

**PFE300SA**

C274-01-01C

SPECIFICATIONS

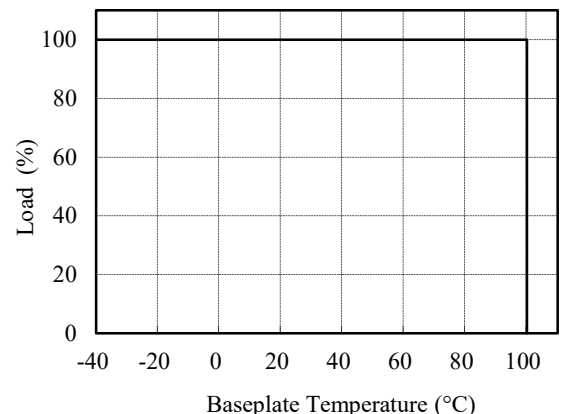
ITEMS		MODEL	PFE300SA-12	PFE300SA-28	PFE300SA-48	
1	Nominal Output Voltage	V	12	28	48	
2	Maximum Output Current	A	25	10.8	6.3	
3	Nominal Output Power	W	300	302.4	302.4	
4	Efficiency (Typ.) (*1)	100/115 VAC	%	84 / 84	87 / 87.5	88 / 88
		200/230 VAC	%	85 / 86	89 / 89.5	90 / 90.5
5	Input Voltage Range	(*2)(*5)(*9)	-	85 - 265 VAC		
6	Input Frequency	(*2)	Hz	47 - 63		
7	Input Current (*1)	100/115 VAC	A	3.8 / 3.3	3.7 / 3.2	3.6 / 3.1
		200/230 VAC	A	1.9 / 1.6	1.8 / 1.6	1.8 / 1.6
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)	100/115 VAC	A	20A / 23A peak		
		200/230 VAC	A	40A / 46A peak		
17	Parallel Operation	-	-			
18	Series Operation	(*7)	-	Possible		
19	Operating Temperature	(*3)(*8)	-	-40°C - +100°C		
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 <sup>2</sup> ) X,Y,Z 1 hour each			
28	Shock	-	196.1m/s <sup>2</sup>			
29	Safety	-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020)			
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=

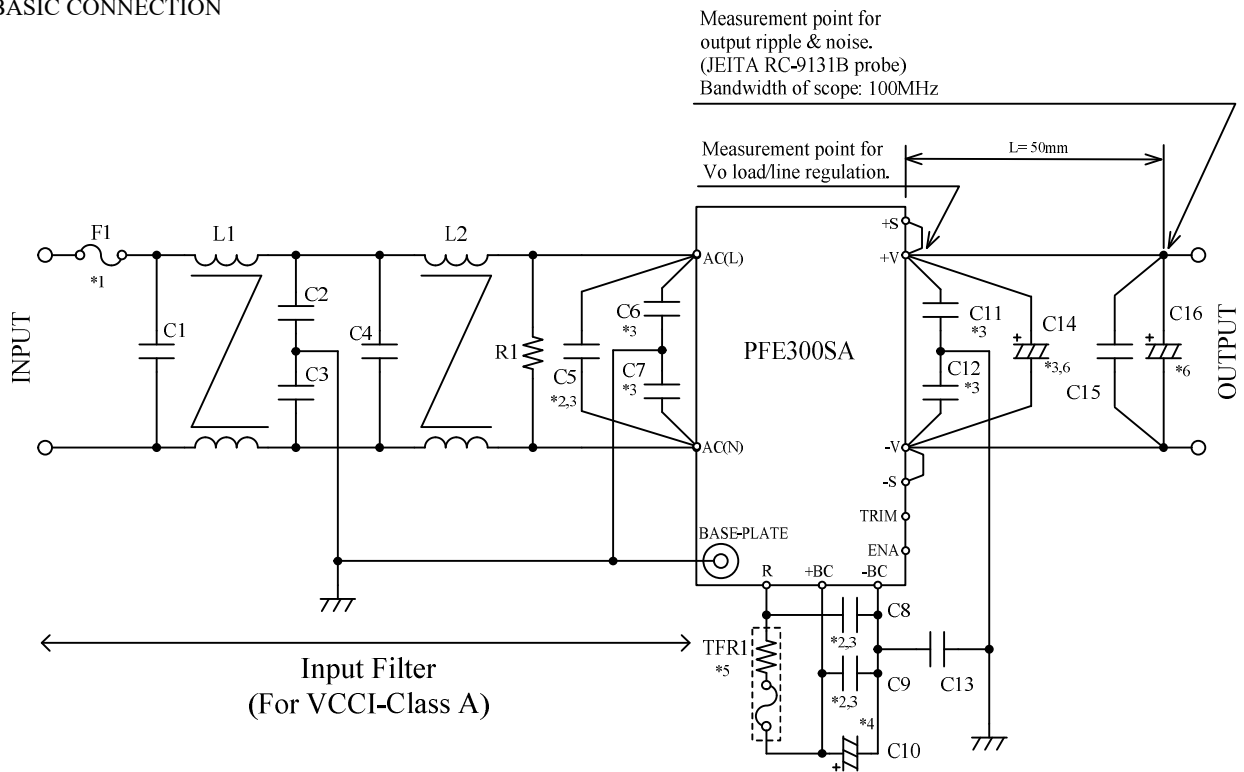
- \*1. At 100VAC/115VAC/200VAC/230VAC and maximum output power.  
(Baseplate Temperature = +25°C.)
- \*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC(50 - 60Hz).
- \*3. Ratings - refer to Derating Curve on the right.
- \*4. 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.



**PFE300SA**

C274-01-02

BASIC CONNECTION



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

==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.