

## HXDW-480W SERIES



## FEATURES

- Single and Two Phase Ultra Wide Input Range 180~550VAC
- Built-in DC OK Relay Contact
- Built-in Constant Current Limiting Circuit
- Built-in Active PFC Circuit
- Protection: Short Circuit/Overload /Over Voltage/Over Temperature
- High Efficiency 93% and Lower Power Dissipation
- 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-480 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-480-24	24V	20A	480W
HXDW-480-48	48V	10A	480W

## INPUT CHARACTERISTICS

Parameter	Units	Model
RATED INPUT	200 ~ 500VAC	
INPUT VOLTAGE RANGE	180 ~ 550VAC or 254 ~ 780VDC	
FREQUENCY RANGE	47~63Hz	
POWER FACTOR (Typ.)	PF $\geq$ 0.84/400VAC	
	PF $\geq$ 0.84/230VAC	
EFFICIENCY (Typ.)	91%	HXDW-480-24
	93%	HXDW-480-48
AC CURRENT(Typ.)	1.6A/400Vac	
	4A/230Vac	
INRUSH CURRENT(Typ.)	COLD START 50A	
LEAKAGE CURRENT	<3.5mA / 530Vac	

## OUTPUT CHARACTERISTICS

Parameter	Units	Model
RIPPLE & NOISE(MAX.)	100mVp-p	HXDW-480-24
	150mVp-p	HXDW-480-48
VOLTAGE TOLERANCE	$\pm$ 2.0%	
LINE REGULATION	$\pm$ 0.5%	
LOAD REGULATION	$\pm$ 1.0%	
SETUP, RISE TIME & HOLD TIME	800ms, 150ms/400Vac at full load 2000ms, 150ms/230Vac at full load	

## FUNCTION

Parameter	Units
DC OK REALY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load

## PROTECTION

Parameter	Units	Model
OVER LOAD	105 ~ 130% rated output power.	
	Protection type : Constant current limiting, unit will shut down after 3 sec., auto-recovery after 1 minute if the fault condition is removed.	
OVER VOLTAGE	24 ~ 28V	HXDW-480-24
	48 ~ 55V	HXDW-480-48
	Protection type : Shut down o/p voltage, auto-recovery after 1 minute if the fault condition is removed.	
OVER TEMPERATURE	90°C±5°C (TSW) detect on heatsink of power switch.	
	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down.	

## ENVIRONMENT

Parameter	Units
WORKING TEMP	-30 ~ +70°C (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGE TEMP, HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH
COLD START	-40°C
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)
VIBRATION	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along
	X, Y, Z axes; Mounting clip: Compliance to IEC60068-2-6.
MTBF	700K hrs min. Telcordia SR-332 (Bellcore) ; 112.8K hrs min. MIL-HDBK-217F (25°C).

## SAFETY & EMC

Parameter	Units
SAFETY STANDARDS	BS EN/EN62368-1
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

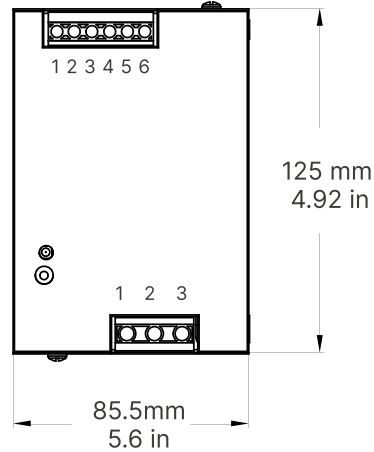
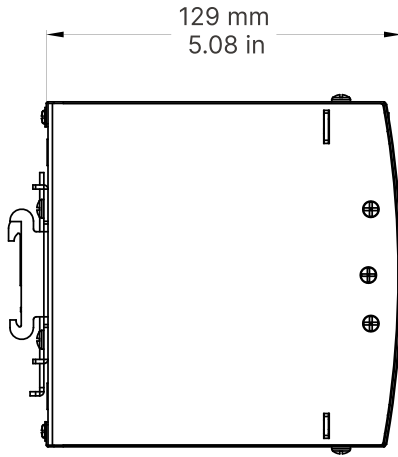
## NOTE

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:	85.5*129*125mm (LxWxH)
WEIGHT:	1.7kg

**MECHANICAL SPECIFICATION**



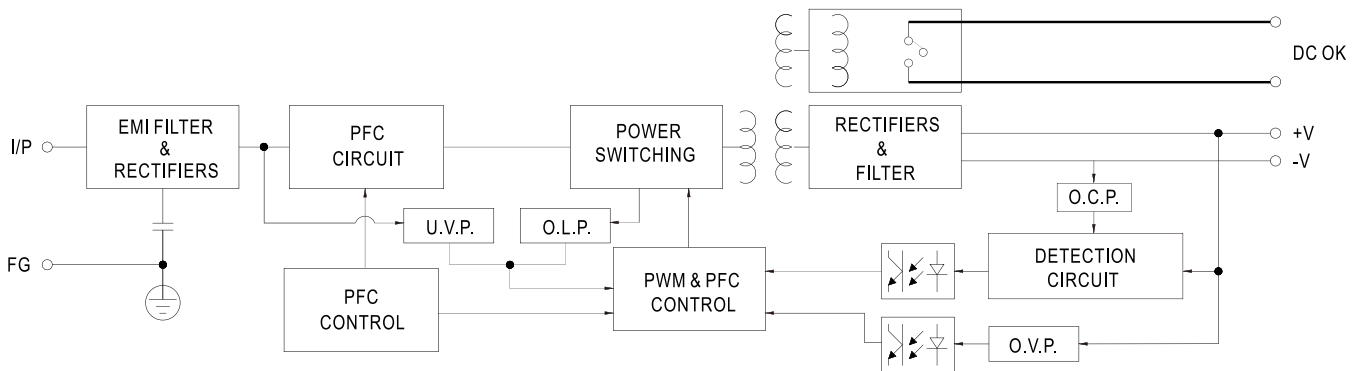
**Input**

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

**Output**

No	Description
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact

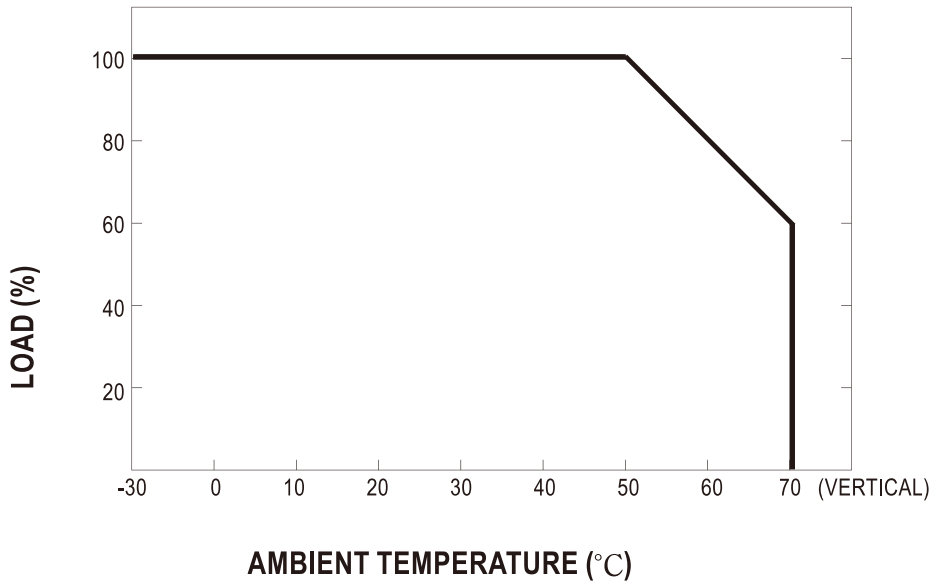
**BLOCK DIAGRAM**



**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**

