

Single Output Industrial DIN Rail Power Supply

Catalog Numbers - ICO-PS12024

General Description

These power supplies can be used with SoftPLC Hardbooks, Web Studio HMI's, I/O, and Gatecraft products. The ICO-PS12024 provides 24VDC up to 120W.

Features

- ◆ AC input range selectable by switch
- ◆ Protections: Short circuit / Overload / Over voltage / Over Temperature
- ◆ Cooling by free air convection
- ◆ Can be installed on DIN Rail TS-35/7.5 or 15
- ◆ UL 508 (industrial control equipment) approved
- ◆ LED indicator for power on
- ◆ 100% full load burn-in test
- ◆ Fixed switching frequency at 55KHz

General

- ◆ **MTBF:** 136.8K hrs min.
MIL-HDBK-217F (25°C)
- ◆ **Dimension (WxHxD):**
65.5x125.2x100mm
- ◆ **Packing:** 0.79Kg;
20pcs/16.5Kg/1.29CUFT
- ◆ **Overload:** 105 ~ 150%
rated output power
- ◆ **Overload Protection Type:**
Constant current limiting, recovers automatically after fault condition is removed
- ◆ **Over Voltage:** 29 ~ 33V
- ◆ **Over Voltage Protection type:**
Shut down o/p voltage, re-power on to recover
- ◆ **Over Temperature:** 90°C ±5°C (TSW1)
- ◆ **Over Temp. Protection Type:** Shut down o/p voltage, recovers automatically after temperature goes down



ICO-PS120xx

Safety & EMC⁴

- ◆ **Safety Standards:**
UL508, TUV EN60950-1 approved
- ◆ **Withstand Voltage:**
I/P-O/P:3KVAC
I/P-FG:1.5KVAC
O/P-FG:0.5KVAC
- ◆ **Isolation Resistance:**
I/P-O/P, I/P-FG, O/P-FG: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 EN6100-4-2, 3, 4, 5, 6, 8,
11, ENV50204, EN55024, EN61000-6-2
(EN50082-2), light industry lever, criteria
A

Environment

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

Specifications

ICO-PS10224

Output

DC Voltage	24V	Rated Current	5A	Current Range	0 ~ 5A
Rated Power	120W	Ripple & Noise (max.)	80mVp-p	Voltage Adj. Range	24 ~ 28V
Voltage Tolerance ³	±1.0%	Line Regulation	±0.5%	Load Regulation	±1.0%
Setup, Rise Time ⁵	500ms, 70ms/230VAC 500ms, 70ms/115VAC at full load		Hold Up Time (Typ.)	36ms/230VAC 500ms, 32ms/115VAC at full load	

Input

Voltage Range	88 ~ 132VAC / 176 ~ 264VAC by Switch 248 ~ 370 VDC	Frequency Range	47 ~ 63Hz
Efficiency (Typ.)	84%	AC Current (Typ.)	1.8A/115VAC 1A/230VAC
Inrush Current (Typ.)	Cold Start 20A/115VAC 40A/230VAC	Leakage Current	<3mA/240VAC

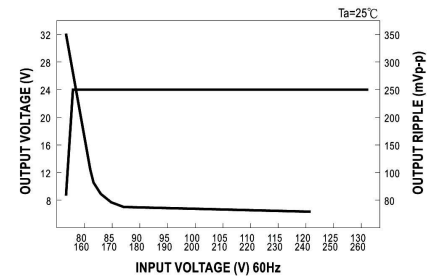
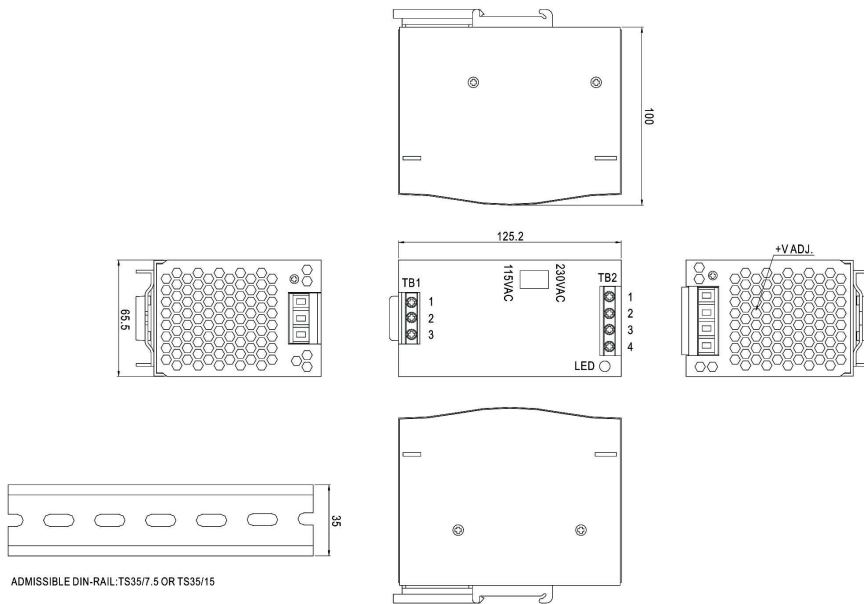
NOTES:

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.

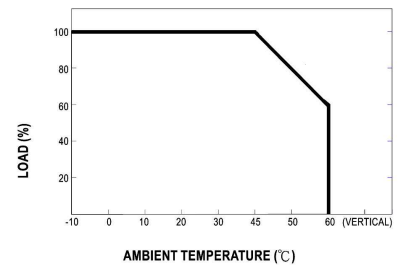
Mechanical Specification

Unit:mm

Static Characteristics (24V)



Derating Curve



Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V