



Medical Power Supply

From The World's No. 1* Power Supply Company

May 2016

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Company Profile

Delta Electronics Group

World's No.1* Power Supply Company

Delta Group, founded by Mr. Bruce C.H. Cheng in 1971, is the global leader in power and thermal management solutions. Our mission statement, "To provide innovative, clean and energy-efficient solutions for a better tomorrow," focuses our role in addressing key environmental issues such as global climate change. With our concern for the environment, we continue to develop innovative energy efficient products and solutions. We realize the more energy efficient Delta's products become, the greater our impact on reducing global warming.

In recent years Delta has transformed from a product provider toward a solution provider and our businesses now encompass power electronics, energy management, and smart green life. Delta's brand promise "Smarter. Greener. Together." encourages the development and broad application of smart, energy-efficient solutions. At Delta we believe that technology and collaboration can lead to a cleaner, greener tomorrow.

Delta is devoted to innovation and systematically developing new products and technologies, particularly those that are high efficiency and energy saving, and invests over 5% to 6% of our groups' annual sales revenue in R&D. We have worldwide R&D facilities in Taiwan, China, Thailand, Japan, the U.S., and Europe. Our national honors for innovation include the Taiwan National Industry Innovation Award (2008 and 2012) and the Thailand Prime Minister's Industry Award (1995, 2010, 2011, and 2012).

Throughout Delta Group's history we have received many global awards and recognition for our business, technology, and corporate social responsibility. In 2012 Delta was selected for two of the prestigious Dow Jones Sustainability Indexes — the DJSI World Index and the DJSI Asia/ Pacific Index — for the 2nd consecutive year. Delta was also ranked first among the 29 leading companies in the Electronic Equipment sector and named as "Sector Leader" for the first time. Since 2010, Delta has received 47 internationally recognized design awards including the iF, Reddot, CES Innovation, Computex Best Choice, and Taiwan Excellence awards.

Delta will continue its dedication to developing technologies and solutions that aim to reduce global warming and ensure mankind's sustainable future.

*Based on global sales revenue from the Micro-Tech Consultants March 2016 report

Latest Products

Delta Standard Medical Power Supplies

MDS-200ADB



12/24V
PAGE 18

- 2.5" × 4.5" × 1.8" Package with enclosure
- Power Good Signal
- Up to 800K Hours MTBF
- Suited for type BF medical product
- IT & Medical Safety Approvals

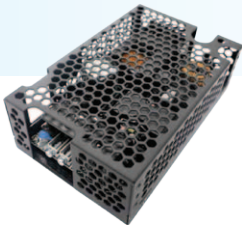
MDS-250ADB



12/24V
PAGE 19

- 3.5" × 5.5" × 1.75" Package with enclosure
- Power Good Signal
- Remote on/off control
- Up to 500K Hours MTBF
- Suited for type BF medical product

MDS-300ADB



12/18/24/48V
PAGE 20

- 3.5" × 5.5" × 1.75" Package with enclosure
- Power Good Signal
- Remote on/off control
- Up to 800K Hours MTBF
- Suited for type BF medical product

MDS-400ADB



12/24V
PAGE 21

- 3.5" × 5.5" × 1.75" Package with enclosure
- Power Good Signal
- Remote on/off control
- Up to 500K Hours MTBF
- Suited for type BF medical product

MDS-350AD701



12V 1U
PAGE 23

- ATX 12V standard function & form factor
- IEC60601-1 3.1 ed.(Medical) & IEC 60950-1(ITE) approvals
- Suitable for type BF patient access applications
- Built-in active PFC
- Compliant with IEC 60601-1-2 4th Ed. requirements

COMING SOON

Typical Applications

Delta Standard Medical Power Supplies



- Blood pressure meter
- CPAP/Sleep therapy
- Healthcare information system
- Medical monitors/IT
- Nursing cart
- ECG/EKG
- Infusion pump
- Life Science
- Ophthalmology equipment
- Patient monitor
- Dental equipment
- In-Vitro diagnostic equipment
- Medical ventilator
- Oxygen condenser
- Ultrasound equipment

Selection Guide

Delta Standard Medical Power Supplies

New products are frequently introduced. Please visit www.DeltaPSU.com for latest product updates.

Product Type	Model Name	CC Code	Input Terminal	Output Voltage	Output Current	Output Power	Dimensions	Safety Standards
Open Frame Power Supply	MDS-040APS12 B	A	JST 2-pin	12V	3.33A	40W	2.0" × 3.0" × 0.9"	CE, UL, CQC
	MDS-065APS12 B	A	JST 2-pin		5.42A	65W	2.0" × 4.0" × 1.2"	CE, UL, CQC
	MDS-100APS12 B	A	JST 2-pin		8.33A	100W	3.0" × 5.0" × 1.2"	CE, UL, CQC
	MDS-100BPS12 B	A	JST 2-pin		8.33A	100W	2.0" × 4.0" × 1.25"	CE, UL, CQC
	MDS-200APB12*	AA	Molex 2-pin		16.67A	200W	2.0" × 4.0" × 1.4"	CE, UL, CQC, A
	MDS-250APB12*	AA	Molex 2-pin		20.84A	250W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A
	MDS-300APB12*	AA	Molex 2-pin		25.00A	300W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A
	MDS-400APB12*	AA	Molex 2-pin	33.33A	400W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A	
	MDS-040APS15 B	A	JST 2-pin	15V	2.67A	40W	2.0" × 3.0" × 0.9"	CE, UL, CQC
	MDS-065APS15 B	A	JST 2-pin		4.20A	65W	2.0" × 4.0" × 1.2"	CE, UL, CQC
	MDS-100APS15 B	A	JST 2-pin		6.67A	100W	3.0" × 5.0" × 1.2"	CE, UL, CQC
	MDS-100BPS15 B	A	JST 2-pin	6.70A	100W	2.0" × 4.0" × 1.25"	CE, UL, CQC	
	MDS-040APS18 B	A	JST 2-pin	18V	2.22A	40W	2.0" × 3.0" × 0.9"	CE, UL, CQC
	MDS-065APS18 B	A	JST 2-pin		3.61A	65W	2.0" × 4.0" × 1.2"	CE, UL, CQC
	MDS-100APS18 B	A	JST 2-pin		5.55A	100W	3.0" × 5.0" × 1.2"	CE, UL, CQC
	MDS-100BPS18 B	A	JST 2-pin	5.50A	100W	2.0" × 4.0" × 1.25"	CE, UL, CQC	
	MDS-300APB18*	AA	Molex 2-pin	16.66A	300W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A	
	MDS-400AUS19 B	A	DECA 3-pin	19V	21.10A	400W	3.8" × 7.8" × 1.6"	CE, UL, CQC
	MDS-040APS24 B	A	JST 2-pin		1.67A	40W	2.0" × 3.0" × 0.9"	CE, UL, CQC
	MDS-065APS24 B	A	JST 2-pin	24V	2.71A	65W	2.0" × 4.0" × 1.2"	CE, UL, CQC
	MDS-100APS24 B	A	JST 2-pin		4.17A	100W	3.0" × 5.0" × 1.2"	CE, UL, CQC
	MDS-100BPS24 B	A	JST 2-pin		4.20A	100W	2.0" × 4.0" × 1.25"	CE, UL, CQC
	MDS-200APB24*	AA	Molex 2-pin		8.33A	200W	2.0" × 4.0" × 1.4"	CE, UL, CQC, A
	MDS-250APB24*	AA	Molex 2-pin		10.41A	250W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A
	MDS-300APB24*	AA	Molex 2-pin		12.50A	300W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A
	MDS-400APB24*	AA	Molex 2-pin		16.66A	400W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A
	MDS-400AUS24 B	A	DECA 3-pin		16.67A	400W	3.8" × 7.8" × 1.6"	CE, UL, CQC
	MDS-100AP401 B	A	Molex 2-pin		5.1V/12V/-15V/15V	8A/3A/0.8A/0.8A	100W	3.0" × 5.0" × 1.2"
MDS-300APB48*	AA	Molex 2-pin	48V		6.25A	300W	3.0" × 5.0" × 1.4"	CE, UL, CQC, A
Enclosed Power Supply	MDS-200ADB12	AA	Molex 2-pin	12V	16.67A	200W	2.5" × 4.5" × 1.8"	CE, UL, CQC, A
	MDS-250ADB12	AA	Molex 2-pin		20.84A	250W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
	MDS-300ADB12	AA	Molex 2-pin		25.00A	300W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
	MDS-400ADB12	AA	Molex 2-pin		33.33A	400W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
	MDS-300ADB18	AA	Molex 2-pin	18V	16.66A	300W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
	MDS-200ADB24	A	Molex 2-pin	24V	8.33A	200W	2.5" × 4.5" × 1.8"	CE, UL, CQC, A
	MDS-250ADB24	AA	Molex 2-pin		10.41A	250W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
	MDS-300ADB24	AA	Molex 2-pin		12.50A	300W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
	MDS-400ADB24	AA	Molex 2-pin		16.67A	400W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A
MDS-300ADB48	AA	Molex 2-pin	48V		6.25A	300W	3.5" × 5.5" × 1.75"	CE, UL, CQC, A

* Product with options for enclosure or U-channel

























































Medical Power Supply Model Numbering

MDS	-	XXX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delta Medical Power Supply 040APS series 065APS series 100APS series 100BPS series 400AUS series		Max power wattage in the product series. May be lower at some voltage 060: 60W 100: 100W	Family Code A-Z	Product Type P: Open Frame U: U Frame	Input Type Code S: Single Output 4: 4 Outputs ¹⁾	Output Voltage 12: 12V 24: 24V	Input Configuration B: Class I 3-pin connector A: Class II 2-pin	CC Code Control code for DC connector, label, etc. A: DC connector ²⁾

1) For MDS-100AP401B, 2) Refer to technical datasheet or product catalog

MDS	-	XXX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delta Medical Power Supply MDS-200A series MDS-250A series MDS-300A series MDS-400A series		Max power wattage in the product series. May be lower at some voltage 060: 60W 100: 100W	Family Code A-Z	Product Type P: Open Frame B: U-frame D: Enclosure	Input Type Class II 2-pin connector: A, C, E, G... Class I 3-pin connector: B, D, F, H...	Output Voltage 12: 12V 24: 24V	Control Code For DC connector, label, etc. A: DC connector type ¹⁾

1) Refer to technical datasheet or product catalog

Product Type	Model Name	CC Code	AC Inlet	Output Voltage	Output Current	Output Power	Dimensions	Safety Standards
ATX Power Supply	MDS-350AD701	AA	C14	+3.3V, +5V, +5Vsb, +12V1, +12V2, -12V, -5V	8A, 9A, 1.25A, 8A, 8A, 0.25A, 0.1A	350W	3.9" × 7.6" × 1.6"	CE  
Adapter Power Supply	MDS-005AAS05 A	R	Wall mount-China type	5V	1.00A	5W	1.6" × 2.2" × 1.1"	CE  
	MDS-005AAS05 B	R	Wall mount-Japan, USA type		1.00A	5W	1.6" × 2.2" × 1.1"	CE  
	MDS-005AAS05 C	R	Wall mount-EU type		1.00A	5W	1.6" × 2.2" × 1.1"	CE  
	MDS-030AAC05*		Duck Head	3.00A	15W	2.1" × 3.5" × 1.1"	CE  	
	MDS-005AAS06 A	R	Wall mount-China type	6V	0.83A	5W	1.6" × 2.2" × 1.1"	CE  
	MDS-005AAS06 B	R	Wall mount-Japan, USA type		0.83A	5W	1.6" × 2.2" × 1.1"	CE  
	MDS-005AAS06 C	R	Wall mount-EU type		0.83A	5W	1.6" × 2.2" × 1.1"	CE  
	MDS-030AAC07*		Duck Head	7V	3.00A	21W	2.1" × 3.5" × 1.1"	CE  
	MDS-030AAC12*		Duck Head	12V	2.00A	24W	2.1" × 3.5" × 1.1"	CE  
	MDS-060AAS12 B	A	C14		5.00A	60W	2.4" × 5.3" × 1.3"	CE  
	MDS-060BAS12 A	B	C8		5.00A	60W	2.4" × 5.3" × 1.3"	CE  
	MDS-080AAS12 A		C8		6.66A	80W	3.0" × 5.9" × 1.6"	CE  
	MDS-150AAS12 B	A	C14	10.00A	120W	3.4" × 6.7" × 1.6"	CE  	
	MDS-030AAC15*		Duck Head	15V	2.00A	30W	2.1" × 3.5" × 1.1"	CE  
	MDS-060AAS15 B	A	C14		4.00A	60W	2.4" × 5.3" × 1.3"	CE  
	MDS-090AAS15 B	A	C14		6.00A	90W	2.6" × 5.9" × 1.4"	CE  
	MDS-060AAS19 B	A	C14	19V	3.20A	60W	2.4" × 5.3" × 1.3"	CE  
	MDS-060BAS19 A	A	C8		3.15A	60W	2.4" × 5.3" × 1.3"	CE  
	MDS-090AAS19 B	A	C14		4.74A	90W	2.6" × 5.9" × 1.4"	CE  
	MDS-150AAS19 B	A	C14		7.89A	150W	3.4" × 6.7" × 1.6"	CE  
	MDS-150CAB19	AA	C6	7.90A	150W	2.6" × 5.9" × 1.3"	CE  	
	MDS-030AAC24*		Duck Head	24V	1.25A	30W	2.1" × 3.5" × 1.1"	CE  
	MDS-060AAS24 B	A	C14		2.50A	60W	2.4" × 5.3" × 1.3"	CE  
	MDS-060BAS24 A	A	C8		2.50A	60W	2.4" × 5.3" × 1.3"	CE  
MDS-090AAS24 B	A	C14	3.75A		90W	2.6" × 5.9" × 1.4"	CE  	
MDS-090BAS24 A	B	C8	3.75A		90W	3.0" × 5.9" × 1.6"	CE  	
MDS-150AAS24 B	A	C14	6.25A		150W	3.4" × 6.7" × 1.6"	CE  	

Medical Power Supply Model Numbering

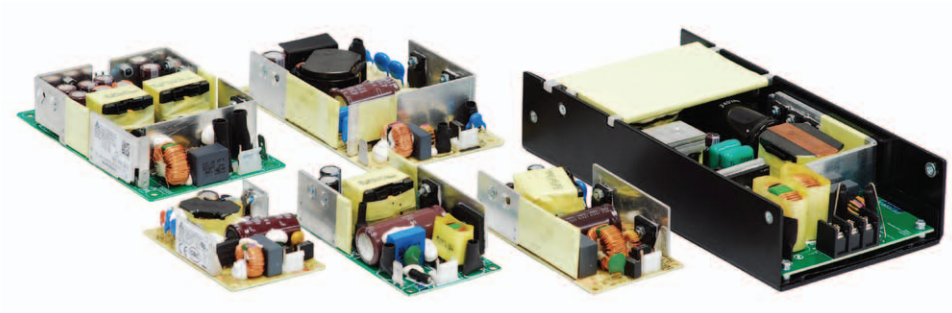
MDS	-	XXX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Delta Medical Power Supply MDS-350AD701		Max power wattage in the product series. May be lower at some voltage 060 → 60W 150 → 150W 1K2 → 1,200W	Family Code A-Z	Product Type D: Enclosure	Output Voltage 701: +3.3V, +5V, +5Vsb, +12V1, +12V2, -12V, -5V	Revision Code	Revision Code	
MDS	-	XXX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Delta Medical Power Supply 005AAS series 060AAS series 060BAS series 080AAS series 090AAS series 090BAS series 150AAS series		Max power wattage in the product series. May be lower at some voltage 060: 60W 100: 100W	Family Code A-Z	Product Type A: Adapter	# of Output S: Single Output	Output Voltage 12: 12V 24: 24V	Input Configuration A: C8 B: C14 C: NA A: CN B: US C: EU for 005AAS	CC Code For DC plug, cable length, label, etc.
MDS	-	XXX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Delta Medical Power Supply MDS-150CAB19A		Max power wattage in the product series. May be lower at some voltage 150: 150W	Family Code A-Z	Product Type A: Adapter	Input Type Class II C8/C18: A, C, E, G... Class I C6/C14: B, D, F, H...	Output Voltage 12: 12V 24: 24V	Control Code AA-ZX Power cord length, plug, label, etc.	
MDS	-	030	<input type="checkbox"/>	AAC	<input type="checkbox"/>	<input type="checkbox"/>	AA	
Delta Medical Power Supply MDS-030 Series		Max wattage in the product series (may be lower at some voltage)	Family Code	Output Voltage (Single Output) 05 for 5V 12 for 12V 07 for 7V 15 for 15V 08 for 7.5V 24 for 24V	Revision Code ^{1), 2)}			

1) 1st digit: DC plug type and output cable length. A for 2.1 × 5.5 × 10 mm DC plug, and 1200 mm cable length.

2) 2nd digit: Country duck-head type (A_China, B_United States, C_European, D_United Kingdom, E_Australia, G_Korea, H_India, J_Argentina, K_Brazil, M_South Africa)

Standard Products

Open Frame Power Supply



The MDS Open Frame series provides high performance and reliable solution for internal power supply in a medical equipment or system.

Typical Applications



Notes:



All Delta Medical Power products conform to the European directive 2011/65/EU. RoHS is the abbreviation for "Restriction of the use of certain hazardous substances".



Delta has been certified for meeting the requirements of ISO 13485: 2003 and EN ISO 13485: 2012 for the design and production of switching power supply and adaptor for medical devices.



In addition to the UL Total Certification Program (TCP) approved client laboratory for IEC60950 and IEC60065, Delta has also participated in the UL Client Test Data Program (CTDP) for IEC 60601.

MDS 040APS Open Frame Power Supply

12/15/18/24V 40 WATTS



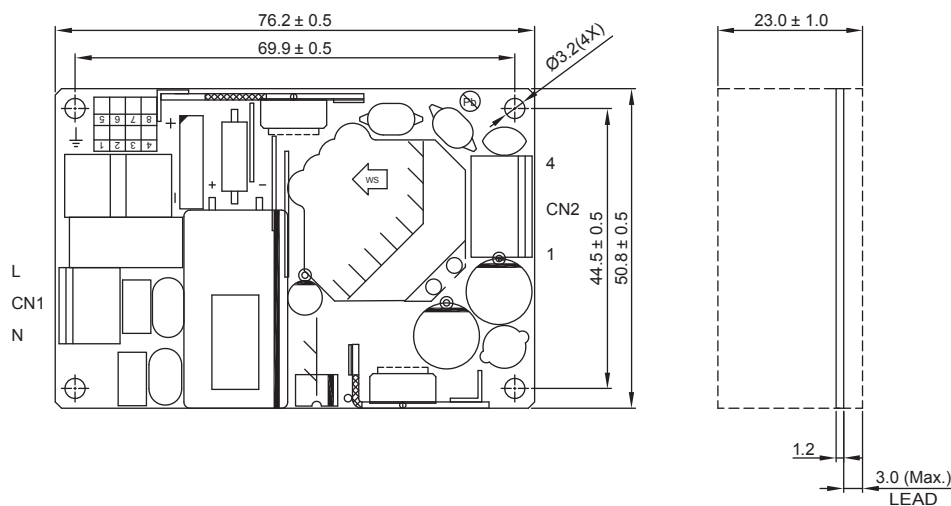
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 3 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	040APS12	040APS15	040APS18	040APS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	3.33A	2.67A	2.22A	1.67A
Efficiency	86%	87%	87%	87%
INPUT				
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz			
MECHANICAL				
Dimension (W × L × H)	50.80 × 76.20 × 23.00 mm (2.0 × 3.0 × 0.9 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			
Connector Type	Input: JST 2P B2P3-VH (LF) (SN) Output: JST 4P B4P-VH (LF) (SN)			

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

MDS 065APS Open Frame Power Supply

12/15/18/24V 65 WATTS



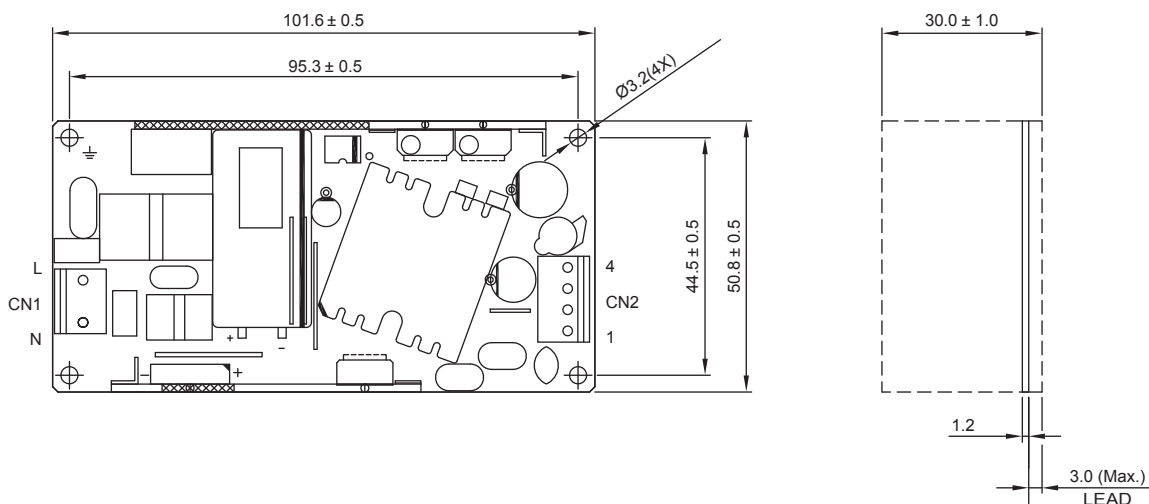
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 2.5 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	065APS12	065APS15	065APS18	065APS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	5.42A	4.20A	3.61A	2.71A
Efficiency	87%	88%	88%	88%
INPUT				
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz			
MECHANICAL				
Dimension (W × L × H)	50.80 × 101.60 × 30.00 mm (2.0 × 4.0 × 1.2 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			
Connector Type	Input: JST 2P B2P3-VH (LF) (SN) Output: JST 4P B4P-VH (LF) (SN)			

unit: mm



MDS 100APS Open Frame Power Supply

12/15/18/24V 100 WATTS



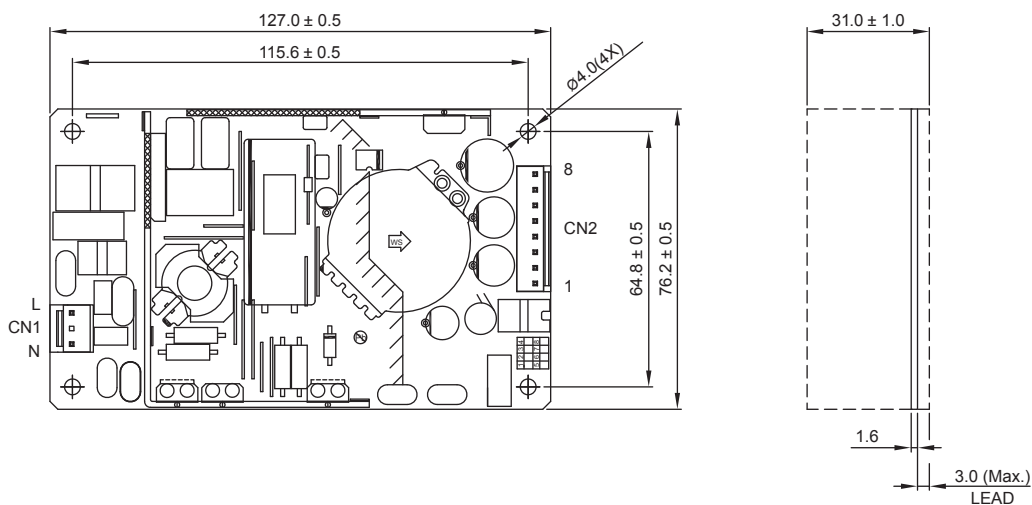
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- 1.528 (for 12V), 2.313 (for 15V), 2.442 (for 18V), 3.174 (for 24V) million hours MTBF
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	100APS12	100APS15	100APS18	100APS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	8.33A	6.67A	5.55A	4.17A
Efficiency	89%	91%	91%	91%
INPUT				
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz			
MECHANICAL				
Dimension (W × L × H)	76.20 × 127.00 × 31.00 mm (3.0 × 5.0 × 1.2 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			
Connector Type	Input: JST 2P B2P3-VH (LF) (SN) Earth terminal: Kang Yang PC250 Output: JST 8P B8P-VH (LF) (SN)			

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

MDS 100BPS Open Frame Power Supply

12/15/18/24V 100 WATTS



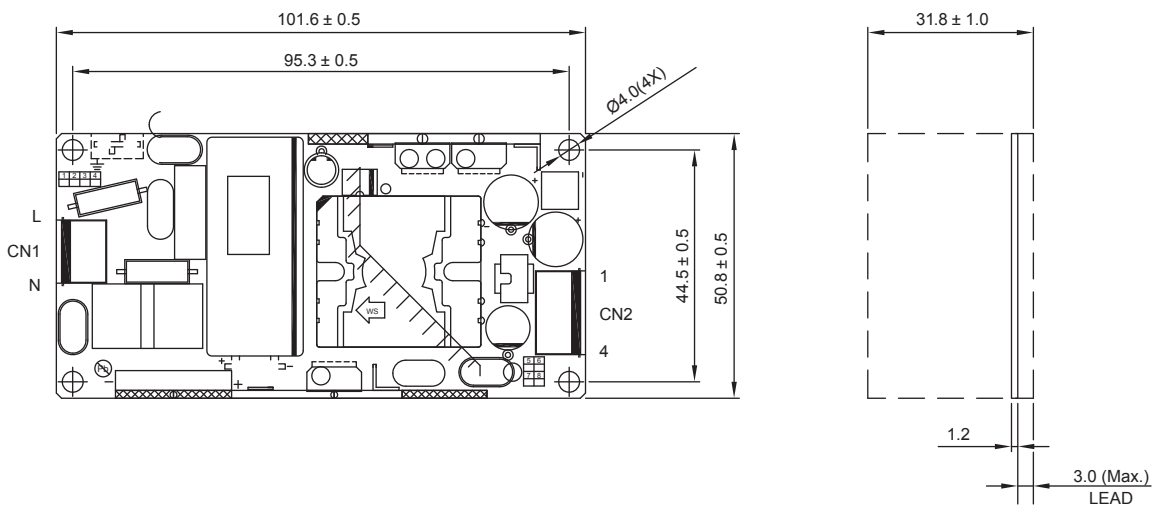
HIGHLIGHTS & FEATURES

- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low touch current (<0.1mA Normal & ,0.3mA single fault)
- 80W with convection cooling; 100W with forced air cooling
- Safety management report available
- 1 million hours MTBF
- Compact size 2" x 4"
- 2 x MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	100BPS12	100BPS15	100BPS18	100BPS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	8.33A	6.70A	5.50A	4.20A
Efficiency	87%	88%	88%	89%
INPUT				
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz			
MECHANICAL				
Dimension (W x L x H)	50.80 x 101.60 x 31.80 mm (2.0 x 4.0 x 1.25 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			
Connector Type	Input: JST 2P B2P3-VH (LF) (SN) Earth terminal: Kang Yang PCH250 Output: JST 4P B4P-VH (LF) (SN)			

unit: mm



MDS 100AP401 Open Frame Power Supply

5.1/12/-15/15V 100 WATTS



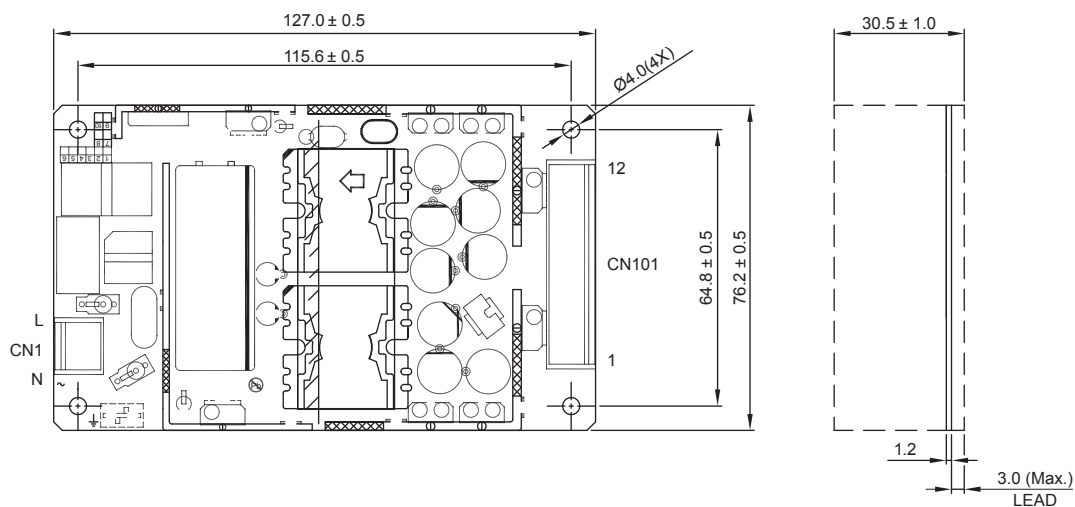
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

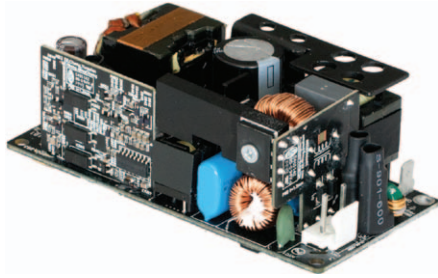
OUTPUT		100AP401			
Output Voltage	5.1V	12V	-15V	15V	
Output Current (Max)	8A	3A	0.8A	0.8A	
Efficiency					75%
INPUT					
Input Voltage Range					90-264Vac, 47-63Hz
Ripple & Noise					<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)
Load Regulation	±2%	±1%	±3%	±3%	
Touch Current					<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz
MECHANICAL					
Dimension (W × L × H)					76.20 × 127.00 × 30.50 mm (3.0 × 5.0 × 1.2 in)
EMC & Emissions					EN55011 & EN55022 & FCC conducted & radiated class B
Connector Type					Input: Molex 2P 09-65-2029 Earth terminal: Kang Yang PCH250 Output: Molex 12P 09-65-2128

unit: mm



MDS 200A Open Frame Power Supply

12/24V 200 WATTS



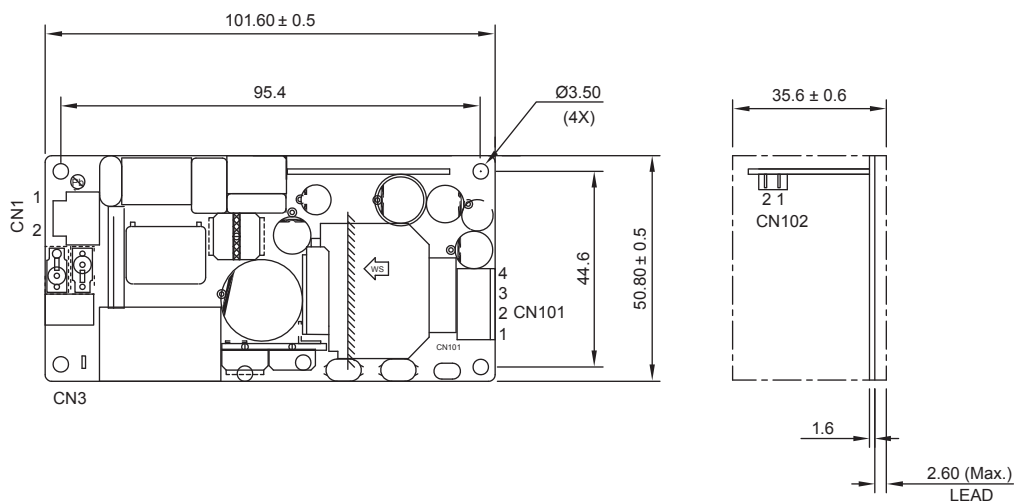
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Class B EMI (all models); 4th Edition Immunity Compliance (12V models only)
- Up to 140W with convection cooling; 200W with forced air cooling
- Suitable for type BF medical product
- Up to 800K hours MTBF
- 2" x 4" x 1.4" package
- Power Good signal

GENERAL SPECIFICATIONS

OUTPUT	200APB12	200APB24
Output Voltage	12V	24V
Output Current (Max)	16.67A	8.33A
Efficiency	91% @115V, 93% @230V	94%
INPUT		
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)	
Load Regulation	±1%	
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz	
MECHANICAL		
Dimension (W x L x H)	50.80 x 101.60 x 35.60 mm (2.0 x 4.0 x 1.4 in)	
EMC & Emissions	Class I model: EN55011, EN55022, FCC: class B	
Connector Type	Input: Molex 171813-9998	
	Earth terminal: PINGOOD JP-13T	
	Output: JST B4P-VH(LF)(SN)	
	Signal Connector: Molex 87438-0243	

unit: mm



MDS 250A Open Frame Power Supply

12/24V 250 WATTS



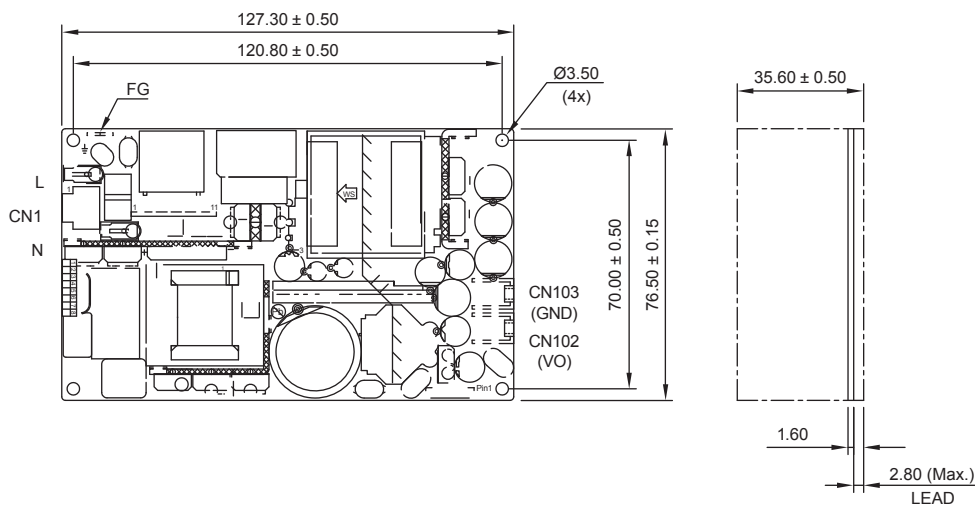
HIGHLIGHTS & FEATURES

- Power Good signal, Remote Sense, Remote Inhibit
- Class B EMI; 4th Edition Immunity Compliance
- Safety rated for medical and IT applications
- Up to 150W with convection cooling; 250W with forced air cooling
- Enclosed cover design option available
- Suitable for type BF medical product
- Up to 500K hours MTBF
- 3" x 5" x 1.4" package

GENERAL SPECIFICATIONS

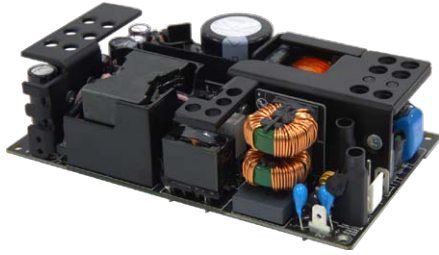
OUTPUT	250APB12	250APB24
Output Voltage	12V	24V
Output Current (Max)	20.84A	10.41A
Efficiency	91%	
INPUT		
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)	
Load Regulation	±1%	
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/60Hz	
MECHANICAL		
Dimension (W x L x H)	76.50 x 127.30 x 36.10 mm (3.0 x 5.0 x 1.4 in)	
EMC & Emissions	Class I model: EN55011, EN55022, FCC: class B Class II model: EN55011, EN55022, FCC: class B for conducted, class A for radiated	
Connector Type	Input: Molex 26-62-4030 or Equivalent Earth terminal: PINGOOD JP-13T Output: Kang Yang PCB-12 Signal Connector: Molex 104141-1010	

unit: mm



MDS 300A Open Frame Power Supply

12/18/24/48V 300 WATTS



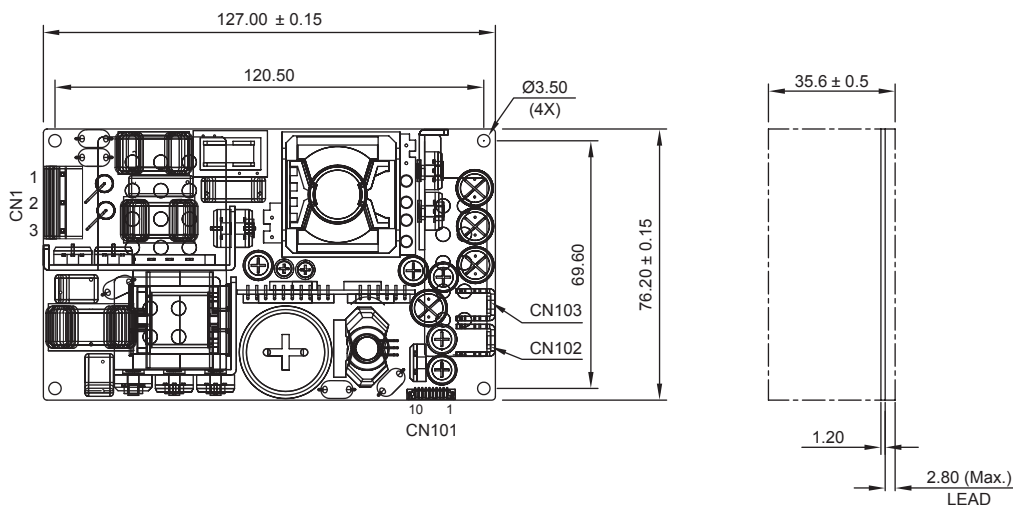
HIGHLIGHTS & FEATURES

- Power Good signal, Remote Sense, Remote Inhibit
- Safety rated for medical and IT applications
- Class B EMI (all models); 4th Edition Immunity Compliance (12 & 24V models only)
- Up to 240W with convection cooling; 300W with forced air cooling
- Suitable for type BF medical products
- Enclosed cover kit design available
- Up to 800K hours MTBF
- 3" x 5" x 1.4" package

GENERAL SPECIFICATIONS

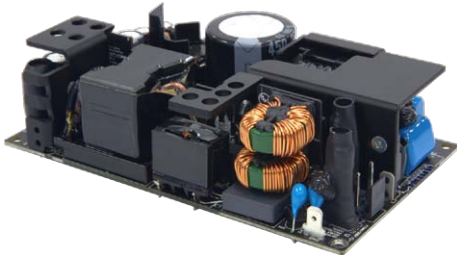
OUTPUT	300APB12	300APB18	300APB24	300APB48
Output Voltage	12V	18V	24V	48V
Output Current (Max)	25.00A	16.66A	12.50A	6.25A
Efficiency	94%			
INPUT				
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz			
MECHANICAL				
Dimension (W x L x H)	76.20 x 127.00 x 35.60 mm (3.0 x 5.0 x 1.4 in)			
EMC & Emissions	Class I model: EN55011, EN55022, FCC: class B			
Connector Type	Input: Molex 26-62-4030 or Equivalent Earth terminal: PINGOOD JP-13T Output: Kang Yang PCB-12 Signal connector: Molex 104141-1010			

unit: mm



MDS 400A Open Frame Power Supply

12/24V 400 WATTS



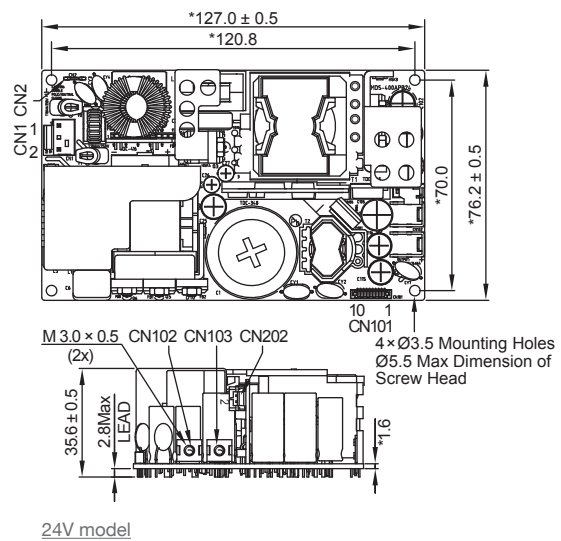
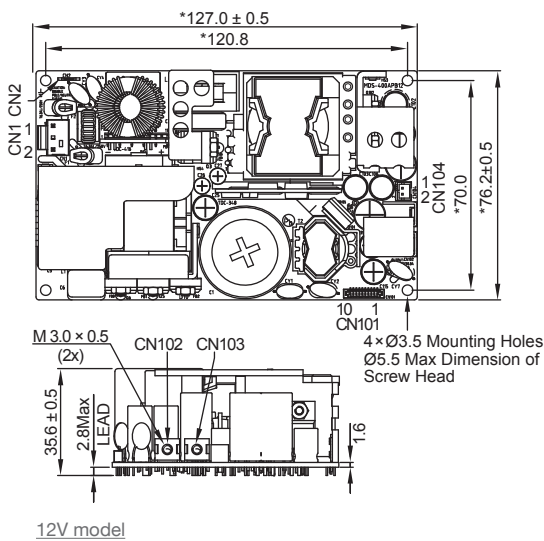
HIGHLIGHTS & FEATURES

- Class B EMI (all models); 4th Edition Immunity (12V models only)
- Power Good signal, Remote Sense, Remote Inhibit
- Safety rated for medical and IT applications
- Up to 200W with convection cooling; 400W with forced air cooling
- Suitable for type BF medical product
- 5V standby and 12V fan outputs
- Up to 800K hours MTBF
- 3" x 5" x 1.4" package

GENERAL SPECIFICATIONS

OUTPUT	400APB12	400APB24
Output Voltage	12V	24V
Output Current (Max)	33.33A	16.66A
Efficiency	89.5% @115V, 91.5% @230V	92% @115V, 93% @230V
INPUT		
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)	
Load Regulation	±1%	
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz	
MECHANICAL		
Dimension (W x L x H)	76.20 x 127.00 x 35.60 mm (3.0 x 5.0 x 1.4 in)	
EMC & Emissions	Class I model: EN55011, EN55022, FCC: class B	
Connector Type	Input: Molex 171813-9998 Earth terminal: PINGOOD JP-13T Output: Kang Yang PCB-12 Signal connector: Molex 104141-1010 Fan output connector: JST B2B-PH-K-S(LF)(SN)	Input: Molex 171813-9998 Earth terminal: PINGOOD JP-13T Output: Kang Yang PCB-12 Signal connector: Molex 104141-1010 Fan output connector: JST S2B-PH-SM4-TB(LF)(SN)

unit: mm



MDS 400AUS Open Frame Power Supply

19/24V 400 WATTS



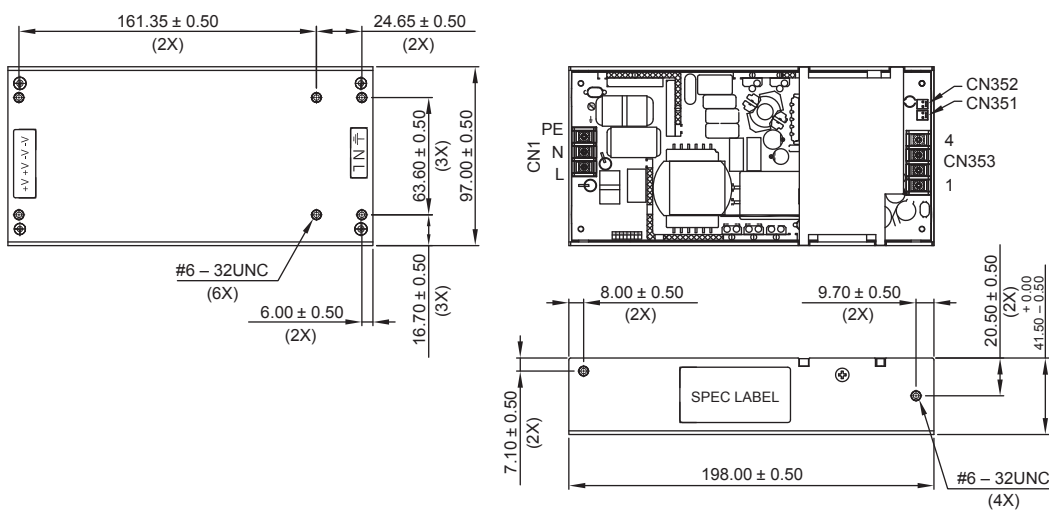
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 2 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	400AUS19	400AUS24
Output Voltage	19V	24V
Output Current (Max)	21.10A	16.67A
Efficiency	91%	92%
INPUT		
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)	
Load Regulation	±2%	
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz	
MECHANICAL		
Dimension (W × L × H)	97.00 × 198.00 × 41.50 mm (3.8 × 7.8 × 1.6 in)	
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B	
Connector Type	Input: DECA 3P T33-BM1103A301 Output: DECA 4P T33-BM1104A301 Output: JWT 2P A2508WV0-2P	

unit: mm



Standard Products

Enclosed Power Supply



Most of the MDS series of enclosed power supplies are certified with both medical and ITE safety approvals. Encased in strong metal casing, the series of versatile products can be used in a wide variety of equipment for medical and ITE applications.

Typical Applications



Notes:



All Delta Medical Power products conform to the European directive 2011/65/EU. RoHS is the abbreviation for "Restriction of the use of certain hazardous substances".



Delta has been certified for meeting the requirements of ISO 13485: 2003 and EN ISO 13485: 2012 for the design and production of switching power supply and adaptor for medical devices.



In addition to the UL Total Certification Program (TCP) approved client laboratory for IEC60950 and IEC60065, Delta has also participated in the UL Client Test Data Program (CTDP) for IEC 60601.

MDS 200ADB Enclosed Power Supply

12/24V 200 WATTS



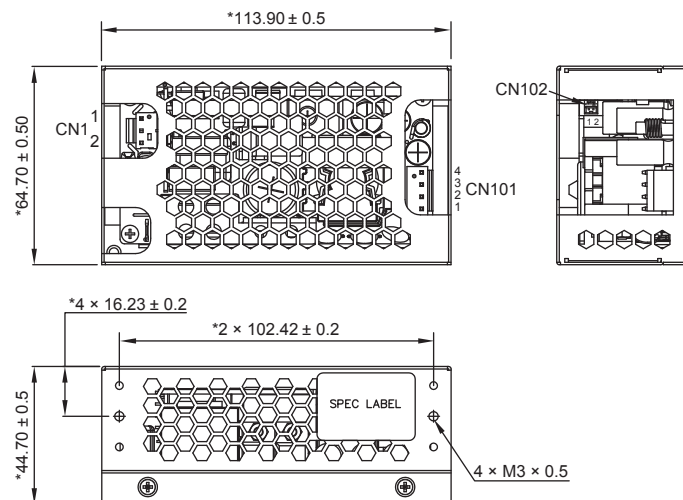
HIGHLIGHTS & FEATURES

- 2.5" × 4.5" × 1.8" Package with enclosure
- IEC60601-1-2 4th edition EMC compliance
- Up to 110W with convection cooling; 200W with forced air cooling
- Suitable for type BF medical product
- IT & Medical Safety Approvals
- Up to 800K Hours MTBF
- Power Good signal

GENERAL SPECIFICATIONS

OUTPUT	200ADB12	200ADB24
Output Voltage	12V	24V
Output Current (Max)	16.67A with 8.5 CFM forced air	8.33A with 5.5 CFM forced air
Efficiency	91% @ 115V/60Hz, 93% @ 230V/50Hz	92% @ 115V/60Hz, 93% @ 230V/50Hz
INPUT		
Input Voltage Range	90-264V	
Ripple & Noise	1%pk-pkVrated @ Full load	
Load Regulation	±1%	
Leakage Current	0.1mA @ NC, 0.3mA @ SFC	
MECHANICAL		
Dimension (W × L × H)	64.70 × 113.90 × 44.70 mm (2.5 × 4.5 × 1.8 in)	
EMC & Emissions	Class I model: EN55011/EN55022, FCC Title 47: Class B	
Connector Type	Input: Molex 171813-9998	
	Earth terminal: PINGOOD JP-13T	
	Output: JST B4P-VH(LF)(SN)	
	Signal connector: Molex 87438-0243	

unit: mm



MDS 250ADB Enclosed Power Supply

12/24V 250 WATTS



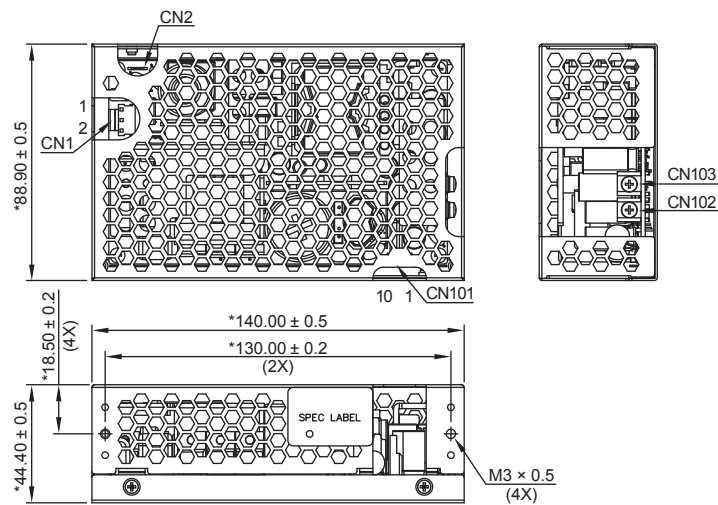
HIGHLIGHTS & FEATURES

- 3.5" × 5.5" × 1.75" Package with enclosure
- IEC60601-1-2 4th edition EMC compliance
- Up to 135W with convection cooling;
250W with forced air cooling
- Suitable for type BF medical product
- IT & Medical Safety Approvals
- Up to 500K Hours MTBF
- Remote on/off control
- Power Good signal

GENERAL SPECIFICATIONS

OUTPUT	250ADB12	250ADB24
Output Voltage	12V	24V
Output Current (Max)	20.84A with 10 CFM forced air	10.41A with 10 CFM forced air
Efficiency	89.45% @ 115V, 90.50% @ 230V	91.85% @ 115V, 92.98% @ 230V
INPUT		
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	1% pk-pk Vrated @ 250W load	
Load Regulation	±1%	
Leakage Current	0.1mA @ NC, 0.3mA @ SFC, 0.1mA @ NC, 0.5mA @ SFC	
MECHANICAL		
Dimension (W × L × H)	88.90 × 140.00 × 44.40 mm (3.5 × 5.5 × 1.75 in)	
EMC & Emissions	EN55011, EN55022, FCC title 47: class B	
Connector Type	Input: Molex: 26-62-4030 or Equivalent	
	Earth terminal: PINGOOD JP-13T	
	Output: Kang Yang PCB-12	
	Signal connector: Molex 104141-1010	

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

MDS 300ADB Enclosed Power Supply

12/18/24/48V 300 WATTS



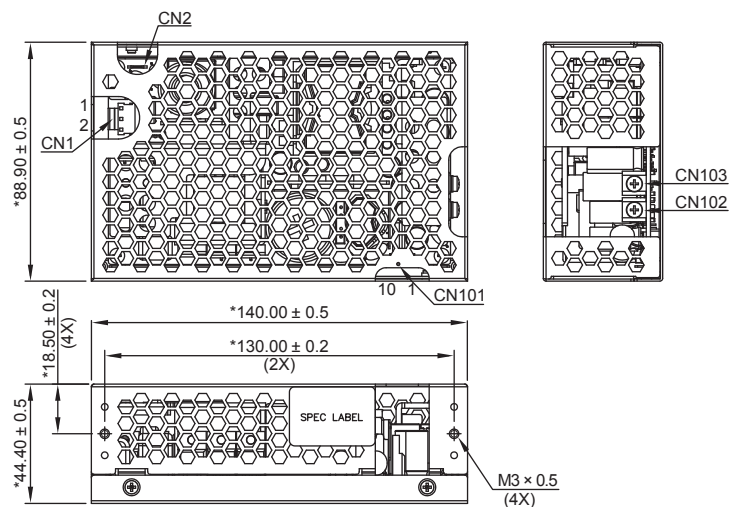
HIGHLIGHTS & FEATURES

- 3.5" × 5.5" × 1.75" Package with enclosure
- IEC60601-1-2 4th edition EMC compliance
- Up to 210W with convection cooling; 300W with forced air cooling
- Suitable for type BF medical product
- IT & Medical Safety Approvals
- Up to 800K Hours MTBF
- Remote on/off control
- Power Good signal

GENERAL SPECIFICATIONS

OUTPUT	300ADB12	300ADB18	300ADB24	300ADB48
Output Voltage	12V	18V	24V	48V
Output Current (Max)	25.00A with 10 CFM forced air	16.66A with 10 CFM forced air	12.50A with 10 CFM forced air	6.25A with 10 CFM forced air
Efficiency	91.3% @ 115V, 92.6% @230V	92.5% @ 115V, 93.5% @230V	93% @ 115V, 94% @230V	92.5% @ 115V, 93.5% @230V
INPUT				
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	1% pk-pk Vrated @ 300W load			
Load Regulation	±1%			
Leakage Current	<0.1mA @ NC, 0.3mA @ SFC, <0.1mA @ NC, 0.5mA @ SFC			
MECHANICAL				
Dimension (W × L × H)	88.90 × 140.00 × 45.00 mm (3.5 × 5.5 × 1.75 in)			
EMC & Emissions	EN55011, EN55022, FCC Title 47: class B			
Connector Type	Input: Molex: 26-62-4030 or Equivalent			
	Earth terminal: PINGOOD JP-13T			
	Output: Kang Yang PCB-12			
	Signal connector: Molex 104141-1010			

unit: mm



MDS 400ADB Enclosed Power Supply

12/24V 400 WATTS



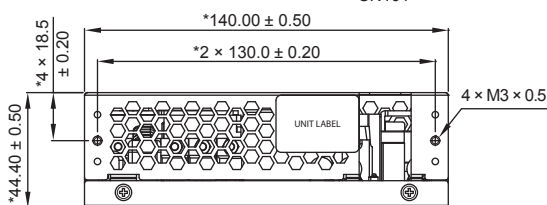
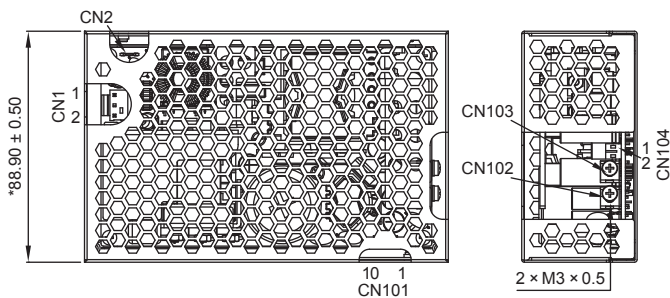
HIGHLIGHTS & FEATURES

- 3.5" × 5.5" × 1.75" Package with enclosure
- IEC60601-1-2 4th edition EMC compliance
- Suitable for type BF medical product
- IT & Medical Safety Approvals
- Up to 500K Hours MTBF
- Remote on/off control
- Up to 400W with forced air cooling
- Power Good signal
- 12V Fan output

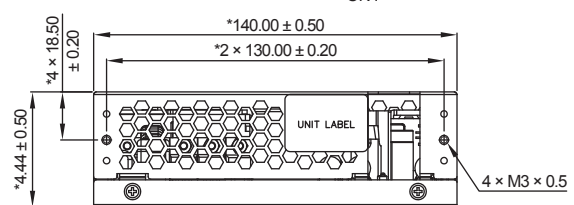
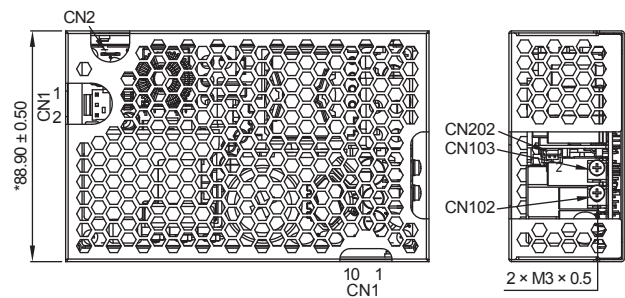
GENERAL SPECIFICATIONS

OUTPUT	400ADB12	400ADB24
Output Voltage	12V	24V
Output Current (Max)	33.33A with 16 CFM forced air	16.67A with 12 CFM forced air
Efficiency	89.5% @ 115V/60Hz, 91.5% @ 230V/50Hz	92% @ 115V/60Hz, 93% @ 230V/50Hz
INPUT		
Input Voltage Range	90-264V	
Ripple & Noise	150mVpk-pkVrated @ Full load	1%pk-pkVrated @ Full load
Load Regulation	±1%	
Leakage Current	0.1mA @ NC, 0.3mA @ SFC	
MECHANICAL		
Dimension (W × L × H)	88.90 × 140.00 × 44.40 mm (3.5 × 5.5 × 1.75 in)	
EMC & Emissions	EN55011/EN55022, FCC Title 47: Class B	
Connector Type	Input: Molex 171813-9998	
	Earth terminal: PINGOOD JP-13T	
	Output: Kang Yang PCB-12	
	Signal connector: Molex 104141-1010	
	Fan connector: JST B2B-PH-K-S(LF)(SN)	Fan connector: JST S2B-PH-SM4-TB(LF)(SN)

unit: mm



12V model



24V model

Standard Products

ATX Power Supply



Highly reliable design with ATX standard form factor and output cable pin-outs. Certified with medical standards and suitable for use in medical devices with Type BF classification.

Typical Applications



Notes:



All Delta Medical Power products conform to the European directive 2011/65/EU. RoHS is the abbreviation for "Restriction of the use of certain hazardous substances".



Delta has been certified for meeting the requirements of ISO 13485: 2003 and EN ISO 13485: 2012 for the design and production of switching power supply and adaptor for medical devices.



In addition to the UL Total Certification Program (TCP) approved client laboratory for IEC60950 and IEC60065, Delta has also participated in the UL Client Test Data Program (CTDP) for IEC 60601.

MDS 350AD701 ATX Power Supply

ATX 12V 1U



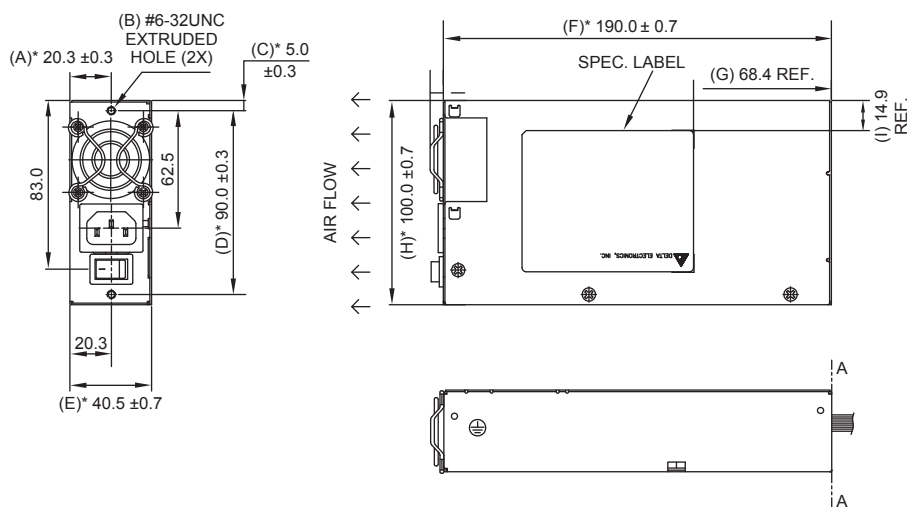
HIGHLIGHTS & FEATURES

- ATX 12V standard function & form factor
- IEC60601-1 3.1 ed.(Medical) & IEC 60950-1(ITE) approvals
- Compliant with IEC 60601-1-2 4th Ed. requirements
- Suitable for type BF patient access applications
- Maximum output power of 350 watts
- Built-in active PFC

GENERAL SPECIFICATIONS

OUTPUT		350AD701					
Output Voltage	+3.3V	+5V	+5Vsb	+12V1	+12V2	-12V	-5V
Output Current	8.00A	9.00A	1.25A	8.00A	8.00A	0.25A	0.10A
Efficiency	82% @ 115Vac/60Hz, 85% @ 230Vac/50Hz						
INPUT							
Input Voltage Range	90-264Vac						
Ripple & Noise	50mVpp		150mVpp		120mVpp		50mVpp
Load Regulation	+/-5%						+/-10%
Leakage Current	0.1mA @ NC, 0.3mA @ SFC ¹⁾						
MECHANICAL							
Dimension (W x L x H)	100.00 x 194.00 x 40.50 mm (3.9 x 7.6 x 1.6 in)						
EMC & Emissions	EN55011/EN55022, FCC Title 47: Class B						
Connector Type	P1: Molex 39-01-2240 or EQUIV. P2: Molex 39-01-2080 or EQUIV. P3: Molex 39-01-2040 or EQUIV.						

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

Standard Products

Adapter Power Supply



The MDS Adapters series rides on Delta's market leading adapter technology to provide the same high quality external power supplies for medical systems and equipments.

Typical Applications



Medical IT Industry General

Notes:



All Delta Medical Power products conform to the European directive 2011/65/EU. RoHS is the abbreviation for "Restriction of the use of certain hazardous substances".



Delta has been certified for meeting the requirements of ISO 13485: 2003 and EN ISO 13485: 2012 for the design and production of switching power supply and adaptor for medical devices.



In addition to the UL Total Certification Program (TCP) approved client laboratory for IEC60950 and IEC60065, Delta has also participated in the UL Client Test Data Program (CTDP) for IEC 60601.

MDS 005AAS Adapter Power Supply

5/6V 5 WATTS



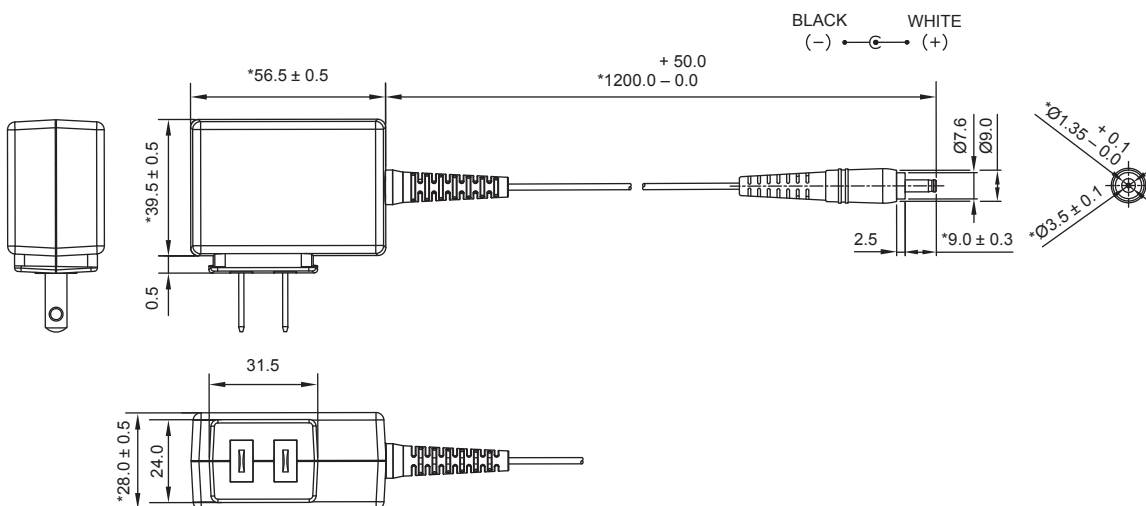
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Up to energy star level VI requirement
- Risk management report available
- Small size and low weight
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	005AAS05	005AAS06
Output Voltage	5V	6V
Output Current (Max)	1.00A	0.83A
Efficiency	71%	73%
INPUT		
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	<200mV (25°C at 10uF/0.47uF with 20MHz bandwidth)	
Load Regulation	±10%	
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz	
MECHANICAL		
Dimension (W × L × H)	39.50 × 56.50 × 28.00 mm (1.6 × 2.2 × 1.1 in)	
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B	
Connector Type	Input: Wall mount – US & EU & CN type Output: Barrel & Micro USB-B type	

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

MDS 030AAC Adapter Power Supply

5/7/12/15/24V 30 WATTS



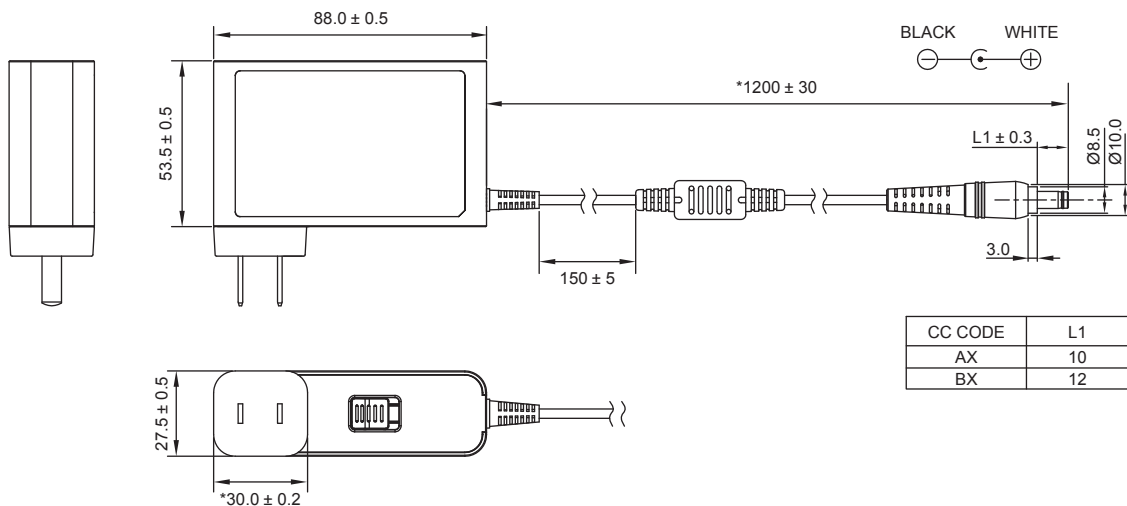
HIGHLIGHTS & FEATURES

- MDS-030AAC05, 12, 15, 24 Meet DOE Level VI & ErP 2017
- Low touch current. Suitable for type BF applications
- Detachable AC plug with multiple country options
- Class B EMI; 4th Edition Immunity Compliance
- Safety rated for medical and IT applications
- IP22 ingress protection rating
- 2 × MOPP isolation
- 500K hours MTBF
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	030AAC05	030AAC07	030AAC12	030AAC15	030AAC24
Output Voltage	5V	7V	12V	15V	24V
Output Current (Max)	3.00A	3.00A	2.00A	2.00A	1.25A
Efficiency	81.4%	81.4%	86.21%	87.0%	87.0%
INPUT					
Input Voltage Range	85-264Vac, 47-63Hz				
Ripple & Noise	100mVpk-pk		150mVpk-pk	200mVpk-pk	
Load Regulation	±5%				
Touch Current	0.1mA @ 264Vac NC ¹⁾ , 0.3mA @ 264Vac SFC ²⁾				
MECHANICAL					
Dimension (W × L × H)	53.50 × 88.0 × 27.50 mm (2.1 × 3.5 × 1.1 in)				
EMC & Emissions	EN55011/EN55022, FCC Title 47: Class B				
Connector Type	Input: Wall mount-CN/US/EU/UK/AU/KR/IN/AR/BZ/SA Output: Barrel				

unit: mm



MDS 060AAS Adapter Power Supply

12/15/19/24V 60 WATTS



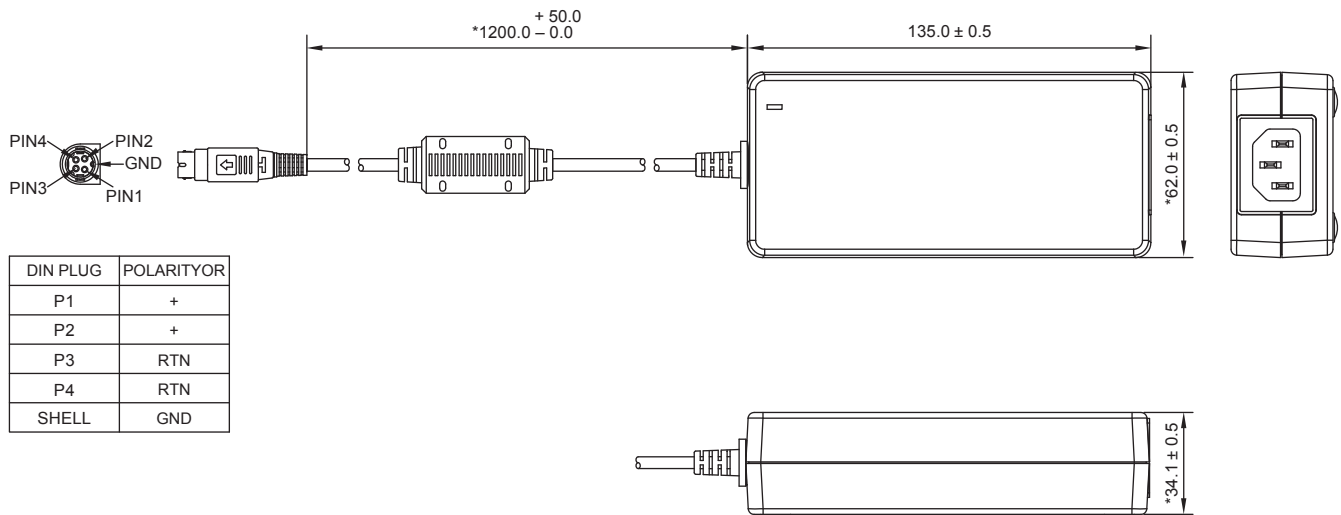
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	060AAS12	060AAS15	060AAS19	060AAS24
Output Voltage	12V	15V	19V	24V
Output Current (Max)	5.00A	4.00A	3.20A	2.50A
Efficiency	88%	88%	88%	88%
INPUT				
Input Voltage Range	90-275Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±5%			
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz			
MECHANICAL				
Dimension (W × L × H)	62.00 × 135.00 × 34.10 mm (2.4 × 5.3 × 1.3 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			
Connector Type	Input: C14 socket Output: 4-pin DIN/Barrel type/Tuning fork type			

unit: mm



MDS 060BAS Adapter Power Supply

12/19/24V 60 WATTS



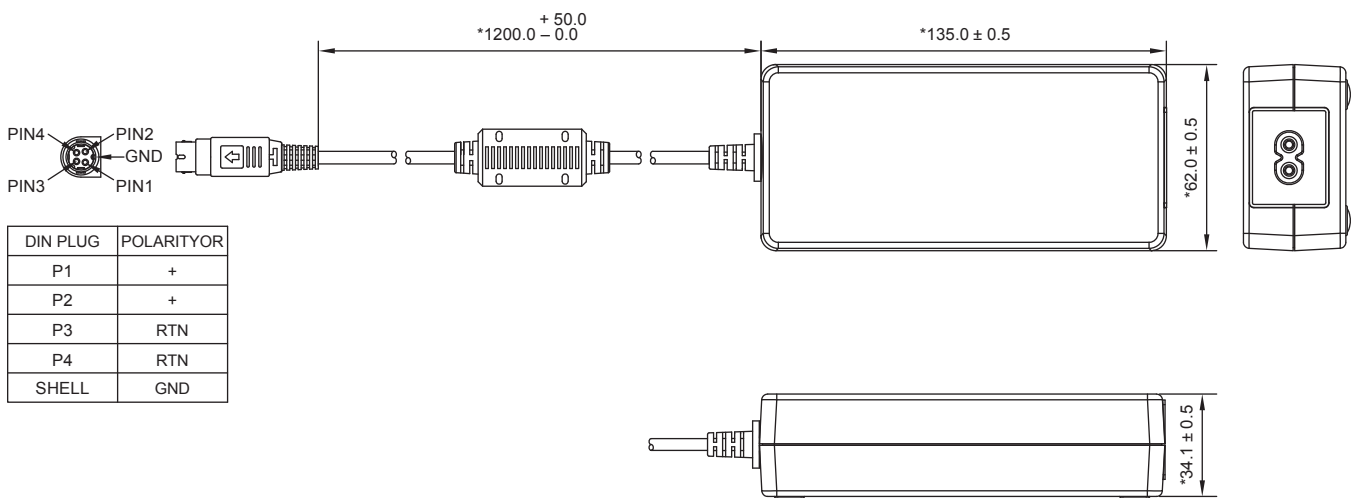
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Risk management report available
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	060BAS12	060BAS19	060BAS24
Output Voltage	12V	19V	24V
Output Current (Max)	5.00A	3.15A	2.50A
Efficiency	87%	88%	88%
INPUT			
Input Voltage Range	90-264Vac, 47-63Hz		
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)		
Load Regulation	±5%		
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz		
MECHANICAL			
Dimension (W × L × H)	62.00 × 135.00 × 34.10 mm (2.4 × 5.3 × 1.3 in)		
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B		
Connector Type	Input: C8 socket Output: 4-pin DIN/Barrel type/Tuning fork type		

unit: mm



MDS 080AAS Adapter Power Supply

12V 80 WATTS



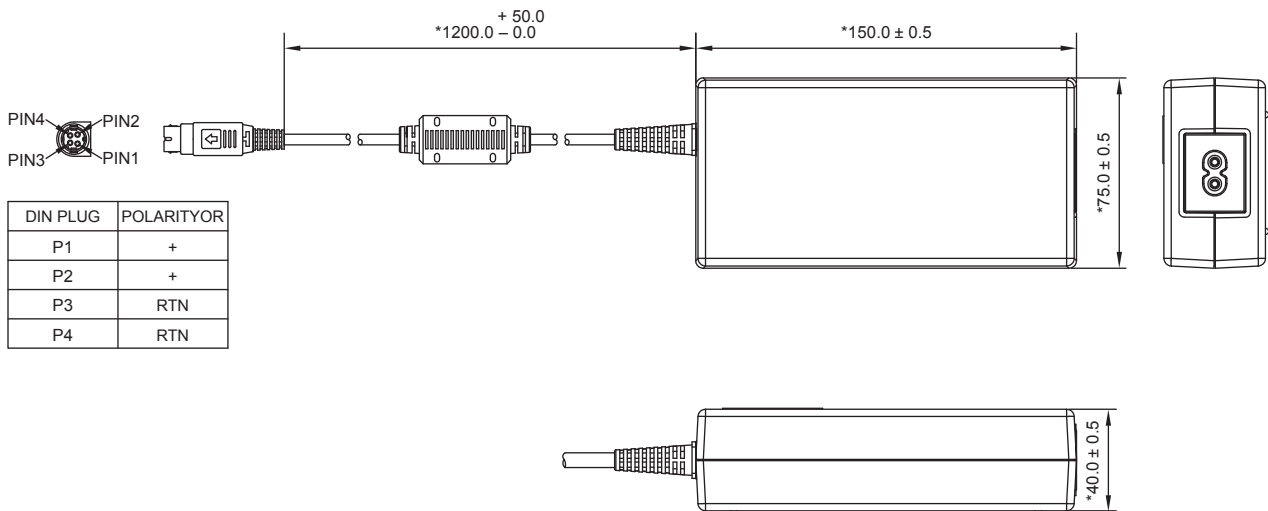
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Class II input with C8 AC inlet
- IP22 ingress protection rating
- Universal input 90-264Vac
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	080AAS12
Output Voltage	12V
Output Current (Max)	6.66A
Efficiency	83%
INPUT	
Input Voltage Range	90-264Vac, 47-63Hz
Ripple & Noise	118.4 mVpk-pk @ Rated Load
Load Regulation	±5%
Touch Current	81.6uA normal condition, 87.4uA single fault condition
MECHANICAL	
Dimension (W × L × H)	75.00 × 150.00 × 40.00 mm (3.0 × 5.9 × 1.6 in)
EMC & Emissions	EN55011/EN55022, FCC Title 47: Class B
Connector Type	Output: 4-pin DIN/Barrel type/Tuning fork type

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

MDS 090AAS Adapter Power Supply

15/19/24V 90 WATTS



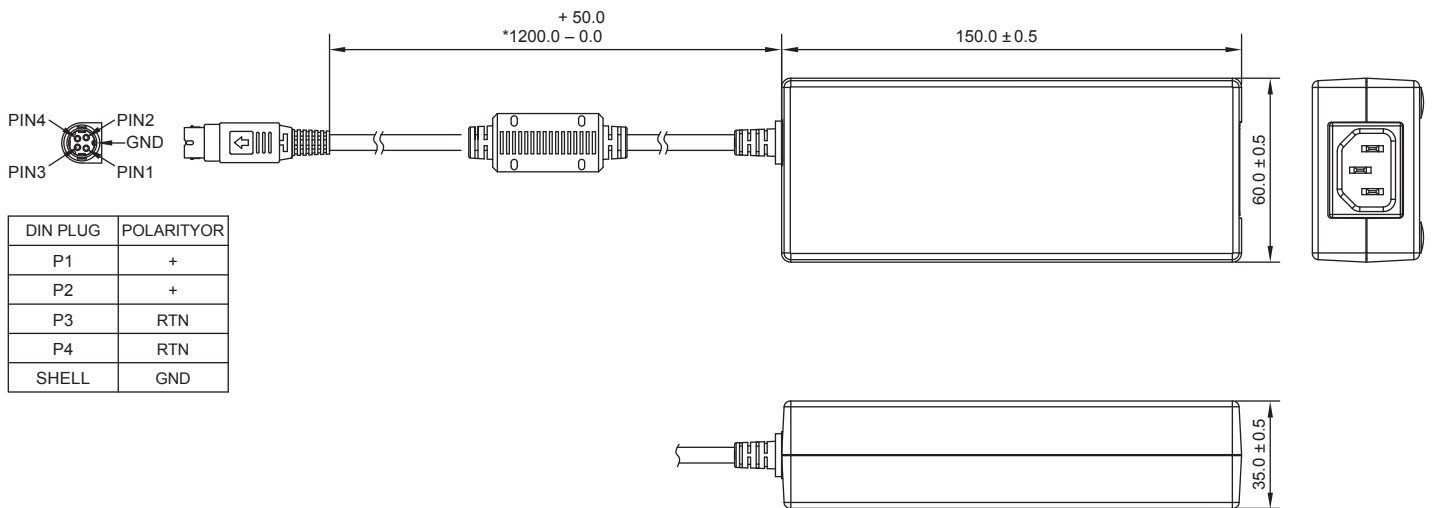
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	090AAS15	090AAS19	090AAS24
Output Voltage	15V	19V	24V
Output Current (Max)	6.00A	4.74A	3.75A
Efficiency	89%	91%	91%
INPUT			
Input Voltage Range	90-264Vac, 47-63Hz		
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)		
Load Regulation	±5%		
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz		
MECHANICAL			
Dimension (W × L × H)	65.00 × 150.00 × 35.00 mm (2.6 × 5.9 × 1.4 in)		
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B		
Connector Type	Input: C14 socket Output: 4-pin DIN/Barrel type/Tuning fork type		

unit: mm



MDS 090BAS24 Adapter Power Supply

24V 90 WATTS



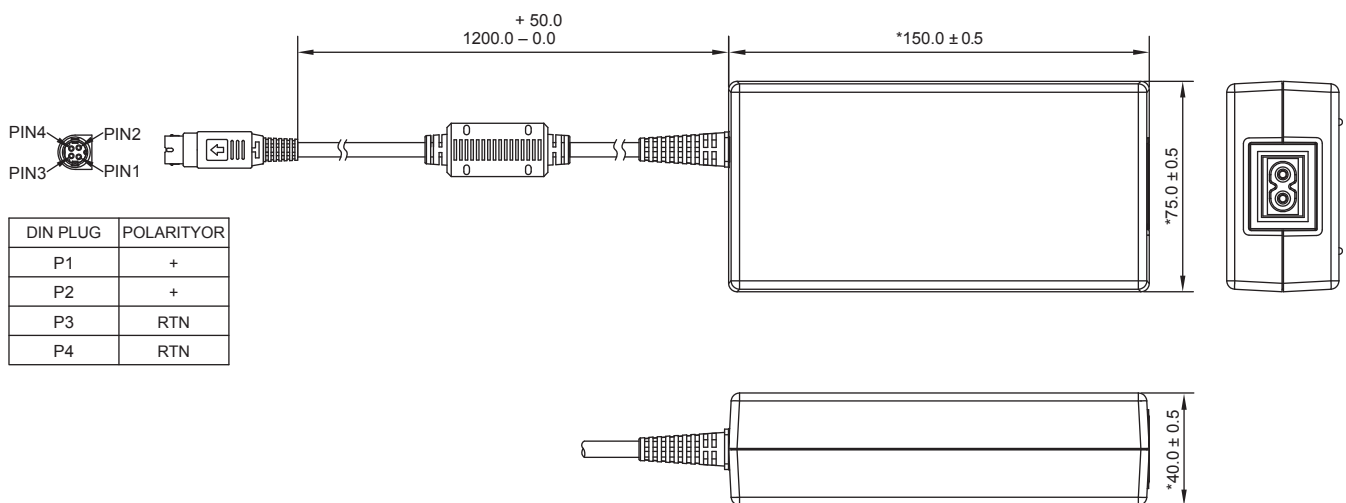
HIGHLIGHTS & FEATURES

- Over-Voltage/Load/Temperature & Short Circuit Protections
- Low touch current (<0.1mA Normal & ,0.3mA single fault)
- Safety rated for medical and IT applications
- Risk management report available
- High isolation: 2 × MOPP
- 1 million hours MTBF
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	090BAS24
Output Voltage	24V
Output Current (Max)	3.75A
Efficiency	88%
INPUT	
Input Voltage Range	90-264Vac, 47-63Hz
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)
Load Regulation	±5%
Touch Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz
MECHANICAL	
Dimension (W × L × H)	75.00 × 150.00 × 40.00 mm (3.0 × 5.9 × 1.6 in)
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B
Connector Type	Input: C8 socket Output: 4-pin DIN/Barrel type/Tuning fork type

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

MDS 150AAS Adapter Power Supply

12/19/24V 150 WATTS



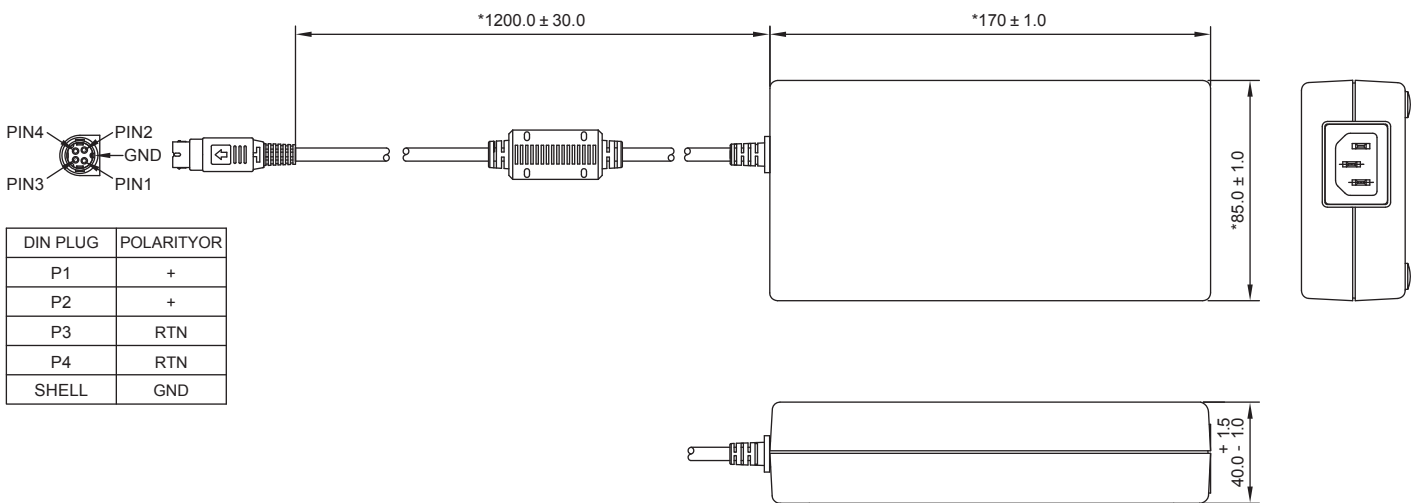
HIGHLIGHTS & FEATURES

- Safety approvals for medical and IT applications
- Low leakage current (<0.1mA Normal & ,0.3mA single fault)
- Over-Voltage/Load/Temperature & Short Circuit Protections
- 90-264 Vac universal input
- 1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	150AAS12	150AAS19	150AAS24
Output Voltage	12V	19V	24V
Output Current (Max)	10.00A	7.89A	6.25A
Efficiency	88%	91%	91%
INPUT			
Input Voltage Range	90-264Vac, 47-63Hz		
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)		
Load Regulation	±5%		
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz		
MECHANICAL			
Dimension (W × L × H)	85.00 × 170.00 × 40.00 mm (3.4 × 6.7 × 1.6 in)		
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B		
Connector Type	Input: C14 socket Output: 4-pin DIN/Barrel type/Tuning fork type		

unit: mm



MDS 150CAB19 Adapter Power Supply

19V 150 WATTS



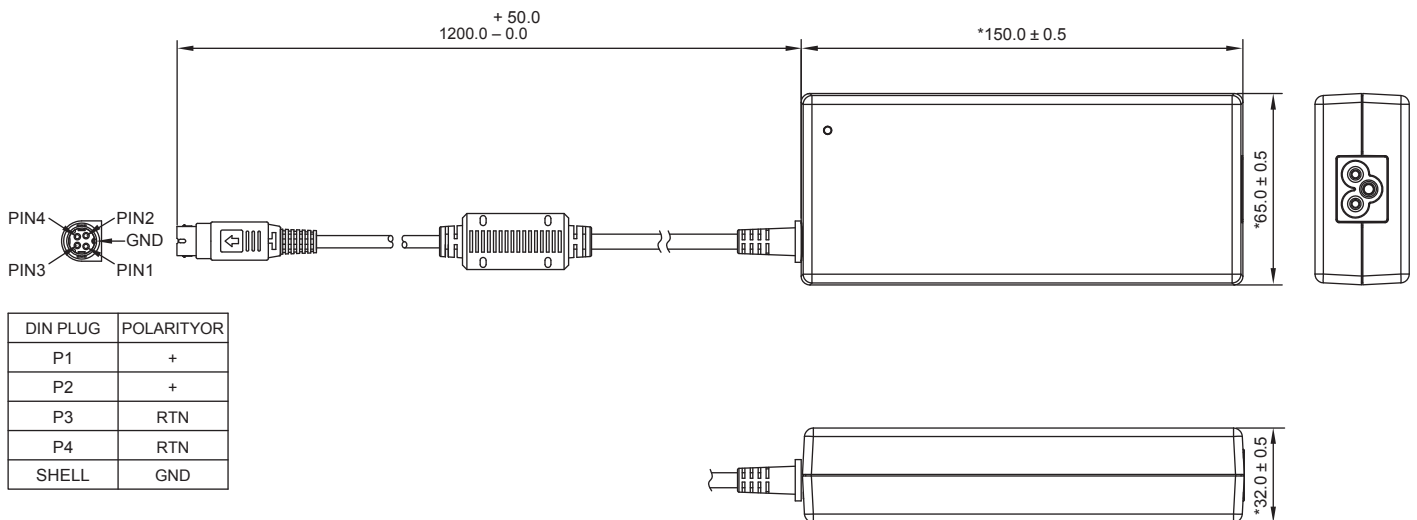
HIGHLIGHTS & FEATURES

- Over-Voltage/Load/Temperature & Short Circuit Protections
- Safety rated for medical and IT applications
- 90-264 Vac universal input
- 2.1 million hours MTBF
- 2 × MOPP isolation
- 3 years warranty

GENERAL SPECIFICATIONS

OUTPUT	150CAB19
Output Voltage	19V
Output Current (Max)	7.90A
Efficiency	92%
INPUT	
Input Voltage Range	90-264Vac, 47-63Hz
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)
Load Regulation	±5%
Leakage Current	<0.1mA normal condition, <0.3mA SFC at 264Vac/63Hz
MECHANICAL	
Dimension (W × L × H)	65.00 × 150.00 × 32.00 mm (2.6 × 5.9 × 1.3 in)
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B
Connector Type	Input: C6 socket Output: 4-pin DIN/Barrel type/Tuning fork type

unit: mm



Open Frame Power Supply

Enclosed Power Supply

ATX Power Supply

Adapter Power Supply

Standards & Approvals

Delta Standard Medical Power Supplies

	CE	CB Scheme to IEC 60601-1	CB Scheme to IEC 60950-1	UL 60601-1	UL 60950-1	CQC (China)	CCC (China)	TUV to EN 60601-1	TUV to EN 60950-1	EN 55011 Class B (Emissions)	EN 55022 Class B (Emissions)
Open Frame Power Supply											
MDS-040APS12 B	●	●	●	●	●	●	●			●	●
MDS-040APS15 B	●	●	●	●	●	●	●			●	●
MDS-040APS18 B	●	●	●	●	●	●	●			●	●
MDS-040APS24 B	●	●	●	●	●	●	●			●	●
MDS-065APS12 B	●	●	●	●	●	●				●	●
MDS-065APS15 B	●	●	●	●	●	●				●	●
MDS-065APS18 B	●	●	●	●	●	●				●	●
MDS-065APS24 B	●	●	●	●	●	●				●	●
MDS-100AP401 B	●	●	●	●	●	●				●	●
MDS-100APS12 B	●	●	●	●	●	●		●		●	●
MDS-100APS15 B	●	●	●	●	●	●				●	●
MDS-100APS18 B	●	●	●	●	●	●				●	●
MDS-100APS24 B	●	●	●	●	●	●				●	●
MDS-100BPS12 B	●	●	●	●	●	●				●	●
MDS-100BPS15 B	●	●	●	●	●	●				●	●
MDS-100BPS18 B	●	●	●	●	●	●				●	●
MDS-100BPS24 B	●	●	●	●	●	●				●	●
MDS-200APB12*	●	●	●	●	●		●	●	●	●	●
MDS-200APB24*	●	●	●	●	●		●	●	●	●	●
MDS-250APB12*	●	●	●	●	●		●	●	●	●	●
MDS-250APB24*	●	●	●	●	●		●	●	●	●	●
MDS-300APB12*	●	●	●	●	●		●	●	●	●	●
MDS-300APB18*	●	●	●	●	●		●	●	●	●	●
MDS-300APB24*	●	●	●	●	●		●	●	●	●	●
MDS-300APB48*	●	●	●	●	●		●	●	●	●	●
MDS-400APB12*	●	●	●	●	●		●	●	●	●	●
MDS-400APB24*	●	●	●	●	●		●	●	●	●	●
MDS-400AUS19 B	●	●	●	●	●		●	●	●	●	●
MDS-400AUS24 B	●	●	●	●	●		●	●	●	●	●
Enclosed Power Supply											
MDS-200ADB12	●	●	●	●	●		●	●	●	●	●
MDS-200ADB24	●	●	●	●	●		●	●	●	●	●
MDS-250ADB12	●	●	●	●	●		●	●	●	●	●
MDS-250ADB24	●	●	●	●	●		●	●	●	●	●
MDS-300ADB12	●	●	●	●	●		●	●	●	●	●
MDS-300ADB18	●	●	●	●	●		●	●	●	●	●
MDS-300ADB24	●	●	●	●	●		●	●	●	●	●
MDS-400ADB12	●	●	●	●	●		●	●	●	●	●
MDS-400ADB24	●	●	●	●	●		●	●	●	●	●
MDS-300ADB48	●	●	●	●	●		●	●	●	●	●

	CE	CB Scheme to IEC 60601-1	CB Scheme to IEC 60950-1	UL 60601-1	UL 60950-1	CQC (China)	CCC (China)	TUV to EN 60601-1	TUV to EN 60950-1	EN 55011 Class B (Emissions)	EN 55022 Class B (Emissions)
ATX Power Supply											
MDS-350AD701	●	●	●	●	●		●				
Adapter Power Supply											
MDS-005AAS05 A	●	●		●			●			●	●
MDS-005AAS05 B	●	●		●						●	●
MDS-005AAS05 C	●	●								●	●
MDS-005AAS06 A	●	●					●				
MDS-005AAS06 B	●	●		●						●	●
MDS-005AAS06 C	●	●								●	●
MDS-030AAC05*	●	●		●			●			●	●
MDS-030AAC07*	●	●		●			●			●	●
MDS-030AAC12*	●	●		●			●			●	●
MDS-030AAC15*	●	●		●			●			●	●
MDS-030AAC24*	●	●		●			●			●	●
MDS-060AAS12 B	●	●		●			●			●	●
MDS-060AAS15 B	●	●		●			●			●	●
MDS-060AAS19 B	●	●		●			●			●	●
MDS-060AAS24 B	●	●		●			●			●	●
MDS-060BAS12 A	●	●		●			●			●	●
MDS-060BAS19 A	●	●		●			●			●	●
MDS-060BAS24 A	●	●		●			●			●	●
MDS-080AAS12 A	●	●		●			●			●	●
MDS-090AAS15 B	●	●		●			●			●	●
MDS-090AAS19 B	●	●		●			●			●	●
MDS-090AAS24 B	●	●		●			●			●	●
MDS-090BAS24 A	●	●		●			●			●	●
MDS-150AAS12 B	●	●		●			●			●	●
MDS-150AAS19 B	●	●		●			●			●	●
MDS-150AAS24 B	●	●		●			●			●	●
MDS-150CAB19	●	●		●			●			●	●

Notes

Warranty

Delta warrants that the products (“Products”) sold in this catalog will be free of defects in material and workmanship within the warranty period. The warranty does not apply to Products which have been subjected to abuse, misuse, accident, neglect, unauthorized and/or improper installation, operation, use, maintenance, repair or alteration, or accident of unusual deterioration or degradation of the Products or parts thereof due to physical environment beyond the requirements of the Product specifications.

Attention

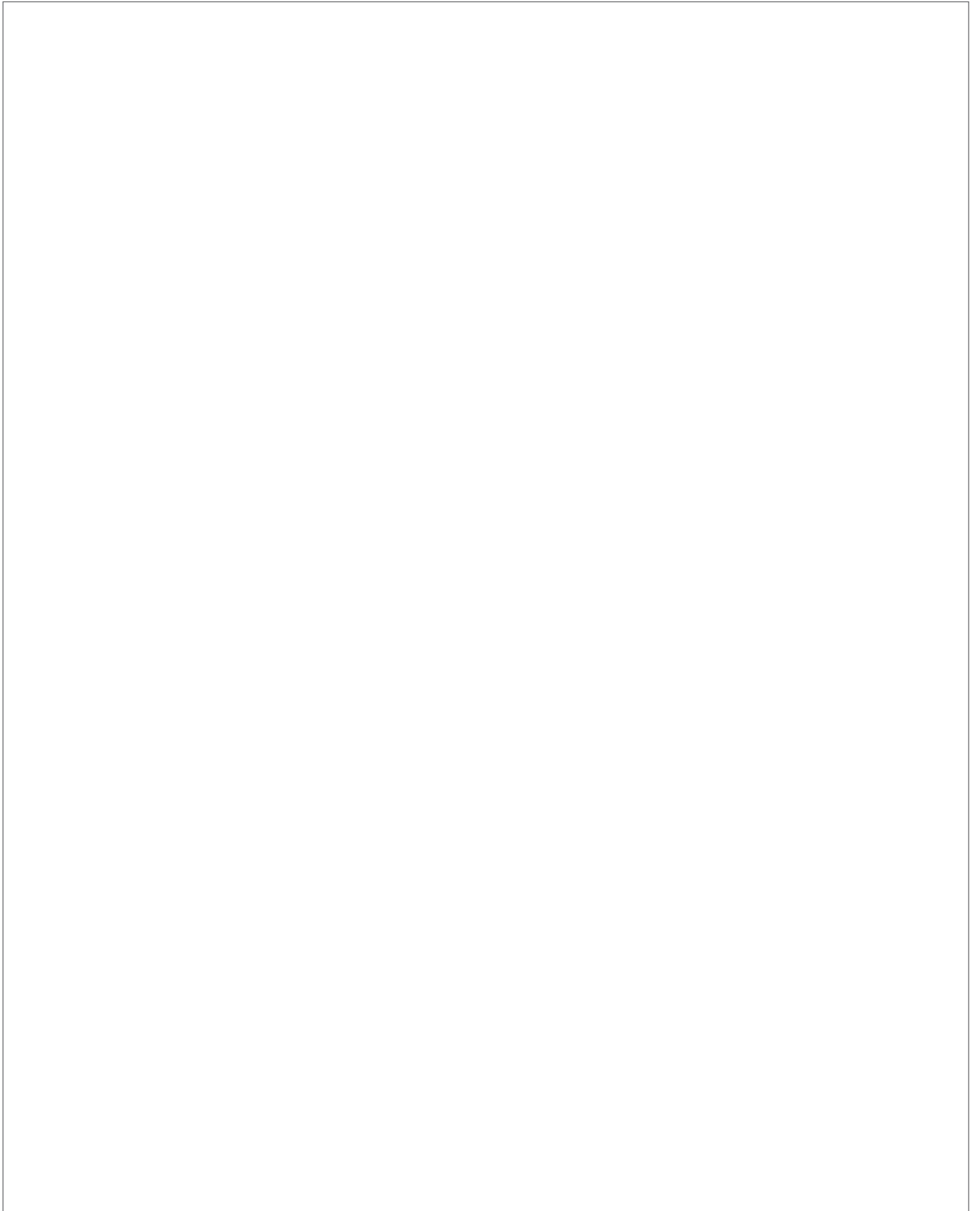
- Delta will do our utmost in ensuring the accuracy of all information provided in the catalog and datasheets that are officially released and published. However, there may be instance where discrepancy occurs between the catalog and the datasheets. When such case happens, kindly refer to **www.DeltaPSU.com** for the latest catalog and datasheets or the datasheets shall take precedence over the catalog information.
- In our constant pursuit for product and quality excellence to fulfill market and customer demands, Delta shall reserve the rights to revise and update any information in this catalog without prior notification.

EMC Directives

At Delta, all of our products are designed to meet the highest quality standards. All national and international safety certifications including EMC directives are conducted by qualified and independent laboratories. For EMC directives’ compliance, the power supplies are tested to ensure compliance as a stand-alone product. Power supplies like the open frame and adapter types are typically considered component power supply. Therefore, Delta cannot guarantee the system which is installed with Delta’s component power supply can meet the related EMC directives. Customers are advised to contact the system manufacturer for confirmation.

Availability

Products with “New” tab are slated for official release with immediate effect, while products with “Coming Soon” tab will be available within the next two months from this catalog’s publication month (Refer to cover page). Kindly contact your local Delta distributor for availability, ordering and delivery details. You may also get in touch with us via the Feedback Form on **www.deltapsu.com/feedback**.



Smarter. Greener. Together.



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