PFE500S

SPECIFICATIONS

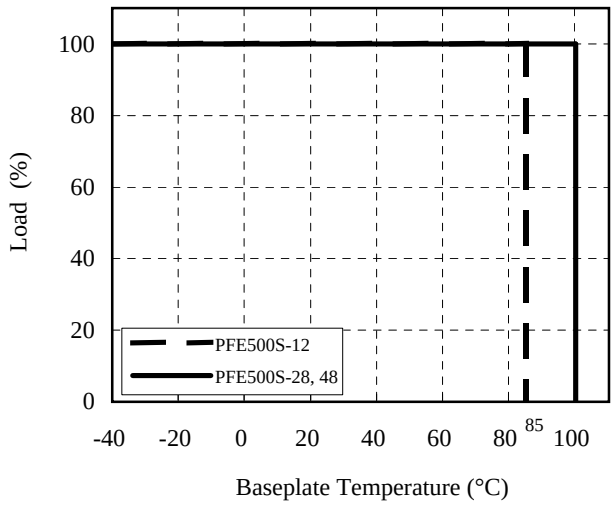
C252-01-01A

	ITEMS / MODEL			PFE500S-12	PFE500S-28	PFE500S-48
1	Nominal Output Voltage	(*1)	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)	%	82 / 83	84 / 86	84 / 86
5	Input Voltage Range	(*2) (*5)	-	85 - 265 VAC		
6	Input Frequency	(*2)	Hz	47 - 63		
7	Input Current	(*1)	A	5.0 / 3.0	6.2 / 3.2	6.2 / 3.2
8	Power Factor	(*1)(*5)	-	0.95 min		
9	Output Voltage Accuracy		%	+/-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)	A	20A / 40A peak		
17	Parallel Operation		-	-		
18	Series Operation	(*6)	-	Possible		
19	Operating Temperature	(*3)(*7)	-	-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	Withstand Voltage		-	Input-Baseplate : 2.5kVAC, Input-Output : 3.0kVAC for 1min. Output-Baseplate : 1.5kVDC for 1min.		
25	Isolation Resistance		-	Output to Baseplate 500VDC more than 100MΩ (25°C,70%RH)		
26	Vibration		-	At No Operating, 10-55Hz (Sweep for 1min.) Amplitude 0.825mm Constant (Maximum 49.0m/s^2) X,Y,Z 1 hour each		
27	Shock		-	196.1m/s^2		
28	Safety		-	Approved by UL60950-1,CSA60950-1,EN60950-1		
29	Weight (Typ.)		g	250		
30	Size (W x H x D)		mm	61 x 12.7 x 116.8 (Refer to Outline Drawing)		

=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. Refer to Instruction manual.
*7. Ambient Temperature min=-40°C

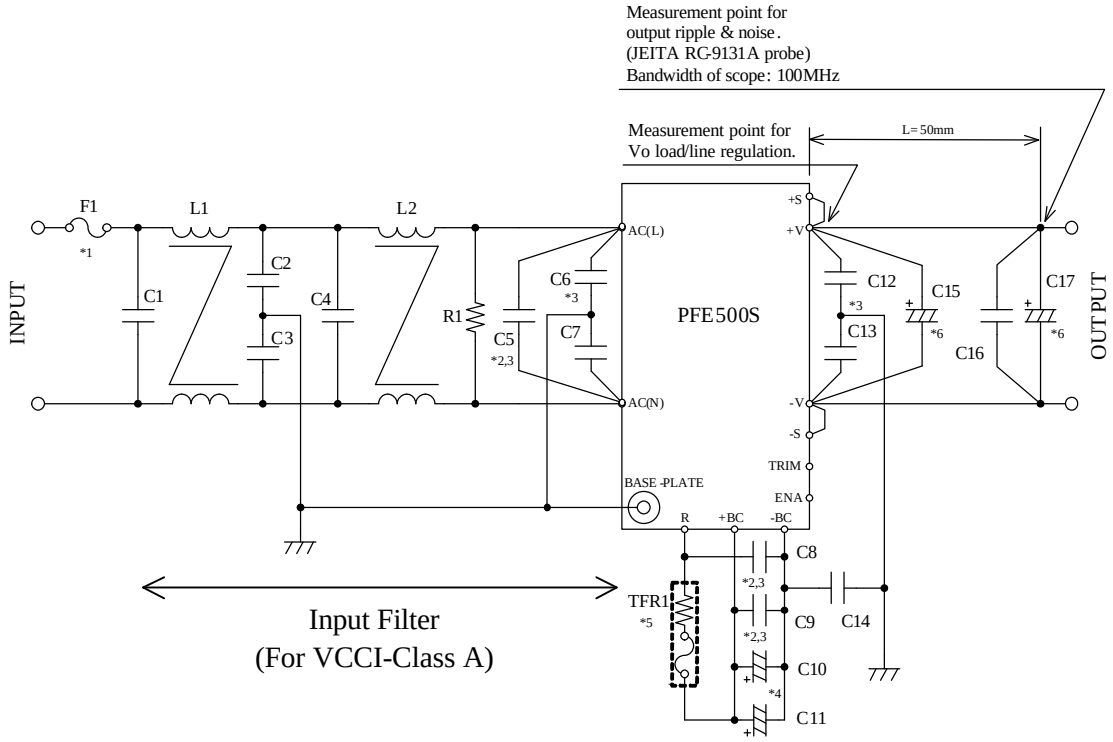
Derating Curve



PFE500S

C252-01-02

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	2W 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.