

Date : Oct.22,2025

Temperature increase of main components

Model: UMHA120F

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 (Δ T)						Rated temp. [°C]	Reference
			[deg]							
			12V	15V	18V	24V	48V			
1	Line Filter	L101	58.4	60.2	63.7	65.2	61.6		130	
2	Line Filter	L102	71.7	73.6	75.4	77	75.7		130	
3	Input Rectifier	SS101	70.7	74.4	76.7	78	75.4		150	Junction Temp.
4	Capacitor(Input)	C119	49.6	56.5	58.2	60.1	57.8		105	
5	Choke Coil(Pfc)	L103	64.8	66.9	68	68.4	66.7		130	
6	Transistor(Pfc)	TR111	66.9	70.6	73.1	73.8	71.1		150	Junction Temp.
7	Swiching Transistor	TR201	72.1	72	75	72.9	73.3		150	Junction Temp.
8	Swiching Transistor	TR202	65.1	67.7	69.7	68.5	69.3		150	Junction Temp.
9	Transformer	T201	67.8	67.7	75	72.9	70.4		130	
10	Rectifying Mos-Fet(Output)	TR501	73.6	65	64.4	57.1	-		150	Junction Temp.
11	Rectifying Mos-Fet(Output)	TR502	68.5	64	64.5	55	-		150	Junction Temp.
12	Rectifying Diode(Output)	D501	-	-	-	-	89.6		150	Junction Temp.
13	Rectifying Diode(Output)	D502	-	-	-	-	89.3		150	Junction Temp.
14	Capacitor(Output)	C501	52.4	51	50.7	45.8	49.6		105	
15	Capacitor(Output)	C502	53.9	50.8	51.5	46.7	49.4		105	
16	Capacitor(Output)	C503	42.2	40.9	38.8	36.3	37.7		105	
17										
18										
19										
20										

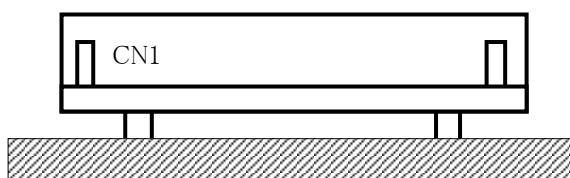


Fig.1.1 Mounting method
(Normal position)