



# Single Output Industrial DIN Rail Power Supply

## Catalog Numbers - ICO-PS1524

### General Description

This power supply can be used with SoftPLC Hardbooks, Web Studio HMI's, I/O, Smart, and Gatecraft products. The ICO-PS1524 provides 24VDC up to 15W.

### Features

- ◆ Universal AC input/Full range
- ◆ Protections:  
Short circuit / Overload / Over voltage
- ◆ Cooling by free air convection
- ◆ Can be installed on DIN Rail TS-35/7.5 or 15
- ◆ Isolation class II
- ◆ LED indicator for power on
- ◆ No load power consumption, 0.5W
- ◆ 100% full load burn-in test

### General

- ◆ **MTBF:**  
1172.3K hrs min.  
MIL-HDBK-217F (25°C)
- ◆ **Dimension (WxHxD):**  
25 x 93 x 56mm
- ◆ **Weight:**  
0.1Kg (.22 lb)
- ◆ **Overload:**  
105 ~ 160% rated output power
- ◆ **Overload Protection Type:**  
Constant current limiting, recovers automatically after fault condition is removed.
- ◆ **Over Voltage:**  
27.6 ~ 32.4V
- ◆ **Over Voltage Protection Type:**  
Shut off o/p voltage, clamping by zener diode

### Safety & EMC<sup>4</sup>

- ◆ **Safety Standards:** UL60950-1, TUV EN60950-1 approved, design refer to EN50178
- ◆ **Withstand Voltage:** I/P-O/P: 3K VAC
- ◆ **Isolation Resistance:** I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH
- ◆ **EMI Conduction & Radiation:** Compliance to EN55011, EN55022 (CISPR22), EN61204-3 Class B
- ◆ **Harmonic Current:** Compliance to EN61000-3-2, -3
- ◆ **EMS Immunity:** Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN6100-6-2, EN61204-3, heavy industry level, criteria A



ICO-PS1524

### Environmental

- ◆ **Working Temp.:**  
-20 ~ +60°C  
(Refer to output load derating curve)
- ◆ **Working Humidity:**  
20 ~ 90% RH non-condensing
- ◆ **Storage Temp., Humidity:**  
-40 ~ +85°C, 10 ~ 95% RH
- ◆ **Temp. Coefficient:**  
±0.03%/°C (0 ~ 50°C)
- ◆ **Vibration:**  
10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes;  
Mounting: Compliance to IEC60068-2-6

# Specifications

## Output

DC Voltage	24V
Rated Current	0.63A
Current Range	0 ~ 0.63A
Rated Power	15.2W
Ripple & Noise (max.) <sup>2</sup>	150mVp-p
Voltage Adj. Range	21.6 ~ 26.4V
Voltage Tolerance <sup>3</sup>	±1.0%
Line Regulation	±1.0%
Load Regulation	±1.0%
Setup, Rise Time <sup>5</sup>	1000ms, 50ms/230VAC    1000ms, 50ms/115VAC at full load
Hold Up Time (Typ.)	70ms/230VAC    16ms/115VAC at full load

## Input

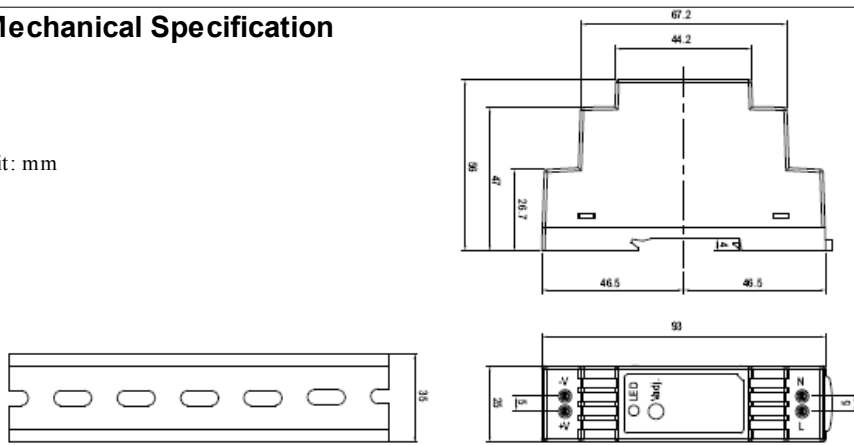
Voltage Range	85 ~ 264VAC    120 ~ 370VDC
Frequency Range	47 ~ 63Hz
Efficiency (Typ.)	85.00%
AC Current (Typ.)	0.88A/115VAC    0.48A/230VAC
Inrush Current (Typ.)	Cold Start 35A/115VAC    65A/230VAC

**NOTES:**

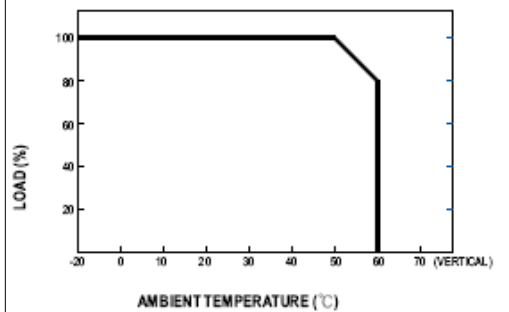
1. All parameters NOT specifically mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of band width by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

### Mechanical Specification

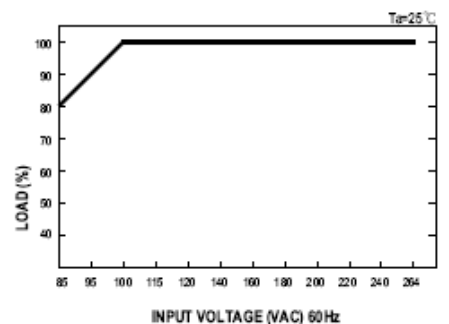
Unit: mm



### Derating Curve



### Output Derating vs Input Voltage



### Block Diagram

