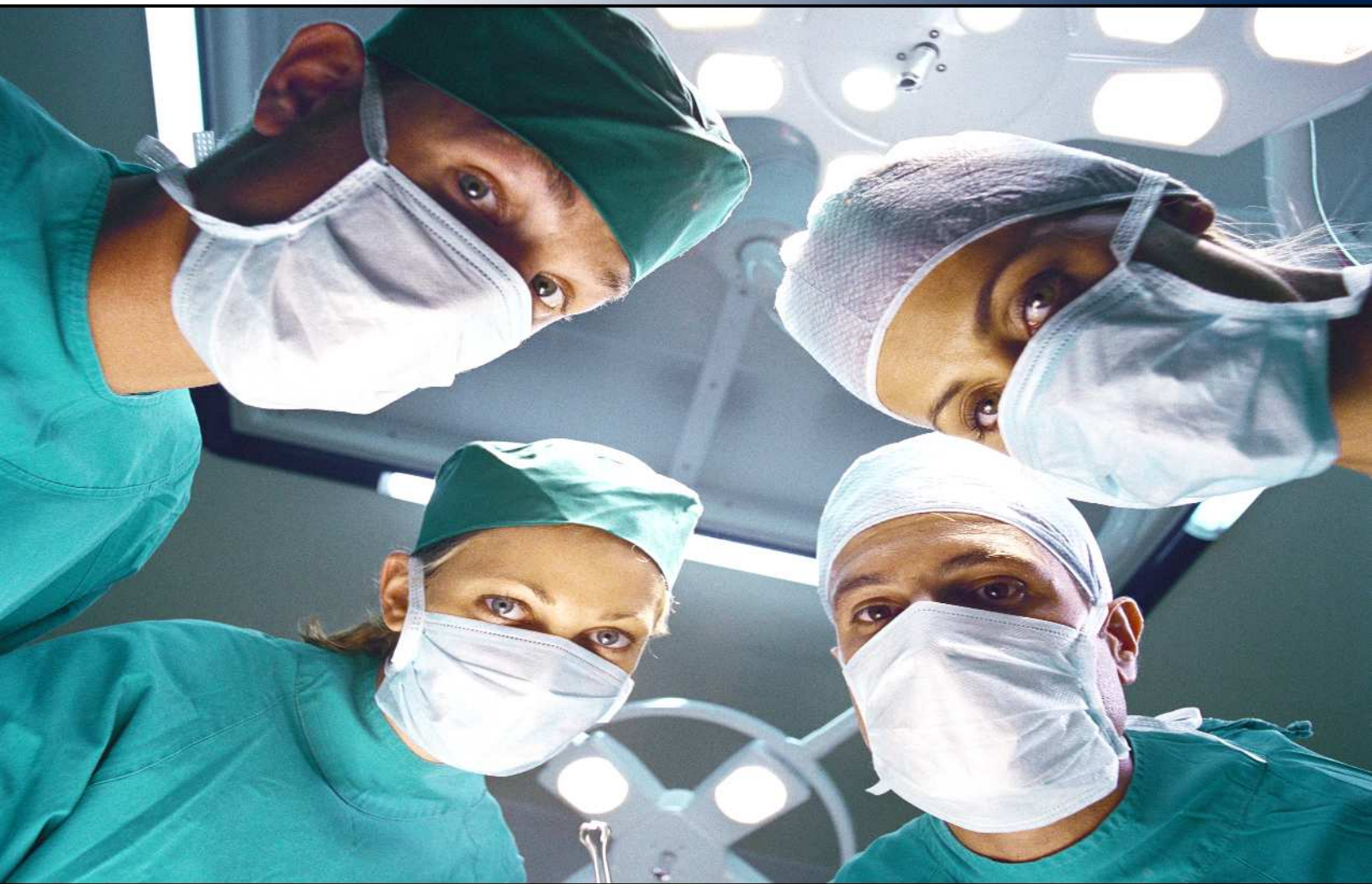


# ***MEDICAL POWER PRODUCTS***



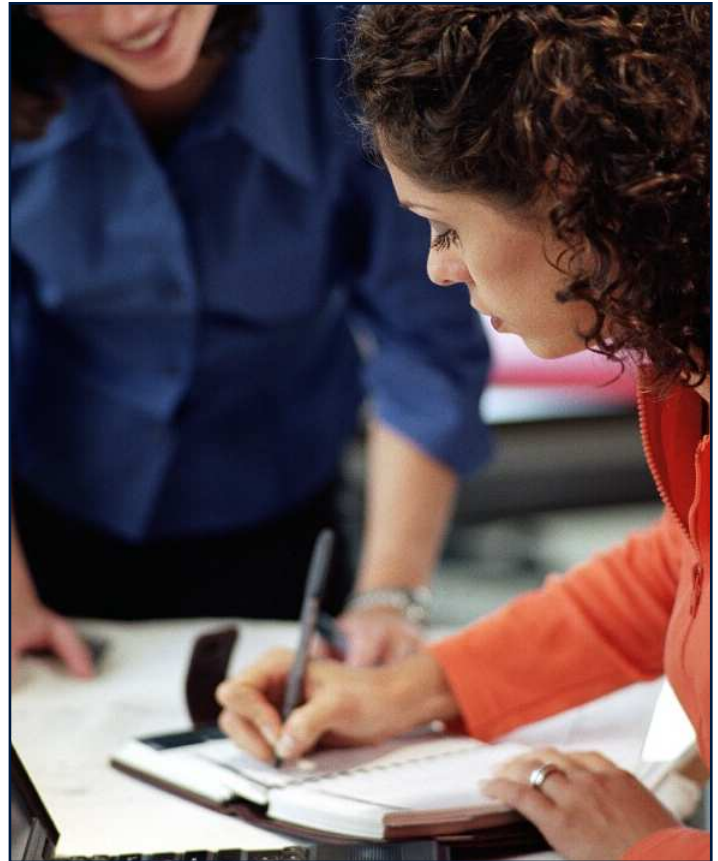
***Solutions for medical electronics***



TDK-Lambda is a world class leader in the design, manufacture and marketing of power supplies to the Industrial, Telecom, Datacom, Medical and Test and Measurement sectors. Founded in 1948 we have developed a worldwide reputation and heritage for high quality, robust power supplies.

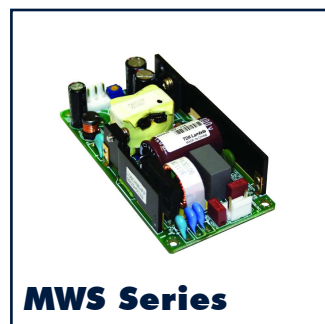
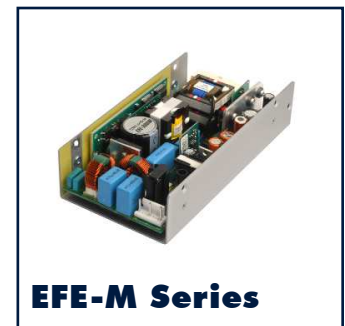
**One thing** has remained consistent over the last half century though, the need for change.

- ◆ As our Customer's product requirements become more diverse, we responded by broadening our product range from low cost 5W open frame **AC-DC** power supplies to 7,500W hot swap units.
- ◆ We developed a large **DC-DC converter** portfolio to power many applications in the recent growth of communications, and we continue to launch leading edge products to support that market.
- ◆ The need for fast customization has been met by our **New York Custom Product Solutions** Engineering Team. A wide variety of products can be developed, ranging from simple modifications, value added solutions, or complete 'ground up' custom products.



- ◆ Not all of our Customer needs are product based though. **Financial stability** and the resources to continue to invest even in down markets, play a key factor in partner selection. Backed by the resources of a multi billion dollar company, we have increased our R&D and capital expenditures to offer our customers the latest in leading edge technologies.
- ◆ The end products that use TDK-Lambda power supplies are often designed on one continent and built in another. We can truly provide that **global support** with nine manufacturing sites, eight R&D facilities, sales and service offices across the world, and our authorized distribution network.
- ◆ The desire for **information** - 24/7. Our web site has a huge library of data, from legacy products that were designed decades ago to the latest generation products.
- ◆ As we launch new products, our printed catalog quickly becomes outdated. We encourage you to **check** for updates through our website [us.tdk-lambda.com/lp](http://us.tdk-lambda.com/lp)

Series	# of Outputs	Output Power (W)								
		10	15	30	50	100	300	500	1000	1500
KM	1 - 3									
CSS	1									
NV-175, NV175M, NVM175	1 - 5									
EFE300/400M	1									
NV300	1 - 5									
NV350/700	1 - 8									
Vega	1 - 10									
Alpha	1 - 14									
SWS1000L	1									
HWS/ME	1									
MWS	1									
CFE400M	1									



# KM Series

## 15 to 40W AC-DC PCB Mount Power Supplies

- ◆ Universal Input 90 - 264VAC
- ◆ 3.3V to 24V, single, dual or triple output
- ◆ 4,000VAC Input to Output Isolation
- ◆ Class II (No ground needed)
- ◆ Small size (KM15: 2.5 x 1.8 x 0.92", KM40: 3.5 x 2.5 x 1.06")
- ◆ UL60601-1, IEC60601-1
- ◆ 100uA leakage current at 115VAC



Model	Output Voltage	Minimum Current	Maximum Current	Output Voltage	Minimum Current	Maximum Current	Output Voltage	Minimum Current	Maximum Current	Power
<b>Single Output</b>										
	V1	V1	V1	V2	V2	V2	V3	V3	V3	
KMS15-3P3	3.3V	0A	3.00A	-	-	-	-	-	-	9.9W
KMS40-3P3	3.3V	80mA	8.00A	-	-	-	-	-	-	26.4W
KMS15-5	5V	0A	3.00A	-	-	-	-	-	-	15W
KMS40-5	5V	80mA	8.00A	-	-	-	-	-	-	40W
KMS15-9	9V	0A	1.67A	-	-	-	-	-	-	15W
KMS40-9	9V	44mA	4.44A	-	-	-	-	-	-	40W
KMS15-12	12V	0A	1.25A	-	-	-	-	-	-	15W
KMS40-12	12V	33mA	3.33A	-	-	-	-	-	-	40W
KMS15-15	15V	0A	1.00A	-	-	-	-	-	-	15W
KMS40-15	15V	26.7mA	2.67A	-	-	-	-	-	-	40W
KMS15-24	24V	0A	0.62A	-	-	-	-	-	-	15W
KMS40-24	24V	16.7mA	1.67A	-	-	-	-	-	-	40W
<b>Dual Output</b>										
KMD15-55	+5V	150mA	1.5A	-5V	150mA	1.5A	-	-	-	15W
KMD40-55	+5V	400mA	4A	-5V	400mA	4A	-	-	-	40W
KMD40-512	5V	1250mA	5A	12V	312mA	1.25A	-	-	-	40W
KMD40-524	5V	1250mA	5A	24V	156mA	0.625A	-	-	-	40W
KMD15-1212	+12V	62.5mA	0.625A	-12V	62.5mA	0.625A	-	-	-	15W
KMD40-1212	+12V	166mA	1.66A	-12V	166mA	1.66A	-	-	-	40W
KMD15-1515	+15V	50mA	0.5A	-15V	50mA	0.5A	-	-	-	15W
KMD40-1515	+15V	133mA	1.33A	-15V	133mA	1.33A	-	-	-	40W
<b>Triple Output</b>										
KMT15-51212	5V	500mA	2A	+12V	50mA	0.2A	-12V	50mA	0.2A	15W
KMT40-51212	5V	1250mA	5A	+12V	150mA	0.6A	-12V	150mA	0.6A	40W
KMT15-51515	5V	500mA	2A	+15V	37.5mA	0.15A	-15V	37.5mA	0.15A	15W
KMT40-51515	5V	1250mA	5A	+15V	125mA	0.5A	-15V	125mA	0.5A	40W

See website datasheet for complete and latest product details. [us.tdk-lambda.com/lp/products/km-series.htm](http://us.tdk-lambda.com/lp/products/km-series.htm)

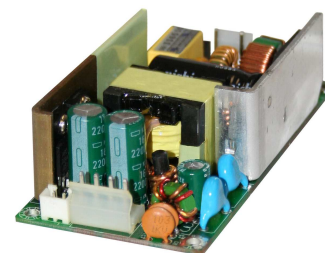
# CSS Series

## Single Output AC-DC Power Supplies

### CSS65 40W to 65W

- ◆ Universal Input 90 - 264VAC
- ◆ 5 to 48V Output
- ◆ 4000VAC Input to Output Isolation
- ◆ Industry Standard 2 x 4" footprint
- ◆ UL60601-1, IEC60601-1
- ◆ 115uA leakage at 120VAC

Model	Output Voltage	Maximum Input	Maximum Power
CSS65-5	5V	8A	40W
CSS65-12	12V	5A	60W
CSS65-15	15V	4A	60W
CSS65-19	19V	3.43A	65W
CSS65-24	24V	2.71A	65W
CSS65-36	36V	1.81A	65W
CSS65-48	48V	1.36A	65W



#### Additional Features

- ◆ Dual input fuses
- ◆ Remote sense

### CSS150; 100W convection, 150W with forced air

- ◆ Universal Input 90 - 264VAC
- ◆ 12 to 48V Output
- ◆ 4000VAC Input to Output Isolation
- ◆ Industry Standard 3 x 5" footprint
- ◆ UL60601-1, IEC60601-1
- ◆ 115uA leakage at 120VAC

Model	Output Voltage	Output Current	Maximum Power
CSS150-12	12V	8.3A	12.5A
CSS150-15	15V	6.7A	10A
CSS150-24	24V	4.2A	6.3A
CSS150-36	36V	2.8A	4.2A
CSS150-48	48V	2.1A	3.1A



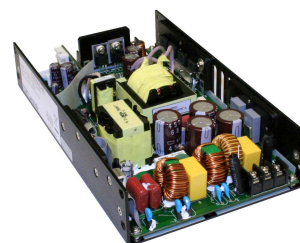
#### Additional Features

- ◆ Dual input fuses
- ◆ Remote On/Off

### CSS500; 360W convection, 500W with forced air (or internal fan)

- ◆ Universal Input 90 - 264VAC
- ◆ 12 to 48V Output
- ◆ 4000VAC Input to Output Isolation
- ◆ UL60601-1, IEC60601-1
- ◆ 137uA leakage at 120VAC

Model	Output Voltage	Output Current (Convection)	Output Current (Forced Air)
CSS500-12	12V	30A	41.67A
CSS500-24	24V	15A	20.84A
CSS500-30	30V	12A	16.67A
CSS500-36	36V	10A	13.89A
CSS500-48	48V	7.5A	10.42A
CSS500-54	54V	6.67A	9.26A
CSS500-57	57V	6.32A	8.78A



#### Additional Features

- ◆ Dual Input Fuses
- ◆ Remote On/Off
- ◆ 5V Standby Output
- ◆ ORing FET for redundancy
- ◆ 12V Fan Output
- ◆ U Channel or Enclosed with Fan

Options	
Blank	U channel
/S	End Fan
/T	Top Fan

See website datasheet for complete and latest product details.  
[us.tdk-lambda.com/lp/products/css-series.htm](http://us.tdk-lambda.com/lp/products/css-series.htm)

# NV175-M Series

## 180 to 200W AC-DC Configurable Power Supplies

- ◆ Universal Input 90 - 264VAC
- ◆ 3.3V to 24V, single dual or triple output
- ◆ 4,000VAC Input to Output Isolation (BF Rating on NVM175 series for 12V & 24V output models)
- ◆ Industry Standard 3 x 5" footprint
- ◆ High Efficiency - up to 90%
- ◆ Wide variety of output and enclosure options available
- ◆ UL60601-1, IEC60601-1
- ◆ 123uA leakage at 120VAC



Model	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current
	V1	V1	V2	V2	V3	V3
NV1-1T000-M	12V	15A	-	-	-	-
NV1-1G000-M	24V	7.5A	-	-	-	-
NV1-3G0TT-M	+24V	7.5A	+12V	5A	-12V	1A
NV1-3G0FF-M	+24V	7.5A	+15V	5A	-15V	1A

### Built to Order Model Selector

CH1	CH1 Code	Adjust. Range	CH2	CH3	CH3 Code	Adjust. Range	CH4	CH4 Code	Adjust. Range
+12V / 15A +15V / 12A +24V / 7.5A	T F G	12 - 15V (4) 12 - 15V (5) 24 - 28V (6)	Not available	+12V / 5A +15V / 5A +24V / 2.5A No output	T F G 0	12 - 15V 12 - 15V 18 - 24V -	-12V / 1A -15V / 1A +3.3V / 2A (7) +5V / 2A (7) -12V / 2A (7) -15V / 2A (7) Fan Supply only No output	T F 3HP 5HP TH FH OH 0	Fixed Fixed Fixed Fixed Fixed Fixed
				Add "Y" to code for negative polarity output	Add "Y" to code for negative polarity output		Add "P" to code for positive polarity output	Add "P" to code for positive polarity output	

### How to Create a Model Number

NV1-	Enter number of outputs	CH1 Code	0	CH3 Code	CH4 Code	Case Option	-M	Connector Options
	No Case U Chassis U Chassis with Cover U Chassis, Cover and Fan* U Chassis, Cover and Fan* and IEC inlet					Blank U C F I		Blank R Vertical Horizontal
* A high output CH3 (3H, 5H, TH, FH) or fan supply OH must be selected to provide fan option.								

### Example

#### NV1 3 G 0 TY 5HP C -M -R

Description: Triple output, 24V/7.5A, -12V/5A, +5V/2A, U Chassis with cover, Horizontal Connector

### Notes

- (4) 12 - 12.5V if 24V CH3 is fitted. (6) 24 - 26V if 24V CH3 is fitted.  
 (5) 14.5 - 15V if 24V CH3 is fitted. (7) 1.5A max if -F is specified.

See website datasheet for complete and latest product details. [us.tdk-lambda.com/lp/products/nv-series.htm](http://us.tdk-lambda.com/lp/products/nv-series.htm)

# NV175 Series

## 180 to 200W AC-DC Configurable Power Supplies

- ◆ Universal Input 90 - 264VAC
- ◆ 3.3V to 24V, one to five outputs
- ◆ 4,300VDC Input to Output Isolation
- ◆ Industry Standard 3 x 5" footprint
- ◆ High Efficiency - up to 90%
- ◆ Wide variety of output and enclosure options available
- ◆ EN60601-1, IEC60601-1
- ◆ 123uA leakage at 120VAC



Model	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current
	V1	V1	V2	V2	V3	V3	V4	V4	V5	V5
NV1-1T000	12V	15A	-	-	-	-	-	-	-	-
NV1-1G000	24V	7.5A	-	-	-	-	-	-	-	-
NV1-453TT	+5V	25A	+3.3V	15A	+12V	5A	-12V	1A	-	-
NV1-453FF	+5V	25A	+3.3V	15A	+15V	5A	-15V	1A	-	-
NV1-4G5TT	+24V	7.5A	+5V	8A	+12V	5A	-12V	1A	-	-
NV1-4G5FF	+24V	7.5A	+5V	8A	+15V	5A	-15V	1A	-	-
NV1-453TT-N3	+5V	25A	+3.3V	15A	+12V	5A	-12V	1A	+5V	2A
NV1-453FF-N3	+5V	25A	+3.3V	15A	+15V	5A	-15V	1A	+5V	2A
NV1-4G5TT-N3	+24V	7.5A	+5V	8A	+12V	5A	-12V	1A	+5V	2A
NV1-4G5FF-N3	+24V	7.5A	+5V	8A	+15V	5A	-15V	1A	+5V	2A

### Built to Order Model Selector

CH1	CH1(5) Code	Adjust. Range	CH2(5)	CH2 Code	Adjust. Range	CH3	CH3 Code	Adjust. Range	CH4	CH4 Code	Adjust. Range
+5V / 25A	5	5 - 5.5V	+1.8V / 15A	1	0.9 - 3.3V	+12V / 5A +15V / 5A +24V / 2.5A No output	T F G 0	12 - 15V 12 - 15V 18 - 24V -	-12V / 1A	T	Fixed
			+2.7V / 15A	2	2.5 - 3.3V				-15V / 1A	F	Fixed
			+3.3V / 15A	3	2.5 - 3.3V				-3.3V / 2A	3H	Fixed
			No output	0	-				-5V / 2A	5H	Fixed
									-12V / 2A	TH	Fixed
+12V / 15A	T	12 - 15V (7)	+5V / 10A	5	3.3 - 5.5V			-15V / 2A	FH	Fixed	
+15V / 12A	F	12 - 15V (8)	No output	0	-			Fan Supply only	0H	Fixed	
								No output	0		
+24V / 7.5A	G	24 - 28V (9)	+5V / 8A	5	3.3 - 5.5V						
			No output	0	-				Add "P" to code for positive polarity output		Add "P" to code for positive polarity output

### How to Create a Model Number

NV1-	Enter number of outputs	CH1 Code	CH2 Code	CH3 Code	CH4 Code	Global Option	Case Option
------	-------------------------	----------	----------	----------	----------	---------------	-------------

No Option	Blank	Blank	No Case
AC Fail, Remote On/Off, 5V/2A Standby, CH1 DC Good	N	U	U Chassis
AC Fail, Remote On/Off, 13.5V/1A Standby, CH1 DC Good	N2	C	U Chassis with Cover
ATX AC Fail+Remote On/Off, 5V/2A Standby, CH1 DC Good	N3	F	U Chassis, Cover and Fan*
ATX AC Fail+Remote On/Off, 12V/1A Standby, CH1 DC Good	N4	I	U Chassis, Cover and Fan* and IEC inlet

\* A high output CH4 (3H, 5H, TH, FH) or fan supply 0H must be selected to provide fan option.

### Example

#### NV1 3 G 5 0 3HP N C

Description: Triple output, 24V/7.5A, 5V/8A, 3.3V/2A, Global option N, U Chassis with cover.

### Notes

- (5) Maximum combined current from CH1 + CH2 = 25A5V CH1 models are limited to 175W max. All others 180W, 200Wpk 5 mins  
 (6) CH5 is always on regardless of inhibit status. Peak rated at 2.5A, floating output  
 (7) Convection cooled maximum ratings: CH1: 55W, Ch2: 8.25W, Ch3: 9W, CH4: 3W, 75.25W total. 0°C - 40°C temperature range  
 (8) 12 - 12.5V if 24V CH3 is fitted. (9) 14.5 - 15.5V if 24V CH3 is fitted. (10) 24 - 24.5V if 5V CH2 is fitted. 24 - 26V if 24V CH3 is fitted.

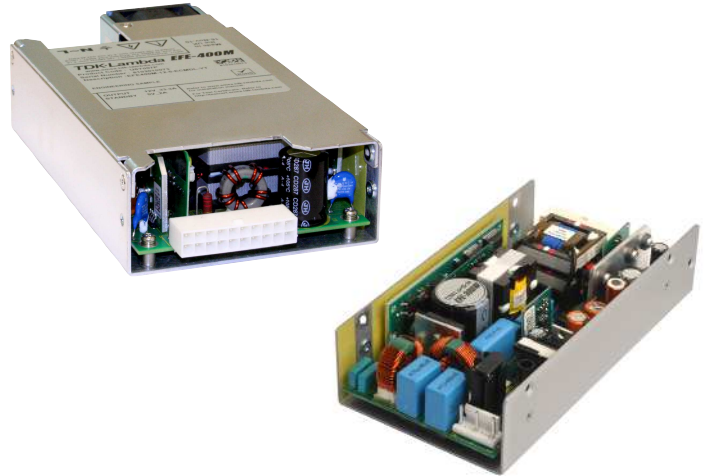
See website datasheet for complete and latest product details. [us.tdk-lambda.com/lp/products/nv-series.htm](http://us.tdk-lambda.com/lp/products/nv-series.htm)

[us.tdk-lambda.com/lp](http://us.tdk-lambda.com/lp) • 1-800-LAMBDA-4

# EFE300M & 400M

## 300 & 400W AC-DC Digital Controlled Power Supplies

- ◆ Universal Input 90 - 264VAC
- ◆ 12V to 48V outputs
- ◆ 4,000VAC Input to Output Isolation
- ◆ Compact 3 x 6 & 3.5" x 6.5" sizes
- ◆ High Efficiency - up to 90%
- ◆ Wide variety of output and enclosure options available
- ◆ EN60601-1, IEC60601-1 (BF Rated)
- ◆ 123uA leakage at 120VAC



### Additional Features

- ◆ Peak Power Capability
- ◆ Remote On/Off
- ◆ Power Good Signal
- ◆ OR-ing FET for redundant connection of supplies
- ◆ Standby Voltage (Choice of 5V 2A or 12V 1A)
- ◆ 12V 1A Fan Supply (If fan option is not selected)

Product Code	Part Description	Style	Output Voltage (V)	Output Current (A)	Average Output Power (W)	Peak Output Current (A) <sup>(1)</sup>	Peak Output Power (W) <sup>(1)</sup>
U5Y0031	EFE300M12-5-ECMDL-YT	With Fan	12	25	300	33.3	400
U5Y0020	EFE300M12-5-HNMDL-YT	Open Frame	12	25	300	33.3	400
U6Y007P	EFE400M-12-5-ECMDL-YT	With Fan	12	33.3	400	44.17	475
U6Y001H	EFE400M-12-5-HNMDL-YT	Open Frame	12	33.3	400	44.17	475
U5Y0064	EFE300M24-5-ECMDL-YT	With Fan	24	12.5	300	16.7	400
U5Y0053	EFE300M24-5-HNMDL-YT	Open Frame	24	12.5	300	16.7	400
U6Y008Q	EFE400M-24-5-ECMDL-YT	With Fan	24	16.67	400	20.8	475
U6Y002J	EFE400M-24-5-HNMDL-YT	Open Frame	24	16.67	400	20.8	475
U5Y0166	EFE300M-48-5-ECMDL-YT	With Fan	48	6.25	300	8.33	350
U5Y0201	EFE300M-48-5-HNMDL-YT	Open Frame	48	6.25	300	8.33	350
U6Y009R	EFE400M-48-5-ECMDL-YT	With Fan	48	8.33	400	10.4	475
U6Y003K	EFE400M-48-5-HNMDL-YT	Open Frame	48	8.33	400	10.4	475

Notes:

(1) For up to 10s without exceeding Average Output Power rating

Part Description Suffix	L Bracket	Cover	Internal Fan
-CNMDS	N	N	N
-CLMDS	Y	N	N
-CCMDS	Y	Y	N
-ECMDS	Y	Y	Y

See website datasheet for complete and latest product details.

[us.tdk-lambda.com/lp/products/efe-series.htm](http://us.tdk-lambda.com/lp/products/efe-series.htm)

# NV300 Series

## 300W AC-DC Configurable Power Supplies

- ◆ Universal Input 90 - 264VAC
- ◆ 3.3V to 24V, one to five outputs
- ◆ 4,300VDC Input to Output Isolation
- ◆ Compact 3.75 x 7.25" size
- ◆ High Efficiency - up to 90%
- ◆ Wide variety of output and enclosure options available
- ◆ EN60601-1, IEC60601-1
- ◆ 123uA leakage at 120VAC



Model	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current	Output Voltage	Maximum Current
	V1	V1	V2	V2	V3	V3	V4	V4	V5	V5
NVA3-350TT	+5V	40A	-	-	+12V	5A	-12V	1A	-	-
NVA3-350FF	+5V	40A	-	-	+15V	5A	-15V	1A	-	-
NVA3-453TT	+5V	40A	+3.3V	15A	+12V	5A	-12V	1A	-	-
NVA3-453FF	+5V	40A	+3.3V	15A	+15V	5A	-15V	1A	-	-
NVA3-350TT-N3	+5V	40A	-	-	+12V	5A	-12V	1A	+5V	2A
NVA3-350FF-N3	+5V	40A	-	-	+15V	5A	-15V	1A	+5V	2A
NVA3-453TT-N3	+5V	40A	+3.3V	15A	+12V	5A	-12V	1A	+5V	2A
NVA3-453FF-N3	+5V	40A	+3.3V	15A	+15V	5A	-15V	1A	+5V	2A

### Built to Order Model Selector

CH1	CH1 Code	Adjust. Range <sup>(5)</sup>	CH2	CH2 Code	Adjust. Range	CH3	CH3 Code	Adjust. Range	CH4 <sup>(2)</sup>	CH4 Code <sup>(2)</sup>	Adjust. Range
+5V / 40A <sup>(1)</sup>	5	5 - 5.5V	+1.8V / 15A +2.7V / 15A +3.3V / 15A +2.7V / 24A +3.3V / 24A Omit	1 2 3 2H 3H 0	0.9 - 2.5V 2.5 - 3.8V 2.5 - 3.8V 2.5 - 3.8V 2.5 - 3.8V -	+12V / 5A <sup>(4)</sup> +12V / 8A <sup>(6)</sup> +15V / 4A <sup>(6)</sup> +15V / 6.4A <sup>(6)</sup> +24V / 2.5A Omit	T TH F FH G 0	12 - 15V 12 - 15V 12 - 15V 12 - 15V 18 - 24V -	-3.3V / 2A <sup>(3)</sup> -5V / 2A <sup>(3)</sup> -12V / 1A -12V / 2A <sup>(3)</sup> -15V / 1A -15V / 2A <sup>(3)</sup> Fan supply only Omit	3H 5H T TH F FH 0H 0	Fixed Fixed Fixed Fixed Fixed Fixed - -
+12V / 25A	T	12 - 13V	+5V / 10A +5V / 16A Omit	5 5H 0	3.3 - 5.5V 3.3 - 5.5V -						
24V / 12.5A	G	24 - 28V <sup>(8)</sup>	+5V / 8A +5V 12.5A +12V 10A +15V 10A Omit	5 5H T F 0	5 - 5.5V 5 - 5.5V 12 - 15.5V 12 - 15.5V -						

### How to Create a Model Number

NVA3-	Enter number of outputs	CH1 Code	CH2 Code	CH3 Code	CH4 Code	Global Option	Case Option	Other output voltages are available, contact factory.
						Blank -N3 -N4	Blank U C F I	No case U Chassis U Chassis with Cover End fan, U chassis & cover <sup>(7)</sup> IEC input, end fan, U chassis & cover <sup>(7)</sup>

Note:

- (1) Maximum combined current from CHs 1 & 2 = 40A
- (2) Add 'P' suffix to code for positive output (ex. 3HP)
- (3) 1.5A maximum if used with "-F" option
- (4) 60W maximum output power
- (5) Maximum output voltage (includes remote sense)
- (6) 96W maximum output power
- (7) CH4 code of 3H, 5H, TH, FH or 0H must be used
- (8) 24 - 24.5V if CH2 = 5V, 24 - 26V if CH3 = 24V

### Example

#### NVA3-353G0H-N3F

Description: Triple output, 5V/40A, 3.3V/15A, 24V/2.5A, Global Option (N3), cover & fan (F).

For Additional Information, please visit [us.tdk-lambda.com/lp/products/nv-series.htm](http://us.tdk-lambda.com/lp/products/nv-series.htm)

[us.tdk-lambda.com/lp](http://us.tdk-lambda.com/lp) • 1-800-LAMBDA-4

# NV350/700 Series

## 350W to 960W AC-DC Modular Power Supplies

- ◆ Universal Input 90 - 264VAC
- ◆ 3.3V to 32V, one to 8 outputs (6 on NV350)
- ◆ 4,300VDC Input to Output Isolation
- ◆ 1U form factor (350W: 1.6 x 3.75 x 10.8", 700W: 1.6 x 4.9 x 10.8")
- ◆ High Efficiency - up to 90%
- ◆ Wide variety of output voltage combinations and options available
- ◆ EN60601-1, IEC60601-1
- ◆ 130uA leakage at 120VAC



### Configure your own Power Supply

#### 1. Select Output Power, cooling, input connection type and signalling

You can create your own NV350 or NV700 configuration online at [www.nv-power.com](http://www.nv-power.com). This method checks your configuration and offers the optimum solution. Alternatively, you can do this manually by using the guide to the right. Calculate total output power to ensure power requirements within 350W or 960W, then select required Cooling, Connection and Controls/Signals from the following tables:

			A	B	C	D	
Output Power	NV3 NV7	350W (250W with reverse air) 960W (700W <150VAC input)	NV3	S	S	S	EN5V
Cooling	S R C	Standard air - forward Reverse air <sup>1</sup> Customer air - no fan <sup>1</sup>					
Input Connection	S I	Screw IEC320 <sup>2</sup>					
Primary Option <sup>3</sup>	ES5V ES12V IS5V IS12V EN5V EN12V IN5V IN12V	AC good, PSU enable, 5V/2A standby AC good, PSU enable, 12V/1A standby AC good, PSU inhibit, 5V/2A standby AC good, PSU inhibit, 12V/1A standby AC good, PSU enable, 5V/2A standby, global module good AC good, PSU enable, 12V/1A standby, global module good AC good, PSU inhibit, 5V/2A standby, global module good AC good, PSU inhibit, 12V/1A standby, global module good					

1 - Thermocoupled sample recommended to ensure adequate cooling - consult sales      3 - The Primary Option uses 1 slot  
2 - Not with customer air cooling      4 - Not with NV7

Example: NV3SSSEN5V = 350W output power, Standard airflow, Screw terminal input, AC Good, inhibit, 5V 2A standby voltage, global module good.

#### 2. Select Output Voltages and Currents

Voltage Range Output 1	Current Output 1	Voltage Range Output 2	Current Output 2	Module Code
3.2 - 3.6V	40A			B
4.75 - 5.5V	40A			B
12 - 15.5V	20A			BH
24 - 28V	10A			BH
+12V	3A	-12V	1A	DA
3.2 - 3.6V	25A	3.3 - 5.5V	10A	DB
		7 - 15V	5A	DB
		24 - 32V	2A	DB
4.75 - 5.5V	25A	3.3 - 5.5V	10A	DB
		7 - 15V	5A	DB
		24 - 32V	2A	DB
12 - 15V	13A	3.3 - 5.5V	10A	DB
		7 - 15V	5A	DB
		24 - 32V	2A	DB
24 - 28V	7A	3.3 - 5.5V	10A	DB
		7 - 15V	5A	DB
		24 - 32V	2A	DB

Example: 5.2B 12/15DB = 5.2V 40A, 12V 13A, 15V 4A outputs.

#### 3. Validate Configuration

Visit [www.nv-power.com](http://www.nv-power.com) or contact TDK-Lambda to validate configuration.

See website datasheet for complete and latest product details.

# Alpha 1000 Series

## 1000W AC-DC Modular Power Supplies

- ◆ Universal Input 85 - 264VAC
- ◆ 3.3V to 48V, one to 14 outputs
- ◆ 4,300VDC Input to Output Isolation
- ◆ Compact package (2.5 x 7 x 11")
- ◆ Wide variety of output voltage combinations and options available
- ◆ UL60601-1, IEC60601-1
- ◆ 24uA, 50uA or 88uA leakage options at 120VAC



## Configure your own Power Supply

As this is a shortform brochure, please validate configuration (step 3)

### 1. Select Output Voltages and Currents

Maximum of 8 slots may be populated

Voltage Range Output 1	Current Output 1	Voltage Range Output 2	Current Output 2	Module Code	Number of Slots
1.8 - 3.2V	25A	-	-	L	1
1.8 - 3.2V	60A	-	-	T	2
2.7 - 3.9V	25A	-	-	Q	1
2.7 - 3.9V	60A	-	-	R	2
4.5 - 5.5V	25A	-	-	B	1
4.5 - 5.5V	60A	-	-	A	2
4.5 - 6.5V	25A	-	-	BB	1
4.5 - 6.5V	60A	-	-	AA	2
2.5 - 5.7V	85A	-	-	S	2
5 - 16V	8A	-	-	M	1
5 - 16V	16A	-	-	C	1
9 - 16V	33A	-	-	F	2
10 - 21V	16A	-	-	U	1
18 - 29V	5A	-	-	N	1
18 - 29V	8A	-	-	D	1
18 - 29V	15A	-	-	K	2
17.5 - 29V	25A	-	-	G	2
30 - 48V	10A	-	-	J	2
5 - 16V	8A	5 - 16V	8A	E	1
18 - 29V	5A	18 - 29V	5A	P	1
18 - 32V	5A	18 - 32V	5A	H	1

Example: CA1000 5.2A 40J 12/12E = 5.2V 60A, 40V 10A, 12V 8A, 12V 8A outputs

### 2. Select Options

Select Options	Module Code
AC Fail signal + 5V Stand-by voltage	MF
Parallels two adjacent modules for extra power	PP
Module parallel or redundancy capability	PA
Module inhibit and DC good signal	IN
Low earth leakage - 88uA at 120VAC	LL
Low earth leakage - 50uA at 120VAC	RL
Low earth leakage - 24uA at 120VAC	TL

### 3. Validate Configuration

Call (1-800-LAMBDA-4) or email Lambda (lambda.techsupport@us.tdk-lambda.com) to validate configuration

See website datasheet for complete and latest product details.

# Vega Lite Series

## 550W to 900W AC-DC Modular Power Supplies

- ◆ Universal Input 85 - 264VAC
- ◆ 3.3V to 56V, one to 10 outputs
- ◆ 4,000VAC Type Tested Input to Output Isolation
- ◆ Compact package (2.5 x 5 x 10.6")
- ◆ Wide variety of output voltage combinations and options available
- ◆ UL60601-1, IEC60601-1
- ◆ 109uA leakage at 120VAC



### Configure your own Power Supply

As this is a shortform brochure, please validate configuration (step 3)

#### 1. Select Power Rating

Output Power	Converter Code
550W	V5FSL
750W (900W at high line)	V7FSL

#### 2. Select Options

Primary Option	Code
None	Leave blank
AC Fail, Global Inhibit, 5V 0.1A standby voltage	F
AC Fail, Global Enable, 5V 0.1A standby voltage	E

Example: V5FSLF

#### 3. Select Output Voltages and Currents

Maximum of 5 slots may be populated

Voltage Range Output 1	Current Output 1	Voltage Range Output 2	Current Output 2	Module Code	Number of Slots
1.8 - 3.4V	35A	-	-	C1S	1
1.8 - 3.4V	50A	-	-	D1LS	1.5
1.8 - 3.4V	60A	-	-	E1S	2
4.2 - 5.1V	35A	-	-	L1S	1
3.8 - 7.5V	45A	-	-	D2S	1.5
3.9 - 5.1V	50A	-	-	D1HS	1.5
3.8 - 7.5V	60A	-	-	E2S	2
5 - 8V	25A	-	-	B2S	1
9.1 - 15V	18A	-	-	C3S	1
8 - 15V	24A	-	-	D3S	1.5
8 - 12.5V	40A	-	-	E3LS	2
14 - 18V	18A	-	-	D4S	1.5
14 - 19V	30A	-	-	E4S	2
16.3 - 18V	14A	-	-	C4S	1
21.6 - 30V	10A	-	-	C5S	1
21 - 28V	15A	-	-	D5S	1.5
24 - 28V	25A	-	-	E5HS	2
32.5 - 48V	4.5A	-	-	HH5/4S	1
32.6 - 40V	10A	-	-	BB4S	2
43 - 48V	10A	-	-	C5B4S	2
42 - 56V	15A	-	-	DD5S	3
3.9 - 5.1V	12A	1.8 - 3.4V	8A	H1H/1LS	1
3.9 - 5.1V	12A	9.1 - 15.5V	6A	H1H/3S	1
9.1 - 15.5V	10A	3.9 - 5.1V	8A	H3/1HS	1
9.1 - 15.5V	10A	9.1 - 15.5V	6A	H3/3S	1
16.2 - 28V	5A	3.9 - 5.1V	8A	H5/1HS	1
16.2 - 28V	5A	9.1 - 15.5V	6A	H5/3S	1
16.2 - 28V	5A	16.3 - 24V	4.5A	H5/4S	1

Add N suffix for module good, inhibit or current share

Example: V5FSLF 5L1SN 12/12H3/3S 24C5S

#### 4. Validate Configuration

Call (1-800-LAMBDA-4) or email Lambda (lambda.techsupport@us.tdk-lambda.com) to validate configuration

See website datasheet for complete and latest product details.

# SWS1000L

## 1000W AC-DC Power Supplies

- ◆ Universal Input 85 - 265VAC
- ◆ 3.3V to 60V single output
- ◆ 4,000VAC Input to Output Isolation
- ◆ Compact package (2.4 x 5.91 x 9.45")
- ◆ UL60601-1, IEC60601-1
- ◆ 105uA leakage at 120VAC

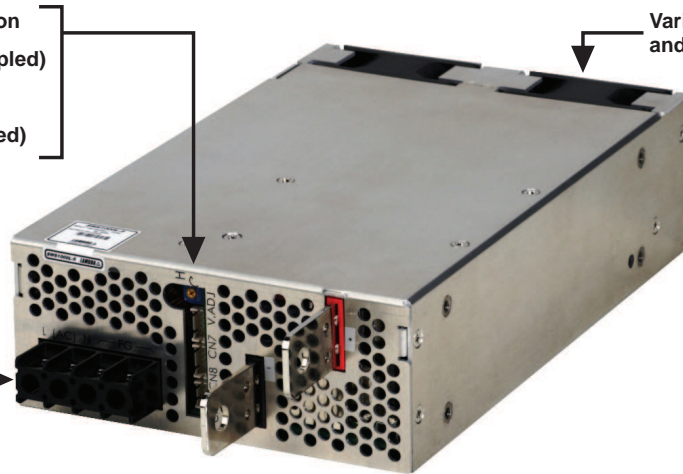


Model	Open Voltage	Adjust Range	Remote Program Range	Maximum Current
SWS1000L-3	3.3V	2.64 - 3.96V	1 - 4V	200A
SWS1000L-5	5V	4 - 6V	1 - 6V	200A
SWS1000L-12	12V	9.6 - 14.4V	2.4 - 14.4V	88A
SWS1000L-15	15V	12 - 19.5V	3 - 19.5V	70A
SWS1000L-24	24V	19.2 - 28.8V	4.8 - 28.8V	44A (51A Pk)
SWS1000L-36	36V	28.8 - 43.2V	7.2 - 43.2V	29A
SWS1000L-48	48V	38.4 - 56V	9.6 - 56V	22A (25A Pk)
SWS1000L-60	60V	48 - 66V	12 - 66V	17A

- Current share for parallel connection
- Remote On/Off (floating - opto coupled)
- 12V 0.1A Auxiliary Output
- Alarm Signal (floating - opto coupled)

Variable speed fans for longer life and lower acoustic noise

Terminal block with built in finger guard and captive screws

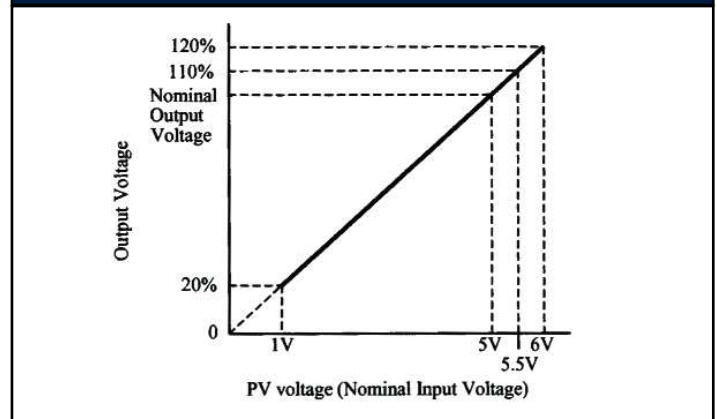


Remotely Programmable  
Using "PV" Signal the SWS1000L can be remotely adjusted

Output Voltage	Remote Program Range	Program Voltage
3.3V	1 - 4V	1.5 - 6V
5V	1 - 6V	1 - 6V
12V	2.4 - 14.4V	1 - 6V
15V	3 - 19.5V	1 - 6.65V
24V	4.8 - 28.8V	1 - 6V
36V	7.2 - 43.2V	1 - 6V
48V	9.6 - 56V	1 - 5.8V
60V	12 - 66V	1 - 5.5V

See website datasheet for complete and latest product details.  
[us.tdk-lambda.com/lp/products/sws-series.htm](http://us.tdk-lambda.com/lp/products/sws-series.htm)

Linearity graph



Linearity graph shown for SWS1000L-5, -12, -24 & -36

# HWS/ME Series

## 30W to 1500W AC-DC Power Supplies

- ◆ Universal Input 85 - 265VAC\*
- ◆ 3.3V to 48V single output
- ◆ Suitable for non-surgical instrumentation like blood analyzers\*
- ◆ Limited lifetime warranty
- ◆ UL60601-1, IEC60601-1\*
- ◆ 500uA leakage maximum

(\* Basic isolation, see UL conditions of acceptability for equipment in proximity of the patient)



Model	Output Voltage	Maximum Current	Sizes (inches)
HWS30-5/ME	5V	6A	1.04x3.23x3.74
HWS50-5/ME	5V	10A	1.04x3.23x4.72
HWS100-5/ME	5V	20A	1.1x3.23x6.3
HWS150-5/ME	5V	30A	1.46x3.23x6.3
HWS30-12/ME	12V	2.5A	1.04x3.23x3.74
HWS50-12/ME	12V	4.3A	1.04x3.23x4.72
HWS100-12/ME	12V	8.5A	1.1x3.23x6.3
HWS150-12/ME	12V	13A	1.46x3.23x6.3
HWS300-12/ME	12V	27A	2.4x3.23x6.5
HWS30-15/ME	15V	2A	1.04x3.23x3.74
HWS50-15/ME	15V	3.5A	1.04x3.23x4.72
HWS100-15/ME	15V	7A	1.1x3.23x6.3
HWS150-15/ME	15V	10A	1.46x3.23x6.3
HWS300-15/ME	15V	22A	2.4x3.23x6.5
HWS30-24/ME	24V	1.3A	1.04x3.23x3.74
HWS50-24/ME	24V	2.2A	1.04x3.23x4.72
HWS100-24/ME	24V	4.5A	1.1x3.23x6.3
HWS150-24/ME	24V	6.5A	1.46x3.23x6.3
HWS300-24/ME	24V	14A (16.5 pk)	2.4x3.23x6.5
HWS600-24/ME	24V	27A (31 pk)	3.94x3.23x6.5
HWS1500-24/ME	24V	65A (105 pk)	4.98x3.23x11.02
HWS1500-36/ME	36V	42A (70 pk)	4.98x3.23x11.02
HWS30-48/ME	48V	0.65A	1.04x3.23x3.74
HWS50-48/ME	48V	1.1A	1.04x3.23x4.72
HWS100-48/ME	48V	2.1A	1.1x3.23x6.3
HWS150-48/ME	48V	3.3A	1.46x3.23x6.3
HWS300-48/ME	48V	7A	2.4x3.23x6.5
HWS1500-48/ME	48V	32A	4.98x3.23x11.02

See website datasheet for complete and latest product details.

# MWS65

## 55W to 67W AC-DC Power Supplies

- ◆ Universal Input 85 - 265VAC
- ◆ 5V to 48V
- ◆ 4,000VAC Input to Output Isolation, BF Rating
- ◆ Industry Standard 2 x 4" footprint
- ◆ High Efficiency - up to 89%
- ◆ UL60601-1, EN60601-1, IEC60601-1
- ◆ 123uA leakage at 120VAC

Model	Output Voltage	Maximum Input	Maximum Power
MWS65-5	5V	11.0	55W
MWS65-12	12V	5A	60W
MWS65-15	15V	4.4A	66W
MWS65-24	24V	2.8A	67.2W
MWS65-48	48V	1.4A	67.2W



See website datasheet for complete and latest product details

# CFE400M

## 300W Convection to 400W Fan Cooled AC-DC Power Supplies

- ◆ Universal Input 85 - 264VAC
- ◆ 12V to 48V
- ◆ 4,000VAC Input to Output Isolation, BF Rating
- ◆ 4 x 7" footprint
- ◆ High Efficiency - up to 94%
- ◆ U channel or enclosed with fan options
- ◆ UL60601-1, EN60601-1, IEC60601-1
- ◆ 140uA leakage at 120VAC

Model	Output Voltage	Output Current (Conv)	Output Current (Forced Air)
U7Y0010	12V	25A	33.3A
U7Y0269	24V	12.5A	16.67A
U7Y027B	48V	6.25A	8.33A



### Additional Features

- ◆ <0.5W standby power draw
- ◆ 450W Peak loading
- ◆ 5 year warranty
- ◆ 5V Standby option
- ◆ Remote On/Off option
- ◆ ORing FET

## Want Engineering Support?

- ◆ Please call 1-800-LAMBDA-4 to speak to our inside technical support team, or email [lambda.techsupport@us.tdk-lambda.com](mailto:lambda.techsupport@us.tdk-lambda.com)
- ◆ TDK-Lambda's Field Application Engineers are available for in-depth advice at your facility. Please contact your local TDK-Lambda Salesperson to schedule a visit.

# TDK-Lambda Selector Guide

