

**PFE1200FA-24/TCN**

C270-01-01/1K2TCN

SPECIFICATIONS

ITEMS		MODEL	PFE1200FA-24/TCN
1	Nominal Output Voltage	-	25.5V
2	Maximum Output Current	-	47A
3	Maximum Output Power	-	1198.5W
4	Efficiency (Typ.) (*1)	220 VAC	90.5%
5	Input Voltage Range	(*2)	154 - 265 VAC
6	Input Frequency	-	47 - 63 Hz
7	Input Current (*1)	220 VAC	6.1A
8	Power Factor	(*1)(*2)	0.95 min
9	Output Voltage Accuracy	(*1)	+/-2%
10	Output Voltage Range	-	+/-5%
11	Maximum Ripple & Noise	(*2)	280mV
12	Maximum Line Regulation	-	56mV
13	Maximum Load Regulation	-	56mV
14	Over Current Protection	(*3)(*4)	105% - 140%
15	Over Voltage Protection	(*4)	110% - 130% (Inverter shutdown method)
16	In-rush Current (Typ.) (*1)(*2)(*9)	220 VAC	46A peak
17	Remote Sensing	(*5)	Possible
18	Remote ON/OFF Control	(*5)	Possible
19	Parallel Operation	(*5)	Possible
20	Series Operation	(*5)	Possible
21	Operating Temperature	(*6)(*7)	-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	(*8)	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 <sup>2</sup> ) X,Y,Z 1 hour each
30	Shock	-	196.1m/s <sup>2</sup>
31	Safety	-	-
32	Weight (Typ.)	-	420g
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. 220VAC and maximum output power. (Baseplate Temperature = +25°C.)

\*2. External components are needed for operation. (Refer to basic connection and instruction manual.)

\*3. 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.)

\*4. Reset : Line off or Control off. (Refer to instruction manual.)

\*5. Refer to Instruction manual.

\*6. Ambient Temperature min=-40°C

\*7. Ratings - refer to Derating Curve (C270-01-02/1K2TCN- ).

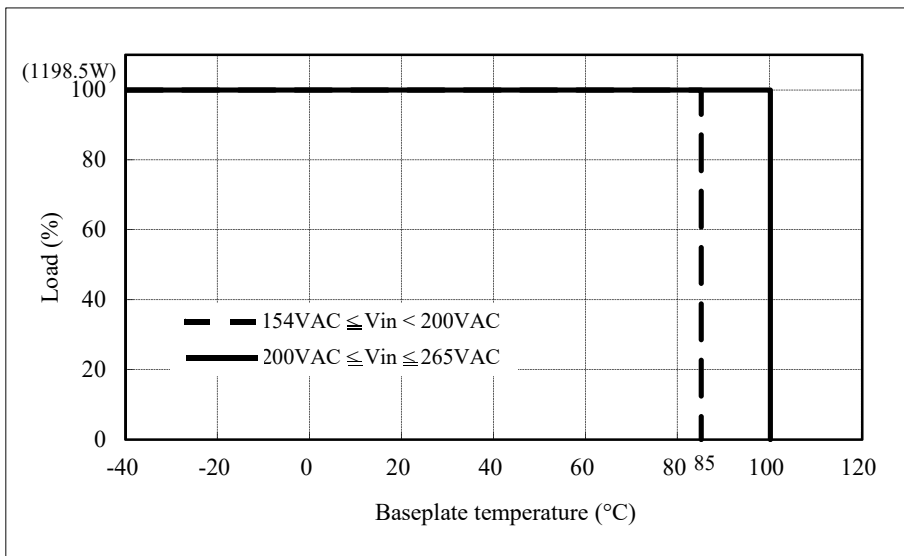
\*8. Heatsink has to be chosen according to Instruction manual.

\*9. First inrush current. Not applicable for the inrush current to Noise Filter for less than 0.2ms.

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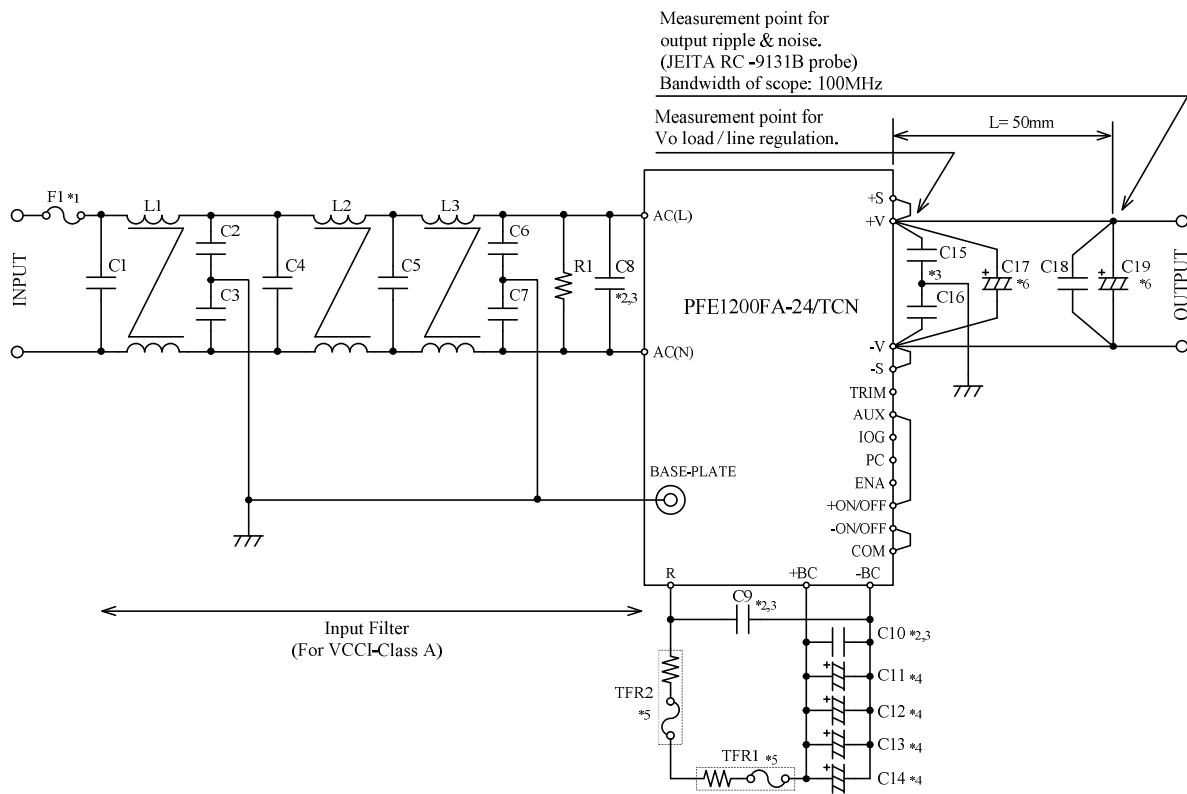
Derating Curve



**PFE1200FA-24/TCN**

C270-01-03/1K2TCN

BASIC CONNECTION



F1	AC250V 25A	C13	450V 390uF (Elec.)
C1	AC250V 1uF (Film)	C14	450V 390uF (Elec.)
C2	470pF	C15	0.033uF
C3	470pF	C16	0.033uF
C4	AC250V 1uF (Film)	C17	50V 470uF (Elec.)
C5	AC250V 1uF (Film)	C18	100V 2.2uF (Ceramic)
C6	4700pF	C19	50V 470uF (Elec.)
C7	4700pF	R1	0.5W 470kΩ
C8	AC250V 1uF (Film)	TFR1	5.1Ω 139°C (Res., Thermal fuse)
C9	450V 1uF (Film)	TFR2	5.1Ω 139°C (Res., Thermal fuse)
C10	450V 1uF (Film)	L1	2mH
C11	450V 390uF (Elec.)	L2	2mH
C12	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.  
Boost voltage bulk capacitor is determined by boost voltage ripple voltage, ripple current and hold-up time.  
Select capacitor value such that boost voltage ripple voltage does not exceed 15Vp-p.  
When ambient temperature is -20°C or less, ripple voltage of boost voltage might increase due to ESR Characteristics.  
Therefore, verify above characteristics by actual evaluation.
- \*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.