Wall Industries, Inc.

PSS100 Series
100 Watt
Single Output
AC/DC Power Supply

FEATURES

- 1 Year Warranty
- Low Cost, High Reliability
- Fixed Switching Frequency
- Compact Size, Light Weight
- AC Input Selectable by Switch
- 100% Full Load Burn-In Tested
- Cooling by Free Air Convection
- EN55022, IEC801-2,3,4 and IEC555-2
- UL1950 and TUV EN60950 Approved
- Short Circuit and Overload Protected
- Built-In EMI Filter, Low Ripple and Noise
- High Efficiency, Low Working Temperature
- Soft Start Circuit, Limiting AC Surge Current



SPECIFICATIONS: *PSS100 Series*	
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.	
INPUT SPECIFICATIONS	
Input Voltage Range	85 ~ 132VAC / 180 ~ 264VAC selected by switch (255 ~ 370VDC)
Input Frequency	47 to 63Hz
AC Current	2.4A @ 115VAC 1.2A @ 230VAC
Inrush Current (max)	Cold Start 30A @ 115VAC 60A @ 230VAC
Leakage Current	< 1mA @ 240VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Voltage Tolerance (See Note 3)	PSS-100-3 & PSS-100-5: ±2.0%; Other Models: ±1.0%
Voltage Adjustment Range	See Table
Line Regulation	See Table
Load Regulation	See Table
Output Current	See Table
Ripple & Noise (max) (See Note 2)	100mVp-p
Setup, Rise Time	200ms, 80ms @ full load
Hold Up Time (typical)	20ms @ full load
Temperature Coefficient	±0.03%/°C (0 ~ 50°C)
PROTECTION	
Overload Protection	105 ~ 150% rated output power (150 ~ 200% rated output power for S-100-7.5 only) Protection Type: Shutdown output voltage, re-power on to recover.
GENERAL SPECIFICATIONS	
Switching Frequency	25KHz
Efficiency	See Table
Withstand Voltage	1500VAC (Input to Output), 1500VAC (Input to FG), 500VAC (Output to FG)
Isolation Resistance	100MΩ/500DC (Input to Output, Input to FG, and Output to FG)
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-10°C to +60°C (refer to output load derating curve)
Storage Temperature	-20°C to +85°C
Working Humidity	20 ~ 90% RH non-condensing
Storage Humidity	10 ~ 95% RH
Cooling	Free air convection
Vibration	10 ~ 500Hz, 2G 10min./1 cycle, 60min each along X, Y, Z axes.
MTBF	322,400 hours min. @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Weight	620 grams
Dimensions	199(L) x 98(W) x 38(H) mm
Warranty	1 year
SAFETY & EMC	
Safety Standards	Design refer to UL1012
EMI Conduction & Radiation	Design refer to FCC Part15 J Conduction Class B

Wall Industries, Inc. 5 Watson Brook Road Exeter, NH 03833
603-778-2300 www.wallindustries.com Fax 603-778-9797

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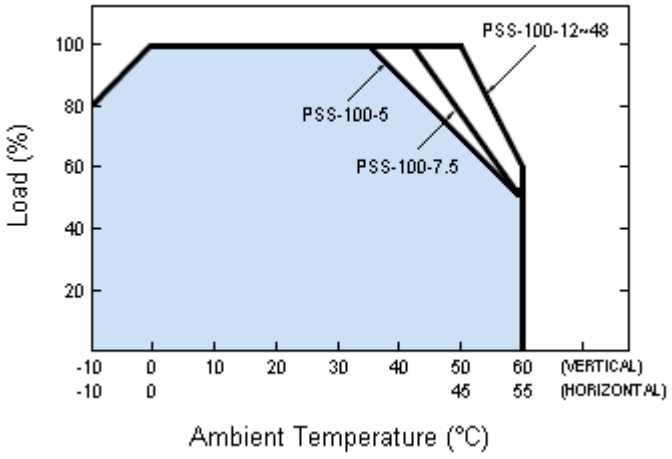
OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Voltage	Output Voltage	Voltage Adjust. Range	Output Current	Line Regulation	Load Regulation	Output Power	Efficiency
PSS-100-3	85 ~ 132 VAC or 180 ~ 264 VAC	3VDC	2.85 ~ 3.3V	20A	±0.5%	±0.5%	60W	70%
PSS-100-5		5 VDC	4.75 ~ 5.5V	20A	±0.5%	±0.5%	100W	78%
PSS-100-7.5		7.5 VDC	6.75 ~ 8.25V	13.6A	±0.5%	±0.5%	102W	80%
PSS-100-10		10VDC	9 ~ 11V	10A	±0.3%	±0.3%	100W	80%
PSS-100-12		12 VDC	10.8 ~ 13.2V	8.5A	±0.3%	±0.3%	102W	81%
PSS-100-15		15 VDC	13.5 ~ 16.5V	6.7A	±0.3%	±0.3%	100.5W	81%
PSS-100-18		18VDC	16.2 ~ 19.8V	5.6A	±0.3%	±0.3%	100.8W	82%
PSS-100-24		24 VDC	21.6 ~ 26.4V	4.5A	±0.2%	±0.2%	108W	84%
PSS-100-27		27VDC	26 ~ 32V	3.7A	±0.2%	±0.2%	99.9W	84%
PSS-100-48		48 VDC	43.2 ~ 52.8V	2A	±0.2%	±0.2%	96W	84%

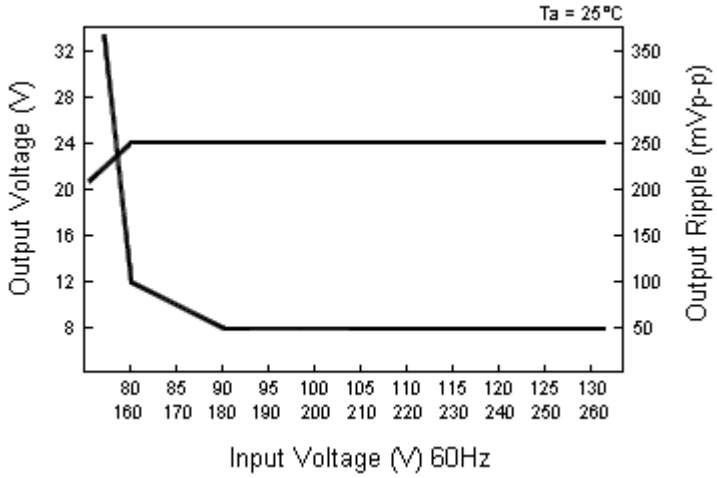
NOTES

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF& 47uF parallel capacitor.
3. Tolerances include set up tolerance, line regulation, and load regulation.

DERATING CURVE



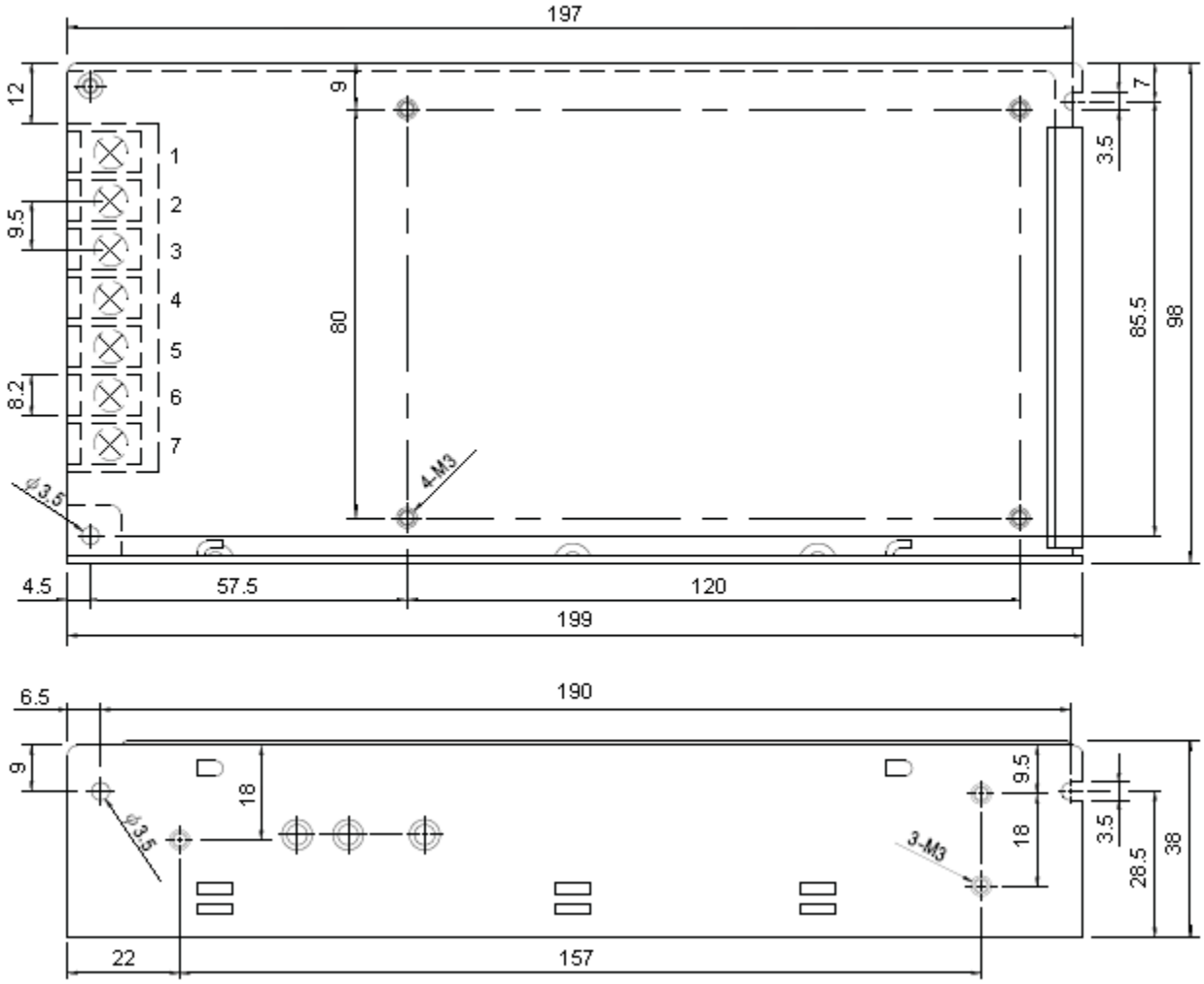
STATIC CHARACTERISTICS (24V)



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MECHANICAL DRAWING

Unit: mm



Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG
4,5	DC OUTPUT (-V)
6,7	DC OUTPUT (+V)