RHENXV
Your Vision, Our Solutions

AC-DC DIN Rail Power Supply

480 WATTS

HXDN-480W SERIES



FEATURES

- DC O/P Voltage Adjustable
- Protections: Short circuit/Overload/Over voltage/Over temperature
- High efficiency and low power dissipation
- Installation: DIN Rail TS-35/7.5 & 15
- Universal AC Input:90-264V
- Built-in DC OK relay contact
- Free Air Convection Design
- 4 Years Warranty
- Works on DC Input (120~370VDC) also

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

HXDN-480 is a metal case power family designed with slim housing and for full range AC input from 90 VAC To 264 VAC. The series are single phase power supply, providing adjustable DC output voltage. They have high efficiency and operate in wide temperature range. The series can widely used for industrial automation & control systems, varied equipments etc.

SELECTION GUIDE

Product Model	DC Voltage	Rated Current(max)	Rated Power
HXDN-480-24	24V	20A	480W
HXDN-480-48	48V	10A	480W

INPUT CHARACTERISTICS

Parameter	Units	Model
NOMINAL INPUT VOLTAGE	100-240 VAC	
VOLTAGE RANGE	90~264VAC,120~370VDC	
FREQUENCY RANGE	47~63Hz	
POWER FACTOR(TYP.)	＞0.98/115VAC at full load	
	＞0.94/230VAC at full load	
EFFICIENCY(TYP.)	92.5%	HXDN-480-24
	92.5%	HXDN-480-48
No Load Power Consumption	6W max.	
AC CURRENT(TYP.)	4.8A/115VAC	
	2.4A/230VAC	
INRUSH CURRENT(TYP.)	20A/115VAC, Cold Start	
	35A/230VAC, Cold Start	
LEAKAGE CURRENT	5mA max.	
START-UP WITH CAPACITION LOADS	120000μF min.	

OUTPUT CHARACTERISTICS

Parameter	Units
RIPPLE & NOSE(MAX.)	150mVp-p
VOLTAGE TOLERANCE	±2.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±1.0%
SET-UP, RISE & HOLD UP TIME	3000ms max. / 100ms max. / 16ms Typ. 115VAC at full load
	1500ms max. / 100ms max. / 16ms Typ. 230VAC at full load

Parameter	Units	Model
VOLTAGE ADJ. RANGE	24~48V	HXDN-480-24
	48~55V	HXDN-480-48

PROTECTION

Parameter	Units	Model
OVER LOAD	105 ~ 130% rated output power	
	Protection Type: Hiccup mode, recovers automatically after fault condition is removed	
OVER VOLTAGE	29 ~ 33V	HXDN-480-24
	56 ~ 65V	HXDN-480-48
	Protection Type : Shut down o/p voltage, re-power to recover	
REVERSE OVER VOLTAGE	24.5 ~ 25.5V	HXDN-480-24
	48.5 ~ 49.5V	HXDN-480-48
	Protection Type: Shut down o/p voltage, re-power to recove	
OVER TEMPERATURE	Protection Type: Shutdown O/P Voltage, Re-Power To Recoverd After Temperature Goes Down	
INTERNAL FUSE AT L PIN	F8 A /250V	
SHORT CIRCUIT	Protection Type: Hiccup mode, recovers automatically after fault condition is removed	

FUNCTION

Parameter	Units
DC OK Relay Contact Ratings(max)	60VDC/0.3A, 30VDC/1A, 30vac/0.5A resistive load
Current Sharing	Please refer to Function Manual

ENVIRONMENT

Parameter	Units
WORKING TEMP	-20 ~ +70 °C (Refer to "Derating curve")
START-UP TESTED TEMP.	-40°C (50% load max.)
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGE TEMP., HUMIDITY	-40 ~ +85 °C, 10 ~ 95% RH
MTBF	Conducted by Parts Stress Analysis Prediction
	146.8K hrs min. MIL-HDBK-217F (25°C)
TEMP. COEFFICIENT	±0.03%/ °C (0 ~ 50 °C)
VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min
	Each along X,Y,Z axes; Mounting: compliance to IEC60068-2-6
OVER VOLTAGE CATEGORY	Class II
POLLUTION DEGREE	2

SAFETY AND ELECTROMAGNETIC COMPATIBILITY

Parameter	Units
SAFETY STANDARDS	BS/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°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/EN55035, BS
	EN/EN61000-6-2(BS EN/EN50082-2)

NOTE

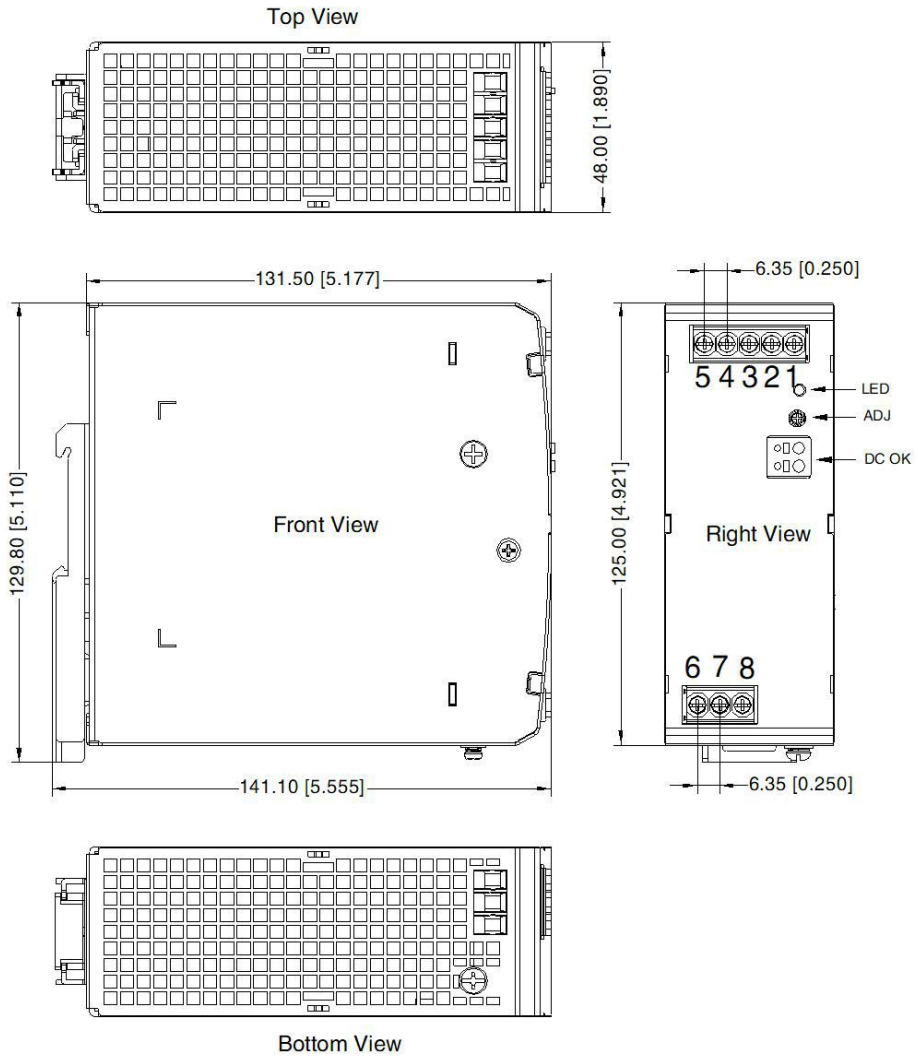
1. All parameters NOT specially mentioned at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured from peak to peak with bandwidth limit of 20MHz（0.1uF and 47uF/50V parallel capacitor under DC output full load, AC nominal input 25°C).
3. Installation clearances : top with 40mm, bottom with 20mm,left and right with 5mm.Increase the space to10-15mm when the adjacent device is heat source.
4. Derating may be needed under low input voltage .Please check the derating curve for more details.
5. The ambient temperature derating of 3.5°C/1000m for operating altitude higher than 2000m(6500ft).

MECHANICAL & PACKING

Parameter	Units	Models
Housing material	Aluminium / steel	
Dimensions(H x W x D)	131.50 × 48.00 × 125mm	HXDN-480-24
	124.00 × 48.00 × 127mm	HXDN-480-48
Weight	980g(Typ.)	HXDN-480-24
	900g(Typ.)	HXDN-480-48
Connection Method	Input & Output, Screw connection ; DC&Current sharing, plug in	
Terminal	Input 3 pins / Output 6 pins / DC-OK & Current sharing 4 Pins	
Wire	Input 24-12AWG / 0.2-2.5mm2	
	Output 30-10AWG / 0.05-4mm2	
	DC-OK & Current sharing 28-20AWG /0.081-0.517mm2	
Stripping length	Input 7-8mm, output 7.5-8.5mm, DC-OK & Current sharing	
Tightening torque	Input 0.5Nm, output 0.56Nm	
Mounting Rail	Standard TS35 DIN Rail in accordance with EN60715	
Inner box	1pcs / box, 16.4 * 11.7 * 15cm / 6.45 * 4.6 * 5.9in	
Outer carton	8pcs/carton	

OVERALL DIMENSIONS AND PIN FUNCTIONS

HXDN-480-24



Pin	Function
1	-Vo
2	-Vo
3	-V0
4	+Vo
5	+Vo
6	AC(N)
7	AC(L)
8	(⏚)

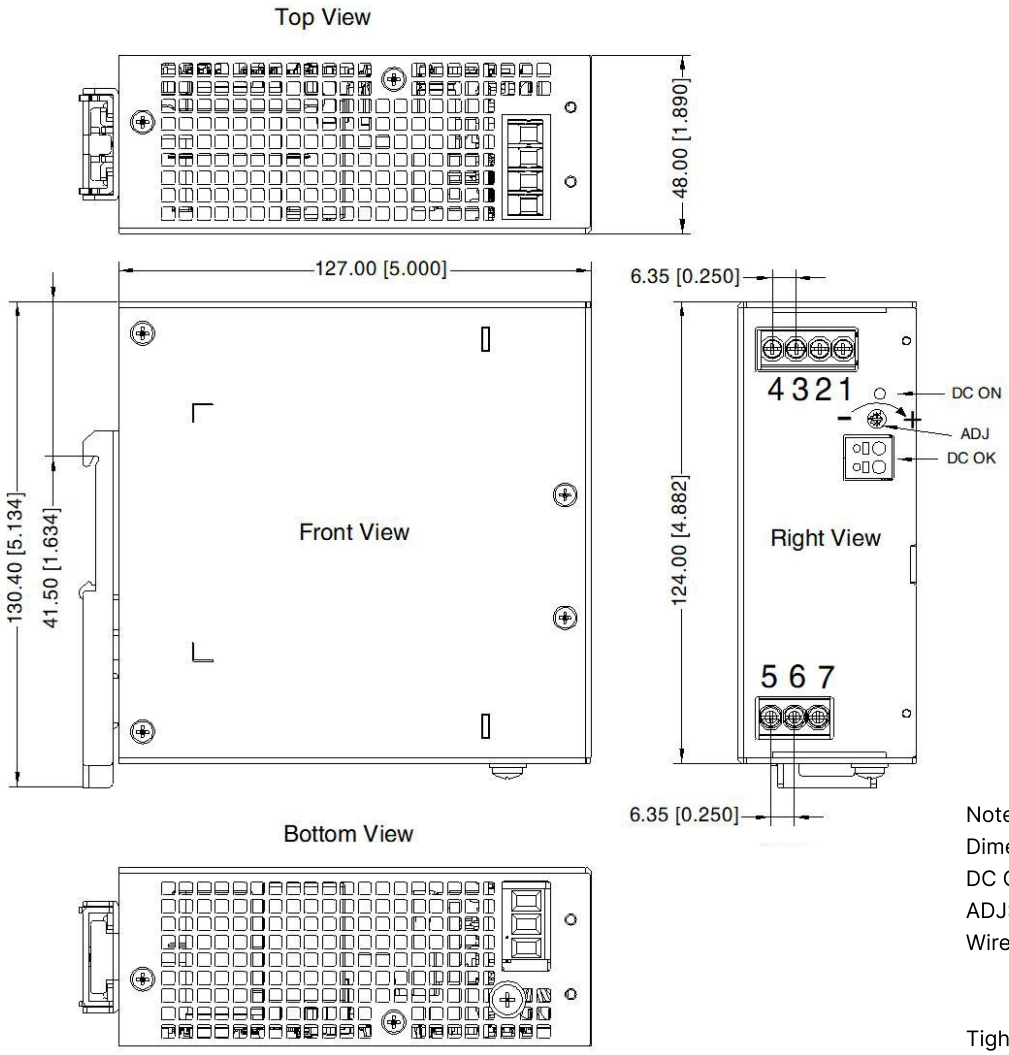
Note:
Dimensions in mm
DC ON: Output status indicator LED
ADJ: Output adjustable resistor
Wire range: Input: 20-10 AWG
Output: 24V: 14-10 AWG
DC OK: 24-16 AWG
Tightening torque: Max 0.79 N .m
Mounting rail: TS35, rail needs to connect safety ground
Undeclared tolerance:±1.00[±0.039]

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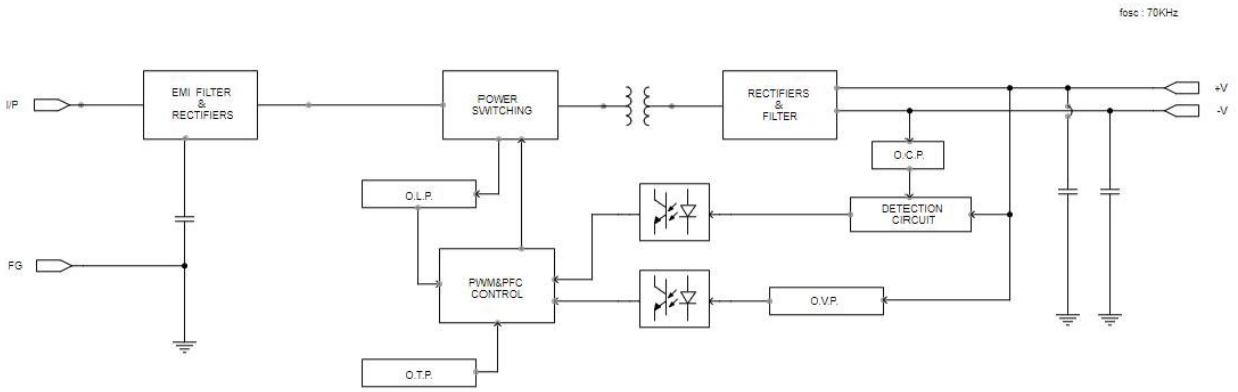
HXDN-480-48



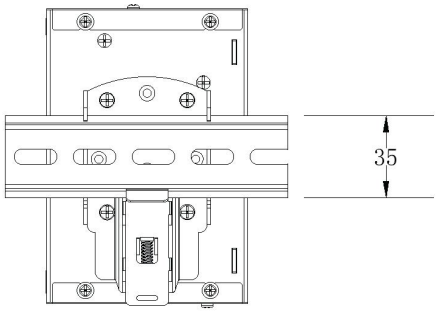
Pin	Function
1	-Vo
2	-Vo
3	+Vo
4	+Vo
5	AC(N)
6	AC(L)
7	(⏚)

Note:
Dimensions in mm
DC ON: Output status indicator LED
ADJ: Output adjustable resistor
Wire range: Input: 20-10 AWG
Output: 48V: 18-10 AWG
DC OK: 24-16 AWG
Tightening torque: 0.5 N .m ± 10%
Mounting rail: TS35, rail needs to connect safety ground
Undeclared tolerance:±1.00[±0.039]

BLOCK DIAGRAM

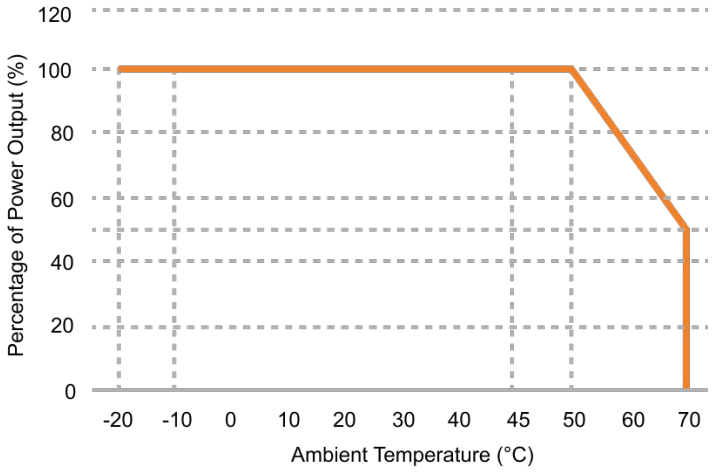


BLOCK DIAGRAM



ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15
(For reference only. Not included with unit.)

DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE

