

PFE1000FA

C270-01-01C

SPECIFICATIONS

ITEMS		MODEL	PFE1000FA-12	PFE1000FA-28	PFE1000FA-48	
1	Nominal Output Voltage	V	12	28	48	
2	Maximum Output Current	A	60	36	21	
3	Maximum Output Power	W	720	1008	1008	
4	Efficiency (Typ.) (*1)	100/115 VAC	%	84 / 84.5	86 / 87	87 / 88
		200/230 VAC	%	86 / 87	89 / 89.5	90 / 90.5
5	Input Voltage Range	(*2) (*3)	-	85 - 265 VAC		
6	Input Frequency	(*2)	Hz	47 - 63		
7	Input Current (*1)	100/115 VAC	A	9.2 / 8.0	12.4 / 10.8	12.0 / 10.6
		200/230 VAC	A	4.5 / 3.9	6.1 / 5.3	6.0 / 5.2
8	Power Factor	(*1)(*3)	-	0.95 min		
9	Output Voltage Accuracy	(*1)	%	+/-2		
10	Output Voltage Range		%	-20 / +20		
11	Maximum Ripple & Noise	(*3)	mV	120	280	480
12	Maximum Line Regulation		mV	48	56	96
13	Maximum Load Regulation		mV	48	56	96
14	Over Current Protection	(*4)(*5)	-	105% - 140%		
15	Over Voltage Protection	(*5)	-	125% - 145% (Inverter shutdown method)		
16	In-rush Current (Typ.) (*1)(*3)(*10)	100/115 VAC	A	20A / 23A peak		
		200/230 VAC	A	40A / 46A peak		
17	Remote Sensing	(*6)	-	Possible		
18	Remote ON/OFF Control	(*6)	-	Possible		
19	Parallel Operation	(*6)	-	Possible		
20	Series Operation	(*6)	-	Possible		
21	Operating Temperature	(*7)(*8)	-	-40°C - +100°C(Baseplate)		
22	Operating Humidity		-	20 - 95%RH (No Dewdrop)		
23	Storage Temperature		-	-40°C - +100°C		
24	Storage Humidity		-	10 - 95%RH (No Dewdrop)		
25	Cooling	(*9)	-	Conduction Cooled		
26	Temperature Coefficient		-	Less than 0.02% / °C		
27	Withstand Voltage		-	Input-Baseplate : 2.5kVAC, Input-Output : 3.0kVAC for 1min. Output-Baseplate : 500VDC for 1min.		
28	Isolation Resistance		-	Output to Baseplate 500VDC more than 100MΩ (25°C,70%RH)		
29	Vibration		-	At no operating, 10-55Hz (Sweep for 1min.) Amplitude 0.825mm constant (Maximum 49.0m/s ²) X,Y,Z 1 hour each		
30	Shock		-	196.1m/s ²		
31	Safety		-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020)		
32	Weight (Typ.)		g	420		
33	Size (W x H x D)		mm	100 x 13.4 x 160 (Refer to Outline Drawing)		

* Read instruction manual carefully, before using the power supply unit.

=NOTES=

*1. At 100VAC/115VAC/200VAC/230VAC and maximum output power. (Baseplate Temperature = +25°C.)

*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC(50-60Hz).

*3. External components are needed for operation. (Refer to basic connection and instruction manual.)

*4. Constant current limiting.(The unit automatically shutdown when left in OCP condition, with the output voltage less than the LVP level. Refer to instruction manual.)

*5. Reset : Line off or Control off. (Refer to instruction manual.)

*6. Refer to Instruction manual.

*7. Ambient Temperature min=-40°C

*8. Ratings - refer to Derating Curve (C270-01-02_).

*9. Heatsink has to be chosen according to Instruction manual.

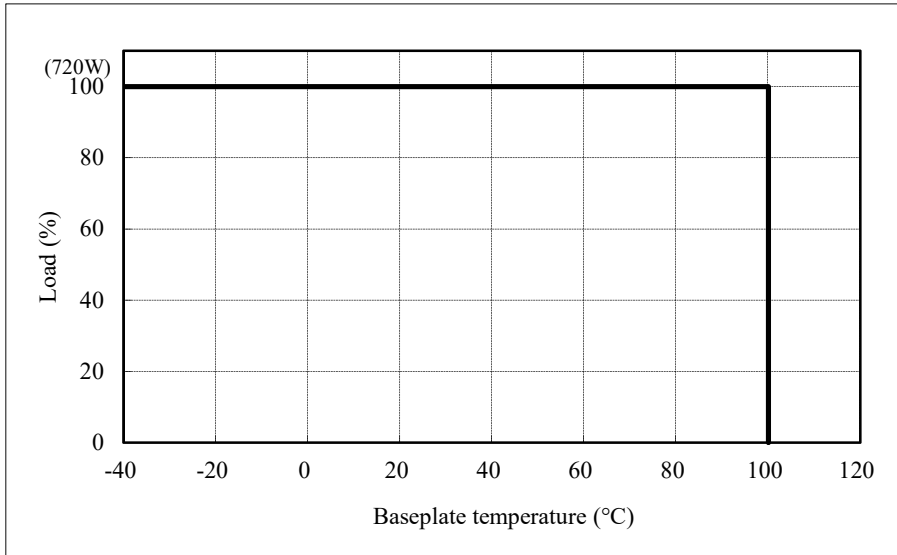
*10. First inrush current. Not applicable for the inrush current to Noise Filter for less than 0.2ms.

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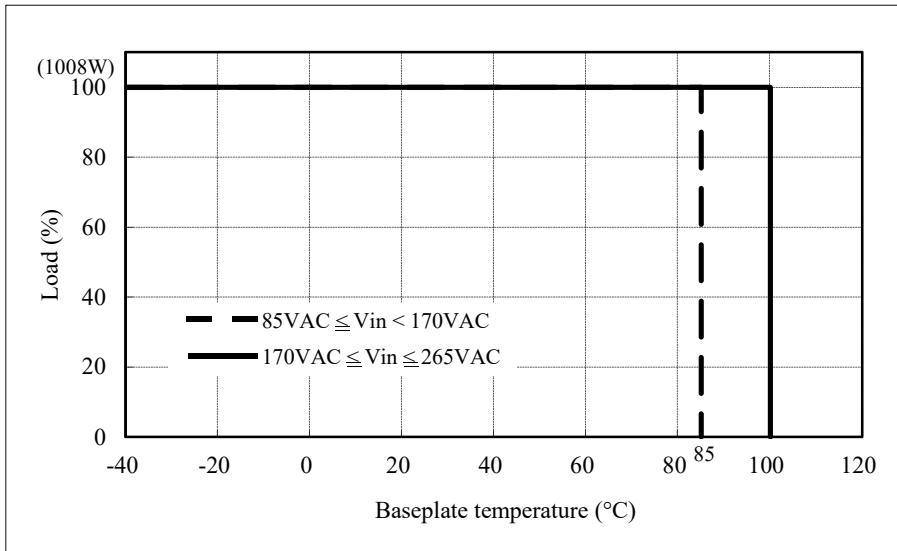
C270-01-02

Derating Curve

PFE1000FA-12



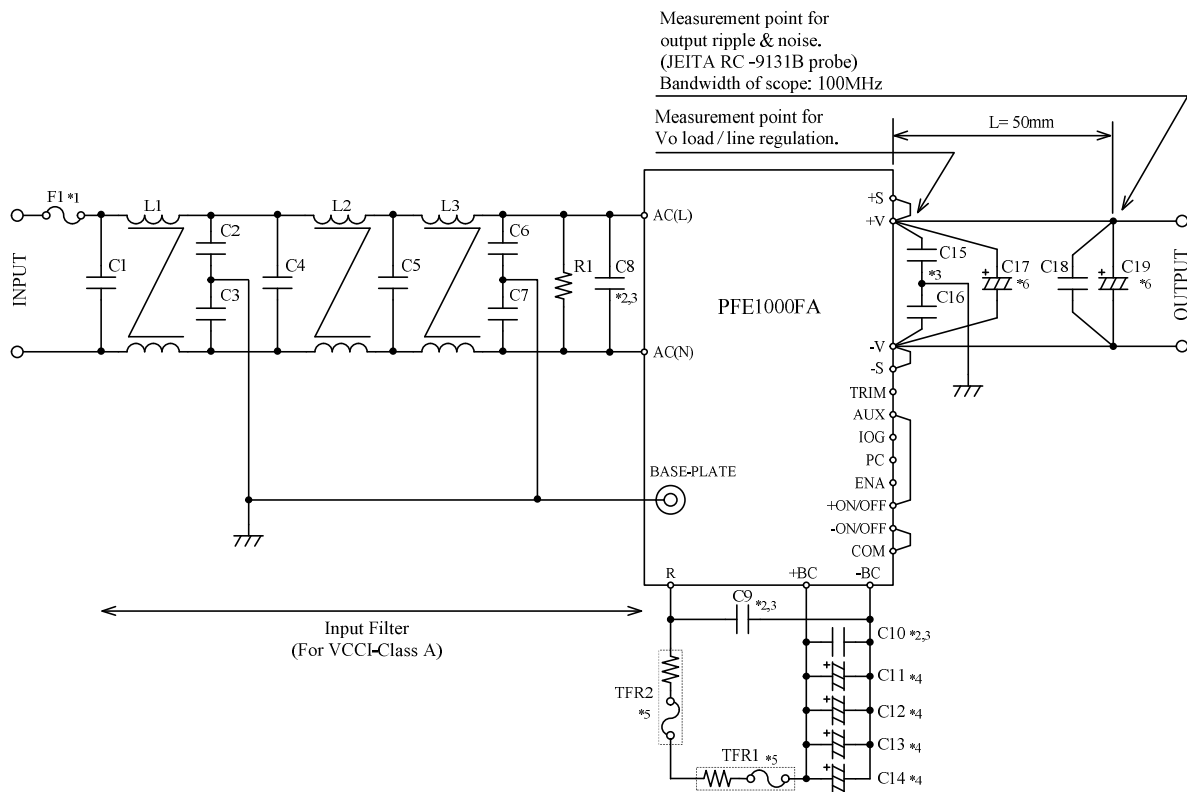
PFE1000FA-28,48



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C270-01-03A

BASIC CONNECTION



F1	AC250V 25A	C15	0.033uF
C1	AC250V 1uF (Film)	C16	0.033uF
C2	470pF	C17	12V: 25V 1000uF (Elec.)
C3	470pF		28V: 50V 470uF (Elec.)
C4	AC250V 1uF (Film)		48V: 100V 220uF (Elec.)
C5	AC250V 1uF (Film)	C18	100V 2.2uF (Ceramic)
C6	4700pF	C19	12V: 25V 1000uF (Elec.)
C7	4700pF		28V: 50V 470uF (Elec.)
C8	AC250V 1uF (Film)		48V: 100V 220uF (Elec.)
C9	450V 1uF (Film)	R1	0.5W 470kΩ
C10	450V 1uF (Film)	TFR1	5.1Ω 139°C (Res., Thermal fuse)
C11	450V 390uF (Elec.)	TFR2	5.1Ω 139°C (Res., Thermal fuse)
C12	450V 390uF (Elec.)	L1	2mH
C13	450V 390uF (Elec.)	L2	2mH
C14	450V 390uF (Elec.)	L3	2mH

==NOTES==

- *1. Use an external fuse of fast blow type for each unit.
- *2. The allowable ripple current of capacitor must be more than 3A(rms).
- *3. Put this capacitor near the terminal as close as possible.
- *4. The maximum capacitance that can be used is less than 2300uF(Rated capacitance).
Avoid the connection of capacitance which is more than above, else it will lead to module to damage.
- *5. The inrush current at AC throw in can be suppressed by the external Resistor (Built-in thermal fuse) connected between the R and +BC terminals.
- *6. If the ambient temperature is less than -20°C, use twice the recommended capacitor above.
- *7. Refer to instruction manual for further details.