SPECIFICATION FOR APPROVAL

Customer : DIVA

Customer P/N: 3ZAD24V1350 (Z0420)

Description : OPEN FRAME

Delta Model No : MDS-300APB24 AE **Rev :** 02

Sample Issue Date : Aug.31 2023

DELTA ELECTRONICS, INC.

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3. Physical Dimension
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Please send one copy of this specification back after you signed approval for production pre-arrangement.

Customer Sign : _____

Date : _____

設計驗證
工程課
2023.10.03
發行
旺詮科技開發股份有限公司

Engineer	M.Engineer	Approved
TOM.LIN	ERIC.CC.YEH	JASON.HH.CHANG

1. Revision History

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DELTA P/N	MDS-300APB24 AE	SHEET 1 OF 1
CONTENT	Revision History	DATE Aug.31, 2023

1.Revision History

REV.	DESCRIPTION	ENGINEER	DATE
00	ISSUE	CAN.WU	1/9/2019
01	SPEC LABEL 增加產品CC code: AE, REV.: 02 打印資訊 請參考label drawing	TERRY.LIN	9/18/2020
02	Update Electrical Specification, Physical Dimension, Label and Safety Certificate	TOM.LIN	08/31/2023

2. Electrical Specification

Medical AC-DC Open Frame Power Supply

24 V 300 W with 5 V/0.5 A Standby / MDS-300APB24 AA



MDS-300APB24 AA

Highlights & Features

- Safety Approvals to IEC 60601-1 3.1rd ed. & IEC 62368-1
- Compliant with IEC 60601-1-2 4th Ed. Requirements
- Up to 240 Watt Convection in 3" x 5" x 1.4" Package
- Up to 800 K Hrs MTBF
- Suited for Type BF Medical Products
- 2 × MOPP isolation

Safety Standards

R33030 RoHS

E356265 E131881

CB Certified for worldwide use

Model Number:	MDS-300APB24 AA
Unit Weight:	405 g
Dimensions (L x W x H):	127.3 x 76.5 x 36.1 mm (5 x 53 x 1.4 inch)

General Description

Delta's new MDS-300APB24 AA open frame design offers a high energy density (14.3 Watts/in3) 3x5 inch design for Type BF patient access medical products. With operating parameters of 90 to 264 Vac universal input voltage, temperatures of -10 to +70 degrees centigrade, and altitudes of up to 5000 meters (16,400 feet), the design is well suited for a variety of both medical and non-medical applications. Other features include input surge of 300 Vac, low leakage current, no-load input power < 0.5 Watt, and 800K hour MTBF. This product is certified for EMC standards EN/BS EN 55011 for industrial, scientific and medical (ISM) radio-frequency equipment, and EN/BS EN 55032 for Industrial Technology Equipment (ITE) radio-frequency equipment.

An enhanced feature set, includes a 5 Volt/0.5 amp standby output, remote on/off, remote sense, and a power good signal that are included as part of the standard product.

The design, which has protection against shock compliant with 2XMOPP and Type BF requirements, has both medical (with risk report available), and ITE safety approvals, including cURus(US&Canada) /TUV; plus, CB certificates with all national deviations. Full compliance with RoHS Directive for environmental protection is included. The unit comes in a standard 3x5 inch footprint, with height suitable for 1U applications. Robust terminals are capable of multiple connections of the main output to the end product.

Model Information (All with 5 V/0.5 A standby available):

Model Number	Input Voltage	Output Voltage	Convection Current Output	Forced Air Current Output
MDS-300APB24	90-264 Vac	24 Vdc	0-10 A	0-12.5A (with 10 CFM forced air)

Model Numbering

MDS	300	A	P	B	24	□□
Delta Medical Power Supply	**Max wattage in the product series.** 300 → 300 W	**Family Code** A ~ Z	**Product Type** P: Open Frame	**Input Type Code** B: 3 pin Class I	**Output Voltage** 24 for 24 V	AA: With Remote On/Off AE: Without Remote On/Off **Refer to page 7**

Medical AC-DC Open Frame Power Supply
24 V 300 W with 5 V/0.5 A Standby / MDS-300APB24 AA

Specifications

Input Ratings / Characteristics

Nominal Input Voltage	100-240 Vac
Input Voltage Range	90-264 Vac
Nominal Input Frequency	50-60 Hz
Input Frequency Range	47-63 Hz
Input Current (max)	4 A
Input Surge Voltage (max)	300 Vac for 100 ms
Full load Efficiency (typ.)	93% @ 115 Vac/60 Hz 94% @ 230 Vac/50 Hz, Reference Fig.1
Standby Power (max)	0.5 W (only standby working with Inhibit signal high) @ 115 Vac/60 Hz, 230 Vac/50 Hz
Inrush Current (max)	40 A @ 230 Vac, cold start
Input-PE (protective earth) leakage current (max)	0.1 mA @ NC[1)], 0.3 mA @ SFC[1)]
Output-PE (protective earth) leakage current for Type BF application (max)	0.1 mA @ NC[1)], 0.5 mA @ SFC[1)]
Power Factor (min)	0.9 @ 115 V/50 Hz, 230 V/50 Hz, full load

1) NC: normal condition, SFC: single fault condition

Leakage Current

Input-PE Leakage Current	100 Vac/60 Hz (Typ)	264 Vac/60 Hz (Typ)	Delta Limit	IEC60601-1 Limit
Normal Condition	17.5 uA	43.5 uA	100 uA max	5000 uA max
Single Fault Condition	32.9 uA	90.7 uA	300 uA max	10000 uA max
Output-PE Leakage Current for Type BF application				
Normal Condition	28.5 uA	86.7 uA	100 uA max	100 uA max
Single Fault Condition	42.9 uA	128.6 uA	500 uA max	500 uA max

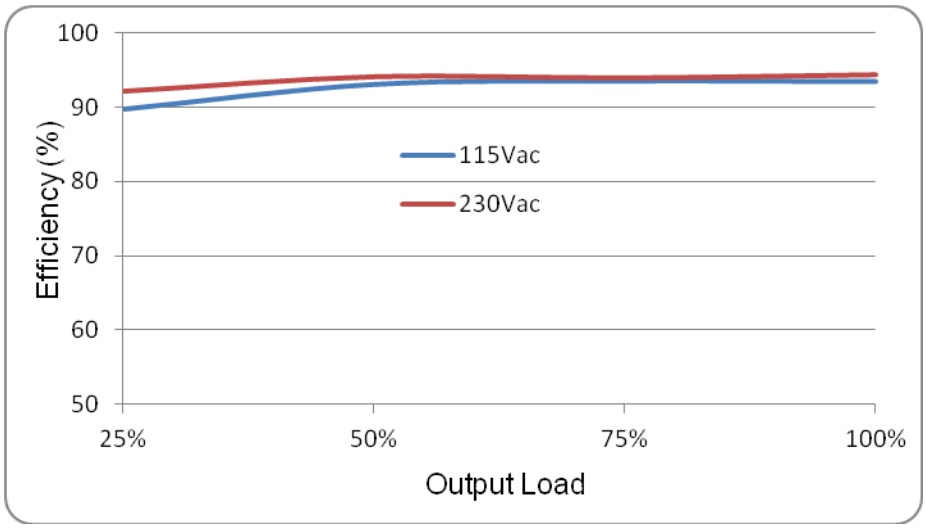


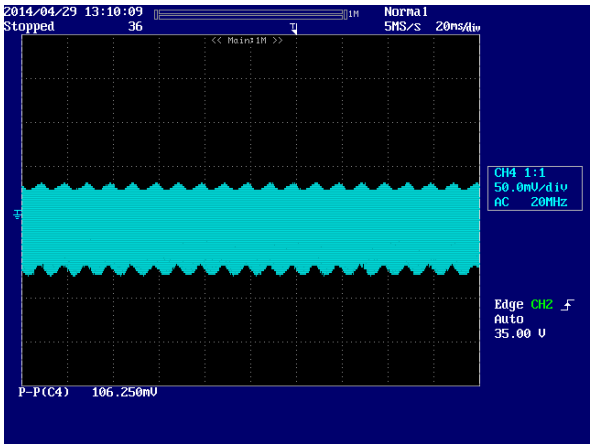
Fig.1 Efficiency versus output load

All parameters are specified at 25°C ambient unless otherwise noted.
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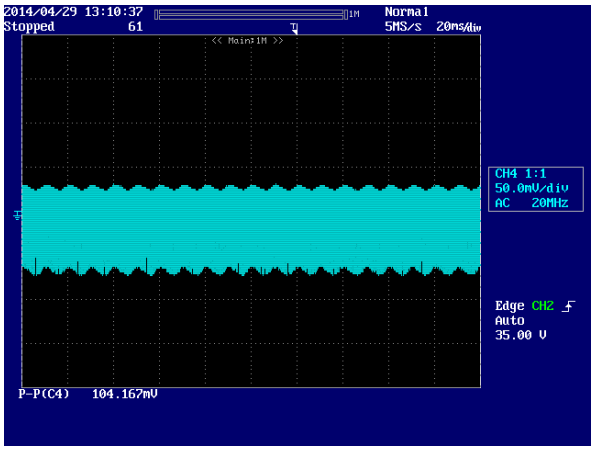
Medical AC-DC Open Frame Power Supply
24 V 300 W with 5 V/0.5 A Standby / MDS-300APB24 AA

Output Ratings / Characteristics (Main Output)

Nominal Output Voltage (Vrated)	24 V
Total Regulation	± 3%
Output Power	300 W 10 CFM air, up to 240 W convection air
Line Regulation (max)	± 0.5%
Load Regulation (max)	± 1%
Ripple & Noise (typ.)	1% pk-pk Vrated @ 300 W load (Refer to Fig. 2 & Fig. 3)
Start-up Time (max)	2000 ms @ 115 Vac
Hold-up Time (min)	10 ms @ 100 Vac and 115 Vac, with 300 W load 20 ms @ 100 Vac and 115 Vac, with 190 W load
Dynamic Response (Overshoot & Undershoot O/P Voltage)	± 5% @ with 50-100% load change
Capacitive load (max)	1500 uF
Rise time (max)	100 ms
Remote Sense	Up to 500 mV compensation for voltage drop across external wire connections to load. Short and reverse connection protected.



(a) 115 V (measured value=106 mV)



(b) 230 V(measured value=104 mV)

Fig.2 Ripple & Noise example, 20 MHz BW

Output Ratings / Characteristics (Standby Output)

Nominal Output Voltage of standby output (Vrated)	5 V
Total Regulation of standby output	± 3%
Ripple & Noise of standby output	100 mV max (Refer to Fig. 3)

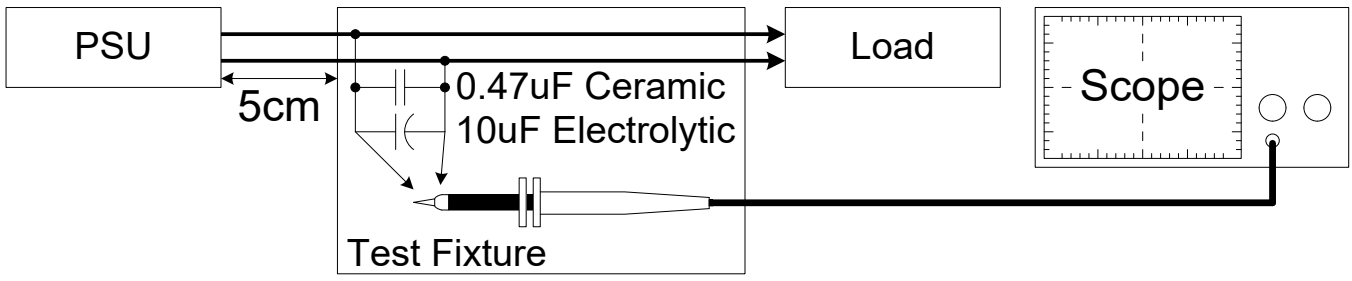


Fig. 3 Ripple & Noise measurement circuit

All parameters are specified at 25°C ambient unless otherwise noted.
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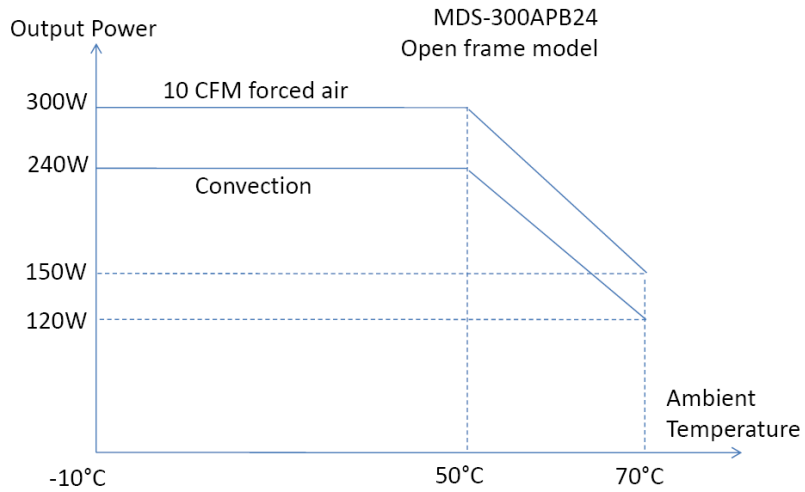
Mechanical

Dimensions (L x W x H)	127.3 x 76.5 x 36.1 mm (5 x 3 x 1.4 inch)
Unit Weight	405 g (0.89 lb)

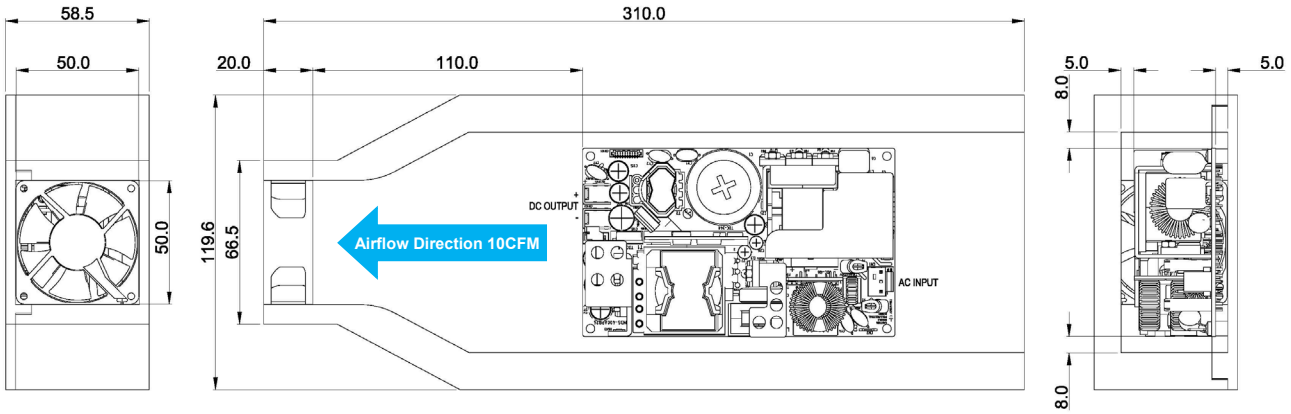
Environment

Surrounding Air Temperature	Operating	Absolute Maximum/Minimum Rating. -10°C to +70°C. Linearly derate from 100% load at 50°C, to 50% load at 70°C (2.5%/ degree centigrade) Note: see power de-rating curves below
	Storage	-40°C to +85°C
Operating Humidity		5-95% RH (Non-Condensing)
Operating Altitude		5,000 meters (16,400 feet or 50 kPa)
Non-operating Altitude		5,000 meters (16,400 feet or 50 kPa)
Shock Test (Non-Operating)		50G, 11ms, 3 shocks for each direction
Vibration (Operating)		5-500Hz, 2Grms, 15 minute for each three axis

Power De-rating curves



Load De-rating Fixture and Test Setup. Fan is DELTA Part Number AFB0512HHD.



All parameters are specified at 25°C ambient unless otherwise noted.
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Protections (for both 24 Volt and 5Volt Standby outputs, unless otherwise indicated)

Overvoltage (max)	Main output 125% of rated voltage, Latch Mode Standby Output 125% of rated voltage, Latch Mode
Over load / Over current (max)	Main output 160% of rated current Standby Output 1.06A max Hiccup Mode(Non-Latching, Auto-Recovery)
Over Temperature	Latch Mode for main output
Short Circuit	Hiccup Mode, (Non-Latching, Auto-Recovery)

Reliability Data

MTBF(Minimum) at 115 Vac, 240 W, 35 °C	Convection Air Flow	800 Khrs based on Telecordia SR-332
Operating life(Minimum) at 115 Vac, 240 W, 25°C	Convection Air Flow	26,280 hrs

Safety Standards / Directives

Medical Safety		IEC 60601-1 2nd , 3rd and 3.1rd edition CB report IEC 60601-1 edition 3.1rd (2012), EN 60601-1 (2006) + A11 + A1 + A12, CAN/CSA-C22.2 NO. 60601-1:14, ANSI / AAMI ES 60601-1:2005/(R)2012
ITE Safety		IEC 60950-1, IEC 62368-1 CB report TUV 60950-1 UL 60950-1+CAN / CSA 60950-1
CE		In conformance with EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU EN 60601-1: 2006 + A11: 2011 + A1L 2013 + A12: 2014 & EN 60601-1-2: 2015
UKCA		In conformance with Electrical Equipment (Safety) Regulations 2016 and Electromagnetic Compatibility Regulations 2016, Medical Devices Regulations 2002 (UK MDR 2002)
Galvanic Isolation	Input to/Output (2XMOPP) Input to/Ground(1XMOPP) Output to/Ground(1XMOPP)	4000 Vac 1500 Vac[1)] 1500 Vac (Type BF application rated)

1) PSU can support PoE applications with Primary to FG 2500Vac test.

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EMC (Compliant with IEC-60601-1-2 4th Ed. requirements)

EMC / Emissions		EN/BS EN 55011, EN/BS EN 55032, FCC Title 47:Class B
Harmonic Current Emissions	IEC61000-3-2	Meet Class D limit
Immunity to		
Voltage Flicker	IEC61000-3-3	
Electrostatic Discharge	IEC61000-4-2	Level 4 Criteria A[1)] Air Discharge: 15 kV Contact Discharge: 8 kV
Radiated Field	IEC61000-4-3	Criteria A[1)] 80 MHz-2700 MHz, 10 V/m AM modulation 385 MHz-5785 MHz, 28 V/m Pulse mode and other modulation
Electrical Fast Transient / Burst	IEC61000-4-4	Level 3 Criteria A[1)] :2 kV
Surge	IEC61000-4-5	Level 3 Criteria A[1)] Common Mode[3)]: 2 kV Differential Mode[4)]: 1 kV
Conducted	IEC61000-4-6	Level 2 Criteria A[1)] 150 kHz-80 MHz, 3 Vrms, 6 Vrms at ISM bands and Amateur radio bands
Power Frequency Magnetic Fields	IEC61000-4-8	Criteria A[1)] Magnetic field strength 30 A/m
Voltage Dips	IEC61000-4-11	Criteria A[1)] 0% U_T, 0.5 cycle (10 ms) , 0°/45°/90°/135°/180°/225°/270°/315°/360° Criteria B[2)] (Criteria A[1)] with 190 W load) 0% U_T, 1 cycle (20 ms), 0° Criteria B[2)] 70% U_T, 25 cycle (500 ms), 0° Criteria B[2)] 0% U_T, 250 cycle (5000 ms), 0°

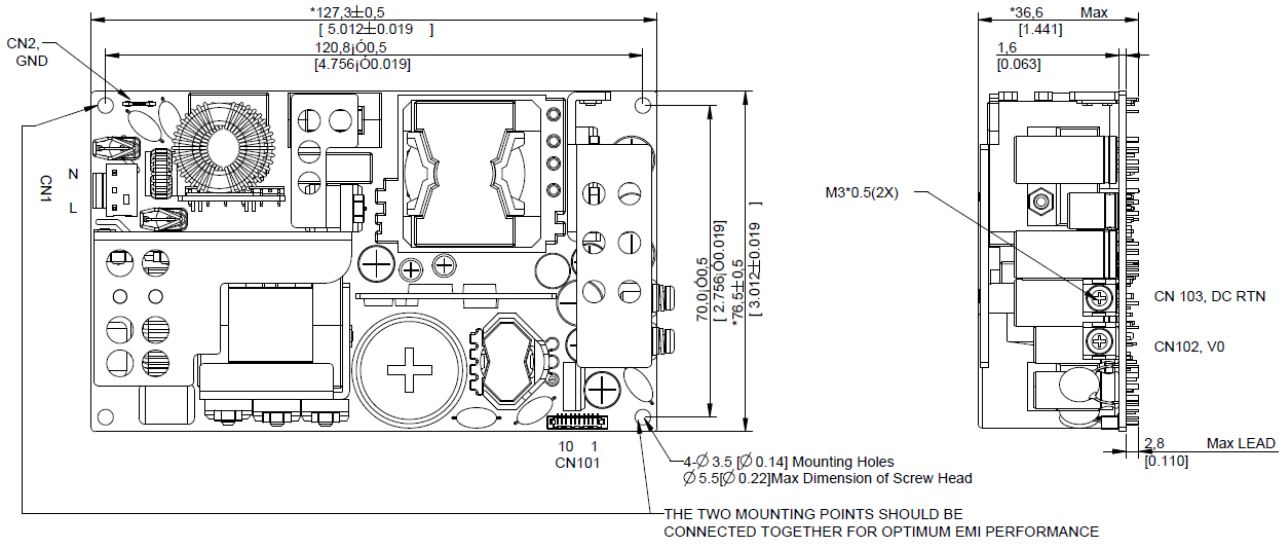
1) Criteria A: Normal performance within the specification limits
2) Criteria B: Output out of regulation, or shuts down during test. Automatically restore to normal operation after test.
3) Asymmetrical: Common mode (Line to earth)
4) Symmetrical: Differential mode (Line to line)
5) Unless otherwise noted, requirements apply at 300 watt output load

Medical AC-DC Open Frame Power Supply

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Dimensions

Mechanical Drawing



Notes

Dimensions are in mm (inches)

- CN1 mates with Molex housing 26-03-4030 and Molex series 6838 crimp terminals. Input Line can also be connected to Input Neutral, and Input Neutral can be connected to Input Line.
- CN102 & CN103(Output Connector): Cross recessed pan head screws M3 X 0.5 x 10, with spring washers and flat washers, force required to tighten the screws is 7~8 kgf.cm(6.1~7.0 inch-lb)
- CN2: PINGOOD JP-13T mates with KST: FDFNYD1-187 or other applicable connectors.
- CN101 mates with JST housing SHR-10V-S-B & SHR-10V-S and JST SSH-003T-P0.2-H crimp terminals.

Control and STANDBY connector CN101	
Pin 1	Remote sense +
Pin 2	Remote sense –
Pin 3	Power Good +
Pin 4	Power Good -(DC RTN)
Pin 5	Remote ON_OFF/INHIBIT +
Pin 6	Remote ON_OFF/INHIBIT -(DC RTN)
Pin 7	5 V Standby
Pin 8	DC RTN
Pin 9	5 V Standby
Pin 10	DC RTN

- For optimum EMI performance, the two mounting points shown in mechanical drawing need to be connected together to system earth case. Protective bonding conductor from the end product protective earth terminal (if any) can be tied to CN2 for open frame model.

MDS-300APB24 □□	
AA	Delta Standard
AE	A mating connector with JST housing SHR-10V-S-B & SHR-10V-S and JST SSH-003T-P0.2-H terminals, with jumper wire between pins 5 and 6, will be inserted into CN101. This will allow the power supply to turn on, without user intervention, upon the application of input AC voltage Due to presence of mating connector, external connections cannot be made to pins 1-10 of CN101.

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Functions

Start-up Time

The time required for the output voltage to reach 90% of its final steady state value, after the input voltage is applied.

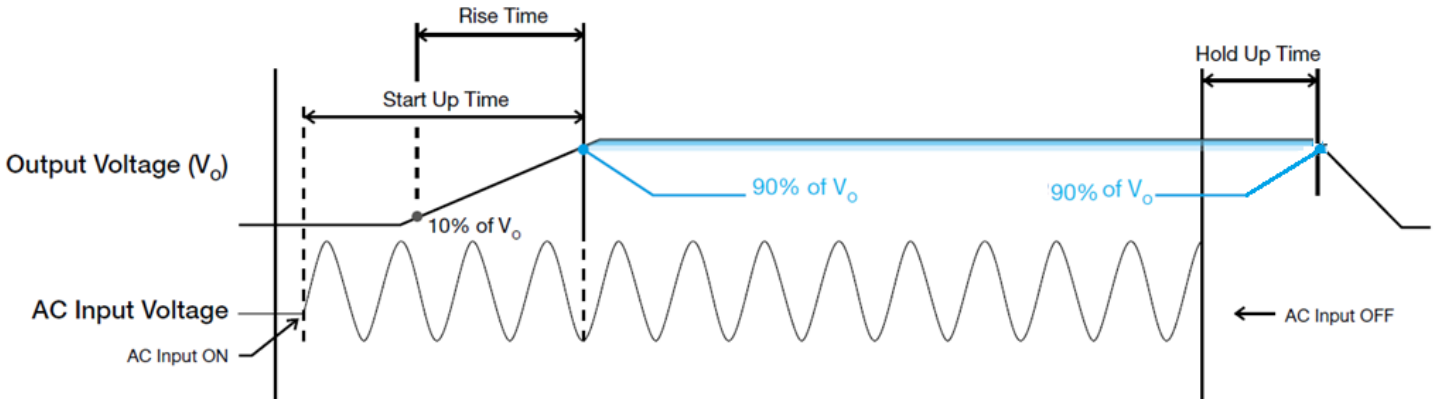
Rise Time

The time required for the output voltage to change from 10% to 90% of its final steady state value.

Hold-up Time

Time between the collapse of the AC input voltage, and the output falling to 90% of its steady state value.

■ **Graph illustrating the Start-up Time, Rise Time, and Hold-up Time**

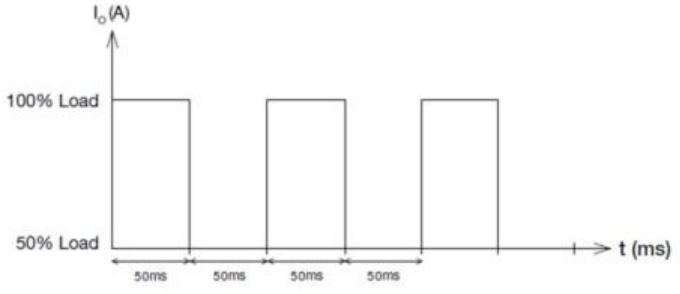


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Dynamic Response (24 Volt Output)

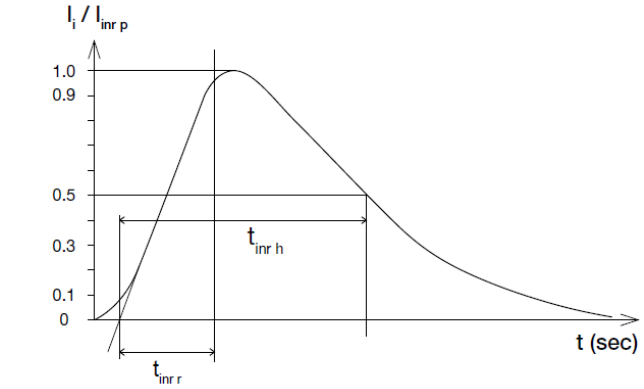
The power supply output voltage will remain within ±5% of its steady state value, when subjected to a dynamic load 50 to 100% of its rated current.

■ **50 to 100% Load**



Inrush Current

Inrush current is the input current that occurs when the input voltage is first applied. For AC input voltages, the maximum peak value of inrush current will occur during the first half cycle of the applied AC voltage. This peak value decreases exponentially during subsequent cycles of AC voltage.

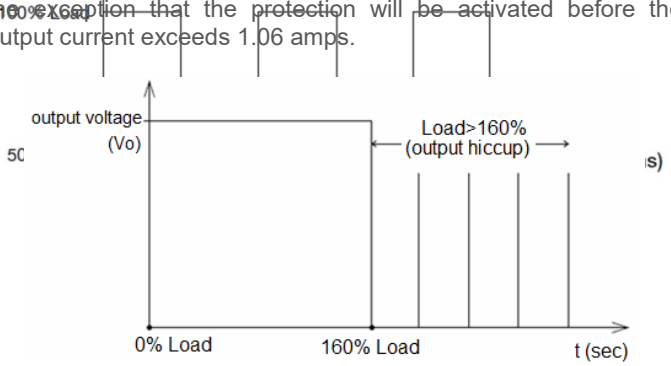


Overvoltage Protection

The power supply's overvoltage circuit will be activated when its internal feedback circuit fails. The output voltage shall not exceed its specifications defined on Page 5 under "Protections". Power supply will latch off, and require removal/re-application of input AC voltage in order to restart.

Overload & Over current Protections

The power supply's Overload (OLP) and Over current (OCP) Protections will be activated before the 24 volt outputs' current exceeds 160% of I_O (Max load). Upon such an occurrence, V_O will start to drop. Once the power supply has reached its maximum power limit, the protection will be activated and the power supply will go into "Hiccup mode" (Auto-Recovery). The power supply will recover once the fault condition causing the OLP and OCP is removed and I_O is back within the specified limit. For the standby output, the performance is the same, with the exception that the protection will be activated before the output current exceeds 1.06 amps.



Additionally, if the 24 Volts' Iout is >100%; but <160% for a prolonged period of time (depending on the load), the Over Temperature Protection (OTP) will be activated due to high temperature on critical components. The power supply will then go into latch mode.

Short Circuit Protection

The power supply's output OLP/OCP function also provides protection against short circuits. When a short circuit is applied, the output current will operate in "Hiccup mode", as shown in the illustration in the OLP/OCP section on this page. The power supply will return to normal operation after the short circuit is removed.

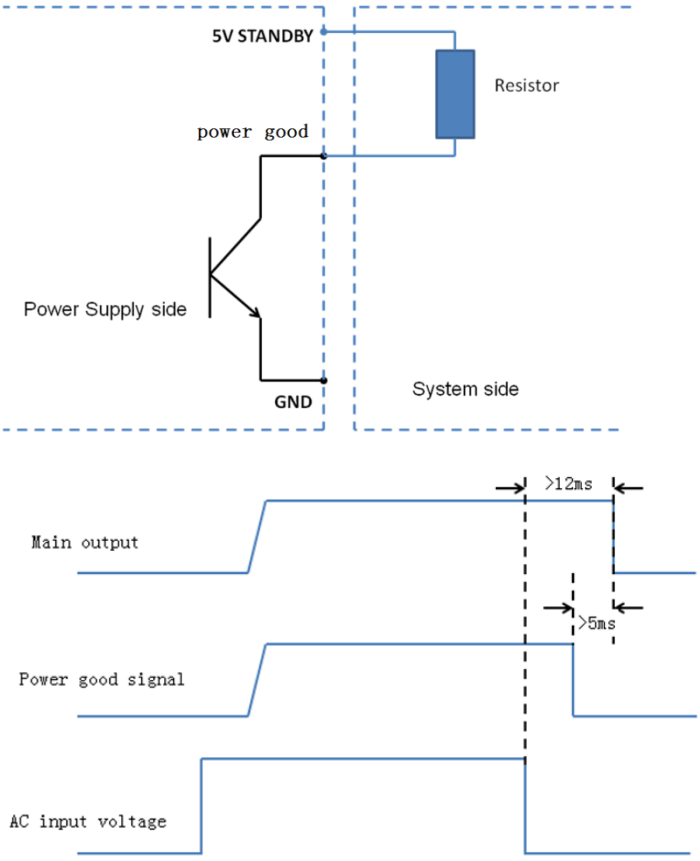
Over Temperature Protection

As mentioned above, the power supply also has Over Temperature Protection (OTP). This is activated when the overload condition persists for an extended duration and the output current is below the overload trigger point but >100% load. In the event of a higher operating temperature condition at 100% load, the power supply will run into OTP when the surrounding air temperature is higher than the operating temperature. When activated, the output voltage will go into latch mode until the input voltage is removed; then, reapplied, and the surrounding air temperature drops to its normal operating temperature.

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Power Good

Power Good+ pin is an open collector transistor (40 V/600 mA rating). A resistor (suggested value 10K ohm, 1/8 W) can be added between 5 V STANDBY pin (or, other available pull-up voltage that is no greater than 30 V) and the Power Good+ pin (refer to figure below). Value of pull-up resistor may have to be adjusted, depending on voltage used, and other end-use conditions of the Power Good+ pin connection to the product. When AC input is on, Power Good+ pin will be high. When AC input is off, Power Good+ pin will be low. There will be a minimum of 5 milliseconds (at 240 W load) between the time the power good goes to low level, and the time when the output reaches 90% of its rated value.



Remote On_Off/Inhibit

Remote ON_OFF/INHIBIT can be used to enable or disable only the main output. When the main output is disabled, the +5V Standby output will continue to operate. This signal can be pulled down to a low level of 0.3 volts, or shorted to DC-Return, in order for the main output to be enabled; and, floated (no connection to the signal), or pulled up to a value greater than or equal to 3 volts, in order to disable the main output.

Remote Sense

Remote sense feature can be used to compensate for the extra voltage drop on output wires that are connected from the main output terminals, to the load. With wires connected from the remote sense pins, at the same locations as the wires from the main output, the remote sense function can compensate up to 500mV voltage drop. The power supply will not be damaged if the remote sense pins are shorted, or if a reverse/inverted polarity connection is made to the load.

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Certificate

Delta has been certified as meeting the requirement of ISO 13485: 2003 and EN ISO 13485:2012 for the design and manufacture of switching power supply and adaptor for medical device.

In addition to a UL Total Certification Program (TCP) approved client laboratory for IEC 62368-1. Delta also has participated UL Client Test Data Program (CDTP) for IEC 60601

E356265

Attention

Delta provides all information in the datasheets on an “AS IS” basis and does not offer any kind of warranty through the information for using the product. In the event of any discrepancy between the information in the catalog and datasheets, the datasheets shall prevail (please refer to www.DeltaPSU.com for the latest datasheets information). Delta shall have no liability of indemnification for any claim or action arising from any error for the provided information in the datasheets. Customer shall take its responsibility for evaluation of using the product before placing an order with Delta.

Delta reserves the right to make changes to the information described in the datasheets without notice.

Manufacturer and Authorized Representatives Information

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909 Pattana 1 Rd., Muang, Samutprakarn, 10280 Thailand

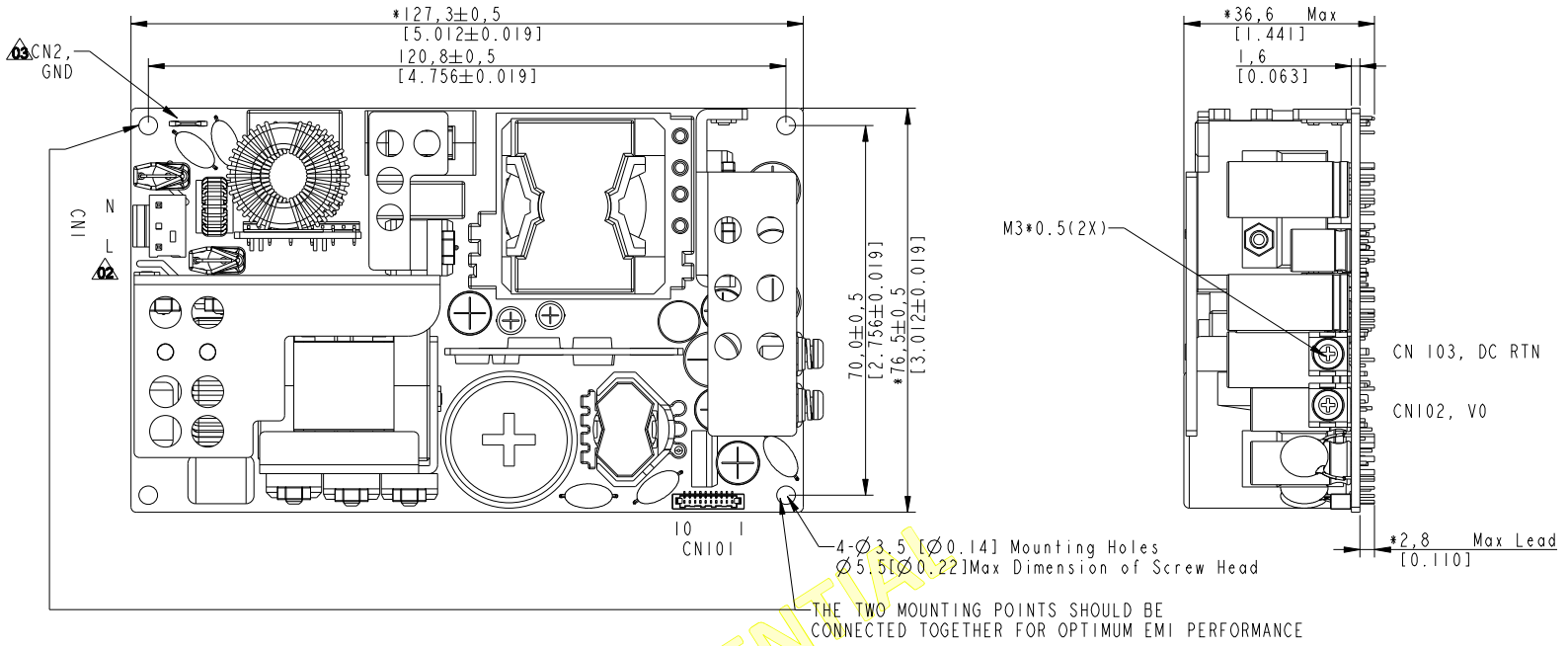
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Delta Electronics Europe Limited
1 Redwood Court, Peel Park Campus,
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3. Physical Dimension



02 NOTES:

1. CN1 :

CN1 (Input)	Molex 26-62-4030, mating with Molex:26-03-4030 and terminal 6838 series	Molex 171813-9998, mating with Molex:26-03-4030 and terminal 6838 series
	MDS-300APB12/24/48 SERIES MEP-300X24 SERIES	MDS-300APB18 SERIES

06 2. CN102 & CN103(KANG YANG : PCB-12) : CROSS RECESSED PAN HEAD SCREWS M3X0.5X10, WITH SPRING WASHERS AND FLAT WASHERS, FORCE REQUIRED TO TIGHTEN THE SCREWS IS 7~8KGF.CM(6.1~7.0INCH-LB)
Without M3 screw: MDS-300APB24 AB/AR, MEP-300Z24VLA BN

3. CN2 (PINGOOD JP-13T) MATES WITH KST:FDFNYDI-187 OR OTHER APPLICABLE CONNECTORS.

05 4. CN101(JST BM10B-SRSS-TB1) MATES WITH JST HOUSING SHR-10V-S-B & SHR-10V-S AND JST SSH-003T-P0.2-H CRIMP TERMINALS.

Control and STANDBY connector CN101	
1	Remote sense +
2	Remote sense -
3	Power Good +
4	Power Good -(DC RTN)
5	Remote ON_OFF/INHIBIT +
6	Remote ON_OFF/INHIBIT -(DC RTN)
7	5V Standby
8	DC RTN
9	5V Standby
10	DC RTN

5. DIMENSIONS WITH " * " MARK MUST BE INSPECTED AND CONTROLLED STRICTLY BY IQC.

06 6. MODEL LIST :
MDS-300APB12 AA/AC,
MDS-300APB18 AA/AB
MDS-300APB24 AA/AB/AE/AR, MEP-300Z24VLA BN
MDS-300APB48 AA/AB/AD

DELTA CONFIDENTIAL

設計驗證
工程課
2023.10.03
發行
鈺鍵科技開發股份有限公司

3ZAD24V1350(Z0420)

台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

Drawn: Tony Yu
Design: Tony Yu

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

THIRD ANGLE PROJECTION

Description: Physical Dimension

DIMENSIONAL TOLERANCES HOLES: ±0.05 ANGLES: ±0.5°

( )		(V)		( )		( )	
<30	±0.25	DECIMALS		UP~100	±0.2	250~300	±0.4	UP~600	±1.5
>30~100	±0.35	X	±0.3	100~150	±0.25	300~350	±0.45	600~900	±2.4
>100~300	±0.6	X.X	±0.2	150~200	±0.3	350~400	±0.6	900~OVER	±3.1
ABOVE 300	±0.8	X.XX	±0.1	200~250	±0.35				

A3 SIZE

Part No. MDS-300AXBXX SERIES

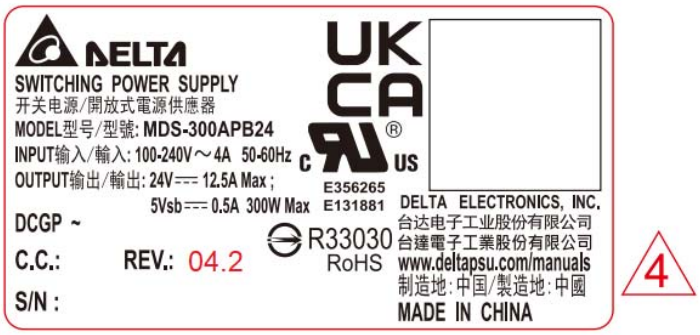
REV. 06

SCALE	1.000	UNIT	MM	USED ON	MDS-300AXBXX SERIES

SHEET 2 OF 3 ISSUE DATE: May-03-23

FRAME NAME: DF-MEA3H-1R02.DWG

4.Label Drawing



STD 2-FIG. 2

SCALE 1:1

300APB24 AE-DCGP

SPEC LABEL



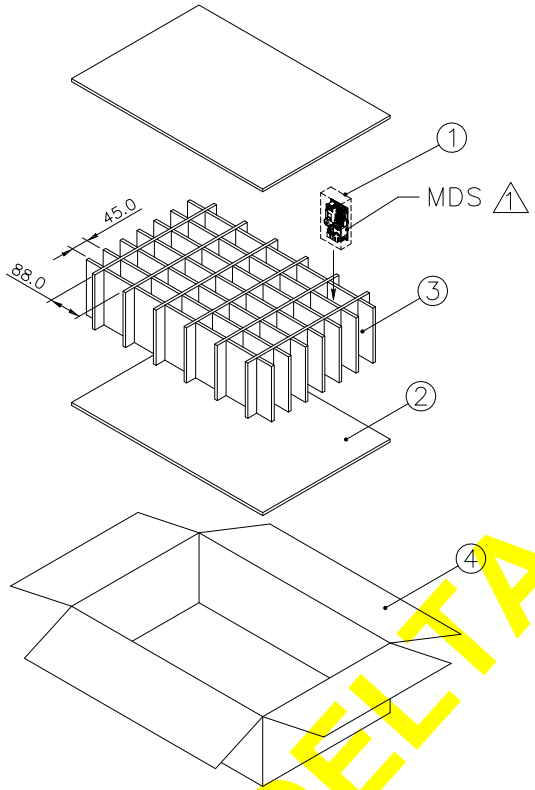
CCC LABEL

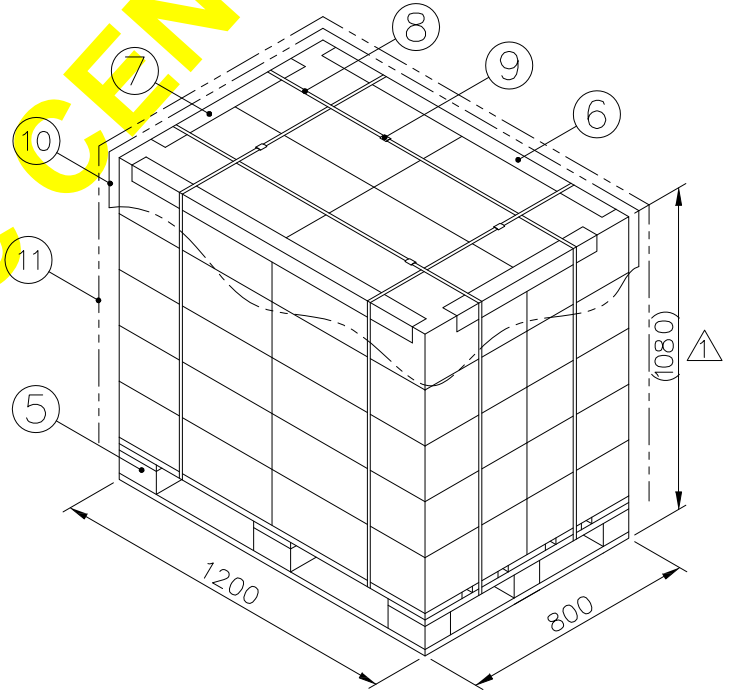
5. Packing

NOTES:

1. 30PCS/CARTON*2*2CARTONS/LAYER*5LAYERS=600PCS/PALLET
2. ALL THE PACKING MATERIAL SHOULD MEET DELTA GENERAL SPEC:10000-0162.

ITEM	PART NO.	NAME	OUTSIDE DIM.(mm)	Q'TY	EXPLAIN
01	3522004000	AIR BUBBLE BAG	195X140	1/1	
02	3510803400	PAD PAPER	580X380X8	2/30	
03	3514361900	PARTITION	582X382X146	1/30	
04	3512319600	CARTON	600X400X190	1/30	
1 05	3524029000	PALLET	1200X800X120	1/600	
06	3510180100	ANGLE PAPER	1100X55X55	2/600	
07	3511706800	ANGLE PAPER	550X55X55	2/600	
08	3520142700	PLASTIC STRIP	W=12 T=0.5	18/600	
09	3520142800	STAPLE WIRE	28.0X21.5	4/600	
10	3520089900	PE SHEET	1500X1300	1/600	
11	3520082400	PE FILM	t=0.02mm	1g/600	





DELTA DOC CENTER

台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

Drawn: XUEJUE 03/18'15

Design: WU.XIAOJUN 03/18'15

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

THIRD ANGLE PROJECTION

Description: PML

DIMENSIONAL TOLERANCES HOLES : ±0.05 ANGLES : ±0.5°

( )		( )		( )		( )	
<30	: ±0.25	DECIMALS		UP~100	: ±0.2	250~300	: ±0.4	UP~600	: ±1.5
>30~100	: ±0.35	X	: ±0.3	100~150	: ±0.25	300~350	: ±0.45	600~900	: ±2.4
>100~300	: ±0.5	X.X	: ±0.2	150~200	: ±0.3	350~400	: ±0.5	900~OVER	: ±3.1
ABOVE 300	: ±0.6	X.XX	: ±0.1	200~250	: ±0.35				

A3 SIZE

Part No. 3525408401

REV. 01

SCALE	--	UNIT	mm	USED ON	MDS-300APB24 AA	SHEET 2 OF 2	ISSUE DATE: 03/18'15

FRAME NAME: DF-MEA3H-1R01.DWG

6. Safety License

Ref. Certif. No.

DK-137883-UL

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	Switching Power Supply
Name and address of the applicant	DELTA ELECTRONICS INC 3 Tungyuan Road Chungli Industrial Zone Taoyuan City 32063 Taiwan
Name and address of the manufacturer	DELTA ELECTRONICS INC 3 Tungyuan Road Chungli Industrial Zone Taoyuan City 32063 Taiwan
Name and address of the factory Note: *When more than one factory, please report on page 2*	DELTA ELECTRONICS (JIANGSU) LTD. No 1688 Jiangxing East Road Wujiang Economic and Technological Development Zone Suzhou City, Jiangsu Province, 215200 China ☒ Additional Information on page 2
Ratings and principal characteristics	Input rating: 100-240Vac, 50-60Hz, 4A ☒ Additional Information on page 3-5
Trademark / Brand (if any)	DELTA
Customer's Testing Facility (CTF) Stage used	CTF Stage 2
Model / Type Ref.	MDS-300APB24 XX, MDS-300ABB24 XX, MDS-300ADB24 XX, MDS-300APB12 XX, MDS-300APB48 XX, MDS-250APB12 XX, MDS-250ADB12 XX, MDS-250APB24 XX, MDS-250ADB24 XX, MDS-300APB18 XX, MDS-300ADB12 XX, MDS-300ADB18 XX, MDS-300ADB48 XX (X=0-9, A-Z or Blank), MDS-300APB24 AR, MDS-300APB24 AS
Additional information (if necessary may also be reported on page 2)	National Differences specified in the CB Test Report ☐ Additional Information on page 2
A sample of the product was tested and found to be in conformity with	IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012, IEC 60601-1:2005/AMD2:2020
As shown in the Test Report Ref. No. which forms part of this Certificate	E356265-D1045-2/A0/C0-CB issued on 2023-02-20

This CB Test Certificate is issued by the National Certification Body

UL Solutions

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-02-22

Signature:

Jan-Erik Storgaard

	Ref. Certif. No.
	DK-137883-UL

Factory(ies):

DELTA ELECTRONICS (THAILAND) PUBLIC CO LTD
909 Soi 9 Moo 4
Bangpoo Industrial Estate (E.P.Z.)
Pattana 1 Road
Tambol Phraksa Amphur Muang Samutprakarn 10280
Thailand

Delta Electronics (Dongguan) Co Ltd
No 33 Pantao Road
Shijie Town Dongguan, Guangdong, 523308
China

Delta Electronics (Thailand) Public Company Limited
111/6 Moo 9, Wellgrow Industrial Estate, Bangna-Trad Road, Tambol Bangwua, Amphur Bangpakong Chachoengsao 24180
Thailand

Delta Electronics (Dongguan) Co., Ltd Southwest Branch
No 33 Pantao Road, Shijie Town Dongguan, Guangdong, 523308
China

Delta Electronics India Private Limited-SEZ Unit
Delta SEZ Notified at SY No 16/1B2B
Part & 16/1B2A Part Plot No1
Industrial Park Kurubarapalli Village Krishnagiri Dist, Tamil Nadu 635115
India

Delta Electronics (Wuhu) Ltd
No. 138 Jiuhua North Road
Longshan Street
Economic Technical Development Area Wuhu City, Anhui Province, 241009
China

Additional information (if necessary)

UL Solutions

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-02-22

Signature:

Jan-Erik Storgaard

Additional Ratings:

Output rating:
For MDS-300APB24 XX, MDS-300APB24 AR, MDS-300APB24 AS
V1: 24Vdc, 12.5A Max
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 24Vdc, 10A
V2: 5Vsb, 0.5A
Total power 240W max convection air

For MDS-300ABB24 XX
V1: 24Vdc, 12.5A
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 24Vdc, 8.33A
V2: 5Vsb, 0.5A
Total power 200W max convection air

For MDS-300ADB24 XX
V1: 24Vdc, 12.5A Max
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 24Vdc, 8.75A
V2: 5Vsb, 0.5A
Total power 210W max convection air

For MDS-300APB12 XX
12V dc/25 A max., 5V sb/0.5 A
Total power 300W max. with 10 CFM force air
12 V dc/18.33 A max., 5 V sb/0.5 A max.
Total power 220W max. by natural convection air

For MDS-300APB48 XX
48V dc/ 6.25 A max., 5V sb/0.5 A max.
Total power 300W max. with 10 CFM force air
12 V dc/ 5.0A max., 5 V sb/0.5 A max.
Total power 240W max. by natural convection air

Additional information (if necessary)

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-02-22

Signature:

Jan-Erik Storgaard

For MDS-250APB12 XX
12V dc/20.83 A max., 5V sb/0.5 A max.
Total power 250W max. with 10 CFM force air
12 V dc/12.5 A max., 5 V sb/0.5 A max.
Total power 150W max. by natural convection air

For MDS-250ADB12 XX
12V dc/20.83 A max., 5V sb/0.5 A
Total power 250W max. with 10 CFM force air
12 V dc/11.25 A max., 5 V sb/0.5 A max.
Total power 135W max. by natural convection air

For MDS-250APB24 XX
V1: 24Vdc, 10.41A
V2: 5Vsb, 0.5A
Total power 250W max with 10CFM force air
V1: 24Vdc, 6.15A
V2: 5Vsb, 0.5A
Total power 150W max by convection air

For MDS-250ADB24 XX
V1: 24Vdc, 10.41A
V2: 5Vsb, 0.5A
Total power 250W max with 10CFM force air
V1: 24Vdc, 5.53A
V2: 5Vsb, 0.5A
Total power 135W max by convection air

For MDS-300APB18 XX
18V dc/16.66 A max., 5V sb/0.5 A max.
Total power 300W max. with 10 CFM force air
18 V dc/12.22 A max., 5 V sb/0.5 A max.
Total power 220W max. by natural convection air

Additional information (if necessary)

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-02-22

Signature:

Jan-Erik Storgaard

For MDS-300ADB12 XX
V1: 12Vdc, 25A
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 12Vdc, 15.83A
V2: 5Vsb, 0.5A
Total power 190W max convection air

For MDS-300ADB18 XX
V1: 18Vdc, 16.66A
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 18Vdc, 10.56A
V2: 5Vsb, 0.5A
Total power 190W max convection air

For MDS-300ADB48 XX
V1: 48Vdc, 6.25A
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 48Vdc, 4.38A
V2: 5Vsb, 0.5A
Total power 210W max convection air

Additional information (if necessary)

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-02-22

Signature:

Jan-Erik Storgaard

Ref. Certif. No.

DK-115542-A1-UL

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	SWITCHING POWER SUPPLY
Name and address of the applicant	DELTA ELECTRONICS INC 3 Tungyuan Road Chungli Industrial Zone Taoyuan City 32063 Taiwan
Name and address of the manufacturer	DELTA ELECTRONICS INC 3 Tungyuan Road Chungli Industrial Zone Taoyuan City 32063 Taiwan
Name and address of the factory Note: *When more than one factory, please report on page 2*	Delta Electronics (Wuhu) Ltd No. 138 Jiuhua North Road LongShan Street Economic-technical Development Area Wuhu City, Anhui Province, 241008 China ☒ Additional Information on page 2
Ratings and principal characteristics	(1) Input: 100-240V~, 4A, 50-60Hz. DC Output: 24V/12.5A Max, 5Vsb/0.5A 300W Max ☒ Additional Information on page 3 and 4
Trademark (if any)	DELTA ELECTRONICS, INC.
Customer's Testing Facility (CTF) Stage used	CTF Stage 1
Model / Type Ref.	MDS-300ADB24 XX, MDS-250APB12 XX, MDS-300ABB24 XX, MDS-250ADB24 XX, MDS-300APB18 XX ☒ Additional Information on page 2
Additional information (if necessary may also be reported on page 2)	National Difference specified in the CB Test Report, Model details: The report was revised to include administrative modifications. ☒ Additional Information on page 4
A sample of the product was tested and found to be in conformity with	IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013
As shown in the Test Report Ref. No. which forms part of this Certificate	E131881-A1866-CB-3 issued on 2022-06-16

This CB Test Certificate is issued by the National Certification Body

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2022-06-17
Original Issue Date: 2021-07-01

Signature:
Jan-Erik Storgaard

Ref. Certif. No.

DK-115542-A1-UL

Factory(ies):

Delta Electronics (Thailand) Public Company Limited
111/6 Moo 9, Wellgrow Industrial Estate, Bangna-Trad Road, Tambol Bangwua, Amphur Bangpakong Chachoengsao 24180
Thailand

Delta Electronics (Dongguan) Co., Ltd Southwest Branch
No 33 Pantao Road, Shijie Town Dongguan, Guangdong, 523308
China

Delta Electronics (Dongguan) Co Ltd
No 33 Pantao Road
Shijie Town Dongguan, Guangdong, 523308
China

DELTA ELECTRONICS (JIANGSU) LTD.
No 1688 Jiangxing East Road
Wujiang Economic and Technological Development Zone Suzhou City, Jiangsu Province, 215200
China

DELTA ELECTRONICS (THAILAND) PUBLIC CO LTD
909 Soi 9 Moo 4
Bangpoo Industrial Estate (E.P.Z.)
Pattana 1 Road
Tambol Phraksa Amphur Muang Samutprakarn 10280
Thailand

Delta Electronics India Private Limited-SEZ Unit
Delta SEZ Notified at SY No 16/1B2B
Part & 16/1B2A Part Plot No1
Industrial Park Kurubarapalli Village Krishnagiri Dist, Tamil Nadu 635115
India

Additional Model Detail(s):

(1) MDS-300APB24 XX (XX=AB, AR, AS); MDS-300ABB24 XX (X=0-9, A-Z or blank); MDS-300ADB24 XX (X=0-9, A-Z or blank)
(2) MDS-300APB12 XX (X=0-9, A-Z or blank)
(3) MDS-300APB48 XX (X=0-9, A-Z or blank)
(4) MDS-250APB12 XX (X=0-9, A-Z or blank)
(5) MDS-250ADB12 XX (X=0-9, A-Z or blank)
(6) MDS-250APB24 XX (X=0-9, A-Z or Blank)
(7) MDS-250ADB24 XX (X=0-9, A-Z or Blank)
(8) MDS-300APB18 XX (X=0-9, A-Z or Blank)
(9) MDS-300ADB12 XX (X=0-9, A-Z or Blank)
(10) MDS-300ADB18 XX (X=0-9, A-Z or Blank)
(11) MDS-300ADB48 XX (X=0-9, A-Z or blank)
(12) MDS-300APB24 XX (X=0-9, A-Z or blank, exclude XX=AB, AR, AS)

Additional information (if necessary)

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2022-06-17
Original Issue Date: 2021-07-01

Signature:
Jan-Erik Storgaard

Additional Ratings:

(1) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 24V/12.5A Max; 5Vsb/0.5A
300W Max

(2) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 12V/25A Max; 5Vsb/0.5A
300W Max

(3) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 48V/6.25A Max; 5Vsb/0.5A
300W Max

(4) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 12V/20.83A Max, 5Vsb/0.5A
250W Max

(5) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 12V/20.83A Max, 5Vsb/0.5A
250W Max

(6) Input: 100-240Vac, 4A, 50-60Hz
Output: 24Vdc/10.41 A Max, 5Vsb/0.5A
250W Max

(7) Input: 100-240Vac, 4.0A, 50-60Hz
Output: 24Vdc/10.41 A Max, 5Vsb/0.5A
250W Max

(8) Input: 100-240Vac, 4A, 50-60Hz
Output: 18Vdc/16.66A Max; 5Vsb/0.5A
300W Max

(9) Input: 100-240V~, 4A, 50-60Hz.
Output: 12V/25A Max; 5Vsb/0.5A
Total power 300W max with 10CFM force air
V1: 12V, 15.83A.
V2: 5Vsb, 0.5A.
Total power 190W max convection air

Additional information (if necessary)

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2022-06-17
Original Issue Date: 2021-07-01

Signature:
Jan-Erik Storgaard

Additional Ratings:

(10) Input: 100-240V~, 4A, 50-60Hz.
DC Output:
V1: 18V, 16.66A
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 18V, 10.56A
V2: 5Vsb, 0.5A
Total power 190W max convection air

(11) Input: 100-240V~, 4A, 50-60Hz.
DC Output:
V1: 48V, 6.25A
V2: 5Vsb, 0.5A
Total power 300W max with 10CFM force air
V1: 48V, 4.38A
V2: 5Vsb, 0.5A
Total power 210W max convection air

(12) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 24V/12.5A Max; 5Vsb/0.5A
300W Max

Summary of Modifications:
- Update and add factories

Additional information (if necessary)

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2022-06-17
Original Issue Date: 2021-07-01

Signature:
Jan-Erik Storgaard

Ref. Certif. No.

DK-115933-M2-UL

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	SWITCHING POWER SUPPLY
Name and address of the applicant	DELTA ELECTRONICS INC 3 Tungyuan Road Chungli Industrial Zone Taoyuan City 32063 Taiwan
Name and address of the manufacturer	DELTA ELECTRONICS INC 3 Tungyuan Road Chungli Industrial Zone Taoyuan City 32063 Taiwan
Name and address of the factory Note: *When more than one factory, please report on page 2*	Delta Electronics (Thailand) Public Co., Ltd. 909 Soi 9 Moo 4, Bangpoo Industrial Estate (E.P.Z.), Pattana 1 Road, Tambol Phraksa, Amphur Muang, Samutprakarn 10280, Thailand
Ratings and principal characteristics	☒ Additional Information on page 2 1) Input: 100-240V~, 4A, 50-60Hz. DC Output: 24V/12.5A Max, 5Vsb/0.5A, 300W Max ☒ Additional Information on page 3
Trademark / Brand (if any)	DELTA ELECTRONICS, INC.
Customer's Testing Facility (CTF) Stage used	CTF Stage 2
Model / Type Ref.	MDS-250ADB24 XX, MDS-300ABB24 XX, MDS-250APB24 XX, MDS-300ADB48 XX, MDS-300APB12 XX ☒ Additional Information on page 2
Additional information (if necessary may also be reported on page 2)	**Additionally evaluated to:** EN IEC 62368-1:2020, EN IEC 62368-1:2020/A11:2020 National Difference specified in the CB Test Report, Model details: The report was revised to include technical modifications. ☒ Additional Information on page 3
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2018
As shown in the Test Report Ref. No. which forms part of this Certificate	E131881-A6599-CB-1 issued on 2023-01-10

This CB Test Certificate is issued by the National Certification Body

UL Solutions

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-01-10
Original Issue Date: 2021-07-13

Signature:
Jan-Erik Storgaard

Ref. Certif. No.

DK-115933-M2-UL

Factory(ies):
Delta Electronics (Dongguan) Co., Ltd.
No. 33 Pantao Road Shijie Town Dongguan Guangdong 523308
China

Delta Electronics (Jiangsu) Ltd.
215200, No.1688, Jiangxing East Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province,
China

DELTA ELECTRONICS (WUHU) LTD.
No. 138, Jiuhua North Road, LongShan Street, Economic technical Development Area Wuhu City, Anhui Province,
China

Delta Electronics (Thailand) Public Company Limited
111/6 Moo 9, Wellgrow Industrial Estate, Bangna-Trad Road, Tambol Bangwua, Amphur Bangpakong, Chachoengsao 24180, Thailand

Delta Electronics (Dongguan) Co., Ltd Southwest Branch
No. 33 Pantao Road Shijie Town Dongguan Guangdong 523308
China

Delta Electronics India Private Limited-SEZ Unit
Delta SEZ Notified at SY No. 16/1B2B Part & 16/1B2A Part Plot No.1, Industrial Park, Kurubarapalli Village Krishnagiri Dist, Tamil Nadu, 635115,
India

Additional Model Detail(s):
(1) MDS-300APB24 XX (XX=AB, AR, AS); MDS-300ABB24 XX (X=0-9, A-Z or blank); MDS-300ADB24 XX (X=0-9, A-Z or blank)
(2) MDS-300APB12 XX (X=0-9, A-Z or blank)
(3) MDS-300APB48 XX (X=0-9, A-Z or blank)
(4) MDS-250APB12 XX (X=0-9, A-Z or blank)
(5) MDS-250ADB12 XX (X=0-9, A-Z or blank)
(6) MDS-250APB24 XX (X=0-9, A-Z or blank)
(7) MDS-250ADB24 XX (X=0-9, A-Z or blank)
(8) MDS-300APB18 XX (X=0-9, A-Z or blank)
(9) MDS-300ADB12 XX (X=0-9, A-Z or blank)
(10) MDS-300ADB18 XX (X=0-9, A-Z or blank)
(11) MDS-300ADB48 XX (X=0-9, A-Z or blank)
(12) MDS-300APB24 XX (X=0-9, A-Z or blank, exclude XX=AB, AR, AS)
(13) MEP-300Z24VLA BN, MEP-300Z24VLA CN

Additional information (if necessary)

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-01-10

Original Issue Date: 2021-07-13

Signature:

Jan-Erik Storgaard

	Ref. Certif. No.
	DK-115933-M2-UL

Additional Ratings:

(1) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 24V/12.5A Max, 5Vsb/0.5A, 300W Max
(2) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 12V/25A Max, 5Vsb/0.5A, 300W Max
(3) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 48V/6.25A Max, 5Vsb/0.5A, 300W Max
(4) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 12V/20.83A Max, 5Vsb/0.5A, 250W Max
(5) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 12V/20.83A Max, 5Vsb/0.5A, 250W Max
(6) Input: 100-240Vac, 4A, 50-60Hz
DC Output: 24V/10.41A Max, 5Vsb/0.5A, 250W Max
(7) Input: 100-240Vac, 4.0A, 50-60Hz
DC Output: 24V/10.41A Max, 5Vsb/0.5A, 250W Max
(8) Input: 100-240Vac, 4A, 50-60Hz
DC Output: 18V/16.66A Max, 5Vsb/0.5A, 300W Max
(9) Input: 100-240Vac, 4A, 50-60Hz
DC Output: 12V/25A Max, 5Vsb/0.5A, 300W Max
(10) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 18V/25A Max, 5Vsb/0.5A, 300W Max
(11) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 48V/6.25A Max, 5Vsb/0.5A, 300W Max
(12) Input: 100-240V~, 4A, 50-60Hz.
DC Output: 24V/12.5A Max, 5Vsb/0.5A, 300W Max
(13) Input: 100-240V~, 3A, 50-60Hz.
DC Output: 24V/9.17A Max, 5Vsb/0.5A, 220W Max

Summary of Modifications:
(1) Add heating test result for models MDS-300APB24 XX, MDS-300ADB24 XX of rating 200V-240Vac in Tma is 35℃;
(2) Add input test result of rating 200V-240Vac for models MDS-300APB24 XX, MDS-300ADB24 XX.

Additional information (if necessary)

☐ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2023-01-10

Original Issue Date: 2021-07-13

Signature:

Jan-Erik Storgaard

NOTICE OF COMPLETION
AND
AUTHORIZATION TO APPLY THE UL MARK

2023-02-20

Mr. Morgan Chang
DELTA ELECTRONICS INC
3 Tungyuan Road Chungli Industrial Zone
Taoyuan City 32063 Taiwan

Your Reference:	N/A		
Our Reference:	File E356265, Vol. D1	Order:	14555501
		Project:	4790621318.1
		Service Request:	N/A

Project Scope: UL/ULC - Medical Power Supply, Models MDS-300APB24 XX, MDS-300ABB24 XX, MDS-300ADB24 XX, MDS-300APB12 XX, MDS-300APB48 XX, MDS-250APB12 XX, MDS-250ADB12 XX, MDS-250APB24 XX, MDS-250ADB24 XX, MDS-300APB18 XX, MDS-300ADB12 XX, MDS-300ADB18 XX, MDS-300ADB48 XX (X=0-9, A-Z or Blank), MDS-300APB24 AR, MDS-300APB24 AS:

- Update standard edition from 3.1 to 3.2.
- Update TRF Version from IEC60601_1K to IEC60601_1U.
- Update Risk Management Plan and Report.
- Additional tests are conduct and recorded on Test Table.
- Construction review is not required due to no construction changes.
- Add one factory: DELTA ELECTRONICS (DONGGUAN) CO., LTD SOUTHWEST BRANCH, NO.33 PANTAO ROAD SHIJIE TOWN DONGGUAN GUANGDONG 523308 CHINA.

Dear Mr. Morgan Chang:

UL has completed the investigation under the above project and confirmed compliance of your product(s) with UL requirements. We appreciate that you have a choice of certification providers and thank you for choosing UL.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at the factory location(s) identified on the Authorization Page of UL File E356265, Vol. D1. You are required to send a copy of this letter to all manufacturing locations authorized under UL File E356265, Vol. D1.

The Follow-Up Services Procedure covering your product(s) will typically be provided by UL within 10 business days. Any information and documentation provided to you involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Products that bear the UL Mark must be identical to those submitted to UL for evaluation and certification and must comply with the Follow-Up Services Procedure covering your product(s). Additional requirements related to the responsibilities of the Applicant and Manufacturer can be found under **Additional Resources** at https://www.ul.com/fus.

A UL certification is a valuable marketing tool meaning your product or company has successfully met stringent requirements. We encourage you to use your UL Mark and certification in your marketing

activities. You can find information on how to accurately promote your UL certification at https://www.ul.com/marketing.

If you have any questions, please contact me or any of our customer service representatives. And, congratulations again on your achievement!

Sincerely,

Stanley Chi / Johnny Lin, Project Handler
Associate Project Engineer / Associate Project Engineer

Stanley.chi@ul.com / Johnny.lin@ul.com

Reviewed by:

Deborah Jennings-Conner
VP Regulatory Services
UL LLC

Deborah.Jennings-Conner@ul.com

Gunsimar Paintal
ULC Mark Certification Program Manager
Underwriters Laboratories of Canada Inc.

Gunsimar.Paintal@ul.com

Underwriters Laboratories (UL LLC)
Safety Certification (Manufacturing Factory) Report

Model:	MDS-300APB24 XX, MDS-300ABB24 XX, MDS-300ADB24 XX, MDS-300APB12 XX, MDS-300APB48 XX, MDS-250APB12 XX, MDS-250ADB12 XX, MDS-250APB24 XX, MDS-250ADB24 XX, MDS-300APB18 XX, MDS-300ADB12 XX, MDS-300ADB18 XX, MDS-300ADB48 XX (X=0-9, A-Z or Blank), MDS-300APB24 AS, MDS-300APB24 AR
Device Description:	Switching Power Supply
Applicant:	DELTA ELECTRONICS INC 3 TUNGYUAN RD CHUNGLI INDUSTRIAL ZONE, TAOYUAN COUNTY 32063 TAIWAN
Manufacturer:	DELTA ELECTRONICS INC 3 TUNGYUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN COUNTY 32063 TAIWAN
Manufacturing Facility(ies):	DELTA ELECTRONICS (JIANGSU) LTD NO. 1688, JIANGXING EAST ROAD, WUJIANG ECONOMIC DEVELOPMENT ZONE, WUJIANG CITY, JIANGSU PROVINCE, 215200 CHINA
Report No.:	E356265-D1044-1/A0/C0-(M)
Report (Re)Issue Date:	2018-06-22
Base Standard(s):	UL 60601-1 - Edition 1 - Revision Date 2006/04/26 CSA C22.2 NO. 601.1-M90 - Edition 1 - Revision Date 2005
Additional Standards:	N/A
Report Types:	This report consists of the following report types: [Yes] US Certification (UL Recognition) [Yes] CAN Certification (cUL Recognition)

This report covers the Safety evaluation of the referenced model(s) according to the standard(s) specified above.

This is the Manufacturing Factory report only, which is used as part of the factory FUS inspections.

Zertifikat *Certificate*

Zertifikat Nr. *Certificate No.*
R 50306288

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0013

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum**	*Date of Issue* (day/mo/yr)
IPSBU-102P-202210015	ZTW1-WY- 10050331 011	11.04.2023	

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tungyuan Road,
Chungli Industrial Zone,
Taoyuan City 32063
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiangsu) Ltd.
215200, No.1688, Jiangxing East Road,
Wujiang Economic and Technological
Development Zone
Suzhou City, Jiangsu Province
P.R. China

Prüfzeichen *Test Mark*

TÜVRheinland ZERTIFIZIERT
Bauart geprüft
Sicherheit
Regelmäßige Produktions-überwachung
www.tuv.com
ID 2000000000

Geprüft nach *Tested acc. to*
IEC 60601-1:2005+A1+A2
EN 60601-1:2006+A1+A12+A2

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product *(Product Identification)*

Lizenzentgelte - Einheit
License Fee - Unit

Einbau-Schaltnetzteil (SWITCHING POWER SUPPLY)

wie Blatt (as page) 01

Änderung
(Change)

Prüfgrundlage : siehe oben
(Test Requirement) (see above)

ANLAGE (Appendix): 2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

Zertifizierungsstelle

Dipl.-Ing. (FH) A. Klinker

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+ 49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+ 49/221)8 06 - 39 35 http://www.tuv.com/safety

10/020 d 04.08 ® TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

Zertifikat *Certificate*

Zertifikat Nr. *Certificate No.*
R 50306288

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0014

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum**	*Date of Issue* (day/mo/yr)
IPSBU-102P-202210015	ZTW1-WY- 10050331 011	11.04.2023	

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tungyuan Road,
Chungli Industrial Zone,
Taoyuan City 32063
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Thailand) Public Co., Ltd.
909 Soi 9 Moo 4, Bangpoo Industrial Estate (E.P.Z.), Pattana 1 Road,
Tambol Phraksa, Amphur Muang,
Samutprakarn 10280
Thailand

Prüfzeichen *Test Mark*

TÜVRheinland ZERTIFIZIERT
Bauart geprüft
Sicherheit
Regelmäßige Produktions-überwachung
www.tuv.com
ID 2000000000

Geprüft nach *Tested acc. to*
IEC 60601-1:2005+A1+A2
EN 60601-1:2006+A1+A12+A2

Zertifiziertes Produkt (Geräteidentifikation) *Certified Product* *(Product Identification)*

Lizenzentgelte - Einheit *License Fee - Unit*

Einbau-Schaltnetzteil (SWITCHING POWER SUPPLY)

wie Blatt (as page) 01

Ergänzung
(Addition)

Fertigungsstätte : siehe oben
(Factory) (see above)

ANLAGE (Appendix): 2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

Zertifizierungsstelle

Dipl.-Ing. (FH) A. Klinker

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+ 49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+ 49/221)8 06 - 39 35 http://www.tuv.com/safety

10/020 d 04.08 ® TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

經 濟 部 標 準 檢 驗 局

BUREAU OF STANDARDS,METROLOGY AND INSPECTION, MINISTRY OF ECONOMIC AFFAIRS

Product Certification PCD01

商 品 驗 證 登 錄 證 書

CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI33206030X661 號 00
Certificate No.

茲據 台達電子工業股份有限公司內湖廠 申請驗證登錄，經審查結果符合規定，准予登錄並使用商品安全標章 及識別號碼： R33030 。其登錄事項如下：
The application made by for Registration of Product Certification has been reviewed and found to be in compliance with related regulations. Therefore, registration is granted with the Product Safety Mark and the Identification No. R33030 . Details of the registration are follows :

申 請 人 ：台達電子工業股份有限公司內湖廠 統一編號：63021561
Applicant Uniform No.

地 址 ：臺北市內湖區瑞光路186號1樓,186之1號
Address

生產廠場 ：詳如附表
Factory

廠 址 ：詳如附表
Factory Address

商品種類名稱：
Type/name of product

商品分類號列： 8504.40.91.00.7-A
C.C.C Code

中文名稱 ： 開放式電源供應器
Chinese name

英文名稱 ： Switching Power Supply
English name

型 式： MDS-300APB24
Type

系列型式 ： 空白
Series of the type

依據標準 ： CNS15598-1（109年06月）、CNS15936（105年09月）、符合CNS 15663第5節「含有標示」規定（102年版）
Standards

標準檢驗局發證（發證地址：100臺北市中正區濟南路1段4號）
This certificate is issued by the BSMI. (No.4, Sec. 1, Jinan Rd., Zhongzheng Dist., Taipei City 100, Taiwan)

本證書以電子文件行之，所載內容若有不符之處，以標準檢驗局系統登錄資料為主，查詢證書資料網址:https://civil.bsmi.gov.tw

登錄日期：中華民國	112	年	06	月	08	日
Registration Date	2023	(year)	06	(month)	08	(day)
本證書有效期限至	115	年	06	月	07	日
Expiration Date	2026	(year)	06	(month)	07	(day)
發證日期：中華民國	112	年	06	月	08	日
Date of issue	2023	(year)	06	(month)	08	(day)

經濟部 標準檢驗局 BSMI

註1：持本證書進口驗證登錄商品時，進口人須與本證書名義人相同。
註2：次年度商品驗證登錄年費繳納期限為當年11月30日，逾期未繳納者，經限期繳納屆期未繳納，即依商品檢驗法第42條第7款規定廢止驗證登錄，並自次年度1月1日起生效。
註3：本證書僅代表完成檢驗程序，不作為其他(如產地)證明。

經 濟 部 標 準 檢 驗 局

BUREAU OF STANDARDS,METROLOGY AND INSPECTION,
MINISTRY OF ECONOMIC AFFAIRS

商 品 驗 證 登 錄 證 書

CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI33206030X661 號 00
Certificate No.

生產廠場：
Factory：

1. Delta Electronics (Dongguan) Co., Ltd.
   No.33, Pantao Road, Shijie Town, Dongguan, Guangdong 523308, P. R. China

2. Delta Electronics (Thailand) Public Co., Ltd.
   111/6 Moo 9, Wellgrow Industrial Estate, Bangna-Trad Road, Tambol Bangwua, Amphur Bangpakong, Chachoengsao 24180, Thailand

3. Delta Electronics, Inc.
   3, Tungyuan Road, Chungli Industrial Zone, Taoyuan City 32063, Taiwan

4. Delta Electronics India Private Limited SEZ Unit
   SY No.16/1b2b(Part) & 16/1b2a(Part), Plot No.1, Industrial Park, Kurubarapalli Village, Krishnagiri, Tamilnadu, 635115, India

5. Delta Electronics (Chongqing) Co.,LTD.
   3rd & 4th Floor, Plant 2. Mengxun Technology Park. No.6 Jidianyizhi Road, Chayuan, Nan'an District, Chongqing City, P.R.C.

6. Delta Electronics (Thailand) Public Co., Ltd.
   909 Soi 9 Moo 4, Bangpoo Industrial Estate (E.P.Z.), Pattana 1 Road, Tambol Phraksa, Amphur Muang, Samutprakarn 10280, Thailand

經 濟 部 標 準 檢 驗 局

BUREAU OF STANDARDS,METROLOGY AND INSPECTION,
MINISTRY OF ECONOMIC AFFAIRS

商 品 驗 證 登 錄 證 書

CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI33206030X661 號 00
Certificate No.

生產廠場：
Factory：

7. Delta Electronics (Dongguan) Co., Ltd. Southwest Branch
No.33, Pantao Road, Shijie Town, Dongguan, Guangdong
523308, P. R. China

8. Delta Electronics (Wuhu) Ltd.
No.138, Jiuhua North Road, LongShan Street, Economic technical Development Area Wuhu City, Anhui Province, P. R. China

9. Delta Electronics (Jiangsu) Ltd.
215200, No.1688, Jiangxing East Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province, P. R. China

10. Delta Electronics, Inc.
186 Ruey Kuang Road, 114 Neihu, Taipei, Taiwan

11. Delta Electronics (Chongqing) Co.,LTD.
Building 10, No.1, Jiangxia Road, Nan' an District, Chongqing City, P.R.C.

12. DELTA ELECTRONICS (DONGGUAN) CO., LTD.
He Tian Xia High-Tech Industrial Park, Shijie Town, Dongguan, Guangdong Province, P.R.C 523308

（以下空白）

中国国家强制性产品认证证书

证书编号：2023010907522808

发证日期：2023 年 02 月 14 日
有效期至：2028 年 02 月 05 日

认证委托人名称及注册地址	台达电子工业股份有限公司 台湾桃园县龟山乡山顶村兴邦路 31 之 1 号
产品生产者名称及注册地址	台达电子工业股份有限公司 台湾桃园县龟山乡山顶村兴邦路 31 之 1 号
生产企业名称及生产地址	台达电子(东莞)有限公司西南分公司 中国广东省东莞市石碣镇蟠桃路 33 号
产品名称和系列、规格、型号	开关电源 见附件(产品销售时不带电线组件，仅适用于海拔 5000 米及以下)
产品标准和技术要求	GB 17625.1-2012;GB 4943.1-2022;GB/T 9254.1-2021

上述产品符合 CNCA-C09-01:2014 认证规则的要求，特发此证。

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

本证书为变更证书，证书首次颁发日期：2023 年 02 月 06 日

经中国合格评定国家认可委员会认可 CNAS C001-P

可通过扫描下方二维码或登录国家认监委网站（www.cnca.gov.cn）查验证书信息

签发：谢肇煦

中国质量认证中心

中国国家强制性产品认证证书

证书编号：2023010907522808　　第 1 页 共 1 页

本证书及附件应同时使用，信息查验说明见证书页　　纸号：

型号	输入	输出	最大输出功率
MDS-250APB24 XX	200V-240VAC, 4A, 50-60Hz	24Vdc/10.41 A Max, 5Vsb/0.5A	250W
MDS-250ADB24 XX		24Vdc/10.41 A Max, 5Vsb/0.5A	250W
MDS-300APB24 XX		24V/12.5A Max; 5Vsb/0.5A	300W
MDS-300ADB24 XX		24V/12.5A Max; 5Vsb/0.5A	300W
MDS-300ABB24 XX		24V/12.5A Max; 5Vsb/0.5A	300W
MDS-300APB18 XX		18Vdc/16.66A Max; 5Vsb/0.5A	300W
MDS-300ADB18 XX		18Vdc/16.66A Max;5Vsb/0.5A	300W
MDS-250APB12 XX		12Vdc/20.83A max;5Vsb/0.5A	250W
MDS-250ADB12 XX		12Vdc/20.83A max;5Vsb/0.5A	250W
MDS-300APB12 XX		12Vdc/25A max;5Vsb/0.5A	300W
MDS-300ADB12 XX		12Vdc/25A max;5Vsb/0.5A	300W
MDS-300APB48 XX		48Vdc/ 6.25A max;5Vsb/0.5A	300W
MDS-300ADB48 XX		48Vdc/ 6.25A max;5Vsb/0.5A	300W

注：①型号中，“X” 代表数字 0-9 或字母 A-Z 或空白，其电气特性皆相同，仅为区别客户不同，不影响安全及电磁兼容性；

②产品销售时不配备电线组件，仅适用于海拔 5000 米及以下；

中国质量认证中心

CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

CERTIFICATE NO.: 2023010907522808

Valid from: Feb.14,2023

Valid until: Feb.05,2028

NAME AND REGISTERED ADDRESS OF THE APPLICANT	Delta Electronics, Inc. 31-1, Shien Pan Road, Shanding Village, Guishanshan, Taoyuan County 33370, Taiwan
NAME AND REGISTERED ADDRESS OF THE MANUFACTURER	Delta Electronics, Inc. 31-1, Shien Pan Road, Shanding Village, Guishanshan, Taoyuan County 33370, Taiwan
NAME AND LOCATION OF THE FACTORY	Delta Electronics (Dongguan) Co., Ltd. Southwest Branch. No.33, Pantao Road, Shijie Town, Dongguan, Guangdong 523308, P. R. China
PRODUCT MODEL(S)	SWITCHING POWER SUPPLY See Appendix(Excluding cord set for sale, Altitude up to 5000m)
STANDARDS AND TECHNICAL REQUIREMENTS	GB 17625.1-2012;GB 4943.1-2022;GB/T 9254.1-2021

This is to certify that the above mentioned product(s) complies with the requirements of implementation rules for compulsory certification(REFNO. CNCA-C09-01:2014)

The validity of the certificate is subject to positive result of the regular follow up inspection by issuing certification body until the expiry date.

Date of original issued: Feb.06,2023

Accredited by China National Accreditation Service for Conformity Assessment CNAS C001-P

The certificate information is available through the QR code below or CNCA's website: www.cnca.gov.cn

SIGNATURE: 谢肇煦

CHINA QUALITY CERTIFICATION CENTRE

中国质量认证中心 CHINA QUALITY CERTIFICATION CENTRE

CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

CERTIFICATE NO.：2023010907522808

paper:

This certificate and attachments shall be used at the same time, and the verification instructions can be found in the main certificate.

型号	输入	输出	最大输出功率
MDS-250APB24 XX	200V-240VAC, 4A, 50-60Hz	24Vdc/10.41 A Max, 5Vsb/0.5A	250W
MDS-250ADB24 XX		24Vdc/10.41 A Max, 5Vsb/0.5A	250W
MDS-300APB24 XX		24V/12.5A Max; 5Vsb/0.5A	300W
MDS-300ADB24 XX		24V/12.5A Max; 5Vsb/0.5A	300W
MDS-300ABB24 XX		24V/12.5A Max; 5Vsb/0.5A	300W
MDS-300APB18 XX		18Vdc/16.66A Max; 5Vsb/0.5A	300W
MDS-300ADB18 XX		18Vdc/16.66A Max;5Vsb/0.5A	300W
MDS-250APB12 XX		12Vdc/20.83A max;5Vsb/0.5A	250W
MDS-250ADB12 XX		12Vdc/20.83A max;5Vsb/0.5A	250W
MDS-300APB12 XX		12Vdc/25A max;5Vsb/0.5A	300W
MDS-300ADB12 XX		12Vdc/25A max;5Vsb/0.5A	300W
MDS-300APB48 XX		48Vdc/ 6.25A max;5Vsb/0.5A	300W
MDS-300ADB48 XX		48Vdc/ 6.25A max;5Vsb/0.5A	300W

注：①型号中，“X” 代表数字 0-9 或字母 A-Z 或空白，其电气特性皆相同，仅为区别客户不同，不影响安全及电磁兼容性；

②产品销售时不配备电线组件，仅适用于海拔 5000 米及以下；

CHINA QUALITY CERTIFICATION CENTRE