SERIES: PSK-20G | **DESCRIPTION:** INTERNAL AC-DC POWER SUPPLY

FEATURES

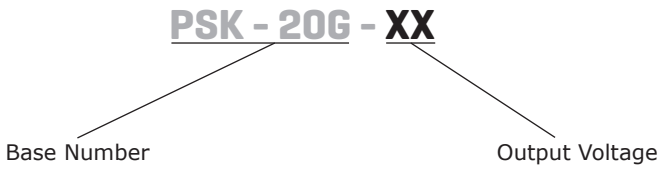
- universal input 90 ~ 264 Vac
- high efficiency up to 87%
- compact size (2.48 x 1.40 inch)
- low no load power consumption (<0.1 W)
- certified to IEC/EN/UL 62368-1
- designed to meet IEC/EN 60335-1
- operating temperature -40 ~ 80°C (with derating)
- class II
- over voltage (OVC II & OVC III) and short-circuit protection
- operating altitude 5,000 m
- CISPR/FCC Class B



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency[2] typ (%)
PSK-20G-5	5	4.0	20	100	84
PSK-20G-12	12	1.67	20	120	86
PSK-20G-15	15	1.34	20	150	86
PSK-20G-24	24	0.83	20	240	86
PSK-20G-48	48	0.42	20	480	87

Notes: 1. Ripple & noise are measured at 20 MHz BW with 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor.
2. Typical efficiency at 230 Vac and full load at 25°C.
3. Unless otherwise specified, all indicators in this manual are measured at Ta=25 °C, humidity<75% RH, nominal input voltage, and output rated load.

PART NUMBER KEY



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INPUT

parameter	conditions/description	min	typ	max	units
voltage[4]	ac input dc input	90 120	100~240	264 370	Vac Vdc
frequency		47	50~60	63	Hz
current	at full load, 100 Vac			0.6	A
inrush current	at 240 Vac, cold start at 25°C		35		A
leakage current				0.1	mA
no load power consumption				0.1	W

Notes: 4. The safety approvals only apply to the ac input.

OUTPUT

parameter	conditions/description	min	typ	max	units
capacitive load	5 Vdc output model 12 Vdc output model 15 Vdc output model 24 Vdc output model 48 Vdc output model			4,000 1,670 1,340 830 420	µF µF µF µF µF
output voltage accuracy				±2	%
line regulation	low line to high line			±0.5	%
load regulation	10% ~ 100% load			±1	%
hold-up time	at 115 Vac 5 Vdc output model all other outputs		 8 10		 ms ms
switching frequency			65		kHz

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over current protection	auto recovery, hiccup	110		180	%
over voltage protection	latch mode (ac recycle to restart) 5 Vdc output model 12 Vdc output model 15 Vdc output model 24 Vdc output model 48 Vdc output model			 8.0 16.5 19.6 31.5 60.0	 Vdc Vdc Vdc Vdc Vdc
short circuit protection	auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output, for 1 minute			4,300	Vac
safety approvals	certified to 62368-1: IEC, EN, UL designed to meet 60335-1: IEC, EN				
safety class	Class II, IEC/EN/UL 62368-1, Ed.3.0				
EMC emmision	EN 55032:2015+A11:2020, 47 CFR FCC Part 15 Subpart B, ICES-003 Issue7, EN 61204-3:2000, EN 61000-6-3:2007+A1:2011+AC:2012, EN 61000-3-2:2019, EN 61000-3-3:2013+A1:2019, Class B				
conducted disturbance	EN 55032:2015+A11:2020, 47 CFR FCC Part 15 Subpart B, ICES-003 Issue7, EN 61204-3:2000, EN 61000-6-3:2007+A1:2011+AC:2012, Class B				
radiated disturbances	EN 55032:2015+A11:2020, 47 CFR FCC Part 15 Subpart B, ICES-003 Issue7, EN 61204-3:2000, EN 61000-6-3:2007+A1:2011+AC:2012, Class B				
harmonic current emissions	EN 61000-3-2:2019				
voltage fluctuations & flicker	EN 61000-3-3:2013+A1:2019				
EMC immunity	EN 55035:2017+A11:2020, EN 61204-3:2000, EN 61000-6-1:2007				
ESD	IEC 61000-4-2:2008, perf. Criteria A				

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SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
radiated immunity	IEC 61000-4-3:2020, perf. Criteria A				
EFT/burst	IEC 61000-4-4:2012, ±0.5 kV, ± 1kV, perf. Criteria A				
surge	IEC 61000-4-5:2014+A1:2017, L-N: ±0.5 kV, ±1 kV, perf. Criteria A				
conducted immunity	IEC 61000-4-6:2013, perf. Criteria A				
PFMF	IEC 61000-4-8:2009, perf. Criteria A				
voltage dips	IEC 61000-4-11:2020, Dip: 30% Reduction, Dip >95% Reduction, perf. Criteria A				
voltage interruptions	IEC 61000-4-11:2020, >95% Reduction, perf. Criteria B				
MTBF	MIL-HDBK-217F at 25°C	1,300,000			hours
RoHS	yes				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	-40		80	°C
storage temperature		-40		85	°C
storage humidity	non-condensing	0		93	%
operating altitude	IEC/EN/UL 62368-1 OVC II			5,000	m

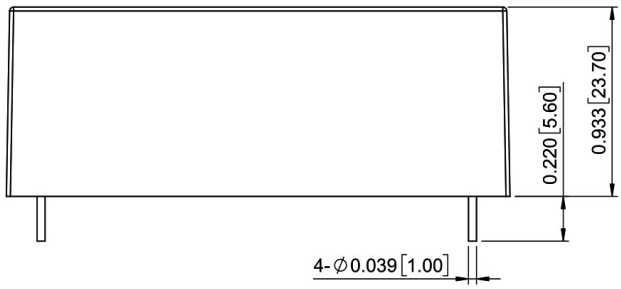
MECHANICAL

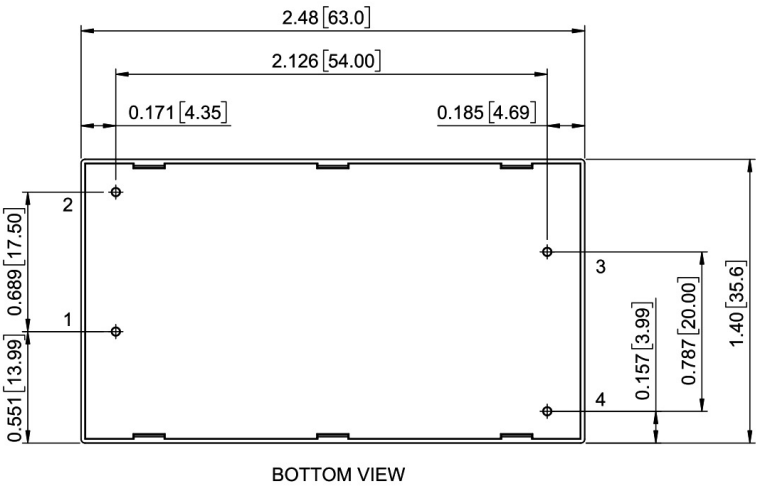
parameter	conditions/description	min	typ	max	units
dimensions	2.48 x 1.40 x 0.933 [63.0x35.6x23.70 mm]				inch
weight			95		g

MECHANICAL DRAWING

units: inch [mm]
tolerance: inch: x.xx=±0.03, x.xxx=±0.020
mm: x.x=±0.7, x.xx=±0.50

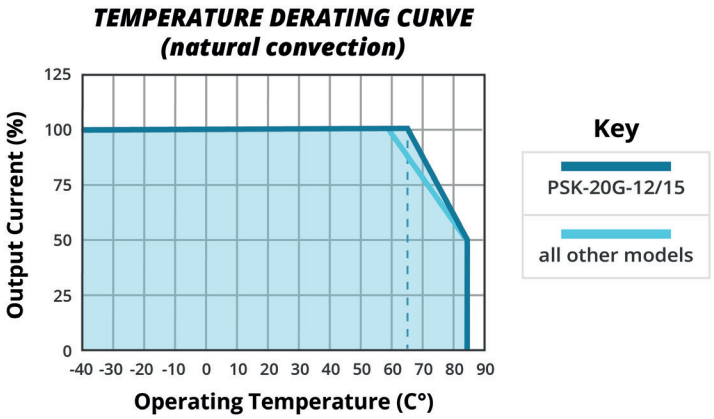
PIN CONNECTIONS	
PIN	Function
1	AC(N)
2	AC(L)
3	+Vo
4	-Vo



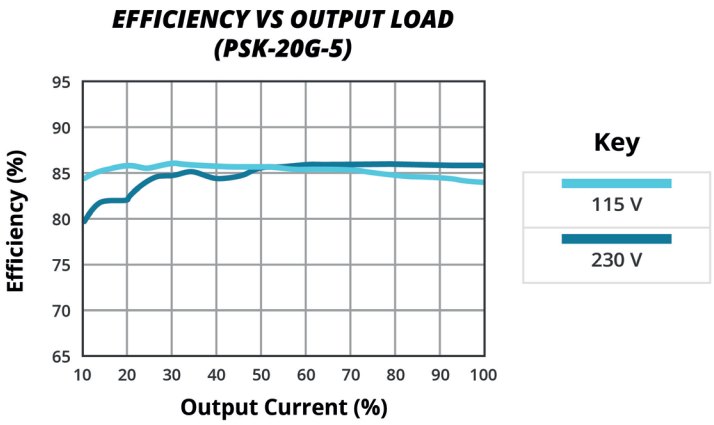


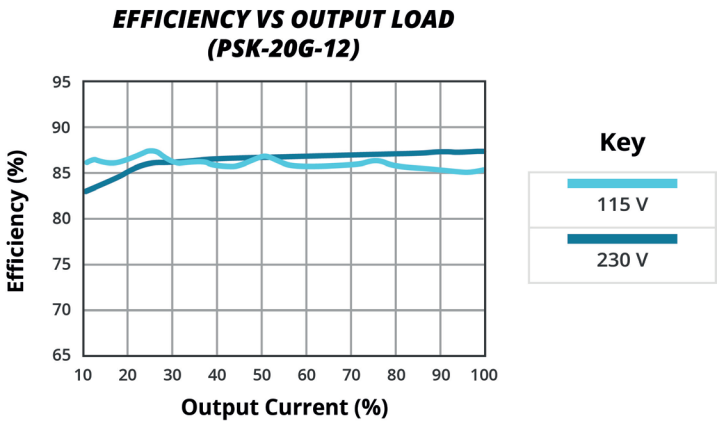
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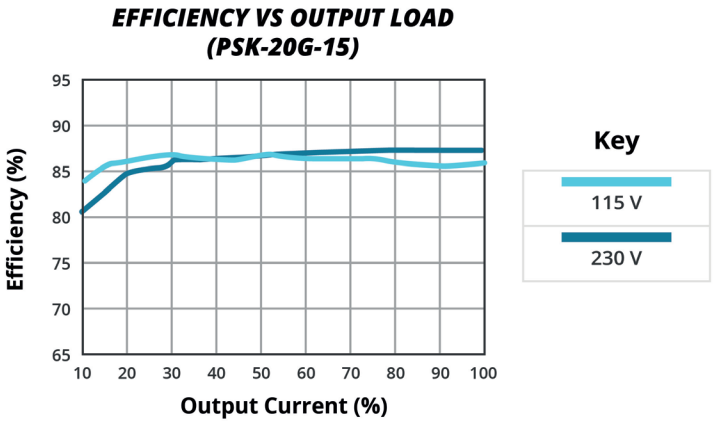
DERATING CURVE

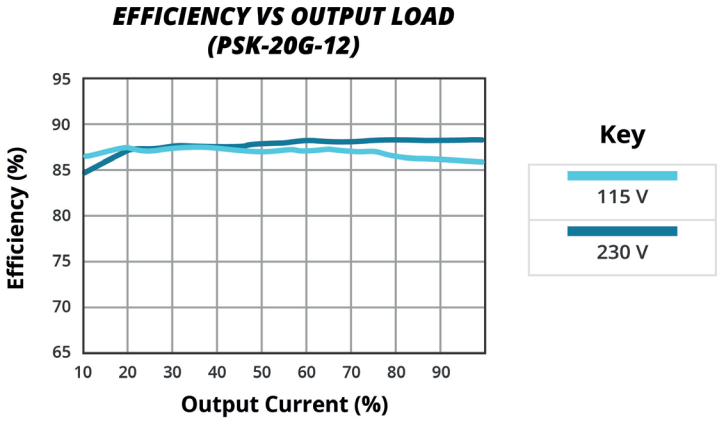


EFFICIENCY CURVES



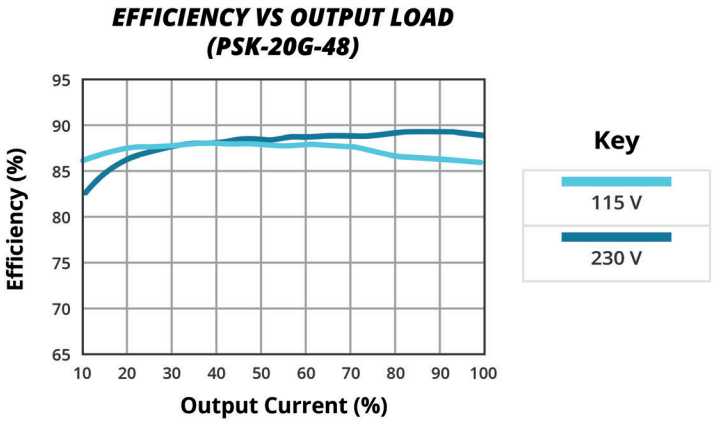






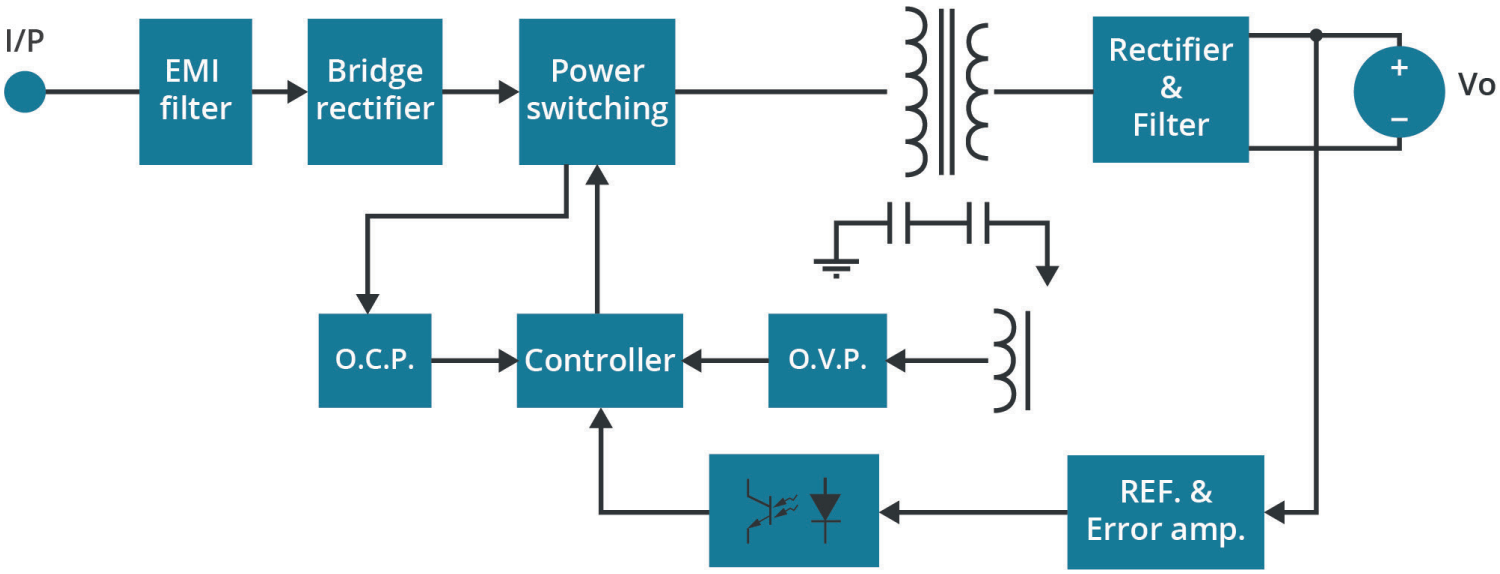
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EFFICIENCY CURVES (CONTINUED)



ELECTRICAL BLOCK DIAGRAM

Figure 1



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REVISION HISTORY

rev.	description	date
1.0	initial release	07/10/2025

The revision history provided is for informational purposes only and is believed to be accurate.

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