10A	240W					PDF
CPSB3-960-24 *	\$495.00		40A	960W	400-500 VAC		No	80 x 127 x 137.5 mm [3.14 x 5 x 5.41 in]	PDF

* Requires an external fuse.

Power Supplies - Switching CPS 3-Phase Series Input Specifications

Part Number	CPSB3-120-24	CPSB3-240-24	CPSB3-960-24
Operation Voltage Range	350-575 VAC	350-575 VAC	340-550 VAC 520-725 VDC
Frequency Range	47-63Hz		
Rated Current	0.35 A @ 400VAC 0.3 A @ 500VAC	0.59 A @ 400VAC 0.50 A @ 500VAC	2.4 A @ 400VAC 2.1 A @ 500VAC
Inrush Current	30A @ 400VAC 39A @ 500VAC	36A @ 400VAC 40A @ 500VAC	≤50A / 1.86 A ² s
Power Factor Correction	> 0.5	> 0.6	> 0.7
Recommended Circuit Breaker	(3) B-curve 6A	(3) B-curve 6A	(3) C-curve 10A

Power Supplies - Switching CPS 3-Phase Series Output Specifications

Part Number	CPSB3-120-24	CPSB3-240-24	CPSB3-960-24
Maximum Output Current	7.5 A 6A (Hiccup 2s)	15A 12A (Hiccup 2s)	44A 60A (Hiccup, 5s)
Power Dissipation	< 11.5 W, < 2.1 W (stand-by)	< 18W, < 2.0 W (stand-by)	< 78W
Setting Range	22.5-29 VDC	22.5-29 VDC	23-28 VDC
Load Regulation	max. 0.4% 350-550 VAC max. 2.9% parallel mode	max. 0.6% 350-550 VAC max. 3.1% parallel mode	<1%
Ripple And Noise	< 30mV pp	< 40mV pp	< 150mV pp
Hold-Up Time	> 23ms @ 400VAC > 43ms @ 500VAC	> 22ms @ 400VAC > 44ms @ 500VAC	> 15ms
Parallel / Redundant Mode	Yes, via external decoupling diode (max 3 devices)		Yes, via external decoupling diode (max 2 devices)
Efficiency (Typical)	91.3 % @ 400VAC 91.2 % @ 500VAC	93.1 % @ 400VAC 93.2 % @ 500VAC	> 92.5 % @ 400VAC
Short-Circuit	Hiccup, Current Limit		Adjustable, Hiccup, Current Limiting
MTBF	184,000h @ 400VAC 162,000h @ 500VAC	184,000h @ 400VAC 162,000h @ 500VAC	500,000h

Power Supplies - Switching CPS Series

Power Supplies - Switching CPS 3-Phase Series General Specifications				
Series	ECO Series 1-Phase	Ultra Series 1-Phase	Universal Series - 1/2/3 Phase	3-Phase Series
Overvoltage Protection	≤ 33VDC			CPSB3-120-24 <32V CPSB3-240-24 <32V CPSB3-960-24 <33VDC
Overtemperature Protection	Yes			
Status Indicators	DC ON LED (green): ≥ 21.6 V DC LOW LED (red): ≤ 21.6 V		CPSB-123-240-24 DC ON LED (green): ≥ 21.6 V DC LOW LED (red): ≥ 21.6 V CPSB-123-480-24 DC ON LED (green): ≥ 21.6 V DC LOW LED (red): I _{out} > 1.1I _n	CPSB3-120-24 CPSB3-240-24 DC OK LED (green) ON U _{out} > 95% U _{set} OFF U _{out} > 90% U _{se} CPSB3-960-24 DC ON LED (green): ≥ 21.6 V DC LOW LED (red): ≥ 21.6 V
Humidity	5 to 95%, non-condensing			
Vibration	IEC 60068-2-6			
Shock	IEC 60068-2-27			
Protection Rating	IP20			
Mounting	35mm DIN rail (vertical)			
Housing Material	Aluminum (enclosed)			
Agency Approval	CE, UKCA, cULus E249179			

Additional Data							
Part Number	Weight kg [lb]	Operating Temperature	Storage Temperature	Terminal Type	Solid Wire Size*		Tightening Torque
					Output	Input	
<u>CPSB1-120-24E</u>	0.45 [0.99]	-40 to 70°C [-40 to 158°F]	-40 to 80°C [-40 to 176°F]	Screw	0.20 – 2.5mm ² [AWG 24-14]	0.20 – 2.5mm ² [AWG 24-14]	0.5 – 0.6 N•m [4.42 – 5.30 lb•ft]
<u>CPSB1-240-24E</u>	0.75 [1.65]						
<u>CPSB1-480-24E</u>	1 [2.20]						
<u>CPS2B1-120-24</u>	0.45 [0.99]	-35 to 70°C [-31 to 158°F]	-40 to 80°C [-40 to 176°F]	Screw	0.20 – 2.5mm ² [AWG 24-14]	0.20 – 2.5mm ² [AWG 24-14]	0.5 – 0.6 N•m [4.42 – 5.30 lb•ft]
<u>CPS2B1-240-24</u>	0.75 [1.65]						
<u>CPS2B1-480-24</u>	1.1 [2.42]						
<u>CPSB-123-240-24</u>	0.65 [1.43]	-40 to 70°C [-40 to 158°F]	-40 to 80°C [-40 to 176°F]	Screw	0.20 – 2.5mm ² [AWG 30-12]	0.20 – 2.5mm ² [AWG 30-12]	0.5 – 0.6 N•m [4.42 – 5.30 lb•ft]
<u>CPSB-123-480-24</u>	1 [2.20]				0.20 – 2.5mm ² [AWG 24-14]	0.20 – 2.5mm ² [AWG 24-14]	
<u>CPSB3-120-24</u>	0.66 [1.45]	-25 to 70°C [-13 to 158°F]	-40 to 85°C [-40 to 185°F]	Push-in	0.20 – 2.5mm ²	0.20 – 2.5mm ²	–
<u>CPSB3-240-24</u>	0.78 [1.71]				0.20 – 2.5mm ²	0.20 – 2.5mm ²	–
<u>CPSB3-960-24</u>	1.3 [2.86]	-40 to 70°C [-40 to 158°F]	-40 to 80°C [-40 to 176°F]	Screw	0.20 – 10mm ² [AWG 24-14]	0.20 – 10mm ² [AWG 24-14]	max. 62 N•m

* For other types of wire please see the insert.