

Technical Data and Specifications

PSC Series

	PSC30E24RP	PSC50E24RP	PSC100E24RP
Input			
Nominal voltage	100–240 Vac / 50–60 Hz	100–240 Vac / 50–60 Hz	100–240 Vac / 50–60 Hz
AC input range	85–264 Vac	85–264 Vac	85–264 Vac
DC input range	120–375 Vdc	120–375 Vdc	120–375 Vdc
Input frequency range	47–63 Hz	47–63 Hz	47–63 Hz
Nominal current	<0.8 A at 115 Vac, <0.4 A at 230 Vac	<1.0 A at 115 Vac, <0.6 A at 230 Vac	<1.2 A at 115 Vac, <0.6 A at 230 Vac
Inrush current limitation	<35 A at 115 Vac, <60 A at 230 Vac	<35 A at 115 Vac, <60 A at 230 Vac	<35 A at 115 Vac, <60 A at 230 Vac
Mains buffering at nominal load	20 ms typ. at 115 Vac, 100 ms typ. at 230 Vac	20 ms typ. at 115 Vac, 90 ms typ. at 230 Vac	25 ms typ. at 115 Vac, 50 ms typ. at 230 Vac
Turn-on time	<3 sec. at 115 Vac, <1.6 sec. at 230 Vac	<3 sec. at 115 Vac, <1.5 sec. at 230 Vac	<3 sec. at 115 Vac, <1.5 sec. at 230 Vac
Internal fuse	T 3.15 A / 250 V	T 3.15 A / 250 V	T 3.15 A / 250 V
Leakage current	<1 mA at 240 Vac	<1 mA at 240 Vac	<1 mA at 240 Vac
Output			
Power	30 W	50 W	91.2 / 96 W
Nominal output voltage	24 Vdc ±2%	24 Vdc ±2%	24 Vdc ±2%
Adjustment range	24–28 Vdc (Maximum power ≤ 30 W)	24–28 Vdc (Maximum power ≤ 50 W)	22–24 Vdc (Maximum power ≤ 91.2W)
Nominal current	1.25 A	2.1 A	3.8 A
Derating	–10 °C to –20 °C (2% / °C), >55 °C (3.33% / °C) in Vertical	–10 °C to –20 °C (2% / °C), >55 °C (3.33% / °C) in Vertical	–10 °C to –20 °C (2% / °C), >55 °C (3.33% / °C) in Vertical
Power derating—horizontal mounting	N/A	N/A	N/A
Startup with capacitive loads	Max. 3,000 µF	Max. 3,000 µF	Max. 3,000 µF
Max. power dissipation idling / nominal load approx.	0.5 W / 4.5 W	0.5 W / 7 W	0.4 W / 10 W
Efficiency	87.0% typ. at 115 Vac, 88.0% typ. at 230 Vac	86.0% typ. at 115 Vac, 88.0% typ. at 230 Vac	87.0% typ. at 115 Vac, 89.0% typ. at 230 Vac
Residual ripple/peak switching (20 M Hz)	<75 mVpp	<75 mVpp	<75 mVpp
Parallel operation	PSG480R24RM / PSG960R24RM / With o-ring Diode	PSG480R24RM / PSG960R24RM / With o-ring Diode	PSG480R24RM / PSG960R24RM / With o-ring Diode
Galvanic isolation			
Input/output	3.0K Vac	3.0K Vac	3.0K Vac
Input/ground	3.0K Vac	3.0K Vac	3.0K Vac
Output/ground	0.5K Vac	0.5K Vac	0.5K Vac
General / physical data			
Housing material	Plastic (PC), enclosed	Plastic (PC), enclosed	Plastic (PC), enclosed
Signals	Green LED DC OK	Green LED DC OK	Green LED DC OK
MTBF	>350,000 hr	>350,000 hr	>350,000 hr
Dimensions (length)	75 mm	75 mm	75 mm
Dimensions (width)	21 mm	30 mm	45 mm
Dimensions (height)	89.5 mm	89.5 mm	100 mm
Weight (kg)	0.11 kg	0.18 kg	0.325 kg
Terminals	Finger safe	Finger safe	Finger safe
Wire size	AWG 22-12 / AWG 20-12	AWG 22-12 / AWG 20-12	AWG 22-12 / AWG 20-12
Operating temperature	–20 °C to +70 °C	–20 °C to +70 °C	–20 °C to +70 °C
Storage temperature	–40 °C to +85 °C	–40 °C to +85 °C	–40 °C to +85 °C
Operating humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH

PSC Series, continued

	PSC30E24RP	PSC50E24RP	PSC100E24RP
General / physical data, continued			
Vibration			
Operating	IEC60068–2–6, sine wave: 10 Hz to 500 Hz at 19.6 m/s ² ; displacement of 0.35 mm, 60 min. per axis for all X, Y, Z directions	IEC60068–2–6, sine wave: 10 Hz to 500 Hz at 19.6 m/s ² ; displacement of 0.35 mm, 60 min. per axis for all X, Y, Z directions	IEC60068–2–6, sine wave: 10 Hz to 500 Hz at 19.6 m/s ² ; displacement of 0.35 mm, 60 min. per axis for all X, Y, Z directions
Non-operating	IEC60068–2–6, Random: 5 Hz to 500 Hz (2.09 Grms); 20 min. per axis for all X, Y, Z directions	IEC60068–2–6, Random: 5 Hz to 500 Hz (2.09 Grms); 20 min. per axis for all X, Y, Z directions	IEC60068–2–6, Random: 5 Hz to 500 Hz (2.09 Grms); 20 min. per axis for all X, Y, Z directions
Shock (operating)			
Operating	IEC60068–2–27, half sine wave: 10 G for a duration of 11 ms, shock for 1 direction (X axis)	IEC60068–2–27, half sine wave: 10 G for a duration of 11 ms, shock for 1 direction (X axis)	IEC60068–2–27, half sine wave: 10 G for a duration of 11 ms, shock for 1 direction (X axis)
Non-operating	IEC60068–2–27, half sine wave: 50 G for a duration of 11 ms, 3 shocks for each 3 directions	IEC60068–2–27, half sine wave: 50 G for a duration of 11 ms, 3 shocks for each 3 directions	IEC60068–2–27, half sine wave: 50 G for a duration of 11 ms, 3 shocks for each 3 directions
Pollution degree	2	2	2
Altitude	2000 m	2000 m	2000 m
Certification and protection			
Safety entry low voltage	SELV (EN 60950)	SELV (EN 60950)	SELV (EN 60950)
Electrical safety (of information technology equipment)	N/A	N/A	N/A
Industrial control equipment	UL/C–UL listed to UL 508	UL/C–UL listed to UL 508	UL/C–UL listed to UL 508
Class 2 power supply	UL/C–UL listed to UL 508	UL/C–UL listed to UL 508	UL/C–UL listed to UL 508
CE	In conformance with EMC directive 2014/30/EU and low-voltage directive 2014/35/EU	In conformance with EMC directive 2014/30/EU and low-voltage directive 2014/35/EU	In conformance with EMC directive 2014/30/EU and low-voltage directive 2014/35/EU
Immunity	EN 55024, EN 61000–6–1, EN 61000–6–2 (EN 61000–4–2, 3, 4, 5, 6, 8, 11)	EN 55024, EN 61000–6–1, EN 61000–6–2 (EN 61000–4–2, 3, 4, 5, 6, 8, 11)	EN 55024, EN 61000–6–1, EN 61000–6–2 (EN 61000–4–2, 3, 4, 5, 6, 8, 11)
Emissions	EN 55032, EN 55011, EN 61000–3–3, EN 61000–6–3, EN 61000–6–4	EN 55032, EN 55011, EN 61000–3–3, EN 61000–6–3, EN 61000–6–4	EN 55032, EN 55011, EN 61000–3–3, EN 61000–6–3, EN 61000–6–4
RoHS compliant	Yes	Yes	Yes
Safety and protection			
Current limitation at short–circuits approx.	N/A	N/A	N/A
Surge voltage protection against internal surge voltages	No	No	No
Protection degree	IP20	IP20	IP20
Safety class	Class I with primary earth connection	Class I with primary earth connection	Class I with primary earth connection