

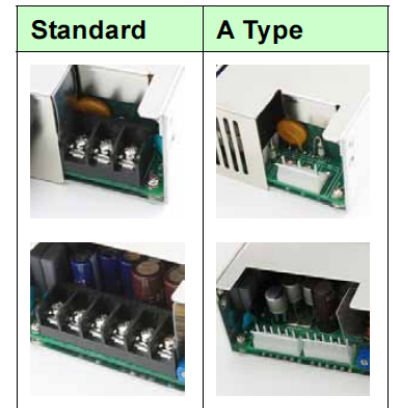
AQFC480E Series

480 W AC/DC Switching Power Supply

CoolPower
Solutions

KEY FEATURES

- Enclosed Switching Power Supply
- Universal Input: 90-264 VAC
- Active P.F.C. Function, PF>0.95
- Cooling by Built-in DC FAN
- Protections: Over Load / Over Voltage /
Over Temperature / Short Circuit
All by Auto-recovery
- Built-in Remote ON/OFF Control
- Stand by 5V @ 0.6A
- High Efficiency up to 92%
- Ultra Compact Size: 7.0 x 4.2 x 2.37 Inches
- 3-Years Product Warranty



ELECTRICAL SPECIFICATIONS

Model No.	AQFC480E-12S	AQFC480E-24S	AQFC480E-36S	AQFC480E-48S
Max Output Wattage (W)	480W			
Input	Voltage			
	90-264 VAC or 120-370 VDC			
	Frequency (Hz)			
	47-63 Hz			
	Current (Full load)			
	< 5.5 A max. (115 VAC) / < 3.0 A max. (230 VAC)			
Inrush Current (<2ms)				
< 50 A max. (115 VAC) / < 70 A max. (230 VAC)				
Leakage Current				
< 0.5 mA max.(240VAC 63Hz)				
Power Factor				
PF>0.95 (115 VAC) / PF>0.90 (230 VAC) at Full Load				
Output	Voltage (V.DC.)			
	12V	24V	36V	48V
	Constant Current Range (.VDC)			
	10 ~ 13.2V	20 ~ 26.4V	26 ~ 36V	30 ~ 50.4V
	Current Adj. Range (A) max			
	5 ~ 40	4 ~ 20	3 ~ 13.33	3 ~ 10
	Minimum Load			
	5%			
	Maximum Capacitive Load			
	180000 uF	75000 uF	50000 uF	25000 uF
Ripple & Noise (max.)				
100mVp-p				
Efficiency (%)	Vin:115(V.AC)		85%	
	Vin:230(V.AC)		88%	
87%				
89%				
92%				
91%				
Hold-up Time				
10 ms min.				
Switching Frequency				
62.5 kHz ±10%				
Protection	Over Power Protection			
	Auto recovery			
	Over Voltage Protection			
	Auto recovery			
Over Temperature				
Auto recovery				
Short Circuit Protection				
Auto-recovery				
Isolation	Input-Output (V.AC)			
	3000V			
	Input-FG (V.AC)			
1500V				
Output-FG (V.AC)				
500V				
Function	5V Stand by			
	5VSB: 5V@0.6A ; Tolerance ±10% , Ripple & Noise: 100m Vp-p (max.)			
	Remote Control			
+RC / -RC: Power ON=open ; Power OFF=short				
FAN Control				
12VDC / 0.5A max.				

1. All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

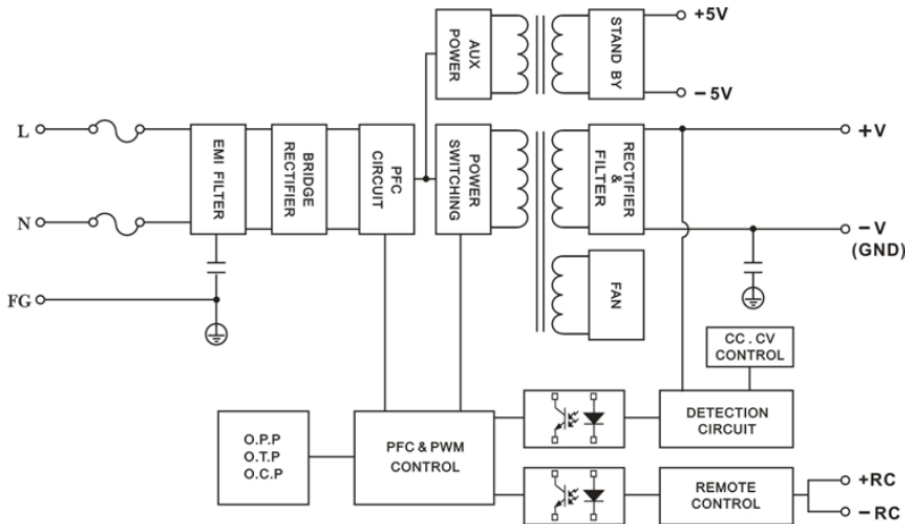
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

ELECTRICAL SPECIFICATIONS

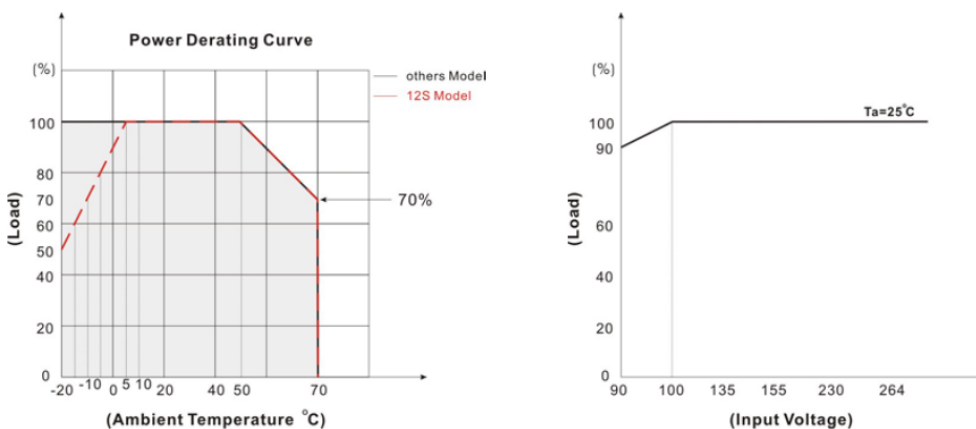
Model No.	AQFC480E-12S	AQFC480E-24S	AQFC480E-36S	AQFC480E-48S	
Environment	Operating Temperature	-20°C...+70°C (with derating)			
	Storage Temperature	-25°C...+85°C			
	Temperature Coefficient	±0.03%/°C (0~50°C)			
	Humidity	95% RH			
	MTBF	>100,000 h @ 25°C (MIL-HDBK-217F)			
	Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.			
Physical	Dimension (L x W x H)	7.0 x 4.2 x 2.37 Inches (177.8 x 106.5 x 60.3 mm) Tolerance ±0.5 mm			
	Weight	950 g			
Safety	Agency Approvals	UL60950-1, CE(Surge:4KV)			
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B			
	EMS (Noise Immunity)	EN 55024			

1. All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

BLOCK DIAGRAM



DERATING



MECHANICAL DIMENSION

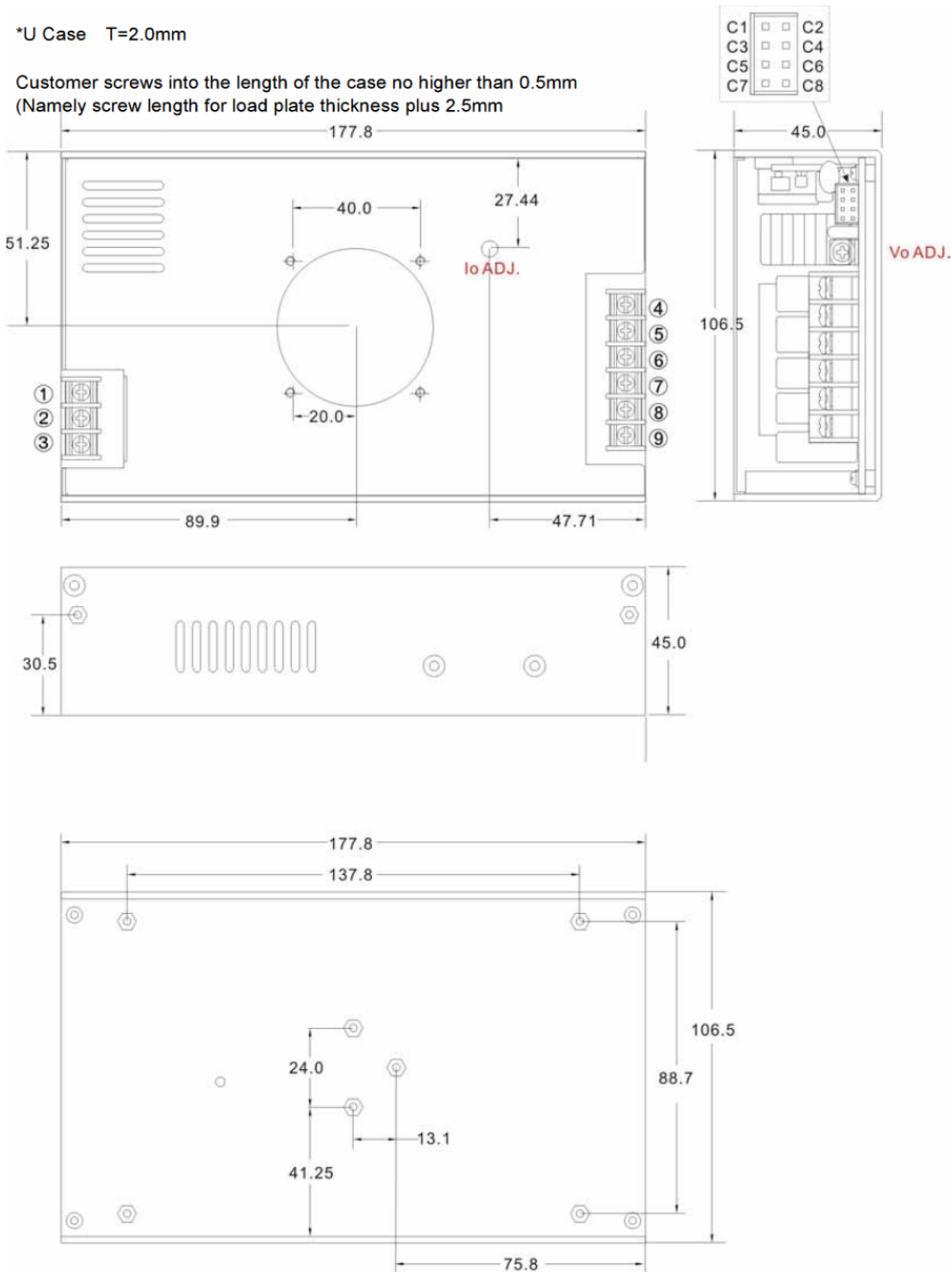
Standard



ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer screws into the length of the case no higher than 0.5mm
(Namely screw length for load plate thickness plus 2.5mm)



AC Input Terminal Pin

PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	⏏

DC Output Terminal Pin

PIN#	SINGLE
4~6	+DC OUT
7~9	-DC OUT

Connector Pin (CN4)

PIN#	SINGLE
C1	NC
C2	NC
C3	+RC
C4	-RC
C5	NC
C6	NC
C7	+5V SB
C8	-5V SB

MECHANICAL DIMENSION

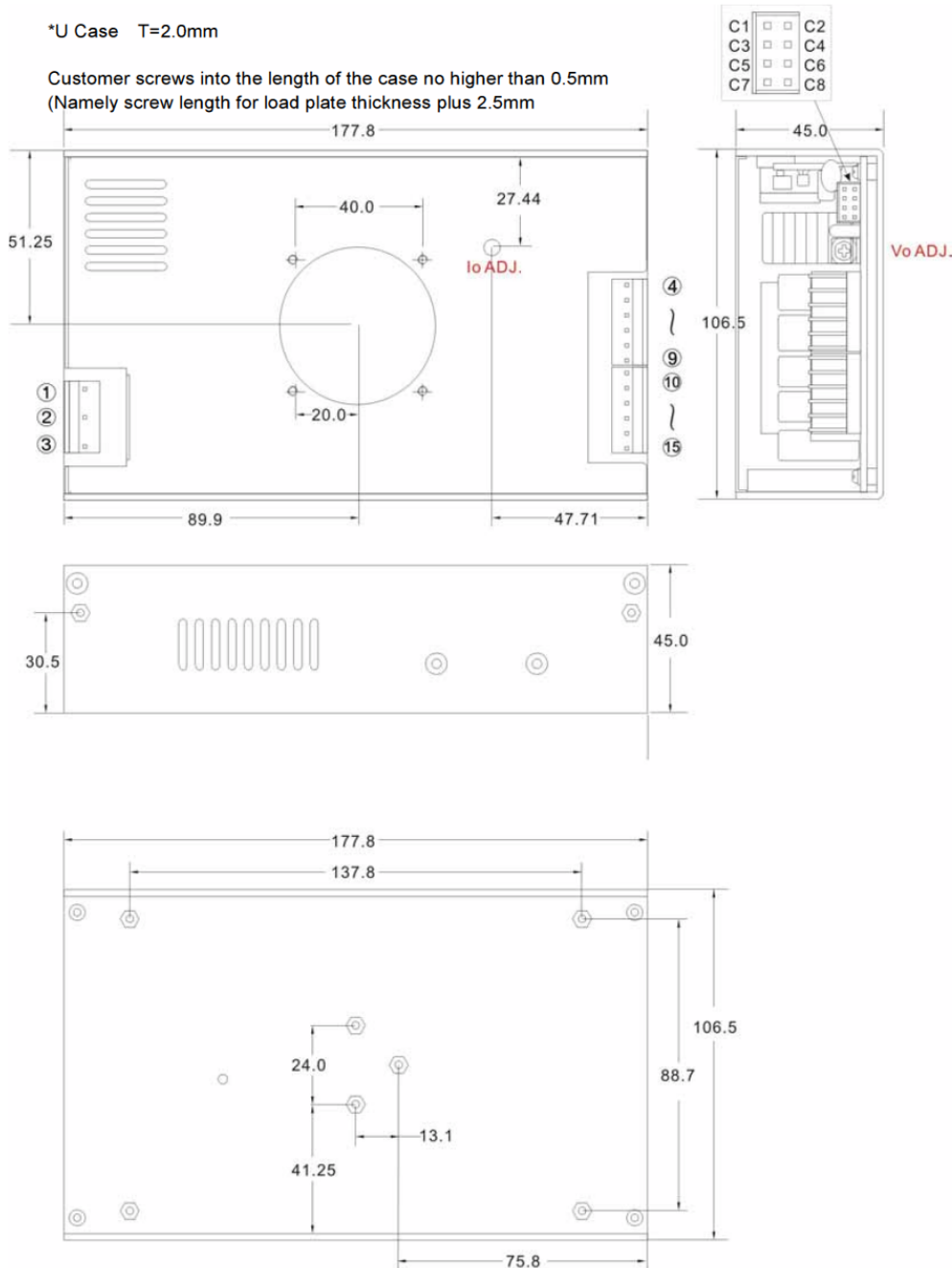
A Type



ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer screws into the length of the case no higher than 0.5mm
(Namely screw length for load plate thickness plus 2.5mm)



AC Input Terminal Pin

PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	⏏

DC Output Terminal Pin

PIN#	SINGLE
4~9	+DC OUT
10~15	-DC OUT

Connector Pin (CN4)

PIN#	SINGLE
C1	NC
C2	NC
C3	+RC
C4	-RC
C5	NC
C6	NC
C7	+5V SB
C8	-5V SB

FUNCTION DESCRIPTION of CN4 :

Pin No.	Function	Description
C1	NC	
C2	NC	
C3	+RC	Turns the output on and off by electrical or dry contact between pin C4 (-RC), Short: Power OFF, Open: Power ON.
C4	-RC	Remote control ground.
C5	NC	
C6	NC	
C7	+5V SB	Stand by voltage output ground 4.5~5.5V, referenced to pin C8(-5V SB). The maximum load current is 0.6A.
C8	-5V SB	Stand by voltage output ground.

FUNCTION MANUAL :

Remote Control

It can be turned ON/OFF by using the "Remote Control" function.

Between RC+(pinC3) and RC-(pinC4)	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON

