

HXDW-60W SERIES



FEATURES

- Single and Two Phase Ultra Wide Input Range 180~550VAC
- Built-in DC OK Relay Contact
- Built-in Constant Current Limiting Circuit
- Over Voltage Category III
- Protection: Short Circuit/Overload /Over Voltage/Over Temperature
- 4 years warranty
- Works on DC Input (254~780VDC) also

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



HXDW-60 series are designed with metal housing and for single or two phase system with wide range from 180VAC To 550VAC. The series offer DC OK relay contact, built-in constant current limiting circuit and active PFC function (except HXDW-60 & 120) and operating in wide temperature range. They are suitable for industrial-related applications such as industrial control, semiconductor fabrication equipment, and factory automation etc.

SELECTION GUIDE

Product Model	DC Voltage	Rated Current	Rated Power
HXDW-60-05	5V	10A	50W
HXDW-60-12	12V	5A	60W
HXDW-60-24	24V	2.5A	60W
HXDW-60-48	48V	1.25A	60W

INPUT CHARACTERISTICS

Parameter	Units	Model
RATED INPUT	200 ~ 480VAC	
INPUT VOLTAGE RANGE	180 ~ 550VAC or 254 ~ 780VDC	
FREQUENCY RANGE	47~63Hz	
EFFICIENCY(Typ.)	83.5%/400Vac	HXDW-60-05
	86.5%/400Vac%	HXDW-60-12
	89.0%/400Vac	HXDW-60-24
	90.5%/400Vac	HXDW-60-48
AC CURRENT(Typ.)	0.4A/400Vac	
	0.7A/230Vac	
INRUSH CURRENT(Typ.)	COLD START 50A /400Vac 30A/230Vac	
LEAKAGE CURRENT	<2mA / 530Vac	

OUTPUT CHARACTERISTICS

Parameter	Units	Model
RIPPLE & NOISE(MAX.)	150mVp-p	HXDW-60-05
	150mVp-p	HXDW-60-12
	±2.0%	HXDW-60-24
	±2.0%	HXDW-60-48
VOLTAGE TOLERANCE	±2.0%	
LINE REGULATION	±0.5%	
LOAD REGULATION	±1.5%	HXDW-60-05
	±0.5%	HXDW-60-12
	±0.5%	HXDW-60-24
	±0.5%	HXDW-60-48
SETUP, RISE TIME & HOLD TIME	1000ms, 70ms, 20ms/400Vac at full load 2000ms, 70ms, 10ms/230Vac at full load	

PROTECTION

Parameter	Units
DC OK SIGNAL	Relay contact rating(max.) : 30V / 1A resistive

PROTECTION

Parameter	Units	
OVER LOAD	105 ~ 135% rated output power	
	Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed.	
	Constant current limiting within 50% ~ 100% rated output voltage, recovers automatically after fault condition is removed.	
OVER VOLTAGE	5 ~ 6V	HXDW-60-05
	12 ~ 15V	HXDW-60-12
	24 ~ 29V	HXDW-60-24
	48 ~ 57V	HXDW-60-48
	Protection type : Shut down o/p voltage, re-power on to recover	
OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover	

ENVIRONMENT

Parameter	Units
WORKING TEMP	-30 ~ +85°C (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGE TEMP,	-40 ~ +85°C
COLD START	-40°C
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)
VIBRATION	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along
	X, Y, Z axes; Mounting clip: Compliance to IEC60068-2-6.

Parameter	Units
OPERATING ALTITUDE	2000 meters
OVER VOLTAGE CATEGORY	Class II; According to EN61558, EN50178, EN60664-1, N62477-1 EN60204-1; altitude up to 2000 meters.
MTBF	1600K hrs min. Telcordia SR-332 (Bellcore)

SAFETY & EMC

Parameter	Units
SAFETY STANDARDS	BS EN/EN62368-1
WITHSTAND VOLTAGE	I/P-O/P:4.7KVAC I/P-FG:2.5KVAC 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

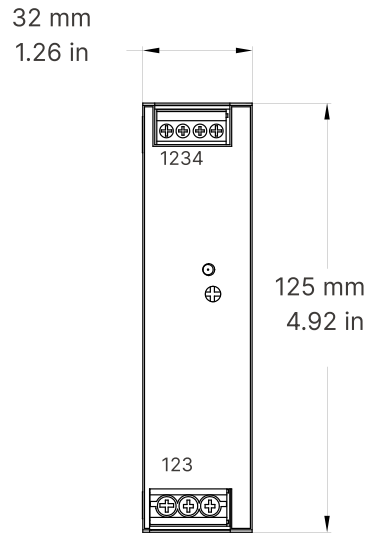
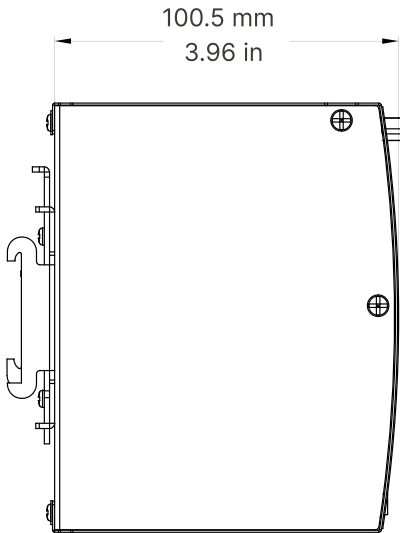
NOTE

1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
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. The ambient temperature derating of 3.5 °C/1000m for operating altitude higher than 2000m(6500ft).
5. 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."

DIMENSION, WEIGHT & PACKING

Parameter	Units
SIZE:	32*100.5*125mm (LxWxH)
WEIGHT:	0.45kg

MECHANICAL SPECIFICATION



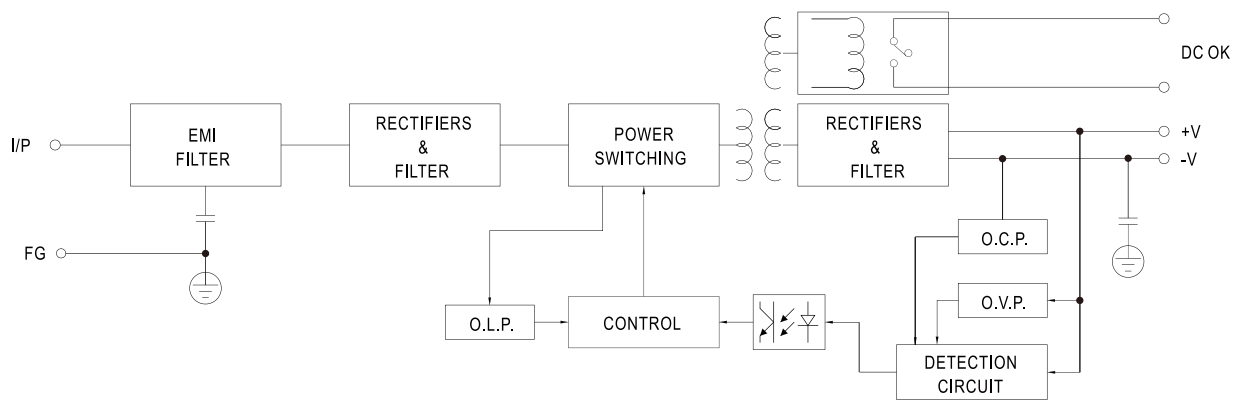
Input

No	Description
1	FG \perp
2	AC/L2
3	AC/L1

Output

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

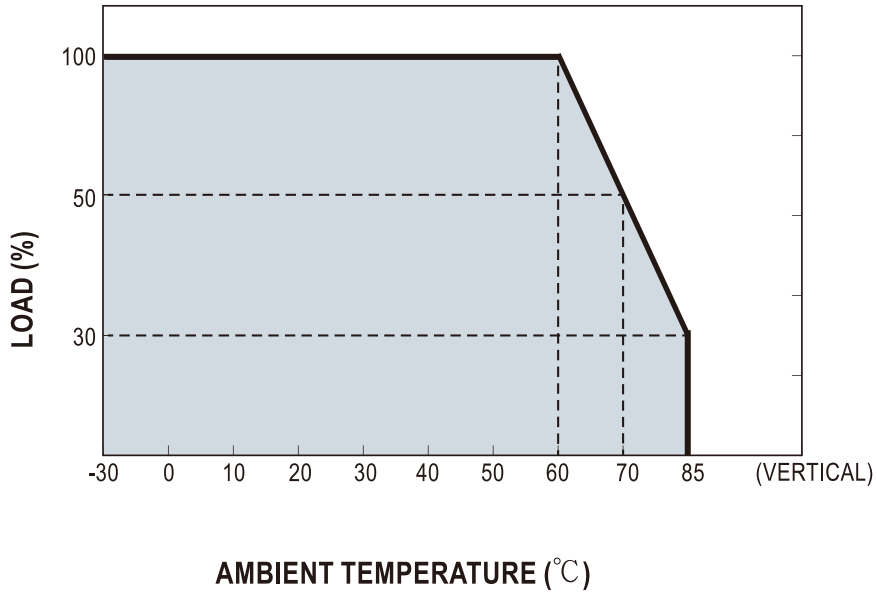
BLOCK DIAGRAM



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

DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE

