WIN-TACT

ITE Power Supply 280W(Fan less) / 400W(Air) Open Frame

WP213F11-400-56 (ADM**)

Features:

- High Density, High Efficiency＞90%
- Mini. Size, Low Profile 3” x 5” x 1.6”
- Low Leakage Current ＜ 750uA @ 230Vac
- Safety Compliant With UL60950-1
- OCP , OVP , OTP Protection
- High Power 280W@110V-130V/50℃Fan-less (note)
- High Power 270W@110V-130V/60℃Fan-less (note)
- High Power 350W@200V-240V/60℃Fan-less (note)
- High Power 400W max. With a 20CFM Airflow

Application:

POE , POS , LCD TV
Industrial Equipment
Gaming Machine

Safety Certified:

INPUT SPECIFICATIONS	
INPUT VOLTAGE	Universal Input : 90 ~ 264Vac
INPUT FREQUENCY	47 ~ 63Hz
INPUT CURRENT	5.5A/115Vac , 2.5A/230Vac
INRUSH CURRENT (Typ.)	100A/230Vac half cycle cold start
POWER FACTOR (Typ.)	PF ＞ 0.95 / full load
EFFICIENCY (Typ.)	90%
LEAKAGE CURRENT	Leakage current ＜ 750uA/230Vac

OUTPUT SPECIFICATIONS	
VOLTAGE	+56V
RATED LOAD(Convection)	0 ~ 5.0A
Max. LOAD(W/20CFM Airflow or Fan)	7.15A
RIPPLE & NOISE	560mV
REGULATION	±3%
Max. POWER	280W / 400W

PROTECTION SPECIFICATIONS	
OCP: (Over Load Protection)	110 ~ 150%
OVP: (Over Voltage Protection)	58 ~ 63V
OTP: (Over Temp. Protection)	Shut down O/P voltage

GENERAL SPECIFICATIONS	
HOLD UP TIME (Typ.)	≧16mS @ 200W, ≧12mS @ 300W, ≧ 8mS @ 400W
REMOTE CONTROL	N/A
DC OK SIGNAL	Led.
12Vaux For External Fan(Optional)	F11-NF w/o 12Vaux, F11-VF with 12Vaux. @ 1A
COOLING	Convection/280W, 20CFM for 400W

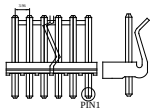
SAFETY & ENVIRONMENTAL SPECIFICATIONS	
SAFETY APPROVALS REQUIRED :	Meet UL , cUL , CE , FCC , CB
SAFETY STANDARDS	UL 60950-1 2nd , EN 60950-1
EMC EMISSION	EN55032(CISPR22) & FCC Class B.
OPERATING AMBIENT TEMP.	-40 ~ 85℃ (note 1: -40℃ start up condition , o/p ≦ 80% max. load)

Note: The maximum fan less ambient thermal test condition, please refer to the following conditions.
■ The part of LF1 must be ≤ 120℃ and the parts of RL1(thermal relay) must be ≤ 115℃--(the location of LF1 and RL1, please reference Typical Mechanical Drawing).

Input Connector (CN1) :

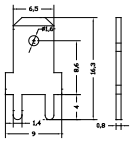
MOLEX 09-65-2038 (5273 SERIES) or equivalent
Mates with (MOLEX 5239) or equivalent

Pin	Signal
1	N
2	N/A
3	L



Input Connector(CN3) :(Optional)

Safety ground pin→Quick Disconnect TAB, 6.35[0.250] X 0.81[0.032] (Molex(19705-4301)or Equ).
The safety ground connection is provided by the Quick Disconnect TAB near CN1.

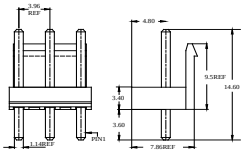


Output Connector (CN2) –8PIN:

JST B*P-VH Series or TKP PVHI-XX Series or Equ.
Mates with JST VHR-*N Series or TKP HVH-XX Series or Equ.

Pin	Signal	Pin	Signal
1	V1	5	GND
2	V1	6	GND
3	V1	7	GND
4	V1	8	GND

V1=56V



De-rating Curve--- (Fan less)

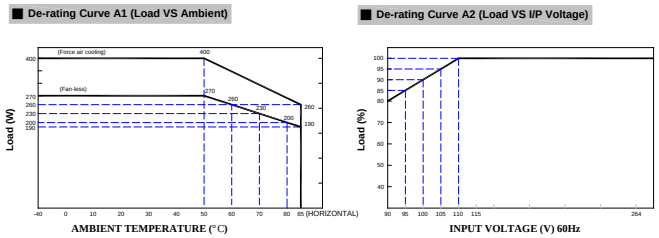
Condition A: The bottom side of power unit direct fix to system frame.
Condition B &C: Add thermal pad (K≥1.3) between system cover and top side of power unit.

Condition A

Condition B

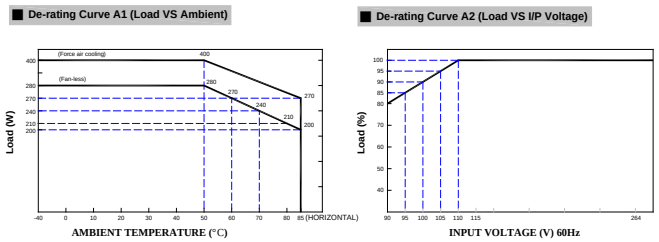
Condition C

270W (Fan less) DE-RATING O/P WATTS



Note : Thermal test, SET-UP Condition →**A**

280W (Fan less) DE-RATING O/P WATTS



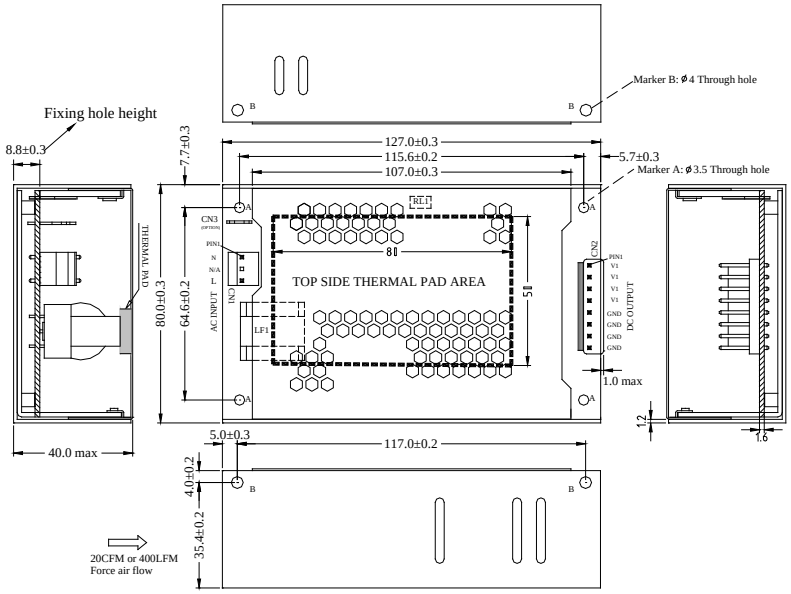
Note : Thermal test, SET-UP Condition →**A+B&C**

Mechanism of Fixing hole code : M** →M50, M51

Typical Mechanical Drawing :

WP213F11-400-56-ADM50 (Connector code→AD)

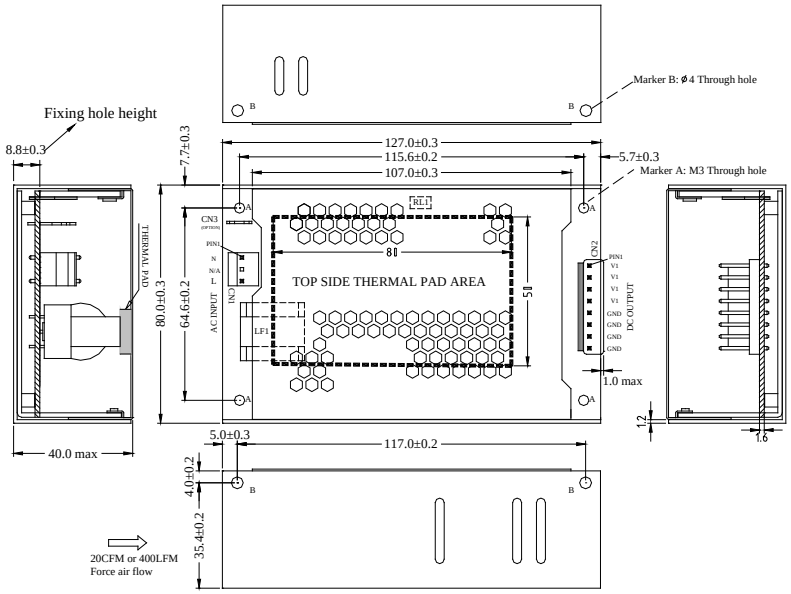
Fix hole: marker A are ϕ 3.5 through holes, Case dimension (L*W*H): 127*80*40 mm



Marker C: 7.0x8.0mm±0.2mm

WP213F11-400-56-ADM51 (Connector code→AD)

Fix hole: marker A are Fixing hole M3, Case dimension (L*W*H): 127*80*40 mm

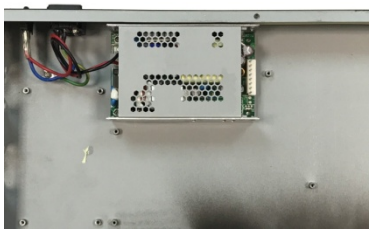


Marker C: 7.0x8.0mm±0.2mm

Power Supply (Fan Less) Test Report

set-up condition---(A + B & C)

A. The bottom side of power unit direct fix to system frame.
B. Add supper soft thermal pad (K≥1.3) between system cover and top side of power unit. (note: The reference thermal pad material is Pioneer PMP-P300A or Equ.)
C. The reference top side view of the system box.



Power unit set up picture

ENVIRONMENT SETTING


Figure1: set-up and chamber


Figure2: side view of test box


Figure3: top view of test box

● RESULT： (Maximum O/P watts rating table)

Maximum O/P watts rating table of Ambient temperature 50℃/60℃ (IN CHAMBER)					
VAC/IP / Ambient	**90V**	**95V**	**100V**	**110~130V**	**200~240V**
50℃	**260W** max.	**270W** max.	**270W** max.	**280W** max.	**350W** max.
60℃	**235W** max.	**245W** max.	**255W** max.	**270W** max.	**350W** max.

Note 1 : VAC I/P vs Ambient temperature vs O/P Watts 50℃- 60℃

Note 2 : Thermal test, SET-UP Condition ➔A+B&C , IN CHAMBER (巨孚 GIANT FORCE) GTH-150-60-CP-AR)

Note 3 : Figure 1,2,3 : Test set up picture of Fan less condition

Note 4 : The maximum fan less ambient thermal test condition, please refer to the following conditions.

■ The part of LF1 must be ≤ 120℃ and the parts of RL1(thermal relay) must be ≤ 115℃.
(the location of LF1 and RL1, please reference Typical Mechanical Drawing).