HXE-600 SERIES

FEATURES

- AC Input range selectable by switch
- High operating temperature up to 70 °C
- Protection: Short Circuit/Overload/ Over Voltage/ Over Temperature
- Air cooling by build-in DC fan
- Higher efficiency
- 4 years warranty

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

HXE600 series are designed with lower pole housing ,adopting the input of 115VAC or 230VAC (selectable by switch). In addition to the high efficiency, Delivering an extremely low no load power consumption. The design of metallic mesh case enhances the heat dissipation. The good performance can be used for industrial automation & control systems, varied equipments etc.

SELECTION GUIDE

Product model	DC Voltage	Rated Current	Rated Power	Max. Capacitive Load (μF)
HXE-600-12	12V	50A	600W	30000uF
HXE-600-15	15V	40A	600W	20000uF
HXE-600-24	24V	25A	600W	10000uF
HXE-600-27	27V	22.2A	599.4W	8000uF
HXE-600-36	36V	16.6A	597.6W	8000uF
HXE-600-48	48V	12.5A	600W	6000uF
HXE-600-60	60V	10A	600W	4000uF

INPUT CHARACTERISTICS

Parameter	Units	Model
VOLTAGE RANGE	90~132VAC/180 ~264VAC by switch	
	240~370VDC (Switch on 230VAC)	
FREQUENCY RANGE	47/63Hz	
AVERAGE EFFICIENCY(115/230VAC)	90%	HXE-600-12
	90%	HXE-600-15
	91%	HXE-600-24
	91%	HXE-600-27
	92%	HXE-600-36
	92%	HXE-600-48
	93%	HXE-600-60
AC CURRENT(Typ.)	16A/115VAC	
	8A/230VAC	
INRUSH CURRENT(Typ.)	35A/230VAC	
	60A/230VAC	
LEAKAGE CURRENT	<2mA/240VAC	

OUTPUT CHARACTERISTICS

Parameter	Units	Model
RIPPLE & NOSE(max.)	200mVp-p	HXE-600-12
	200mVp-p	HXE-600-15
	240mVp-p	HXE-600-24
	270mVp-p	HXE-600-27
	360mVp-p	HXE-600-36
	360mVp-p	HXE-600-48
	480mVp-p	HXE-600-60

Parameter	Units	Model
VOLTAGE TOLERANCE	±1.5%	HXE-600-12
	±1.0%	HXE-600-15
	±1.0%	HXE-600-24
	±1.0%	HXE-600-27
	±1.0%	HXE-600-36
	±1.0%	HXE-600-48
	±1.0%	HXE-600-60
LINE REGULATION	±0.5%	
LOAD REGULATION	±1.0%	HXE-600-12
	±0.5%	HXE-600-15
	±0.5%	HXE-600-24
	±0.5%	HXE-600-27
	±0.5%	HXE-600-36
	±0.5%	HXE-600-48
	±0.5%	HXE-600-60
SETUP TIME	1300ms/230VAC at full load	
	1300ms/115VAC at full load	
RISE TIME	50ms/230VAC at full load	
	50ms/115VAC at full load	
HOLD UP TIME (Typ.)	20ms/230VAC at full load	
	16ms/115VAC at full load	

PROTECTION

Parameter	Units
SHORT CIRCUIT	Protection type: Hiccup mode, recovers automatically after fault condition is removed
OVER LOAD	105%-150% Rated Output Power Protection type: Hiccup mode, recovers automatically after fault condition is removed
OVER VOLTAGE	12V:13.8~16.2V
	15V:18~21V
	24V:27.6~32.4V
	27V:31.0~36.5V
	36V:41.4~48.6V
	48V:55.2~64.8V
	60V:65.2~76.8V
	Protection type: Hiccup mode, recovers automatically after fault condition is removed
OVER TEMPERATURE	Protection type: Hiccup mode, recovers automatically after fault condition is removed

ENVIRONMENT

Parameter	Units
WORKING TEMP	-25°C to +50°C (Refer to "Derating Curve")
WORKING HUMIDITY	20~90% RH Non-Condensing
STORAGE TEMP, HUMIDITY	-40°C~+70°C,10~95% RH non-condensing
TEMP COEFFICIENT	±0.03%/°C(0~50°C)
SAFETY PROTECTION	CLASS I
VIBRATION	10~500Hz, 5G 10min./1 cycle,60 min. each along X,Y,Z axes
OVER VOLTAGE CATEGORY	Class III; According to BS EN/EN61558, BS EN/EN50178, BSEN/EN61000-3-2,-3;BSEN/EN62477-1;
	altitude up to 2000 meters
MTBF	300K hrs min. MIL-HDBK-217F(25°C)

SAFETY & EMC

Parameter	Units
SAFETY STANDARDS	BSEN/EN62368-1, BSEN/EN61558-1
WITHSTAND VOLTAGE	I/P-O/P:3.75KVACI/P-PE:2KVAC,O/P-FG: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 (CISPR32) Class A
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,perf. CriteriaA BSEN/EN61000-4-11,perf.CriteriaB

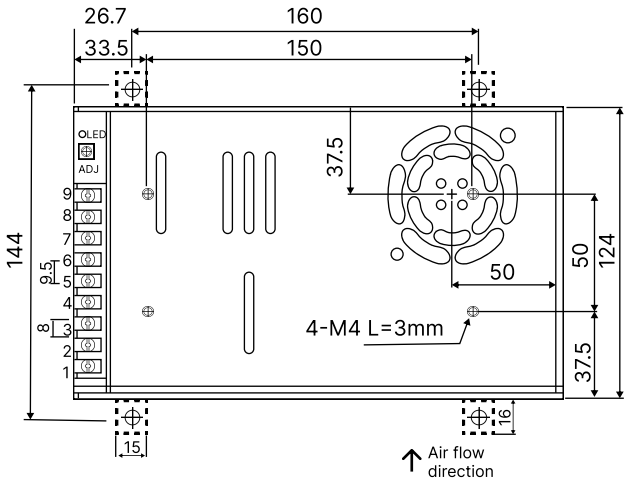
Note

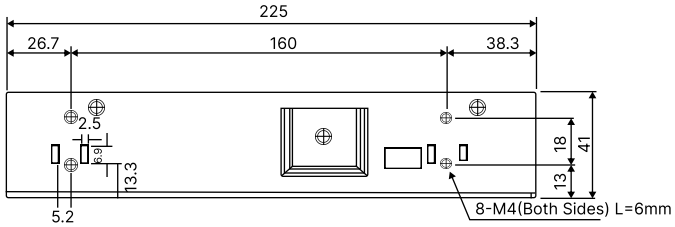
1. All parameters NOT specially mentioned are measured at 115/230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Line regulation is measured from low line to highline at rated load.
5. Load regulation is measured from 0% to 100% rated load.
6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time.
7. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft).
8. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC. directives.
9. The out case needs to be connected to the earth, of system when the terminal equipment in operating

DIMENSION, WEIGHT & PACKING

Parameter	Units
SIZE:	225*124*41mm (LxWxH)
WEIGHT:	950g
CARTON SIZE:	54×30×24CM
	21.26×11.81×9.45in
MASTER CARTON QUANTITIES:	12pcs/Carton

DIMENSIONS AND INSTALLATION





Input

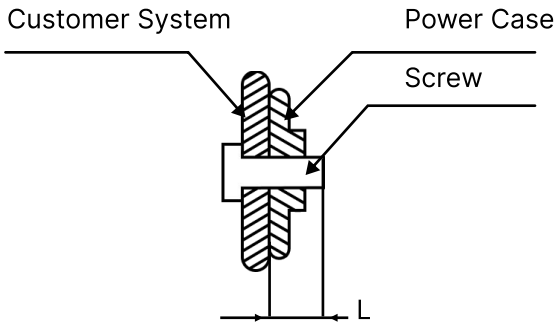
No.	Description
1	AC/L
2	AC/N
3	FG ⏚

Output

No.	Description
4,5,6	DC OUTPUT-V
7,8,9	DC OUTPUT+V

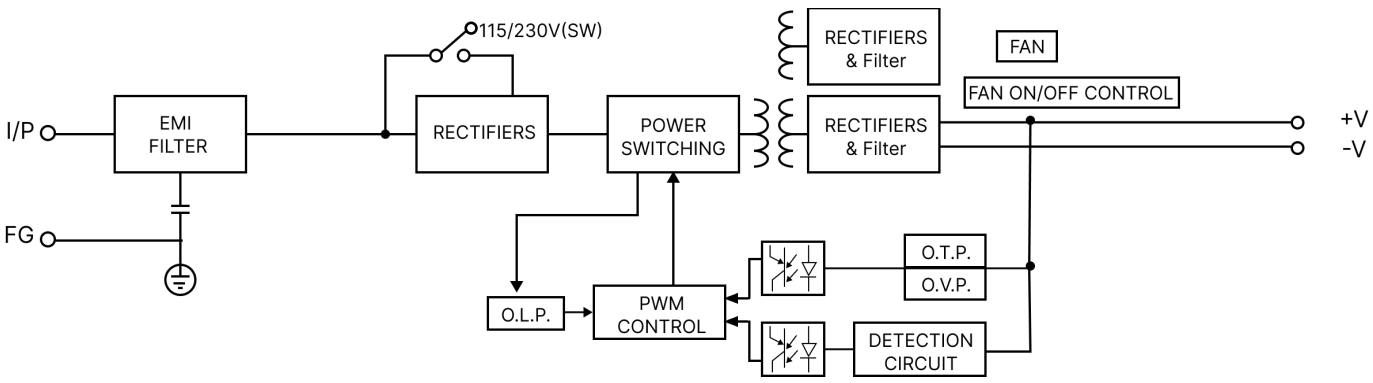
Switch	AC Input	DC Input
115V	90-132VAC	----
230V	180-264VAC	240-373VDC

Note: Unit: mm[inc]
Wire range: 22-12AWG
Connector tightening torque: M3.5,0.8N-m
General tolerances:+1.00[+0.039]

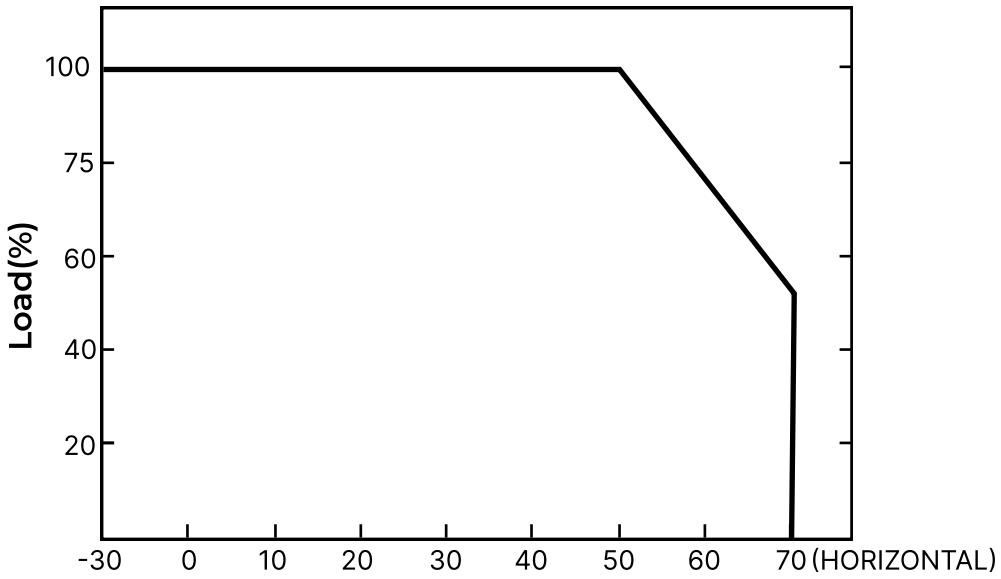


BLOCK DIAGRAM

fosc : 50KHz : 130KHz



DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE CURVES