WIN-TACT

ITE Power Supply

200W / 300W(Air) Open Frame

WP213F12-1205 (ADN**)

Features:

- High Density, High Efficiency＞90%
- Mini. Size, Low Profile 5” x 3” x 1.5”
- Low Leakage Current ＜750uA @ 230Vac
- Safety Compliant With UL62368-1
- 12Vaux For External Fan Cooling(Optional)
- OCP , OVP , OTP Protection
- High Power 200W/Convection , 300W/20CFM Air

Application:

POE , POS , LCD TV

Industrial Equipment

Gaming Machine

Safety Certified:

E172499

INPUT SPECIFICATIONS	
INPUT VOLTAGE	Universal Input : 90 ~ 264Vac
INPUT FREQUENCY	47 ~ 63Hz
INPUT CURRENT	4.9A/115Vac , 2.5A/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 = +12V	V2 = +5V
RATED LOAD(Convection)	0 ~ 16.6A	0 ~ 8A
Max. LOAD(W/20CFM Airflow or Fan)	25A	13A
RIPPLE & NOISE (note 1)	120mV	50mV
REGULATION	±3%	±3%
Max. POWER	200W / 300W	

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

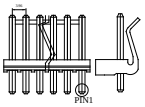
GENERAL SPECIFICATIONS	
HOLD UP TIME (Typ.)	≧16mS @ 200W
REMOTE CONTROL	N/A
DC OK SIGNAL	Led.
12Vaux For External Fan (Optional)	N/A
COOLING	Convection/200W, 20CFM for 300W

SAFETY & ENVIRONMENTAL SPECIFICATIONS	
SAFETY APPROVALS REQUIRED :	UL , cUL , CE , FCC ,CB
SAFETY STANDARDS	UL 60950-1 2nd , IEC 62368-1:2014
EMC EMISSION (note 2)	EN55032(CISPR22) & FCC Class A.
OPERATING AMBIENT TEMP.	-40 ~ 85℃ (note 3)

Input Connector (CN1) :

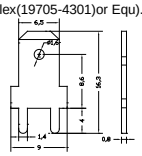
MOLEX 09-65-2038 (5273 SERIES) or equivalent
Mates with (MOLEX 5239) or equivalent

Pin	Signal
1	N
2	N/A
3	L



Input Connector(CN3) :(Optional)

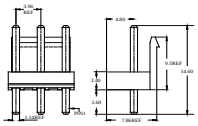
Safety ground pin→Quick Disconnect TAB, 6.35[0.250] X 0.81[0.032] (Molex(19705-4301)or Equ).
The safety ground connection is provided by the Quick Disconnect TAB near CN1.



Output Connector (CN2) –10PIN:

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	6	GND
2	V1	7	GND
3	V1	8	GND
4	V1	9	V2
5	GND	10	V2

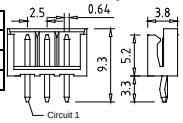


V1=12V , V2=5V

Connector (CN4) :(Optional)

JWT A2502WV2-03 or EQU
Mates with A2502T0* Series or EQU

Pin	Signal
1	F+
2	F-
3	V2s+



De-rating Curve--- (Fan less)

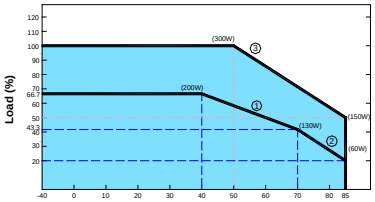
Condition A: The bottom side of power unit direct fix to system frame.
Condition B: The reference top side view of the system box.

Condition A

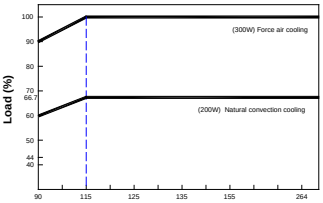
Condition B

De-rating Curve

■ De-rating Curve A1 (Load VS Ambient)

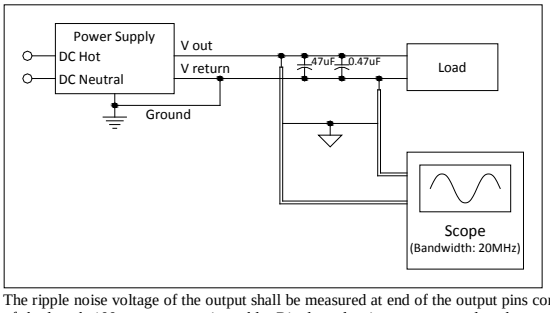


■ De-rating Curve A2 (Load VS I/P Voltage)



Note: ①Convection (Temperature derating) [-2.33W / degree 40℃ to 70℃]
②Convection (Temperature derating) [-4.67W / degree 70℃ to 85℃]
③Fan air (400LFM) [-4.28W / degree 50℃ to 85℃]

Ripple& Noise Voltage Test Circuit



Note 1: The ripple noise voltage of the output shall be measured at end of the output pins connector of the length 100 mm output wire cable. Ripple and noise are measured at the connectors with a 0.47uF ceramic capacitor and a 47uF electrolytic capacitor to simulate system loading. (Please reference Ripple& Noise Voltage Test Circuit).

Note 2: Suggested external input filter in order to meet class B in EN55032(CISPR22) and FCC Class B.
a. Between system AC Inlet and power Vac-connect CN1 addition a 2~4 turns EMI common choke, that spec. is (L+N+FG) 3 wire together 2~4 turns insert with K5B RC 25x12x15-M clamp EMI core or equ.
b. System with external EMI Filter on Vac input: Filter Type (15GEEG3E-R or equ)---Manufactory (Delta)

Note 3: -40℃ start up condition, o/p ≦ 200W.

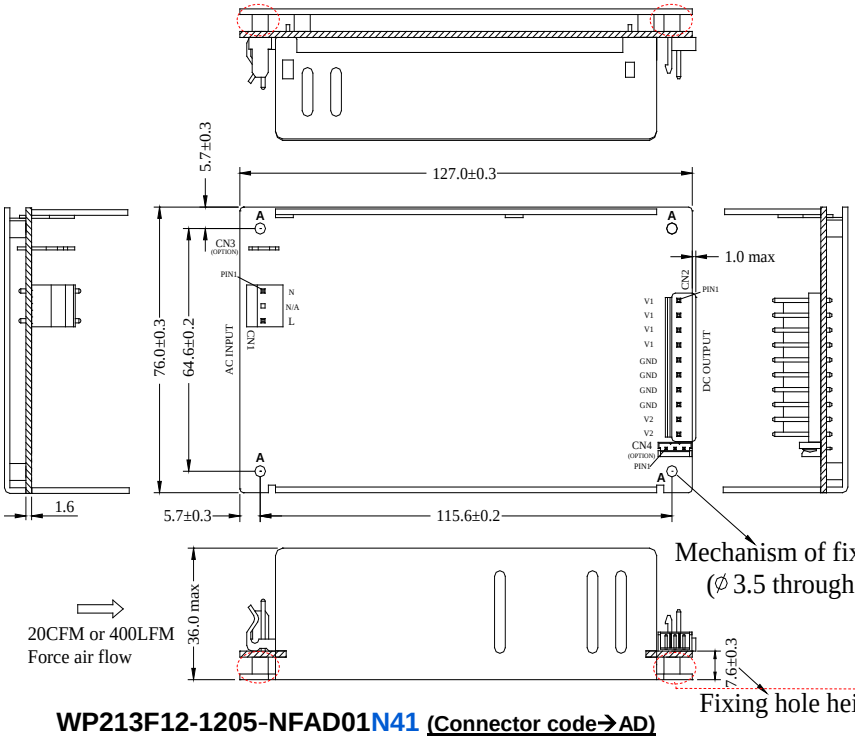
Win-Tact Electronics Corp.（萬加電子股份有限公司） 2F., No.105, ZHONGCHENG Rd, TUCHENG DIST., NEW TAIPEI CITY, TAIWAN.
http://www.win-tact.com.tw/ E-mail: sales@win-tact.com.tw TEL: +886.2.8227.8698 FAX: +886.2.2268.6336 2024-01-02

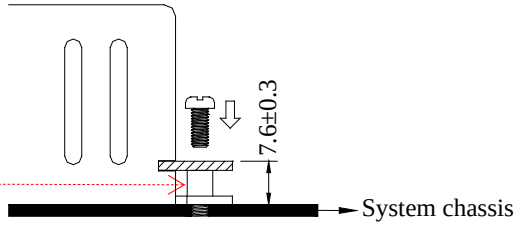
Mechanism of Fixing hole code : N →N40, N41, N42 , N43**

Typical Mechanical Drawing :

WP213F12-1205-NFAD01N40 (Connector code→AD)

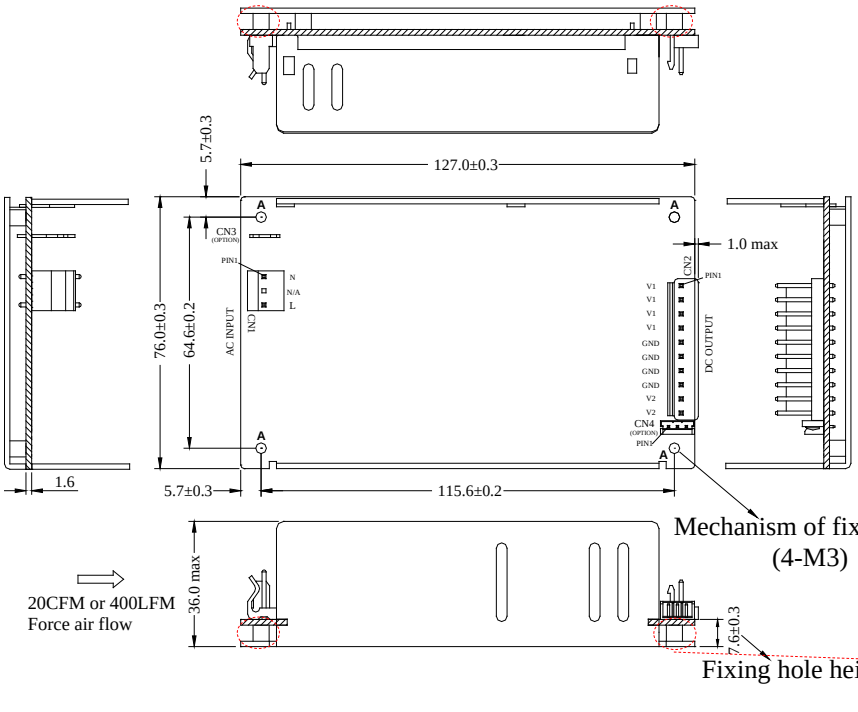
Fix hole: marker A are ϕ 3.5 through holes, Case dimension (L*W*H): 127*76*36 mm

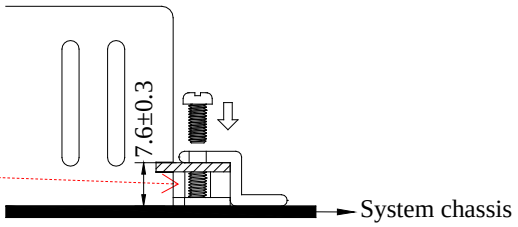




WP213F12-1205-NFAD01N41 (Connector code→AD)

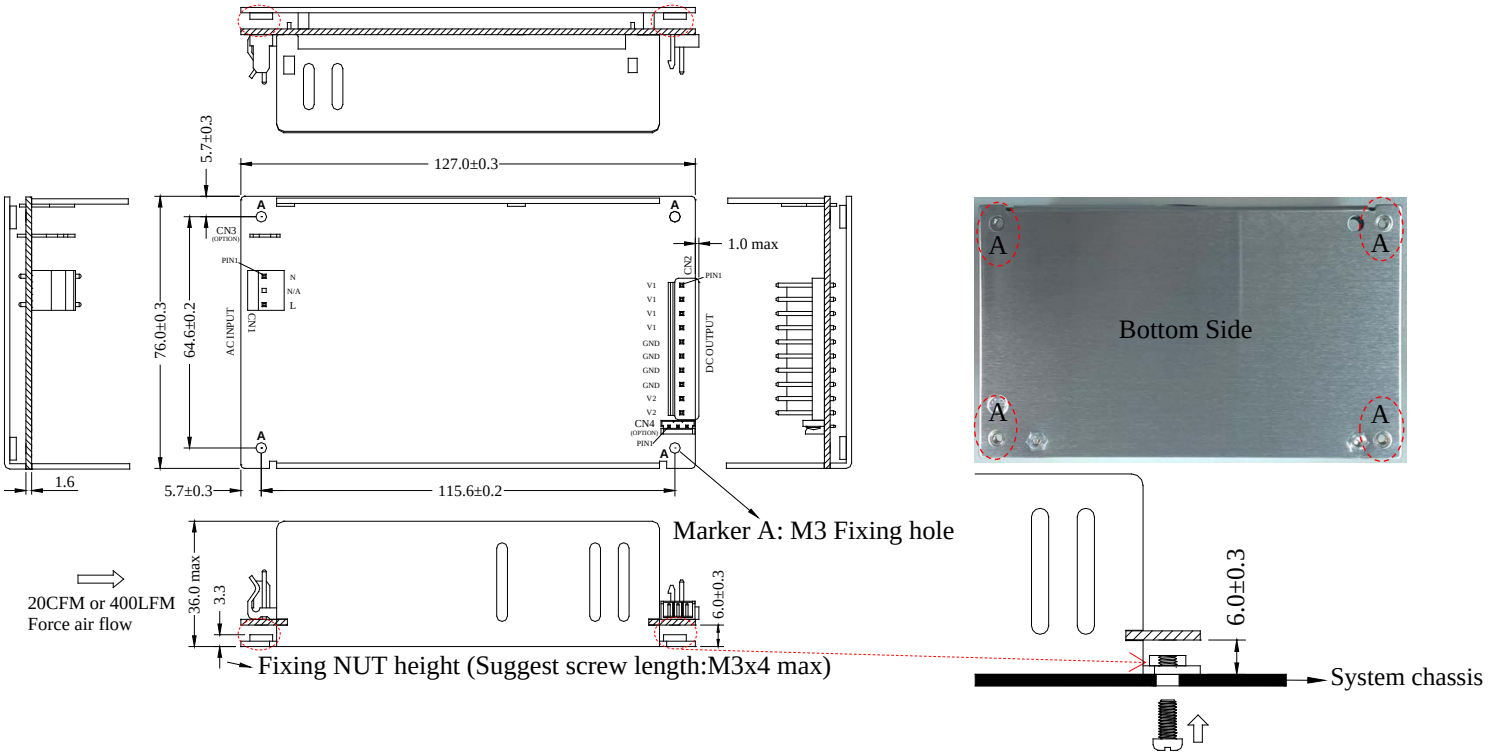
Fix hole: marker A are M3 fixing holes,Case dimension (L*W*H): 127*76*36 mm





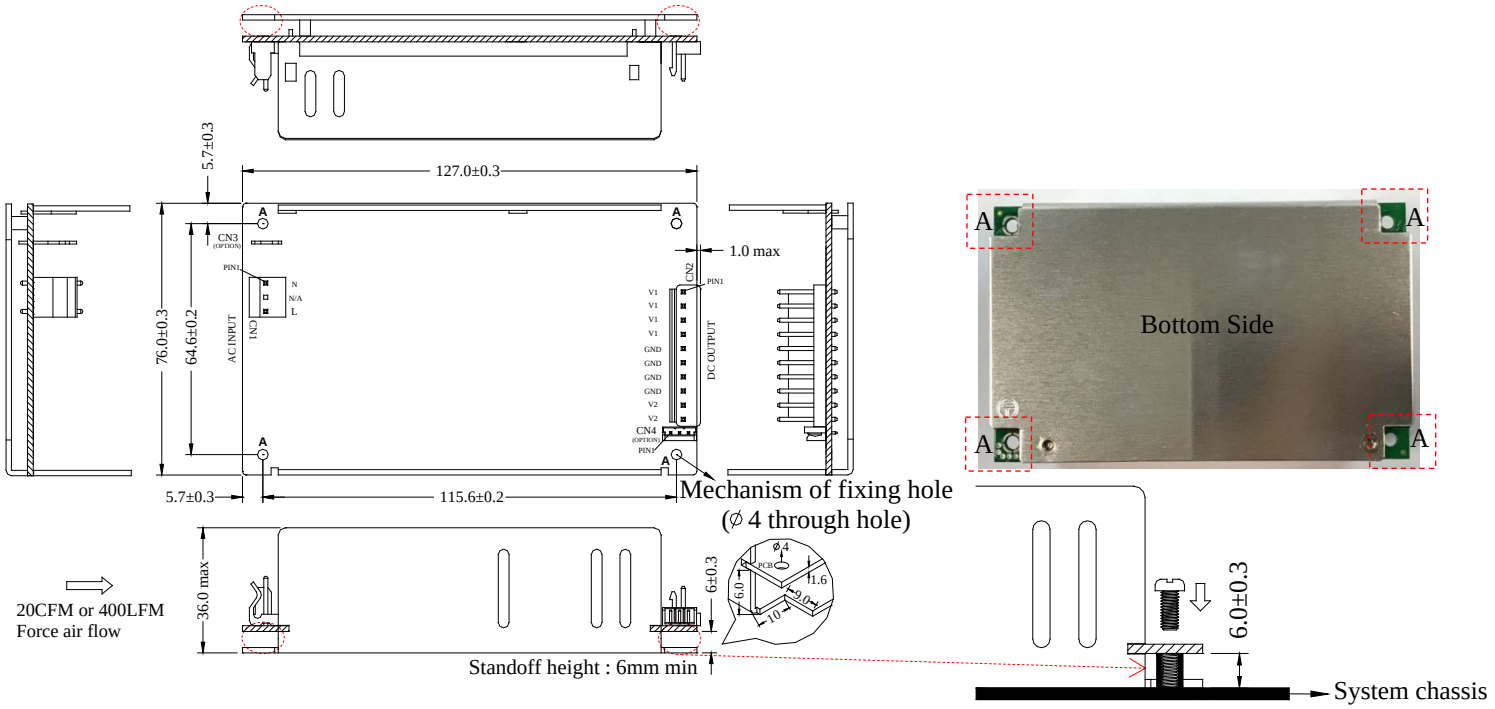
WP213F12-1205-NFAD01N42 (Connector code→AD)

Fix hole: marker A are M3 fixing NUT, Case dimension (L*W*H): 127*76*36 mm



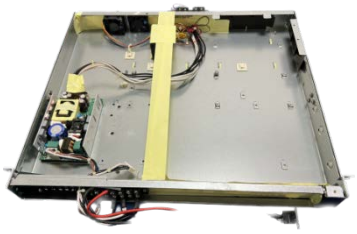
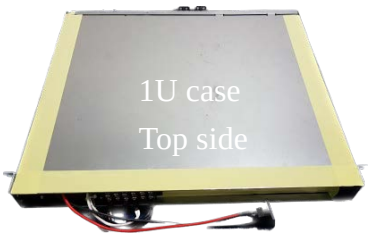
WP213F12-1205-NFAD01N43 (Connector code→AD)

Fix hole: marker A are Cut off the 4 sides of case, directly fixed to PCB by stand-off., Case dimension (L*W*H): 127*76*36 mm



■ Power Supply (Thermal De-rating) Test Report

Condition A: The bottom side of power unit direct fix to system frame.
Condition B: The reference top side view of the system box.

	
Set-up Condition A	Set-up Condition B

■ Environment setting

Figure1: set-up and chamber

■ Force Fan air cooling –(20CFM)

Maximum O/P watts rating table (Ambient temperature 30℃-85℃IN CHAMBER)									
Ambient (W max.) / VAC/IP	30℃	40℃	50℃	60℃	65℃	70℃	75℃	80℃	85℃
90V-100V	270W	270W	270W	230W	210W	190W	160W	150W	135W
100V-130V	300W	300W	300W	260W	230W	210W	180W	170W	150W
200V-240V	300W	300W	300W	260W	230W	210W	180W	170W	150W
Note: Set-up Condition ➔A+B <<IN CHAMBER (巨孚 GIANT FORCE) CTH-150-60-CP-AR>>									

■ Convection cooling –(Fan less)

Maximum O/P watts rating table _(Top side of case without vents cooling hole) (Ambient temperature 30℃-85℃IN CHAMBER)									
Ambient (W max.) / VAC/IP	30℃	40℃	50℃	60℃	65℃	70℃	75℃	80℃	85℃
90V-100V	180W	180W	160W	140W	130W	115W	100W	80W	60W
100V-130V	200W	200W	175W	150W	145W	130W	110W	90W	60W
200V-240V	200W	200W	175W	150W	145W	130W	110W	90W	60W
Note: Set-up Condition ➔A+B <<IN CHAMBER (巨孚 GIANT FORCE) CTH-150-60-CP-AR>>									