

IRA-90

90WAC-DC High Reliability Industrial Adaptor

Features

- Universal AC input / Full range
- 3 pole IE320-C14 AC inlet
- Built-in PFC (power factor controller)
- No load power consumption < 0.15W
- Energy efficiency Level VI
- Compliant with EISA 2007/DoE, NR Can, AU/NZ MEPS, EU ErP, and CoC Version 5
- Class I power (with earth pin)
- Short circuit, overload, over voltage, and over temperature protection
- Enclosed in plastic case
- Fanless with -30 to 70 °C working temperature
- LED power-on indicator
- 3 years warranty



Specifications

ORDER NO.	IRA-90	
OUTPUT	SAFETY MODEL NO.	IRA-90
	DC VOLTAGE	48V
	RATED CURRENT	1.87A
	CURRENT RANGE	0 ~ 1.87A
	RATED POWER (max.)	90W
	RIPPLE & NOISE (max.)	200mVp-p
	VOLTAGE TOLERANCE	±2.5%
	LINE REGULATION	±1.0%
	LOAD REGULATION	±2.5%
	SETUP, RISE TIME	1000ms, 50ms / 230VAC 1000ms, 50ms / 115VAC at full load
	HOLD UP TIME (Typ.)	20ms / 230VAC 20ms / 115VAC at full load
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF>0.91 / 230VAC PF>0.95 / 115VAC at full load
	EFFICIENCY (Typ.)	91%
	AC CURRENT (Typ.)	1.3A / 115VAC 0.6A / 230VAC
	INRUSH CURRENT (max.)	Cold start 35 / 115AC 70A / 230VAC
LEAKAGE CURRENT(max.)	1mA / 240VAC	
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	105 ~ 135% rated output voltage Protection type : Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover



Specifications

ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")
	WORKING HUMIDITY	20% ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing
	TEMP. COEFFICIENT	±0.03% / °C (0~40°C)
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SAFETY & E M C	EMC EMISSION	EN55032(CISPR32), FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B), CNS13438, GB17625.1 EAC TP TC 020, MSIP KN32 EN61000-3-2 GB9254, EN61000-3-3, EN61000-4-2, 3, 4, 5, 6, 8, 11
	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
OTHERS	MTBF	348.7K hrs min. MIL-HDBK-217F(25°C)
	DIMENSION	145*60*32mm (L*W*H)
	PACKING	0.45Kg; 30pcs/14.05Kg/1CUFT
CONNECTOR	PLUG	Min. DIN 4 Pin with Lock (male)
NOTE	<ol style="list-style-type: none"> All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient. DC voltage: The output voltage set at point measure by plug terminal & 50% load. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor. Tolerance: includes set up tolerance, line regulation, load regulation. Line regulation is measured from low line to high line at rated load. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 	

Dimension

AC Inlet
IEC320-C14

UL1185 16AWG 1200 ± 50mm

Min. DIN 4 Pin with Lock (male)

KYCON KPPX-4P equivalent

Type No.	Pin Assignment	
	PIN No.	Output
R7B	1	+Vo
	2	-Vo
	3	-Vo
	4	+Vo

Derating Curve

Ambient Temperature (°C)	Load (%)
-30	100
0	100
10	100
20	100
30	100
40	100
50	75
60	50
70	50

Static Characteristics

Input Voltage (VAC) 60Hz	Load (%)
90	80
95	90
100	100
110	100
120	100
140	100
160	100
180	100
200	100
220	100
240	100
264	100

