

# MEGA

ELECTRONICS INC.

AC-DC Adapter • Open Frame  
LED Driver • DIN Rail • Medical Approval



# COMPANY PROFILE

## About MEGA Electronics

MEGA Electronics Inc., founded in 1994, provides the highest quality desk top, wall plug in, open frame and DIN Rail power supplies for any destination, anywhere in the world. We are dedicated to being your one stop solution, designing, manufacturing and delivering the supplies to meet your demands. VMI (Vendor Managed Inventory) and Kanban programs are in place to support blanket orders from our North American warehouses. Our engineering and sales teams are dedicated to seeing your project through from initial concept to product release and throughout your product life cycle.

MEGA products can carry UL, CSA, CE, CB, T-Mark, CCC, BS, GS, PSE, SAA/RCM, FCC, MEPS, CEC, E-mark, KC, BIS, BSMI, NOM, Intermetro, SASO, KUCAS, CU, EAC, Singapore-Spring Safety, UkrSEPRO and comply with ROHS, REACH and WEE. All external supplies currently meet Energy Efficiency Level VI, except exempted medical models which are listed to UL 60601-1 and the current required edition in addition to 2x MOPP.

Each power supply can be produced with standard barrel sizes which can be found on page 38-39 of this catalog or with any output connector requested as long it complies with national and international standards. Mating power cords for desk top power supplies are found on page 37.

In addition to the standard products represented within this catalog, we are capable of meeting our clients' needs for custom products and welcome your request for unique designs.



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# 5 Watt Series

Wall Mount Type

USA / Japan / Taiwan / Europe / UK / Australia



MW005T - W X X X □

O / P Voltage

U : US Plug / JP Plug  
E : EU Plug  
B : UK Plug  
A : AU Plug

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.1W

## Features:

- 100-240VAC Universal Input
- Single Output to 5W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MW005T-W033□	3.3V	1.50A	4.95W
MW005T-W050□	5.0V	1.00A	5.00W
MW005T-W051□	5.0V	1.50A	7.50W
MW005T-W060□	5.9V	1.20A	7.08W
MW005T-W075□	7.5V	1.00A	7.50W
MW005T-W090□	9.0V	0.67A	6.03W
MW005T-W120□	12.0V	0.60A	7.20W
MW005T-W150□	15.0V	0.50A	7.50W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.19A Max.
Protection	Internal Primary Current Fuse, Inrush Limiting
Configuration	U for US Plug / JP Plug
	E for EU Plug
	B for UK Plug
	A for AU Plug

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG
Ferrite Core	Yes

## Safety Approvals

For USA - CB / UL / cUL / FCC / PSE / BSMI / LPS

For Europe & UK - CB / CE / LPS

For Australia - CB / RCM / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	U - L 59 × W 43 × H 25 (mm)
	E - L 52 × W 28 × H 60 (mm)
	B - L 51 × W 49 × H 48 (mm)
	A - L 52 × W 41 × H 50 (mm)
Weight	U : 82g    E : 96g
	B : 100g    A : 94g ( Ref. )





# 12 Watt Series

Wall Mount Type

USA / Japan / Taiwan / Europe / UK / Australia / China

MW012T - W X X X □

O / P Voltage

U : US Plug / JP Plug  
E : EU Plug  
B : UK Plug  
A : AU Plug  
C : CN Plug

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN  
NO Load Power Consumption Less Than 0.1W

### Features:

- 100-240VAC Universal Input
- Single Output to 12W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MW012T-W033□	3.3V	2.00A	6.60W
MW012T-W050□	5.0V	2.00A	10.00W
MW012T-W051□	5.0V	2.50A	12.50W
MW012T-W060□	5.9V	2.00A	11.80W
MW012T-W084□	8.4V	1.30A	10.92W
MW012T-W090□	9.0V	1.20A	10.80W
MW012T-W120□	12.0V	1.00A	12.00W
MW012T-W135□	13.5V	0.89A	12.00W
MW012T-W150□	15.0V	0.80A	12.00W
MW012T-W180□	18.0V	0.67A	12.00W
MW012T-W240□	24.0V	0.50A	12.00W

### Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.31A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	U for US Plug / JP Plug E for EU Plug B for UK Plug A for AU Plug C for CN Plug

### Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG
Ferrite Core	Yes

### Safety Approvals

For USA- CB / UL / cUL / FCC / PSE / BSMI / LPS

For Europe & UK - CB / CE / LPS

For China - CB / CCC / LPS

For Australia - CB / RCM / LPS

### Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

### Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

### Mechanical

Case Dimension	U - L 72 × W 34 × H 59 (mm) E - L 72 × W 34 × H 80 (mm) B - L 72 × W 50 × H 72 (mm) C - L 72 × W 34 × H 58 (mm) A - L 72 × W 34 × H 51 (mm)
Weight	U : 126g      B : 130g E : 128g      C : 126g (Ref.) A : 126g



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# 18 Watt Series

Wall Mount Type  
 USA / Japan / Taiwan / Europe / UK / Australia /  
 China / AC Plug Changeable

MW018T - W X X X □

O / P Voltage ←

- U : US Plug / JP Plug
- E : EU Plug
- B : UK Plug
- A : AU Plug
- C : CN Plug
- V : Changeable Plug

## Green Mode

CEC , DoE Level VI , Energy Star , ErP Stage 2 , NRCan &  
 GEMS Level VI  
 NO Load Power Consumption Less Than 0.1W

## Features:

- 100-240VAC Universal Input
- Single Output to 18W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MW018T-W050□	5.0V	3.0A	15.00W
MW018T-W060□	5.9V	2.5A	14.75W
MW018T-W061□	5.9V	3.0A	17.70W
MW018T-W070□	7.0V	2.5A	17.50W
MW018T-W075□	7.5V	2.5A	18.75W
MW018T-W090□	9.0V	2.2A	19.80W
MW018T-W100□	10.0V	1.9A	19.00W
MW018T-W110□	11.0V	1.6A	17.60W
MW018T-W120□	12.0V	1.6A	19.20W
MW018T-W150□	15.0V	1.3A	19.50W
MW018T-W160□	16.0V	1.2A	19.20W
MW018T-W180□	18.0V	1.1A	19.80W
MW018T-W240□	24.0V	0.8A	19.20W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.48A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	U for US Plug / JP Plug      A for AU Plug
	E for EU Plug                      C for CN Plug
	B for UK Plug
	V for Changeable Plug

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG
Ferrite Core	No (Optional)

Safety Approvals	
For USA- CB / UL / cUL / FCC / PSE / BSMI / LPS	
For Europe & UK - CB / CE / LPS	
For Australia - CB / RCM / LPS	
For China - CB / CCC / LPS	

Electrical	
Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCan & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

Environmental	
Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

Mechanical	
Case Dimension	U & C - L 72 x W 34 x H 69 (mm)
	E - L 72 x W 34 x H 90 (mm)
	B - L 72 x W 50 x H 81 (mm)
	A - L 72 x W 40 x H 78 (mm)
	V - L 78 x W52 x H 41 (mm)
Weight	U : 148g                      A : 150g
	E : 154g                      C : 148g
	V : 158g (Ref.)              B : 158g



R33154

RoHS

# 18 Watt Series

Desktop Type

MDS018T - □ X X X

P : C6 / C14      O / P Voltage  
A : C8



## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.1W

## Features:

- 100-240VAC Universal Input
- Single Output to 18W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS018T-050□	5.0V	3.0A	15.00W
MDS018T-060□	5.9V	2.5A	14.75W
MDS018T-061□	5.9V	3.0A	17.70W
MDS018T-070□	7.0V	2.5A	17.50W
MDS018T-075□	7.5V	2.5A	18.75W
MDS018T-090□	9.0V	2.2A	19.80W
MDS018T-100□	10.0V	1.9A	19.00W
MDS018T-110□	11.0V	1.6A	17.60W
MDS018T-120□	12.0V	1.6A	19.20W
MDS018T-150□	15.0V	1.3A	19.50W
MDS018T-160□	16.0V	1.2A	19.20W
MDS018T-180□	18.0V	1.1A	19.80W
MDS018T-240□	24.0V	0.8A	19.20W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.48A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6,C8,C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG
Ferrite Core	No (Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC / RCM / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3,000 VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C, by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	P : L100 x W50 x H33 (mm) A : L88 x W50 x H34 (mm)
Weight	144g (Ref.)





# 24 Watt Series

Wall Mount Type  
 USA / Japan / Taiwan / Europe / UK / Australia /  
 China / AC Plug Changeable

MW024T - W X X X □

O / P Voltage ←

U : US Plug / JP Plug  
 E : EU Plug  
 B : UK Plug  
 A : AU Plug  
 C : CN Plug  
 V : Changeable Plug

## Green Mode

CEC , DoE Level VI , Energy Star , ErP Stage 2 , NRCAN &  
 GEMS Level VI  
 NO Load Power Consumption Less Than 0.1W

## Features:

- 100-240VAC Universal Input
- Single Output to 24W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MW024T-W050□	5.0V	4.0A	20.00W
MW024T-W060□	5.9V	3.5A	20.65W
MW024T-W061□	5.9V	4.0A	23.60W
MW024T-W070□	7.0V	3.0A	21.00W
MW024T-W075□	7.5V	3.0A	22.50W
MW024T-W090□	9.0V	2.5A	22.50W
MW024T-W120□	12.0V	2.0A	24.00W
MW024T-W150□	15.0V	1.6A	24.00W
MW024T-W240□	24.0V	1.0A	24.00W
MW024T-W480□	48.0V	0.5A	24.00W

## Input

Voltage	100-240VAC	
Line Frequency	50-60Hz	
Current	0.58A Max.	
Protection	Internal Primary Current Fuse , Inrush Limiting	
Configuration	U for US Plug / JP Plug E for EU Plug B for UK Plug V for Changeable Plug	A for AU Plug C for CN Plug

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG / 16AWG
Ferrite Core	No (Optional)

## Safety Approvals

For USA- CB / UL / cUL / FCC / PSE / BSMI / LPS  
 For Europe & UK - CB / CE / LPS  
 For Australia - CB / RCM / LPS  
 For China - CB / CCC / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	U & C - L 72 x W 34 x H 69 (mm)
	E - L 72 x W 34 x H 90 (mm)
	B - L 72 x W 50 x H 81 (mm)
	A - L 72 x W 40 x H 78 (mm)
	V - L 78 x W 52 x H 41 (mm)
Weight	U : 148g    A : 150g
	E : 154g    C : 148g
	J : 148g    V : 158g (Ref.)
	B : 158g





# 24 Watt Series

Desktop Type



MDS024T - □ X X X

P : C6 / C14 ← O / P Voltage  
A : C8

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.1W

## Features:

- 100-240VAC Universal Input
- Single Output to 24W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG / 16AWG
Ferrite Core	No (Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC / RCM / LPS

Model	O/P Voltage	O/P Current	Watt
MDS024T- □050	5.0V	4.0A	20.00W
MDS024T- □060	5.9V	3.5A	20.65W
MDS024T- □061	5.9V	4.0A	23.60W
MDS024T- □070	7.0V	3.0A	21.00W
MDS024T- □075	7.5V	3.0A	22.50W
MDS024T- □090	9.0V	2.5A	22.50W
MDS024T- □120	12.0V	2.0A	24.00W
MDS024T- □150	15.0V	1.6A	24.00W
MDS024T- □240	24.0V	1.0A	24.00W
MDS024T- □480	48.0V	0.5A	24.00W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.58A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6,C8,C14

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	P : L100 x W50 x H33 (mm) A : L88 x W50 x H34 (mm)
Weight	166g (Ref.)



# 35 Watt Dual Output

Desktop Type



## Green Mode

DoE Level VI  
NO Load Power Consumption Less Than 0.3W

## Features:

- 100-240VAC Universal Input
- Dual Output
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

NO.	Model	O/P Voltage	O/P Current	Watt
1	MD-1253-1	5V	2.0A	35W
		12V	2.1A	

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1A
Protection	Internal Primary Current Fuse, Inrush Limiting
Configuration	IEC60320/C8

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	20AWG
Ferrite Core	No (Optional)

## Safety Approvals

UL / cUL / FCC / CE / PSE

Electrical	
Topology	Switching
Dielectric Withstand	3,000VAC Primary - Secondary
Leakage Current	0.25mA
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,-3
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

Environmental	
Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

Mechanical	
Case Dimension	L 95 × W 58 × H 34 (mm) ( Ref. )
Weight	242 g ( Ref. )



# 36 Watt Series

Wall Mount Type  
USA / Japan / Taiwan / Europe / UK / Australia /  
AC Plug Changeable

MW036T - W X X X □

O / P Voltage ←

U : US Plug / JP Plug  
E : EU Plug  
B : UK Plug  
A : AU Plug  
C : CN Plug  
V : Changeable Plug

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.1W

### Features :

- 100-240VAC Universal Input
- Single Output to 36W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MW036T-W050□	5.0V	5.00A	25.00W
MW036T-W075□	7.5V	4.00A	30.00W
MW036T-W085□	8.5V	3.52A	30.00W
MW036T-W090□	9.0V	3.34A	30.00W
MW036T-W120□	12.0V	3.00A	36.00W
MW036T-W135□	13.5V	2.66A	36.00W
MW036T-W150□	15.0V	2.40A	36.00W
MW036T-W160□	16.0V	2.25A	36.00W
MW036T-W180□	18.0V	2.00A	36.00W
MW036T-W240□	24.0V	1.50A	36.00W
MW036T-W480□	48.0V	0.75A	36.00W

## Input

Voltage	100-240VAC	
Line Frequency	50-60Hz	
Current	1.00A Max.	
Protection	Internal Primary Current Fuse , Inrush Limiting	
Configuration	U for US Plug / JP Plug	B for UK Plug
	E for EU Plug	A for AU Plug
	C for CN Plug	
	V for Changeable Plug	

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG / 16AWG
Ferrite Core	No (Optional)

## Safety Approvals

For USA- CB / UL / cUL / FCC / PSE / BSMI / LPS  
For Europe & UK - CB / CE / LPS  
For Australia - CB / RCM / LPS

## Electrical

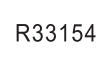
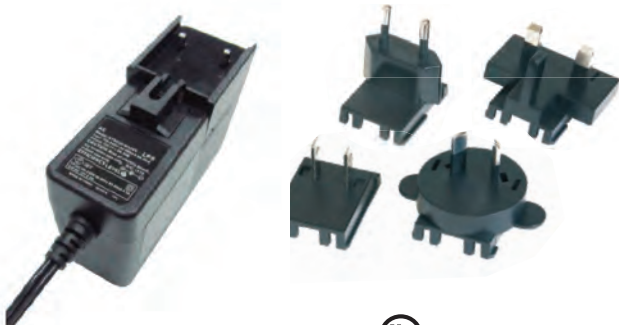
Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C, by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	U - L 79 x W 34 x H 74 (mm)
	E - L 79 x W 34 x H 94 (mm)
	B - L 79 x W 49 x H 86 (mm)
	A - L 79 x W 41 x H 82 (mm)
	V - L 79 x W 34 x H 66 (mm)
Weight	160g (Ref.)







# 36 Watt Series

Desktop Type

MDS036T - □ X X X

P : C14 ← O / P Voltage  
A : C8

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI

NO Load Power Consumption Less Than 0.1W

## Features:

- 100-240VAC Universal Input
- Single Output to 36W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS036T- □050	5.0V	5.00A	25.0W
MDS036T- □075	7.5V	4.00A	30.0W
MDS036T- □085	8.5V	3.52A	30.0W
MDS036T- □090	9.0V	3.34A	30.0W
MDS036T- □120	12.0V	3.00A	36.0W
MDS036T- □135	13.5V	2.66A	36.0W
MDS036T- □150	15.0V	2.40A	36.0W
MDS036T- □160	16.0V	2.25A	36.0W
MDS036T- □180	18.0V	2.00A	36.0W
MDS036T- □240	24.0V	1.50A	36.0W
MDS036T- □480	48.0V	0.75A	36.0W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C8,C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG / 16AWG
Ferrite Core	No (Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC / RCM / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L101 x W51 x H34 (mm)
Weight	160g (Ref.)



# 50 Watt Series

Desktop Type

MDS050T - □ X X X

P : C6 / C14 ← □ → O / P Voltage  
A : C8

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.21W

## Features:

- 100-240VAC Universal Input
- Single Output to 50W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS050T-P050	5.0V	10.00A	50W
MDS050T- □090	9.0V	4.00A	36W
MDS050T- □091	9.0V	5.00A	45W
MDS050T- □120	12.0V	3.30A	40W
MDS050T- □121	12.0V	4.20A	50W
MDS050T- □135	13.5V	3.71A	50W
MDS050T- □150	15.0V	3.34A	50W
MDS050T- □180	18.0V	2.78A	50W
MDS050T- □190	19.0V	2.64A	50W
MDS050T- □240	24.0V	2.10A	50W
MDS050T- □480	48.0V	1.05A	50W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.2A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6,C8,C14

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	20AWG / 18AWG / 16AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / BSMI / CCC / RCM / LPS  
CB / UL / cUL / FCC / GS / CE / PSE for ATS050T-P050

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA @ 2Pin / 3.5mA @ 3 Pin
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L115 x W53 x H38 (mm) L139 x W61 x H36 (mm) (MDS050T-P050)
Weight	278g (Ref.) 332g (MDS050T-P050)





# 65 Watt Series

Desktop Type

MDS065T - □ X X X

P : C6 / C14 ←  
A : C8 → O / P Voltage

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.21W

### Features:

- 100-240VAC Universal Input
- Single Output to 72W Max.
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS065T- □120	12.0V	5.00A	60W
MDS065T- □135	13.5V	4.82A	65W
MDS065T- □150	15.0V	4.34A	65W
MDS065T- □160	16.0V	4.07A	65W
MDS065T- □180	18.0V	3.62A	65W
MDS065T- □190	19.0V	3.43A	65W
MDS065T- □200	20.0V	3.25A	65W
MDS065T- □240	24.0V	2.71A	65W
MDS072T- □240	24.0V	3.00A	72W
MDS065T- □241	24.0V	2.71A	65W
MDS065T- □300	30.0V	2.17A	65W
MDS065T- □320	32.0V	2.04A	65W
MDS065T- □321	32.0V	2.04A	65W
MDS065T- □480	48.0V	1.36A	65W
MDS065T- □560	56.0V	1.17A	65W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.4A Max. for 65W / 1.6A Max. for 72W
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6,C8,C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	20AWG / 18AWG / 16AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC / RCM / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	0.25mA @ 2Pin / 3.5mA @ 3 Pin
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L115 x W53 x H38 (mm)
Weight	310g (Ref.)





# 65 Watt Series

Small Size Desktop Type

MDS065S - P X X X

P : C6 ← O / P Voltage →

## Green Mode

CEC , DoE Level VI , Energy Star , ErP Stage 2 , NRCAN NO Load Power Consumption Less Than 0.21W

### Features:

- Smaller size of 108 x 46 x 32mm
- 100-240VAC Universal Input
- Single Output to 65W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS065S-P150	15.0V	4.34A	65W
MDS065S-P160	16.0V	4.07A	65W
MDS065S-P180	18.0V	3.62A	65W
MDS065S-P185	18.5V	3.52A	65W
MDS065S-P190	19.0V	3.43A	65W
MDS065S-P200	20.0V	3.25A	65W
MDS065S-P240	24.0V	2.71A	65W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.4A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	18AWG / 16AWG
Ferrite Core	No(Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / LPS

## Electrical

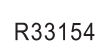
Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3 Pin
Efficiency	DoE Level VI , Energy Star , ErP Stage 2 & NRCAN Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 108 x W 46 x H 32 (mm)
Weight	248 g (Ref.)





# 90 Watt Series

Desktop Type

MDS090 - P X X X

P : C6 / C14 ← → O / P Voltage

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.21W

## Features:

- 100-240VAC Universal Input
- Single Output to 90W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS090-P120	12V	7.00A	84W
MDS090-P150	15V	6.00A	90W
MDS090-P160	16V	5.63A	90W
MDS090-P180	18V	5.00A	90W
MDS090-P190	19V	4.74A	90W
MDS090-P200	20V	4.50A	90W
MDS090-P240	24V	3.75A	90W
MDS090-P300	30V	3.00A	90W
MDS090-P480	48V	1.88A	90W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.2A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6,C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	20AWG / 18AWG / 16AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC / RCM / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3 Pin
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C, by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

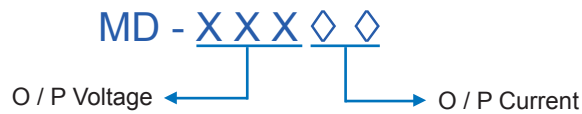
## Mechanical

Case Dimension	C6 - L 139 × W 61 × H 36 (mm) C14 - L 151 × W 64 × H 36 (mm)
Weight	460 g ( Ref. )



# 90 Watt Series

Small Size Desktop Type



## Green Mode

CEC , DoE Level VI , Energy Star , ErP Stage 2 , NRCAN  
NO Load Power Consumption Less Than 0.21W

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / LPS

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3Pin
Efficiency	DoE Level VI , Energy Star , ErP Stage 2 & NRCAN Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 129 × W 54 × H 32 (mm)
Weight	340 g ( Ref. )

## Features:

- Smaller size of 129 x 54 x 32mm
- 100-240VAC Universal Input
- Single Output to 90W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

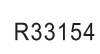
Model	O/P Voltage	O/P Current	Watt
MD-15060	15V	6.00A	90W
MD-16056	16V	5.60A	90W
MD-18050	18V	5.00A	90W
MD-19047	19V	4.74A	90W
MD-20045	20V	4.50A	90W
MD-24037	24V	3.75A	90W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.2A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	18AWG / 16AWG
Ferrite Core	Yes







# 120 Watt Series

Desktop Type

MD - X X X ◊ ◊

O / P Voltage ← → O / P Current



## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI  
NO Load Power Consumption Less Than 0.21W

## Features:

- 100-240VAC Universal Input
- Single Output to 120W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MD-12090	12V	9.00A	108W
MD-15080	15V	8.00A	120W
MD-16075	16V	7.50A	120W
MD-18066	18V	6.60A	120W
MD-19063	19V	6.30A	120W
MD-20060	20V	6.00A	120W
MD-24050(*)	24V	5.00A	120W
MD-30040	30V	4.00A	120W
MD-48025	48V	2.50A	120W
MD-56021	56V	2.14A	120W

## Input

Voltage	100-240VAC
Line Frequency	50 - 60Hz
Current	1.6A Max.
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6, C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	18AWG/16AWG/14AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / RCM / CCC

(\*) With KC mark

## Electrical

Topology	Switching Flyback
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3 Pin
Efficiency	DoE Level VI, Energy Star, ErP Stage 2, NRCAN & GEMS Level VI Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

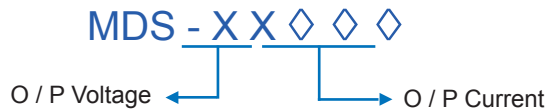
## Mechanical

Case Dimension	L 168 × W 66 × H 39 (mm) ( Ref. )
Weight	590 g ( Ref. )



# 160 Watt Series

Desktop Type



## Green Mode

CEC, DoE Level VI, ErP Stage 2, NRCan & GEMS  
NO Load Power Consumption Less Than 0.21W

## Features:

- 100-240VAC Universal Input
- Single Output to 160W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS-160T-P120	12V	12.5A	150W
MDS-160T-P190	19V	8.4A	160W
MDS-160T-P240	24V	6.6A	160W
MDS-160T-P480	48V	3.3A	160W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	2.2A Max.
Protection	Internal Primary Current Fuse
Configuration	IEC60320/C6, C14

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	UL 2464 / 16AWG / 18AWG
Ferrite Core	No (Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / RCM / CCC / DoE Level VI

## Electrical

Topology	LLC
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3Pin
Efficiency	ErP Stage 2, NRCan & GEMS Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 175 × W 74 × H 42 (mm) ( Ref. )
Weight	700 g ( Ref. )



# 200 Watt Series

Desktop Type



MDS200T - P X X X

P: C14

O / P Current

## Green Mode

CEC, Energy Star Level V, ErP Stage 2, NRCAN & GEMS  
NO Load Power Consumption Less Than 0.5W

## Features:

- 100-240 VAC Universal Input
- Single Output to 200W
- Regulated Output with Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS-200T-P120	12.0V	16.0A	192W
MDS-200T-P135	13.5V	14.0A	189W
MDS-200T-P190	19.0V	10.5A	200W
MDS-200T-P240	24.0V	8.3A	200W
MDS-200T-P480	48.0V	4.2A	200W
MDS-200T-P560	56.0V	3.58A	200W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	2.8A Max.
Protection	Internal Primary Current Fuse
Configuration	IEC60320/C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	UL 2464 / 16AWG
Ferrite Core	No (Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC / RCM

## Electrical

Topology	LLC
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3Pin
Efficiency	Energy Star Level V, ErP Stage 2, NRCAN & GEMS Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 183 × W 81 × H 42 (mm) L 203 × W 81 × H 42 (mm)-Switch type
Weight	850g ( Ref. )





# 250 Watt Series

Desktop Type

MDS250T - P X X X

P : C14 ← O / P Voltage →

## Green Mode

CEC, DoE Level VI, Energy Star, ErP Stage 2, NRCAN  
NO Load Power Consumption Less Than 0.21W

## Features:

- 100-240VAC Universal Input
- Single Output to 250W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS250T-P120	12.0V	20.00A	240.0W
MDS250T-P150	15.0V	16.66A	250.0W
MDS250T-P190	19.0V	13.15A	250.0W
MDS250T-P240	24.0V	10.42A	250.0W
MDS250T-P480	48.0V	5.21A	250.0W
MDS250T-P560	56.0V	4.46A	250.0W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	3A Max.
Protection	Internal Primary Current Fuse
Configuration	IEC60320/C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	UL 2464 / 16AWG
Ferrite Core	No (Optional)

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI

## Electrical

Topology	LLC
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3Pin
Efficiency	DoE Level VI, Energy Star, ErP Stage 2 & NRCAN Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling





# 300 Watt Series

Desktop Type

MDS300T - P X X X

P : C14 ← O / P Voltage →

## Green Mode

DoE Level VI,  
NO Load Power Consumption Less Than 0.5W

## Safety Approvals

CB / UL / cUL / FCC / GS / CE / PSE / BSMI

## Electrical

Topology	LLC
Dielectric Withstand	3000VAC Primary - Secondary
Leakage Current	3.5mA @ 3Pin
Efficiency	DoE Level VI, Energy Star, ErP Stage 2 & NRCan Certified
EMI Conduction & Radiation	Compliance to EN55022 Class B
Harmonic Current	Compliance to EN61000-3-2,3
EMS Immunity	Compliance to IEC61000-4-2,3,4,5,6,8,11
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 254 × W 116 × H 47 (mm)
Weight	1600 g ( Ref. )

## Features:

- 100-240VAC Universal Input
- Single Output to 300W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 1 Year Warranty

Model	O/P Voltage	O/P Current	Watt
MDS300T-P120	12.0V	24.00A	288.0W
MDS300T-P190	19.0V	15.78A	300.0W
MDS300T-P240	24.0V	12.50A	300.0W
MDS300T-P480	48.0V	6.25A	300.0W

## Input

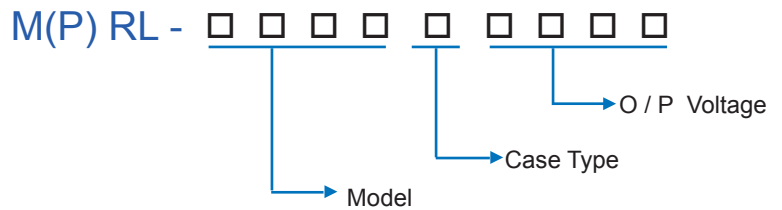
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	3.9A Max.
Protection	Internal Primary Current Fuse
Configuration	IEC60320/C14

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	UL 2464 / 16AWG
Ferrite Core	Yes

# Open and Enclosed Frame 13W - 800W

See page 36 for Medical Open Frame



## Features:

- Most UL recognized and CE
- Active and Passive PFC AC/DC~DC/DC
- Convection cooling and forced air, variable speed fans

Series	Wattage	Input Range	Output Voltages	Cases
MFPD-15	13-17	88-264VAC/124-370VDC	3.3, 5, 12, 15, 24	Enclosed Frame
MFPD-20	13-20	90-264VAC/127-370VDC	3.3, 5, 12, 15, 24, 48	Open Frame
MFPD-25-S	16-25	90-264VAC/127-370VDC	3.3, 5, 12, 15, 24	Enclosed Frame
MFPS-35	30-36	90-264VAC,	5, 12, 24, 48	Open Frame
MFPD-35	30-35	90-264VAC/127-370VDC	5, 12, 24, 48	Enclosed Frame
MFPS-45-S	44-48	90-264VAC	12, 24, 48	Open Frame
MFPD-50	45-53	90-264VAC/127-370VDC	5, 12, 15, 24, 48	Enclosed Frame
MFPD-50-D	45-52	90-264VAC/127-370VDC	5, 12, 15, 24	Enclosed Frame
MFPS-60	40-60	90-264VAC/127-370VDC	5, 12, 15, 24, 48	Open Frame
MFPD-75	60-75	90-264VAC/127-370VDC	5, 12, 15, 24, 48	Enclosed Frame
MFPD-75-D	60-77	90-264VAC/127-370VDC	5, 12, 15, 24, 48	Enclosed Frame
MFPDF-100	100	90-264VAC/127-370VDC*	5, 12, 15, 24, 36, 48	Enclosed Frame
MFPD-100	80-110	90-264VAC/127-370VDC	5, 12, 15, 24, 48	Enclosed Frame
MFGKF-100	100-105	90-264VAC*	5, 12, 24, 48	Enclosed Frame
MFPWF-100L	100-103	85-264VAC*	12, 24, 36, 48	Enclosed Frame
MFPSF-125	100-125	90-264VAC/127-370VDC	5, 12, 15, 24, 36, 48	Open Frame
MFPD-150	150-158	88-132VAC/176-264VAC	5, 12, 15, 24, 48	Enclosed Frame
MFPDF-150	150	85-264VAC/120-370VDC*	5, 12, 15, 24, 36, 48	Enclosed Frame
MFPWF-150L	150-153	85-264VAC*	12, 24, 27.6, 48	Enclosed Frame
MFGKF-150	150-153	90-264VAC*	12, 15, 24, 48	Enclosed Frame
MFPSF-200	200	90-264VAC/127-370VDC	12, 24, 48	Open Frame
MFPWF-200	200	90-264VAC*	5, 12, 24, 48	Enclosed Frame
MFGKF-200	200	85-264VAC/120-370VDC*	5, 12, 24, 48	Enclosed Frame
MFGKF-240	240	85-264VAC/120-370VDC*	5, 12, 24, 48	Enclosed Frame
MFGKF-320	275-321	85-264VAC/120-370VDC*	5, 12, 24, 48	Enclosed Frame
MPDF-320	198-321	88-264VAC/124-370VDC*	3.3, 4, 5, 7, 12, 24, 28, 36, 48	Enclosed Frame
MFPD-350	350	90-264VAC*	24V	Enclosed Frame
MFPDF-480	480	90-264VAC*	12, 24, 27, 36, 48	Enclosed Frame
MFPDF-600	408-650	90-264VAC/127-370VDC*	12, 24, 36, 48	Enclosed Frame
MFGKF-600	600	88-264VAC	24, 36, 48	Enclosed Frame
MFPDF-800	800	90-264VAC*	24, 27, 48	Enclosed Frame

\* Active PFC





# 12 Watt Medical Series

Wall Mount Type  
USA / Europe / UK

## Green Mode

Meet CEC, Energy Star Level VI, ErP Stage 2, NRCAN & GEMS NO Load Power Consumption Less 0.1W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100-240VAC Universal Input
- Single Output to 12W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MWM012-W050□	5.0V	2.00A	10.00W
MWM012-W060□	5.9V	1.70A	10.00W
MWM012-W075□	7.5V	1.33A	10.00W
MWM012-W090□	9.0V	1.12A	10.00W
MWM012-W120□	12.0V	1.00A	12.00W
MWM012-W150□	15.0V	0.80A	12.00W
MWM012-W180□	18.0V	0.67A	12.00W
MWM012-W240□	24.0V	0.50A	12.00W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.31A-0.17A
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	U for US Plug
	E for EU Plug
	B for UK Plug

MWM012 - W X X X □

O/P Voltage

U : US Plug  
E : EU Plug  
B : UK Plug

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG
Ferrite Core	Yes

### Safety Approvals

For USA - UL / cUL / FCC

For Europe & UK - CE

Electrical	
Topology	Switching Flyback
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level VI, ErP Stage 2, NRCAN & GEMS Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2, 3
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

### Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling



# 20 Watt Medical Series

Wall Mount Type  
USA / Europe / UK

MWM020 - W X X X □

O/P Voltage ←

→ U : US Plug  
E : EU Plug  
B : UK Plug

## Green Mode

Meet CEC, Energy Star Level VI, ErP Stage 2, NRCan & GEMS NO Load Power Consumption Less 0.1W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100 - 240VAC Universal Input
- Single Output to 20W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MWM020-W050□	5.0V	3.50A	17.50W
MWM020-W060□	5.9V	3.00A	17.70W
MWM020-W090□	9.0V	2.22A	20.00W
MWM020-W120□	12.0V	1.67A	20.00W
MWM020-W150□	15.0V	1.33A	20.00W
MWM020-W180□	18.0V	1.11A	20.00W
MWM020-W240□	24.0V	0.83A	20.00W
MWM020-W480□	48.0V	0.42A	20.00W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.45A-0.3A
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	U for US Plug
	E for EU Plug
	B for UK Plug

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	22AWG / 20AWG / 18AWG
Ferrite Core	Yes

## Safety Approvals

For USA- UL / cUL / FCC

For Europe & UK - CE

## Electrical

Topology	Switching Flyback
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level VI, ErP Stage 2, NRCan & GEMS Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2, 3
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling



# 30 Watt Medical Series

Desktop Type

MDM030 - □ X X X

P : C6 / C14 ←      → O / P Voltage  
A : C8 / C18

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.3W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current: < 100µA
- 100-240VAC Universal Input
- Single Output to 30W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MDM030- □050	5.0V	4.00A	20W
MDM030- □051	5.0V	5.00A	25W
MDM030- □075	7.5V	4.00A	30W
MDM030-□090	9.0V	3.34A	30W
MDM030- □120	12.0V	2.50A	30W
MDM030- □150	15.0V	2.00A	30W
MDM030- □180	18.0V	1.67A	30W
MDM030- □240	24.0V	1.25A	30W
MDM030- □360	36.0V	0.84A	30W

### Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	0.7A-0.45A
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6, C8, C14, C18

### Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	20AWG / 18AWG / 16AWG
Ferrite Core	Yes

### Safety Approvals

CB / UL / cUL / FCC / CE / T-mark(TUV) / PSE

### Electrical

Topology	Switching Flyback
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level V , ErP Stage 2 Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2, 3
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

### Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

### Mechanical

Case Dimension	L 100 × W 50 × H 33 (mm) ( Ref. )
Weight	210 g ( Ref. )



# 65 Watt Medical Series

Desktop Type



MDM065 - □ X X X

P : C6 / C14 ←      → O / P Voltage  
A : C8 / C18

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.5W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100-240VAC Universal Input
- Single Output to 65W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
ATM065-□120	12V	5.00A	60 W
ATM065-□150	15V	4.34A	65 W
ATM065-□180	18V	3.62A	65 W
ATM065-□190	19V	3.43A	65 W
ATM065-□240	24V	2.71A	65 W
ATM065-□360	36V	1.81A	65 W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.6A-0.7A
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6, C8, C14, C18

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection
DC Cord	18AWG / 16AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / CE / T-mark(TUV) / PSE  
BSMI: CLASS I / RCM: CLASS II

## Electrical

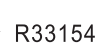
Topology	Switching Flyback
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level V , ErP Stage 2 Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2, 3
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 119 × W 60 × H 36 (mm) ( Ref. )
Weight	350 g ( Ref. )





# 90 Watt Medical Series

Desktop Type

MDM090 - □ X X X

P : C6 / C14 ← O / P Voltage  
A : C8 / C18 →

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.5W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100-240VAC Universal Input
- Single Output to 90W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MDM090-□120	12V	7.50A	90W
MDM090-□150	15V	6.00A	90W
MDM090-□190	19V	4.74A	90W
MDM090-□240	24V	3.75A	90W
MDM090-□360	36V	2.50A	90W
MDM090-□480	48V	1.88A	90W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.2A-0.5A
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6,C8,C14, C18

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage @ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	18AWG / 16AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / CE / T-mark(TUV) / PSE

## Electrical

Topology	Switching Flyback
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level V , ErP Stage 2 Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2, 3
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 168 × W 66 × H 39 (mm) ( Ref. )
Weight	600 g ( Ref. )



# 120 Watt Medical Series

Desktop Type

MDM120 - □ X X X

P : C6 / C14 ← O / P Voltage  
A : C8 / C18

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.5W

## Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100-240VAC Universal Input
- Single Output to 120W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MDM120-□120	12V	10.00A	120W
MDM120-□150	15V	8.00A	120W
MDM120-□180	18V	6.60A	120W
MDM120-□190	19V	6.32A	120W
MDM120-□240	24V	5.00A	120W
MDM120-□360	36V	3.34A	120W
MDM120-□480	48V	2.50A	120W

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.4A-0.5A
Protection	Internal Primary Current Fuse , Inrush Limiting
Configuration	IEC60320/C6, C8, C14, C18

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max.
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	16AWG
Ferrite Core	Yes

## Safety Approvals

CB / UL / cUL / FCC / CE / T-mark(TUV) / PSE

## Electrical

Topology	LLC
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level V , ErP Stage 2 Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2, 3
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C, by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 175 × W 74 × H 42 (mm) ( Ref. )
Weight	700g ( Ref. )





# 160 Watt Medical Series

Desktop Type



MDM160 - P X X X

P : C6 / C14 ← O / P Voltage →

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.5W

## Safety Approvals

CB / UL / cUL / FCC / CE / T-mark(TUV) / PSE

## Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100-240VAC Universal Input
- Single Output to 160W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

## Electrical

Topology	LLC
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level V , ErP Stage 2 Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

Model	O/P Voltage	O/P Current	Watt
MDM160-P120	12V	12.5A	150W
MDM160-P190	19V	8.4A	160W
MDM160-P240	24V	6.6A	160W
MDM160-P480	48V	3.3A	160W

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.8A-0.9A
Protection	Internal Primary Current Fuse
Configuration	IEC60320/C6, C14

## Mechanical

Case Dimension	L 183 × W 81 × H 42 (mm) ( Ref. )
Weight	820 g ( Ref. )

## Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	16AWG
Ferrite Core	No( Optional )



# 200 Watt Medical Series

Desktop Type

MDM200 - P X X X

P : C6 / C14 ← O / P Voltage

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.5W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- 100-240VAC Universal Input
- Single Output to 200W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements and EMI/EMS Certified
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MDM200-P120	12.0V	16.00A	192.00W
MDM200-P180	18.0V	11.00A	198.00W
MDM200-P190	19.0V	10.50A	199.50W
MDM200-P240	24.0V	8.30A	199.20W
MDM200-P480	48.0V	4.17A	200.16W

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	2.5A-0.9A
Protection	Internal Primary Current Fuse
Configuration	IEC60320/C6, C14

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection
DC Cord	16AWG
Ferrite Core	NO( Optional )

## Safety Approvals

CB / UL / cUL / FCC / CE / T-mark(TUV) / PSE

Electrical	
Topology	LLC
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
Efficiency	Energy Star Level V , ErP Stage 2 Certified
EMI Conduction & Radiation	Compliance to EN55011 Class B
Harmonic Current	Compliance to EN61000-3-2
EMS Immunity	Compliance to IEC60601-1-2
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 40°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Case Dimension	L 204 × W 81 × H 42.5 (mm) ( Ref. )
Weight	880 g ( Ref. )



# 120 Watt Medical Open Frame Power Supply MDM120-F Series



MDM120 - F XXX

↓  
O / P Voltage

## Green Mode

Meet CEC , Energy Star Level V , ErP Stage 2  
NO Load Power Consumption Less Than 0.5W

### Features:

- ANSI/AAMI/IEC/EN ES60601-1:2005 (60601 3rd edition)
- IEC 60950 approval
- Means of Protection: 2 X MOPP
- Touch Current : < 100µA
- Designed to Meet UL60950-1 , EN60950
- 100-240VAC Universal Input
- Single Output to 120W
- Regulated Output With Low Ripple Noise
- Safety Agency Requirements
- Modified and Custom Design Available
- 2 Years Warranty

Model	O/P Voltage	O/P Current	Watt
MDM120-F120	12V	10.00A	120W
MDM120-F150	15V	8.00A	120W
MDM120-F190	19V	6.30A	120W
MDM120-F240	24V	5.00A	120W
MDM120-F300	30V	4.00A	120W
MDM120-F480	48V	2.50A	120W

### Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.5A-0.7A
Protection	Internal Primary Current Fuse
Configuration	2PIN Wafer + Ground PIN

### Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Short Circuit Protection / Over Voltage Protection / Over Current Protection / Over Temperature Protection

### Safety Approvals

CB / UL / cUL / T- mark(TUV)

### Electrical

Topology	LLC
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

### Environmental

Operating Temperature	0 to + 50°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

### Mechanical

Dimension	L 127 × W 76 × H 35 (mm) ( Ref. ) 5" X 3" X 1.4" (inch)
Weight	320 g ( Ref. )



# 130 Watt Medical Open Frame Dual Output MDM130-F240



## Low Power Consumptions & High Efficiency

### Features:

- 100-240VAC Universal Input
- Regulated Output With Low Ripple Noise
- Modified and Custom Design Available

Model	O/P Voltage	O/P Current	Watt
MDM130-F240	24V	5A	130W
	5V	2A	

### Input

Voltage	100-240VAC
Line Frequency	50-60Hz
Current	1.8A-0.6A
Protection	Internal Primary Current Fuse

### Output

Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Over Voltage Protection / Over Current Protection / Over Power Protection / Short Circuit Protection / Over Temperature Protection

### Safety Approvals

CB / UL / cUL / T- mark(TUV)

### Electrical

Topology	LLC
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
MTBF	300,000 Calculated Hours at 25°C , by Telcordia SR-332

### Environmental

Operating Temperature	0 to + 50°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

### Mechanical

Dimension	L 178 × W 108 × H 28 (mm) ( Ref. )
Weight	450 g ( Ref. )



EN 60601-1  
IEC 60601-1

RoHS 33

# 210 Watt Medical Open Frame Dual Output MDM210-P240



## Low Power Consumptions & High Efficiency

### Features:

- 100-240VAC Universal Input
- Regulated Output With Low Ripple Noise
- Modified and Custom Design Available

Model	O/P Voltage	O/P Current	Watt
MDM210-P240	24.0V	8.3A	210W
	5.00V	2.0A	

Input	
Voltage	100-240VAC
Line Frequency	50-60Hz
Current	2.5A-0.8A
Protection	Internal Primary Current Fuse

Output	
Load Regulation	±5% ( Typical )
Ripple	1 ~ 2% Vp-p Max. for Output Voltage@ Full Load
Transient Response	0.5mS for 50% Load Change Typical
Hold-up Time	10mS @ Full Load
Protection	Over Voltage Protection / Over Current Protection / Over Power Protection / Short Circuit Protection / Over Temperature Protection

## Safety Approvals

No (Optional)

## Electrical

Topology	LLC
Dielectric Withstand	4000VAC Primary - Secondary
Touch Current	< 100µA
MTBF	300,000 Calculated Hours at 25°C, by Telcordia SR-332

## Environmental

Operating Temperature	0 to + 50°C
Storage Temperature	-20 to + 80°C
Relative Humidity	Operating : 20 to 80% RH
	Storage : 10 to 90% RH
Cooling	Natural Convection Cooling

## Mechanical

Dimension	L 178 × W 108 × H 30 (mm) ( Ref. )
Weight	510 g ( Ref. )



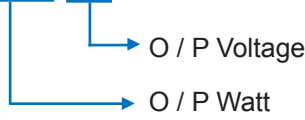
**65 Watt LED Driver**

MLD - X X ◊ ◊



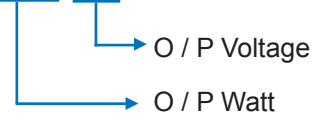
**100 Watt LED Driver**

MLD - X X X ◊ ◊



**120 Watt LED Driver**

MLD - X X X ◊ ◊



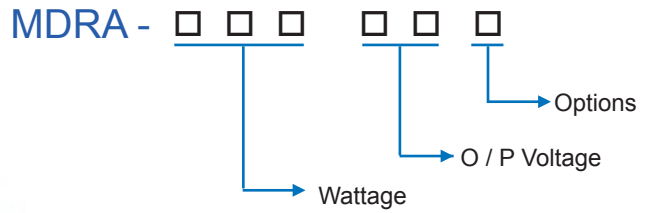
65 W Series	Model	O/P Voltage	O/P Current	Watt	Drop Voltage Range	Efficiency
	MLD65-15	15V	4.30A	65 W	11.3V~15V	>87%
	MLD65-20	20V	3.25A	65 W	15.0V~20V	>87%
	MLD65-24	24V	2.70A	65 W	18.0V~24V	>87%
	MLD65-36	36V	1.80A	65 W	27.0V~36V	>87%
	MLD65-48	48V	1.35A	65 W	36.0V~48V	>87%

100 W Series	Model	O/P Voltage	O/P Current	Watt	Drop Voltage Range	Efficiency
	MLD100-15	15V	6.66A	100 W	11.3V~15V	>87%
	MLD100-20	20V	5.00A	100 W	15.0V~20V	>87%
	MLD100-24	24V	4.16A	100 W	18.0V~24V	>87%
	MLD100-36	36V	2.77A	100 W	27.0V~36V	>87%
	MLD100-48	48V	2.08A	100 W	36.0V~48V	>87%

120 W Series	Model	O/P Voltage	O/P Current	Watt	Drop Voltage Range	Efficiency
	MLD120-15	15V	8.0A	120 W	11.3V~15V	>87%
	MLD120-20	20V	6.0A	120 W	15.0V~20V	>87%
	MLD120-24	24V	5.0A	120 W	18.0V~24V	>87%
	MLD120-36	36V	3.3A	120 W	27.0V~36V	>87%
	MLD120-48	48V	2.5A	120 W	36.0V~48V	>87%

Input		Electrical		Environmental	
Voltage	100-240 VAC 50~60Hz	Topology	Switching Flyback	Operating Temperature	-25 to+50°C
AC Current	1.0A Max. for 65W 1.4A Max. for 100W 1.7A Max. for 120W	Dielectric Withstand	I/P-O/P:3750VAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC	Storage Temperature	-40 to+80°C
Inrush Current	Less Than 60A at 230V for 65W Less Than 80A at 230V for 100 & 120 W			Relative Humidity	Operating:20 to 100% RH Storage:10 to 95% RH
Output		Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/ 500VDC/25°C/70%RH	Cooling	Natural Convection Cooling
Current	± 6% Output Rated Current (Constant Current)	Leakage Current	3.5mA Max.	<b>Mechanical</b>	
Ripple	5% Vp-p Max. for Output Voltage @ Full Load	Harmonic Current	Compliance to EN61000-3-2 Class C EN61000-3-3	Case Dimension	L158 × W53 × H36 (mm) ( Ref. ) For 65 W
Transient Response	0.5mS for 50% Load Change Typical	EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11		L149 × W62 × H39 (mm) ( Ref. ) For 100 W
Hold-up Time	10mS @ Full Load	MTBF	300,000 Calculated Hours at 25°C, by Telcordia SR-332	L172 × W67 × H39 (mm) ( Ref. ) For 120 W	
Protection	Short Circuit Protection/ Over Voltage Protection 110%~150%			Weight	65W : 500g 100W : 700g 120W : 890g ( Ref. )

# 5 Watt to 960 Watt DIN RAIL AC/DC



## Features:

- AC/DC DIN Rail mountable power supply
- Universal input 85-264VAC
- Optional 3 phase AC input voltage 340-575VAC
- Compact design
- High efficiency up to 93%
- Parallel function available (switch)
- Short circuit protection

Series	Wattage	Input Range	Output Voltages
MDRA05(A)	5	90~264VAC	5, 12,15, 24
MDRA10(A)	10	90~264VAC	5, 12,15, 24
MDRA18(A)	18	90~264VAC	5, 12,15, 24
MDRA30(A)	30	90~264VAC	5, 12,15, 48
MDRA60(A)	60	85~240VAC	5, 12,15, 48
MDRA100A	100	90~264VAC	12, 24, 48
MDRA120A(B)	120	115/230VAC	12, 24, 48
MDRA240A(B)	240	115/230VAC	24, 48
MDRA300A(B)	300	115/230VAC	24, 48
MDRA480A(B)	480	90/264VAC	24, 48
MDRA100VA	100	20/10340~575VAC	12, 24
MDRA120WA	120	30 340~575VAC	12, 24
MDRA240WA	240	30 340~575VAC	24, 48
MDRA480WA	480	30 340~575VAC	24, 48
MDRA960WA	960	30 340~575VAC	24, 48

Standard termination is Spring Style

Option A: Screw Terminals

Option B: Detachable Connector



# Most Common Power Supply Power Cords

Cords carry the requisite approval required for each destination below.

## C7 Power cords

Used in	Part Number	Description
N. America	17815	N1/15(Polarized)-SPT-2 2X18-C7/6'7"
Cont'l Europe	200-20M	XVI-H03VVH2F0.75-C7/6'7"
UK	209-21-2	BS1363-H03VVH2F2X0.75-C7/6'7"
Argentina	197-81-2	IRAM 2073-H05VVH2F2X0.75-C7/6'7"
Australia	198-81-2	3112-H03VVH2F2X0.75-C7/6'7"
Brazil	450-007	BR-2-H03VVH2-F 0.75mm2 C7/6'
China	196-00	GB2099-RVB2x075-C7/6'
India	455-C7	IS1293-H03VVH2F 2x0.75 C7/6'
Israel	457-C7	SI-32 H03VVH2F 2x0.75 C7/6'
Japan	002-70	PSE-N1/15-VCTFK2X0.75MM-C7/6'
Korea	195-C7	KSC8305-H03VVH2Fx0.75mm-C7/6'
S. Africa	456-21	SABS-H03VVH2F2X0.75-C7/6'7"
Thailand	193-C7	TIS16S2-H03VVH2-F 2x0.75-C7/6'



## C5 Power cords

N. America	18EV8N1718	N5/15-SVT3X18-C5/6'
Cont'l Europe	199-C5	VII-H05VVF3G0.75-C5/6'
UK	209-C5	BS1363-H05VVF3G0.75-C5/6'
Argentina	197-C5-2	IRAM 2073-H05VVF3G0.75-C5/6'7"
Australia	198-C5	3112-SAA3x0.75mm-C5/6'
Brazil	450-C5	BR2-10P-H05VVF3G0.75-C5/6'
China	196-C5	GB2099-1-RVV3X0.75-C5/6'
Denmark	310-C5	107-2-H05VVF3G0.75-C5/6'7"
India	455-C5	IS1293-H05VVF3G0.75-C5/6'7"
Israel	457-C5	SI32-H05VVF3G0.75-C5/6'
Italy	364-C5-2	CEI23-H05VVF3G0.75-C5/6'7"
Japan	002-C5	PSE-N5/15-VCTF3X0.75-C5/6'
Korea	199-C5-KETI	VII-H05VVF3G0.75-C5/6'
S. Africa	456-C5-2	SABS-H05VVF3G0.75-C5/6'7"
Switzerland	210-C5	1011-H05VVF3G0.75-C5/6'
Thailand	193-C5	TIS 166-2549-H05VVF3G0.75-C5/6'

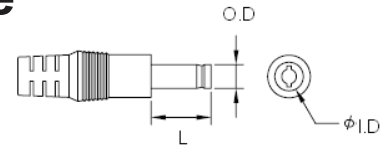


## C13 Power cords

N. America	18EV8N1318	N5/15-SVT3X18-C13/6'
Cont'l Europe	199-000	VIIG-H05VVF3G1.0-C13/8'2"
UK	209-000	BS1363-H05VVF3G1.0-C13/8'2"
Argentina	197-000	IRAM 2073-H05VVF3G1.0-C13/8'2"
Australia	198-000	3112-H05VVF3G1.0-C13/8'2"
Brazil	450-000	BR2-10P-H05VVF3G1.0-C13/8'2"
China	196-000	GB2099-1-RVV3X1.0-C13/8'2"
Denmark	310-000	107-2-H05VVF3G1.0-C13/8'2"
India	455-000	IS1293-H05VVF3G1.0-C13/8'2"
Israel	457-010	SI32-H05VVF3G1.0-C13/8'2"
Italy	364-010	CEI23-H05VVF3G1.0-C13/8'2"
Japan	0020000011	PSE-N5/15-VCTF3X0.75-C13/7'7"
Korea	195-001	KSC8305-H05VVF3G1.0mm-C13/8'2"
S. Africa	456-010	SABS-H05VVF3G1.0-C13/8'2"
Switzerland	210-000	1011-H05VVF3G1.0-C13/8'2"
Thailand	193-000	TIS 166-2549-H05VVF3G1.0-C13/8'2"



# Appendix: Plug List of Output Cable



Code	Plug Type	Specification	Outline / Drawing
00	Strip & Tined	NC	
01	Barrel Type	L x 5.5 x 2.1	
02		L x 5.5 x 2.5	
03		L x 4.75 x 1.7	
04		L x 4.0 x 1.7	
05		L x 3.5 x 1.35	
06		L x 2.35 x 0.7	
07		L x 6.3 x 3.0	
08		L x 6.5 x 1.4	
11		Barrel Type Right Angle	L x 5.5 x 2.1
12	L x 5.5 x 2.5		
13	L x 4.75 x 1.7		
14	L x 4.0 x 1.7		
15	L x 3.5 x 1.35		
16	L x 2.35 x 0.7		
17	L x 6.3 x 3.0		
18	L x 6.5 x 1.4		
21	Din (male)	3Pin	
22		4Pin	
23		5Pin(180)	
24		5Pin(240)	
25		6Pin	
26		7Pin	
27		8Pin	



Barrels will be center positive unless specified otherwise

Code	Plug Type	Specification	Outline / Drawing
31	Mini-Din (male)	3Pin	
32		4Pin	
33		5Pin	
34		6Pin	
35		7Pin	
36		8Pin	
41	Power-Mini Din (male)	3Pin (Molding)	
42		4Pin (Molding)	
45		3Pin (Assembly/Lock Type)	
46		4Pin (Assembly/Lock Type)	
61	Interchangeable Connector	2Pin	
62		2Pin	
63		3Pin	
71	Switchcraft Locking Type	A:5.5, B:2.5 C:0.375 (9.52mm)	
72		A:5.5, B:2.5 C:0.475 (12.06mm)	
73		A:5.5, B:2.1 C:0.375 (9.52mm)	
74		A:5.5, B:2.1 C:0.475 (12.06mm)	
81	DC Jack with Screw	A:5.5, B:2.1, C:7.5	
82		A:5.5, B:2.1, C:10.1	
91	Cigarette Lighter		



**MEGA**  
ELECTRONICS INC.

4B Jules Lane • New Brunswick, NJ • 08901  
Tel: 732-249-2656 • Fax: 732-249-7442 • [www.megaelectronics.com](http://www.megaelectronics.com)