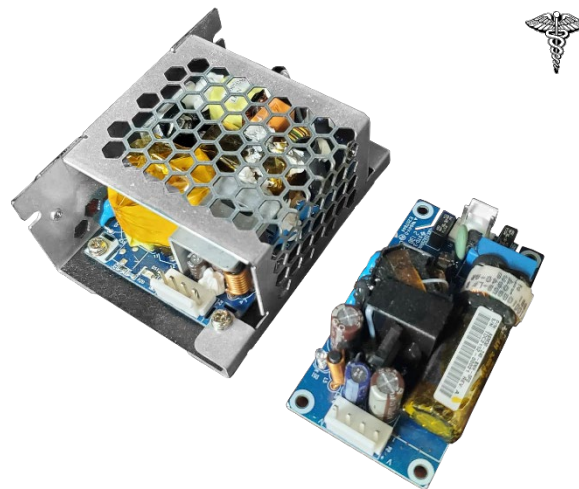


# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

The Astrodyne TDI ASM65 series of Switching Power Supplies are designed for medical and industrial applications. These products operate over the input voltage range of 80 to 264 VAC and 50/60Hz frequency and produce up to 65 Watts of regulated DC output. They have safety certification to IEC60601 for use across a wide variety of medical applications, including those within the home. They are compliant with the latest DoE Efficiency Level VI; IEC 60601-1-1, 3rd Edition, Amendment 1, IEC62368-1 and IEC 60950-1 safety; and IEC 60601-1-2, 4th Edition, Class B EMC standards.



### HOW TO ORDER

ASM65-050-BNH-0F0

PACKAGE = BEH = ENCLOSED W/HEADERS  
 BET = ENCLOSED W/TERMINAL BLOCKS  
 BNH = OPEN FRAME W/HEADERS

VOLTAGE = 050 = 5VDC  
 075 = 7.5VDC  
 090 = 9VDC  
 120 = 12VDC  
 150 = 15VDC  
 180 = 18VDC  
 240 = 24VDC  
 280 = 28VDC  
 360 = 36VDC  
 480 = 48VDC

OUTPUT POWER: 65W  
 FAMILY: ASM SERIES

### FEATURES

**UNIVERSAL AC INPUT**

80-264 VAC Input, 50/60 Hz

**OUTPUT RANGE**

100-240VAC rated  
 80-264VAC tested

**OPERATING TEMPERATURE**

-30 to +50°C at Full Load

**ISOLATED OUTPUT**

4000 VAC, 2 MOPP

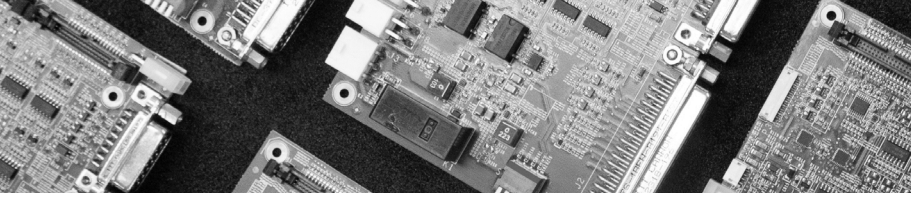
**PACKAGE TYPES**

Open Frame, Enclosed

**SAFETY APPROVALS**

Safety: Medical IEC 60601-1-1 3rd Ed, Amend 1; IEC62368-1 and IEC60950-1(I.T.E.)  
 EMC: Medical IEC 60601-1-2 4th Ed, Class B

BF Leakage, 2 MOPP  
 Class I and Class II Applications  
 DoE Efficiency Level VI, RoHS-compliant



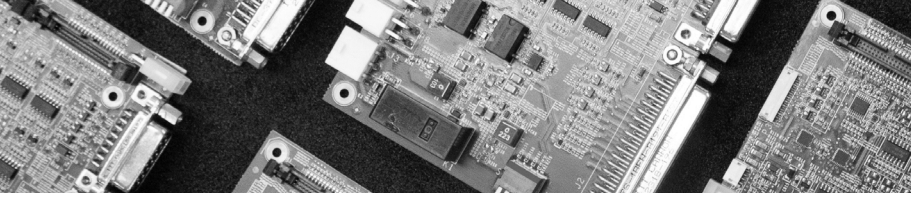
# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### PARAMETERS

### ASM65

<b>Input Voltage Range</b>	100-240VAC rated 80-264VAC tested
<b>Input Frequency</b>	47-63 Hz (50/60 Hz nom.)
<b>Input Current (rated)</b>	1.7A max at 100VAC 0.8A max at 240VAC
<b>Input to Earth Leakage</b>	50uA max at 264VAC, 50 Hz
<b>Input to Output Leakage</b>	67uA typ, 100uA max at 264VAC, 50Hz
<b>Output Voltage</b>	See selection chart
<b>Output Power</b>	65W max
<b>Minimum Output Load</b>	20% for ea. output (ASM65D) no minimum for ASM65
<b>No Load Power</b>	100mW typ, 210mW max
<b>Set Point Accuracy</b>	±2% max, Vout < 12V ±1% max, Vout ≥ 12V
<b>Load Regulation</b>	±2% max, Vout < 12V ±1% max, Vout ≥ 12V
<b>Line Regulation</b>	±0.5% max
<b>Efficiency</b>	See selection chart
<b>Over Voltage Protection*</b>	110 to 135% Vout, recycle power to reset
<b>Overload Protection*</b>	110 to 160% x Rated Power, Auto Recovery
<b>Short Circuit Protection*</b>	Auto Recovery
<b>Temperature Coefficient</b>	±0.04%/°C
<b>Hold-up Time, full load</b>	30ms typ, 230VAC 12ms typ, 115VAC
<b>Ripple/Noise</b>	200mV pk-pk max, Vout < 12V 1% pk-pk max, Vout ≥ 12V
<b>Input to Output</b>	4000 VAC, 2 MOPP
<b>Input to Earth</b>	1500 VAC, 1 MOPP
<b>Output to Earth</b>	1500 VAC
<i>All Specifications are typical at nominal input, full load, 25°C unless specified otherwise.</i>	



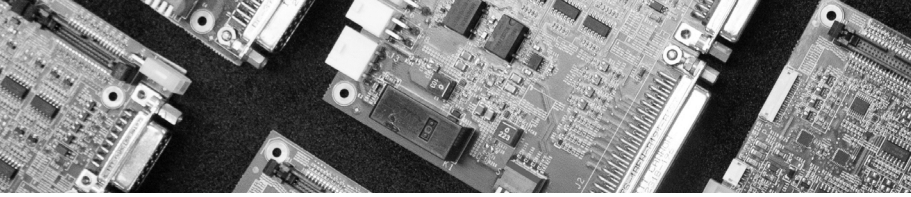
# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### PARAMETERS

### ASM65

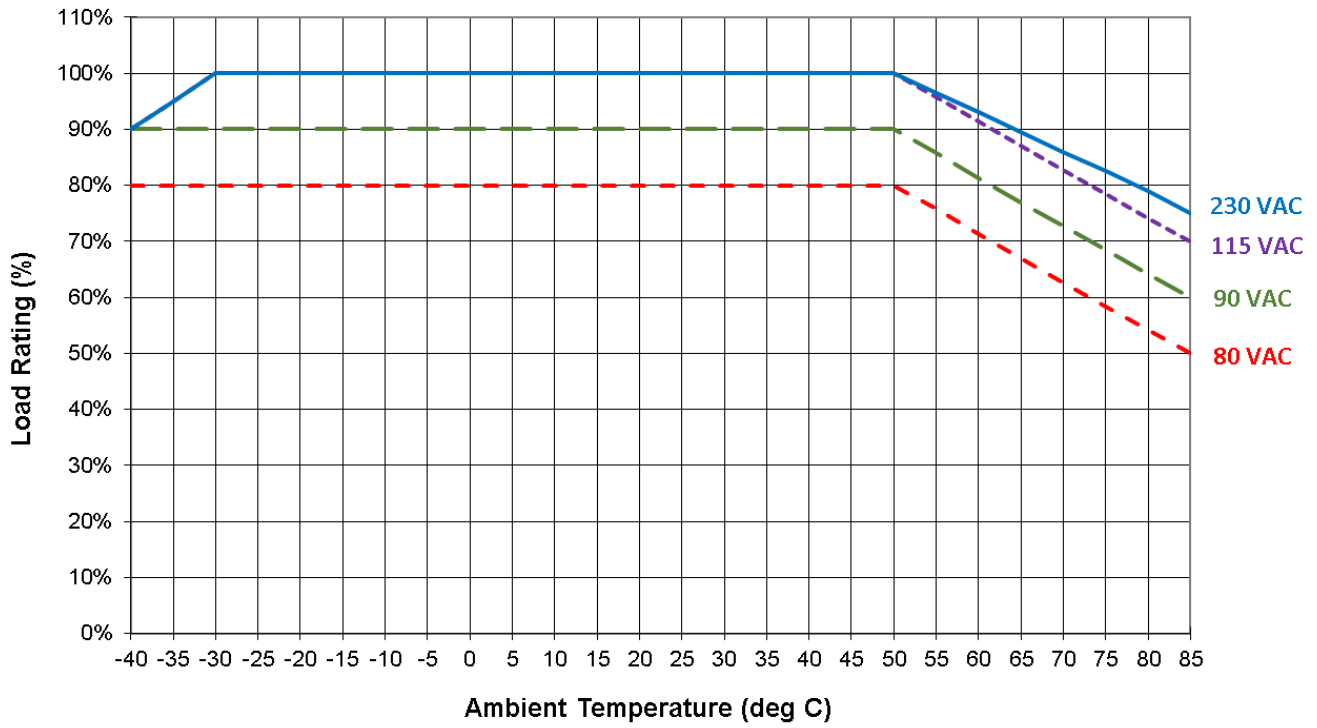
<b>Safety Approvals (Pending)</b>	IEC 60601-1 3 <sup>rd</sup> Ed, Amend 1, IEC 62368-1 and IEC 60950-1: cTUVus, CSA C22.2, CB Scheme
<b>EMC Overall</b>	EN60601-1-2, 4 <sup>th</sup> Ed, Class B
<b>Conducted and Radiated Emissions</b>	EN 55011 (CISPR11), Class B
<b>Harmonic Current</b>	EN 61000-3-2, Class A
<b>Voltage Fluctuations</b>	EN 61000-3-3
<b>ESD Immunity</b>	EN 61000-4-2, Level 4
<b>RF Field Immunity</b>	EN 61000-4-3, Level 3
<b>EFT Burst Immunity</b>	EN 61000-4-4, Level 3
<b>Surge Immunity</b>	EN 61000-4-5, Level 3
<b>Conducted Immunity</b>	EN 61000-4-6, Level 3
<b>Magnet Field Immunity</b>	EN 61000-4-8, Level 4
<b>Voltage Dips and Interruptions</b>	EN 61000-4-11
<b>Package Types</b>	Open Frame, Enclosed
<b>Size **</b>	3" x 2" x 1.07" 76.2 x 50.8 x 27.1 mm
<b>Weight</b>	3.88oz / 110g Open frame 6.35oz / 180g Enclosed
<b>** Open frame; see Outline Drawings for enclosed</b>	
<b>Operating Temperature</b>	-30 to +50°C at Full Load, -40 to +85°C with Derating See derating charts
<b>Cooling</b>	Free Air Convection
<b>Storage Temperature*</b>	-40 to +85°C
<b>Operating Humidity*</b>	0% to 95%, non-condensing
<b>Operating Altitude</b>	3000m max
<b>* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Operation under conditions other than the standard operating conditions is neither warranted nor implied.</b>	

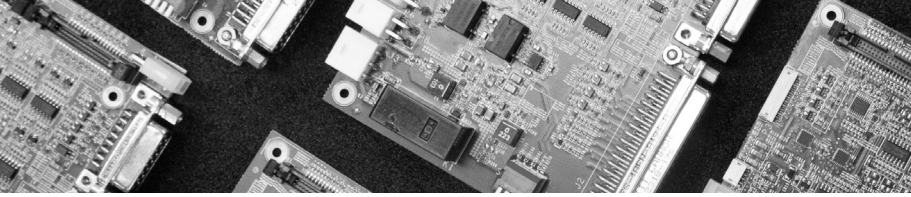


# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### THERMAL PERFORMANCE

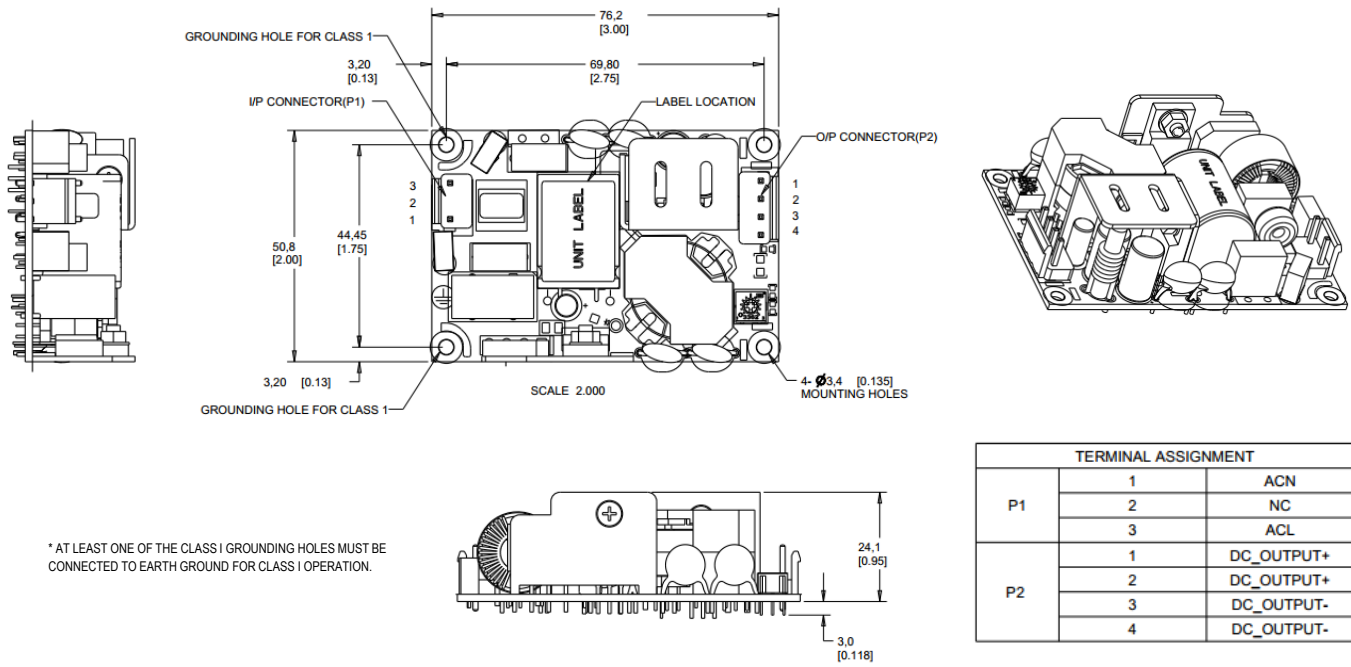




# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### OPEN FRAME WITH HEADERS – ASM65-XXX-BNH-ZZZ

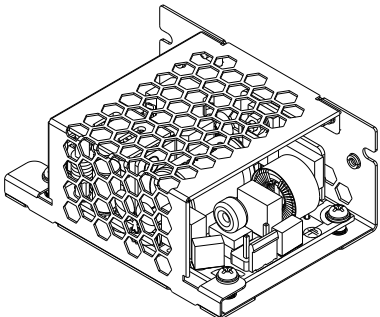
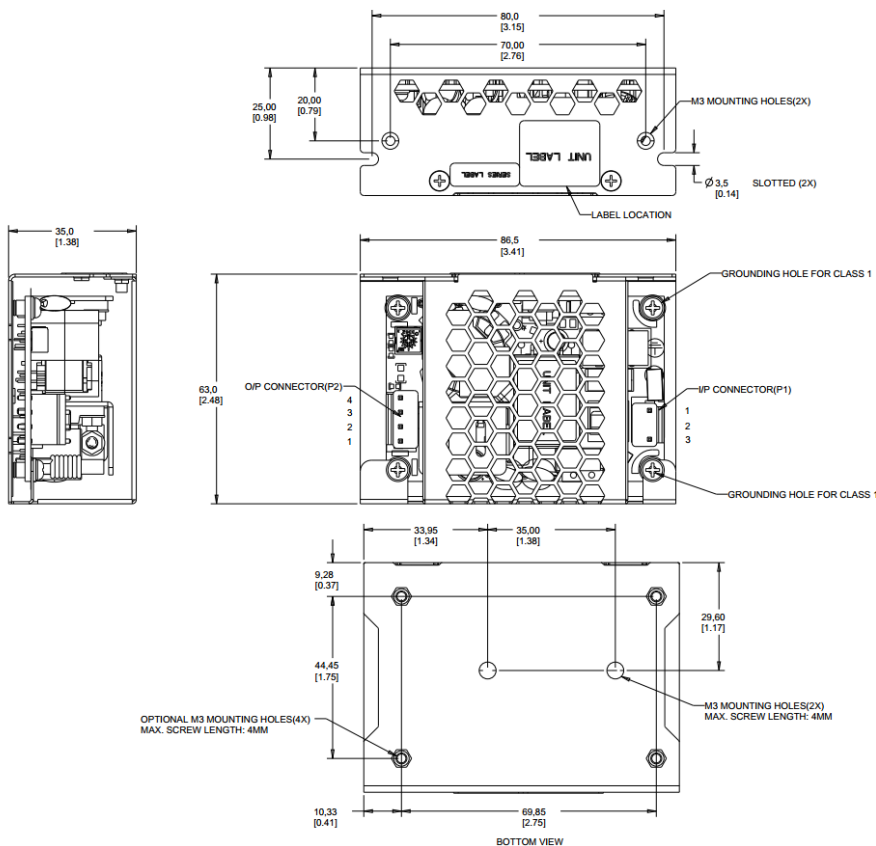


MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	EFFICIENCY
ASM65-050-BNH-0F0	40W	5VDC	10.0A	83%
ASM65-075-BNH-0F0	50W	7.5VDC	8.67A	86%
ASM65-090-BNH-0F0	55W	9VDC	7.22A	87%
ASM65-120-BNH-0F0	65W	12VDC	5.42A	88%
ASM65-150-BNH-0F0	65W	15VDC	4.33A	88%
ASM65-180-BNH-0F0	65W	18VDC	3.61A	88%
ASM65-240-BNH-0F0	65W	24VDC	2.71A	88%
ASM65-280-BNH-0F0	65W	28VDC	2.32A	88%
ASM65-360-BNH-0F0	65W	36VDC	1.81A	88%
ASM65-480-BNH-0F0	65W	48VDC	1.35A	88%

# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### ENCLOSED WITH HEADERS – ASM65-XXX-BEH-ZZZ



TERMINAL ASSIGNMENT		
P1	1	ACN
	2	NC
	3	ACL
P2	1	DC_OUTPUT+
	2	DC_OUTPUT+
	3	DC_OUTPUT-
	4	DC_OUTPUT-

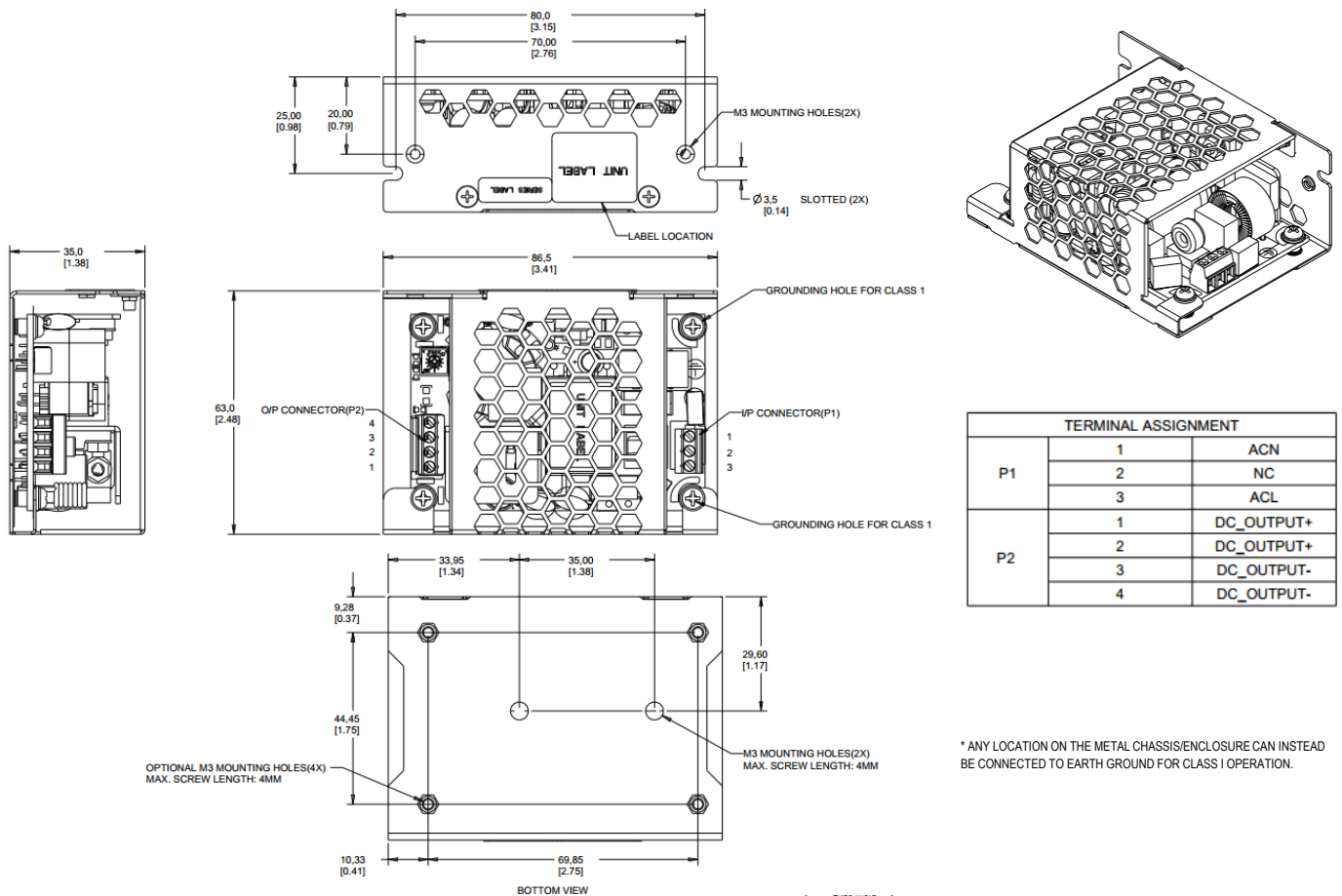
\* ANY LOCATION ON THE METAL CHASSIS/ENCLOSURE CAN INSTEAD BE CONNECTED TO EARTH GROUND FOR CLASS I OPERATION.

MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	EFFICIENCY
ASM65-050-BEH-0F0	40W	5VDC	10.0A	83%
ASM65-075-BEH-0F0	50W	7.5VDC	8.67A	86%
ASM65-090-BEH-0F0	55W	9VDC	7.22A	87%
ASM65-120-BEH-0F0	65W	12VDC	5.42A	88%
ASM65-150-BEH-0F0	65W	15VDC	4.33A	88%
ASM65-180-BEH-0F0	65W	18VDC	3.61A	88%
ASM65-240-BEH-0F0	65W	24VDC	2.71A	88%
ASM65-280-BEH-0F0	65W	28VDC	2.32A	88%
ASM65-360-BEH-0F0	65W	36VDC	1.81A	88%
ASM65-480-BEH-0F0	65W	48VDC	1.35A	88%

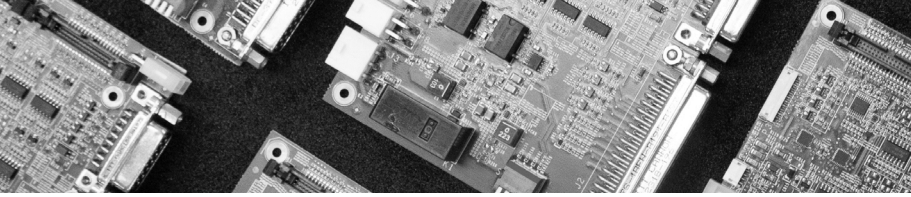
# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### ENCLOSED WITH TERMINAL BLOCKS- ASM65-XXX-BET-ZZZ



MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	EFFICIENCY
ASM65-050-BET-0F0	40W	5VDC	10.0A	83%
ASM65-075-BET-0F0	50W	7.5VDC	8.67A	86%
ASM65-090-BET-0F0	55W	9VDC	7.22A	87%
ASM65-120-BET-0F0	65W	12VDC	5.42A	88%
ASM65-150-BET-0F0	65W	15VDC	4.33A	88%
ASM65-180-BET-0F0	65W	18VDC	3.61A	88%
ASM65-240-BET-0F0	65W	24VDC	2.71A	88%
ASM65-280-BET-0F0	65W	28VDC	2.32A	88%
ASM65-360-BET-0F0	65W	36VDC	1.81A	88%
ASM65-480-BET-0F0	65W	48VDC	1.35A	88%



# ASM65

## 65W MEDICAL AND INDUSTRIAL POWER SUPPLY

### CONNECTOR INFORMATION

#### AC Input Connector (P1):

PCB Header	Mating Housing and equivalents	Terminal Contacts and equivalents
CviLux CI5203P1V00	CviLux CI5203S000M or JST VHR-3N	CviLux CI52T031BE0 (AWG# 18~22) or JST SVH-21T-P1.1 (AWG# 18~22)

#### DC Output Connector (P2):

PCB Header	Mating Housing and equivalents	Terminal Contacts and equivalents
CviLux CI5204P1V00	CviLux CI5204S000M or JST VHR-4N	CviLux CI52T031BE0 (AWG# 18~22) or JST SVH-21T-P1.1 (AWG# 18~22)