

SPECIFICATIONS

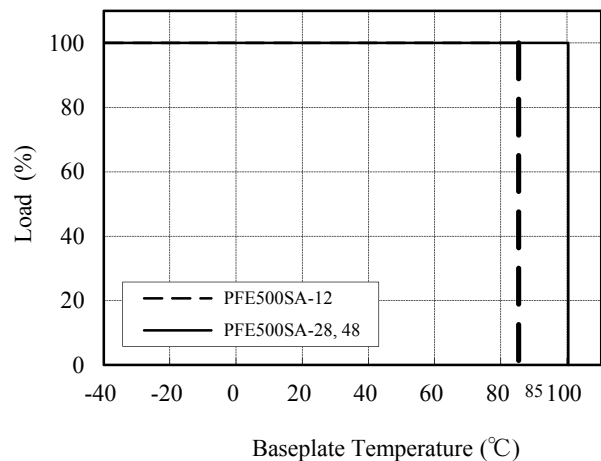
MODEL			PFE500SA-12	PFE500SA-28	PFE500SA-48
ITEMS					
1	Nominal Output Voltage	V	12	28	48
2	Maximum Output Current	A	33	18	10.5
3	Nominal Output Power	W	396	504	504
4	Efficiency (Typ.)	(*1) %	84 / 86	87 / 89	89 / 91
5	Input Voltage Range	(*2)(*5)(*9) -	85 - 265 VAC		
6	Input Frequency	(*2) Hz	47 - 63		
7	Input Current	(*1) A	4.9 / 2.4	6.0 / 2.9	5.9 / 2.9
8	Power Factor	(*1)(*5) -	0.95 min		
9	Output Voltage Accuracy	(*1) %	+/-2		
10	Output Voltage Range	%	-20 / +20		
11	Maximum Ripple & Noise	(*5) mV	120	280	480
12	Maximum Line Regulation	mV	48	56	96
13	Maximum Load Regulation	mV	48	56	96
14	Over Current Protection	-	105% - 140% (Automatic recovery method)		
15	Over Voltage Protection	-	125% - 145% (Inverter shutdown method)		
16	In-rush Current (Typ.)	(*1)(*5)(*6) A	20A / 40A peak		
17	Parallel Operation	-	-		
18	Series Operation	(*7) -	Possible		
19	Operating Temperature	(*3)(*8) -	-40°C - +85°C(Baseplate)	-40°C - +100°C(Baseplate)	
20	Operating Humidity	-	20 - 95%RH (No Dewdrop)		
21	Storage Temperature	-	-40°C - +100°C		
22	Storage Humidity	-	10 - 95%RH (No Dewdrop)		
23	Cooling	(*4) -	Conduction Cooled		
24	Temperature Coefficient	-	Less than 0.02% / °C		
25	Withstand Voltage	-	Input-Baseplate : 2.5kVAC, Input-Output : 3.0kVAC for 1min. Output-Baseplate : 1.5kVDC for 1min.		
26	Isolation Resistance	-	Output to Baseplate 500VDC more than 100MΩ (25°C,70%RH)		
27	Vibration	-	At No Operating, 10-55Hz (Sweep for 1min.) Amplitude 0.825mm Constant (Maximum 49.0m/s ²) X,Y,Z 1 hour each		
28	Shock	-	196.1m/s ²		
29	Safety	-	Approved by UL60950-1,CSA60950-1,EN60950-1		
30	Weight (Typ.)	g	200		
31	Size (W x H x D)	mm	61 x 12.7 x 116.8 (Refer to Outline Drawing)		

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

Derating Curve

=NOTES=

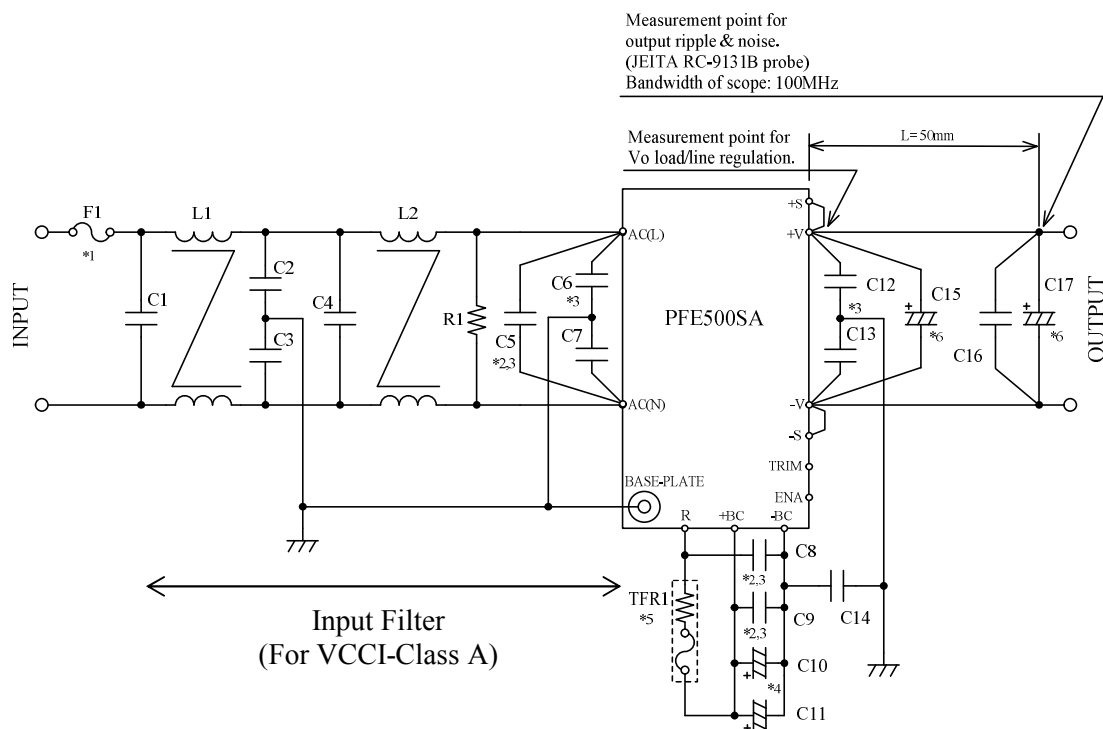
- *1. At 100VAC/200VAC and maximum output power.
(Baseplate Temperature = +25°C.)
- *2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC(50 - 60Hz).
- *3. Ratings - refer to Derating Curve on the right.
- *4. Heatsink has to be chosen according to Instruction manual.
- *5. External components are needed for operation.
(Refer to basic connection and instruction manual.)
- *6. First inrush current. Not applicable for the inrush current to Noise Filter for less than 0.2ms.
- *7. Refer to Instruction manual.
- *8. Ambient Temperature min=-40°C.
- *9. Start-up at Vin=83VAC guaranteed.



PFE500SA

C265-01-02

BASIC CONNECTION



F1	AC250V 15A	C13	0.033uF
C1	AC250V 1uF (Film)	C14	1000pF
C2	4700pF	C15	12V: 25V 1000uF (Elec.)
C3	4700pF		28V: 50V 470uF (Elec.)
C4	AC250V 1uF (Film)		48V: 100V 220uF (Elec.)
C5	AC250V 1uF (Film)	C16	100V 2.2uF (Ceramic)
C6	1000pF	C17	12V: 25V 1000uF (Elec.)
C7	1000pF		28V: 50V 470uF (Elec.)
C8	450V 1uF (Film)		48V: 100V 220uF (Elec.)
C9	450V 1uF (Film)	R1	0.5W 470kΩ
C10	450V 390uF	TFR1	10Ω 139°C (Res., Thermal fuse)
C11	450V 390uF	L1	6mH
C12	0.033uF	L2	6mH

==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 1200uF(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.