

ITE Power Supply
350W / 450W(Air) Open Frame
650W / 800W(Air) N+1 Passive Open Frame

WP220F11-2412 (AAP00)

Features:

- ◆ High Density, High Efficiency > 90%
- ◆ Mini. Size, Low Profile 4" x 6" x 1.5"
- ◆ Low Leakage Current < 750uA @ 230Vac
- ◆ Safety Compliant With UL60950
- ◆ Remote ON-OFF, OCP, OVP, OTP Protection
- ◆ Parallel Operating N+1=N, N≤2, Remote Sense
- ◆ 350W Convection Cooled & 450W with 20CFM

Application:

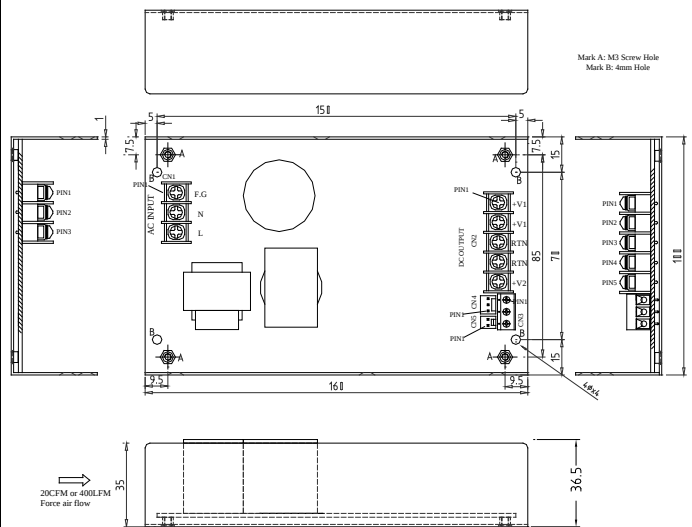
POE, Networking
Industrial Equipment
Gaming Machine

Safety Certified:



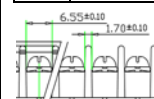
Typical Mechanical Drawing :

WP220F11-2412 (Connector code→AA)
Case dimension (L*W*H): 160*100*36.5mm



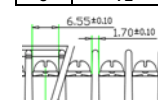
Input Connector (CN1) :
HOWDERHD-816-3P or equivalent
Screw M3.0, Rating: 20A/300V
Wire Range: 14-18AWG

Pin	Signal
1	F.G
2	N
3	L



Output Connector (CN2) :
HOWDERHD-816-5P or equivalent

Pin	Signal
1	+V1
2	+V1
3	RTN
4	RTN
5	+V2



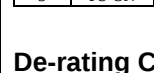
O/P Connector (CN3) :
EXCEL CELL ETB100 SERIES
Terminal block or EQU.
Screw M2.6, Rating: 16A/300V
Wire Range: 14-24AWG

Pin	Signal
1	+5Vsb
2	RTN
3	+12aux



Connector (CN4) :
MOLEX 22-23-2031 (6373 SERIES)
or EQU
Mates with (MOLEX 2695) or EQU

Pin	Signal
1	P-OK
2	RTN
3	PS-ON

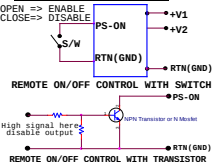


Connector (CN5) :
MOLEX 22-23-2021 (6373 SERIES)
or EQU
Mates with (MOLEX 2695) or EQU

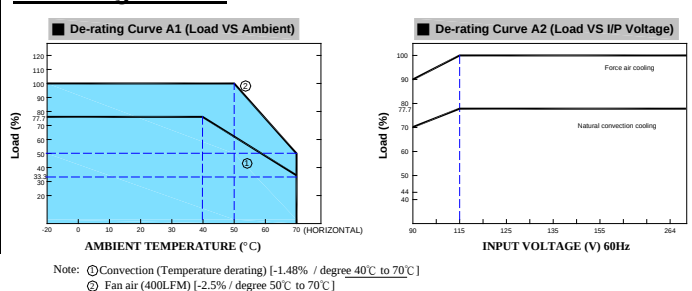
Pin	Signal
1	+12aux
2	RTN



P/S ON/OFF control:



De-rating Curve



Note: ① Convection (Temperature derating) [-1.48% / degree 40°C to 70°C]
② Fan air (400LFM) [-2.5% / degree 50°C to 70°C]

INPUT SPECIFICATIONS	
INPUT VOLTAGE	Universal Input : 90 ~ 264Vac
INPUT FREQUENCY	47 ~ 63Hz
INPUT CURRENT	6.5A/115Vac, 3.0A/230Vac
INRUSH CURRENT (Typ.)	100A/230Vac half cycle cold start
POWER FACTOR (Typ.)	PF > 0.95 / full load
EFFICIENCY (Typ.)	88%
LEAKAGE CURRENT	Leakage current < 750uA/230Vac

OUTPUT SPECIFICATIONS		
VOLTAGE	V1 = +24V	V2 = +12V
RATED LOAD(Convection)	0 ~ 12.5A	0 ~ 4A
Max. LOAD(W/20CFM Airflow or Fan)	16.6A	5A
RIPPLE & NOISE	240mv	120mv
REGULATION	±3%	±3%
Max. POWER	350W / 450W(Air)	

PROTECTION SPECIFICATIONS	
OCP: (Over Load Protection)	130 ~ 200%
OVP: (Over Voltage Protection)	110 ~ 130%
OTP: (Over Temp. Protection)	HS1 ≥ 115°C, Shut down O/P voltage

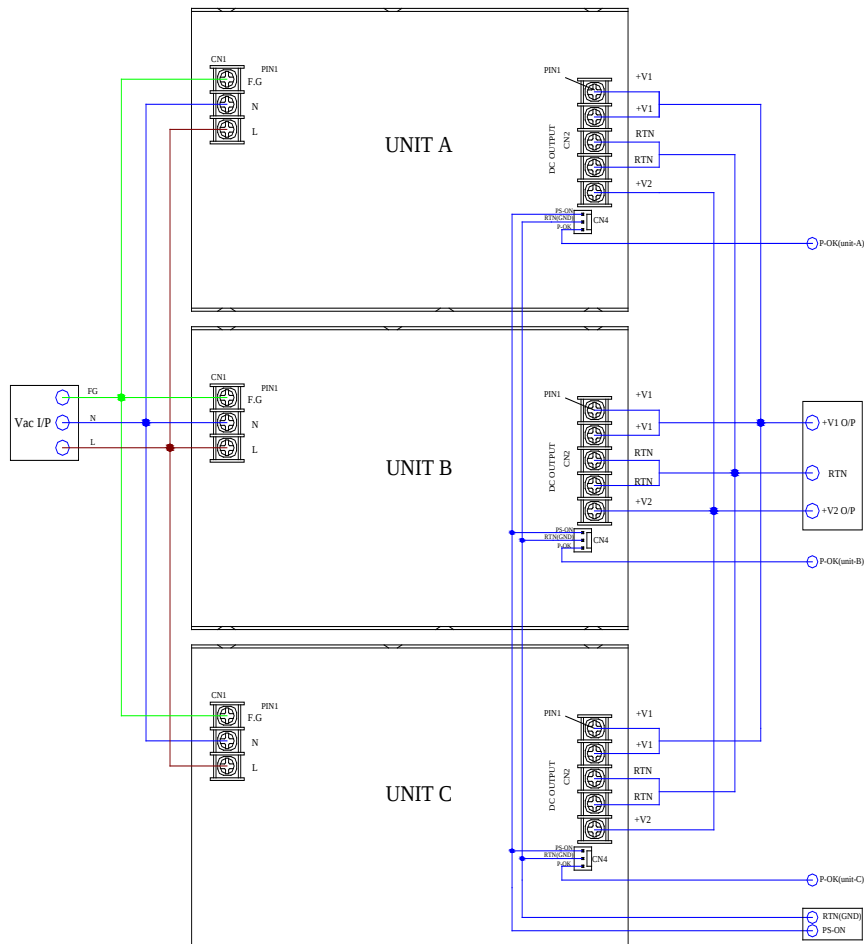
GENERAL SPECIFICATIONS	
HOLD UP TIME (Typ.)	≥ 16mS @ 115V
REMOTE CONTROL(ON-OFF)	ON @ High or Open, Off @ Low or Short
DC OK SIGNAL(P-OK)	on: 3.3 ~ 5.6V, PSU turn off: 0 ~ 1V
5Vsb & 12Vaux For External Fan	5Vsb/0.8A(2A), 12Vaux. / 0.4A
COOLING	Convection/350W, 20CFM for 450W

SAFETY & ENVIRONMENTAL SPECIFICATIONS	
SAFETY APPROVALS REQUIRED :	Meet UL, cUL, CE, FCC
SAFETY STANDARDS	UL 60950-1 2nd, EN 60950-1
EMC EMISSION	EN55022(CISPR22) & FCC Class B.
OPERATING AMBIENT TEMP.	-20 ~ 70°C

Parallel Operation :

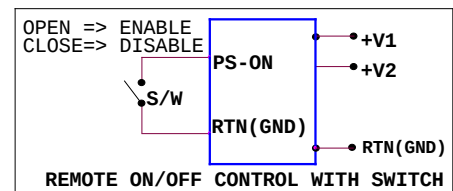
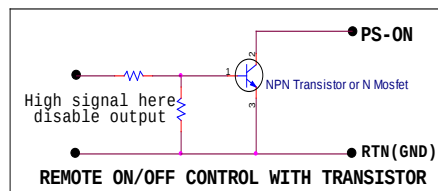
The power supplies may be connected in parallel to provide higher output power. They can also be used in a N+1=N [N≤2], configuration to provide higher output power and greater reliability. Each of these models has a build-in ORing diode or ORing Mosfet and a Passive Redundant switch signal bus(ps-on) for main output and parallel operation.

■ N+1 Power units connections setting



P/S ON/OFF control

The supply Main output can be enabled or disabled through the PS-ON pin. A common control circuit is show below.



Power OK

signal Type	+5V TTL compatible output signal	
P-OK = High	Power OK	
P-OK = Low	Power Not OK	
	MIN	MAX
Logic level low voltage, Isink = 4mA	0V	0.4V
Logic level high voltage, Isource = 200μA	2.4V	5.25V