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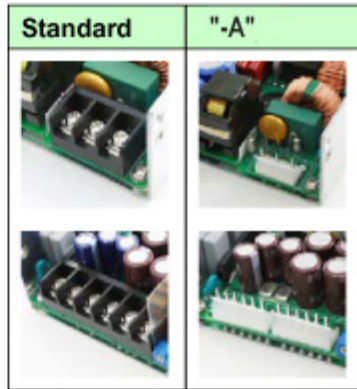
HIGH QUALITY SWITCHING POWER SUPPLIES

AC/DC SWITCHING POWER SUPPLY
SINGLE CHANNEL OUTPUT
480 WATTS
UNIVERSAL INPUT

ZWU480S SERIES



General Description



Features

1. High efficiency
2. U-bracket switching power supply
3. Ultra compact size
4. Standby 5V at 0.6A
5. Active PFC function
6. Over load/over current/over voltage/short circuit protection
7. Remote On/off

Options

“-R” remote control

Application

Broad needs

Input

Input Voltage:	90-264 VAC or 120-370 VDC
Frequency:	47-63 Hz
Current (Full Load):	<5.5A max. (115 VAC) / <3A max. (230 VAC)
Inrush Current: (<2ms)	<50 A max. (115 VAC) / <70 A max. (230 VAC)





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Output Characteristic	Unit	Models			
		ZWU480S-12	ZWU480S-24	ZWU480S-36	ZWU480S-48
Output Voltage	V _{dc}	12	24	36	48
Constant Current Range (VDC)	V	10~13.2	20~26.4	26~36	30~50.4
Max Power (convection)	W	280		300	
Max Power (fan)	W	480			
Current Adj. Range (convection)	A	5~23.33	4~11.66	3~8.33	3~6.25
Current Adj. Range (fan)	A	5~40	4~20	3~13.33	3~10
Ripple & Noise(max)	mV _{pp}	100	200	200	300
Hold up time	mS	10 mS min.			
Switching Frequency	kHz	62.5 ₋ 10%			
Regulation					
a. Line Regulation [max]	mV	<u>Further testing needed</u>			
b. Load Regulation	mV	<u>Further testing needed</u>			
c. Capacitive load	μF	180000	75000	50000	25000
d. Temperature Coefficient		0.03%/°C 0 to 50°C			
Efficiency *1	115V _{ac} (convection)	88%	89%	90%	89%
	115V _{ac} (fan)	90%	91%	92%	91%
	230V _{in} AC (convection)	85%	87%	89%	88%
	230V _{in} AC (fan)	88%	90%	92%	91%
Power factor correction		>0.95 (115VAC) , >0.90 (230VAC) at full load			





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Environmental Specification	
Operating Temperature*3	-20 to +70°C with derating
Humidity	95% RH
Storage Temperature	-25 to +85°C
Leakage current	1500uA max. at 240VAC 63Hz
MTBF	>100,000 h @ 25°C (MIL-HDBK-217F)
Isolation	
Input-Output	3000V
Input-FG (VAC)	1500V
Output-FG (VAC)	500V
Environmental Agencies	
Agency Approvals	UL, CE 60950 pending
EMI (Conducted & Radiated Emissions)	EN 55022 class B pending
EMS (Noise Immunity)	EN 55024 pending
Vibration	10~500Hz, 2G 10min./1cycle 60 min. each along x,y,z axes
Function/Protection	
Over Voltage Protection	Automatic recovery
Short Circuit Protection	Automatic recovery
Over Power Protection	Automatic recovery
Over Temperature Protection	Automatic recovery
5V Stand By	5Vsb w/5V at 0.6A Tolerance +10% Ripple/noise: 100mVpp max
Remote Control	+RC/-RC power: ON=open; OFF=short
FAN Control	12VDC, 0.5A max
Mechanical	
Dimension (L x W x H)	177.8 x 106.5 x 45.0 mm Tolerance +0.5 mm
Cooling Method	DC FAN (480W) Convection (280-300W)
Weight [g] (typical)	780

Conditions:

- *1 Rated input and Rated output
- *2 at Output current quick change 25% to 75%
- *3 At 100% load (convection cooling)
- *4 Cold start at 25 °C Ambient temp.



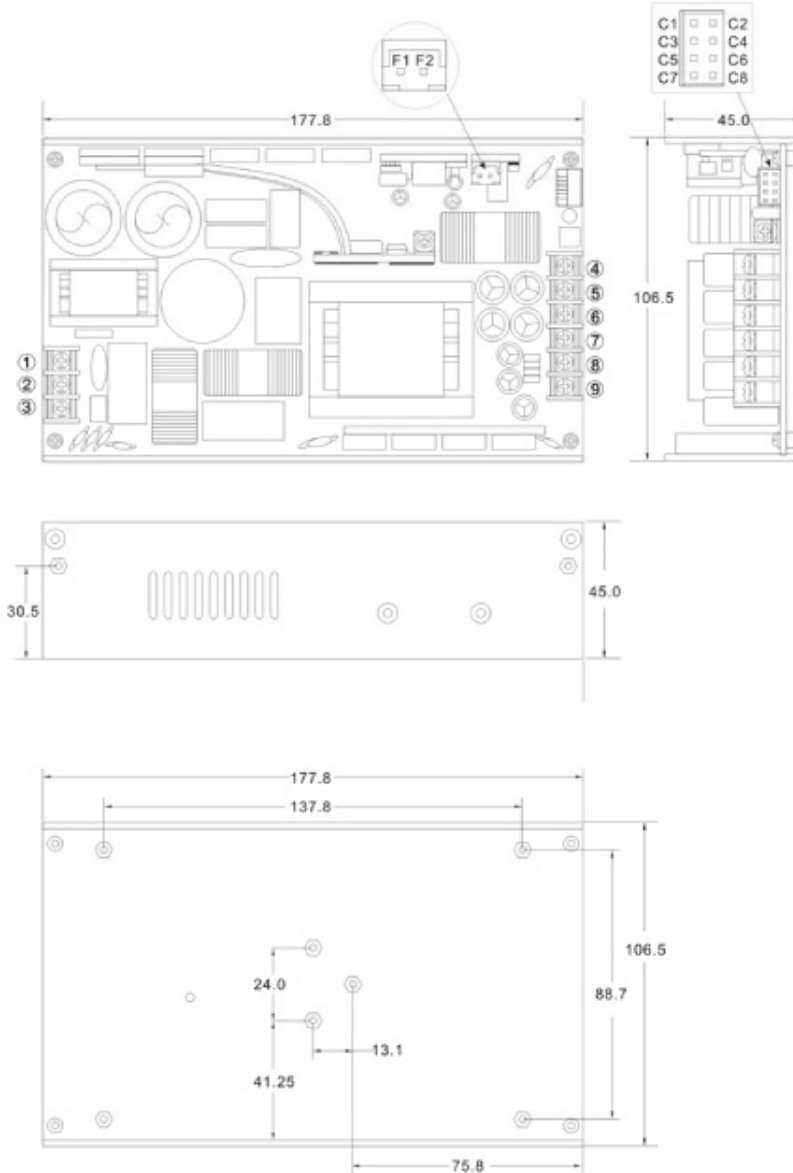


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Mechanical Drawings

Standard



AC Input Terminal Pin

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

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

FAN Molex Pin

PIN#	SINGLE
F1	-DC
F2	+DC

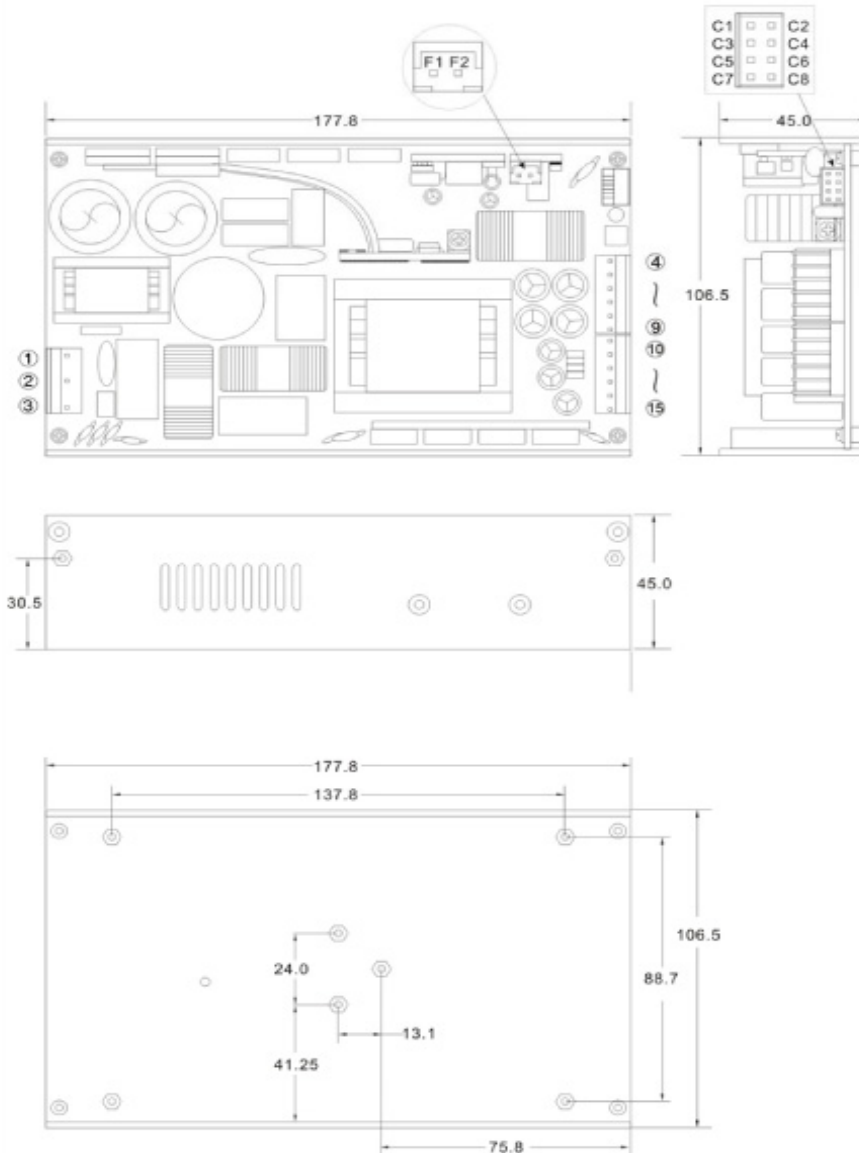




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"-A"



AC Input Terminal Pin

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

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

FAN Molex Pin

PIN#	SINGLE
F1	-DC
F2	+DC

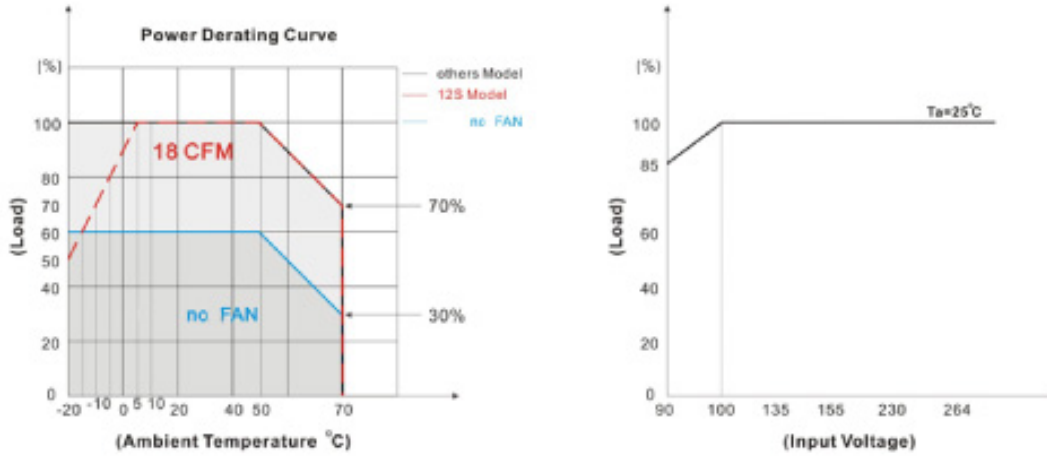




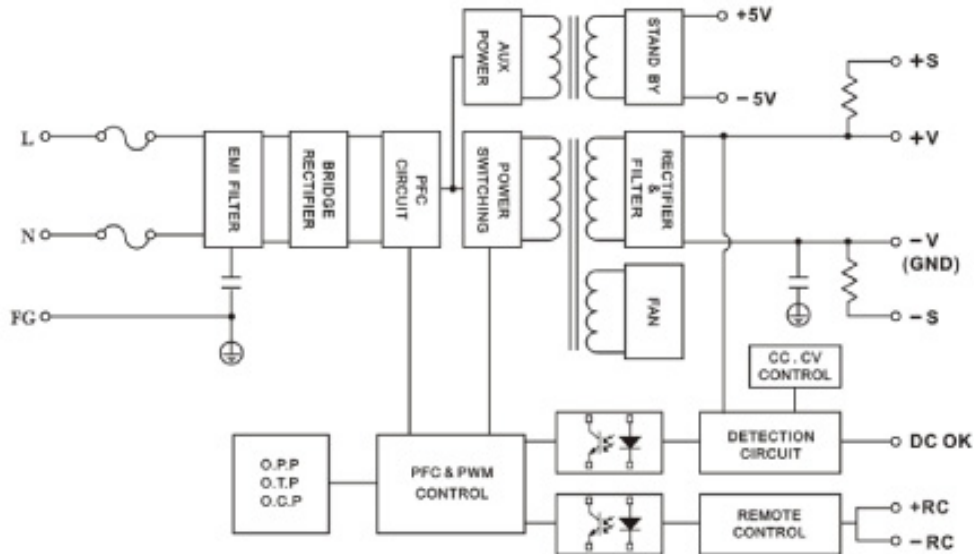
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Derating Curves



Block Diagram





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Remote Control Function

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

