

HXDS-120W SERIES



FEATURES

- High Peak Power
- Built-in DC OK relay contact
- 100% full load burn in test
- Built-in Active PFC Function
- DC Output Voltage Adjustable
- 4 Years Warranty
- Works on DC Input (120~370VDC) also

IS 13252 (Part 1) 2010/
IEC 60950-1:2005
UK
R-62006220
www.bis.gov.in



HXDS-120 is a higher performance family of single phase din rail power supplies were designed with the metal housing and for full range AC input from 90VAC To 264VAC. With higher efficiency, the series have built-in DC OK relay contact and higher peak power, they also operate in wide temperature range. The series offer diverse solutions for demanding automation around the world.

SELECTION GUIDE

Product Model	DC Voltage	Rated Current(max)	Rated Power
HXDS-120-12	12V	10A	120W
HXDS-120-24	24V	5A	120W
HXDS-120-48	48V	2.5A	120W

INPUT CHARACTERISTICS

Parameter	Units		Model
RATED INPUT (Certified Voltage)	100 ~ 240VAC		
NOMINAL INPUT VOLTAGE RANGE	90~ 264VAC or 120-370VDC		
FREQUENCY RANGE	47 ~ 63Hz		
POWER FACTOR (Typ)	0.93/230VAC at full load		
	0.96/115VAC at full load		
EFFICIENCY (Typ)	89%		HXDS-120-12
	91%		HXDS-120-24
	91%		HXDS-120-48
AC CURRENT (Typ)	1.4A/115VAC		
	0.7A/230VAC		
INRUSH CURRENT (Typ)	35A/115VAC		
	70A/230VAC		
LEAKAGE CURRENT	<1mA/24VAC		

OUTPUT CHARACTERISTICS

Parameter	Units		Model
RIPPLE & NOSE(MAX.)	100mVp-p		HXDS-120-12
	100mVp-p		HXDS-120-24
	120mVp-p		HXDS-120-48
VOLTAGE TOLERANCE	±2.0%		
LINE REGULATION	±0.5%		
LOAD REGULATION	±1.0%		

Parameter	Units	Model
SETUP, RISE TIME	1500ms, 60ms/230VAC at full load	
	3000ms, 60ms/115VAC at full load	
HOLD UP TIME (TYP.)	20ms/230VAC at full load	
	20ms/115VAC at full load	
VOLTAGE ADJ. RANGE	12~14V	HXDS-120-12
	24~28V	HXDS-120-24
	48~55V	HXDS-120-48

PROTECTION

Parameter	Units	Model
OVER LOAD	Normally works within 110 ~ 150% rated output power for more than 5 seconds and then shut down O/p voltage with auto recovery	
	>150% rated power, constant current limiting with auto recovery with 5 seconds and may cause to shut down if over 3 seconds	
OVER VOLTAGE	14~17V	HXDS-120-12
	29~33V	HXDS-120-24
	56~65V	HXDS-120-48
	Protection type : Shut down o/p voltage, re-power on to recover	
OVER TEMPERATURE	95 °C± XX°C (TSW) detect on heatsink of power switch	
	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	

FUNCTION

Parameter	Units
DC OK RELAY CONTACT RATINGS (MAX)	60VDC/0.3A, 30VAC/0.5A resistive load

ENVIRONMENT

Parameter	Units
WORKING TEMPERATURE	-25°C to 70°C(Refer to "Derating Curve")
WORKING HUMIDITY	20% ~ 90% RH Non-Condensing
STORAGE TEMP/HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH
COLD START	-40°C
MTBF	1500k hrs min. Telcordia SR-332 (BELCORE)
TEMP COEFFICIENT	±0.03%/°C (0 ~ 50°C)
VIBRATION	Component: 10 ~ 500Hz, 2G 10 min / 1cycle, 60min
	each along x,y,z axes; mounting: Compliance to IEC60068-2-6

SAFETY & EMC

Parameter	Units
SAFETY REGULATIONS	BS EN/EN61010-1
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC
	O/P-FG:0.5KVAC O/P-DC OK: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 BS EN/EN55032, BS EN/EN61000-3-2,-3
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024,
	BS EN/EN61000-6-2 (BS EN/EN50082-2),
	BS EN/EN61204-3, heavy industry level

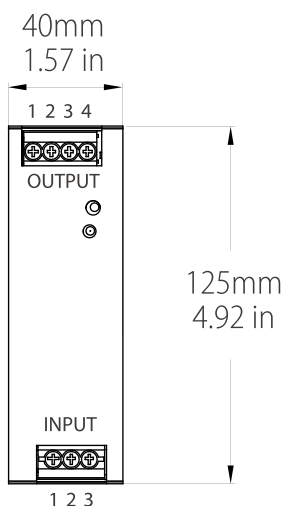
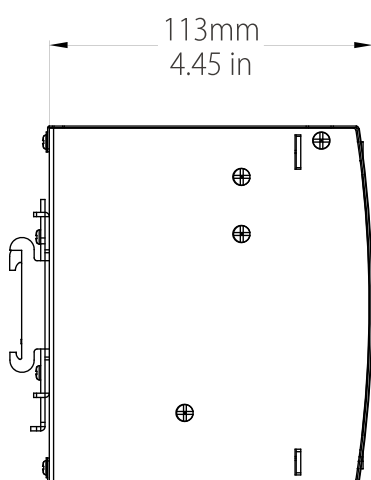
NOTE

1. All parameters NOT specially mentioned at 230VAC input, rated load and 25 °C of ambient temperature.
 2. Ripple&noise are measured from peak to peak with band width limit of 20MHz(0.1uF and 47uF/50V parallel capacitor under DC output full load,AC nominal input 25 °C ambient temperature).
 3. Installation clearances: top with 40mm, bottom with 20mm, left and right with 5mm. Increase the space to 10-15mm when the adjacent device is heat source.
 4. It could hold up 3 seconds max when reached peak power 180W, please refer to peak loading curves.
 5. Derating may be needed under low input voltage. Please check the derating curve for more details.
 6. Efficiency test after 30 minutes of burn-in.
 7. The ambient temperature derating of 3.5 °C/1000m for operating altitude higher than 2000m(6500ft).
- Dimensions & Weight

DIMENSIONS, WEIGHT & PACKING

Parameter	Units
SIZE:	113*40*125 mm (LxWxH)
WEIGHT:	0.67kg
CARTON SIZE:	31.5 × 30 × 30 CM
	12.4 × 11.81 × 11.81 in
MASTER CARTON QUANTITIES:	20pcs / Carton

DIMENSIONS AND INSTALLATION



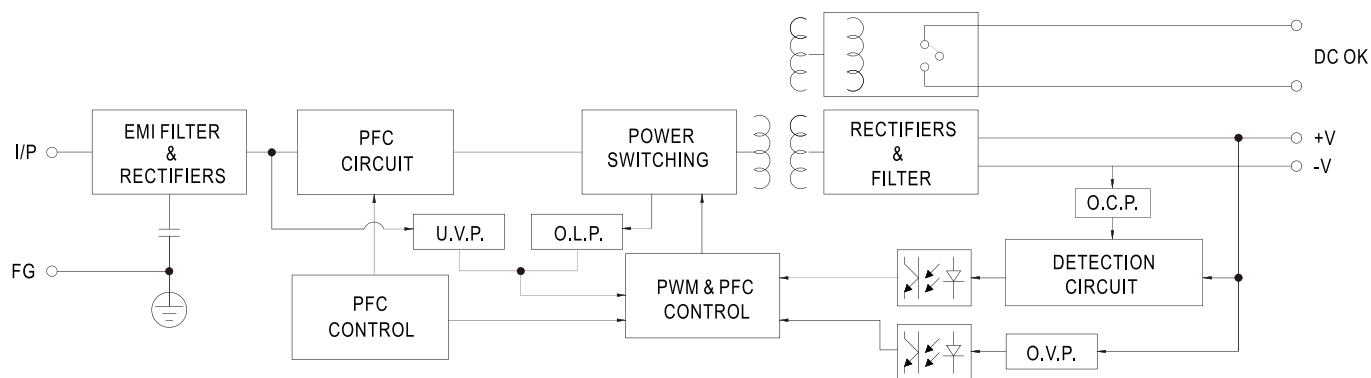
Input

Pin No	Assignment
1	FG $\perp$
2	AC/N
3	AC/L

Output

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

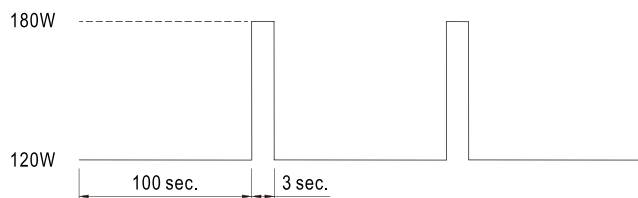
BLOCK DIAGRAM



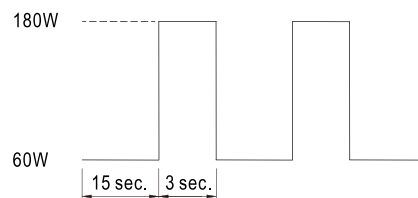
DC OK RELAY CONTACT

Parameter	Units
Contact Close	PSU turns on / DC OK
Contact Open	PSU turns off / DC Fail
Contact Ratings (max.)	30V/1A resistive load

PEAK LOADING

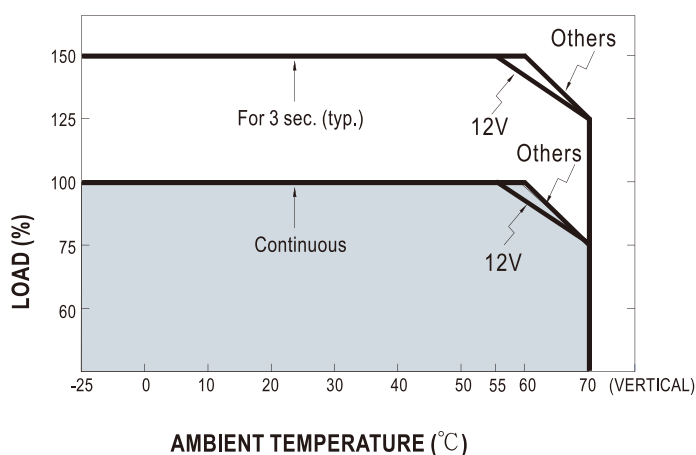


Full Load



Half Load

DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE

