

# Power Supplies w/PFC

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~ Quality First

Customer Satisfaction

Continue Improvement ~



ISO 9001:2000



RoHS

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

**MEGA**  
ELECTRONICS INC.

Powering Your Products

# Company Profile

- MEGA Electronics Inc. is a Delaware Corporation headquarter in New Brunswick, NJ with production facilities in China and The Philippines.
- We offer numerous standard products (5W~800W AC-DC; 200W~3200W PFC Active Current Share Redundancy, PF-Value > 0.98; 0.25W~500W DC-DC Series ). We welcome the opportunity to best suit your custom demands.
- All products comply with the latest international safety regulations such as TUV, CUL, UL, CE and EMC pass CISPR 22 / EN55022 class B. All production units were burn-in and calibrated through Automatic Test Equipment (ATE).

# Declaration of non-use of RoHS Substances

RoHS

ISO 9001:2000



Our company hereby confirms and assures that our RoHS products offering is in conformity with the following stipulations:

Restricted Substance Content	Directive 2002/95/EC	Limit
Cadmium (Cd) / Cadmium Compounds	EN1122	100 ppm
Lead (Pb) / Lead Compounds	USEPA 3050B	1000 ppm
Mercury (Hg) / Mercury Compounds	USEPA 3052	1000 ppm
Hexavalent-Chromium (Cr <sup>6+</sup> ) Compounds	USEPA 3060A & 7196A	1000 ppm
Polybrominated biphenyl (PBB)	83/264/EEC	1000 ppm
Polybrominated diphenyl ether (PBDE, <b>DecaBDE included</b> )	83/264/EEC	1000 ppm
<b>Additional Rule for Packaging Materials</b>		
(Pb+Cd+Hg+Cr <sup>6+</sup> )	94/62/EEC	100ppm



## Series Specification

**RoHS**

Max Power	Input Voltage	Model (x equals to U, F)	Output Voltage	Max. Output Power or Current		Ripple & Noise ( Max )	Total Regulation
				Type U, F (U under 16CFM)	Type U Convection		
250W	90-132 /185-264Vac Auto-Range	MRL0603x-05	2-5V	40A	20A	+/- 1%	+/- 1%
		MRL0603x-09	6-10V	25A	13.5A	+/- 1%	+/- 1%
		MRL0603x-12	11-13.8V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-15	14-15.5V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-18	16-20V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-24	21-26V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-28	27-34V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-36	35-42V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-48	43-50V	250W	135W	+/- 1%	+/- 1%
		MRL0603x-54	51-60V	250W	135W	+/- 1%	+/- 1%
250W	90-132 /185-264Vac Auto-Range	MRL0603Dx-0312	V1:+3V	24A	12A	+/- 5%	50mV
			V2:+12V	12A	7A	+/- 5%	+/- 1%
		MRL0603Dx-0324	V1:+3V	24A	12A	+/- 5%	50mV
			V2:+24V	6A	4A	+/- 5%	+/- 1%
		MRL0603Dx-0512	V1:+5V	24A	12A	+/- 5%	+/- 1%
			V2:+12V	12A	7A	+/- 5%	+/- 1%
		MRL0603Dx-0524	V1:+5V	24A	12A	+/- 5%	+/- 1%
			V2:+24V	6A	4A	+/- 5%	+/- 1%
		MRL0603Dx-0548	V1:+5V	24A	12A	+/- 5%	+/- 1%
			V2:+48V	3A	2A	+/- 5%	+/- 1%
		MRL0603Dx-1224	V1:+12V	12A	7A	+/- 5%	+/- 1%
			V2:+24V	6A	4A	+/- 5%	+/- 1%

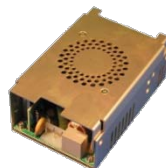


### MRL0603U Series:

(Size: 5 \* 3.2 \* 1.5" / 127 \* 81.3 \* 38.1 mm)  
250W / 135W max. @ forced cooling / convection.

### MRL0603DU Series: (Size: same as MRL0603U)

MRL0603DU-1224:  
250W / 135W max. @ forced cooling / convection.  
other models:  
200W / 100W max. @ forced cooling / convection.



### MRL0603F Series:

(Size: 5 \* 3.2 \* 2" / 127 \* 81.28 \* 50.8 mm)  
Max 250W with built-in fan cooling.

### MRL0603DF Series:

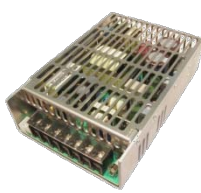
(Size: same as MRL0603F)  
Max. 250W for MRL0603DF-1224; Max. 200W for other models; All with built-in fan cooling.



## Series Specification

**RoHS**

Max Power	Input Voltage	Model (x equals C, U, E, F)	Output Range	Present Voltage	Max. Output Power or Current			Regulation	Ripple & Noise
					Type U, E, F (U under 22CFM)	Type U Convection	Type C Convection		
320W	90-132 /185- 264Vac Auto- Range	MRL0601x-05	2-5.5V	5V	45A	27.28A	25A	+/- 1%	+/- 1%
		MRL0601x-09	6-11V	9V	29.1A	16.37A	13.64A	+/- 1%	+/- 1%
		MRL0601x-12	12-13.5V	12V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-15	13.6-15V	15V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-18	16-20V	18V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-24	21-26V	24V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-28	27-34V	28V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-36	35-42V	36V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-48	43-50V	48V	320W	180W	170W	+/- 1%	+/- 1%
		MRL0601x-54	51-60V	54V	320W	180W	170W	+/- 1%	+/- 1%
300W	90-132 /185- 264Vac Auto- Range	MRL0601Dx-0512	V1:+5V		30A	15A		+/- 5%	+/- 1%
			V2:+12V		16.67A	10.42A		+/- 5%	+/- 1%
		MRL0601Dx-0524	V1:+5V		30A	15A		+/- 5%	+/- 1%
			V2:+24V		8.33A	5.2A		+/- 5%	+/- 1%
		MRL0601Dx-0548	V1:+5V		30A	15A		+/- 5%	+/- 1%
			V2:+48V		4.16A	2.6A		+/- 5%	+/- 1%
MRL0601Dx-1224	V1:+12V		16.67A	12.5A		+/- 5%	+/- 1%		
	V2:+24V		8.33A	6.25A		+/- 5%	+/- 1%		



**MRL0601U /  
MRL0601DU**

**MRL0601C**

**MRL0601E /  
MRL0601DE**

**MRL0601F /  
MRL0601DF**

### MRL0601x series:

Type U: 320W max. with 22CFM forced airflow or 180W convection cooled output.  
Type C: 170W max. convection cooled. Type E & F: 320W max with built-in fan cooling.

### MRL0601Dx series:

Type U (with min. 22CFM forced air flow) & E & F: Max. 300W total combined power of V1 and V2 for MRL0601Dx-1224 and 250W for other models.  
Type U (with convection cooling): Max. 150W total combined power of V1 and V2 for MRL0601Dx-1224 and 125W for other models.

Size: 6 x 4 x 1.5" / 152.4\*101.6\*38.1    Size: 6 x 4 x 1.55" / 152.4\*101.6\*39.4    Size: 7 x 4 x 1.6" / 177.8\*101.6\*40.7    Size: 6 x 4 x 2" / (inch) 152.4\*101.6\*50.8 (mm)



## Series Specification



Max Power	Input Voltage	Model (x equals to U, E, F)	Output Range	Preset Voltage	Max. Output Power or Current		Regulation	Ripple & Noise
					Type U, E, F (U under 16CFM)	Type U Convection		
300W	90-264Vac Full-Range	MPRL0801x-05	2-5V	5V	42A	20A	+/- 1%	+/- 1%
		MPRL0801x-09	7-11V	9V	27.27A	13.64A	+/- 1%	+/- 1%
		MPRL0801x-12	12-13.8V	12V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-15	14-16V	15V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-18	17-22V	18V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-24	23-28V	24V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-30	29-34V	30V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-36	35-43V	36V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-48	44-52V	48V	300W	150W	+/- 1%	+/- 1%
		MPRL0801x-54	53-60V	54V	300W	150W	+/- 1%	+/- 1%
240W	90-264Vac Full-Range	MPRL0801Dx-0512	V1:+5V		24A	12A	+/- 5%	+/- 1%
			V2:+12V		13.33A	6.67A	+/- 5%	+/- 1%
		MPRL0801Dx-0524	V1:+5V		24A	12A	+/- 1%	+/- 1%
			V2:+24V		6.67A	3.33A	+/- 5%	+/- 1%
		MPRL0801Dx-0548	V1:+5V		24A	12A	+/- 5%	+/- 1%
			V2:+48V		3.33A	1.67A	+/- 5%	+/- 1%
		MPRL0801Dx-1224	V1:+12V		13.33A	6.67A	+/- 5%	+/- 1%
			V2:+24V		6.67A	3.33A	+/- 5%	+/- 1%



**MPRL0801U /  
MPRL0801DU**



**MPRL0801U/  
MPRL0801DU  
With Cover**



**MPRL0801F  
/  
MPRL0801D**



**MPRL0801E /  
MPRL0801DE**

### MPRL0801x series:

Type U: 300W max. with 25CFM forced airflow or 150W convection cooled output.  
Type E & F: 300W max with built-in fan cooling.

### MPRL0801Dx series:

Type U: 240W max. with 25CFM forced airflow or 120W convection cooled output.  
Type E & F: 240W max with built-in fan cooling.

Size: 5 x 3.2 x 1.5"  
127 x 81.28 x 38.1

Size: 5 x 3.2 x 1.66"  
127 x 81.28 x 42.16

Size: 5 x 3.2 x 2"  
127 x 81.28 x 50.8

Size: 6.5 x 3.2 x 1.6" (inch)  
165.1 x 81.28 x 40.64 (mm)

# AC-DC

## Series Specification

UL CE CB

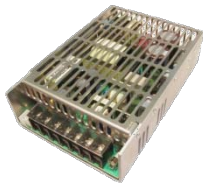
RoHS

Max Power	Input Voltage	Model (x equals to U,E, F)	Output Range	Preset Voltage	Max. Output Power or Current		Regulation	Ripple & Noise
					Type E, U, F (with forced air)	Type U Convection		
300W	90-264Vac Full-Range	MPRL0602x-05	2-6V	5V	42A	25A	+/- 1%	1%
		MPRL0602x-09	7-9V	9V	36A	20A	+/- 1%	1%
		MPRL0602x-12	10-13.8V	12V	32A	18A	+/- 1%	1%
		MPRL0602x-15	14-15.5V	15V	22.86A	12.86A	+/- 1%	1%
		MPRL0602x-18	16-20V	18V	20A	11.25A	+/- 1%	1%
		MPRL0602x-24	21-26V	24V	15.24A	8.57A	+/- 1%	1%
		MPRL0602x-28	27-34V	28V	11.85A	6.67A	+/- 1%	1%
		MPRL0602x-36	35-42V	36V	9.14A	5.14A	+/- 1%	1%
		MPRL0602x-48	43-50V	48V	7.44A	4.18A	+/- 1%	1%
		MPRL0602x-54	51-60V	54V	6.27A	3.53A	+/- 1%	1%
300W	90-264Vac Full-Range	MPRL0602Dx-0512	V1:+5V		24A	12A	+/- 5%	1%
			V2:+12V		13.33A	6.67A	+/- 5%	1%
		MPRL0602Dx-0524	V1:+5V		24A	12A	+/- 5%	1%
			V2:+24V		3.33A	1.67A	+/- 5%	1%
		MPRL0602Dx-0548	V1:+5V		24A	12A	+/- 5%	1%
			V2:+48V		3.33A	1.67A	+/- 5%	1%
MPRL0602Dx-1224	V1:+12V		13.33A	6.67A	+/- 5%	1%		
	V2:+24V		6.67A	3.33A	+/- 5%	1%		



**MPRL0602U /  
MPRL0602DU**

Size: 6 x 4 x 1.5" /  
152.4\*101.6\*38.1



**MPRL0602U  
With Cover**

Size: 6 x 4 x 1.55" /  
152.4\*101.6\*39.4



**MPRL0602E /  
MPRL0602DE**

Size: 7 x 4 x 1.6" /  
177.8\*101.6\*40.7



**MPRL0602F  
MPRL0602DF**

Size: 6 x 4 x 2" / (inch)  
152.4\*101.6\*50.8 (mm)

### MPRL0602x series:

Type U: 320W max. with 22CFM forced airflow or 180W convection cooled output.  
Type E & F: 320W max with built-in fan cooling.

### MPRL0602Dx series:

Type U (with min. 22CFM forced air flow) & E & F:  
Max. 300W total combined power of V1 and V2 for MPRL0602Dx-1224 and 250W for others.  
Type U (with convection cooling):  
Max. 150W total combined power of V1 and V2 for MPRL0602Dx-1224 and 125W for others.

# AC-DC 300W ~ 600W Active PFC Single Output

UL CE CB

## Series Specification

RoHS

Max Power	Input Voltage	Model No.	Output Voltage	Max. Output Current	Ripple & Noise (Max)	Total Regulation	Shape	
300W	90-264Vac	MRL5016U3	-12	12~15V	25A	+/-1%	+/-1%	U-Chassis (Option: Top Cover)
			-18	16~21V	18.75A	+/-1%	+/-1%	
			-24	22~30V	13.64A	+/-1%	+/-1%	
		MRL5016E3	-36	31~41V	6.98A	+/-1%	+/-1%	Enclosed with built-in DC fan
			-48	42~55V	7.15A	+/-1%	+/-1%	
			-24	22~30V	18.19A	+/-1%	+/-1%	
400W	90-264Vac	MRL5016U4	-12	12~15V	33.34A	+/-1%	+/-1%	U-Chassis (Option: Top Cover)
			-18	16~21V	25A	+/-1%	+/-1%	
			-24	22~30V	18.19A	+/-1%	+/-1%	
		MRL5016E4	-36	31~41V	12.9A	+/-1%	+/-1%	Enclosed with built-in DC fan
			-48	42~55V	9.53A	+/-1%	+/-1%	
			-24	22~30V	22.73A	+/-1%	+/-1%	
500W	90-264Vac	MRL5017RU5	-03	2~3.3V	80A	+/-1%	50mV	U-Chassis (Option: Top Cover)
			-05	5~6V	80A	+/-1%	50mV	
			-12	12~15V	41.67A	+/-1%	+/-1%	
		MRL5017RE5	-16	16~21V	31.25A	+/-1%	+/-1%	Enclosed with built-in DC fan
			-24	22~30V	22.73A	+/-1%	+/-1%	
			-36	31~47V	16.13A	+/-1%	+/-1%	
600W	90-264Vac	MRL5017RU6	-03	2~3.3V	90A	+/-1%	50mV	U-Chassis (Option: Top Cover)
			-05	5~6V	90A	+/-1%	50mV	
			-12	12~15V	50A	+/-1%	+/-1%	
		MRL5017RE6	-16	16~21V	37.5A	+/-1%	+/-1%	Enclosed with built-in DC fan
			-24	22~30V	27.27A	+/-1%	+/-1%	
			-36	31~47V	19.35A	+/-1%	+/-1%	
			-48	48~56V	12.5A	+/-1%	+/-1%	

### MRL5016U3/MRL5016U4 Series

Mechanical Size: 7.0 \* 4 \* 2" / 178 \* 101 \* 51 mm  
Maximum output with 22CFM outside forced air cooling.

### MRL5017RU5 / MRL5017RU6 Series

Mechanical Size: 8 \* 4.4 \* 2.5" / 203 \* 112 \* 64 mm  
Maximum output with 30CFM outside forced air cooling.



### MRL5016E3/MRL5016E4 Series

Mechanical Size: 8 \* 4 \* 2" / 203 \* 101 \* 51 mm  
Maximum output with built-in DC fan airflow.

### MRL5017RE5 / MRL5017RE6 Series

Mechanical Size: 9.2 \* 4.3 \* 2.5" / 234 \* 109 \* 64 mm  
Maximum output with built-in DC fan airflow











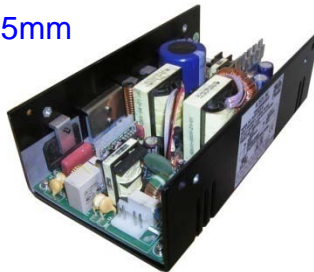
Series Specification: All Series optional Active Current Sharing up to 3200W



Max Power	Input Voltage	Model No.	Output Voltage		Max. Output Current	Ripple & Noise (Max)	Total Regulation	Shape	
			Preset	Range					
600W	90-264Vac	MRL5017RU6-N	-12	12V	12 ~ 14V	50A	+/- 1%	1%	<p><b>U Series:</b> U-Chassis (Option: Top Cover)</p> <p><b>E Series:</b> Enclosed with built-in front-end DC fan</p> <p><b>F Series:</b> Enclosed with built-in top mount fan</p>
			-15	15V	15 ~ 19V	40A	+/- 1%	1%	
		MRL5017RE6-N	-24	24V	20 ~ 26V	30A	+/- 1%	1%	
			-36	36V	27 ~ 36V	22.22A	+/- 1%	1%	
		MRL5017RF6-N	-40	40V	37 ~ 47V	16.22A	+/- 1%	1%	
			-48	48V	48~ 60V	12.5A	+/- 1%	1%	
800W	90-264Vac	MRL5017RU8-N	-12	12V	12 ~ 14V	62.5A	+/- 1%	1%	
			-15	15V	15 ~ 19V	50A	+/- 1%	1%	
		MRL5017RE8-N	-24	24V	20 ~ 26V	40A	+/- 1%	1%	
			-36	36V	27 ~ 36V	29.63A	+/- 1%	1%	
		MRL5017RF8-N	-40	40V	37 ~ 47V	21.62A	+/- 1%	1%	
			-48	48V	48~ 60V	16.67A	+/- 1%	1%	

**MRL5017RU6-N / MRL5017RU8-N Series**

Mechanical Size:  
 8\*4.4\*2.5"  
 213.3\*111.7\*63.5mm



Max. Power with min. 25 CFM forced Air flow.

**MRL5017RE6-N / MRL5017RE8-N Series**

Mechanical Size:  
 9.2\*4.3\*2.5"  
 233.6\*109.2\*63.5mm



Max. power with built-in front-end DC fan

**MRL5017RF6-N / MRL5017RF8-N Series**

Mechanical Size:  
 8\*4.4\*3.4"  
 213.3\*111.7\*86.3mm



Max. power with built-in top DC fan



**Series Specification: All Series optional Active Current Sharing up to 3200W**

Max Power	Input Voltage	Model No.	Output Voltage	Output Current		Ripple & Noise (Max)	Total Regulation	Shape	
				Convection	Forced Air				
400W	90-264Vac  Both ITE & Medical Approvals	MRL0402x	-03	2-3.3V	45A	60A	+/- 1%	+/- 1%	U-Chassis (Option : Top Cover)  Enclosed with built-in DC fan
			-05	5-6V	45A	60A	+/- 1%	+/- 1%	
			-12	12-15V	20.83A	33.34A	+/- 1%	+/- 1%	
			-18	16-21V	15.62A	25A	+/- 1%	+/- 1%	
			-24	22-30V	11.36A	18.19A	+/- 1%	+/- 1%	
			-36	31-41V	8.06A	9.76A	+/- 1%	+/- 1%	
			-48	42-58V	5.95A	9.53A	+/- 1%	+/- 1%	
		MRL0402Dx0312	V1: +3.3V V2: +12V	30A 16.7A	40A 25A	+/-1% +/-1%	+/-5% +/-5%		
		MRL0402Dx0324	V1: +3.3V	30A	40A	+/-1%	+/-5%		
			V2: +24V	8.34A	12.5A	+/-1%	+/-5%		
		MRL0402Dx0512	V1: +5V	30A	40A	+/-1%	+/-5%		
			V2: +12V	16.7A	25A	+/-1%	+/-5%		
		MRL0402Dx0524	V1: +5V	30A	40A	+/-1%	+/-5%		
			V2: +24V	8.34A	12.5A	+/-1%	+/-5%		
		MRL0402Dx1224	V1: +12V	16.7A	25A	+/-1%	+/-5%		
			V2: +24V	8.34A	12.5A	+/-1%	+/-5%		

**MRL0402U Series**

Mechanical Size: 8 \* 5 \* 1.6" / 203 \* 127 \* 40.6 mm

Max. power 400W with 23 CFM forced air cooling .

250W convection cooling.

**MRL0402DU Series**

Mechanical Size: 8 \* 5 \* 1.6" / 203 \* 127 \* 40.6 mm

Max. combined power 400W with 23 CFM forced air cooling .

250W convection cooling.



**MRL0402DE Series**

Mechanical Size: 9 \* 5 \* 1.6" / 228 \* 127 \* 40.6 mm

Max. combined power 400W with built-in fan.

**MRL0402E Series**

Mechanical Size: 9 \* 5 \* 1.6" / 228.6 \* 127 \* 40.6 mm

Max. power 400W with built-in fan.



Series Specification										RoHS
Max Power	Input Voltage	Series No.	Model No.	Output Voltage	Output Current		Ripple & Noise (Max)	Total Regulation	Shape	
					Min	Max				
144W (ODM)	18-32Vdc	UD241212	MRL9710	13.8V	0A	10A	+/-1%	+/-1%	Enclosed	
	18-32Vdc	UDI241212 (Isolated)	MRL0107	13.8V	0A	9A	+/-1%	+/-1%		
288W (ODM)	18-32Vdc	UD241224	MRL9810	13.8V	0A	20A	+/-1%	+/-1%	U-Bracket	
	18-32Vdc	UDI241224 (Isolated)	MRL0108	13.8V	0A	18A	+/-1%	+/-1%		
500W	36-56Vdc	UD500ES (Isolated)	MRL0002-SA	13.8V	0.5A	90A	+/-1%	+/-1%	Enclosed	
			MRL0002-SB	13.8V	0.5A	90A	+/-1%	+/-1%		
			MRL0002-SC	13.8V	0.5A	41.7A	+/-1%	+/-1%		
			MRL0002-SD	24V	0.5A	20.8A	+/-1%	+/-1%		
			MRL0002-SE	13.8V	0.5A	10.4A	+/-1%	+/-1%		
			MRL0002-SF	48V	0.5A	33.3A	+/-1%	+/-1%		



Mechanical Size:

MRL9710 = 5.2 \* 6.1 \* 1.8" / 157 \* 155 \* 46 mm

MRL0107 / MRL9810 = 6.18 \* 6.14 \* 1.81" / 157 \* 156 \* 46 mm

MRL0108 = 7.17 \* 6.14 \* 1.81" / 182 \* 156 \* 46 mm



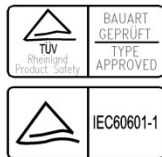
**UD500ES**

Mechanical Size:

9.2 \* 4.3 \* 2.5" /

234 \* 109 \* 64 mm

Maximum 500W continuous output With built-in DC fan



ISO 9001:2000



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