Single Ouptut Industrial DIN Rail Power Supply
Catalog Numbers - ICO-PS120*x*

02/03/14

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


ICO-PS120xx

Specifications			
Output			
	ICO-PS12012	**ICO-PS12024**	**ICO-PS12048**
DC Voltage	12V	24V	48V
Rated Current	10A	5A	2.5A
Current Range	0 ~ 10A	0 ~ 5A	0 ~ 2.5A
Rated Power	120W	120W	120W
Ripple & Noise (max.) [2]	80mVp-p	80mVp-p	120mVp-p
Voltage Adj. Range	12 ~ 14 V	24 ~ 28 V	48 ~ 53 V
Voltage Tolerance [3]	±2.0%	±1.0%	±1.0%
Line Regulation	±0.5%	±0.5%	±0.5%
Load Regulation	±1.0%	±1.0%	±1.0%
Setup, Rise Time [5]	500ms, 70ms/230VAC	500ms, 70ms/115VAC at full load	
Hold Up Time (Typ.)	36ms/230VAC	32ms/115VAC at full load	

Input			
	ICO-PS12012	**ICO-PS12024**	**ICO-PS12048**
Voltage Range	88 ~ 132VAC / 176 ~ 264VAC 248 ~ 370VDC		
Frequency Range	47 ~ 63Hz		
Efficiency (Typ.)	80%	84%	85%
AC Current (Typ.)	2.6A/115VAC 1A/230VAC		
Inrush Current (Typ.)	Cold Start 30A/115VAC 40A/230VAC		
Leakage Current	<3.5mA/240VAC		

Protection			
	ICO-PS12012	**ICO-PS12024**	**ICO-PS12048**
Overload	105 ~ 150% rated output power		
	Protection type : Constant current limiting, recovers automatically after fault condition is removed		
Over Voltage	15 ~ 16.5V	29 ~ 33V	58 ~ 65V
	Protection type : Shut down o/p voltage, re-power on to recover		
Over Temperature	85°C±5°C (TSW1)	90°C±5°C (TSW1)	90°C±5°C (TSW1)
	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		

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

Others	
MTBF	136.8K hrs min. MIL-HDBK-217F (25°C)
Dimension	65.5 x 125.2 x 100mm (WxHxD)
Weight	0.79Kg

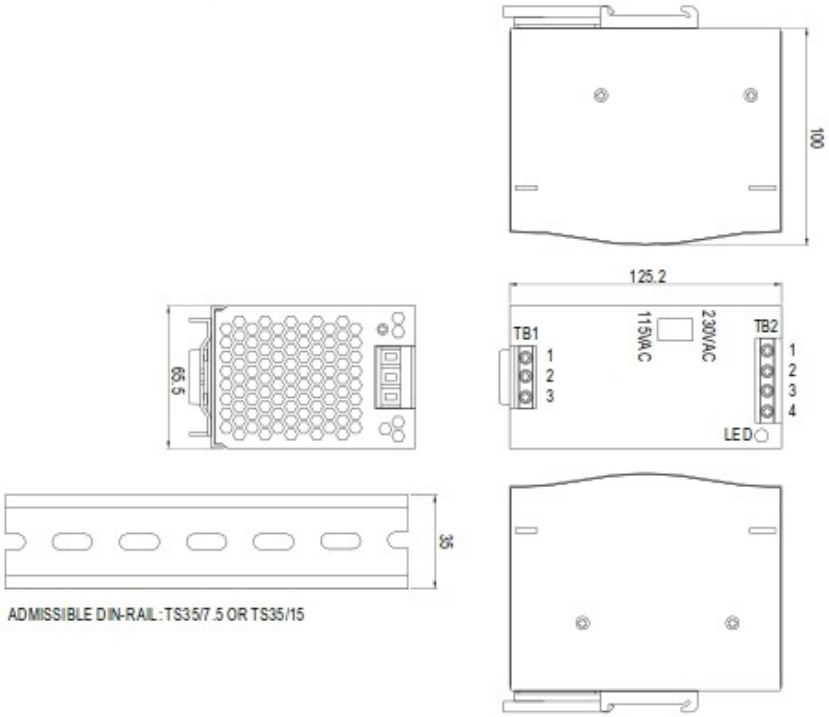
Safety & EMC (Note 4)	
Safety Standards	UL508, UL60950-1, TUV EN60950-1 approved
Withstand Voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C / 70% RH
EMC Emission	Compliance to EN55011, EN55022 (CISPR22), EN61204-3, Class B EN61000-3-2,-3
EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A
Harmonic Current	Compliance to EN61000-3-2, -3

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

Case No. 921A Unit:mm



Terminal Pin No. Assignment (TB1)

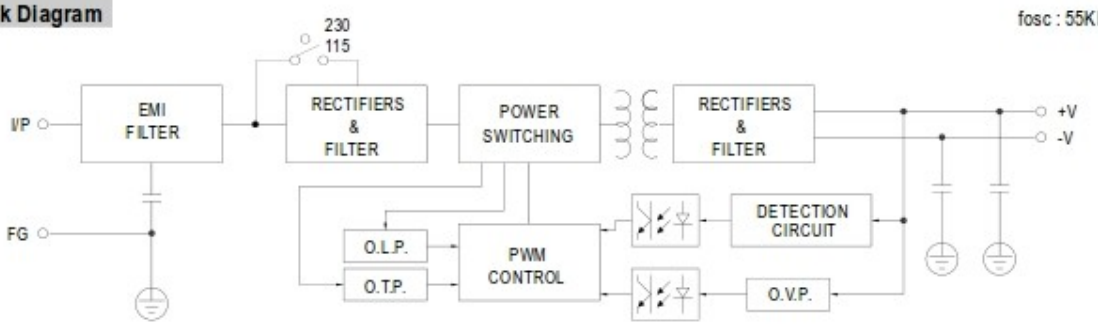
Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB2)

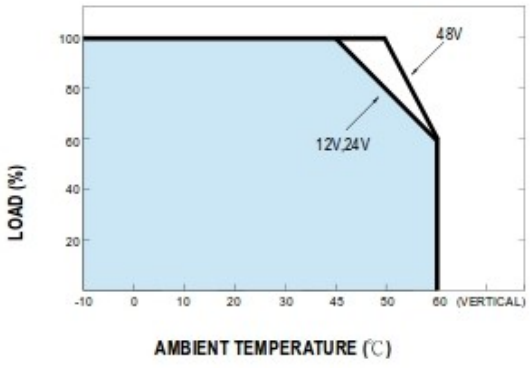
Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

■ Block Diagram

fosc : 55KHz



■ Derating Curve



■ Static Characteristics (24V)