



CUSTOMER: Intrade ABC

MODULE FAMILY: PLUG IN CLASS 2 TRANSFORMER(PLUG-IN WALL MOUNT)

PART NO : _____ REVISION : E

MODEL NO. : AM-1652400A SAFETY : UL

DESIGN NO. : YDA-9301-R DATE : Feb,18, 2016

□ 總公司：有電電機股份有限公司
Headquarters: GLOBAL YEOU DIANN ELECTRIC INDUSTRIAL CO., LTD.
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Fax : 886-7-8132967 e-mail : sales@amigoelec.com

■ 工廠：中山友電電子有限公司
Factory: YEOU DIANN ELECTRIC INDUSTRIAL CO., LTD.
地址：廣東省中山市三鄉鎮雍陌村前洋一路 20 號
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REVISIONS				
CUSTOMER		Distribuciones La Victoria		DESIGNED NO. YDA-9301-R
CUSTOMER P/N				MODEL NO. AM-1652400A
REV.	REVISER	DATE	DESCRIPTION	
A	王建龍	081211	Creating new drawing SPEC.	
B	王建龍	081216	Adding green LED.	
C	柏君暉	100210	Adding aphorism in the LAB-001-R.	
D	柏君暉	140320	Changing the watts loss from 4.5W to 2.8W. Changing the MATERIAL from H5050A to H1850A for Core. Adding IV on the nameplate.	
E	柏君暉	160218	Changing the CEC4 Mark to DOE 6 Mark for Nameplate. Changing the MATERIAL from H1850A to H1835A for Core. Changing the size from 150*100 to 75*50 with LAB-001-R.	

ELECTRICAL REQUIREMENTS

DESIGNED NO.	YDA-9301-R	DATE	160218	REVISION	E
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1. SCOPE: This specifications is suitable to the AC adaptor of model AM-1652400A designed to EI-57 wall mount.

2. APPLICABLE STANDARDS: UL 1310

3. AGENCY SAFETY: UL

4. SURFACE , STRUCTURE:

4-1 Surface: Damage, rusting , foam , cracks are not permitted.

4-2 Appearance: Dimensions and express: As attached drawing.

5. ELECTRICAL CHARACTERISTICS:

5-1 Primary rated voltage & line frequency: 120 VAC 60 Hz 50 W

5-2 Secondary output ratings:

Input voltage	Output voltage	Rated current	No load voltage
120 VAC 60 Hz	AC 16.5 V +/- 5%	2400 mA	AC 19.0 V Max

5-3 Exciting current (Io): 120 mA Max. at input 120 VAC 60 Hz without secondary load.

5-4 Primary rated current (Ip): 450 mA Max. at input 120 VAC 60 Hz with output current 2400 mA.

5-5 Ripple voltage: ----- mV (RMS) Max. at input ----- VAC ----- Hz with output current ----- mA.

5-6 Dielectric strength: The specified voltage shall be applied to each item as following without breakdown.

(1) Primary to Secondary & Core: 1.24 KV 60 Hz for one minute.

(2) Secondary to Core: 1.24 KV 60 Hz for one minute. Cut-off current: 1 mA Max.

At an alternative potentials, increasing 20% of voltage may be applied for one second in mass production.

5-7 Insulation test: 500 VDC 100 MΩ Min. between input plug and output terminal and case.

5-8 Core loss: Input 120 VAC 60 Hz without secondary load, watts loss shall be under 2.8 W.

5-9 Temperature rise: Input 120 VAC 60 Hz with secondary load 2400 mA, shall not exceed 40 deg on case surface (By thermometer). 75 deg for primary winding (By resistance method). At ambient temp. 25°C.

5-10 Average Efficiency: 87.6% Min. at input 115 VAC 60 Hz with output current 2400/1800/1200/600 mA.

6. MECHANICAL CHARACTERISTICS:

6-1 Strain relief test: A pull forces of --- lb to output cord for one minute, results shall be without disconnection of cord or loose of bush is found.

6-2 AC blade pull test: Pull AC blades by 35 lb for one minute without pull out from the case.

6-3 Cord bending test: The unit loaded a weight and swung the case to cord from left to right following specifications as below, the cord shall not be disconnected.

Weight	Angle (θ)	Speed	Cycle required
<u>---</u> g	<u>---</u> degrees	<u>---</u> times / minute	<u>---</u> cycles Min.

6-4 Drop test: Products shall be dropped from a height of 914 mm onto a wood surface, it's thickness is 6.3 cm, free fall test, 3 times, after shall functions normally and the case shall not open in safety concern part.

7. TEMPERATURE RANGE:

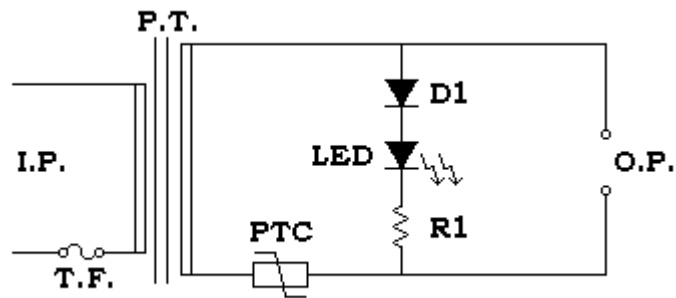
7-1 Normal operating temperature at: -10°C ----- +40°C

7-2 Storage temperature at: -20°C ----- +70°C

7-3 Normal operating humidity at: 30% ----- 85% R.H.

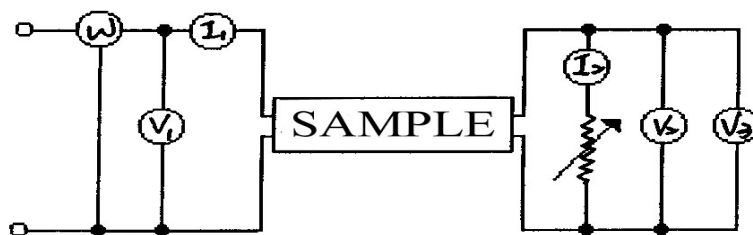
8. NET WEIGHT (APPROX.): 713 g.

CIRCUIT DIAGRAM



SYMBOL	PARTS NAME	SPECIFICATION
I.P.	Input plug	US flat pin
P.T.	Power transformer	EI-57
T.F.	Thermal fuse	130°C 250V 1A or 2A
PTC	Poly-switch	RUEF400 (4.0A 30V)
D1	Diode	1N4002 (1A 100V) or better
R1	Resistor	1KΩ (1/4W)
LED	Light-emitting diode	Color: Green 5Ø
O.P.	Output screw	3.5mm × 6mm

TEST CIRCUIT



W: wattmeter (class 0.5)
 V1: AC voltmeter (class 0.5)
 I1: AC ammeter (class 0.5)
 V2: DC voltmeter (class 0.5)
 I2: DC ammeter (class 0.5)
 V3: AC rms voltmeter (for ripple test) (class 0.5)
 (not apply for AC output)

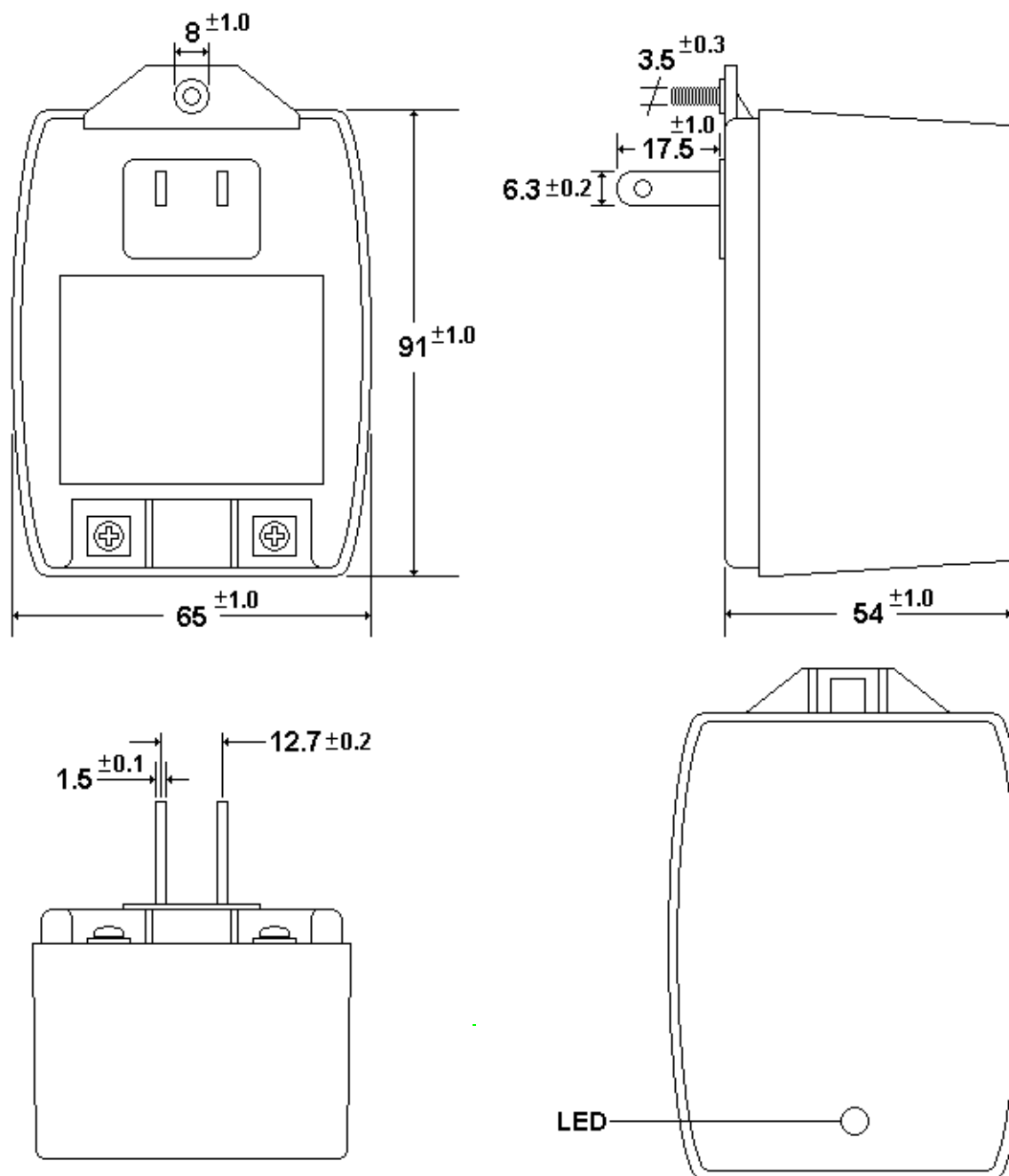
Note:

Conditions for making measurement and test are follow:
 Ambient temperature: 15°C to 35°C
 Relative humidity: 25% to 85%
 Air pressure: 86kPa to 106kPa

If there is any doubt about the result, measurements shall be made within the following limits:
 Ambient temperature: 25°C +/- 2°C
 Relative humidity: 60% to 70%
 Air pressure: 86kPa to 106kPa

DESIGNED NO.	YDA-9301-R	Changing revision with other page.	160218	E	柏君暉
DRAWING NO.	-----	Update specification's revision.	140320	D	柏君暉
COLOR	-----	Update specification's revision.	100210	C	柏君暉
MATERIAL	-----	Adding green LED.	081217	B	王建龍
UNIT	-----	DESCRIPTION	DATE	REV.	REVISER

MECHANICAL REQUIREMENTS

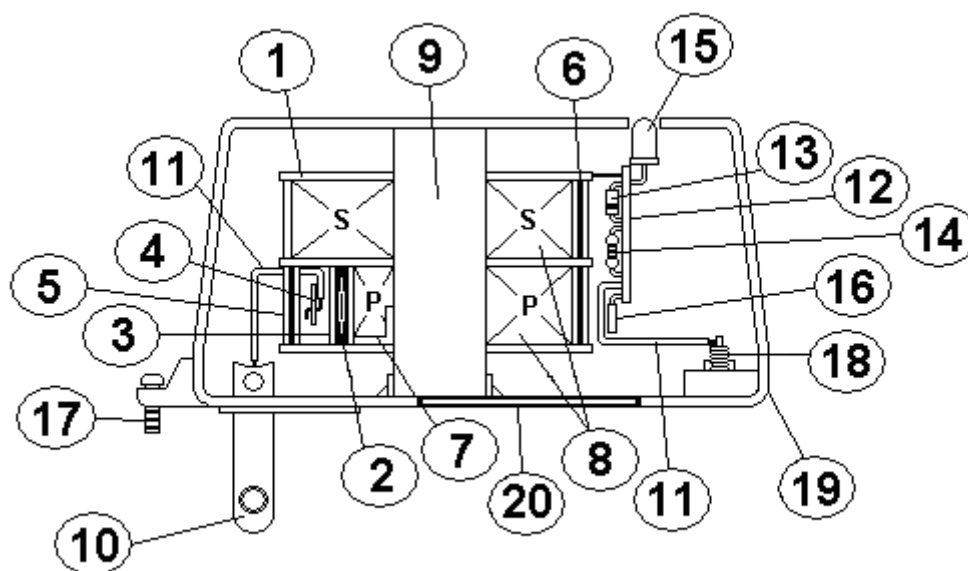


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DRAWING NO.	-----	Update specification's revision.	140320	D	柏君暉
COLOR	White (#052)	Update specification's revision.	100210	C	柏君暉
MATERIAL	ABS	Adding green LED.	081217	B	王建龍
UNIT	mm	DESCRIPTION	DATE	REV.	REVISER

MATERIAL LIST					
NO.	COMPONENTS	SPECIFICATION	MANUFACTURER	APPROVAL	
1	Bobbin	UL Recognized Plastic 94V-2 130℃ Nylon 66 Zytel 101L , 0.74mm Min	E I Dupont de nemours & Co., Ltd	E41938	
2	Thermal fuse	F4 (130℃ 1A 250V) P4-1A-F (130℃ 1A 250V) A4-F (130℃ 2A 250V) L33 (130℃ 2A 250V)	Xiamen Set electronics Aupo electronics Ltd Aupo electronics Ltd Joint Force metal research	E214712 E140847 E140847 E142267	
3	Primary wrap	Mylar tape t=0.025mm 2 turns DTS-204F 130℃ P2XX 130℃ Press board t=0.25mm 1 sheet Series thickness Series thickness	Duck Sung Tape Co., Ltd Qun Yi Tape(Dong Guan)Co., Ltd. Sansan electronic factory XinHuaHui Paper Insulation.	E105147 E81174	
4	Primary lead wire fixed	Mylar tape t=0.025mm 2 turns DTS-204F 130℃ P2XX 130℃	Duck Sung Tape Co., Ltd Qun Yi Tape(Dong Guan)Co., Ltd.	E105147 E81174	
5	Primary outer wrap	Mylar tape t=0.025mm 2 turns DTS-204F 130℃ P2XX 130℃ Press board t=0.25mm 1 sheet Series thickness Series thickness	Duck Sung Tape Co., Ltd Qun Yi Tape(Dong Guan)Co., Ltd. Sansan electronic factory XinHuaHui Paper Insulation.	E105147 E81174	
6	Secondary wrap	Mylar tape t=0.025mm 2 turns DTS-204F 130℃ P2XX 130℃ Press board t=0.25mm 1 sheet Series thickness Series thickness	Duck Sung Tape Co., Ltd Qun Yi Tape(Dong Guan)Co., Ltd. Sansan electronic factory XinHuaHui Paper Insulation.	E105147 E81174	
7	Primary cross over	Acetate tape t=0.36mm 1 Sheet DTS-230 130℃ AC-403 105℃	Duck Sung Tape Co., Ltd Qun Yi Tape(Dong Guan)Co., Ltd.	E105147 E81174	
8	Winding	Polyurethane enameled copper wire UEW 130℃ THS4-U130 UEW 130℃	Tai-I electric wire & cable Ta-Ya electric wire & cable Feng Ching Metal Corp or others	E85640 E197768 E172395	
9	Core	Silicon Steel H1835A 0.35mm thickness	Kawasaki core New Nippon seitetsu Co., Ltd		
10	Blade	Nickel plated copper 1.5mm thickness US flat pin	Tung-Jung Co., Ltd Or others		
DESIGNED NO.	YDA-9301-R	Changing the MATERIAL from H1850A to H1835A for Core.	160218	E	柏君暉
DRAWING NO.	-----	Changing the MATERIAL from H5050A to H1850A for Core.	130708	B	柏君暉
COLOR	-----	Update specification's revision.	100210	C	柏君暉
MATERIAL	-----	Update specification's revision.	081217	B	王建龍
UNIT	-----	DESCRIPTION	DATE	REV.	REVISER

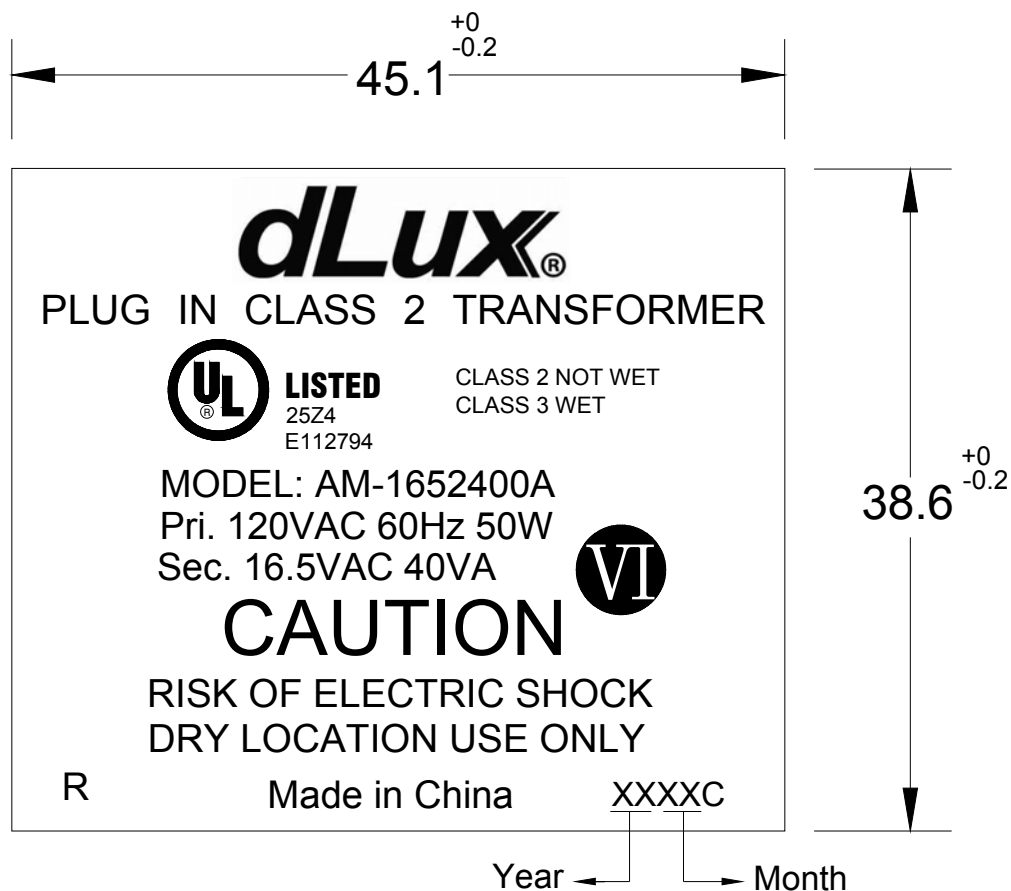
MATERIAL LIST					
NO.	COMPONENTS	SPECIFICATION	MANUFACTURER	APPROVAL	
11	Lead wire	PRI: UL 1015 AWG#22 105°C 600V SEC: UL 1007 AWG#22 80°C 300V	Wonderful wire cable Co., Ltd Yung Chuan Electronic co., Ltd Rei Hsing Wire Co., Ltd Lu Chiang Electric Wire & Cable Dong Ju Wire & Cable Weili Five-Metal Electrical Tapping Electrical Materials Dongguan Guneetal electric wire & cable Or others	E77981 E227713 E108485 E72332 E189674 E214500 E169161 E204204	
12	PC board	16mm thickness 94V-0 LS-402	Chih Hsien enterprise	E105119	
13	Rectifier	1N4002 (1A 100V) or better	Master instrument corporation DC components Co., Ltd Goodwork semiconductor Qua-tron electrics industrial		
14	Resistor	1K Ω (1/4W)	Ralec electronic corp Sunlly seitetsu Co., Ltd Or equivalent		
15	LED	Color: Green 5 ϕ	Sanlly electronics Jyham enterprise Co., Ltd Or others		
16	Poly-switch	RUEF400 (4.0A 30V)	Fuzetec technology co., Ltd Raychem Corp	E211981 E74889	
17	Fixed screw	3.5mm $\times$ 16mm with washer 8 ϕ (O.D)	Ton Shell screw Co., Ltd Or others		
18	Output screw	3.5mm $\times$ 6mm	Ton Shell screw Co., Ltd Or others		
19	Enclosure	Noryl (PX-1005; SE-100) or ABS White	GE Plastics Americas GE Plastics Japan Ltd	E121562 E45587	
20	Nameplate	0.16mm thickness PET	Chang Mao Industrial Ltd or others		
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COLOR	-----	Update specification's revision.	100210	C	柏君暉
MATERIAL	-----	Adding green LED.	081217	B	王建龍
UNIT	-----	DESCRIPTION	DATE	REV.	REVISER

ASSEMBLY



DESIGNED NO.	YDA-9301-R	Changing revision with other page.	160218	E	柏君暉
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COLOR	-----	Update specification's revision.	100210	C	柏君暉
MATERIAL	-----	Adding green LED.	081217	B	王建龍
UNIT	-----	DESCRIPTION	DATE	REV.	REVISER

NAMEPLATE



Note: "R" denotes comply with RoHS.

Background: White

Letters: Black

DESIGNED NO.	YDA-9301-R	1.Changing the CEC4 Mark to DOE 6 Mark for Nameplate.	160218	E	柏君暉
DRAWING NO.	-----	Update specification's revision.	140320	D	柏君暉
COLOR	白底黑字	Update specification's revision.	100210	C	柏君暉
MATERIAL	0.16t PET	Update specification's revision.	081217	B	王建龍
UNIT	mm	DESCRIPTION	DATE	REV.	REVISER

75±5

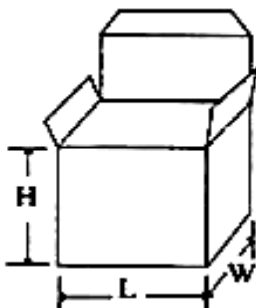
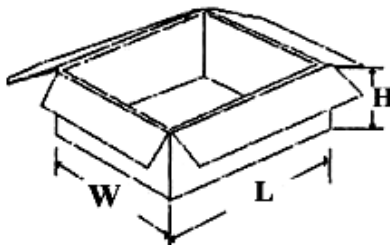
WARNING

To reduce the risk of electric shock-
 Disconnect power to the receptacle
 before installing or removing the unit.
 When removing receptacle cover screw,
 cover may fall across plug pins or
 receptacle may become displaced.
 Use only with duplex receptacle having
 center screw.
 Secure unit in place by receptacle
 cover screw.
 This power unit is intended to be correctly
 orientated in a vertical or floor mount position.

50±5

Put this user's manual into the packing box with unit.

DESIGNED NO.	YDA-9301-R	Changing the size from 150*100 to 75*50 with LAB-001-R.	160218	E	柏君暉
DRAWING NO.	----	Update specification's revision.	140320	D	柏君暉
COLOR	白底黑字	Adding aphorism in the LAB-001-R.	100210	C	柏君暉
MATERIAL	銅板紙	Update specification's revision.	081217	B	王建龍
UNIT	mm	DESCRIPTION	DATE	REV.	REVISER

PACKING					
INNER BOX 	Length	102 mm +/- 1.0mm			
	Width	67 mm +/- 1.0mm			
	Highness	75 mm +/- 1.0mm			
	Material	Art paper 450g MIN.			
	Color	White			
	Printing	N/A			
	BOX number	52- 5721-R			
MASTER CARTON 	Length	42.5 cm			
	Width	22.0 cm			
	Highness	17.5 cm			
	Material	5 layers wave cardboard			
	PCS/CTN	24 pcs			
SHIPING MARKING	Main marking (Blue)	Side marking (Blue)			
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COLOR	----	Update specification's revision.	100210	C	柏君暉
MATERIAL	----	Update specification's revision.	081217	B	王建龍
UNIT	----	DESCRIPTION	DATE	REV.	REVISER

EPBU.E112794
Direct Plug-in and Cord-connected Class 2 Power Units[Page Bottom](#)**Direct Plug-in and Cord-connected Class 2 Power Units**[See General Information for Direct Plug-in and Cord-connected Class 2 Power Units](#)**GLOBAL YEOU DIANN ELECTRIC INDUSTRIAL CO LTD****E112794**378 KAISYUAN 4TH RD
CIANJHEN DISTRICT
KAOHSIUNG, 806 TAIWAN

General use power supplies, Models 1361, 23-248, A3, AC-64NC, -T123, -T37, -T46, -T56, AM-1250, -1250A, -1319AB, -2285AB, -3300I, -3700, -6200-1, -6300, -6400, -6400-1, -6400A, -6500, -6800A, -7800, -9100, -9100-1, -9100-2, -9150, -9150-1, -9150A, -9170, -9200, -9200A, -9250, -9300, -9300-1, -9300A, -9350, -9400, -9450, -9500, -9500A, -9600, -9600A, -9800, -9800A, -10300, -10500, -10500A, -105900AL, -12000, -12100, -12100-1, -12200, -12200-1, -12200A, -12300, -12300A, -12300I, -12500, -12500A, -12500I, -12600, -12600A, -12700A, -12800, -12800A, -12830A, -12900, -15100, -15300, -15600, -16400, -17600, -18100A, -18150A, -18600, -19455, -19700, -24200, -24300, -24300A, -24500, -24700, -24750, -24830A, -29750, -41200, -45500, -45500A, -51000I, -61000, -61000I, -75300, -75300A, -85100A, -91000, -91000A, -91200, -91500, -91500A, -93400A, -121000, -121000A, -121200A, -121500, -121500A, -121500G, -121500G1, -122000A, -122500A, -123000A, -151000, -123333A, -124160A, -1352000, -151000A, 151000G, -151000G1, -151500I, -162000, -171000, -181000, -181000A, -181000G, -181000G1, -182700A, -221500A, -241000, -241000P, -241250A, -241660A, -241660AG, -242000A, -242000AG, -271200SU, -1251100, -1351500, -1351500A, -1351500G, -1351500G1, -1521500, -1651200A, -1651500A, -1652400A, -1652400A-1, -1652400AG, -1652400ALF-1, -1653000A, -1653000AG, -93009100, MGT1230, MGT1240, MGT1240P, MGT1250, MGT1620, MGT1625, MGT1640, MGT1640P, MGT1650, MGT1850, MGT2420, MGT2420P, MGT2430, MGT2440, MGT2440P, MGT2450, MGT12500R, MGT241000, BCQ-12, -14, AM-12xI(x=1000, 900, 850, 800, 750, 700 or 600), MGT121AR, WT12.

Model AD1202A.

Models AM-9500A-1, -9700A, -9880A, -12500A-1, -12660A, -165485A, -18444A, -24333A, -9700ALF, AM-9700ALF-1, AM-9700ALF-2.

Models AM-24416A, MGT2410, AM-12833, MGT1210.

Model AM-XXXXYYYZ where XXX can be 015-300, YYY can be 0200 to 2900 incl. and Z can be D or blank.

Model AM-6/12500CH.

Direct plug-In class 2 power units, Models AM-xxxxyyyD41, where xxx can be 015 to 480, yyyy can be 0080 to 2000, AM-1201000D41.

Model AM-xyCHz, where x can be 6, 12, y can be 1000, 800, 500, z can be blank or G; Model AM-5600.