HR-12F

SPECIFICATIONS

A126-01-01B

Items			Model	HR-12F -2	HR-12F -5	HR-12F -6	HR-12F -9	HR-12F -12	HR-12F -15	HR-12F -18	HR-12F -20	HR-12F -24	HR-12F -28	HR-12F -30	HR-12F -36	HR-12F -48
1	Nominal Output Voltage		V	2	5	6	9	12	15	18	20	24	28	30	36	48
2	Maximum Output Current		A	30	30	26	18	15	12	10	8	7.5	6.5	6	5	3.8
3	Maximum Output Power		W	60	150	156	162	180	180	180	160	180	182	180	180	182
4	Efficiency (typ)	(*1)	%	66	75	75	75	80	80	80	78	82	82	82	82	82
5	Input Voltage Range	(*2)	—	90～132VAC(47～440Hz) or 115～180VDC												
6	Input Current (typ)	(*1)	A	1.7	3.7	3.7	4.0	4.2	4.2	4.2	4.0	4.1	4.1	4.2	4.2	4.2
7	In-rush Current (typ)	(*3)	—	35A at 100VAC												
8	Output Voltage range		—	±10%												
9	Maximum Ripple & Noise		mV	50	50	50	60	60	60	80	80	80	80	90	90	100
10	Maximum Line Regulation	(*4)	mV	20	20	24	36	48	60	72	80	96	112	144	144	192
11	Maximum Load Regulation	(*5)	mV	20	20	24	36	48	60	72	80	96	112	144	144	192
12	Over Current Protection	(*6)	A	31.5 ～37.5	31.5 ～37.5	27.3 ～32.5	18.9 ～22.5	15.8 ～18.8	12.6 ～15.0	10.5 ～12.5	8.4 ～10.0	7.9 ～9.4	6.8 ～8.2	6.3 ～7.5	5.3 ～6.3	4.0 ～4.8
13	Over Voltage Protection	(*7)	V	2.7 ～2.9	5.75 ～6.25	6.9 ～7.5	10.5 ～11.2	14.0 ～15.0	17.5 ～18.7	21.0 ～22.5	23.4 ～25.0	28.0 ～30.0	32.7 ～35.0	35.1 ～37.5	41.4 ～45.0	56.2 ～60.0
14	Hold-up time	(*8)	—	More than 16ms												
15	Remote Sensing		—	Possible												
16	Remote ON/OFF Control	(*9)	—	Possible												
17	Series Operation		—	Possible												
18	Parallel Operation		—	Possible												
19	Operating Temperature	(*10)	—	-10℃ ～ +71℃												
20	Operating Humidity		—	30% ～ 90%RH (No dewdrop)												
21	Storage Temperature		—	-30℃ ～ +85℃												
22	Storage Humidity		—	10% ～ 95%RH (No dewdrop)												
23	Cooling		—	Convection cooled												
24	Temperature Coefficient		—	Less than 1% at -10℃ ～ +71℃												
25	Withstand Voltage		—	Input-Output, Input-Chassis ··· 2.0kVAC 1min.(20mA)												
26	Isolation Resistance		—	More than 100MΩ at 25℃ and 70%RH, Output-Chassis ··· 500VDC												
27	Vibration		—	At no operating. 10～55 Hz(sweep for 1min) Less than 19.6m/s² X,Y,Z 1h each												
28	Shock		—	Less than 196.1m/s²												
29	Safety Standard		—	Conform to UL1950-D3												
30	Conducted Emission Noise		—	Conform to FCC-class A												
31	Weight		—	1500g												
32	Size (W×H×D)		mm	101×115×183mm (Refer to Outline Drawing)												

NOTES

*1 : At 100VAC & Maximum output power.

*2 : For cases where conformance to various safety specs are required to be described as 100-120VAC, 50/60Hz on front panel.

*3 : When resuming operation in less than 8 sec after power failure at no load, softstart circuit will not limit the in-rush current at turn-on.

*4 : From 90～132VAC or 115～180VDC, constant load.

*5 : From No load ～ Full load, constant input voltage.

*6 : Constant current limiting with automatic recovery.

*7 : Inverter shut-down method, manual reset.
OVP curcuit will shut-down output.

*8 : At 100VAC input, nominal output voltage & output power of 150W.

*9 : TTL compatible input ; 2V～open for shut-down.
0V～0.8V for power-on.
Supply voltage to CNT terminal must not exceed 7V.

*10 : Ratings — Refer to Derating Curve on the right.
— Load(%) is percent of maximum output power or maximum output current, whichever is greater.
— +61～+71℃ ; Forced air cooled by outer cooling method.
— Refer to instruction manual for further mounting details.

Derating curve (vertical mounting)