



# Medical Power Supply

Provide customers with reliable power products and services globally



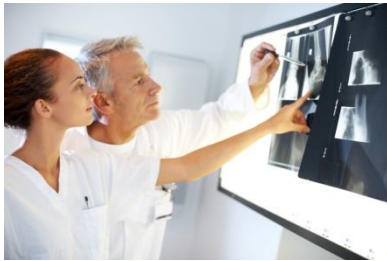
[www.DeltaPSU.com](http://www.DeltaPSU.com)



## Features and Advantages

- Low earth leakage current (<0.1mA)
- IT and medical safety approvals
- Compliant to IEC 60601-1 3rd edition
- Risk management report available
- 2 x MOPP (means of patient protection)
- Overload, over voltage, over temperature and short circuit protections
- RoHS compliance

## Applications



- Nursing cart
- In-Vitro diagnostic equipment
- Medical monitor
- Dental equipment
- Ultrasound equipment
- CPAP/ Sleep therapy
- Patient monitor
- ECG/EKG
- Ophthalmology equipment
- Healthcare information systems

# Medical Power Supply

As part of its on-going mission to provide high quality, and reliable power supplies for healthcare and medical applications. Delta Medical Power Solutions is pleased to announce a new series of AC adapter and open-frame models for these applications.

Developed and produced to meet Delta's rigorous DFX (Design For Excellence) process, these designs will provide the robustness, quality and performance that your medical and healthcare products demand.

## External Power Supply



## Open Frame Power Supply



## Model Numbering

<b>MDS</b>	<b>100</b>	<b>A</b>	<b>A</b>	<b>S</b>	<b>12</b>	<b>B</b>	<b>A</b>
Delta Medical Power Supply	Max wattage in the product Series. May be lower at some voltage. 100 for 100W 120 for 120W 1K2 for 1,200W	Family Code From A to Z	Product Type A: Adapter P: Open Frame L: L Frame U: U Frame C: Metal Case F: With Fan	Output Code S: Single Output 2: Dual Output 3: Triple Output 4: Four Output 5: More than Four Output	Output Voltage Single Output: - 03 for 3.3V - 05 for 5V - 12 for 12V Multiple Output: Serial Number 00 to 99	Input Connector code <b>Adapter</b> B: Socket C14 / 3 Pin D: Socket C6 / 3 Pin <b>Open Frame</b> A: Class II, STD Connector B: Class I, STD Connector	Output Connector code <b>Adapter</b> A: 4 pin DIN/1200mm B: 4 pin DIN/1800mm E: Barrel type 5.5*2.5 <b>Open Frame</b> A: STD Connector

## Certificate



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 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 IEC62368-1. Delta also has participated UL Client Test Data Program (CDTP) for IEC 60601.

# 40W Open Frame Power Supply

## 12/15/18/24V Single Output / MDS 040APS Series

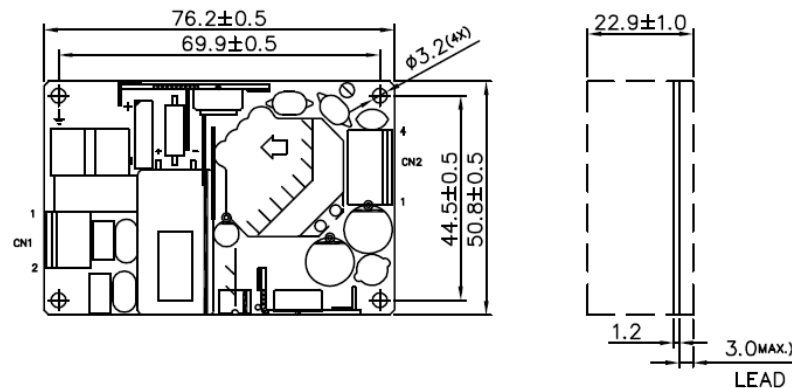


### Technical Data

	040APS12	040APS15	040APS18	040APS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	3.3A	2.7A	2.2A	1.7A
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz			
Dimensions (WxLxH)	50.8x76.2x22.9 mm (2.0x3.0x0.9 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			

- Efficiency > 84%
- Standby power < 0.3W
- Compact size: 2"x3"
- Weight: 0.08kg
- Oper. Temp: -10 to 50°C @ max load  
up to 70°C with load de-rating

\*SFC: single fault condition



# 65W Open Frame Power Supply

## 12/15/18/24V Single Output / MDS 065APS Series



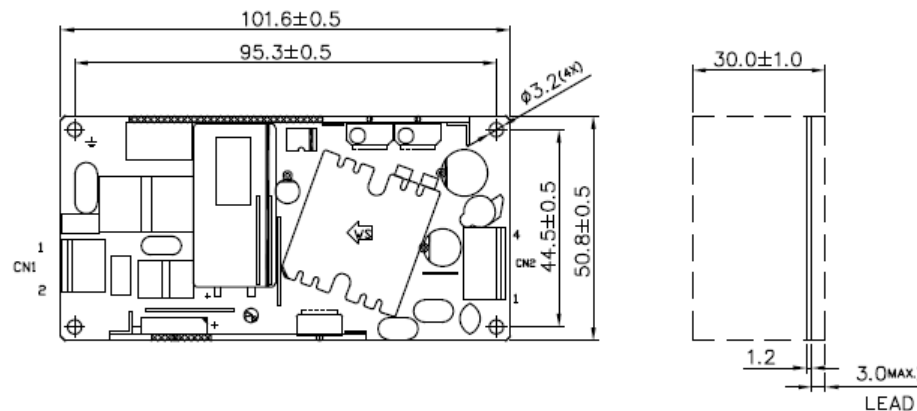
- Efficiency > 85%
- Standby power < 0.3W
- Compact size: 2"x4"
- Weight: 0.13kg
- Oper. Temp: -10 to 50°C @ max load up to 70°C with load de-rating



### Technical Data

	065APS12	065APS15	065APS18	065APS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	5.0A	4.2A	3.6A	2.7A
Output Power	60W	63W	65W	65W
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz			
Dimensions (WxLxH)	50.8x101.6x30 mm(2.0x4.0x1.2 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			

\*SFC: single fault condition



# 100W Open Frame Power Supply

## 12/15/18/24V Single Output / MDS 100APS Series



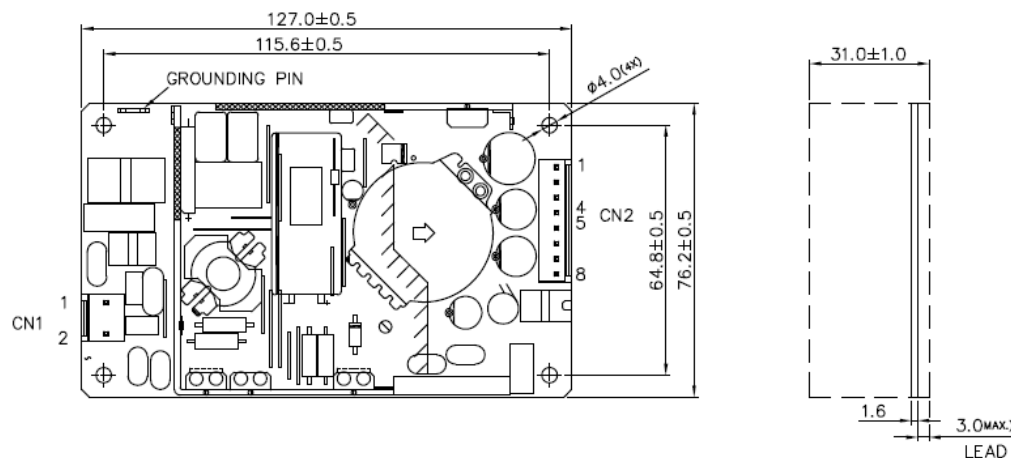
- Efficiency > 88%
- Standby power < 0.3W
- Weight: 0.21kg
- Oper. Temp: -10 to 50°C @ max load  
up to 70°C with load de-rating



### Technical Data

	100APS12	100APS15	100APS18	100APS24
Output Voltage	12V	15V	18V	24V
Output Current (Max)	8.3A	6.7A	5.6A	4.2A
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz			
Dimensions (WxLxH)	76.2x127.0x31.0 mm(3.0x5.0x1.2 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			

\*SFC: single fault condition



# 100W Open Frame Power Supply

## 12/15/18/24V Single Output / MDS 100BPS Series



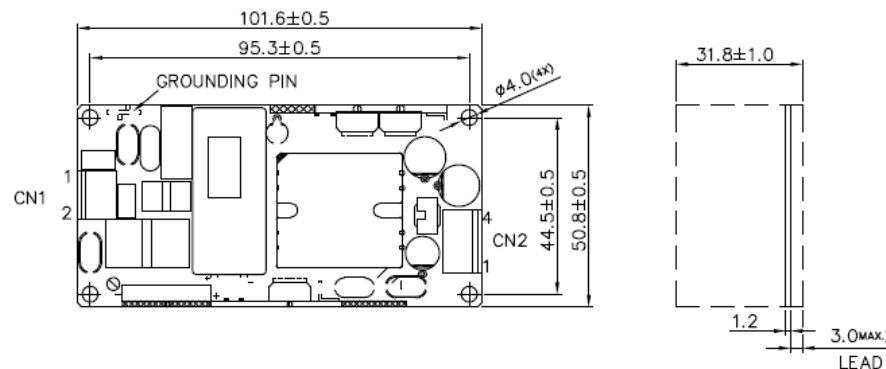
- Efficiency > 85%
  - Standby power < 0.3W
  - Compact size : 2"x4"
  - Weight: 0.15kg
  - Oper. Temp: -10 to 50°C @ max load up to 70°C with load de-rating
- \*SFC: single fault condition

### Technical Data

	100BPS12	100BPS15	100BPS18	100BPS24
Output Voltage	12V	15V	18V	24V
Output Current (Max) with 10CFM forced air	8.3A	6.7A	5.6A	4.2A
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±1%			
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz			
Dimensions (WxLxH)	50.8x101.6x31.0 mm(2.0x4.0x1.2 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			



12/24V available for sale by July 2013  
 15/18V available for sale by Oct 2013



# 400W Open Frame Power Supply

## 19/24V Single Output / MDS 400AUS Series

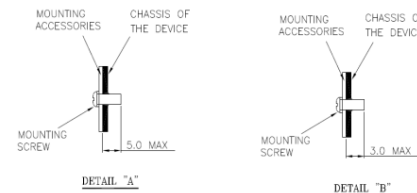
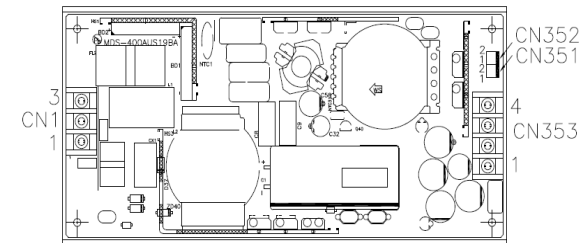
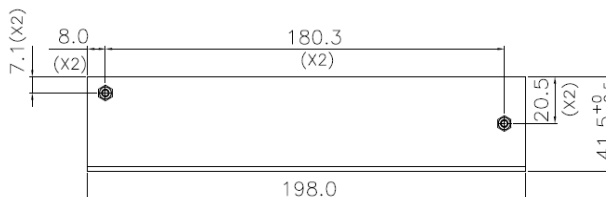
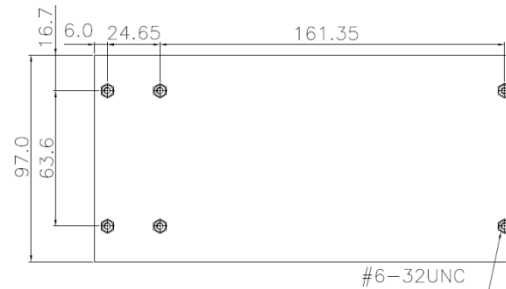


### Technical Data

	400AUS19	400AUS24
Output Voltage	19V	24V
Output Current (Max)	21.1A	16.7A
Input Voltage Range	90-264Vac, 47-63Hz	
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)	
Total Regulation	±2%	
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz	
Dimensions (WxLxH)	97.0x198.0x41.5 mm(3.8x7.8x1.6 in)	
EMC & Emissions	EN55011&EN55022&FCC conducted & radiated class B	

\*SFC: single fault condition

- Efficiency > 88%
- Remote sense
- Weight: 0.89kg
- Oper. Temp: -10 to 50°C @ max load up to 70°C with load de-rating





# 60W External Power Supply

## 12/15/19/24V Single Output / MDS 060AAS Series



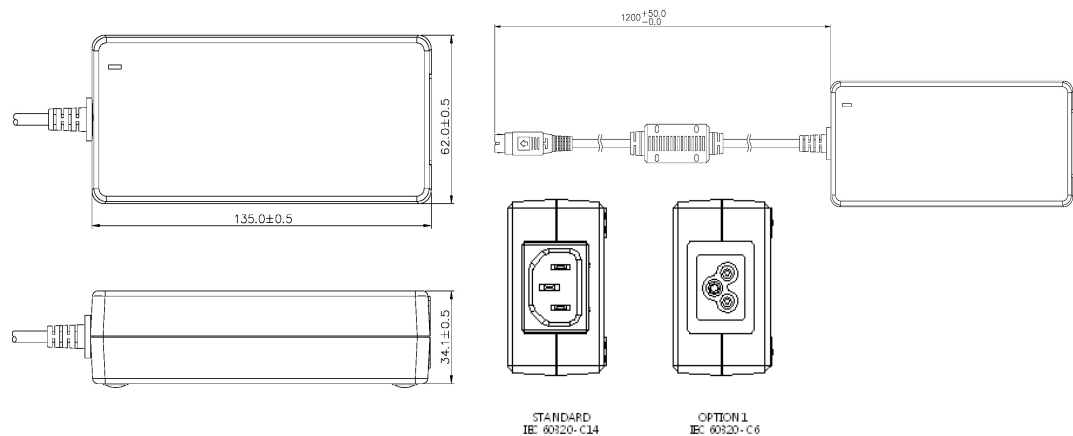
- Energy star Level V
- Standby power <0.5W
- Weight: 0.36kg
- Operating temperature: 0 to 40°C



### Technical Data

	060AAS12	060AAS15	060AAS19	060AAS24
Output Voltage	12V	15V	19V	24V
Output Current (Max)	5.0A	4.0A	3.2A	2.5A
Input Voltage Range	90-264Vac, 47-63Hz			
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)			
Load Regulation	±5%			
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz			
Dimensions (WxLxH)	62.0x135.0x34.1 mm(2.4x5.3x1.3 in)			
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B			

\*SFC: single fault condition



# 90W External Power Supply

## 15/19/24V Single Output / MDS 090AAS Series



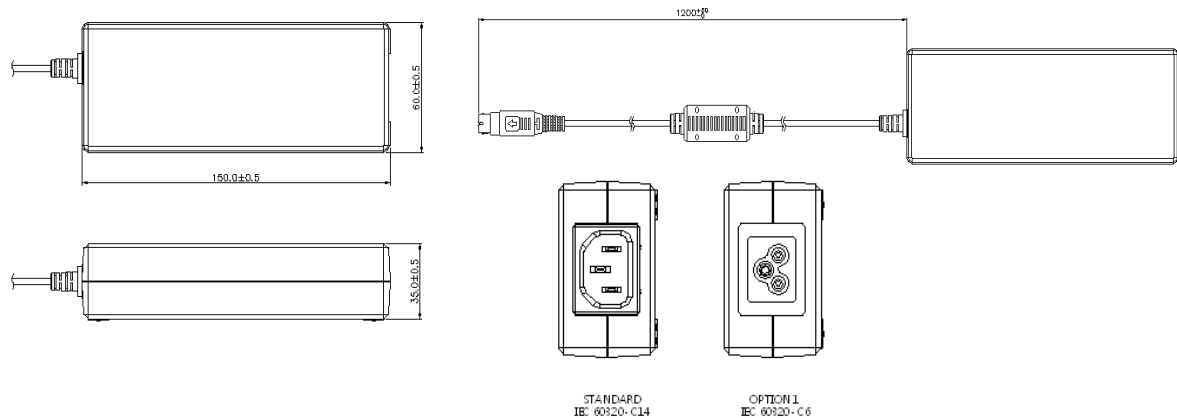
- Energy star Level V
- Standby power <0.5W
- Weight: 0.45kg
- Operating temperature :0 to 40°C



### Technical Data

	090AAS15	090AAS19	090AAS24
Output Voltage	15V	19V	24V
Output Current (Max)	6.0A	4.7A	3.8A
Input Voltage Range	90-264Vac, 47-63Hz		
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)		
Load Regulation	±5%		
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz		
Dimensions (WxLxH)	60.0x150.0x35.0 mm(2.4x5.9x1.4 in)		
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B		

\*SFC: single fault condition



# 150W External Power Supply

## 12/19/24V Single Output / MDS 150AAS Series



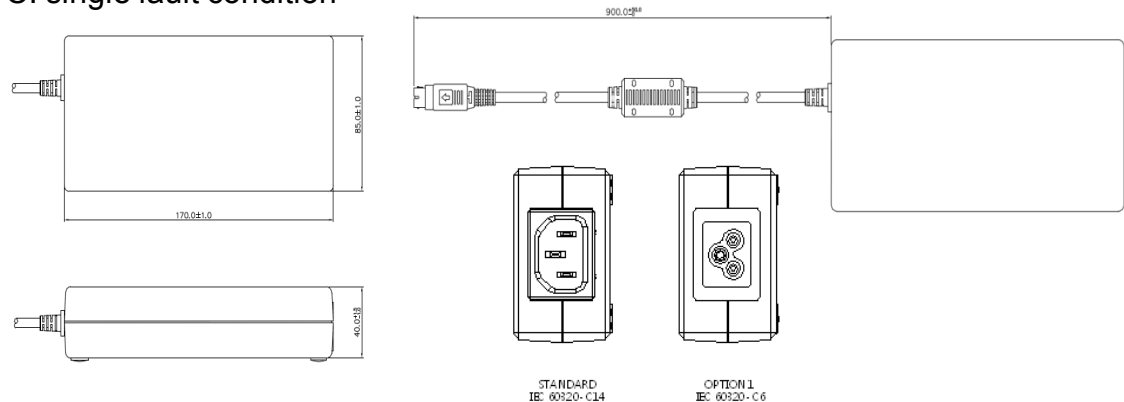
- Energy star Level V
- Standby power <0.5W
- Weight: 1.1kg
- Operating temperature :0 to 40°C



### Technical Data

	150AAS12	150AAS19	150AAS24
Output Voltage	12V	19V	24V
Output Current (Max)	10A	7.9A	6.3A
Output Power	120W	150W	150W
Input Voltage Range	90-264Vac, 47-63Hz		
Ripple & Noise	<1% (25°C at 10uF/0.47uF with 20MHz bandwidth)		
Load Regulation	±5%		
Earth Leakage Current	<0.1mA normal condition, <0.3mA SFC* at 264Vac/63Hz		
Dimensions (WxLxH)	85.0x170.0x40.0 mm(3.3x6.7x1.6 in)		
EMC & Emissions	EN55011 & EN55022 & FCC conducted & radiated class B		

\*SFC: single fault condition





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April 2013 – All information and specifications are subjected to change without prior notice.