

HFE2500 SERIES SPECIFICATIONS:

		HFE2500-12	HFE2500-24	HFE2500-48
1	Rated output voltage	V	12	24
2	Output voltage set point	V	12±-1%	24±-1%
3	Output voltage range	V	9.6~13.2	19.2~29.0
4	Rated Output Current at 180 < Vin ≤ 265Vac (*1)	A	200	104
5	Rated Output Current at 170 ≤ Vin ≤ 180Vac (*1)	A	200	100
6	Rated Output Current at 100 ≤ Vin ≤ 132Vac (*1)	A	125	62.5
7	Rated Output Current at 85V ≤ Vin < 100Vac (*1)	A	Linear derating 1.3% per 1VAC from output current at 100Vac.	
8	Rated output power 180 < Vin ≤ 265Vac	W	2400	2496
9	Rated output power 170 ≤ Vin ≤ 180Vac	W	2400	
10	Rated output power 100 ≤ Vin ≤ 132Vac	W	1500	1500
11	Rated output power 85Vac ≤ Vin < 100Vac	W	Linear derating 1.3% per 1Vac from output power at 100Vac.	
12	Input voltage / frequency range (*2)(*16)	---	85~265Vac continuous, 47~63Hz, Single phase	
13	Maximum input current (*3)	A	15/12	
14	Power Factor (Typ) (at 115/230Vac) (*3)	---	>0.99/0.98 at maximum output power	
15	Efficiency at 75% rated load (Typ) (*3)	%	90/92	91/93
16	Efficiency at 100% rated load (Typ) (*3)	%	89/91	90/92
17	Inrush current (*4)	A	Less than 50	
18	Hold-up time (*13)	mS	≥ 10mS typical at 115/230Vac input, rated output voltage and less than 80% of rated load.	
19	Maximum line regulation (*5)	%	0.25	
20	Maximum load regulation (*6)	%	0.50	
21	Output Ripple and noise P-P (*7)	0~+70°C	240	480
		-10~0°C	360	780
22	Temperature stability	---	0.05% of rated Vout for 8hrs after 30min warm-up. Constant line,load and temperature.	
23	Temperature coefficient	PPM/°C	+/-200	
24	Remote sensing (*8)	---	Possible. Refer to Instruction Manual.	
25	Parallel operation (*9)	---	Possible. Single wire current share, 5% accuracy of rated Iout, up to 8 units of the same voltage rating	
26	Series operation	---	Possible (with external diodes), 2 units. Refer to Instruction Manual.	
27	Over current protection	85 ≤ Vin ≤ 132Vac	Minimum 105% of rated output current.	
		170 ≤ Vin ≤ 265Vac	105~120% of rated output current.	
28	Over voltage protection (*10)	V	Tracking OVP, range: 1.1xVout, accuracy: +/-3%	
29	Over temperature protection	---	Inverter shut down method, automatic recovery	
30	Remote On/Off control	---	Two complementary inputs. By electrical signal or dry contact. Refer to Instruction Manual.	
31	"DC OK" signal (*14)	---	Tracking, On when Vout>90+/-5% of output voltage setting Refer to Instruction Manual.	
32	Over-Temperature warning (*14)	---	Refer to Instruction Manual.	
33	"AC FAIL" signal (*14)	---	On when 270Vac>Vin>85Vac.	
34	Auxiliary power supply output (*3) (*11)	---	11.2~12.5V, 0.5A. 240mVp-p ripple and noise.	
35	Vout programming by external voltage	---	By 0~5V, equal to Vout min ~ Vout max. Refer to Instruction Manual.	
36	Vout programming by external resistor	---	By 1Kohm potentiometer. Refer to Instruction Manual.	
37	OCP programming by external voltage	---	By 0~5V. Refer to Instruction Manual.	
38	Front panel indicators	---	AC OK, DC OK/FAIL. Refer to Instruction Manual.	
39	PC Interface	---	Optional, PMBus compatible. Refer to Instruction Manual.	
40	Operating temperature	---	-10~+50°C: 100% load. +50°C to +60°C Derate 2%/°C of load +60°C to +70°C Derate 2.5%/°C of load	
41	Storage temperature	---	-30~85°C	
42	Operating humidity	---	10~90% RH, no condensation.	
43	Storage humidity	---	10~95% RH, no condensation.	
44	Cooling	---	By internal Fans. Variable speed control by ambient temperature and power level.	
45	Vibration	---	Built to meet IEC60068-2-64 (Basic Transportation)	
46	Shock	---	Built to meet IEC60068-2-27 (Basic Transportation)	
47	Conducted emission	---	Built to meet EN55032 Class B, FCC part 15 Class-B, VCCI Class-B	
48	Radiated emission (*15)	---	Built to meet EN55032 Class A, FCC part 15 Class-A, VCCI Class-A	
49	Immunity	---	Built to meet IEC61000-4-2 (Level 2,3), -3 (Level 2), -4 (Level 2), -5 (Level 3,4), -6 (Level 2), -8 (Level 4), -11	
50	Applicable safety standards	---	IEC 62368-1 UL62368-1 CSA22.2 No.62368-1 EN62368-1.	
51	Withstand voltage	Input-Output:	3000Vrms, 1min.	
		Input-Ground:	2000Vrms, 1min.	
		Output - Ground:	500Vrms 1min.	2250VDC 1min
52	Isolation resistance	---	More than 100Mohm at 25°C and 70% RH. Output-Ground: 500Vdc	
53	Leakage current (*12)(*16)	mA	Less Than 0.75/1.5mA at 115/230Vac range	
54	Weight (Typ)	Kg	Max 2.1	
55	Size (W*H*D)	---	107x41x325mm Refer to Outline Drawing.	

- Notes:**
- *1 Refer to Fig. 1
 - *2 For cases where conformance to various safety standards (UL, EN etc.) is required, to be described as 100-240Vac (50/60Hz).
 - *3 At 115/230Vac, 25°C ambient temperature.
 - *4 Not applicable for the noise filter inrush current less than 0.2mS.
 - *5 From 85~132Vac or 170~265Vac, constant load.
 - *6 From No-load to Rated load, constant input voltage. Measured at the sensing point in Remote sense.
 - *7 Measured with JEITA-RC9131A 1:1 probe with 4x270uF electrolytic capacitors and 1uF film capacitor on the output, 20MHz B.W. When Power Supplies are installed in HFE2500-S1U shelf, measured with 1uF film capacitor on the output terminals of the HFE2500-S1U.
 - *8 Voltage drop on load wires: HFE2500-12: 0.25V/wire, HFE2500-24: 0.5V/wire, HFE2500-48: 1V/wire.
 - *9 Accuracy applicable for load current > 50% of rated output current. Derate maximum output power by 5%.
 - *10 Inverter shut down method. Reset by AC voltage recycle or by On/Off control.
 - *11 Measured with JEITA-RC9131A 1:1 probe with 470uF electrolytic capacitor and 0.1uF film capacitor on the output, 20MHz B.W. Capacitors are not required when the Power Supply is installed in HFE2500-S1U shelf.
 - *12 Measured according to UL,EN method at 60Hz, 25°C ambient temperature
 - *13 Measured from input-off until the output voltage drops under 5% from the nominal voltage.
 - *14 Open collector signal. Maximum sink current: 10mA, maximum voltage 15V
 - *15 HFE2500 series considered as professional equipment and not intended for sale to generic public.
 - *16 Possible to operate at Input frequency 400Hz +/-10%, leakage current would increase to 6mA/12mA at 115/230Vac, Power factor would decrease. However the operation of the power supply is normal. Safety certification is for frequency range 47~63Hz only.

Vin(AC)	Model	HFE2500	HFE2500	HFE2500
		-12	-24	-48
85V	V1 (V)	12	24	48
	V2 (V)	13.2	29	58
100~132V	I1 (A)	90	42	21
	I2 (A)	100	50	25
170~180V	I1 (A)	114	52	26
	I2 (A)	125	62.5	31.25
180~265V	I1 (A)	181.8	82.5	41
	I2 (A)	200	100	50
180~265V	I1 (A)	181.8	86	43
	I2 (A)	200	104	52

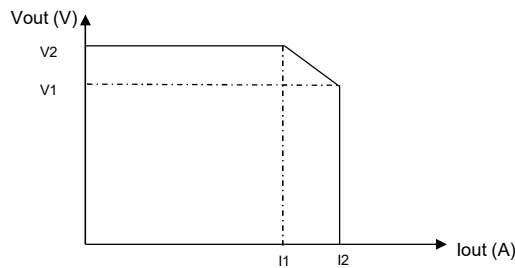


Fig. 1: Rated output current