

Date : Nov.25,2024

Temperature increase of main components

Model: UMA120F

1. Conditions

- (1) Input :AC 85 ~ 264 [V]
- (2) Output :Rated output *Derating is required at AC85-115[V]input.
- (3) Mounting method :As shown in Fig.1.1

2. Result

No.	Parts name	Symbol No.	Increase (ΔT)			Rated temp. [°C]	Reference
			[deg]				
			12V	24V	48V		
1	Line Filter	L101	52.9	51.2	54.8	130	
2	Line Filter	L102	61.8	60.4	59.9	130	
3	Input Rectifier	SS101	58.1	58.5	57	150	Junction Temp.
4	Capacitor(Input)	C119	48.1	44.5	46.8	105	
5	Choke Coil(Pfc)	L103	58.7	56.6	56.8	130	
6	Transistor(Pfc)	TR111	55.8	55.5	55	150	Junction Temp.
7	Swiching Transistor	TR201	64.2	60.3	63.4	150	Junction Temp.
8	Swiching Transistor	TR202	62.3	55.3	60.5	150	Junction Temp.
9	Transformer	T201	66.1	57.3	66.3	130	
10	Capacitor	C222	35	35	35	105	
11	Rectifying Mos-Fet(Output)	TR501	70.6	46.5	–	150	Junction Temp.
12	Rectifying Mos-Fet(Output)	TR502	74.6	45.5	–	150	Junction Temp.
13	Rectifying Diode(Output)	D501	–	–	75.9	150	Junction Temp.
14	Rectifying Diode(Output)	D502	–	–	75.9	150	Junction Temp.
15	Choke Coil(Output)	L501	28.7	28.7	28.7	130	
16	Capacitor(Output)	C501	53.9	35.2	42.8	105	
17	Capacitor(Output)	C501	55.2	35.3	41.7	105	
18	Capacitor(Output)	C503	39.2	24	28.3	105	
19							
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(Side view)

Fig.1.1 Mounting method
(Normal position)