# Pollock Industries

# 100 Watt 24 Volt, 1U Low Profile, Single Output, Power Supply with PFC

UNIT CODE	DESCRIPTION	
PS-RSP 100-24	100 Watt, 24V, Single Output, 30mm Low Profile, Enclosed Power Supply with PFC Function	

SPECIFICATIONS			
Input	Output	Approvals	
Universal 85 ~ 264VAC	+24VDC @ 0 ~ 4.2A	P. Nus Land CBCE	

## Features at a Glance:

**Priced Economically** 

Universal AC Input for Worldwide Use

30mm low profile 1U design

Constant current limiting circuit

Efficient (87%) and cooled by natural convection

Active PFC and Remote ON-OFF control

Protections: Short circuit, Overload,

Over voltage, Over temperature

Simple (-5% ~ +10%) output voltage adjustment

**LED indicator for Power ON** 

Safety Standards: UL60950-1, TUV EN60950-1

EN61558-2-16, CCC GB4943

EMC: Light Industry level, criteria A

- See following pages for complete EMC details

Certificates: UL / CUL / TUV / CB / CE / CCC

MBTF: YTBD hours min. MIL-HDBK-217F (25°C)

Case: 227A

Weight: 1.14 lbs. (0.52 Kgs)

Dimensions: 7.04"L x 3.89"W x 1.18"H

179L X 99W X 30mmH

3 year warranty

Click for more information



The PS- RSP 100 series is a general purpose, "light industrial level," AC/DC, low profile (1U), single output, enclosed type, switching power supply with Power Factor Correction (PFC).

Functions include remote ON/OFF control, a constant current limiting circuit, short circuit, overload, over voltage, and over temperature protections. Users can make a (-5% ~ +10%) output voltage adjustment on a small rheostat on the terminal strip. The series meet requirements from UL, CUL, TUV, CCC, CB, and are approved for use in the European household appliance market. PS-RSP-100 is also CCC approved (China Compulsory Certification).

The PS-RSP-100 Series is widely used and applications include general automation and control systems, mechanical and electrical equipment, instrumentation, household appliances or systems that require an economical but reasonably efficient 100 Watt supply with a 1U low profile.

Pricing: 1+ \$ 99.00

10+ 92.50

25+ 87.00

## RSP 100-24

# POLLOCK INDUSTRIES

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### **Specifications**

#### **OUTPUT**

DC VOLTAGE 24 V RATED CURRENT 4.2 A 0 ~ 4.2A CURRENT RANGE 100.8W RATED POWER RIPPLE & NOISE (max.) Note.2 150mVp-p VOLTAGE ADJ. RANGE 22.8 ~ 26.4V VOLTAGE TOLERANCE Note.3 ±1.0% LINE REGULATION ±0.5% LOAD REGULATION ±0.5%

SETUP, RISE TIME 600ms, 30ms at full load

HOLD UP TIME (Typ.) 16ms at full load

#### **INPUT**

VOLTAGE RANGE 85 ~ 264VAC 120 ~ 370VDC

FREQUENCY RANGE 47 ~ 63Hz

POWER FACTOR (Typ.) PF>0.93/230VAC PF>0.98/115VAC at full load

EFFICIENCY (Typ.) 87%

AC CURRENT (Typ.) 1.1A/115VAC 0.55A/230VAC INRUSH CURRENT (Typ.) COLD START 30A/230VAC

LEAKAGE CURRENT <2mA / 240VAC

#### **PROTECTION**

OVERLOAD 105 ~ 135% rated output power. Protection type: Constant current limiting,

recovers automatically after fault removed

OVER VOLTAGE 26.4 ~ 32.4V Protection type: Shut down o/p voltage, re-power on to recover OVER TEMPERATURE Shut down o/p voltage, recovers automatically after temperature drops

#### **ENVIROMENT**

WORKING TEMP. -30°C ~ +70°C (Refer to the "Derating Curve" on last page)

WORKING HUMIDITY 20  $\sim$  90% RH non-condensing STORAGE TEMP., HUMIDITY -40°C  $\sim$  +85°C, 10  $\sim$  95% RH TEMP. COEFFICIENT  $\pm$  0.05%/°C (0  $\sim$  50 °C)

VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes

#### SAFETY & EMC Note.4

SAFETY STANDARDS UL60950-1, TUV EN60950-1, EN61558-1, EN61558-2-16, CCC GB4943 approved

WITHSTAND VOLTAGE
ISOLATION RESISTANCE
IMP-O/P: 3.75KVAC I/P-FG: 2KVAC O/P-FG: 0.5KVAC
I/P-O/P, I/P-FG, O/P-FG:100M Ohms /500VDC / 25°C / 70% RH
Compliance to EN55022 (CISPR22) Class B, EN61000-3-2, ·3, GB9254 class B
EMC IMMUNITY
Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A

## OTHER

REMOTE CONTROL FUNCTION: CN1: <0~0.8 VDC Power ON, 4 ~10 VDC Power OFF

MTBF 288K hrs min. MIL-HDBK-217F (25 °C)

DIMENSIONS 179\*99\*30mm (L\*W\*H)

PACKING 0.52Kg; 24pcs/14.5Kg/0.84CUFT

NOTES: 1. All parameters NOT specifically mentioned are measured at 230VAC input, rated load and ambient temperature of 25°C.

2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

3. Tolerance: includes set up tolerance, line regulation and load regulation.

4. The power supply is considered a component which will be installed into a final piece of equipment. The final equipment must be re-confirmed as still meeting EMC directives. For guidance on how to perform these EMC tests, please Google "EMI testing of component power supplies."

toll-free 1-866-665-5434 (603) 888-2467 power@electracool.com

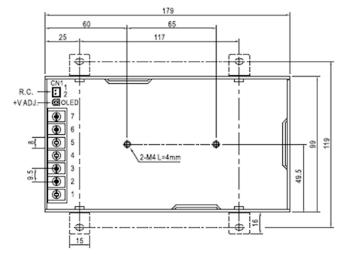
# RSP 100-24

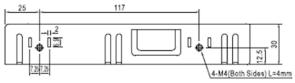
# **POLLOCK INDUSTRIES**

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## Mechanical Specification

Case No.227A Unit:mm





Terminal Pin No. Assignment

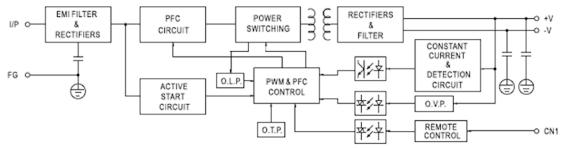
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG 는		

Remote ON/OFF(CN1): JST S2B-XH or equivalent(optional)

Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP	JST SXH-001T-P0.6
2	RC-	or equivalent	or equivalent

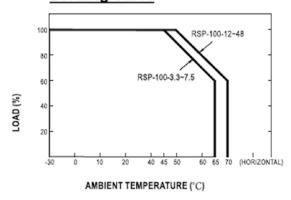
## Block Diagram

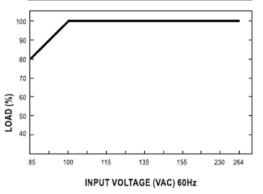
PFC fosc: 100KHz PWM fosc: 100KHz



## **Derating Curve**

# Output Derating vs Input Voltage





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