

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]									
			5V	7.5V	12V	15V	18V	24V	36V	48V		
1	Line Filter	L101	31.6	46.8	52.9	42.4	48.3	51.2	49.7	54.8	130	
2	Line Filter	L102	31.6	48	61.8	50.6	51.1	60.4	53.9	59.9	130	
3	Input Rectifier	SS101	41.6	54.8	58.1	56.3	55.7	58.5	59.5	57	150	Junction Temp.
4	Capacitor(Input)	C119	42	41.8	48.1	41	45.6	44.5	47.5	46.8	105	
5	Choke Coil(Pfc)	L103	43.8	51.3	58.7	48.6	49.11	56.6	55	56.8	130	
6	Transistor(Pfc)	TR111	40.6	50.8	55.8	52.2	51.4	55.5	56.3	55	150	Junction Temp.
7	Swiching Transistor	TR201	56.1	55.6	64.2	53.5	57.2	60.3	61.1	63.4	150	Junction Temp.
8	Swiching Transistor	TR202	62	54.9	62.3	48.6	56.6	55.3	58.4	60.5	150	Junction Temp.
9	Transformer	T201	71.3	57.8	66.1	49.7	59.4	57.3	61.7	66.3	130	
10	Capacitor	C222	35	35	35	35	35	35	35	35	105	
11	Rectifying Mos-Fet(Output)	TR501	68.8	66.5	70.6	47.4	56.4	46.5	-	-	150	Junction Temp.
12	Rectifying Mos-Fet(Output)	TR502	66	63.4	74.6	44.4	54.4	45.5	-	-	150	Junction Temp.
13	Rectifying Diode(Output)	D501	-	-	-	-	-	-	93.6	75.9	150	Junction Temp.
14	Rectifying Diode(Output)	D502	-	-	-	-	-	-	92.4	75.9	150	Junction Temp.
15	Choke Coil(Output)	L501	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	130	
16	Capacitor(Output)	C501	57.2	52.3	53.9	33.7	38.3	35.2	45.1	42.8	105	
17	Capacitor(Output)	C502	58.7	53.3	55.2	35.1	38.5	35.3	43.9	41.7	105	
18	Capacitor(Output)	C503	41.7	42.2	39.2	25.6	27.8	24	31.6	28.3	105	
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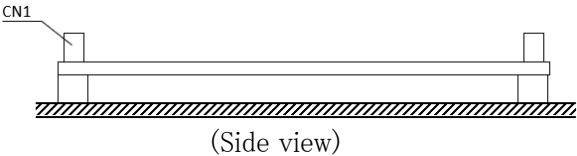


Fig.1.1 Mounting method
(Normal position)