



# PRODUCT SELECTION GUIDE 2025

**AC/DC POWER SUPPLIES  
DC/DC CONVERTERS  
POL REGULATORS  
IGBT/SIC MOSFET DRIVERS**

**POWERING TECHNOLOGY WORLDWIDE**

# MicroPower Direct

## COMPANY OVERVIEW

For over 25 years, MicroPower Direct has been at the forefront of power innovation, delivering high-performance, cost-effective power solutions for industrial, commercial, and medical applications. Based in the United States, we offer over 5,000 power solutions—including AC/DC power supplies, DC/DC converters, IGBT drivers, and POL switching regulators—ensuring efficient, reliable power conversion for even the most demanding environments.



### **EXTENSIVE PRODUCT PORTFOLIO:**

A selection of over 5,000 off-the-shelf DC/DC converters, AC/DC power supplies, IGBT drivers, SiC DC/DCs and POLs. Designed for efficiency and flexibility, our power solutions come in a variety of power levels and form factors to suit any design challenge.



### **QUALITY:**

All product manufacturing is done in ISO 9000 registered facilities. Our products are manufactured using the highest quality materials and components, and they are rigorously tested to ensure they meet or exceed the most demanding industry standards.



### **COST-EFFECTIVE SOLUTIONS:**

Our product line provides a range of options to meet your budget requirements, without compromising on quality or performance.



### **UNMATCHED RELIABILITY:**

Backed by 25 years of experience, MicroPower Direct offers exceptional reliability and dependable operation.



### **CUSTOMER-CENTRIC APPROACH:**

But what truly sets MicroPower Direct apart is our unwavering commitment to exceptional customer service, providing expert support, fast response times, and tailored solutions to meet our customers' unique power needs.



### **CERTIFICATIONS:**

All of our products are backed by industry-leading certifications including UL, CE, RoHS, and EN 60601-1, ensuring safety, reliability, and compliance for a wide range of applications.

# POWER SOLUTIONS ENGINEERED FOR EVERY INDUSTRY

Whether it's for industrial automation, medical equipment, transportation, renewable energy, railway or smart home applications, our comprehensive product lines are built to perform.

## APPLICATIONS



**IOT**



**RENEWABLE ENERGY**



**INDUSTRIAL**



**TEST**



**MEDICAL**



**COMMUNICATION**



**RAILWAY**



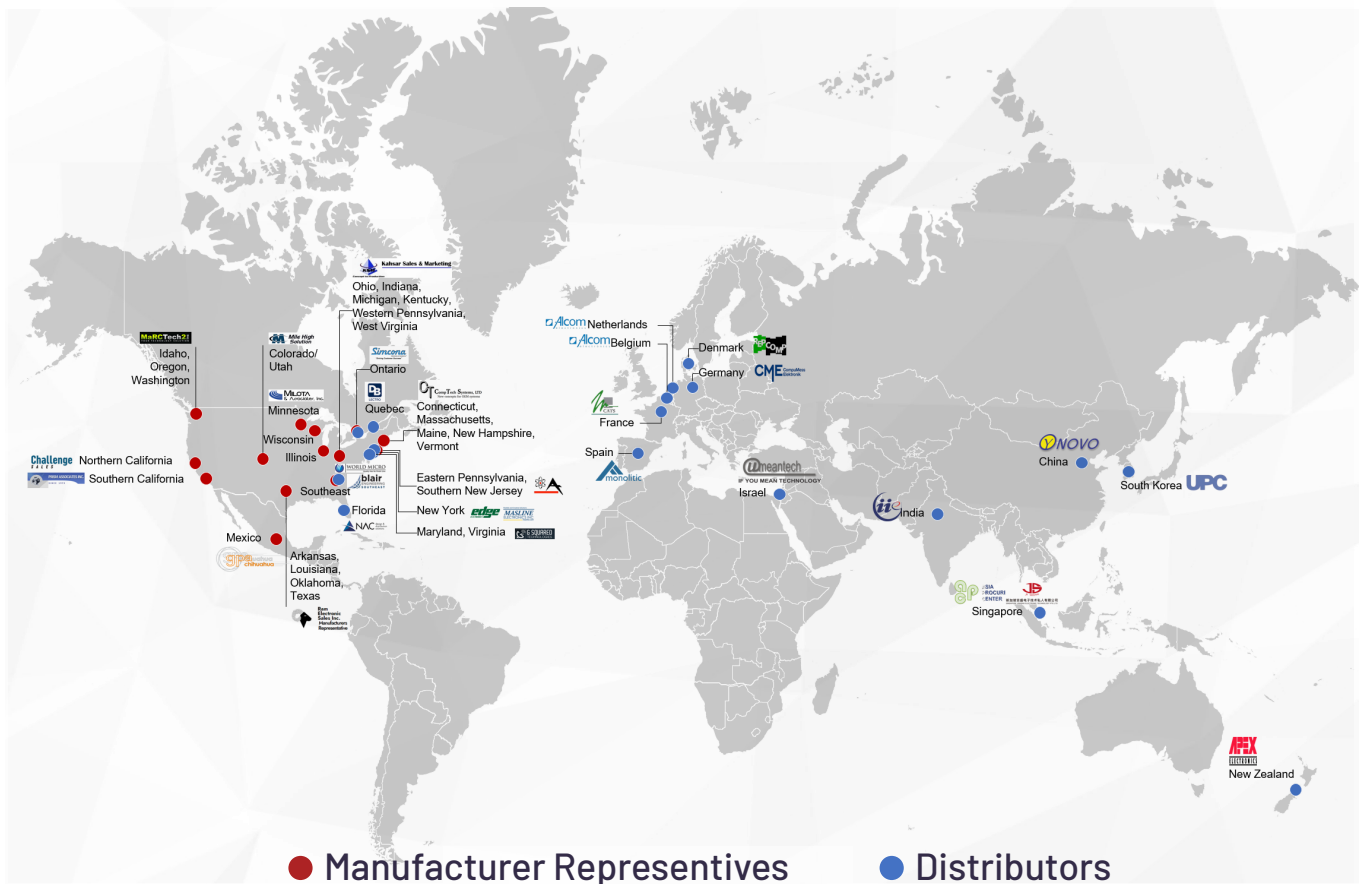
**HOUSEHOLD**



**ROBOTIC**

# POWERING TECHNOLOGY WORLDWIDE

With a worldwide network of manufacturer representatives and distributors—now including availability on DigiKey—MicroPower Direct ensures that reliable power solutions are always within reach. No matter where you are, we're here to power your innovation.



# DigiKey

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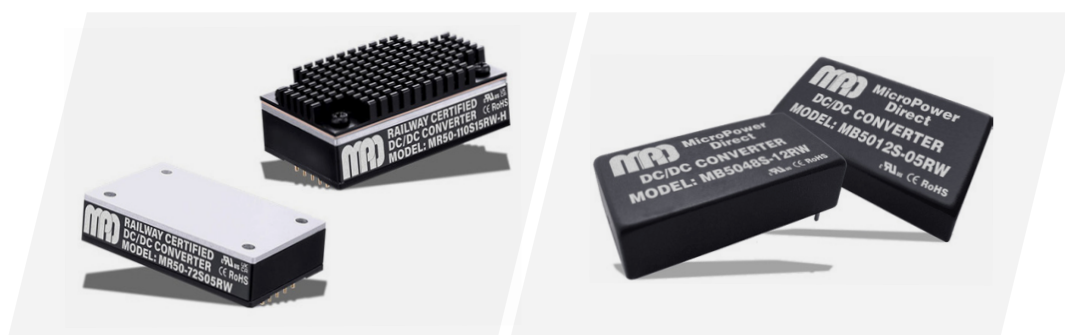
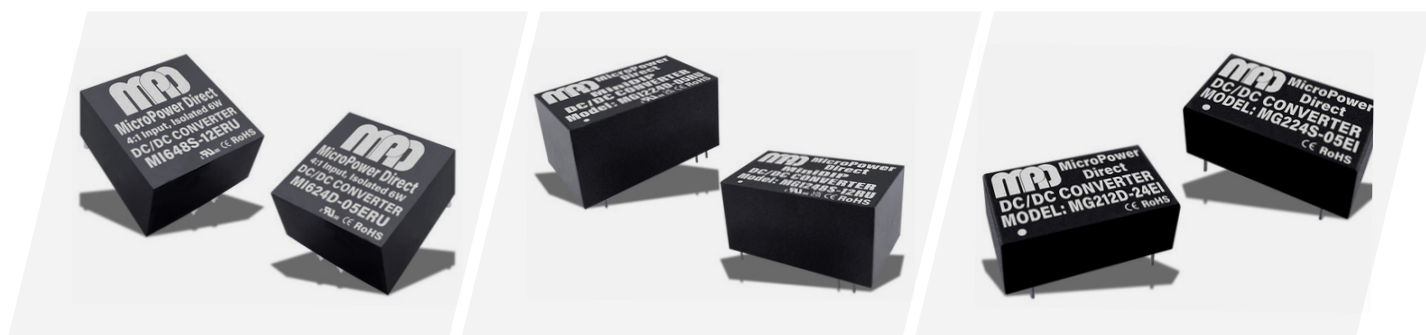
## DC/DC CONVERTERS

# MICROPOWER DIRECT DC/DC CONVERTERS

MicroPower Direct's DC/DC converters deliver exceptional efficiency and versatility, featuring wide input ranges, high isolation ratings, and compact designs. Available in various packages—including 1x1 modules, SIPs, and DIPs—they provide flexible solutions to meet diverse design requirements.

### FEATURES INCLUDE

- Reinforced Insulation
- Short Circuit Protection
- Remote On/Off
- Tape & Reel Option
- Up to 4.2kV Isolation
- Efficiency up to 91%
- Miniature Case
- Wide Input
- Single and Dual Outputs
- High Isolation
- Safety Certifications



# DC/DC CONVERTER INDEX BY POWER

## FIXED INPUT DC/DC CONVERTERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
ME02S	.25W	SIP 4	3.3, 5, 12, 15, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	1.5	.46 x .24 x .40	CE, RoHS	12
ME02SI	.25W	SIP 4	3.3, 5, 12, 15, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	3	.46 x .24 x .40	CE, RoHS	12
MH02S	.25W	DIP 8	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24	1	.50 x .40 x .27	CE, RoHS	14
MH02SI	.25W	DIP 8	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24	3	.50 x .40 x .27	CE, RoHS	14
ME05S	.5W	SIP 4	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24	1	.46 x .24 x .40	CE, RoHS	12
ME05SI	.5W	SIP 4	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24	3	.46 x .24 x .40	CE, RoHS	12
MH05S	.5W	DIP 8	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24	1	.50 x .40 x .27	CE, RoHS	14
MH05SI	.5W	DIP 8	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24	3	.50 x .40 x .27	CE, RoHS	14
MI100	1W	SMT	5, 12, 15, 24	3.3, 5, 9, 12, 15, ±5, ±12, ±15	1.5	.54 x .33 x .27	UL, CE, UKCA, RoHS	16
MI100I	1W	SMT	5, 12, 24	3.3, 5, 12, 15, ±5, ±12, ±15	3	.64 x .31 x .30	CE, UKCA, RoHS	16
ML100B	1W	SMT	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24	1.5	.53 x .34 x .29	CE, RoHS	17
ML100BI	1W	SMT	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24	3	.53 x .34 x .29	CE, RoHS	17
LF100BI	1W	SMT	5	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15, ±24	3	.64 x .32 x .27	CE, RoHS	17
MD100	1W	SIP 7	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3, ±5, ±7.2, ±9, ±12, ±15, ±18, ±24	1	.76 x .24 x .39	UL, CE, UKCA, RoHS	18
MD100I	1W	SIP 7	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3, ±5, ±7.2, ±9, ±12, ±15, ±18, ±24	3	.76 x .24 x .39	UL, CE, UKCA, RoHS	18
MD100I4	1W	SIP 7	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3, ±5, ±7.2, ±9, ±12, ±15, ±18, ±24	4	.76 x .24 x .39	UL, CE, UKCA, RoHS	18
MD100I5	1W	SIP 7	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3, ±5, ±7.2, ±9, ±12, ±15, ±18, ±24	5.2	.76 x .24 x .39	UL, CE, UKCA, RoHS	18
MD100I6	1W	SIP 7	3.3, 5, 12, 15, 24, 48	3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3, ±5, ±7.2, ±9, ±12, ±15, ±18, ±24	6	.76 x .24 x .39	UL, CE, UKCA, RoHS	18
MD100B	1W	SIP 6	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15	3	.77 x .24 x .40	CE, RoHS	20
MD100BI	1W	SIP 7	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15	3	.77 x .24 x .40	CE, RoHS	20
MD100BR	1W	SIP 6	5, 12, 24	3.3, 5, 12, 15, 24	1.5	.77 x .23 x .40	CE, RoHS	21
MD100CHI	1W	SIP 7	5, 12, 15, 24	5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15	6	.77 x .39 x .49	CE, RoHS	22
MD100T	1W	SIP 7	5, 12, 24	5, 12, 15, ±5, ±12, ±15	1.5	.76 x .24 x .39	CE, RoHS	23
MD100TI	1W	SIP 7	5, 12, 24	5, 12, 15, ±5, ±12, ±15	3	.76 x .24 x .39	CE, RoHS	23
MH100S	1W	DIP 8	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24	1	.50 x .40 x .27	CE, RoHS	15
MH100SI	1W	DIP 8	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24	3	.50 x .40 x .27	CE, RoHS	15
MH100B	1W	DIP 8	5, 12	3.3, 5, 9, 12, 15, 24	1	.50 x .39 x .32	CE, RoHS	23
MG100	1W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24, ±3, ±5, ±7, ±9, ±12, ±15, ±18, ±24	1	.80 x .40 x .27	UL, CE, UKCA, RoHS	24
MG100I	1W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24, ±3, ±5, ±7, ±9, ±12, ±15, ±18, ±24	3	.80 x .40 x .27	UL, CE, UKCA, RoHS	24
MG100I4	1W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24, ±3, ±5, ±7, ±9, ±12, ±15, ±18, ±24	4	.80 x .40 x .27	UL, CE, UKCA, RoHS	24
MG100I5	1W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24, ±3, ±5, ±7, ±9, ±12, ±15, ±18, ±24	5.2	.80 x .40 x .27	UL, CE, UKCA, RoHS	24
MG100I6	1W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 18, 24, ±3, ±5, ±7, ±9, ±12, ±15, ±18, ±24	6	.80 x .40 x .27	UL, CE, UKCA, RoHS	24
MG100BI	1W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15	3	.77 x .39 x .32	CE, RoHS	26
ME100S	1W	SIP 4	3.3, 5, 12, 15, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	1	.46 x .24 x .40	CE, RoHS	13
ME100SI	1W	SIP 4	3.3, 5, 12, 15, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	3	.46 x .24 x .40	CE, RoHS	13
ME100B	1W	SIP 4	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24	1.5	.46 x .24 x .40	CE, RoHS	27

# DC/DC CONVERTER INDEX BY POWER

## FIXED INPUT DC/DC CONVERTERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
ME200S	2W	SIP 4	5, 12, 15, 24	3.3, 5, 7.2, 9, 12, 15, 24	1	.46 x .24 x .40	CE, RoHS	13
ME200SI	2W	SIP 4	5, 12, 15, 24	3.3, 5, 7.2, 9, 12, 15, 24	3	.46 x .24 x .40	CE, RoHS	13
ML200	2W	SMT	5, 12, 24	3.3, 5, 12, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	.54 x .37 x .35	CE, RoHS	16
ML200B	2W	SMT	5, 12, 15	5, 12, 15	1.5	.64 x .32 x .27	CE, RoHS	17
ML200BI	2W	SMT	5, 12, 15	5, 9, 12, 15	3	.64 x .32 x .27	CE, RoHS	17
MD200	2W	SIP 7	3.3, 5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	1	See Datasheet	CE, RoHS	19
MD200I	2W	SIP 7	3.3, 5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	3	See Datasheet	CE, RoHS	19
MD200I4	2W	SIP 7	3.3, 5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	4	See Datasheet	CE, RoHS	19
MD200I5	2W	SIP 7	3.3, 5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	5.2	See Datasheet	CE, RoHS	19
MD200I6	2W	SIP 7	3.3, 5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	6	See Datasheet	CE, RoHS	19
MD200B	2W	SIP 7	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, $\pm 3.3$ , $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$	3	.77 x .24 x .40	CE, RoHS	20
MD200BI	2W	SIP 7	5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, $\pm 3.3$ , $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$	3	.77 x .24 x .40	CE, RoHS	20
MD200BR	2W	SIP 7	5, 12, 24	3.3, 5, 12, 15, 24	1.5	.77 x .23 x .40	CE, RoHS	21
MD200CHI	2W	SIP 7	12, 15, 24	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$ , $\pm 24$	6	.77 x .39 x .49	CE, RoHS	22
ME200B	2W	SIP 4	5, 12	5, 9, 12, 15, 24	1.5	.46 x .24 x .40	CE, RoHS	27
MG200	2W	DIP 14	3.3, 5, 12, 15, 18, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24, $\pm 3.3$ , $\pm 5$ , $\pm 7.2$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 18$ , $\pm 24$	1	.80 x .40 x .27	CE, RoHS	25
MG200I	2W	DIP 14	3.3, 5, 12, 15, 18, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24, $\pm 3.3$ , $\pm 5$ , $\pm 7.2$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 18$ , $\pm 24$	3	.80 x .40 x .27	CE, RoHS	25
MG200I4	2W	DIP 14	3.3, 5, 12, 15, 18, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24, $\pm 3.3$ , $\pm 5$ , $\pm 7.2$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 18$ , $\pm 24$	4	.80 x .40 x .27	CE, RoHS	25
MG200I5	2W	DIP 14	3.3, 5, 12, 15, 18, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24, $\pm 3.3$ , $\pm 5$ , $\pm 7.2$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 18$ , $\pm 24$	5.2	.80 x .40 x .27	CE, RoHS	25
MG200I6	2W	DIP 14	3.3, 5, 12, 15, 18, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24, $\pm 3.3$ , $\pm 5$ , $\pm 7.2$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 18$ , $\pm 24$	6	.80 x .40 x .27	CE, RoHS	25
MG200B	2W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, $\pm 3.3$ , $\pm 5$ , $\pm 9$ , $\pm 15$ , $\pm 24$	1.5	.77 x .39 x .32	CE, RoHS	26
MG200BI	2W	DIP 14	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, $\pm 3.3$ , $\pm 5$ , $\pm 9$ , $\pm 15$ , $\pm 24$	3	.77 x .39 x .32	CE, RoHS	26
MA300R	3W	DIP 24	5, 12, 24	5, 12, 15, $\pm 12$ , $\pm 15$	1.5	1.25 x .80 x .40	UL, CE, UKCA, RoHS	28
MD300R	3W	SIP 12	5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	1	1.26 x .32 x .57	CE, RoHS	28
MD300RI	3W	SIP 12	5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	3	1.26 x .32 x .57	CE, RoHS	28
MD300RI4	3W	SIP 12	5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	4	1.26 x .32 x .57	CE, RoHS	28
MD300RI5	3W	SIP 12	5, 12, 24	3.3, 5, 7.2, 9, 12, 15, 18, 24	5.2	1.26 x .32 x .57	CE, RoHS	28



**MFD**  
MICROPOWER DIRECT

# DC/DC CONVERTER INDEX BY POWER

## 2:1 WIDE INPUT DC/DC CONVERTERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
ML100RW	1W	SMT	5, 12, 24, 48	5, 12, 15, $\pm 12$ , $\pm 15$	1.5	.74 x .54 x .34	UL, CE, UKCA, RoHS	29
MD100RW	1W	SIP 8	5, 12, 24, 48	5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	.87 x .37 x .47	CE, RoHS	x
MD100CRW	1W	SIP 8	5, 12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$	1.5	.67 x .43 x .30	CE, RoHS	30
MD200RW	2W	SIP 8	5, 12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 3.3$ , $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	.86 x .36 x .44	UL, CE, UKCA, RoHS	32
MD200RWI	2W	SIP 8	5, 12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 3.3$ , $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	3	.86 x .36 x .44	UL, CE, UKCA, RoHS	32
MH200RW	2W	DIP 8	5, 12, 24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	.55 x .55 x .31	UL, CE, UKCA, RoHS	31
MD300RW	3W	SIP 8	5, 12, 24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$	1.6	.86 x .36 x .44	UL, CE, UKCA, RoHS	32
MD300CRW	3W	SIP 8	5, 12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	.87 x .37 x .47	CE, RoHS	30
MA300RW	3W	DIP 24	5, 12, 24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	1.25 x .80 x .40	UL, CE, UKCA, RoHS	34
MA300RWI	3W	DIP 24	5, 12, 24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	1.25 x .80 x .40	UL, CE, UKCA, RoHS	34
MH300RW	3W	DIP 8	5, 12, 24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	.55 x .55 x .31	UL, CE, UKCA, RoHS	31
MD600RW	6W	SIP 8	5, 12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	.86 x .36 x .44	UL, CE, UKCA, RoHS	33
MD600RWI	6W	SIP 8	5, 12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	.86 x .36 x .44	UL, CE, UKCA, RoHS	33
MA600RW	6W	DIP 24	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	1.25 x .80 x .40	UL, CE, UKCA, RoHS	34
MA600RWI	6W	DIP 24	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	1.25 x .80 x .40	UL, CE, UKCA, RoHS	34
MA800RW	8W	DIP 24	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	1.25 x .80 x .40	UL, CE, UKCA, RoHS	35
MG800RW	8W	DIP 16	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	.94 x .54 x .31	UL, CE, UKCA, RoHS	36
MD900RW	9W	SIP 8	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	.86 x .38 x .42	CE, RoHS	33
MA1000RW	10W	DIP 24	12, 24, 48	2.5, 3.3, 5, 12, 15, $\pm 12$ , $\pm 15$	1.5	1.25 x .80 x .40	UL, CE, UKCA, RoHS	35
MG1000RW	10W	DIP 16	12, 24, 48	3.3, 5, 5.1, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	.94 x .54 x .31	UL, CE, UKCA, RoHS	36
MI1000RW	10W	1x1	12, 24, 48	3.3, 5, 5.1, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	1.00 x 1.00 x .40	UL, CE, UKCA, RoHS	38
MA1200RW	12W	DIP 24	12, 24, 48	2.5, 3.3, 5, 12, 15, $\pm 12$ , $\pm 15$	1.6	1.25 x .80 x .40	CE, RoHS	35
MA1500RW	15W	DIP 24	12, 24, 48	3.3, 5.1, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	1.25 x .80 x .40	CE, RoHS	35
MI1500RW	15W	1x1	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	1.00 x 1.00 x .40	UL, CE, UKCA, RoHS	38
MI2500RW	25W	1x1	12, 24, 48	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$	1.5	1.00 x 1.00 x .40	CE, RoHS	39
MI3000RW	30W	1x1	12, 24, 48	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$	1.6	1.00 x 1.00 x .40	UL, CE, UKCA, RoHS	39
MB4000RW	40W	1x2	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	2.00 x 1.00 x .40	CE, RoHS	37
MB5000RW	50W	1x2	12, 24, 48	3.3, 5, 12, 15, 24	1.5	2.00 x 1.00 x .45	CE, RoHS	37

## 4:1 WIDE INPUT DC/DC CONVERTERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
MD100BRU	1W	SIP 8	12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	0.87 x 0.39 x 0.55	CE, RoHS	40
ME300RU	3W	SIP 4	12, 24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	0.69 x 0.40 x 0.48	UL, CE, UKCA, RoHS	41
MD200RU	2W	SIP 8	12, 24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	0.86 x 0.37 x 0.44	UL, CE, UKCA, RoHS	42
ML300RU	3W	SMT	5, 24, 48	5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	0.75 x 0.59 x 0.38	UL, CE, UKCA, RoHS	43
MD300BRU	3W	SIP 8	12, 24, 48	3.3, 5, 9, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	0.87 x 0.37 x 0.47	CE, RoHS	40
MA300RU	3W	DIP 24	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	44
MA300RUI	3W	DIP 24	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	44
MD600BRU	6W	SIP 8	24, 48	3.3, 5, 6, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$	1.5	0.87 x 0.37 x 0.47	CE, RoHS	41

# DC/DC CONVERTER INDEX BY WATTAGE

## 4:1 WIDE INPUT DC/DC CONVERTERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
ML600RU	6W	SMT	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	0.87x 0.80 x 0.39	UL, CE, UKCA, RoHS	43
MD600RU	6W	SIP 8	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	0.86 x 0.37 x 0.44	UL, CE, UKCA, RoHS	42
MD600RUI	6W	SIP 8	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	0.86 x 0.37 x 0.44	UL, CE, UKCA, RoHS	42
MA600RU	6W	DIP 24	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	44
MA600RUI	6W	DIP 24	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	44
MA600BRU	6W	DIP 24	24, 48	3.3, 5, 9, 12, 15, 24 $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	1.26 x 0.79 x 0.50	CE, RoHS	45
MA600BRUI	6W	DIP 24	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	1.26 x 0.79 x 0.50	CE, RoHS	45
MG600RU	6W	DIP 16	24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	0.94 x 0.54 x 0.31	UL, CE, UKCA, RoHS	46
MH600RU	6W	DIP 16	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.5	.85 x .80 x .40	UL, CE, UKCA, RoHS	47
MA600BRUHI	6W	DIP24	24, 48	5, 6, 9, 12, 15, 18, 24	6	1.24 x .80 x .40	CE, RoHS	48
MI600BRU	6W	1x1	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	1.0 x .10 x .47	CE, RoHS	48
MA800RU	8W	DIP 24	24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	44
MG800RU	8W	DIP 16	24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	0.94 x 0.54 x 0.31	UL, CE, UKCA, RoHS	46
MD900RU	9W	SIP 8	12, 24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	0.86 x 0.38 x 0.42	UL, CE, UKCA, RoHS	42
MD1000BRU	10W	SIP 8	24, 48	3.3, 5, 6, 9, 10, 12, 15, 24, $\pm 15$	1.5	0.87 x 0.37 x 0.47	CE, RoHS	41
MA1000RU	10W	DIP 24	24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	44
MG1000RU	10W	DIP 16	24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	0.94 x 0.54 x 0.31	UL, CE, UKCA, RoHS	46
MI1000BRU	10W	1x1	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	1.0 x .10 x .47	CE, RoHS	49
MB1000BRU	10W	1x2	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	2.0 x 1.0 x .47	CE, RoHS	50
MB1000BRUI	10W	1x2	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	2.0 x 1.0 x .47	CE, RoHS	50
MA1200RU	12W	DIP 24	24, 48	3.3, 5, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	45
MG1200RU	12W	DIP 16	24, 48	5, 5.1, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	0.94 x 0.54 x 0.40	UL, CE, UKCA, RoHS	46
MA1500RU	15W	DIP 24	24, 48	3.3, 5.1, 12, 15, $\pm 5$ , $\pm 12$ , $\pm 15$	1.6	1.25 x 0.80 x 0.40	UL, CE, UKCA, RoHS	45
MG1500RU	15W	DIP 16	24, 48	5.1, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	0.94 x 0.54 x 0.40	UL, CE, UKCA, RoHS	47
MI1500BRU	15W	1x1	24, 48	3.3, 5, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	1.0 x .10 x .47	CE, RoHS	49
MB1500BRU	15W	1x2	24, 48	3.3, 5, 12, 15, 24	1.5	2.0 x 1.0 x .47	CE, RoHS	50
MI2000BRU	20W	1x1	24, 48	3.3, 5, 6, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	1.0 x .10 x .47	CE, RoHS	49
MB2000BRU	20W	1x2	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	2.0 x 1.0 x .47	CE, RoHS	50
MB2000BRUI	20W	1x2	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	2.0 x 1.0 x .47	CE, RoHS	50
MB2000BRUHI	20W	2x1	24, 48	3.3, 5, 9, 12, 15, 24	5	2.00 x 1.00 x .47	CE, RoHS	51
MI2500RU	25W	1x1	24, 48	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$	1.5	1.0 x .10 x .40	CE, RoHS	52
MI3000RU	30W	1x1	24, 48	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$	1.6	1.0 x .10 x .40	CE, RoHS	52
MI3000BRU	30W	1x1	24, 48	3.3, 5, 12, 15, 24	1.5	1.0 x .10 x .47	CE, RoHS	49
MB3000BRU	30W	1x2	24, 48	3.3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 9$ , $\pm 12$ , $\pm 15$ , $\pm 24$	1.5	2.0 x 1.0 x .47	CE, RoHS	51
MI4000RU	40W	1x1	24, 48	5, 12, 15, 24, 48, 54, $\pm 12$ , $\pm 15$	1.6	1.0 x .10 x .43	UL, CE, UKCA, RoHS	52
MI4000BRU	40W	1x1	24, 48	3.3, 5, 12, 15, 24, 28	1.5	1.0 x .10 x .47	CE, RoHS	49
MB4000BRU	40W	1x2	24, 48	5, 9, 12, 15, 24	1.5	2.0 x 1.0 x .47	CE, RoHS	51
MB4000RU	40W	1x2	12, 24, 48	3.3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	1.5	1.0 x .20 x .40	UL, CE, UKCA, RoHS	53
MB5000RU	50W	1x2	24, 48	3.3, 5, 12, 15, 24	1.5	1.0 x .20 x .40	UL, CE, UKCA, RoHS	53
MB6000RU	60W	1x2	24, 48	5, 12, 15, $\pm 12$ , $\pm 15$	1.5	1.0 x .20 x .40	UL, CE, UKCA, RoHS	53

# DC/DC CONVERTER INDEX BY WATTAGE

## RAILWAY DC/DC CONVERTERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Size (inches)	Certification	Page
MR08xxRUI	8W	DIP24	24, 110	3.3,5,12,15 ±5,±12,±15	3 VDC	1.25 x .80 x .40	CE, RoHS	54
MR50SRW	50W	Quarter Brick	72, 110	5, 12, 15, 24	3 VAC rms	2.28 x 1.45 x .50	UL, CE, UKCA, RoHS	54
MR75SRW	75W	Quarter Brick	72, 110	5, 12, 15, 24	3 VAC rms	2.28 x 1.45 x .50	UL, CE, UKCA, RoHS	54

## IGBT/SIC MOSFET DRIVERS

Series	Power	Package	Input Voltage (VDC)	Output Voltage Range (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
MSB100	1W	SIP7	12, 15, 24	See Product Chart	4	0.77 x 0.39 x 0.49	CE, RoHS	55
MSB200	2W	SIP7	5, 12, 15, 24	See Product Chart	4	0.77 x 0.39 x 0.49	CE, RoHS	55
MSB200LHI	2W	SIP7	12, 15, 24	See Product Chart	5	1.08 x 0.37 x 0.47	CE, RoHS	55

## NON-ISOLATED SWITCHING REGULATORS

Series	Output Current (mA, Max)	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (VDC)	Size (inches)	Certification	Page
SMT Mount								
MSR7805M	500	SIP3	12, 24	1.5, 1.8, 2.5, 3.3, 5, 6.5, 7.2, 9, 12, 15	Non-Isolated	.46 x .30 x .40	CE, RoHS	56
MSR7805BW	500	SIP3	12, 24	3.3, 5, -5, 9, 12, -12, 15, -15	Non-Isolated	.46 x .30 x .40	CE, RoHS	56
MSR7805H	500	SIP3	12, 24	3.3, 5, 6.5, 7.2, 9, 12, 15	Non-Isolated	.46 x .30 x .40	CE, RoHS	56
MSR7810M	1000	SIP3	12, 24	1.5, 1.8, 2.5, 3.3, 5	Non-Isolated	.46 x .30 x .40	CE, RoHS	57
MSR7810MW	1000	SIP3	12, 24	3.3, 5	Non-Isolated	.46 x .30 x .40	CE, RoHS	56
MSR7810BW	1000	SIP3	12, 24	3.3, 5, -5, 9, 12, -12, 15, -15	Non-Isolated	.46 x .30 x .40	CE, RoHS	57
MSR7820CW	2000	SIP3	12, 24	3.3, -3.3, 5, -5, 9, -9, 12, -12, 15, -15	Non-Isolated	.46 x .35 x .69	CE, RoHS	57
Board Mount								
MLSR50C	500	DFN	12, 24	3.3, -3.3, 5.5, -5.5, 6.5, -6.5, 9, -9, 12, -12, 15, -15	Non-Isolated	.35 x .28 x .12	CE, RoHS	59
MLSR100	1000	SMT	5, 24	1.2, 1.5, 1.8, 2.5, 3.3, 5, 6.5, 9, 12, 15	Non-Isolated	.60 x .47 x .15	UL, CE, UKCA, RoHS	58
MLSR100C	1000	DFN	12, 24	3.3, -3.3, 5.5, -5.5, 6.5, -6.5, 9, -9, 12, -12, 15, -15	Non-Isolated	.35 x .28 x .12	CE, RoHS	59

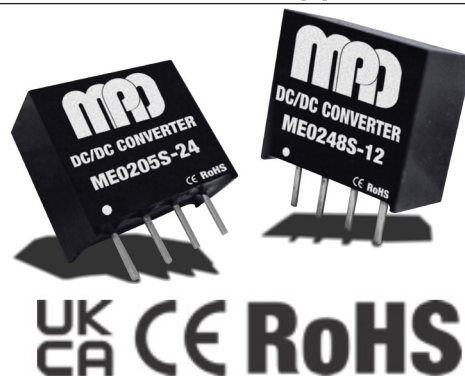
# FIXED INPUT DC/DC CONVERTERS

# MExxS (I) Series

## .25W to 2W SIP4 Package

### FEATURES

- Isolation Voltage: 1500VDC (3000VDC "I" version)
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 86%
- Short Circuit Protection: Momentary



ME02S(I) - 0.25W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME0203S-03(I)	2.97 - 3.63 (3.3 VDC)	3.3	75.7	63
ME0203S-05(I)		5	50	66
ME0203S-07(I)		7.2	34.7	64
ME0203S-09(I)		9	27.7	64
ME0203S-12(I)		12	20.8	67
ME0203S-15(I)		15	16.6	64
ME0203S-18(I)		18	13.8	66
ME0203S-24(I)		24	10.4	66
ME0205S-03(I)	4.5 - 5.5 (5 VDC)	3.3	75.7	64
ME0205S-05(I)		5	50	71
ME0205S-07(I)		7.2	34.7	68
ME0205S-09(I)		9	27.7	73
ME0205S-12(I)		12	20.8	76
ME0205S-15(I)		15	16.6	71
ME0205S-18(I)		18	13.8	72
ME0205S-24(I)		24	10.4	77
ME0212S-03(I)	10.8 - 13.2 (12 VDC)	3.3	75.7	65
ME0212S-05(I)		5	50	67
ME0212S-07(I)		7.2	34.7	67
ME0212S-09(I)		9	27.7	64
ME0212S-12(I)		12	20.8	63
ME0212S-15(I)		15	16.6	67
ME0212S-18(I)		18	13.8	65
ME0212S-24(I)		24	10.4	55
ME0215S-03(I)	13.5 - 16.5 (15 VDC)	3.3	75.7	63
ME0215S-05(I)		5	50	62
ME0215S-07(I)		7.2	34.7	60
ME0215S-09(I)		9	27.7	60
ME0215S-12(I)		12	20.8	62
ME0215S-15(I)		15	16.6	61
ME0215S-18(I)		18	13.8	57
ME0215S-24(I)		24	10.4	57
ME0224S-03(I)	21.6 - 26.4 (24 VDC)	3.3	75.7	60
ME0224S-05(I)		5	50	58
ME0224S-07(I)		7.2	34.7	57
ME0224S-09(I)		9	27.7	62
ME0224S-12(I)		12	20.8	56
ME0224S-15(I)		15	16.6	55
ME0224S-18(I)		18	13.8	57
ME0224S-24(I)		24	10.4	59

Size: .46 x .24 x .40 inches (11.7 x 6.0 x 10.2 mm)

ME05S(I) - 0.50W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME0503S-03(I)	2.97 - 3.63 (3.3 VDC)	3.3	151.5	76
ME0503S-05(I)		5	100	70
ME0503S-07(I)		7.2	69.4	70
ME0503S-09(I)		9	55.5	70
ME0503S-12(I)		12	41.6	72
ME0503S-15(I)		15	33.3	73
ME0503S-18(I)		18	27.7	73
ME0503S-24(I)		24	20.8	73
ME0505S-03(I)	4.5 - 5.5 (5 VDC)	3.3	151.5	76
ME0505S-05(I)		5	100	83
ME0505S-07(I)		7.2	69.4	75
ME0505S-09(I)		9	55.5	78
ME0505S-12(I)		12	41.6	79
ME0505S-15(I)		15	33.3	77
ME0505S-18(I)		18	27.7	79
ME0505S-24(I)		24	20.8	75
ME0512S-03(I)	10.8 - 13.2 (12 VDC)	3.3	151.5	72
ME0512S-05(I)		5	100	78
ME0512S-07(I)		7.2	69.4	73
ME0512S-09(I)		9	55.5	73
ME0512S-12(I)		12	41.6	72
ME0512S-15(I)		15	33.3	69
ME0512S-18(I)		18	27.7	68
ME0512S-24(I)		24	20.8	71
ME0515S-03(I)	13.5 - 16.5 (15 VDC)	3.3	151.5	75
ME0515S-05(I)		5	100	78
ME0515S-07(I)		7.2	69.4	75
ME0515S-09(I)		9	55.5	75
ME0515S-12(I)		12	41.6	77
ME0515S-15(I)		15	33.3	70
ME0515S-18(I)		18	27.7	66
ME0515S-24(I)		24	20.8	66
ME0524S-03(I)	21.6 - 26.4 (24 VDC)	3.3	151.5	69
ME0524S-05(I)		5	100	73
ME0524S-07(I)		7.2	69.4	70
ME0524S-09(I)		9	55.5	71
ME0524S-12(I)		12	41.6	71
ME0524S-15(I)		15	33.3	73
ME0524S-18(I)		18	27.7	73
ME0524S-24(I)		24	20.8	72

Size: .46 x .24 x .40 inches (11.7 x 9.6 x 10.2 mm)

ME100S(I) - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME103S-03(I)	2.97 - 3.63 (3.3 VDC)	3.3	303	72
ME103S-05(I)		5	200	77
ME103S-07(I)		7.2	138.9	79
ME103S-09(I)		9	111.1	75
ME103S-12(I)		12	100	77
ME103S-15(I)		15	66.6	79
ME103S-18(I)		18	55.5	76
ME103S-24(I)		24	50	79
ME105S-03(I)	4.5 - 5.5 (5 VDC)	3.3	303	78
ME105S-05(I)		5	200	81
ME105S-07(I)		7.2	138.9	83
ME105S-09(I)		9	111.1	80
ME105S-12(I)		12	100	80
ME105S-15(I)		15	66.6	82
ME105S-18(I)		18	55.5	81
ME105S-24(I)		24	50	83
ME112S-03(I)	10.8 - 13.2 (12 VDC)	3.3	151.5	78
ME112S-05(I)		5	100	79
ME112S-07(I)		7.2	69.4	83
ME112S-09(I)		9	55.5	78
ME112S-12(I)		12	41.6	80
ME112S-15(I)		15	33.3	79
ME112S-18(I)		18	27.7	80
ME112S-24(I)		24	20.8	71
ME115S-03(I)	13.5 - 16.5 (15 VDC)	3.3	151.5	75
ME115S-05(I)		5	100	81
ME115S-07(I)		7.2	69.4	76
ME115S-09(I)		9	55.5	74
ME115S-12(I)		12	41.6	80
ME115S-15(I)		15	33.3	79
ME115S-18(I)		18	27.7	78
ME115S-24(I)		24	20.8	81
ME124S-03(I)	21.6 - 26.4 (24 VDC)	3.3	303	77
ME124S-05(I)		5	200	80
ME124S-07(I)		7.2	138.9	77
ME124S-09(I)		9	111.1	77
ME124S-12(I)		12	100	80
ME124S-15(I)		15	66.6	81
ME124S-18(I)		18	55.5	80
ME124S-24(I)		24	50	83

Size: .46 x .24 x .40 inches (11.7 x 6.0 x 10.2 mm)

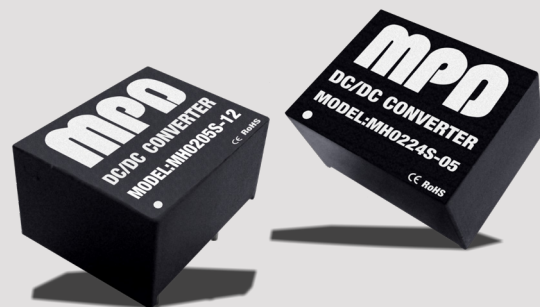
ME200S(I) - 2W

Datasheet

Model #	Nominal Input Voltage (VDC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME205S-03(I)	4.5 - 5.5 (5 VDC)	3.3	400	78
ME205S-05(I)		5.5	400	81
ME205S-07(I)		7.2	278	80
ME205S-09(I)		9	222	83
ME205S-12(I)		12	167	84
ME205S-15(I)		15	133	85
ME205S-24(I)		24	83	86
ME212S-03(I)		10.8 - 13.2 (12 VDC)	3.3	400
ME212S-05(I)	5.5		400	81
ME212S-07(I)	7.2		278	80
ME212S-09(I)	9		222	83
ME212S-12(I)	12		167	85
ME212S-15(I)	15		133	85
ME212S-24(I)	24		83	85
ME215S-03(I)	13.5 - 16.5 (15 VDC)		3.3	400
ME215S-05(I)		5.5	400	81
ME215S-07(I)		7.2	278	83
ME215S-09(I)		9	222	80
ME215S-12(I)		12	167	84
ME215S-15(I)		15	133	86
ME215S-24(I)		24	83	84
ME224S-03(I)		21.6 - 26.4 (24 VDC)	3.3	400
ME224S-05(I)	5.5		400	83
ME224S-07(I)	7.2		278	82
ME224S-09(I)	9		222	85
ME224S-12(I)	12		167	86
ME224S-15(I)	15		133	86
ME224S-24(I)	24		83	88

Size: .46 x .29 x .40 inches (11.7 x 7.5 x 10.2 mm)

Also available in a DIP package - MHxxS(I)



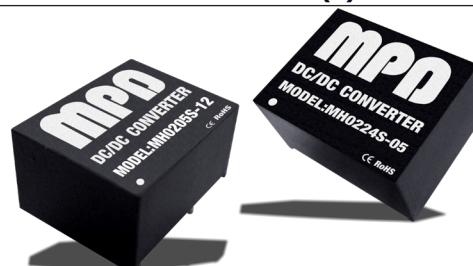
# FIXED INPUT DC/DC CONVERTERS

# MHxxS (I) Series

## .25W to 1W DIP8 Package

### FEATURES

- Isolation Voltage: 1500VDC (3000VDC "I" version)
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 83%
- Short Circuit Protection: Momentary



MH02S - .25W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH0203S-03(I)	2.97 - 3.63 (3.3 VDC)	3.3	75.7	61
MH0203S-05(I)		5.0	50.0	64
MH0203S-07(I)		7.2	34.7	64
MH0203S-09(I)		9.0	27.7	64
MH0203S-12(I)		12.0	20.8	63
MH0203S-15(I)		15.0	16.6	64
MH0203S-18(I)		18.0	13.8	66
MH0203S-24(I)		24.0	10.4	66
MH0205S-03(I)	4.5 - 5.5 (5 VDC)	3.3	75.7	60
MH0205S-05(I)		5.0	50.0	69
MH0205S-07(I)		7.2	34.7	70
MH0205S-09(I)		9.0	27.7	70
MH0205S-12(I)		12.0	20.8	68
MH0205S-15(I)		15.0	16.6	68
MH0205S-18(I)		18.0	13.8	73
MH0205S-24(I)		24.0	10.4	69
MH0212S-03(I)	10.8 - 13.2 (12 VDC)	3.3	75.7	67
MH0212S-05(I)		5.0	50.0	65
MH0212S-07(I)		7.2	34.7	65
MH0212S-09(I)		9.0	27.7	60
MH0212S-12(I)		12.0	20.8	68
MH0212S-15(I)		15.0	16.6	57
MH0212S-18(I)		18.0	13.8	55
MH0212S-24(I)		24.0	10.4	51
MH0215S-03(I)	13.5 - 16.5 (15 VDC)	3.3	75.7	63
MH0215S-05(I)		5.0	50.0	63
MH0215S-07(I)		7.2	34.7	60
MH0215S-09(I)		9.0	27.7	60
MH0215S-12(I)		12.0	20.8	60
MH0215S-15(I)		15.0	16.6	59
MH0215S-18(I)		18.0	13.8	57
MH0215S-24(I)		24.0	10.4	57
MH0224S-03(I)	21.6 - 26.4 (24 VDC)	3.3	75.7	58
MH0224S-05(I)		5.0	50.0	60
MH0224S-07(I)		7.2	34.7	59
MH0224S-09(I)		9.0	27.7	58
MH0224S-12(I)		12.0	20.8	55
MH0224S-15(I)		15.0	16.6	59
MH0224S-18(I)		18.0	13.8	53
MH0224S-24(I)		24.0	10.4	55

Size: .50 x .40 x .27 inches (12.7 x 10.18 x 6.85 mm)

MH05S - .50W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH0503S-03(I)	2.97 - 3.63 (3.3 VDC)	3.3	152.0	76
MH0503S-05(I)		5.0	100.0	70
MH0503S-07(I)		7.2	69.0	70
MH0503S-09(I)		9.0	56.0	70
MH0503S-12(I)		12.0	42.0	72
MH0503S-15(I)		15.0	33.0	73
MH0503S-18(I)		18.0	28.0	73
MH0503S-24(I)		24.0	21.0	73
MH0505S-03(I)	4.5 - 5.5 (5 VDC)	3.3	151.5	76
MH0505S-05(I)		5.0	100.0	81
MH0505S-07(I)		7.2	69.4	75
MH0505S-09(I)		9.0	55.5	78
MH0505S-12(I)		12.0	41.6	79
MH0505S-15(I)		15.0	33.3	77
MH0505S-18(I)		18.0	27.7	79
MH0505S-24(I)		24.0	20.8	75
MH0512S-03(I)	10.8 - 13.2 (12 VDC)	3.3	151.5	73
MH0512S-05(I)		5.0	100.0	78
MH0512S-07(I)		7.2	69.4	73
MH0512S-09(I)		9.0	55.5	73
MH0512S-12(I)		12.0	41.6	72
MH0512S-15(I)		15.0	33.3	69
MH0512S-18(I)		18.0	27.7	68
MH0512S-24(I)		24.0	20.8	71
MH0515S-03(I)	13.5 - 16.5 (15 VDC)	3.3	151.5	75
MH0515S-05(I)		5.0	100.0	78
MH0515S-07(I)		7.2	69.4	75
MH0515S-09(I)		9.0	55.5	75
MH0515S-12(I)		12.0	41.6	77
MH0515S-15(I)		15.0	33.3	70
MH0515S-18(I)		18.0	27.7	66
MH0515S-24(I)		24.0	20.8	66
MH0524S-03(I)	21.6 - 26.4 (24 VDC)	3.3	151.5	69
MH0524S-05(I)		5.0	100.0	74
MH0524S-07(I)		7.2	69.4	69
MH0524S-09(I)		9.0	55.5	71
MH0524S-12(I)		12.0	41.6	69
MH0524S-15(I)		15.0	33.3	69
MH0524S-18(I)		18.0	27.7	73
MH0524S-24(I)		24.0	20.8	72

Size: .50 x .40 x .27 inches (12.7 x 10.18 x 6.85 mm)

MH100S(I) - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH103S-03(I)	2.97 - 3.63 (3.3 VDC)	3.3	303	74
MH103S-05(I)		5	200	77
MH103S-07(I)		7	138.9	75
MH103S-09(I)		9	111.1	76
MH103S-12(I)		12	100	75
MH103S-15(I)		15	66.6	79
MH103S-18(I)		18	55.5	76
MH103S-24(I)		24	50	75
MH105S-03(I)	4.5 - 5.5 (5 VDC)	3.3	303	78
MH105S-05(I)		5	200	79
MH105S-07(I)		7	138.9	83
MH105S-09(I)		9	111.1	79
MH105S-12(I)		12	100	81
MH105S-15(I)		15	66.6	82
MH105S-18(I)		18	55.5	83
MH105S-24(I)		24	50	82
MH112S-03(I)	10.8 - 13.2 (12 VDC)	3.3	303	77
MH112S-05(I)		5	200	79
MH112S-07(I)		7	138.9	83
MH112S-09(I)		9	111.1	79
MH112S-12(I)		12	100	80
MH112S-15(I)		15	66.6	79
MH112S-18(I)		18	55.5	81
MH112S-24(I)		24	50	79

Size: .50 x .40 x .27 inches (12.7 x 10.18 x 6.85 mm)

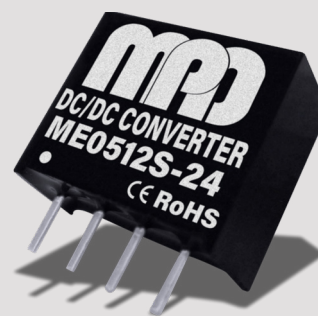
MH100S(I) - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH115S-03(I)	13.5 - 16.5 (15 VDC)	3.3	303	75
MH115S-05(I)		5	200	80
MH115S-07(I)		7	138.9	76
MH115S-09(I)		9	111.1	78
MH115S-12(I)		12	100	82
MH115S-15(I)		15	66.6	80
MH115S-18(I)		18	55.5	78
MH115S-24(I)		24	50	81
MH124S-03(I)	21.6 - 26.4 (24 VDC)	3.3	303	79
MH124S-05(I)		5	200	79
MH124S-07(I)		7	138.9	74
MH124S-09(I)		9	111.1	79
MH124S-12(I)		12	100	80
MH124S-15(I)		15	66.6	80
MH124S-18(I)		18	55.5	82
MH124S-24(I)		24	50	82

Size: .50 x .40 x .27 inches (12.7 x 10.18 x 6.85 mm)

Also available in a SIP package - MExxS(I)



# TECHNICAL SUPPORT

## TECHNICAL QUESTIONS?

CONTACT

**MICROPOWER DIRECT**

☎ 781-344-8226

✉ sales@micropowerdirect.com

🌐 www.micropowerdirect.com

# FIXED INPUT DC/DC CONVERTERS

# MLxx(I) Series

## 1W and 2W SMT Package

### FEATURES

- Isolation Voltage: 1500VDC (3000VDC "I" version)
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 80%
- Short Circuit Protection: Momentary
- Available on Tape & Reel



ML100 - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML105S-03	4.50 - 5.50 (5 VDC)	3.3	300	73
ML105S-05		5	200	78
ML105S-09		9	110	78
ML105S-12		12	84	78
ML105S-15		15	67	79
ML105D-05		±5	±100	74
ML105D-12		±12	±42	78
ML105D-15		±15	±33	78
ML112S-03		10.8 - 13.2 (12 VDC)	3.3	300
ML112S-05	5		200	76
ML112S-09	9		110	78
ML112S-12	12		84	79
ML112S-15	15		67	80
ML112D-05	±5		±100	74
ML112D-12	±12		±42	78
ML112D-15	±15		±33	79
ML115S-12	13.5 - 16.5 (15 VDC)		12	84
ML115S-15		15	67	78
ML124S-03	21.6 - 26.4 (24 VDC)	3.3	300	72
ML124S-05		5	200	78
ML124S-09		9	110	77
ML124S-12		12	84	77
ML124S-15		15	67	79
ML124D-05		±5	±100	73
ML124D-12		±12	±42	78
ML124D-15		±15	±33	78

Size: Single Output 0.54 x 0.33 x 0.27 inches (13.7 x 8.4 x 6.9 mm)  
Dual Output 0.64 x 0.43 x 0.27 inches (16.24 x 11.0 x 6.9 mm)

ML100I - 1W (no UL approval)

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
ML105S-03I	4.50 - 5.50 (5 VDC)	3.3	260	72	
ML105S-05I		5	200	75	
ML105S-12I		12	84	79	
ML105S-15I		15	67	80	
ML105D-05I		±5	±100	75	
ML105D-12I		±12	±42	79	
ML105D-15I		±15	±34	80	
ML112S-03I		10.8 - 13.2 (12 VDC)	3.3	260	73
ML112S-05I			5	200	76
ML112S-12I	12		84	80	
ML112S-15I	15		67	81	
ML112D-05I	±5		±100	76	
ML112D-12I	±12		±42	80	
ML112D-15I	±15		±34	80	
ML124S-03I	21.6 - 26.4 (24 VDC)		3.3	260	70
ML124S-05I			5	200	73
ML124S-12I		12	84	79	
ML124S-15I		15	67	79	
ML124D-05I		±5	±100	73	
ML124D-12I		±12	±42	79	
ML124D-15I		±15	±34	79	

Size: 0.64 x 0.31 x 0.30 in (16.3 x 8.0 x 7.7 mm)

ML200 - 1W (no UL approval)

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML205S-03	4.5 - 5.5 (5 VDC)	3.3	500	73
ML205S-05		5	400	78
ML205S-12		12	165	78
ML205D-05		±5	±200	74
ML205D-12		±12	±83	78
ML205D-15		±15	±66	78
ML212S-03	10.8 - 13.2 (12 VDC)	3.3	500	74
ML212S-05		5	400	76
ML212S-12		12	165	79
ML212D-12		±12	±83	78
ML212D-15		±15	±66	79
ML224S-03		21.6 - 26.4 (24 VDC)	3.3	500
ML224S-05	5		400	78
ML224S-12	12		165	77
ML224D-12	±12		±83	78
ML224D-15	±15		±66	78

Size: Single Output 0.54 x 0.37 x 0.27 inches (13.7 x 9.3 x 8.9 mm)  
Dual Output 0.64 x 0.37 x 0.35 inches (16.3 x 9.3 x 8.9 mm)

### FEATURES

- Isolation Voltage: 1500 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 88%
- Short Circuit Protection: Continuous
- Size: .64 x .32 x .27 in (16.24 x 8.00 x 6.8 mm)
- Available on Tape & Reel



**UK CA CE RoHS**

Datasheet B

Datasheet B

### ML100B(I) - 1W

Datasheet BI

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
ML103S-03B(I)	2.97 - 3.63 (3.3 VDC)	3.3	303	80	
ML103S-05B(I)		5.0	200	82	
ML103S-09B(I)		9.0	111	83	
ML103S-12B(I)		12.0	84	84	
ML105S-03B(I)	4.50 - 5.50 (5 VDC)	3.3	303	82	
ML105S-05B(I)		5.0	200	85	
ML105S-09B(I)		9.0	111	86	
ML105S-12B(I)		12.0	84	86	
ML105S-15B(I)	10.8 - 13.2 (12 VDC)	15.0	67	86	
ML105S-24B(I)		24.0	42	87	
ML112S-03B(I)		10.8 - 13.2 (12 VDC)	3.3	303	82
ML112S-05B(I)			5.0	200	85
ML112S-09B(I)	9.0		111	86	
ML112S-12B(I)	12.0		84	86	
ML112S-15B(I)	13.5 - 16.5 (15 VDC)	15.0	67	86	
ML112S-24B(I)		24.0	42	88	
ML115S-05B(I)		13.5 - 16.5 (15 VDC)	5.0	200	86
ML115S-12B(I)			12.0	84	87
ML115S-15B(I)	15.0		67	88	
ML124S-03B(I)	21.6 - 26.4 (24 VDC)	3.3	303	82	
ML124S-05B(I)		5.0	200	85	
ML124S-09B(I)		9.0	111	86	
ML124S-12B(I)		12.0	84	87	
ML124S-15B(I)		15.0	67	87	
ML124S-24B(I)		24.0	42	88	

Size: 0.53 x 0.34 x 0.29 in (13.50 x 8.50 x 7.25 mm)

### ML200B(I) - 2W

Datasheet BI

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML205S-05B(I)	4.5 - 5.5 (5 VDC)	5.0	400	83
ML205S-09B(I)		9.0	222	83
ML205S-12B(I)		12.0	167	84
ML205S-15B(I)		15.0	133	84
ML212S-05B(I)	10.8 - 13.2 (12 VDC)	5.0	400	83
ML212S-09B(I)		9.0	222	84
ML212S-12B(I)		12.0	167	84
ML212S-15B(I)	13.5 - 16.5 (15 VDC)	15.0	133	84
ML215S-05B(I)		5.0	400	83
ML215S-09B(I)		9.0	222	84
ML215S-12B(I)		12.0	167	84
ML215S-15B(I)		15.0	133	84

Size: 0.53 x 0.34 x 0.29 in (13.50 x 8.50 x 7.25 mm)

### LF100BI - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
LF105S-03BI	4.50 - 5.50 (5 VDC)	3.3	303	74
LF105S-05BI		5	200	82
LF105S-09BI		9	111	83
LF105S-12BI		12	84	83
LF105S-15BI		15	67	83
LF105S-24BI		24	42	85
LF105D-03BI		±3.3	±151	74
LF105D-05BI		±5	±100	82
LF105D-09BI		±9	±56	83
LF105D-12BI		±12	±42	83
LF105D-15BI		±15	±34	83
LF105D-24BI		±24	±21	85

Size: 0.64 x 0.32 x 0.27 in (16.24 x 8.00 x 6.8 mm)



Available on Tape & Reel

# FIXED INPUT DC/DC CONVERTERS

# MDxx(lx) Series

## 1W to 2W SIP7 Package

### FEATURES

- Isolation Voltage: 1000 VDC, I = 3000 VDC, I4 = 4000 VDC, I5 = 5200 VDC, I6 = 6000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 86%
- Short Circuit Protection: Momentary



MD100x - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD103S-03x	2.97 - 3.63 (3.3 VDC)	3.3	303	76	
MD103S-05x		5	200	78	
MD103S-07x		7	139	78	
MD103S-09x		9	111	80	
MD103S-12x		12	83	77	
MD103S-15x		15	67	78	
MD103S-18x		18	56	73	
MD103S-24x		24	42	73	
MD103D-03x		±3.3	±152	66	
MD103D-05x		±5	±100	70	
MD103D-07x		±7	±69	72	
MD103D-09x		±9	±56	75	
MD103D-12x		±12	±42	77	
MD103D-15x		±15	±33	78	
MD103D-18x		±18	±28	75	
MD103D-24x		±24	±21	75	
MD105S-03x		4.5 - 5.5 (5 VDC)	3.3	303	78
MD105S-05x			5	200	81
MD105S-07x	7		139	81	
MD105S-09x	9		111	82	
MD105S-12x	12		83	79	
MD105S-15x	15		67	86	
MD105S-18x	18		56	83	
MD105S-24x	24		42	82	
MD105D-03x	±3.3		±152	67	
MD105D-05x	±5		±100	74	
MD105D-07x	±7		±69	79	
MD105D-09x	±9		±56	81	
MD105D-12x	±12		±42	80	
MD105D-15x	±15		±33	82	
MD105D-18x	±18		±28	81	
MD105D-24x	±24		±21	81	
MD112S-03x	10.8 - 13.2 (12 VDC)		3.3	303	75
MD112S-05x			5	200	79
MD112S-07x		7	139	75	
MD112S-09x		9	111	80	
MD112S-12x		12	83	79	
MD112S-15x		15	67	82	
MD112S-18x		18	56	81	
MD112S-24x		24	42	76	

Size: 0.76 x 0.24 x 0.39 in (29.5 x 6.0 x 10.0 mm)

MD100x - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD112D-03x	10.8 - 13.2 (12 VDC)	±3.3	±152	68	
MD112D-05x		±5	±100	74	
MD112D-07x		±7	±69	76	
MD112D-09x		±9	±56	78	
MD112D-12x		±12	±42	82	
MD112D-15x		±15	±33	82	
MD112D-18x		±18	±28	81	
MD112D-24x		±24	±21	75	
MD115S-03x		13.5 - 16.5 (15 VDC)	3.3	303	80
MD115S-05x			5	200	81
MD115S-07x	7		139	78	
MD115S-09x	9		111	78	
MD115S-12x	12		83	80	
MD115S-15x	15		67	79	
MD115S-18x	18		56	80	
MD115S-24x	24		42	83	
MD115D-03x	±3.3		±152	75	
MD115D-05x	±5		±100	75	
MD115D-07x	±7	±69	75		
MD115D-09x	±9	±56	77		
MD115D-12x	±12	±42	77		
MD115D-15x	±15	±33	77		
MD115D-18x	±18	±28	75		
MD115D-24x	±24	±21	75		
MD124S-03x	21.6 - 26.4 (24 VDC)	3.3	303	74	
MD124S-05x		5	200	77	
MD124S-07x		7	139	73	
MD124S-09x		9	111	76	
MD124S-12x		12	83	78	
MD124S-15x		15	67	80	
MD124S-18x		18	56	82	
MD124S-24x		24	42	80	
MD124D-03x		±3.3	±152	67	
MD124D-05x		±5	±100	74	
MD124D-07x		±7	±69	78	
MD124D-09x		±9	±56	78	
MD124D-12x		±12	±42	80	
MD124D-15x		±15	±33	80	
MD124D-18x	±18	±28	81		
MD124D-24x	±24	±21	82		

MD200x - 2W (no UL approval)

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD203S-03x	2.97 - 3.63 (3.3 VDC)	3.3	400	76
MD203S-05x		5	400	76
MD203S-07x		7	277.7	75
MD203S-09x		9	222.2	80
MD203S-12x		12	166.7	81
MD203S-15x		15	133.3	78
MD203S-18x		18	111.1	77
MD203S-24x		24	83.3	79
MD203D-03x		±3.3	±200	76
MD203D-05x		±5	±200	78
MD203D-07x		±7	±138.8	76
MD203D-09x		±9	±111.1	76
MD203D-12x		±12	±83.3	78
MD203D-15x		±15	±66.6	78
MD203D-18x		±18	±55.5	78
MD203D-24x		±24	±41.6	79
MD205S-03x	4.5 - 5.5 (5 VDC)	3.3	400	72
MD205S-05x		5	400	78
MD205S-07x		7	277.7	80
MD205S-09x		9	222.2	80
MD205S-12x		12	166.7	82
MD205S-15x		15	133.3	82
MD205S-18x		18	111.1	82
MD205S-24x		24	83.3	82
MD205D-03x		±3.3	±200	65
MD205D-05x		±5	±200	72
MD205D-07x		±7	±138.8	72
MD205D-09x		±9	±111.1	77
MD205D-12x		±12	±83.3	78
MD205D-15x		±15	±66.6	80
MD205D-18x		±18	±55.5	80
MD205D-24x		±24	±41.6	80

Size: See Datasheet

MD200x - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD212S-03x	10.8 - 13.2 (12 VDC)	3.3	400	65
MD212S-05x		5	400	77
MD212S-07x		7	277.7	80
MD212S-09x		9	222.2	80
MD212S-12x		12	166.7	82
MD212S-15x		15	133.3	82
MD212S-18x		18	111.1	80
MD212S-24x		24	83.3	80
MD212D-03x		±3.3	±200	67
MD212D-05x		±5	±200	75
MD212D-07x		±7	±138.8	76
MD212D-09x		±9	±111.1	77
MD212D-12x		±12	±83.3	82
MD212D-15x		±15	±66.6	82
MD212D-18x		±18	±55.5	82
MD212D-24x		±24	±41.6	82
MD224S-03x	21.6 - 26.4 (24 VDC)	3.3	400	72
MD224S-05x		5	400	79
MD224S-07x		7	277.7	80
MD224S-09x		9	222.2	80
MD224S-12x		12	166.7	80
MD224S-15x		15	133.3	82
MD224S-18x		18	111.1	82
MD224S-24x		24	83.3	80
MD224D-03x		±3.3	±200	68
MD224D-05x		±5	±200	75
MD224D-07x		±7	±138.8	75
MD224D-09x		±9	±111.1	80
MD224D-12x		±12	±83.3	82
MD224D-15x		±15	±66.6	82
MD224D-18x		±18	±55.5	82
MD224D-24x		±24	±41.6	82

MD100x and MD200x  
 x = I (3000 VDC), I4 (4000 VDC),  
 I5 (5200 VDC), I6 (6000 VDC)  
 Some models of the MD200 are the same  
 size as the MD100. But some are cased  
 in a slightly larger package. Please see  
 datasheet for details.



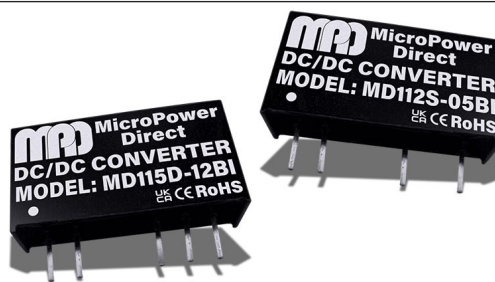
# FIXED INPUT DC/DC CONVERTERS

# MDxxB(I) Series

## 1W to 2W SIP6 Package

### FEATURES

- Isolation Voltage: 3000 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 89%
- Short Circuit Protection: Continuous



MD100B(I) - 1W Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD103S-03B(I)	2.97-3.63 (3.3 VDC)	3.3	303	82	
MD103S-05B(I)		5	200	83	
MD103S-09B(I)		9	111	84	
MD103S-12B(I)		12	84	85	
MD105S-03B(I)	4.5-5.5 (5 VDC)	3.3	303	83	
MD105S-05B(I)		5	200	86	
MD105S-09B(I)		9	111	86	
MD105S-12B(I)		12	84	88	
MD105S-15B(I)		15	67	88	
MD105S-24B(I)		24	42	89	
MD105D-05B(I)		±5	±100	84	
MD105D-09B(I)		±9	±56	86	
MD105D-12B(I)		±12	±42	86	
MD105D-15B(I)		±15	±34	88	
MD112S-03B(I)	10.8-13.2 (12 VDC)	3.3	303	88	
MD112S-05B(I)		5	200	84	
MD112S-09B(I)		9	111	86	
MD112S-12B(I)		12	84	87	
MD112S-15B(I)		15	67	87	
MD112S-24B(I)		24	42	88	
MD112D-03B(I)		±3.3	±152	89	
MD112D-05B(I)		±5	±100	84	
MD112D-09B(I)		±9	±56	86	
MD112D-12B(I)		±12	±42	87	
MD115S-05B(I)	13.5-16.5 (15 VDC)	5	200	88	
MD115S-09B(I)		9	111	86	
MD115S-12B(I)		12	84	87	
MD115S-15B(I)		15	67	87	
MD115D-05B(I)		±5	±100	88	
MD115D-12B(I)		±12	±42	86	
MD115D-15B(I)		±15	±34	87	
MD124S-03B(I)		21.6-26.4 (24 VDC)	3.3	303	88
MD124S-05B(I)			5	200	84
MD124S-09B(I)			9	111	87
MD124S-12B(I)	12		84	88	
MD124S-15B(I)	15		67	88	
MD124S-24B(I)	24		42	88	

Size: 0.77 x 0.56 x 0.24 in (19.6 x 14.16 x 6.0 mm)

MD100B(I) - 1W Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD124D-05B(I)	21.6-26.4 (24 VDC)	±5	±100	89
MD124D-09B(I)		±9	±56	87
MD124D-12B(I)		±12	±42	88
MD124D-15B(I)		±15	±34	88

MD200B(I) - 2W Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD203S-03B	2.97 - 3.63 (3.3 VDC)	3.3	400	77
MD203S-05B		5.0	400	79
MD203S-09B		9.0	222	80
MD203S-12B		12.0	167	81
MD205S-03B(I)	4.5 - 5.5 (5 VDC)	3.0	400	83
MD205S-05B(I)		5.0	400	85
MD205S-09B(I)		9.0	222	85
MD205S-12B(I)		12.0	167	86
MD205S-15B(I)		15.0	133	87
MD205S-24B(I)		24.0	83	88
MD205D-03B(I)		±3.3	±303	83
MD205D-05B(I)		±5.0	±200	85
MD205D-09B(I)		±9.0	±111	85
MD205D-12B(I)		±12.0	±83	86
MD205D-15B(I)	±15.0	±67	87	
MD212S-03B(I)	10.8 - 13.2 (12 VDC)	3.0	400	84
MD212S-05B(I)		5.0	400	85
MD212S-09B(I)		9.0	222	86
MD212S-12B(I)		12.0	167	87
MD212S-15B(I)		15.0	133	88
MD212S-24B(I)		24.0	83	89
MD212D-03B(I)		±3.3	±303	84
MD212D-05B(I)		±5.0	±200	85
MD212D-09B(I)		±9.0	±111	86
MD212D-12B(I)		±12.0	±83	87
MD212D-15B(I)	±15.0	±67	88	
MD215S-03B	13.5 - 16.5 (15 VDC)	3.0	400	84
MD215S-05B		5.0	400	85
MD215S-09B		9.0	222	86
MD215S-12B		12.0	167	87
MD215S-15B		15.0	133	88
MD215S-24B		24.0	83	89

Size: 0.77 x 0.27 x 0.40 in (19.6 x 7.05 x 10.16 mm)

# MDxxB(I) Series

# FIXED INPUT DC/DC CONVERTERS

1W to 2W SIP Package

MD200B(I) - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD215D-03B	13.5 - 16.5 (15 VDC)	±3.3	±303	84
MD215D-05B		±5.0	±200	85
MD215D-09B		±9.0	±111	86
MD215D-12B		±12.0	±83	87
MD215D-15B		±15.0	±67	88
MD224S-03B(I)	21.6 - 26.4 (24 VDC)	3.0	400	84
MD224S-05B(I)		5.0	400	86
MD224S-09B(I)		9.0	222	87
MD224S-12B(I)		12.0	167	88
MD224S-15B(I)		15.0	133	89
MD224S-24B(I)		24.0	83	90
MD224D-03B(I)		±3.3	±303	84
MD224D-05B(I)		±5.0	±200	86
MD224D-09B(I)		±9.0	±111	87
MD224D-12B(I)		±12.0	±83	88
MD224D-15B(I)		±15.0	±67	89

Size: 0.77 x 0.24 x 0.40 in (19.6 x 6.0 x 10.1 mm)



# MDxxxBR Series

# FIXED INPUT DC/DC CONVERTERS

1W and 2W SIP6 Package

## FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 73%
- Regulation: Tightly regulated
- Short Circuit Protection: Continuous



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MD100BR -1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD105S-03BR	4.75-5.23 (5 VDC)	3.3	250	67
MD105S-05BR		5	200	70
MD105S-12BR		12	84	71
MD105S-15BR		15	67	72
MD105S-24BR		24	41	73
MD112S-03BR	11.4-12.6 (12 VD)	3.3	250	67
MD112S-05BR		5	200	70
MD112S-12BR		12	84	72
MD124S-03BR	22.8-25.2 (24 VDC)	3.3	250	67
MD124S-05BR		5	200	72
MD124S-12BR		12	83	73

Size: .77 x .23 x .40 in (19.60 x 6.00 x 10.10 mm)

MD200BR -1W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD105S-03BR	4.75-5.23 (5 VDC)	3.3	250	67
MD105S-05BR		5	200	70
MD105S-12BR		12	84	71
MD105S-15BR		15	67	72
MD105S-24BR		24	41	73
MD112S-03BR	11.4-12.6 (12 VD)	3.3	250	67
MD112S-05BR		5	200	70
MD112S-12BR		12	84	72
MD124S-03BR	22.8-25.2 (24 VDC)	3.3	250	67
MD124S-05BR		5	200	72
MD124S-12BR		12	83	73

Size: .77 x .23 x .40 in (19.60 x 6.00 x 10.10 mm)

# FIXED INPUT DC/DC CONVERTERS

# MDxxxCHI Series

## 1W and 2W SIP7 Package

### FEATURES

- Isolation Voltage: MD100CHI - 6000 VDC
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 84%
- Short Circuit Protection: Continuous



MD100CHI - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD105S-05CHI	4.5-5.5 (5 VDC)	5	200	80
MD105S-09CHI		9	111	80
MD105S-12CHI		12	84	81
MD105S-15CHI		15	67	81
MD105S-24CHI		24	42	81
MD105D-03CHI		±3.3	±152	75
MD105D-05CHI		±5	±100	80
MD105D-09CHI		±9	±56	80
MD105D-12CHI		±12	±42	81
MD105D-15CHI		±15	±34	81
MD112S-03CHI		10.8-13.2 (12 VDC)	3.3	303
MD112S-05CHI	5		200	79
MD112S-09CHI	9		111	81
MD112S-12CHI	12		84	83
MD112S-15CHI	15		67	83
MD112S-24CHI	24		42	82
MD112D-05CHI	±5		±100	79
MD112D-09CHI	±9		±56	79
MD112D-12CHI	±12		±42	81
MD112D-15CHI	±15		±34	81
MD115D-05CHI	13.5-16.5 (15 VDC)		±5	±100
MD115D-12CHI		±12	±42	79
MD115D-15CHI		±15	±33	79
MD124S-05CHI	21.6-26.4 (24 VDC)	5	200	76
MD124S-09CHI		9	111	76
MD124S-12CHI		12	84	76
MD124S-15CHI		15	67	76
MD124S-24CHI		24	42	76
MD124D-05CHI		±5	±100	75
MD124D-09CHI		±9	±56	75
MD124D-12CHI		±12	±42	76
MD124D-15CHI		±15	±34	76

Size: 0.77 x 0.39 x 0.49 in (19.5 x 9.8 x 12.5 mm)

MD200CHI - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD212S-05CHI	10.8-13.2 (12 VDC)	5	400	80	
MD212S-09CHI		9	222	82	
MD212S-12CHI		12	167	84	
MD212S-15CHI		15	133	84	
MD212D-05CHI		±5	±200	80	
MD212D-09CHI		±9	±111	82	
MD212D-12CHI		±12	±83	83	
MD212D-15CHI		±15	±67	84	
MD215D-05CHI		13.5-16.5 (15 VDC)	±5	±200	78
MD215D-09CHI			±9	±111	80
MD215D-15CHI			±15	±67	80
MD224S-05CHI	21.6-26.4 (24 VDC)	5	400	79	
MD224S-09CHI		9	222	81	
MD224S-12CHI		12	167	82	
MD224S-15CHI		15	133	84	
MD224S-24CHI		24	83	84	
MD224D-05CHI		±5	±200	79	
MD224D-09CHI		±9	±111	81	
MD224D-12CHI		±12	±83	82	
MD224D-15CHI		±15	±67	81	

Size: 0.77 x 0.39 x 0.49 in (19.5 x 9.8 x 12.5 mm)



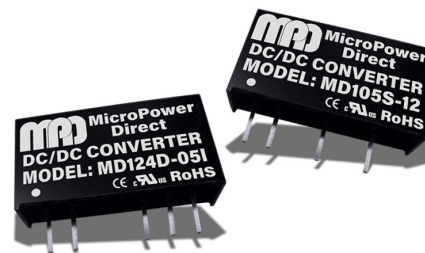
# MD100T(I) Series

# FIXED INPUT DC/DC CONVERTERS

1W SIP7 Package

## FEATURES

- Isolation Voltage: 3000 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 89%
- Short Circuit Protection: Continuous



UK CA CE RoHS

MD100T(I) - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD105S-05T(I)	4.5 - 5.5 (5 VDC)	5	200	80
MD105S-12T(I)		12	83.3	80
MD105S-15T(I)		15	66.7	80
MD105D-05T(I)		±5	±100	80
MD105D-12T(I)		±12	±41.67	80
MD105D-15T(I)		±15	±33.33	81
MD112S-05T(I)		10.8 - 13.2 (12 VDC)	5	200
MD112S-12T(I)	12		83.3	80
MD112S-15T(I)	15		66.7	81

Size: 0.77 x 0.24 x 0.39 in (19.5 x 6.0 x 10.0 mm)

MD100T(I) - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD112D-05T(I)	10.8 - 13.2 (12 VDC)	±5	±100	80
MD112D-12T(I)		±12	±41.67	80
MD112D-15T(I)		±15	±33.33	80
MD124S-05T(I)	21.6 - 26.4 w (24 VDC)	5	200	80
MD124S-12T(I)		12	83.3	80
MD124S-15T(I)		15	66.7	80
MD124D-05T(I)		±5	±100	80
MD124D-12T(I)		±12	±41.67	80
MD124D-15T(I)		±15	±33.33	80

# MH100B Series

# FIXED INPUT DC/DC CONVERTERS

1W DIP8 Package

## FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 89%
- Short Circuit Protection: Continuous



UK CA CE RoHS

MH100B - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH105S-03B	4.5 - 5.5 (5 VDC)	3.3	303	83
MH105S-05B		5	200	86
MH105S-09B		9	111	86
MH105S-12B		12	84	88
MH105S-15B		15	67	88
MH105S-24B		24	42	89

Size: 0.50 x 0.39 x 0.32 in (12.7 x 9.8 x 8.05 mm)

MH100B - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH112S-03B	10.8 - 13.2 (12 VDC)	3.3	303	84
MH112S-05B		5	200	86
MH112S-09B		9	111	87
MH112S-12B		12	84	87
MH112S-15B		15	67	88
MH112S-24B		24	42	89

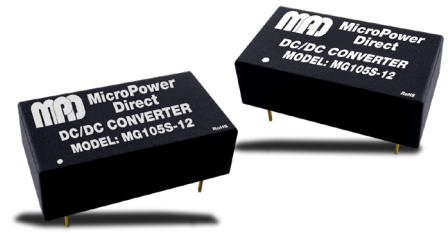
# FIXED INPUT DC/DC CONVERTERS

# MGxxx(lx) Series

## 1W and 2W DIP14 Package

### FEATURES

- Isolation Voltage: 1000 VDC, I = 3000 VDC, I4 = 4000 VDC, I5 = 5200 VDC, I6 = 6000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 82%
- Short Circuit Protection: Momentary



MG100x - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MG103S-03x	2.97 - 3.63 (3.3 VDC)	3.3	303	71	
MG103S-05x		5	200	75	
MG103S-07x		7	139	75	
MG103S-09x		9	111	77	
MG103S-12x		12	83	76	
MG103S-15x		15	67	76	
MG103S-18x		18	56	73	
MG103S-24x		24	42	73	
MG103D-03x		±3.3	±152	63	
MG103D-05x		±5	±100	67	
MG103D-07x		±7	±69	70	
MG103D-09x		±9	±56	73	
MG103D-12x		±12	±42	73	
MG103D-15x		±15	±33	76	
MG103D-18x		±18	±28	75	
MG103D-24x		±24	±21	75	
MG105S-03x		4.5 - 5.5 (5 VDC)	3.3	303	77
MG105S-05x			5	200	82
MG105S-07x			7	139	82
MG105S-09x			9	111	80
MG105S-12x	12		83	81	
MG105S-15x	15		67	80	
MG105S-18x	18		56	80	
MG105S-24x	24		42	82	
MG105D-03x	±3.3		±152	65	
MG105D-05x	±5		±100	70	
MG105D-07x	±7		±69	73	
MG105D-09x	±9		±56	79	
MG105D-12x	±12		±42	80	
MG105D-15x	±15		±33	81	
MG105D-18x	±18		±28	82	
MG105D-24x	±24		±21	82	
MG112S-03x	10.8 - 13.2 (12 VDC)		3.3	303	75
MG112S-05x			5	200	80
MG112S-07x			7	139	76
MG112S-09x			9	111	80
MG112S-12x		12	83	77	
MG112S-15x		15	67	76	
MG112S-18x		18	56	73	
MG112S-24x		24	42	73	

Size: 0.80 x 0.40 x 0.27 in (20.32 x 10.16 x 6.88 mm)

MG100x - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MG112D-03x	10.8 - 13.2 (12 VDC)	±3.3	±152	65	
MG112D-05x		±5	±100	74	
MG112D-07x		±7	±69	75	
MG112D-09x		±9	±56	80	
MG112D-12x		±12	±42	81	
MG112D-15x		±15	±33	82	
MG112D-18x		±18	±28	75	
MG112D-24x		±24	±21	76	
MG115S-03x		13.5 - 16.5 (15 VDC)	3.3	303	75
MG115S-05x			5	200	81
MG115S-07x	7		139	75	
MG115S-09x	9		111	75	
MG115S-12x	12		83	80	
MG115S-15x	15		67	79	
MG115S-18x	18		56	80	
MG115S-24x	24		42	80	
MG115D-03x	±3.3		±152	75	
MG115D-05x	±5		±100	75	
MG115D-07x	±7	±69	75		
MG115D-09x	±9	±56	77		
MG115D-12x	±12	±42	77		
MG115D-15x	±15	±33	77		
MG115D-18x	±18	±28	75		
MG115D-24x	±24	±21	75		
MG124S-03x	21.6 - 26.4 (24 VDC)	3.3	303	76	
MG124S-05x		5	200	80	
MG124S-07x		7	139	73	
MG124S-09x		9	111	75	
MG124S-12x		12	83	78	
MG124S-15x		15	67	80	
MG124S-18x		18	56	80	
MG124S-24x		24	42	81	
MG124D-03x		±3.3	±152	64	
MG124D-05x		±5	±100	75	
MG124D-07x	±7	±69	75		
MG124D-09x	±9	±56	80		
MG124D-12x	±12	±42	79		
MG124D-15x	±15	±33	81		
MG124D-18x	±18	±28	78		
MG124D-24x	±24	±21	78		

MG200x - 2W (no UL approval)

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG203S-03x	2.97 - 3.63 (3.3 VDC)	3.3	400	76
MG203S-05x		5	400	76
MG203S-07x		7	277.7	75
MG203S-09x		9	222.2	80
MG203S-12x		12	166.7	81
MG203S-15x		15	133.3	78
MG203S-18x		18	111.1	77
MG203S-24x		24	83.3	79
MG203D-03x		±3.3	±200	76
MG203D-05x		±5	±200	78
MG203D-07x		±7	±138.8	76
MG203D-09x		±9	±111.1	76
MG203D-12x		±12	±83.3	78
MG203D-15x		±15	±66.6	78
MG203D-18x		±18	±55.5	78
MG203D-24x		±24	±41.6	79
MG205S-03x	4.5 - 5.5 (5 VDC)	3.3	400	72
MG205S-05x		5	400	78
MG205S-07x		7	277.7	80
MG205S-09x		9	222.2	80
MG205S-12x		12	166.7	82
MG205S-15x		15	133.3	82
MG205S-18x		18	111.1	82
MG205S-24x		24	83.3	82
MG205D-03x		±3.3	±200	65
MG205D-05x		±5	±200	72
MG205D-07x		±7	±138.8	72
MG205D-09x		±9	±111.1	77
MG205D-12x		±12	±83.3	78
MG205D-15x		±15	±66.6	80
MG205D-18x		±18	±55.5	80
MG205D-24x		±24	±41.6	80

Size: 0.80 x 0.40 x 0.27 in (20.32 x 10.16 x 6.88 mm)

MG200x - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG212S-03x	10.8 - 13.2 (12 VDC)	3.3	400	65
MG212S-05x		5	400	77
MG212S-07x		7	277.7	80
MG212S-09x		9	222.2	80
MG212S-12x		12	166.7	82
MG212S-15x		15	133.3	82
MG212S-18x		18	111.1	80
MG212S-24x		24	83.3	80
MG212D-03x		±3.3	±200	67
MG212D-05x		±5	±200	75
MG212D-07x		±7	±138.8	76
MG212D-09x		±9	±111.1	77
MG212D-12x		±12	±83.3	82
MG212D-15x		±15	±66.6	82
MG212D-18x		±18	±55.5	82
MG212D-24x		±24	±41.6	82
MG224S-03x	21.6 - 26.4 (24 VDC)	3.3	400	72
MG224S-05x		5	400	79
MG224S-07x		7	277.7	80
MG224S-09x		9	222.2	80
MG224S-12x		12	166.7	80
MG224S-15x		15	133.3	82
MG224S-18x		18	111.1	82
MG224S-24x		24	83.3	80
MG224D-03x		±3.3	±200	68
MG224D-05x		±5	±200	75
MG224D-07x		±7	±138.8	75
MG224D-09x		±9	±111.1	80
MG224D-12x		±12	±83.3	82
MG224D-15x		±15	±66.6	82
MG224D-18x		±18	±55.5	82
MG224D-24x		±24	±41.6	82

x = I, I4, I5, I6

MG100x and MG200x

x = I (3000 VDC), I4 (4000 VDC),  
I5 (5200 VDC), I6 (6000 VDC)



# FIXED INPUT DC/DC CONVERTERS

# MGxxxB(I) Series

## 1W and 2W DIP14 Package

### FEATURES

- Isolation Voltage: 1000 VDC, I = 3000
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 89%
- Short Circuit Protection: Continuous



### MG100BI - 1W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG103S-03BI	2.97 - 3.63 (3.3 VDC)	3.3	303	82
MG103S-05BI		5	200	83
MG103S-09BI		9	111	84
MG103S-12BI		12	84	85
MG105S-03BI	4.5 - 5.5 (5 VDC)	3.3	303	83
MG105S-05BI		5	200	86
MG105S-09BI		9	111	86
MG105S-12BI		12	84	88
MG105S-15BI		15	67	88
MG105S-24BI		24	42	89
MG105D-05BI		±5	±100	86
MG105D-09BI		±9	±56	86
MG105D-12BI		±12	±42	88
MG105D-15BI		±15	±34	88
MG112S-03BI	10.8 - 13.2 (12 VDC)	3.3	303	84
MG112S-05BI		5	200	86
MG112S-09BI		9	111	87
MG112S-12BI		12	84	87
MG112S-15BI		15	67	88
MG112S-24BI		24	42	89
MG112D-03BI		±3.3	±152	84
MG112D-05BI		±5	±100	86
MG112D-09BI		±9	±56	87
MG112D-12BI		±12	±42	87
MG112D-15BI	±15	±34	88	
MG115S-05BI	13.5 - 16.5 (15 VDC)	5	200	86
MG115S-09BI		9	111	87
MG115S-12BI		12	84	87
MG115S-15BI		15	67	88
MG115D-05BI		±5	±100	86
MG115D-12BI		±12	±42	87
MG115D-15BI		±15	±34	88

Size: 0.77 x 0.39 x 0.32 in (19.5 x 9.8 x 8.0 mm)



### MG100BI - 1W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG124S-03BI	21.6 - 26.4 (24 VDC)	3.3	303	84
MG124S-05BI		5	200	87
MG124S-09BI		9	111	88
MG124S-12BI		12	84	88
MG124S-15BI		15	67	88
MG124S-24BI		24	42	89
MG124D-05BI		±5	±100	87
MG124D-09BI		±9	±56	88
MG124D-12BI		±12	±42	88
MG124D-15BI		±15	±34	88

### MG200B(I) - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG203S-03B(I)	2.97 - 3.63 (3.3 VDC)	3.3	400	77
MG203S-05B(I)		5	400	79
MG203S-09B(I)		9	222	80
MG203S-12B(I)		12	167	81
MG205S-03B(I)	4.5 - 5.5 (5 VDC)	3.3	400	83
MG205S-05B(I)		5	400	85
MG205S-09B(I)		9	222	85
MG205S-12B(I)		12	167	86
MG205S-15B(I)		15	133	87
MG205S-24B(I)		24	83	88
MG205D-03B(I)		±3.3	±303	83
MG205D-05B(I)		±5	±200	85
MG205D-09B(I)		±9	±111	85
MG205D-12B(I)		±12	±83	86
MG205D-15B(I)	±15	±67	87	
MG212S-03B(I)	10.8 - 13.2 (12 VDC)	3.3	400	84
MG212S-05B(I)		5	400	85
MG212S-09B(I)		9	222	86
MG212S-12B(I)		12	167	87
MG212S-15B(I)		15	133	88
MG212S-24B(I)		24	83	89
MG212D-03B(I)		±3.3	±303	84
MG212D-05B(I)		±5	±200	85
MG212D-09B(I)		±9	±111	86
MG212D-12B(I)		±12	±83	87
MG212D-15B(I)		±15	±67	88

Size: 0.77 x 0.39 x 0.32 in (19.5 x 9.8 x 8.0 mm)

# MGxxxB(I) Series

# FIXED INPUT DC/DC CONVERTERS

MG200B(I) - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG215S-03B(I)	13.5 - 16.5 (15 VDC)	3.3	400	84
MG215S-05B(I)		5	400	85
MG215S-09B(I)		9	222	86
MG215S-12B(I)		12	167	87
MG215S-15B(I)		15	133	88
MG215S-24B(I)		24	83	89
MG215D-03B(I)		±3.3	±303	84
MG215D-05B(I)		±5	±200	85
MG215D-09B(I)		±9	±111	86
MG215D-12B(I)		±12	±83	87
MG215D-15B(I)		±15	±67	88

Size: 0.77 x 0.39 x 0.32 in (19.5 x 9.8 x 8.0 mm)

MG200B(I) - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG224S-03B(I)	21.6 - 26.4 (24 VDC)	3.3	400	84
MG224S-05B(I)		5	400	86
MG224S-09B(I)		9	222	87
MG224S-12B(I)		12	167	88
MG224S-15B(I)		15	133	89
MG224S-24B(I)		24	83	90
MG224D-03B(I)		±3.3	±303	84
MG224D-05B(I)		±5	±200	86
MG224D-09B(I)		±9	±111	87
MG224D-12B(I)		±12	±83	88
MG224D-15B(I)		±15	±67	89

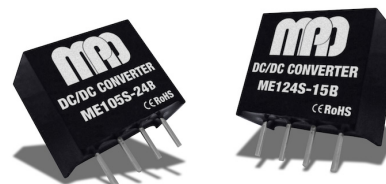
# MExxxB Series

# FIXED INPUT DC/DC CONVERTERS

1W and 2W SIP4 Package

## FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 89%
- Short Circuit Protection: Continuous



UK CA CE RoHS

ME100B - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME103S-03B	2.97 - 3.63 (3.3 VDC)	3.3	303	82
ME103S-05B		5.0	200	83
ME103S-09B		9.0	111	84
ME103S-12B		12.0	84	85
ME105S-03B	4.5 - 5.5 (5 VDC)	3.3	303	82
ME105S-05B		5.0	200	87
ME105S-09B		9.0	111	86
ME105S-12B		12.0	84	88
ME105S-15B		15.0	67	88
ME105S-24B		24.0	42	89
ME112S-03B	10.8 - 13.2 (12 VDC)	3.3	303	84
ME112S-05B		5.0	200	88
ME112S-09B		9.0	111	87
ME112S-12B		12.0	84	89
ME112S-15B		15.0	67	88
ME112S-24B		24.0	42	89
ME115S-03B	13.5 - 16.5 (15 VDC)	3.3	303	85
ME115S-05B		5.0	200	85
ME115S-09B		9.0	111	88
ME115S-12B		12.0	84	89
ME115S-15B		15.0	67	89

Size: 0.46 x 0.24 x 0.40 in (11.6 x 9.6 x 10.2 mm)

ME100B - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME124S-03B	21.6 - 26.4 (24 VDC)	3.3	303	84
ME124S-05B		5.0	200	87
ME124S-09B		9.0	111	89
ME124S-12B		12.0	84	88
ME124S-15B		15.0	67	88
ME124S-24B		24.0	42	89

Size: 0.46 x 0.24 x 0.40 in (11.6 x 9.6 x 10.2 mm)

ME200B - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME205S-05B	4.5 - 5.5 (5 VDC)	5.0	400	80
ME205S-09B		9.0	222	80
ME205S-12B		12.0	167	80
ME205S-15B		15.0	133	80
ME205S-24B		24.0	83	80
ME212S-09B	10.8 - 13.2 (12 VDC)	9.0	222	80

Size: 0.46 x 0.24 x 0.40 in (11.6 x 9.6 x 10.2 mm)

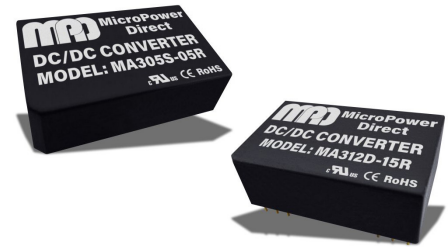
# FIXED INPUT DC/DC CONVERTERS

## MA300R Series

### 3W DIP24 Package

#### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 82%
- Regulation: Tightly Regulated
- Short Circuit Protection: Continuous



MA300R - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA305S-05R	4.5 - 5.5 (5 VDC)	5	600	70
MA305S-12R		12	250	78
MA305S-15R		15	200	78
MA305D-12R		±12	±125	78
MA305D-15R		±15	±100	78
MA312S-05R	10.8 - 13.2 (12 VDC)	5	600	74
MA312S-12R		12	250	80
MA312S-15R		15	200	80

Size: 1.25 x 0.80 x 0.40 in (31.8 x 20.3 x 10.16 mm)

MA300R - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA312D-12R	10.8 - 13.2 (12 VDC)	±12	±125	81
MA312D-15R		±15	±100	82
MA324S-05R	21.6 - 26.4 (24 VDC)	5	600	75
MA324S-12R		12	250	80
MA324S-15R		15	200	80
MA324D-12R		±12	±125	81
MA324D-15R		±15	±100	82

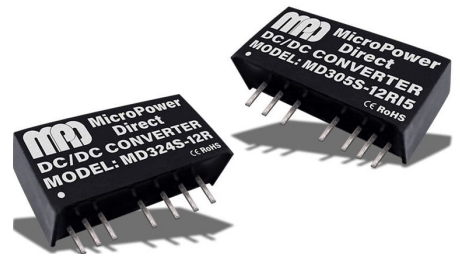
# FIXED INPUT DC/DC CONVERTERS

## MD300R Series

### 3W SIP12 Package

#### FEATURES

- Isolation Voltage: 1000 VDC, I=3000 VDC, I4=4000 VDC, I5=5200 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 74%
- Regulation: Tightly Regulated
- Short Circuit Protection: Continuous



MD300R - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD305S-03Rx	4.5 - 5.5 (5 VDC)	3.3	600	55
MD305S-05Rx		5	600	65
MD305S-07Rx		7.2	416	67
MD305S-09Rx		9	333	70
MD305S-12Rx		12	250	68
MD305S-15Rx		15	200	69
MD305S-18Rx		18	166	67
MD305S-24Rx		24	125	69
MD312S-03Rx		10.8 - 13.2 (12 VDC)	3.3	600
MD312S-05Rx	5		600	64
MD312S-07Rx	7.2		416	71
MD312S-09Rx	9		333	71

Size: 1.26 x 0.32 x 0.57 in (32.0 x 8.0 x 14.02 mm)

MD300R - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD312S-12Rx	10.8 - 13.2 (12 VDC)	12	250	73
MD312S-15Rx		15	200	71
MD312S-18Rx		18	166	70
MD312S-24Rx		24	125	73
MD324S-03Rx	21.6 - 26.4 (24 VDC)	3.3	600	58
MD324S-05Rx		5	600	64
MD324S-07Rx		7.2	416	67
MD324S-09Rx		9	333	72
MD324S-12Rx		12	250	74
MD324S-15Rx		15	200	71
MD324S-18Rx		18	166	72
MD324S-24Rx		24	125	74

x = I, I4, I5

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 82%
- Short Circuit Protection: Continuous
- Size: .74 x .54 x .34 in (18.90 x 13.70 x 8.70 mm)
- Available on Tape & Reel



ML100RW - 1W

Datasheet

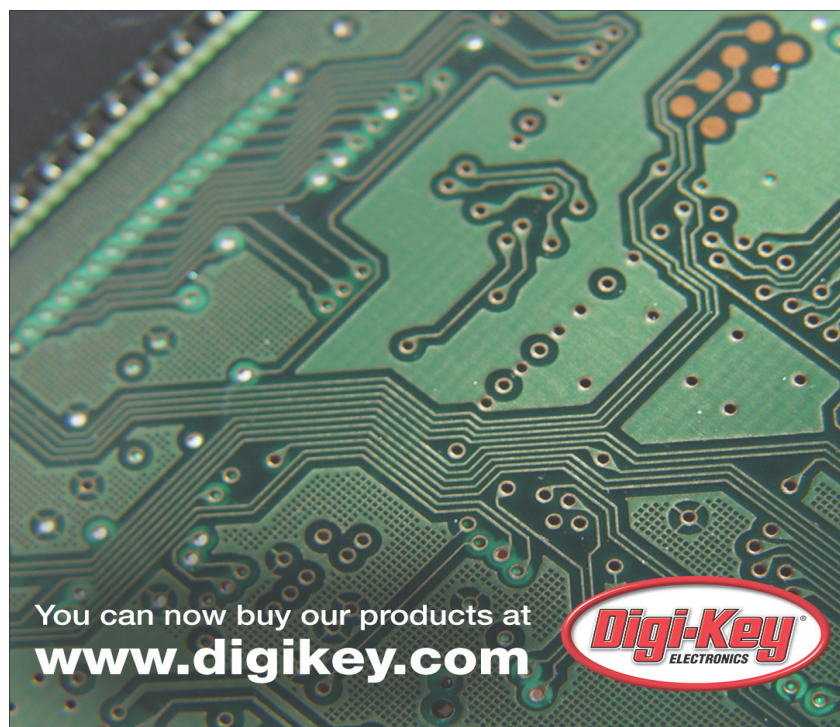
Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML105S-05RW	4.5 - 9 (5 VDC)	5	200	78
ML105S-12RW		12	83	79
ML105S-15RW		15	67	81
ML105D-12RW		±12	±42	79
ML105D-15RW		±15	±33	80
ML112S-05RW	9.0 - 18 (12 VDC)	5	200	79
ML112S-12RW		12	83	79
ML112S-15RW		15	67	82
ML112D-12RW		±12	±42	81
ML112D-15RW		±15	±33	80

Size: 0.74 x 0.54 x 0.34 in (18.9 x 13.7 x 8.7 mm)

ML100RW - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML124S-05RW	18 - 36 (24 VDC)	5	200	79
ML124S-12RW		12	83	82
ML124S-15RW		15	67	82
ML124D-12RW		±12	±42	82
ML124D-15RW		±15	±33	82
ML148S-05RW	36 - 75 (48 VDC)	5	200	79
ML148S-12RW		12	83	80
ML148S-15RW		15	67	80
ML148D-12RW		±12	±42	81
ML148D-15RW		±15	±33	81



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# 2:1 WIDE INPUT DC/DC CONVERTERS

# MDxxxCRW Series

## 1W and 3W SIP8 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 82%
- Short Circuit Protection: Continuous



MD100CRW - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD105S-03CRW	4.5 - 9 (5 VDC)	3.3	303	71
MD105S-05CRW		5	200	72
MD105S-12CRW		12	83	76
MD105S-15CRW		15	67	75
MD105S-24CRW		24	42	73
MD105D-05CRW		±5	±100	73
MD105D-12CRW		±12	±42	76
MD105D-15CRW		±15	±33	75
MD112S-03CRW		9.0 - 18 (12 VDC)	3.3	303
MD112S-05CRW	5		200	77
MD112S-09CRW	9		111	79
MD112S-12CRW	12		83	78
MD112S-15CRW	15		67	80
MD112S-24CRW	24		42	76
MD112D-05CRW	±5		±100	77
MD112D-12CRW	±12		±42	81
MD112D-15CRW	±15		±33	78
MD124S-03CRW	18 - 36 (24 VDC)	3.3	303	75
MD124S-05CRW		5	200	77
MD124S-12CRW		12	83	78
MD124S-15CRW		15	67	78
MD124S-24CRW		24	42	77
MD124D-05CRW		±5	±100	79
MD124D-09CRW		±9	±56	79
MD124D-12CRW		±12	±42	78
MD124D-15CRW		±15	±33	78
MD148S-03CRW	36 - 75 (48 VDC)	3.3	303	75
MD148S-05CRW		5	200	76
MD148S-12CRW		12	83	80
MD148S-15CRW		15	67	79
MD148D-05CRW		±5	±100	76
MD148D-12CRW		±12	±42	78
MD148D-15CRW		±15	±33	80

Size: 0.87 x 0.37 x 0.47 in (22.0 x 9.5 x 12.0 mm)

MD300CRW - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD305S-03CRW	4.5 - 9 (5 VDC)	3.3	758	66
MD305S-05CRW		5.0	500	71
MD305S-09CRW		9.0	278	72
MD305S-12CRW		12.0	208	75
MD305S-15CRW		15.0	167	72
MD305S-24CRW		24.0	104	74
MD305D-05CRW		±5.0	±250	72
MD305D-12CRW		±12.0	±104	75
MD305D-15CRW		±15.0	±83	75
MD305D-24CRW	±24.0	±52	74	
MD312S-03CRW	9.0 - 18 (12 VDC)	3.3	758	73
MD312S-05CRW		5.0	600	74
MD312S-09CRW		9.0	333	77
MD312S-12CRW		12.0	250	80
MD312S-15CRW		15.0	200	81
MD312S-24CRW		24.0	125	79
MD312D-05CRW		±5.0	±300	76
MD312D-09CRW		±9.0	±167	76
MD312D-12CRW		±12.0	±125	77
MD312D-15CRW	±15.0	±100	78	
MD324S-03CRW	18 - 36 (24 VDC)	3.3	758	72
MD324S-05CRW		5.0	600	79
MD324S-09CRW		9.0	333	81
MD324S-12CRW		12.0	250	81
MD324S-15CRW		15.0	200	81
MD324S-24CRW		24.0	125	81
MD324D-05CRW		±5.0	±300	77
MD324D-09CRW		±9.0	±167	79
MD324D-12CRW		±12.0	±125	81
MD324D-15CRW	±15.0	±100	81	
MD348S-03CRW	36 - 75 (48 VDC)	3.3	758	73
MD348S-05CRW		5.0	600	74
MD348S-12CRW		12.0	250	78
MD348S-15CRW		15.0	200	82
MD348S-24CRW		24.0	125	80
MD348D-05CRW		±5.0	±300	77
MD348D-12CRW		±12.0	±125	80
MD348D-15CRW		±15.0	±100	80

Size: 0.87 x 0.37 x 0.47 in (22.0 x 9.5 x 12.0 mm)

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 87%
- Short Circuit Protection: Continuous
- Size: .55 x .55 x .31 in (14.0 x 14.0 x 8.0 mm)



MH200RW - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH205S-03RW	4.5 - 10 (5 VDC)	3.3	400	79
MH205S-05RW		5	400	81
MH205S-12RW		12	167	85
MH205S-15RW		15	134	87
MH205D-05RW		±5	±200	83
MH205D-12RW		±12	±83	85
MH205D-15RW		±15	±67	85
MH212S-03RW	9 - 18 (12 VDC)	3.3	400	80
MH212S-05RW		5	400	83
MH212S-12RW		12	167	87
MH212S-15RW		15	134	87
MH212D-05RW		±5	±200	84
MH212D-12RW		±12	±83	86
MH212D-15RW		±15	±67	86
MH224S-03RW	18 - 36 (24 VDC)	3.3	400	79
MH224S-05RW		5	400	84
MH224S-12RW		12	167	86
MH224S-15RW		15	134	87
MH224D-05RW		±5	±200	84
MH224D-12RW		±12	±83	86
MH224D-15RW		±15	±67	86
MH248S-03RW	36 - 75 (48 VDC)	3.3	400	79
MH248S-05RW		5	400	83
MH248S-12RW		12	167	85
MH248S-15RW		15	134	86
MH248D-05RW		±5	±200	82
MH248D-12RW		±12	±83	84
MH248D-15RW		±15	±67	84

Size: 0.55 x 0.55 x 0.31 in (14.0 x 14.0 x 8.0 mm)

MH300RW - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH305S-03RW	4.5 - 10 (5 VDC)	3.3	600	79
MH305S-05RW		5	600	81
MH305S-12RW		12	250	85
MH305S-15RW		15	200	85
MH305D-05RW		±5	±300	82
MH305D-12RW		±12	±125	84
MH305D-15RW		±15	±100	85
MH312S-03RW	9 - 18 (12 VDC)	3.3	600	80
MH312S-05RW		5	600	83
MH312S-12RW		12	250	87
MH312S-15RW		15	200	87
MH312D-05RW		±5	±300	84
MH312D-12RW		±12	±125	86
MH312D-15RW		±15	±100	87
MH324S-03RW	18 - 36 (24 VDC)	3.3	600	80
MH324S-05RW		5	600	83
MH324S-12RW		12	250	87
MH324S-15RW		15	200	87
MH324D-05RW		±5	±300	84
MH324D-12RW		±12	±125	86
MH324D-15RW		±15	±100	87
MH348S-03RW	36 - 75 (48 VDC)	3.3	600	79
MH348S-05RW		5	600	82
MH348S-12RW		12	250	86
MH348S-15RW		15	200	86
MH348D-05RW		±5	±300	82
MH348D-12RW		±12	±125	85
MH348D-15RW		±15	±100	85

Size: 0.55 x 0.55 x 0.31 in (14.0 x 14.0 x 8.0 mm)



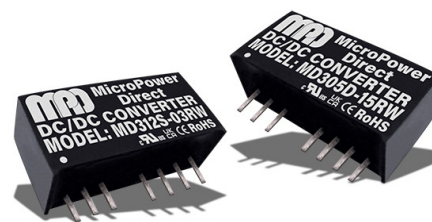
# 2:1 WIDE INPUT DC/DC CONVERTERS

# MDxxxRW Series

## 2W to 9W SIP8 Package

### FEATURES

- Isolation Voltage: 1600 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +85°C (MD600RW to +65°C)
- Efficiency: Up to 87%
- Short Circuit Protection: Continuous



MD200RW(I) - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD205S-03RW(I)	4.5 - 9 (5 VDC)	3.3	500	67	
MD205S-05RW(I)		5.5	400	70	
MD205S-09RW(I)		9	222	72	
MD205S-12RW(I)		12	167	72	
MD205S-15RW(I)		15	133	73	
MD205S-24RW(I)		24	83	75	
MD205D-03RW(I)		±3.3	±250	70	
MD205D-05RW(I)		±5	±200	70	
MD205D-09RW(I)		±9	±111	74	
MD205D-12RW(I)		±12	±83	75	
MD205D-15RW(I)		±15	±67	75	
MD205S-24RW(I)		±24	±42	71	
MD212S-03RW(I)		9 - 18 (12 VDC)	3.3	500	67
MD212S-05RW(I)			5.5	400	77
MD212S-09RW(I)	9		222	78	
MD212S-12RW(I)	12		167	80	
MD212S-15RW(I)	15		133	78	
MD212S-24RW(I)	24		83	80	
MD212D-03RW(I)	±3.3		±250	73	
MD212D-05RW(I)	±5		±200	75	
MD212D-09RW(I)	±9		±111	79	
MD212D-12RW(I)	±12		±83	80	
MD212D-15RW(I)	±15		±67	79	
MD212S-24RW(I)	±24		±42	76	
MD224S-03RW(I)	18 - 36 (24 VDC)		3.3	500	70
MD224S-05RW(I)			5.5	400	77
MD224S-09RW(I)		9	222	80	
MD224S-12RW(I)		12	167	80	
MD224S-15RW(I)		15	133	80	
MD224S-24RW(I)		24	83	80	
MD224D-03RW(I)		±3.3	±250	73	
MD224D-05RW(I)		±5	±200	78	
MD224D-09RW(I)		±9	±111	79	
MD224D-12RW(I)		±12	±83	80	
MD224D-15RW(I)		±15	±67	80	
MD224S-24RW(I)		±24	±42	78	

MD248RW(I) - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD248S-03RW(I)	36 - 72 (48 VDC)	3.3	500	71
MD248S-05RW(I)		5.5	400	74
MD248S-09RW(I)		9	222	78
MD248S-12RW(I)		12	167	78
MD248S-15RW(I)		15	133	78
MD248S-24RW(I)		24	83	80
MD248D-03RW(I)		±3.3	±250	73
MD248D-05RW(I)		±5	±200	74
MD248D-09RW(I)		±9	±111	79
MD248D-12RW(I)		±12	±83	79
MD248D-15RW(I)		±15	±67	80
MD248S-24RW(I)		±24	±42	75

MD300RW - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD305S-03RW	4.5 - 9 (5 VDC)	3.3	700	76
MD305S-05RW		5.5	600	80
MD305S-12RW		12	250	82
MD305S-15RW		15	200	82
MD305D-05RW		±5	±300	78
MD305D-12RW		±12	±125	83
MD305D-15RW	±15	±100	86	
MD312S-03RW	9 - 18 (12 VDC)	3.3	700	79
MD312S-05RW		5.5	600	82
MD312S-12RW		12	250	84
MD312S-15RW		15	200	83
MD312D-05RW		±5	±300	81
MD312D-12RW		±12	±125	86
MD312D-15RW	±15	±100	83	
MD324S-03RW	18 - 36 (24 VDC)	3.3	700	76
MD324S-05RW		5.5	600	81
MD324S-12RW		12	250	83
MD324S-15RW		15	200	86
MD324D-05RW		±5	±300	82
MD324D-12RW		±12	±125	83
MD324D-15RW	±15	±100	84	

MD300RW - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD348S-03RW	36 - 72 (48 VDC)	3.3	700	76
MD348S-05RW		5.5	600	80
MD348S-12RW		12	250	82
MD348S-15RW		15	200	83
MD348D-05RW		±5	±300	79
MD348D-12RW		±12	±125	82
MD348D-15RW		±15	±100	82

MD600RW(I) - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD605S-03RW(I)	4.5 - 9 (5 VDC)	3.3	1300	75
MD605S-05RW(I)		5.5	1200	79
MD605S-09RW(I)		9	666	83
MD605S-12RW(I)		12	500	84
MD605S-15RW(I)		15	400	84
MD605S-24RW(I)		24	250	84
MD605D-05RW(I)		±5	±600	81
MD605D-12RW(I)		±12	±250	84
MD605D-15RW(I)		±15	±200	84
MD612S-03RW(I)		9 - 18 (12 VDC)	3.3	1300
MD612S-05RW(I)	5.5		1200	83
MD612S-09RW(I)	9		666	84
MD612S-12RW(I)	12		500	85
MD612S-15RW(I)	15		400	85
MD612S-24RW(I)	24		250	86
MD612D-05RW(I)	±5		±600	82
MD612D-12RW(I)	±12		±250	84
MD612D-15RW(I)	±15		±200	86
MD624S-03RW(I)	18 - 36 (24 VDC)		3.3	1300
MD624S-05RW(I)		5.5	1200	83
MD624S-09RW(I)		9	666	85
MD624S-12RW(I)		12	500	85
MD624S-15RW(I)		15	400	87
MD624S-24RW(I)		24	250	87
MD624D-05RW(I)		±5	±600	82
MD624D-12RW(I)		±12	±250	84
MD624D-15RW(I)		±15	±200	84
MD648S-03RW(I)		36 - 72 (48 VDC)	3.3	1300
MD648S-05RW(I)	5.5		1200	80
MD648S-09RW(I)	9		666	85
MD648S-12RW(I)	12		500	84
MD648S-15RW(I)	15		400	86
MD648S-24RW(I)	24		250	84
MD648D-05RW(I)	±5		±600	82
MD648D-12RW(I)	±12		±250	85
MD648D-15RW(I)	±15		±200	85

MD900RW - 9W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD912S-03RW	9 - 18 (12 VDC)	3.3	2000	81
MD912S-05RW		5.5	1600	85
MD912S-09RW		9	1000	87
MD912S-12RW		12	750	88
MD912S-15RW		15	600	89
MD912S-24RW		24	375	89
MD912D-05RW		±5	±800	85
MD912D-12RW		±12	±375	88
MD912D-15RW		±15	±300	89
MD924S-03RW		18 - 36 (24 VDC)	3.3	2000
MD924S-05RW	5.5		1600	85
MD924S-09RW	9		1000	88
MD924S-12RW	12		750	89
MD924S-15RW	15		600	90
MD924S-24RW	24		375	90
MD924D-05RW	±5		±800	86
MD924D-12RW	±12		±375	89
MD924D-15RW	±15		±300	87
MD948S-03RW	36 - 72 (48 VDC)		3.3	2000
MD948S-05RW		5.5	1600	85
MD948S-09RW		9	1000	88
MD948S-12RW		12	750	89
MD948S-15RW		15	600	89
MD948S-24RW		24	375	89
MD948D-05RW		±5	±800	86
MD948D-12RW		±12	±375	87
MD948D-15RW		±15	±300	87



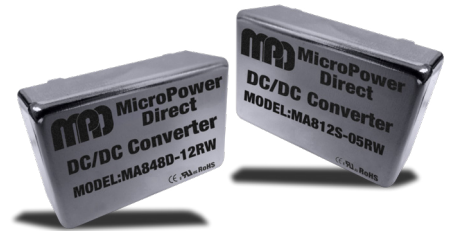
# 2:1 WIDE INPUT DC/DC CONVERTERS

# MAxxxRW(I) Series

## 3W to 15W DIP24 Package

### FEATURES

- Isolation Voltage: 1500 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 87%
- Short Circuit Protection: Continuous



MA300RW(I) - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MA305S-03RW(I)	4.5 - 9 (5 VDC)	3.3	600	77
MA305S-05RW(I)		5	500	78
MA305S-12RW(I)		12	250	82
MA305S-15RW(I)		15	200	82
MA305S-24RW(I)		24	125	81
MA305D-05RW(I)		±5	±250	77
MA305D-12RW(I)		±12	±125	81
MA305D-15RW(I)		±15	±100	81
MA312S-03RW(I)		9 - 18 (12 VDC)	3.3	600
MA312S-05RW(I)	5		500	81
MA312S-12RW(I)	12		250	85
MA312S-15RW(I)	15		200	85
MA312S-24RW(I)	24		125	84
MA312D-05RW(I)	±5		±250	80
MA312D-12RW(I)	±12		±125	84
MA312D-15RW(I)	±15	±100	84	
MA324S-03RW(I)	18 - 36 (24 VDC)	3.3	600	79
MA324S-05RW(I)		5	500	81
MA324S-12RW(I)		12	250	85
MA324S-15RW(I)		15	200	85
MA324S-24RW(I)		24	125	84
MA324D-05RW(I)		±5	±250	80
MA324D-12RW(I)		±12	±125	84
MA324D-15RW(I)		±15	±100	84
MA348S-03RW(I)		36 - 72 (48 VDC)	3.3	600
MA348S-05RW(I)	5		500	81
MA348S-12RW(I)	12		250	85
MA348S-15RW(I)	15		200	85
MA348S-24RW(I)	24		125	84
MA348D-05RW(I)	±5		±250	80
MA348D-12RW(I)	±12		±125	84
MA348D-15RW(I)	±15		±100	84

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

MA600RW(I) - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MA612S-03RW(I)	9 - 18 (12 VDC)	3.3	1200	75
MA612S-05RW(I)		5	1200	78
MA612S-12RW(I)		12	500	82
MA612S-15RW(I)		15	400	82
MA612S-24RW(I)		24	250	84
MA612D-05RW(I)		±5	±500	78
MA612D-12RW(I)		±12	±250	82
MA612D-15RW(I)		±15	±200	82
MA624S-03RW(I)		18 - 36 (24 VDC)	3.3	1200
MA624S-05RW(I)	5		1200	80
MA624S-12RW(I)	12		500	84
MA624S-15RW(I)	15		400	84
MA624S-24RW(I)	24		250	84
MA624D-05RW(I)	±5		±500	80
MA624D-12RW(I)	±12		±250	84
MA624D-15RW(I)	±15		±200	84
MA648S-03RW(I)	36 - 72 (48 VDC)		3.3	1200
MA648S-05RW(I)		5	1200	80
MA648S-12RW(I)		12	500	84
MA648S-15RW(I)		15	400	84
MA648S-24RW(I)		24	250	84
MA648D-05RW(I)		±5	±500	80
MA648D-12RW(I)		±12	±250	84
MA648D-15RW(I)		±15	±200	84

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)



# MAxxxRW(I) Series

# 2:1 WIDE INPUT DC/DC CONVERTERS

MA800RW - 8W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA812S-03RW	9 - 18 (12 VDC)	3.3	2000	80
MA812S-05RW		5	1500	82
MA812S-09RW		9	888	84
MA812S-12RW		12	665	85
MA812S-15RW		15	535	83
MA812D-05RW		±5	±800	82
MA812D-09RW		±9	±444	84
MA812D-12RW		±12	±335	84
MA812D-15RW		±15	±265	84
MA824S-03RW	18 - 36 (24 VDC)	3.3	2000	80
MA824S-05RW		5	1500	82
MA824S-09RW		9	888	86
MA824S-12RW		12	665	85
MA824S-15RW		15	535	84
MA824D-05RW		±5	±800	82
MA824D-09RW		±9	±444	85
MA824D-12RW		±12	±335	83
MA824D-15RW		±15	±265	85
MA848S-03RW	36 - 72 (48 VDC)	3.3	2000	80
MA848S-05RW		5	1500	82
MA848S-09RW		9	888	84
MA848S-12RW		12	665	84
MA848S-15RW		15	535	84
MA848D-05RW		±5	±800	82
MA848D-09RW		±9	±444	84
MA848D-12RW		±12	±335	85
MA848D-15RW		±15	±265	85

MA1200RW - 12W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MA1212S-02RW	9 - 18 (12 VDC)	2.5	3500	85	
MA1212S-03RW		3.3	3500	87	
MA1212S-05RW		5	2400	89	
MA1212S-12RW		12	1000	90	
MA1212S-15RW		15	800	90	
MA1212D-12RW		±12	±500	90	
MA1212D-15RW		±15	±400	91	
MA1224S-02RW		18 - 36 (24 VDC)	2.5	3500	85
MA1224S-03RW			3.3	3500	87
MA1224S-05RW	5		2400	89	
MA1224S-12RW	12		1000	90	
MA1224S-15RW	15		800	90	
MA1224D-12RW	±12		±500	90	
MA1224D-15RW	±15		±400	91	
MA1248S-02RW	36 - 72 (48 VDC)		2.5	3500	84
MA1248S-03RW			3.3	3500	88
MA1248S-05RW		5	2400	89	
MA1248S-12RW		12	1000	88	
MA1248S-15RW		15	800	89	
MA1248D-12RW		±12	±500	88	
MA1248D-15RW		±15	±400	89	

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

3W to 15W DIP24 Package

MA1000RW - 10W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MA1012S-02RW	9 - 18 (12 VDC)	2.5	3000	81	
MA1012S-03RW		3.3	3000	84	
MA1012S-05RW		5	2000	86	
MA1012S-12RW		12	833	87	
MA1012S-15RW		15	667	89	
MA1012D-12RW		±12	±416	87	
MA1012D-15RW		±15	±333	88	
MA1024S-02RW		18 - 36 (24 VDC)	2.5	3000	84
MA1024S-03RW			3.3	3000	85
MA1024S-05RW	5		2000	89	
MA1024S-12RW	12		833	88	
MA1024S-15RW	15		667	88	
MA1024D-12RW	±12		±416	88	
MA1024D-15RW	±15		±333	90	
MA1048S-02RW	36 - 72 (48 VDC)		2.5	3000	84
MA1048S-03RW			3.3	3000	85
MA1048S-05RW		5	2000	88	
MA1048S-12RW		12	833	87	
MA1048S-15RW		15	667	88	
MA1048D-12RW		±12	±416	87	
MA1048D-15RW		±15	±333	87	

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

MA1500RW - 15W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MA1512S-03RW	9 - 18 (12 VDC)	3.3	4000	86	
MA1512S-051RW		5.1	3000	89	
MA1512S-12RW		12	1250	89	
MA1512S-15RW		15	1000	90	
MA1512D-05RW		±5	±1500	86	
MA1512D-12RW		±12	±625	90	
MA1512D-15RW		±15	±500	90	
MA1524S-03RW		18 - 36 (24 VDC)	3.3	4000	87
MA1524S-051RW			5.1	3000	89
MA1524S-12RW	12		1250	90	
MA1524S-15RW	15		1000	91	
MA1524D-05RW	±5		±1500	86	
MA1524D-12RW	±12		±625	90	
MA1524D-15RW	±15		±500	90	
MA1548S-03RW	36 - 72 (48 VDC)		3.3	4000	86
MA1548S-051RW			5.1	3000	88
MA1548S-12RW		12	1250	89	
MA1548S-15RW		15	1000	89	
MA1548D-05RW		±5	±1500	86	
MA1548D-12RW		±12	±625	89	
MA1548D-15RW		±15	±500	90	

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

# 2:1 WIDE INPUT DC/DC CONVERTERS

# MGxxxRW Series

## 8W and 10W DIP16 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 88%
- Short Circuit Protection: Continuous



MG800RW - 8W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG812S-03RW	9 - 18 (12 VDC)	3.3	1600	78
MG812S-05RW		5	1600	81
MG812S-12RW		12	665	84
MG812S-15RW		15	535	84
MG812S-24RW		24	335	85
MG812D-12RW		±12	±335	85
MG812D-15RW		±15	±265	84
MG824S-03RW	18 - 36 (24 VDC)	3.3	1600	78
MG824S-05RW		5	1600	82
MG824S-12RW		12	665	85
MG824S-15RW		15	535	85
MG824S-24RW		24	335	86
MG824D-12RW		±12	±335	85
MG824D-15RW	±15	±265	86	
MG848S-03RW	36 - 72 (48 VDC)	3.3	1600	78
MG848S-05RW		5	1600	81
MG848S-12RW		12	665	85
MG848S-15RW		15	535	85
MG848S-24RW		24	335	86
MG848D-12RW		±12	±335	86
MG848D-15RW	±15	±265	86	

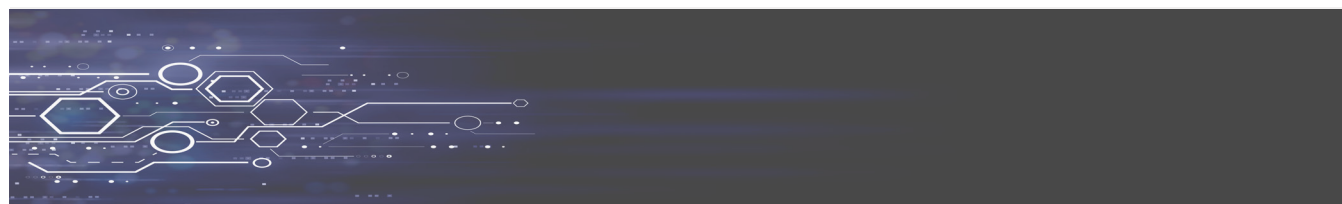
Size: 0.94 x 0.54 x 0.31 in (23.8 x 13.7 x 8.0 mm)

MG1000RW - 10W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG1012S-03RW	9 - 18 (12 VDC)	3.3	2700	79
MG1012S-05RW		5	2000	82
MG1012S-051RW		5.1	2000	82
MG1012S-12RW		12	833	86
MG1012S-15RW		15	666	87
MG1012S-24RW		24	416	87
MG1012D-12RW		±12	±416	86
MG1012D-15RW	±15	±333	86	
MG1024S-03RW	18 - 36 (24 VDC)	3.3	2700	80
MG1012S-05RW		5	2000	83
MG1024S-051RW		5.1	2000	83
MG1024S-12RW		12	833	87
MG1024S-15RW		15	666	88
MG1012S-24RW		24	416	88
MG1024D-12RW	±12	±416	87	
MG1024D-15RW	±15	±333	87	
MG1048S-03RW	36 - 72 (48 VDC)	3.3	2700	80
MG1012S-05RW		5	2000	83
MG1048S-051RW		5.1	2000	83
MG1048S-12RW		12	833	87
MG1048S-15RW		15	666	88
MG1012S-24RW		24	416	86
MG1048D-12RW	±12	±416	87	
MG1048D-15RW	±15	±333	87	

Size: 0.94 x 0.54 x 0.31 in (23.8 x 13.7 x 8.0 mm)



### Choose a 2:1 Wide Input Range if

- Input voltage is relatively stable
- Need high efficiency in a defined range
- System design has minimal input fluctuations
  - Low ripple and noise is needed

### FEATURES

- Isolation Voltage: 1500 VDC
- Efficiency: Up to 92%
- Short Circuit Protection: Continuous



MB4000RW - 40W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MB4012S-03RW	9-18 (12 VDC)	3.3	8000	89
MB4012S-05RW		5	8000	89
MB4012S-12RW		12	3330	89
MB4012S-15RW		15	2670	90
MB4012S-24RW		24	1670	91
MB4012D-12RW		±12	±1670	88
MB4012D-15RW		±15	±1330	88
MB4024S-03RW		18-36 (24 VDC)	3.3	8000
MB4024S-05RW	5		8000	91
MB4024S-12RW	12		3330	91
MB4024S-15RW	15		2670	91
MB4024S-24RW	24		1670	91
MB4024D-12RW	±12		±1670	89
MB4024D-15RW	±15		±1330	89
MB4048S-03RW	36-75 (48 VDC)		3.3	8000
MB4048S-05RW		5	8000	91
MB4048S-12RW		12	3330	92
MB4048S-15RW		15	2670	92
MB4048S-24RW		24	1670	91
MB4048D-12RW		±12	±1670	89
MB4048D-15RW		±15	±1330	89

Size: 24V models 2.00 x 1.00 x .43 in (50.80 x 25.40 x 11.00 mm)

Other models 2.00 x 1.00 x .40 in (50.80 x 25.40 x 10.20 mm)

MB5000RW - 50W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MB5012S-03RW	9-18 (12 VDC)	3.3	10000	91
MB5012S-05RW		5	10000	91
MB5012S-12RW		12	4167	89
MB5012S-15RW		15	3333	90
MB5024S-03RW		18-36 (24 VDC)	3.3	10000
MB5024S-05RW	5		10000	92.5
MB5024S-12RW	12		4167	91.5
MB5024S-15RW	15		3333	91.5
MB5048S-03RW	36-75 (48 VDC)		3.3	10000
MB5048S-05RW		5	10000	92.5
MB5048S-12RW		12	4167	91
MB5048S-15RW		15	3333	91.5

Size: 2.00 x 1.00 x .45 in (50.80 x 25.40 x 11.50 mm)

### Temperature

MB40xxS-03RW: -40°C to +66°C  
 MB40xxS-05RW, -12RW, -15RW, -24RW: -40°C to +46°C  
 MB40xxD-xxRW: -40°C to +40°C  
 MB5000RW: -40°C to +95°C

### Choose a 4:1 Wide Input Range if

- Input voltage varies significantly
- Need flexibility across different power sources
- Designing for battery-powered applications
  - Unpredictable environment

# 2:1 WIDE INPUT DC/DC CONVERTERS

# MIxxxRW Series

## 10W to 30W 1x1 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 88%
- Short Circuit Protection: Continuous



MI1000RW - 10W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI1012S-03RW	9-18 (12 VDC)	3.3	2500	82
MI1012S-05RW		5	2000	85
MI1012S-051RW		5.1	2000	85
MI1012S-12RW		12	830	87
MI1012S-15RW		15	670	88
MI1012D-05RW		±5	±1000	84
MI1012D-12RW		±12	±416	87
MI1012D-15RW		±15	±333	87
MI1024S-03RW		18-36 (24 VDC)	3.3	2500
MI1024S-05RW	5		2000	85
MI1024S-051RW	5.1		2000	85
MI1024S-12RW	12		830	88
MI1024S-15RW	15		670	89
MI1024D-05RW	±5		±1000	85
MI1024D-12RW	±12		±416	88
MI1024D-15RW	±15		±333	89
MI1048S-03RW	36-75 (48 VDC)		3.3	2500
MI1048S-05RW		5	2000	86
MI1048S-051RW		5.1	2000	85
MI1048S-12RW		12	830	89
MI1048S-15RW		15	670	89
MI1048D-05RW		±5	±1000	86
MI1048D-12RW		±12	±416	87
MI1048D-15RW		±15	±333	88

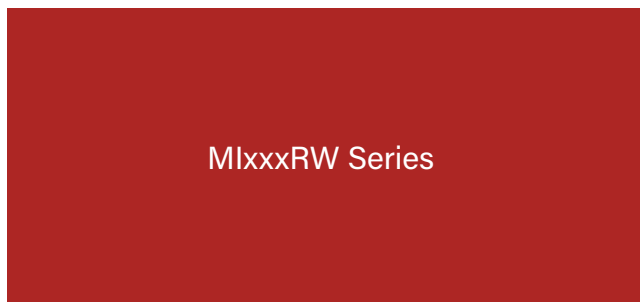
Size: 1.0 x 1.0 x 0.4 in (25.4 x 25.4 x 10.16 mm)

MI1500RW - 15W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MI1512S-03RW	9-18 (12 VDC)	3.3	3400	86	
MI1512S-05RW		5	3000	89	
MI1512S-12RW		12	1250	89	
MI1512S-15RW		15	1000	89	
MI1512S-24RW		24	625	90	
MI1512D-12RW		±12	±625	89	
MI1512D-15RW		±15	±500	90	
MI1524S-03RW		18-36 (24 VDC)	3.3	3400	86
MI1524S-05RW			5	3000	88
MI1524S-12RW	12		1250	90	
MI1524S-15RW	15		1000	90	
MI1524S-24RW	24		625	91	
MI1524D-12RW	±12		±625	90	
MI1524D-15RW	±15		±500	90	
MI1548S-03RW	36-75 (48 VDC)		3.3	3400	87
MI1548S-05RW			5	3000	88
MI1548S-12RW		12	1250	90	
MI1548S-15RW		15	1000	90	
MI1548S-24RW		24	625	91	
MI1548D-12RW		±12	±625	89	
MI1548D-15RW		±15	±500	90	

Size: 1.0 x 1.0 x 0.4 in (25.4 x 25.4 x 10.16 mm)



MI2500RW - 25W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI2512S-03RW	9-18 (12 VDC)	3.3	6000	87
MI2512S-05RW		5	5000	89
MI2512S-12RW		12	2090	89
MI2512S-15RW		15	1670	89
MI2512D-12RW		±12	±1040	89
MI2512D-15RW		±15	±840	89
MI2524S-03RW	18-36 (24 VDC)	3.3	6000	88
MI2524S-05RW		5	5000	90
MI2524S-12RW		12	2090	90
MI2524S-15RW		15	1670	90
MI2524D-12RW		±12	±1040	89
MI2524D-15RW		±15	±840	89
MI2548S-03RW	36-75 (48 VDC)	3.3	6000	88
MI2548S-05RW		5	5000	90
MI2548S-12RW		12	2090	90
MI2548S-15RW		15	1670	90
MI2548D-12RW		±12	±1040	89
MI2548D-15RW		±15	±840	89

Size: 1.0 x 1.0 x 0.4 in (25.4 x 25.4 x 10.16 mm)

MI3000RW - 30W

Datasheet

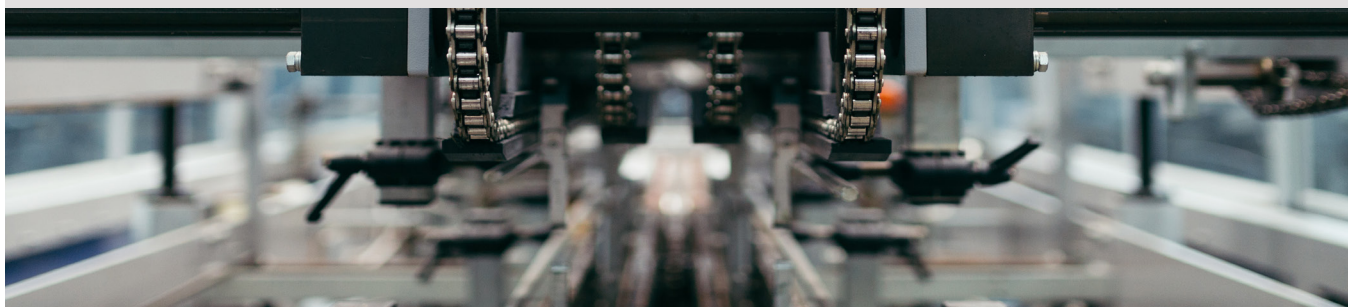
Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI3012S-03RW	9-18 (12 VDC)	3.3	7000	87
MI3012S-05RW		5	6000	89
MI3012S-12RW		12	2500	89
MI3012S-15RW		15	2000	90
MI3012D-12RW		±12	±1250	89
MI3012D-15RW		±15	±1000	90
MI3024S-03RW	18-36 (24 VDC)	3.3	7000	87
MI3024S-05RW		5	6000	90
MI3024S-12RW		12	2500	90
MI3024S-15RW		15	2000	91
MI3024D-12RW		±12	±1250	90
MI3024D-15RW		±15	±1000	91
MI3048S-03RW	36-75 (48 VDC)	3.3	7000	89
MI3048S-05RW		5	6000	91
MI3048S-12RW		12	2500	91
MI3048S-15RW		15	2000	92
MI3048D-12RW		±12	±1250	91
MI3048D-15RW		±15	±1000	92

Size: 1.0 x 1.0 x 0.4 in (25.4 x 25.4 x 10.16 mm)



### DC/DC Converter Selection

MicroPower Direct's DC/DC converters deliver exceptional efficiency and versatility, featuring wide input ranges, high isolation ratings, and compact designs. Available in various packages—including 1x1 modules, SIPs, and DIPs—they provide flexible solutions to meet diverse design requirements.



# 4:1 WIDE INPUT DC/DC CONVERTERS

# MDxxxBRU Series

## 1W to 10W SIP8 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 88%
- Short Circuit Protection: Continuous



MD100BRU - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD112S-03BRU	4.5 - 18 (12 VDC)	3.3	303	75	
MD112S-05BRU		5	200	76	
MD112S-09BRU		9	111	80	
MD112S-12BRU		12	83	82	
MD112S-15BRU		15	67	83	
MD112S-24BRU		24	42	81	
MD112D-05BRU		±5.0	±100	78	
MD112D-12BRU		±12.0	±42	79	
MD112D-15BRU		±15.0	±33	80	
MD124S-03BRU		9.0 - 36 (24 VDC)	3.3	303	74
MD124S-05BRU	5		200	81	
MD124S-12BRU	12		83	83	
MD124S-15BRU	15		67	83	
MD124S-24BRU	24		42	83	
MD124D-05BRU	±5.0		±100	79	
MD124D-12BRU	±12.0		±42	83	
MD124D-15BRU	±15.0		±33	83	
MD148S-03BRU	18 - 75 (48 VDC)		3.3	303	75
MD148S-05BRU			5	200	76
MD148S-12BRU		12	83	80	
MD148S-15BRU		15	67	84	
MD148D-05BRU		±5.0	±100	79	
MD148D-12BRU		±12.0	±42	82	
MD148D-15BRU		±15.0	±33	82	

Size: 0.87 x 0.37 x 0.47 in (22.0 x 9.5 x 12.0 mm)

MD300BRU - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD312S-03BRU	4.5 - 18 (12 VDC)	3.3	700	74
MD312S-05BRU		5.0	600	78
MD312S-12BRU		12.0	250	80
MD312S-15BRU		15.0	200	80
MD312D-05BRU		±5.0	±300	80
MD312D-12BRU		±12.0	±125	80
MD312D-15BRU		±15.0	±100	80
MD324S-03BRU		9.0 - 36 (24 VDC)	3.3	700
MD324S-05BRU	5.0		600	80
MD324S-09BRU	9.0		333	81
MD324S-12BRU	12.0		250	81
MD324S-15BRU	15.0		200	81
MD324S-24BRU	24.0		125	83
MD324D-05BRU	±5.0		±300	79
MD324D-12BRU	±12.0		±125	80
MD324D-15BRU	±15.0	±100	81	
MD348S-03BRU	18.0 - 75.0 (48 VDC)	3.3	700	74
MD348S-05BRU		5.0	600	79
MD348S-12BRU		12.0	250	79
MD348S-15BRU		15.0	200	79
MD348S-24BRU		24.0	125	80
MD348D-05BRU		±5.0	±300	79
MD348D-12BRU		±12.0	±125	79
MD348D-15BRU		±15.0	±100	80

Size: 0.87 x 0.37 x 0.47 in (22.0 x 9.5 x 12.0 mm)



MD600BRU - 6W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD624S-03BRU	9.0 - 36 (24 VDC)	3.3	1350	78	
MD624S-05BRU		5	1200	82	
MD624S-06BRU		6	1000	82	
MD624S-09BRU		9	667	84	
MD624S-12BRU		12	500	86	
MD624S-15BRU		15	400	87	
MD624S-24BRU		24	250	85	
MD624D-05BRU		±5.0	±600	80	
MD624D-09BRU		±9.0	±333	83	
MD624D-12BRU		±12.0	±250	83	
MD624D-15BRU		±15.0	±200	83	
MD624D-24BRU		±24.0	±125	82	
MD648S-12BRU		18 - 75 (48 VDC)	12	500	83
MD648S-15BRU			15	400	84
MD648S-24BRU	24		250	82	
MD648D-05BRU	±5.0		±600	80	
MD648D-12BRU	±12.0		±250	83	
MD648D-15BRU	±15.0		±200	83	

Size: 0.87 x 0.37 x 0.47 in (22.0 x 9.5 x 12.0 mm)

MD1000BRU - 10W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MD1024S-03BRU	9.0 - 36 (24 VDC)	3.3	2400	85	
MD1024S-05BRU		5	2000	88	
MD1024S-06BRU		6	1667	88	
MD1024S-09BRU		9	1111	88	
MD1024S-10BRU		10	1000	88	
MD1024S-12BRU		12	833	88	
MD1024S-15BRU		15	667	88	
MD1024S-24BRU		24	417	88	
MD1024D-15BRU		±15.0	±330	88	
MD1048S-05BRU		18 - 75 (48 VDC)	5	2000	87

Size: 0.87 x 0.37 x 0.47 in (22.0 x 9.5 x 12.0 mm)

### FEATURES

- Isolation Voltage: 1600 VDC
- Operating temperature range: -40°C to +76°C
- Efficiency: Up to 84%
- Short Circuit Protection: Continuous



ME300RU - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME312S-03RU	4.5 - 18 (12 VDC)	3.3	700	75
ME312S-05RU		5	600	81
ME312D-05RU		12	250	83
ME312S-12RU		15	200	83
ME312D-05RU		±5	±300	80
ME312D-12RU		±12	±125	82
ME312D-15RU		±15	±100	83
ME324S-03RU		9.0 - 36 (24 VDC)	3.3	700
ME324S-05RU	5		600	82
ME324D-05RU	12		250	84
ME324S-12RU	15		200	84

Size: 0.69 x 0.4 x 0.48 in (17.52 x 10.16 x 12.2 mm)

ME300RU - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ME324D-12RU	9.0 - 36 (24 VDC)	±5	±300	81
ME324S-15RU		±12	±125	83
ME324D-15RU		±15	±100	84
ME348S-03RU	18 - 75 (48 VDC)	3.3	700	74
ME348S-05RU		5	600	81
ME348D-05RU		12	250	81
ME348S-12RU		15	200	82
ME348D-12RU		±5	±300	79
ME348S-15RU		±12	±125	80
ME348D-15RU		±15	±100	80

Size: 0.69 x 0.4 x 0.48 in (17.52 x 10.16 x 12.2 mm)

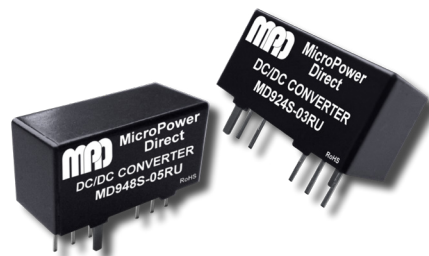
# 4:1 WIDE INPUT DC/DC CONVERTERS

# MDxxxRU Series

## 2W to 9W SIP8 Package

### FEATURES

- Isolation Voltage: 1500 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +75°C (+71°C for the MD600RU)
- Efficiency: Up to 89%
- Short Circuit Protection: Continuous



MD200RU - 2W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD212S-03RU	4.5 - 18 (12 VDC)	3.3	500	75
MD212S-05RU		5	400	80
MD212S-12RU		12	167	82
MD212S-15RU		15	134	82
MD212D-05RU		±5.0	±200	80
MD212D-12RU		±12.0	±83	82
MD212D-15RU		±15.0	±67	82
MD224S-03RU	9.0 - 36 (24 VDC)	3.3	500	75
MD224S-05RU		5	400	80
MD224S-12RU		12	167	82
MD224S-15RU		15	134	82
MD224D-05RU		±5.0	±200	80
MD224D-12RU		±12.0	±83	82
MD224D-15RU		±15.0	±67	82
MD248S-03RU	18 - 75 (48 VDC)	3.3	500	74
MD248S-05RU		5	400	80
MD248S-12RU		12	167	82
MD248S-15RU		15	134	82
MD248D-05RU		±5.0	±200	80
MD248D-12RU		±12.0	±83	82
MD248D-15RU		±15.0	±67	82

Size: 0.86 x 0.37 x 0.44 in (21.85 x 9.3 x 11.1 mm)

MD900RU - 9W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD924S-03RU	9.0 - 36 (24 VDC)	3.3	2000	82
MD924S-05RU		5	1600	85
MD924S-09RU		9	1000	88
MD924S-12RU		12	750	88
MD924S-15RU		15	600	89
MD924S-24RU		24	375	89
MD924D-05RU		±5.0	±800	85
MD924D-12RU		±12.0	±375	88
MD924D-15RU		±15.0	±300	87

Size: 0.86 x 0.38 x 0.42 in (21.85 x 9.6 x 10.6 mm)

MD600RU(I) - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD624S-03RU(I)	9.0 - 36 (24 VDC)	3.3	1500	79
MD624S-05RU(I)		5	1200	84
MD624S-09RU(I)		9	666	86
MD624S-12RU(I)		12	500	87
MD624S-15RU(I)		15	400	87
MD624S-24RU(I)		24	250	87
MD624D-05RU(I)		±5.0	±600	84
MD624D-12RU(I)		±12.0	±250	86
MD624D-15RU(I)		±15.0	±200	87
MD648S-03RU(I)		18 - 75 (48 VDC)	3.3	1500
MD648S-05RU(I)	5		1200	83
MD648S-09RU(I)	9		666	85
MD648S-12RU(I)	12		500	87
MD648S-15RU(I)	15		400	87
MD648S-24RU(I)	24		250	87
MD648D-05RU(I)	±5.0		±600	82
MD648D-12RU(I)	±12.0		±250	85
MD648D-15RU(I)	±15.0		±200	86

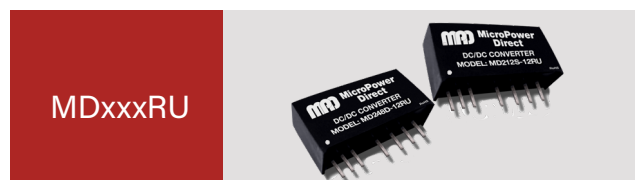
Size: 0.86 x 0.37 x 0.44 in (21.85 x 9.3 x 11.1 mm)

MD900RU - 9W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MD948S-03RU	18 - 75 (48 VDC)	3.3	2000	82
MD948S-05RU		5	1600	85
MD948S-09RU		9	1000	87
MD948S-12RU		12	750	88
MD948S-15RU		15	600	89
MD948S-24RU		24	375	89
MD948D-05RU		±5.0	±800	85
MD948D-12RU		±12.0	±375	87
MD948D-15RU		±15.0	±300	87

Size: 0.86 x 0.38 x 0.42 in (21.85 x 9.6 x 10.6 mm)



### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 85%
- Short Circuit Protection: Continuous
- Available on Tape & Reel



ML300RU - 3W

[Datasheet](#)

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML305S-05RU	4.5 - 12 (5 VDC)	5	600	80
ML305S-12RU		12	250	85
ML305S-15RU		15	200	85
ML305S-24RU		24	125	85
ML305D-12RU		±12	±125	84
ML305D-15RU		±15	±100	84
ML324S-05RU	9.0 - 36 (24 VDC)	5	600	80
ML324S-12RU		12	250	85
ML324S-15RU		15	200	85
ML324S-24RU		24	125	85
ML324D-12RU		±12	±125	84
ML324D-15RU		±15	±100	84
ML348S-05RU	18 - 75 (48 VDC)	5	600	80
ML348S-12RU		12	250	84
ML348S-15RU		15	200	84
ML348S-24RU		24	125	85
ML348D-12RU		±12	±125	83
ML348D-15RU		±15	±100	82

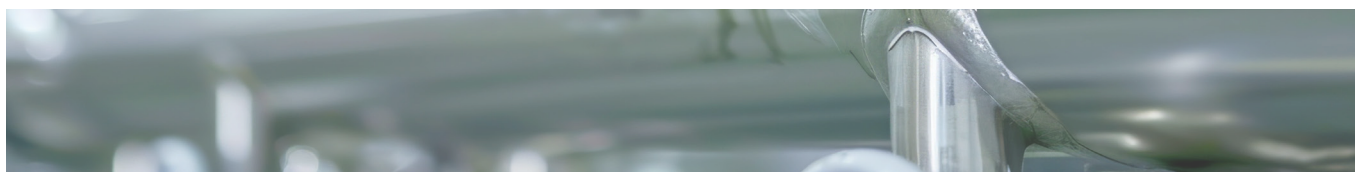
Size: 0.75 x 0.59 x 0.38 in (19.05 x 14.9 x 8.5 mm)

ML600RU - 6W

[Datasheet](#)

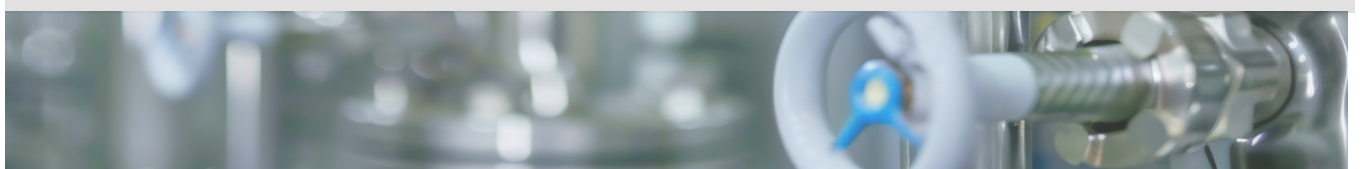
Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
ML624S-03RU	9.0 - 36 (24 VDC)	3.3	1450	76
ML624S-05RU		5	1200	79
ML624S-12RU		12	500	83
ML624S-15RU		15	400	83
ML624S-24RU		24	250	83
ML624D-05RU		±5	±600	82
ML624D-12RU	18 - 75 (48 VDC)	±12	±250	83
ML624D-15RU		±15	±200	83
ML648S-03RU		3.3	1450	76
ML648S-05RU		5	1200	79
ML648S-12RU		12	500	83
ML648S-15RU		15	400	83
ML648S-24RU	24	250	83	
ML648D-05RU	18 - 75 (48 VDC)	±5	±600	82
ML648D-12RU		±12	±250	83
ML648D-15RU		±15	±200	83

Size: 0.87 x 0.8 x 0.39 in (22.0 x 20.3 x 10.05 mm)



### IGBT Driver Selection

MicroPower Direct's IGBT drivers are engineered for precise switching performance. They offer optimal control in high-power applications, ensuring robust, reliable operation.



# 4:1 WIDE INPUT DC/DC CONVERTERS

# MAxxxRU(I) Series

## 3W to 15W DIP24 Package

### FEATURES

- Isolation Voltage: 1500 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 90%
- Short Circuit Protection: Continuous



MA300RU(I) - 3W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MA324S-03RU(I)	9.0 - 36 (24 VDC)	3.3	750	77
MA324S-05RU(I)		5	600	79
MA324S-12RU(I)		12	250	82
MA324S-15RU(I)		15	200	83
MA324S-24RU(I)		24	125	81
MA324D-05RU(I)		±5	±250	80
MA324D-12RU(I)		±12	±125	82
MA324D-15RU(I)		±15	±100	82
MA348S-03RU(I)		18 - 75 (48 VDC)	3.3	750
MA348S-05RU(I)	5		600	80
MA348S-12RU(I)	12		250	83
MA348S-15RU(I)	15		200	84
MA348S-24RU(I)	24		125	82
MA348D-05RU(I)	±5		±250	80
MA348D-12RU(I)	±12		±125	82
MA348D-15RU(I)	±15		±100	82

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

MA600RU(I) - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MA624S-03RU(I)	9.0 - 36 (24 VDC)	3.3	1200	77
MA624S-05RU(I)		5	1200	80
MA624S-12RU(I)		12	500	84
MA624S-15RU(I)		15	400	84
MA624S-24RU(I)		24	250	84
MA624D-05RU(I)		±5	±500	80
MA624D-12RU(I)		±12	±250	84
MA624D-15RU(I)		±15	±200	84
MA648S-03RU(I)		18 - 75 (48 VDC)	3.3	1200
MA648S-05RU(I)	5		1200	80
MA648S-12RU(I)	12		500	84
MA648S-15RU(I)	15		400	84
MA648S-24RU(I)	24		250	84
MA648D-05RU(I)	±5		±500	80
MA648D-12RU(I)	±12		±250	84
MA648D-15RU(I)	±15		±200	84

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

MA800RU - 8W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)	
MA824S-03RU	9.0 - 36 (24 VDC)	3.3	2000	80	
MA824S-05RU		5	1500	83	
MA824S-12RU		12	665	87	
MA824S-15RU		15	535	87	
MA824D-05RU		±5	±800	86	
MA824D-12RU		±12	±335	86	
MA824D-15RU		±15	±265	87	
MA848S-03RU		18 - 75 (48 VDC)	3.3	2000	80
MA848S-05RU			5	1500	84
MA848S-12RU	12		665	87	
MA848S-15RU	15		535	87	
MA848D-05RU	±5		±800	84	
MA848D-12RU	±12		±335	87	
MA848D-15RU	±15		±265	87	

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

MA1000RU - 10W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)	
MA1024S-03RU	9.0 - 36 (24 VDC)	3.3	2700	86	
MA1024S-05RU		5	2000	85	
MA1024S-12RU		12	833	87	
MA1024S-15RU		15	666	87	
MA1024S-24RU		24	416	87	
MA1024D-12RU		±12	±416	87	
MA1024D-15RU		±15	±333	87	
MA1048S-03RU		18 - 75 (48 VDC)	3.3	2700	86
MA1048S-05RU			5	2000	85
MA1048S-12RU	12		833	87	
MA1048S-15RU	15		666	87	
MA1048S-24RU	24		416	87	
MA1048D-12RU	±12		±416	87	
MA1048D-15RU	±15		±333	87	

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

# MAxxxRU(I) Series

# 4:1 WIDE INPUT DC/DC CONVERTERS

## 3W to 15W DIP24 Package

MA1200RU - 12W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA1224S-03RU	9.0 - 36 (24 VDC)	3.3	3500	87
MA1224S-05RU		5	2400	89
MA1224S-12RU		12	1000	90
MA1224S-15RU		15	800	90
MA1224D-05RU		±5	±1200	87
MA1224D-12RU		±12	±500	90
MA1224D-15RU		±15	±400	90
MA1248S-03RU		18 - 75 (48 VDC)	3.3	3500
MA1248S-05RU	5		2400	89
MA1248S-12RU	12		1000	90
MA1248S-15RU	15		800	90
MA1248D-05RU	±5		±1200	87
MA1248D-12RU	±12		±500	90
MA1248D-15RU	±15		±400	90

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

MA1500RU - 15W (no UL approval)

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA1524S-03RU	9.0 - 36 (24 VDC)	3.3	4000	88
MA1524S-051RU		5	3000	90
MA1524S-12RU		12	1250	90
MA1524S-15RU		15	1000	90
MA1524D-05RU		±5	±1500	86
MA1524D-12RU		±12	±625	89
MA1524D-15RU		±15	±500	90
MA1548S-03RU		18 - 75 (48 VDC)	3.3	4000
MA1548S-051RU	5		3000	89
MA1548S-12RU	12		1250	90
MA1548S-15RU	15		1000	90
MA1548D-05RU	±5		±1500	86
MA1548D-12RU	±12		±625	89
MA1548D-15RU	±15		±500	90

Size: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

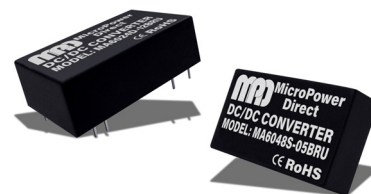
# MA600BRU(I) Series

# 4:1 WIDE INPUT DC/DC CONVERTERS

## 6W DIP24 Package

### FEATURES

- Isolation Voltage: 1500 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 88%
- Short Circuit Protection: Continuous



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MA600BRU - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA624S-03BRU	9 - 36 (24 VDC)	3.3	1500	77
MA624S-05BRU		5	1200	82
MA624S-09BRU		9	667	83
MA624S-12BRU		12	500	85
MA624S-15BRU		15	400	86
MA624S-24BRU		24	250	86
MA624D-05BRU		±5	±600	82
MA624D-09BRU		±9	±333	84
MA624D-12BRU		±12	±250	85
MA624D-15BRU		±15	±200	88
MA624D-24BRU	±24	±125	86	
MA648S-03BRU	18 - 75 (48 VDC)	3.3	1500	80
MA648S-05BRU		5	1200	84
MA648S-09BRU		9	667	85
MA648S-12BRU		12	500	87
MA648S-15BRU		15	400	88
MA648S-24BRU		24	250	87
MA648D-05BRU		±5	±600	83
MA648D-12BRU		±12	±250	87
MA648D-15BRU		±15	±200	88

Size: 1.26 x 0.79 x 0.50 in (32.0 x 20.0 x 12.6 mm)

MA600BRUI - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA624S-03BRUI	9 - 36 (24 VDC)	3.3	1500	79
MA624S-05BRUI		5.0	1200	82
MA624S-09BRUI		9.0	667	85
MA624S-12BRUI		12.0	500	86
MA624S-15BRUI		15.0	400	88
MA624S-24BRUI		24.0	250	87
MA624D-05BRUI		±5.0	±600	80
MA624D-12BRUI		±12.0	±250	84
MA624D-15BRUI		±15.0	±200	85
MA648S-03BRUI		18 - 75 (48 VDC)	3.3	1500
MA648S-05BRUI	5.0		1200	83
MA648S-12BRUI	12.0		500	87
MA648S-15BRUI	15.0		400	88
MA648S-24BRUI	24.0		250	87

Size: 1.26 x 0.79 x 0.50 in (32.0 x 20.0 x 12.6 mm)

# 4:1 WIDE INPUT DC/DC CONVERTERS

# MGxxxRU Series

## 6W to 15W DIP16 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +90°C
- Efficiency: Up to 88%
- Short Circuit Protection: Continuous



MG600RU - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG624S-03RU	9 - 36 (24 VDC)	3.3	1500	78
MG624S-05RU		5	1200	82
MG624S-12RU		12	500	86
MG624S-15RU		15	400	86
MG624S-24RU		24	250	87
MG624D-12RU		±12	±250	86
MG624D-15RU		±15	±200	87
MG648S-03RU	18 - 75 (48 VDC)	3.3	1500	78
MG648S-05RU		5	1200	82
MG648S-12RU		12	500	86
MG648S-15RU		15	400	86
MG648S-24RU		24	250	87
MG648D-12RU		±12	±250	87
MG648D-15RU		±15	±200	87

Size: 0.94 x 0.54 x 0.31 in (23.8 x 13.70 x 3.00 mm)

MG800RU - 8W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG824S-03RU	9 - 36 (24 VDC)	3.3	2000	78
MG824S-05RU		5	1600	82
MG824S-12RU		12	665	85
MG824S-15RU		15	535	85
MG824S-24RU		24	335	86
MG824D-12RU		±12	±335	85
MG824D-15RU		±15	±265	86
MG848S-03RU	18 - 75 (48 VDC)	3.3	2000	78
MG848S-05RU		5	1600	81
MG848S-12RU		12	665	85
MG848S-15RU		15	535	85
MG848S-24RU		24	335	86
MG848D-12RU		±12	±335	86
MG848D-15RU		±15	±265	86

Size: 0.94 x 0.54 x 0.31 in (23.8 x 13.70 x 3.00 mm)

MG1000RU - 10W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG1024S-03RU	9 - 36 (24 VDC)	3.3	2700	80
MG1024S-05RU		5	2000	83
MG1024S-051RU		5.1	2000	83
MG1024S-12RU		12	833	87
MG1024S-15RU		15	666	88
MG1024S-24RU		24	416	88
MG1024D-12RU		±12	±416	87
MG1024D-15RU	±15	±333	87	
MG1048S-03RU	18 - 75 (48 VDC)	3.3	2700	80
MG1048S-05RU		5	2000	83
MG1048S-051RU		5.1	2000	83
MG1048S-12RU		12	833	87
MG1048S-15RU		15	666	88
MG1048S-24RU		24	416	88
MG1048D-12RU		±12	±416	87
MG1048D-15RU	±15	±333	87	

Size: 0.94 x 0.54 x 0.31 in (23.8 x 13.70 x 3.00 mm)

MG1200RU - 12W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG1224S-05RU	9 - 36 (24 VDC)	5	2400	83
MG1224S-051RU		5.1	2400	83
MG1224S-12RU		12	1000	87
MG1224S-15RU		15	800	88
MG1224S-24RU		24	500	88
MG1224D-12RU		±12	±500	87
MG1224D-15RU		±15	±400	87
MG1248S-05RU	18 - 75 (48 VDC)	5	2400	83
MG1248S-051RU		5.1	2400	83
MG1248S-12RU		12	1000	87
MG1248S-15RU		15	800	88
MG1248S-24RU		24	500	88
MG1248D-12RU		±12	±500	87
MG1248D-15RU		±15	±400	87

Size: 0.94 x 0.54 x 0.40 in (23.8 x 13.70 x 10.20 mm)

# MGxxxRU Series

# 4:1 WIDE INPUT DC/DC CONVERTERS

6W to 15W DIP16 Package

MG1500RU - 15W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MG1524S-051RU	9 - 36 (24 VDC)	5.1	2940	86
MG1524S-12RU		12	1250	87
MG1524S-15RU		15	1000	87
MG1524S-24RU		24	625	87
MG1524D-12RU		±12	±625	87
MG1524D-15RU		±15	±500	87
MG1548S-051RU	18 - 75 (48 VDC)	5.1	2940	86
MG1548S-12RU		12	1250	87
MG1548S-15RU		15	1000	87
MG1548S-24RU		24	625	87
MG1548D-12RU		±12	±625	87
MG1548D-15RU		±15	±500	87

Size: 0.94 x 0.54 x 0.40 in (23.8 x 13.70 x 10.20 mm)



# MH600RU Series

# 4:1 WIDE INPUT DC/DC CONVERTERS

6W DIP16 Package

## FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 83%
- Short Circuit Protection: Continuous



MH600RU - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH624S-03RU	9.0 - 36 (24 VDC)	3.3	1450	76
MH624S-05RU		5	1200	79
MH624S-12RU		12	500	83
MH624S-15RU		15	400	83
MH624S-24RU		24	250	83
MH624D-05RU		±5	±600	82
MH624D-12RU		±12	±250	83
MH624D-15RU		±15	±200	83

Size: 0.85 x 0.8 x 0.4 in (21.6 x 20.3 x 10.2 mm)

MH600RU - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MH648S-03RU	18 - 75 (48 VDC)	3.3	1450	76
MH648S-05RU		5	1200	79
MH648S-12RU		12	500	83
MH648S-15RU		15	400	83
MH648S-24RU		24	250	83
MH648D-05RU		±5	±600	82
MH648D-12RU		±12	±250	83
MH648D-15RU		±15	±200	83

Size: 0.85 x 0.8 x 0.4 in (21.6 x 20.3 x 10.2 mm)



# 4:1 WIDE INPUT DC/DC CONVERTERS MA600BRUHI Series

## 6W DIP24 Package

### FEATURES

- Isolation Voltage: 6000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 85%
- Short Circuit Protection: Continuous



UK CA CE RoHS

MA600BRUHI

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA624S-05BRUHI	9.0 - 36 (24 VDC)	5	1200	80
MA624S-06BRUHI		6	1000	81
MA624S-09BRUHI		9	667	83
MA624S-12BRUHI		12	500	84
MA624S-15BRUHI		15	400	85
MA624S-18BRUHI		18	333	85
MA624S-24BRUHI		24	250	84

Size: 1.24 0.8 x 0.4 in (31.6 x 20.3 x 10.2 mm)

MA600BRUHI

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MA648S-05BRUHI	18 - 75 (48 VDC)	5	1200	81
MA648S-09BRUHI		9	667	83
MA648S-12BRUHI		12	500	84
MA648S-15BRUHI		15	400	85
MA648S-24BRUHI		24	250	84

Size: 1.24 0.8 x 0.4 in (31.6 x 20.3 x 10.2 mm)

# 4:1 WIDE INPUT DC/DC CONVERTERS

# MlxxxBRU Series

## 6W to 40W 1x1 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 92%
- Short Circuit Protection: Continuous



UK CA CE RoHS

MI600BRU - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI624S-03BRU	9-36 (24 VDC)	3.3	1500	79
MI624S-05BRU		5.0	1200	83
MI624S-09BRU		9.0	667	85
MI624S-12BRU		12.0	500	87
MI624S-15BRU		15.0	400	87
MI624S-24BRU		24.0	250	88
MI624D-05BRU		±5.0	±600	83
MI624D-12BRU		±12.0	±250	87
MI624D-15BRU		±15.0	±200	87
MI624D-24BRU		±24.0	±125	87

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

MI600BRU - 6W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI648S-03BRU	18-75 (48 VDC)	3.3	1500	79
MI648S-05BRU		5.0	1200	83
MI648S-12BRU		12.0	500	87
MI648S-15BRU		15.0	400	88
MI648S-24BRU		24.0	250	88
MI648D-05BRU		±5.0	±600	83
MI648D-12BRU		±12.0	±250	87
MI648D-15BRU		±15.0	±200	88

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

MI1000BRU - 10W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI1024S-03BRU	9-36 (24 VDC)	3.3	2400	78
MI1024S-05BRU		5.0	2000	83
MI1024S-09BRU		9.0	1111	85
MI1024S-12BRU		12.0	833	86
MI1024S-15BRU		15.0	667	86
MI1024S-24BRU		24.0	416	88
MI1024D-05BRU		±5.0	±1000	83
MI1024D-09BRU		±9.0	±555	86
MI1024D-12BRU		±12.0	±416	87
MI1024D-15BRU		±15.0	±333	87
MI1024D-24BRU		±24.0	±208	87
MI1048S-03BRU		18-75 (48 VDC)	3.3	2400
MI1048S-05BRU	5.0		2000	83
MI1048S-12BRU	12.0		833	87
MI1048S-15BRU	15.0		667	87
MI1048S-24BRU	24.0		416	88
MI1048D-05BRU	±5.0		±1000	83
MI1048D-12BRU	±12.0		±416	87
MI1048D-15BRU	±15.0		±333	87
MI1048D-24BRU	±24.0		±208	87

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

MI1500BRU - 15W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MI1524S-03BRU	9-36 (24 VDC)	3.3	4000	88	
MI1524S-05BRU		5	3000	90	
MI1524S-12BRU		12	1250	90	
MI1524S-15BRU		15	1000	91	
MI1524S-24BRU		24	625	91	
MI1524D-05BRU		±5	±1500	87	
MI1524D-12BRU		±12	±625	90	
MI1524D-15BRU		±15	±500	90	
MI1524D-24BRU		±24	±312	89	
MI1548S-03BRU		18-75 (48 VDC)	3.3	4000	86
MI1548S-05BRU			5	3000	88
MI1548S-12BRU			12	1250	89
MI1548S-15BRU	15		1000	89	
MI1548S-24BRU	24		625	89	
MI1548D-05BRU	±5		±1500	84	
MI1548D-12BRU	±12		±625	87	
MI1548D-15BRU	±15		±500	87	
MI1548D-24BRU	±24		±312	88	

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

MI2000BRU - 20W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MI2024S-03BRU	9-36 (24 VDC)	3.3	5000	88	
MI2024S-05BRU		5	4000	90	
MI2024S-06BRU		6	3333	89	
MI2024S-12BRU		12	1667	90	
MI2024S-15BRU		15	1333	91	
MI2024S-24BRU		24	833	91	
MI2024D-05BRU		±5	±2000	87	
MI2024D-12BRU		±12	±833	90	
MI2024D-15BRU		±15	±667	90	
MI2024D-24BRU		±24	±417	89	
MI2048S-03BRU		18-75 (48 VDC)	3.3	5000	88
MI2048S-05BRU			5	4000	90
MI2048S-12BRU	12		1667	91	
MI2048S-15BRU	15		1333	91	
MI2048S-24BRU	24		833	91	
MI2048D-05BRU	±5		±2000	86	
MI2048D-12BRU	±12		±833	90	
MI2048D-15BRU	±15		±667	90	
MI2048D-24BRU	±24		±417	90	

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

MI3000BRU - 30W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI3024S-03BRU	9-36 (24 VDC)	3.3	6000	84
MI3024S-05BRU		5	6000	88
MI3024S-12BRU		12	2500	89
MI3024S-15BRU		15	2000	89
MI3024S-24BRU	24	1250	90	
MI3048S-03BRU	18-75 (48 VDC)	3.3	6000	83
MI3048S-05BRU		5	6000	87
MI3048S-12BRU		12	2500	88
MI3048S-15BRU		15	2000	88
MI3048S-24BRU		24	1250	89

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

MI4000BRU - 40W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI4024S-03BRU	9-36 (24 VDC)	3.3	10000	89
MI4024S-05BRU		5	8000	91
MI4024S-12BRU		12	3333	91
MI4024S-15BRU		15	2667	92
MI4024S-24BRU		24	1667	91
MI4048S-03BRU	18-75 (48 VDC)	3.3	8000	89
MI4048S-05BRU		5	8000	91
MI4048S-12BRU		12	3333	92
MI4048S-15BRU		15	2667	92
MI4048S-24BRU		24	1667	91
MI4048S-28BRU		28	1428	91

Size: 1.0 x 1.0 x 0.47 in (25.4 x 25.4 x 12.0 mm)

# 4:1 WIDE INPUT DC/DC CONVERTERS

# MBxxxBRU(I) Series

## 10W to 40W 2x1 Package

### FEATURES

- Isolation Voltage: 1500 VDC, I = 3000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 90%
- Short Circuit Protection: Continuous



MB1000BRU(I) - 10W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MB1024S-03BRU(I)	9.0 - 36 (24 VDC)	3.3	2400	78
MB1024S-05BRU(I)		5	2000	83
MB1024S-09BRU(I)		9	1111	85
MB1024S-12BRU(I)		12	833	86
MB1024S-15BRU(I)		15	667	86
MB1024S-24BRU(I)		24	416	88
MB1024D-05BRU(I)		±5	±1000	83
MB1024D-09BRU(I)		±9	±555	86
MB1024D-12BRU(I)		±12	±416	87
MB1024D-15BRU(I)		±15	±333	87
MB1024D-24BRU(I)		±24	±208	87
MB1048S-03BRU(I)		18 - 75 (48 VDC)	3.3	2400
MB1048S-05BRU(I)	5		2000	83
MB1048S-12BRU(I)	12		833	87
MB1048S-15BRU(I)	15		667	87
MB1048S-24BRU(I)	24		416	88
MB1048D-05BRU(I)	±5		±1000	83
MB1048D-12BRU(I)	±12		±416	87
MB1048D-15BRU(I)	±15		±333	87
MB1048D-24BRU(I)	±24		±208	87

Size: 2.0 x 1.0 x .47 in (50.80 x 25.40 x 11.80 mm)

MB2000BRU(I) - 20W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MB2024S-03BRU(I)	9.0 - 36 (24 VDC)	3.3	5000	86	
MB2024S-05BRU(I)		5	4000	88	
MB2024S-09BRU(I)		9	2222	89	
MB2024S-12BRU(I)		12	1667	89	
MB2024S-15BRU(I)		15	1333	90	
MB2024S-24BRU(I)		24	834	90	
MB2024D-05BRU(I)		±5	±2000	86	
MB2024D-09BRU(I)		±9	±1111	88	
MB2024D-12BRU(I)		±12	±834	88	
MB2024D-15BRU(I)		±15	±667	88	
MB2048S-03BRU(I)		18 - 75 (48 VDC)	3.3	5000	86
MB2048S-05BRU(I)			5	4000	86
MB2048S-09BRU(I)	9		2222	89	
MB2048S-12BRU(I)	12		1667	87	
MB2048S-15BRU(I)	15		1333	90	
MB2048S-24BRU(I)	24		834	88	
MB2048D-05BRU(I)	±5		±2000	86	
MB2048D-12BRU(I)	±12		±834	88	
MB2048D-15BRU(I)	±15		±667	89	

Size: 2.0 x 1.0 x .47 in (50.80 x 25.40 x 11.80 mm)

MB1500BRU - 15W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MB1524S-03BRU	9.0 - 36 (24 VDC)	3.3	4000	88
MB1524S-05BRU		5	3000	90
MB1524S-12BRU		12	1250	90
MB1524S-15BRU		15	1000	91
MB1524S-24BRU		24	625	91
MB1548S-03BRU	18 - 75 (48 VDC)	3.3	4000	88
MB1548S-05BRU		5	3000	90
MB1548S-12BRU		12	1250	91
MB1548S-15BRU		15	1000	91
MB1548S-24BRU		24	625	91

Size: 2.0 x 1.0 x .47 in (50.80 x 25.40 x 11.80 mm)

Similar series available in a 1x1 package - MlxxxBRU(I)



# MBxxxBRU(I) Series **4:1 WIDE INPUT DC/DC CONVERTERS**

10W to 40W 2x1 Package

MB3000BRU - 30W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	
MB3024S-03BRU	9.0 - 36 (24 VDC)	3.3	6000	85	
MB3024S-05BRU		5	6000	88	
MB3024S-09BRU		9	3333	88	
MB3024S-12BRU		12	2500	88	
MB3024S-15BRU		15	2000	90	
MB3024S-24BRU		24	1250	90	
MB3024D-05BRU		±5	±3000	86	
MB3024D-12BRU		±12	±1250	89	
MB3024D-15BRU		±15	±1000	89	
MB3024D-24BRU		±24	±625	89	
MB3048S-03BRU		18 - 75 (48 VDC)	3.3	6000	86
MB3048S-05BRU			5	6000	87
MB3048S-12BRU	12		2500	88	
MB3048S-15BRU	15		2000	89	
MB3048S-24BRU	24		1250	87	
MB3048D-05BRU	±5		±3000	86	
MB3048D-12BRU	±12		±1250	90	
MB3048D-15BRU	±15		±1000	90	

Size: 2.0 x 1.0 x .47 in (50.80 x 25.40 x 11.80 mm)

MB4000BRU - 40W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MB4024S-05BRU	9.0 - 36 (24 VDC)	5	8000	89
MB4024S-09BRU		9	4444	89
MB4024S-12BRU		12	3333	90
MB4024S-15BRU		15	2666	91
MB4024S-24BRU		24	1666	90
MB4048S-05BRU	18 - 75 (48 VDC)	5	8000	89
MB4048S-12BRU		12	3333	90
MB4048S-15BRU		15	2666	91
MB4048S-24BRU		24	1666	90

Size: 2.0 x 1.0 x .47 in (50.80 x 25.40 x 11.80 mm)

# MB2000BRUHI Series **4:1 WIDE INPUT DC/DC CONVERTERS**

20W 2x1 Package

## FEATURES

- Isolation Voltage: 5000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 90%
- Short Circuit Protection: Continuous



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MB2000BRUHI - 20W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MB2024-03BRUHI	9.0 - 36 (24 VDC)	3.3	5000	86
MB2024-05BRUHI		5	4000	88
MB2024-09BRUHI		9	2222	89
MB2024-12BRUHI		12	1667	89
MB2024-15BRUHI		15	1333	90
MB2024-24BRUHI		24	834	90
MB2048-03BRUHI	18 - 75 (48 VDC)	3.3	5000	86
MB2048-05BRUHI		5	4000	86
MB2048-09BRUHI		9	2222	89
MB2048-12BRUHI		12	1667	87
MB2048-15BRUHI		15	1333	90
MB2048-24BRUHI		24	834	88

Size: 2.00 x 1.00 x .47 in (50.8 x 25.4 x 12.0 mm)



# 4:1 WIDE INPUT DC/DC CONVERTERS

# MIxxxRU Series

## 25W to 40W 1x1 Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 92%
- Short Circuit Protection: Continuous



MI2500RU - 25W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI2524S-03RU	9.0 - 36 (24 VDC)	3.3	6000	87
MI2524S-05RU		5	5000	89
MI2524S-12RU		12	2090	89
MI2524S-15RU		15	1670	90
MI2524D-12RU		±12	±1040	89
MI2524D-15RU		±15	±840	89
MI2548S-03RU	18 - 75 (48 VDC)	3.3	6000	88
MI2548S-05RU		5	5000	90
MI2548S-12RU		12	2090	90
MI2548S-15RU		15	1670	90
MI2548D-12RU		±12	±1040	89
MI2548D-15RU		±15	±840	89

Size: 1.0 x 1.0 x .47 in (25.4 x 25.4 x 12.0 mm)

MI3000RU - 30W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI3024S-03RU	9.0 - 36 (24 VDC)	3.3	7000	88
MI3024S-05RU		5	6000	89
MI3024S-12RU		12	2500	89
MI3024S-15RU		15	2000	91
MI3024D-12RU		±12	±1250	89
MI3024D-15RU		±15	±1000	91
MI3048S-03RU	18 - 75 (48 VDC)	3.3	7000	89
MI3048S-05RU		5	6000	90
MI3048S-12RU		12	2500	90
MI3048S-15RU		15	2000	92
MI3048D-12RU		±12	±1250	90
MI3048D-15RU		±15	±1000	91

Size: 1.0 x 1.0 x .47 in (25.4 x 25.4 x 12.0 mm)

MI4000RU - 40W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MI4024S-05RU	9.0 - 36 (24 VDC)	5	8000	91
MI4024S-12RU		12	3350	92
MI4024S-15RU		15	2700	92
MI4024S-24RU		24	1700	91
MI4024S-48RU		48	835	90
MI4024S-54RU		54	740	91
MI4024D-12RU	±12	±1700	91	
MI4024D-15RU	±15	±1350	91	
MI4048S-05RU	18 - 75 (48 VDC)	5	8000	92
MI4048S-12RU		12	3350	93
MI4048S-15RU		15	2700	93
MI4048S-24RU		24	1700	92
MI4048S-48RU		48	835	90
MI4048S-54RU		54	740	91
MI4048D-12RU	±12	±1700	91	
MI4048D-15RU	±15	±1350	90	

Size: 1.0 x 1.0 x .47 in (25.4 x 25.4 x 12.0 mm)



### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range: MB4000RU and MB5000RU: -40°C to between +40°C and +66°C (see datasheet)  
MB6000RU -40°C to +100°C
- Efficiency: Up to 93%
- Short Circuit Protection: Continuous



MB4000RU - 40W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MB4024S-03RU	9.0 - 36 (24 VDC)	3.3	8000	89
MB4024S-05RU		5	8000	90
MB4024S-12RU		12	3330	89
MB4024S-15RU		15	2670	89
MB4024S-24RU		24	1670	91
MB4024D-12RU		±12	±1670	88
MB4024D-15RU		±15	±1330	88
MB4048S-03RU		18 - 75 (48 VDC)	3.3	8000
MB4048S-05RU	5		8000	90
MB4048S-12RU	12		3330	90
MB4048S-15RU	15		2670	90
MB4048S-24RU	24		1670	91
MB4048D-12RU	±12		±1670	88
MB4048D-15RU	±15		±1330	88

Size: 1.0 x 2.0 x 0.40 in (25.4 x 50.8 x 10.20 mm)

MB5000RU - 50W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MB5024S-03RU	9.0 - 36 (24 VDC)	3.3	10000	90
MB5024S-05RU		5	10000	91
MB5024S-12RU		12	4170	92
MB5024S-15RU		15	3330	92
MB5024S-24RU		24	2080	91
MB5048S-03RU	18 - 75 (48 VDC)	3.3	10000	90
MB5048S-05RU		5	10000	91
MB5048S-12RU		12	4170	92
MB5048S-15RU		15	3330	92
MB5048S-24RU		24	2080	91

Size: 1.0 x 2.0 x 0.40 in (25.4 x 50.8 x 10.20 mm)

MB6000RU - 60W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)
MB6024S-05RU	9.0 - 36 (24 VDC)	5	12000	93
MB6024S-12RU		12	5000	93
MB6024S-15RU		15	4000	93.5
MB6024D-12RU		±12	±2500	91
MB6024D-15RU		±15	±2000	92
MB6048S-05RU	18 - 75 (48 VDC)	5	12000	93.5
MB6048S-12RU		12	5000	93.5
MB6048S-15RU		15	4000	93.5
MB6048D-12RU		±12	±2500	91.5
MB6048D-15RU		±15	±2000	92

Size: 1.0 x 2.0 x 0.40 in (25.4 x 50.8 x 10.20 mm)



# RAILWAY DC/DC CONVERTERS

# MR08xxRUI Series

## 8W DIP24 Package

### FEATURES

- Isolation Voltage: 3000 VDC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 86%
- Short Circuit Protection: Continuous



MR08xxRUI - 8W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MR0802S-03RUI	13 - 70 (24 VDC)	3.3	2400	83
MR0802S-05RUI		5	1600	86
MR0802S-12RUI		12	665	85
MR0802S-15RUI		15	535	86
MR0802D-05RUI		±5	±800	83
MR0802D-12RUI		±12	±335	85
MR0802D-15RUI		±15	±265	86

Size: 1.25 x .80 x .40 in (31.75 x 20.32 x 10.16 mm)

MR08xxRUI - 8W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MR0811S-03RUI	42 - 176 (110 VDC)	3.3	2400	81
MR0811S-05RUI		5	1600	84
MR0811S-12RUI		12	665	84
MR0811S-15RUI		15	535	83
MR0811D-05RUI		±5	±800	80
MR0811D-12RUI		±12	±335	82
MR0811D-15RUI		±15	±265	83

Size: 1.25 x .80 x .40 in (31.75 x 20.32 x 10.16 mm)

# RAILWAY DC/DC CONVERTERS

# MRxxSRW Series

## 50W and 100W Quarter Brick Package

### FEATURES

- Isolation Voltage: 1500 VDC
- Operating temperature range:
  - MSR50SRW -40°C to +75°C
  - MSR75SRW -40°C to +61°C
- Efficiency: Up to 92%
- Short Circuit Protection: Continuous



MR50SRW - 50W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MR50-72S05RW	43 - 101 (72 VDC)	5	1000	90
MR50-72S12RW		12	417	92
MR50-72S15RW		15	333	92
MR50-72S24RW		24	208	91
MR50-110S05RW	66 - 160 (110 VDC)	5	1000	90
MR50-110S12RW		12	417	91
MR50-110S15RW		15	333	92
MR50-110S24RW		24	208	91

Size: 2.28 x 1.45 x .50 in (57.90 x 36.80 x 12.70 mm)

MR75SRW - 75W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MR75-72S05RW	43 - 101 (72 VDC)	5	1500	89
MR75-72S12RW		12	625	92
MR75-72S15RW		15	500	92
MR75-72S24RW		24	312	91
MR75-110S05RW	66 - 160 (110 VDC)	5	1500	89
MR75-110S12RW		12	625	91
MR75-110S15RW		15	500	92
MR75-110S24RW		24	312	91

Size: 2.28 x 1.45 x .50 in (57.90 x 36.80 x 12.70 mm)

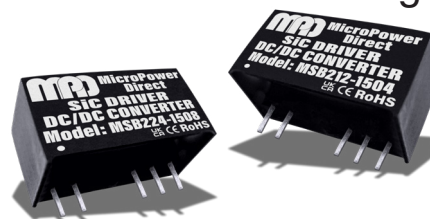
# MSBxxx Series

# IGBT DRIVER

1W to 2W SIP7 Package

## FEATURES

- Isolation Voltage: 4000 VAC
- Efficiency: Up to 93%
- Short Circuit Protection: Continuous



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### MSB100

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max) +Io/-Io	Efficiency (% Typ)
MSB112-1508	11.6 - 12.4 (12 VDC)	+15/-8	+100/-80	80
MSB112-1509		+15/-8.7	+80/-40	80
MSB115-09	14.5 - 15.5 (15 VDC)	+9/--	+111/--	80
MSB115-0909		+9/-9	+55/-55	80
MSB115-1509		+15/-8.7	+80/-40	80
MSB115-1709		+17/-8.7	+80/-40	80
MSB124-1509	23.3 - 24.7 (24 VDC)	+15/-8.7	+80/-40	80

Size: 1.0 x 2.0 x 0.40 in (25.4 x 50.8 x 10.20 mm)

### MSB200

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max) +Io/-Io	Efficiency (% Typ)
MSB205-2005	4.5 - 5.5 (5 VDC)	+20/-5	+100/-100	78
MSB212-1503	10.8 - 13.2 (12 VDC)	+15/-3.5	+111/-111	78
MSB212-1504		+15/-4	+120/-120	78
MSB212-1805		+18/-5	+100/-100	78
MSB212-2004		+20/-4	+100/-100	78
MSB212-2005		+20/-5	+100/-100	78
MSB215-152R5	13.5 - 16.5 (15 VDC)	+15/-2.5	+100/-100	78
MSB215-1504		+15/-4.5	+100/-100	79
MSB215-1803		+18/-3	+100/-100	78
MSB215-2004		+20/-4	+100/-100	80
MSB215-2005		+20/-5	+100/-100	80
MSB215-1508		+15/-8	+120/-120	79
MSB215-1509		+15/-8.7	+100/-100	79
MSB224-1508	21.6 - 26.4 (24 VDC)	+15/-8	+120/-120	79
MSB224-1509		+15/-8.7	+120/-120	79
MSB224-1504		+15/-4	+120/-120	79
MSB224-2004		+20/-4	+100/-100	80

Size: 1.0 x 2.0 x 0.40 in (25.4 x 50.8 x 10.20 mm)

### MSB200LHI

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max) +Io/-Io	Efficiency (% Typ)
MSB212L-1504HI	10.8 - 13.2 (12 VDC)	+15/-4	+120/-120	80
MSB212L-2005HI		+20/-5	+90/-90	80
MSB215L-1504HI	13.5 - 16.5 (15 VDC)	+15/-4	+120/-120	80
MSB215L-2005HI		+20/-5	+90/-90	80
MSB224L-1504HI	21.6 - 26.4 (24 VDC)	+15/-4	+120/-120	80
MSB224L-2005HI		+20/-5	+90/-90	80

Size: 1.0 x 2.0 x 0.40 in (25.4 x 50.8 x 10.20 mm)

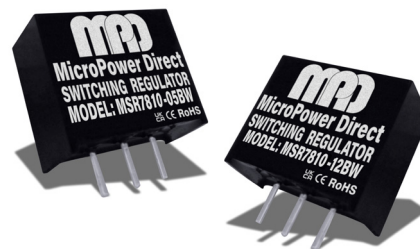


# NON-ISOLATED SWITCHING REGULATOR MSR78xxx Series

## 0.5A to 2.0A SIP3 Package

### FEATURES

- Isolation Voltage: Non-isolated
- Efficiency: Up to 96%
- Short Circuit Protection: Continuous



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MSR7805M

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (µF, Max)
MSR7805-01.5M	4.75 - 30	1.5	500	79	220
MSR7805-01.8M	4.75 - 34	1.8	500	83	220
MSR7805-02.5M	4.75 - 34	2.5	500	88	220
MSR7805-013.3M	4.75 - 34	3.3	500	92	220
MSR7805-05M	6.5 - 34	5	500	95	220
MSR7805-06.5M	8.0 - 34	6.5	500	96	220
MSR7805-07.2M	9.0 - 34	7.2	500	96	220
MSR7805-09M	11 - 34	9	500	96	220
MSR7805-12M	15 - 34	12	500	97	220
MSR7805-15M	18 - 34	15	500	98	220

Size: .46 x .30 x .40 in (11.60 x 7.55 x 10.16 mm)

MSR7805BW

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (µF, Max)
MSR7805-033BW	4.75 - 36 (24 VDC)	3.3	500	86	680
MSR7805-05BW	6.5 - 36 (24 VDC)	5	500	90	680
	7 - 31 (12 VDC)	-5	-300	81	330
MSR7805-09BW	12 - 36 (24 VDC)	9	500	93	680
MSR7805-12BW	15 - 36 (24 VDC)	12	500	94	680
	8 - 24 (12 VDC)	-12	-150	85	330
MSR7805-15BW	19 - 36 (24 VDC)	15	500	95	680
	8 - 21 (12 VDC)	-15	-150	87	330

Size: .46 x .30 x .40 in (11.60 x 7.55 x 10.16 mm)

MSR7805H

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (µF, Max)
MSR7805-03H	9 - 72	3.3	500	82	100
MSR7805-05H	9 - 72	5	500	88	100
MSR7805-06H	9 - 72	6.5	500	91	100
MSR7805-07H	14 - 72	7.2	500	91	100
MSR7805-09H	14 - 72	9	500	92	100
MSR7805-12H	17 - 72	12	500	94	100
MSR7805-15H	21 - 72	15	400	95	100

Size: .46 x .30 x .40 in (11.60 x 7.55 x 10.16 mm)

MSR7810MW

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (µF, Max)
MSR7810-03.3MW	7 - 28	3.3	1000	89	220
MSR7810-05MW	8 - 28	5	1000	93	220

Size: .46 x .30 x .40 in (11.60 x 7.55 x 10.16 mm)

# MSR78xxx Series **NON-ISOLATED SWITCHING REGULATOR**

## 0.5A to 2.0A SIP3 Package

MSR7810M

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (μF, Max)
MSR7810-01.5M	4.75 - 18	1.5	1000	80	220
MSR7810-01.8M	4.75 - 18	1.8	1000	82	220
MSR7810-02.5M	4.75 - 18	2.5	1000	88	220
MSR7810-03.3M	4.75 - 18	3.3	1000	90	220
MSR7810-05M	6.5 - 18	5	1000	93	220

Size: .46 x .30 x .40 in (11.60 x 7.55 x 10.16 mm)

MSR7810BW

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (μF, Max)
MSR7810-03.3BW	6 - 36 (24 VDC)	3.3	1000	90	680
MSR7810-05BW	8 - 36 (24 VDC)	5	1000	93	680
	8 - 27 (12 VDC)	-5	-500	85	330
MSR7810-09BW	13 - 36 (24 VDC)	9	1000	94	680
MSR7810-12BW	16 - 36 (24 VDC)	12	1000	95	680
	8 - 20 (12 VDC)	-12	-300	88	330
MSR7810-15BW	20 - 36 (24 VDC)	15	1000	96	680
	8 - 18 (12 VDC)	-15	-300	87	330

Size: .46 x .30 x .40 in (11.60 x 7.55 x 10.16 mm)

MSR7820CW

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)	Capacitive Load (μF, Max)
MSR7820-033CW	6 - 36 (24 VDC)	3.3	2000	89	1800
	8 - 31 (12 VDC)	-3.3	1000	85	1000
MSR7820-05CW	8 - 36 (24 VDC)	5	2000	92	1000
	8 - 30 (12 VDC)	-5	1000	86	680
MSR7820-09CW	13 - 36 (24 VDC)	9	2000	95	680
	8 - 26 (12 VDC)	-9	800	86	330
MSR7820-12CW	16 - 36 (24 VDC)	12	2000	96	470
	8 - 23 (12 VDC)	-12	600	87	220
MSR7820-15CW	18 - 36 (24 VDC)	15	2000	96	470
	8 - 20 (12 VDC)	-15	600	87	220

Size: .46 x .35 x .69 in (11.60 x 9.0 x 17.5 mm)

### Operating Temperature Range

MSR7805M: -40°C to +93°C

MSR7805H: -40°C to +94°C

MSR7810M: -40°C to +95°C

MSR7805BW, MSR7810MW, MSR7810BW, MSR7820CW: -40°C to +85°C

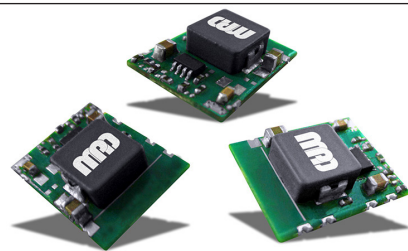


# NON-ISOLATED SWITCHING REGULATOR MLSR100 Series

## 1.0A SMT Package

### FEATURES

- Isolation Voltage: Non-isolated
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 96%
- Short Circuit Protection: Continuous



**UK CA CE RoHS**

MLSR100 - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)	Capacitive Load (μF, Max)
MLSR105S-012	3.5 - 5.5 (5 VDC)	1.2	1000	90.5	330
MLSR105S-015		1.5	1000	92	330
MLSR105S-018		1.8	1000	92.5	330
MLSR105S-02	3.8 - 5.5 (5 VDC)	2.5	1000	94.5	330
MLSR124S-012W	4.6 - 36 (24 VDC)	1.2	1000	87	330
MLSR124S-015W		1.5	1000	89	330
MLSR124S-018W		1.8	1000	90.5	330
MLSR124S-02W		2.5	1000	92.5	330
MLSR124S-03W	4.75 - 36 (24 VDC)	3.3	1000	94	330
MLSR124S-05W	6.5 - 36 (24 VDC)	5	1000	95.5	330
MLSR124S-06W	9 - 36 (24 VDC)	6.5	1000	94.5	330
MLSR124S-09W	12 - 36 (24 VDC)	9	1000	95.5	330
MLSR124S-12W	15 - 36 (24 VDC)	12	1000	95	330
MLSR124S-15W	18 - 36 (24 VDC)	15	1000	96	330

Size: .60 x .47 x .15 in (15.20 x 11.80 x 3.60 mm)



### POL Regulator Selection

MicroPower Direct's POL regulators offer a high-efficiency, drop-in replacement for linear regulators, reducing heat output and minimizing cooling needs—ideal for compact designs.

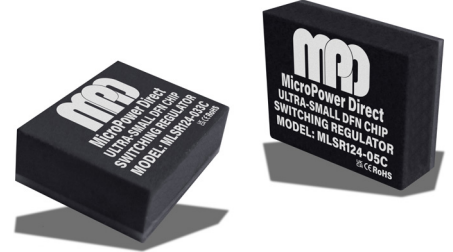


# MLSR100C Series **NON-ISOLATED SWITCHING REGULATOR**

0.5W and 1W DFN Package

## FEATURES

- Isolation Voltage: Non-isolated
- Operating temperature range: -40°C to +105°C
- Efficiency: Up to 90%
- Short Circuit Protection: Continuous



**UK CA CE RoHS**

### MLSR50C - 0.5W

Contact Factory

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)	Capacitive Load (μF, Max)
MLSR0524-033C	4.5 - 36 (24 VDC)	3.3	500	89	680
	7 - 32 (12 VDC)	-3.3	-300	80	470
MLSR0524-05C	6.5 - 36 (24 VDC)	5.5	500	91	680
	7 - 31 (12 VDC)	-5	-300	78	470
MLSR0524-065C	8 - 36 (24 VDC)	6.5	500	91	680
	7 - 28 (12 VDC)	-6.5	-250	80	470
MLSR0524-09C	12 - 36 (24 VDC)	9	500	92	680
	8 - 27 (12 VDC)	-9	-200	82	470
MLSR0524-12C	15 - 36 (24 VDC)	12	500	92	680
	8 - 24 (12 VDC)	-12	-150	81	470
MLSR0524-15C	18 - 36 (24 VDC)	15	500	91	680
	8 - 21 (12 VDC)	-15	-150	80	470

Size: .35 x .28 x .12 in (9.00 x 7.00 x 3.10 mm)

### MLSR100C - 1W

Datasheet

Model	Input Voltage	Output Voltage	Output Current (mA, Max)	Efficiency (% , Typ)	Capacitive Load (μF, Max)
MLSR124-033C	4.75 - 36 (24 VDC)	3.3	1000	81	680
	8 - 27 (12 VDC)	-3.3	-500	81	330
MLSR124-05C	6.5 - 36 (24 VDC)	5.5	1000	84	680
	8 - 27 (12 VDC)	-5	-500	83	330
MLSR124-065C	8 - 36 (24 VDC)	6.5	1000	86	680
	8 - 24 (12 VDC)	-6.5	-500	84	330
MLSR124-09C	12 - 36 (24 VDC)	9	1000	87	680
	8 - 24 (12 VDC)	-9	-500	84	330
MLSR124-12C	15 - 36 (24 VDC)	12	1000	89	680
	8 - 20 (12 VDC)	-12	-300	84	330
MLSR124-15C	18 - 36 (24 VDC)	15	1000	90	680
	8 - 18 (12 VDC)	-15	-300	84	330

Size: .35 x .28 x .12 in (9.00 x 7.00 x 3.10 mm)

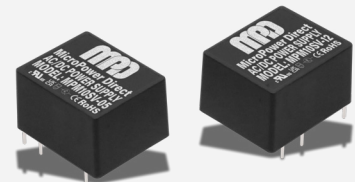
## AC/DC POWER SUPPLIES

# MICROPOWER DIRECT AC/DC POWER SUPPLIES

MicroPower Direct's AC/DC power supplies deliver efficient, reliable power with wide input ranges and high efficiency. Available in open-frame, enclosed, module, U-channel, and DIN rail configurations, they support power levels from 3W to 3000W to meet a variety of application needs.

### FEATURES CAN INCLUDE

- Wide Input Voltage Ranges
- High Efficiency
- Single, Dual & Triple Output Options
- Medical & Industrial Certifications
- Compact & Lightweight Designs
- Built-in Protection Features
- Low Leakage Current
- Reinforced Insulation
- High Isolation Voltage
- Long Operational Lifespan
- Safety Certifications
- Meets Global EMC/EMI Standards



# AC/DC POWER SUPPLIES INDEX BY POWER

## MODULE AC/DC POWER SUPPLIES

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (kVAC)	Size (inches)	Certification	Page
MPM-03C	3W	Module	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4	1.00 x 1.00 x .69	UL, CE, UKCA, RoHS	65
MPM-03MM	3W	Module	85-264 VAC	3.3, 5, 9, 12, 15, 24	3	1.00 x 1.00 x 0.64	UL, CE, UKCA, RoHS	66
MPM-04V	4W	Module	90-305 VAC	3.3, 5, 8, 9, 12, 14, 15, 24, $\pm 5$ , $\pm 8$ , $\pm 12$	3	1.44 x 1.06 x 0.67	UL, CE, UKCA, RoHS	66
MPM-05MM	5W	Module	85 - 264 VAC	3.3, 5, 9, 12, 15, 24, 48	3	1.00 x 1.00 x 0.64	UL, CE, UKCA, RoHS	66
MPM-05MY	5W	Module	85 - 305 VAC	3.3, 5, 12, 15, 24	3	1.80 x 1.00 x .85	UL, CE, UKCA, RoHS	68
MPM-05C	5W	Module	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4	1.00 x 1.00 x .69	UL, CE, UKCA, RoHS	65
MPM-05SV	5W	Module	90 - 305 VAC	5, 12, 15, 24	4	1.46 x 1.08 x 0.80	UL, CE, UKCA, RoHS	67
MPM-10S	10W	Module	90-305 VAC	5, 12, 15, 24	4	2.05 x 1.05 x 0.75	UL, CE, UKCA, RoHS	67
MPM-10SV	10W	Module	90-305 VAC	5, 12, 15, 24	3	1.46 x 1.08 x 0.80	UL, CE, UKCA, RoHS	67
MPM-10C	10W	Module	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4.2	1.58 x 1.00 x 0.83	UL, CE, UKCA, RoHS	65
MPM-10MY	10W	Module	85 - 305 VAC	3.3, 5, 12, 15, 24	3	1.80 x 1.00 x .85	UL, CE, UKCA, RoHS	68
MPM-10IS	10W	Module	85 - 265 VAC	3, 5, 12, 15, 24, $\pm 12$ , $\pm 15$	3	2.52 x 1.77 x 0.75	UL, CE, UKCA, RoHS	67
MPM-15C	15W	Module	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4.2	1.87 x 1.06 x 0.93	UL, CE, UKCA, RoHS	65
MPM-15IS	15W	Module	85 - 265 VAC	5, 12, 15, 24, 48, $\pm 12$ , $\pm 15$	3	2.91 x 2.13 x 0.76	UL, CE, UKCA, RoHS	69
MPM-15CM	15W	Module	85 - 265 VAC	5, 12, 15, 24, 48, $\pm 12$ , $\pm 15$	3	3.78 x 1.81 x 0.92	UL, CE, UKCA, RoHS	69
MPM-15MY	15W	Module	85 - 305 VAC	3.3, 5, 12, 15, 24	3	2.06 x 1.07 x 0.95	UL, CE, UKCA, RoHS	68
MPM-20SVI	20W	Module	90 - 305 VAC	5, 12, 15, 24, $\pm 12$ , $\pm 15$	4.3	2.07 x 1.08 x 0.93	UL, CE, UKCA, RoHS	70
MPM-20C	20W	Module	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4.2	2.06 x 1.07 x 0.95	UL, CE, UKCA, RoHS	65
MPM-20MY	20W	Module	85 - 305 VAC	3.3, 5, 12, 15, 24	3	2.06 x 1.07 x 0.95	UL, CE, UKCA, RoHS	68
MPM-24M	24W	Module	85 - 264 VAC	5, 9, 12, 15, 24, $\pm 12$ , $\pm 15$	4	2.91 x 2.50 x 0.77	UL, CE, UKCA, RoHS	69
MPM-25VPB	25W	Module	90 - 305 VAC	5, 12, 15, 24	4	2.06 x 1.08 x 0.93	UL, CE, UKCA, RoHS	71
MPM-30SV	30W	Module	90-305 VAC	5, 12, 15, 24	4	2.54 x 1.79 x 0.87	UL, CE, UKCA, RoHS	67
MPM-30C	30W	Module	85 - 305 VAC	3.3, 5, 9, 12, 15, 24, 48	4.2	2.74 x 1.54 x 0.95	UL, CE, UKCA, RoHS	65
MPM-30MY	30W	Module	85 - 305 VAC	5, 12, 15, 24, 48	3	2.74 x 1.54 x 0.95	UL, CE, UKCA, RoHS	68
MPM-40	40W	Module	90 - 264 VAC	3, 5, 9, 12, 15, 24, $\pm 5$ , $\pm 12$ , $\pm 15$	3	3.50 x 2.50 x 0.98	UL, CE, UKCA, RoHS	71
MPM-40SVI	40W	Module	90-305 VAC	5, 12, 15, 24, 48	4.3	2.52 x 1.79 x 0.93	UL, CE, UKCA, RoHS	70
MPM-45MY	45W	Module	85 - 305 VAC	5, 12, 15, 24, 48	3	3.43 x 2.05 x 1.17	UL, CE, UKCA, RoHS	68
MPM-50SV	50W	Module	90 - 305 VAC	12, 15, 24	4	2.92 x 1.85 x .91	UL, CE, UKCA, RoHS	67
MPM-50S	50W	Module	90-264 VAC	5, 12, 15, 24, 48	3	2.92 x 2.13 x 0.85	UL, CE, UKCA, RoHS	72
MPM-60SVI	60W	Module	90 - 305 VAC	12, 15, 24	4.3	2.92 x 1.85 x 0.91	UL, CE, UKCA, RoHS	70
MPM-60PB	60W	Module	90-264 VAC	5, 9, 12, 15, 24, 48	4	4.30 x 2.30 x 1.18	UL, CE, UKCA, RoHS	72
MPM-60C	60W	Module	85 - 305 VAC	5, 12, 15, 24, 48, 55.5	4.2	2.76 x 1.89 x 1.06	UL, CE, UKCA, RoHS	65
MPM-60MY	60W	Module	85 - 305 VAC	5, 12, 15, 24, 48	3	3.43 x 2.05 x 1.17	UL, CE, UKCA, RoHS	68
MPM-90C	90W	Module	85 - 305 VAC	12, 15, 24, 48	4.2	3.43 x 2.05 x 1.16	UL, CE, UKCA, RoHS	66
MPM-90MY	90W	Module	85 - 305 VAC	12, 15, 24, 48	3	3.43 x 2.05 x 1.16	UL, CE, UKCA, RoHS	68
MPM-100SVI	100W	Module	90 - 264 VAC	12, 24, 48	4.3	3.50 x 2.50 x 1.08	UL, CE, UKCA, RoHS	70
MPM-150SVI	150W	Module	90 - 264 VAC	12, 24, 48	4.3	3.50 x 2.50 x 1.08	UL, CE, UKCA, RoHS	70

# AC/DC POWER SUPPLIES INDEX BY POWER

## OPEN FRAME AC/DC POWER SUPPLIES

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (kVAC)	Size (inches)	Certification	Page
MPL-03SC	3W	Open	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	3	1.04 x 0.50 x 0.43	UL, CE, UKCA, RoHS	73
MPL-05SC	5W	Open	85 - 305 VAC	3, 5, 9, 12, 15, 24	3.6	1.04 x 0.58 x 0.43	UL, CE, UKCA, RoHS	73
MPL-10SC	10W	Open	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4	1.50 x 0.79 x 0.60	UL, CE, UKCA, RoHS	73
MPL-15SC	15W	Open	85 - 305 VAC	3.3, 5, 9, 12, 15, 24	4	1.31 x 0.85 x 0.38	UL, CE, UKCA, RoHS	73
MPO-40S	40W	Open	90- 264 VAC	12, 24	3	3.00 x 1.50 x 0.87	UL, CE, UKCA, RoHS	74
MPO-60S	60W	Open	85- 264 VAC	5, 9, 12, 15, 24, 48	3	4.09 x 2.05 x 0.93	UL, CE, UKCA, RoHS	74
MPO-65S	65W	Open	90- 264 VAC	12, 24	3	3.00 x 2.00 x 0.87	UL, CE, UKCA, RoHS	74
MPO-80S	80W	Open	90- 264 VAC	12, 24	3	3.00 x 2.00 x 0.87	UL, CE, UKCA, RoHS	74
MPO-120C	120W	Open	85- 264 VAC	12, 15, 19, 24, 27, 36, 48, 54	4	3.00 x 2.00 x 1.22	UL, CE, UKCA, RoHS	75
MPO-130SAR	130W	Open	90- 264 VAC	12, 24, 48	4	3.59 x 2.15 x 1.26	UL, CE, UKCA, RoHS	76
MPO-120S	180W	Open	90- 264 VAC	5, 12, 15, 24, 48	4	5.00 x 3.00 x 1.16	UL, CE, UKCA, RoHS	76
MPO-225C	225W	Open	85- 264 VAC	12, 15, 18, 19, 24, 27, 36, 48, 54	4	4.00 x 2.00 x 1.00	UL, CE, UKCA, RoHS	75
MPO-240SAR	240W	Open	90- 264 VAC	12, 24, 48	4	4.01 x 3.75 x 2.05	UL, CE, UKCA, RoHS	76
MPO-350C	350W	Open	90- 264 VAC	12, 15, 18, 19, 24, 27, 36, 48, 54	4	5.00 x 3.00 x 1.00	UL, CE, UKCA, RoHS	75
MPO-450C	450W	Open	90- 264 VAC	12, 15, 18, 19, 24, 27, 36, 48, 54	4	5.00 x 3.00 x 1.52	UL, CE, UKCA, RoHS	75
MPO-550C	550W	Open	90- 264 VAC	12, 15, 18, 19, 24, 27, 36, 48, 54	4	5.00 x 3.00 x 1.59	UL, CE, UKCA, RoHS	75

## U-CHANNEL AC/DC POWER SUPPLIES

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (kVAC)	Size (inches)	Certification	Page
MPU-60S	60W	U-Channel	85 - 265 VAC	5, 9, 12, 15, 24, 48	3	4.57 x 2.28 x 1.50	UL, CE, UKCA, RoHS	77
MPU-120S	120W	U-Channel	90 - 264 VAC	5, 12, 15, 24, 48	4	5.00 x 3.24 x 1.50	UL, CE, UKCA, RoHS	77
MPU-130SAR	130W	U-Channel	90 - 264 VAC	12, 24, 48	4	3.15 x 2.35 x 1.50	UL, CE, UKCA, RoHS	78
MPU-240SAR	240W	U-Channel	90 - 264 VAC	12, 24, 48	4	4.09 x 2.46 x 1.54	UL, CE, UKCA, RoHS	78
MPU-240S	240W	U-Channel	90 - 264 VAC	5, 12, 15, 24, 28, 32, 36, 48	4	5.90 x 4.17 x 1.46	UL, CE, UKCA, RoHS	78
MPU-250SF	250W	U-Channel	90 - 264 VAC	12, 15, 24, 48	3	5.00 x 3.20 x 2.00	UL, CE, UKCA, RoHS	79
MPU-250S	250W	U-Channel	90 - 264 VAC	12, 15, 24, 48	3	5.00 x 3.20 x 1.50	UL, CE, UKCA, RoHS	80
MPU-300S	300W	U-Channel	90 - 264 VAC	12, 15, 24, 48	3	5.00 x 3.20 x 1.50	UL, CE, UKCA, RoHS	80
MPU-300D	300W	U-Channel	90 - 264 VAC	±5, ±12, ±24, ±48	3	6.00 x 4.00 x 1.50	UL, CE, UKCA, RoHS	79
MPU-400CS	400W	U-Channel	90 - 264 VAC	12, 24, 48	4	8.00 x 5.00 x 1.60	UL, CE, UKCA, RoHS	78
MPU-400D	400W	U-Channel	90 - 264 VAC	±5, ±12, ±24	3	6.00 x 4.00 x 1.50	UL, CE, UKCA, RoHS	79
MPU-400S	400W	U-Channel	90 - 264 VAC	12, 24, 48	3	6.00 x 4.00 x 1.50	UL, CE, UKCA, RoHS	80
MPU-500S	500W	U-Channel	90 - 264 VAC	12, 24, 48	3	8.00 x 4.33 x 2.50	UL, CE, UKCA, RoHS	80
MPU-500AS	500W	U-Channel	90 - 264 VAC	12, 24, 48	4	5.10 x 3.25 x 1.60	UL, CE, UKCA, RoHS	81
MPU-500ASF	500W	U-Channel	90 - 264 VAC	12, 24, 48	4	5.10 x 3.25 x 1.60	UL, CE, UKCA, RoHS	81

# AC/DC POWER SUPPLIES INDEX BY POWER

## ENCLOSED AC/DC POWER SUPPLIES

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (kVAC)	Size (inches)	Certification	Page
MPE-35C	35W	Enclosed	85 - 264 VAC	5, 12, 15, 24	4	3.90 x 3.23 x 1.18	UL, CE, UKCA, RoHS	82
MPE-50C	50W	Enclosed	85 - 264 VAC	5, 12, 15, 24, 36, 48	4	3.90 x 3.23 x 1.18	UL, CE, UKCA, RoHS	82
MPE-75C	75W	Enclosed	85 - 264 VAC	5, 12, 15, 24, 36, 48	4	3.90 x 3.82 x 1.18	UL, CE, UKCA, RoHS	82
MPE-100C	100W	Enclosed	85 - 264 VAC	5, 12, 15, 24, 36, 48	4	5.08 x 3.82 x 1.18	UL, CE, UKCA, RoHS	82
MPU-130SARC	130W	Enclosed	90 - 264 VAC	12, 24, 48	4	3.15 x 2.35 x 1.70	UL, CE, UKCA, RoHS	81
MPE-150C	150W	Enclosed	85 - 264 VAC	12, 15, 24, 36, 48	4	6.20 x 3.82 x 1.18	UL, CE, UKCA, RoHS	82
MPE-200C	200W	Enclosed	85 - 264 VAC	5, 12, 15, 24, 36, 48	4	7.05 x 3.90 x 1.18	UL, CE, UKCA, RoHS	82
MPE-200CMU	200W	Enclosed	85 - 305 VAC	5, 12, 24, 28, 36, 48, 54	4	7.64 x 2.17 x 1.02	UL, CE, UKCA, RoHS	83
MPU-240SARC	240W	Enclosed	90 - 264 VAC	12, 24, 48	4	4.09 x 2.46 x 1.54	UL, CE, UKCA, RoHS	81
MPE-320CM	320W	Enclosed	85 - 305 VAC	5, 12, 15, 24, 27, 36, 48	4	8.47 x 4.53 x 1.18	UL, CE, UKCA, RoHS	84
MPE-350C	350W	Enclosed	90 - 264 VAC	5, 12, 15, 24, 36, 48	3	8.47 x 4.53 x 1.82	UL, CE, UKCA, RoHS	82
MPE-350CMU	350W	Enclosed	85 - 305 VAC	5, 12, 24, 28, 36, 48, 54	4	8.66 x 2.44 x 1.22	UL, CE, UKCA, RoHS	83
MPE-450C	450W	Enclosed	90 - 240 VAC	12, 15, 24, 27, 36, 42, 48	4	8.86 x 4.88 x 1.38	UL, CE, UKCA, RoHS	82
MPE-500CMU	500W	Enclosed	85 - 305 VAC	5, 12, 15, 24, 36, 48	4	9.13 x 3.19 x 1.22	UL, CE, UKCA, RoHS	83
MPE-600SAR	600W	Enclosed	90 - 264 VAC	12, 24, 48, 54	3	8.74 x 4.13 x 1.73	UL, CE, UKCA, RoHS	85
MPE-600CM	600W	Enclosed	85 - 277 VAC	12, 15, 24, 27, 36, 48	4	8.00 x 4.00 x 1.60	UL, CE, UKCA, RoHS	84
MPE-700SAR	700W	Enclosed	90 - 264 VAC	12, 15, 24, 28, 48	4	6.70 x 3.66 x 1.61	UL, CE, UKCA, RoHS	85
MPE-750CMU	750W	Enclosed	80 - 277 VAC	12, 15, 24, 27, 48	4	7.28 x 5.00 x 1.59	UL, CE, UKCA, RoHS	83
MPE-1000CMU	1000W	Enclosed	85 - 305 VAC	12, 24, 36, 48	4	9.13 x 4.53 x 1.61	UL, CE, UKCA, RoHS	83
MPE-1000SAR	1000W	Enclosed	90 - 264 VAC	12, 24, 48	4	7.60 x 4.02 x 1.61	UL, CE, UKCA, RoHS	85
MPE-1000CM	1000W	Enclosed	90 - 264 VAC	12, 15, 24, 27, 36, 48, 54	4	7.48 x 5.00 x 1.59	UL, CE, UKCA, RoHS	84
MPE-1500CM	1500W	Enclosed	85 - 264 VAC	12, 15, 24, 27, 36, 48, 54	4	9.65 x 5.00 x 1.59	UL, CE, UKCA, RoHS	84
MPE-3000CM	3000W	Enclosed	85 - 277 VAC	12, 24, 48	4	11.00 x 7.00 x 2.50	UL, CE, UKCA, RoHS	84



# AC/DC POWER SUPPLIES INDEX BY POWER

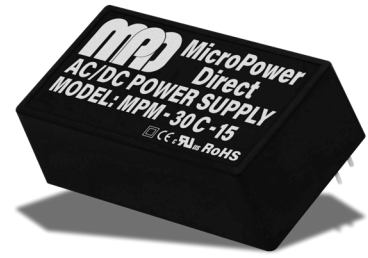
## DIN-RAIL AC/DC POWER SUPPLIES

Series	Power	Package	Input Voltage (VDC)	Output Voltage (VDC)	Isolation (kVAC)	Size (inches)	Certification	Page
MDR-10LY	10W	Din-Rail	90 - 264 VAC	5, 12, 15, 24	3	3.94 x 3.62 x 0.90	UL, CE, UKCA, RoHS	86
MDR-15SY	15W	Din-Rail	90 - 264 VAC	5, 12, 15, 24, 48	4	3.54 x 2.28 x 0.71	UL, CE, UKCA, RoHS	87
MDR-20LY	20W	Din-Rail	90 - 264 VAC	5, 12, 15, 24	3	3.94 x 3.62 x 0.90	UL, CE, UKCA, RoHS	86
MDR-30SY	30W	Din-Rail	90 - 264 VAC	5, 12, 15, 24, 48	4	3.54 x 2.28 x 1.39	UL, CE, UKCA, RoHS	87
MDR-40LY	40W	Din-Rail	90 - 264 VAC	5, 12, 24, 48	3	3.94 x 3.62 x 1.61	UL, CE, UKCA, RoHS	86
MDR-60SY	60W	Din-Rail	90 - 264 VAC	5, 12, 15, 24, 48	4	3.54 x 2.28 x 2.05	UL, CE, UKCA, RoHS	87
MDR-60LY	60W	Din-Rail	90 - 264 VAC	5, 12, 24, 48	3	3.94 x 3.62 x 1.61	UL, CE, UKCA, RoHS	86
MDR-60WY	60W	Din-Rail	180 - 550 VAC	5, 12, 24, 48	4.7	4.92 x 3.96 x 1.26	UL, CE, UKCA, RoHS	88
MDR-75SNY	75W	Din-Rail	90 - 264 VAC	12, 24, 48	3	4.92 x 3.96 x 1.26	UL, CE, UKCA, RoHS	89
MDR-100LY	100W	Din-Rail	90 - 264 VAC	12, 24, 48	3	3.94 x 3.62 x 1.61	UL, CE, UKCA, RoHS	86
MDR-100SY	100W	Din-Rail	90 - 264 VAC	12, 15, 24, 48	4	3.54 x 2.30 x 2.76	UL, CE, UKCA, RoHS	87
MDR-120HY	120W	Din-Rail	90 - 264 VAC	12, 24, 48	3	4.92 x 4.45 x 1.57	UL, CE, UKCA, RoHS	90
MDR-120WY	120W	Din-Rail	180 - 550 VAC	12, 24, 48	3	4.92 x 4.45 x 1.57	UL, CE, UKCA, RoHS	88
MDR-150SY	150W	Din-Rail	90 - 264 VAC	12, 15, 24, 48	4	4.13 x 2.30 x 3.54	UL, CE, UKCA, RoHS	87
MDR-150SNY	150W	Din-Rail	90 - 264 VAC	12, 24, 48	3	4.92 x 4.45 x 1.57	UL, CE, UKCA, RoHS	89
MDR-240TY	240W	Din-Rail	340 - 550 VAC	24, 48	4.87	4.92 x 4.45 x 2.48	UL, CE, UKCA, RoHS	89
MDR-240HY	240W	Din-Rail	90 - 264 VAC	12, 24, 48	3	4.92 x 4.47 x 2.48	UL, CE, UKCA, RoHS	90
MDR-240SNY	240W	Din-Rail	90 - 264 VAC	24, 48	3	4.92 x 4.47 x 2.48	UL, CE, UKCA, RoHS	89
MDR-240WY	240W	Din-Rail	180 - 550 VAC	24, 48	3	4.92 x 4.47 x 2.48	UL, CE, UKCA, RoHS	88
MDR-480TY	480W	Din-Rail	340 - 550 VAC	24, 48	3	4.92 x 5.08 x 3.37	UL, CE, UKCA, RoHS	89
MDR-480SNY	480W	Din-Rail	90 - 264 VAC	24, 48	3	4.92 x 5.08 x 3.37	UL, CE, UKCA, RoHS	89
MDR-480HY	480W	Din-Rail	90 - 264 VAC	24, 48	3	4.92 x 5.08 x 3.37	UL, CE, UKCA, RoHS	90
MDR-480WY	480W	Din-Rail	180 - 550 VAC	24, 48	3	4.92 x 5.08 x 3.37	UL, CE, UKCA, RoHS	88
MDR-960HY	960W	Din-Rail	90 - 264 VAC	24, 48	3	4.91 x 5.91 x 4.33	UL, CE, UKCA, RoHS	90



### FEATURES

- Isolation Voltage: MPM-03C and MPM-05C 4000 VAC  
All Other Models 4200VAC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 91%
- A2S and A4S chassis mount option available



MPM-03C - 3W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-03C-03	3W	85 - 305 (VAC)	3.3	900	71
MPM-03C-05	3W		5	600	75
MPM-03C-09	3W		9	333	77
MPM-03C-12	3W		12	250	77
MPM-03C-15	3W		15	200	78
MPM-03C-24	3W		24	125	78

Size: 1.00 x 1.00 x .69 in (25.40 x 25.40 x 17.60 mm)

MPM-05C - 5W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-05C-03	5W	85 - 305 (VAC)	3.3	1515	71.5
MPM-05C-05	5W		5	1000	77.5
MPM-05C-09	5W		9	555	80.5
MPM-05C-12	5W		12	416	80.5
MPM-05C-15	5W		15	333	81.5
MPM-05C-24	5W		24	208	81.5

Size: 1.00 x 1.00 x .69 in (25.40 x 25.40 x 17.60 mm)

MPM-10C - 10W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-10C-03	8.6W	85 - 305 (VAC)	3.3	2600	74
MPM-10C-05	10W		5	2000	79
MPM-10C-09	10W		9	1100	81
MPM-10C-12	10W		12	830	84
MPM-10C-15	10W		15	660	84
MPM-10C-24	10W		24	410	85

Size: 1.58 x 1.00 x 0.83 in (40.00 x 25.40 x 21.00 mm)

MPM-15C - 15W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-15C-03	13.2W	85 - 305 (VAC)	3.3	4000	82
MPM-15C-05	15W		5	3000	85
MPM-15C-09	15W		9	1670	84
MPM-15C-12	15W		12	1250	85
MPM-15C-15	15W		15	1000	85
MPM-15C-24	15W		24	625	86

Size: 1.87 x 1.06 x 0.93 in (47.60 x 26.80 x 23.50 mm)

MPM-20C - 20W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-20C-03	14.85W	85 - 305 (VAC)	3.3	4500	81
MPM-20C-05	20W		5	4000	85
MPM-20C-09	20W		9	2200	84
MPM-20C-12	20W		12	1670	86
MPM-20C-15	20W		15	1330	87
MPM-20C-24	20W		24	830	87

Size: 2.06 x 1.07 x 0.95 in (52.40 x 27.20 x 24.00 mm)

MPM-30C - 30W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-30C-03	19.8W	85 - 305 (VAC)	3.3	6000	85
MPM-30C-05	30W		5	7000	86
MPM-30C-09	30.6W		9	3400	88
MPM-30C-12	30W		12	2500	90
MPM-30C-15	30W		15	2000	90
MPM-30C-24	31.2W		24	1300	88
MPM-30C-48	30.2W		48	630	90

Size: 2.74 x 1.54 x 0.95 in (69.50 x 39.00 x 24.00 mm)

MPM-60C - 60W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-60C-05	60W	85 - 305 (VAC)	5	10000	89
MPM-60C-12	60W		12	5000	91
MPM-60C-15	60W		15	4000	90

Size: 2.76 x 1.89 x 1.06 in (70.00 x 48.00 x 27.00 mm)

MPM-60C - 60W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-60C-24	60W	85 - 305 (VAC)	24	2500	90
MPM-60C-48	60.5W		48	1250	91
MPM-60C-55	60.5W		55.5	1090	91

Size: 2.76 x 1.89 x 1.06 in (70.00 x 48.00 x 27.00 mm)

# MODULE AC/DC POWER SUPPLIES

# MPM-xxC Series

3W to 90W Compact Module

MPM-90C - 90W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-90C-12	80.4W	85 - 305 (VAC)	12	6800	92
MPM-90C-15	85.05W		15	4500	92.5
MPM-90C-24	90W		24	3000	93
MPM-90C-48	90W		48	470	93

Size: 3.43 x 2.05 x 1.16 in (87.00 x 52.00 x 29.50 mm)

# MODULE AC/DC POWER SUPPLIES

# MPM-xxMM Series

3W and 5W 1" x 1" Module

## FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -25°C to +70°C
- Efficiency: Up to 78%
- MPM-05MM available with a chassis mount option

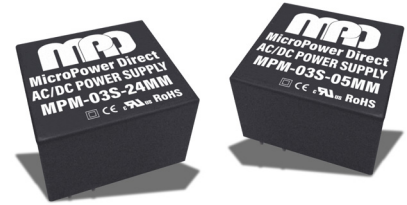


MPM-03MM - 3W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-03S-03MM	3W	85 - 264 (VAC)	3.3	900	70
MPM-03S-05MM	3W		5	600	72
MPM-03S-09MM	3W		9	333	77
MPM-03S-12MM	3W		12	250	78
MPM-03S-15MM	3W		15	200	78
MPM-03S-24MM	3W		24	125	78

Size: 1.00 x 1.00 x 0.64 in (25.40 x 25.40 x 16.30 mm)



MPM-05MM - 5W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-05S-03MM	5W	85 - 264 (VAC)	3.3	1515	74
MPM-05S-05MM	5W		5	1000	80
MPM-05S-09MM	5W		9	555	82
MPM-05S-12MM	5W		12	416	82
MPM-05S-15MM	5W		15	333	83
MPM-05S-24MM	5W		24	208	83
MPM-05S-48MM	5W		48	104	85

Size: 1.00 x 1.00 x 0.64 in (25.40 x 25.40 x 16.30 mm)

# MODULE AC/DC POWER SUPPLIES

# MPM-04V Series

4W Single and Dual Output Module

## FEATURES

- Isolation Voltage: 3000 VAC
- Efficiency: Up to 93%
- Short Circuit Protection: Continuous

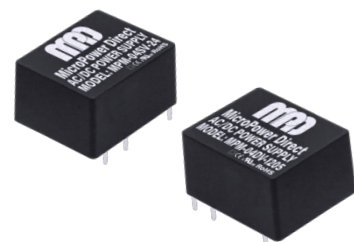


MPM-04V - 4W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-04SV-03	3.96W	90 - 305 (VAC)	3.3	1200	70
MPM-04SV-05	4W		5	800	72
MPM-04SV-08	4W		8	500	74
MPM-04SV-09	4W		9	444	75
MPM-04SV-12	4W		12	333	76
MPM-04SV-14	4W		14	286	76
MPM-04SV-15	4W		15	267	76
MPM-04SV-24	4W		24	167	77

Size: 1.0x.2.0x.40 in (25.4 x 50.8 x 10.20 mm)



MPM-04V - 4W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-04DV-0503	3.5W	90 - 305 (VAC)	±5/±3.3	±600/±150	72
MPM-04DV-0805	3.6W		±8/±5	±375/±120	74
MPM-04DV-1205	3.6W		±12/±5	±250/±120	75

Size: 1.0x.2.0x.40 in (25.4 x 50.8 x 10.20 mm)

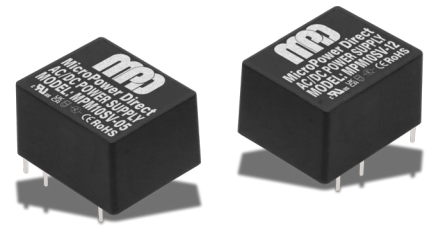
# MPM-xxSV Series

# MODULE AC/DC POWER SUPPLIES

## 5W to 50W Compact Modules

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 77%



#### MPM-05SV - 5W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-05SV-05	5W	90 - 305 (VAC)	5	1515	72
MPM-05SV-12	5W		12	1000	77
MPM-05SV-15	5W		15	420	81
MPM-05SV-24	5W		24	210	83

Size: 1.46 x 1.08 x 0.80 in (37.00 x 27.50 x 20.00 mm)

#### MPM-10SV - 10W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-10SV-05	10W	90 - 305 (VAC)	5	3500	81
MPM-10SV-12	10W		12	700	85
MPM-10SV-15	10W		15	390	86
MPM-10SV-24	10W		24	180	86

Size: 1.46 x 1.08 x 0.80 in (37.00 x 27.50 x 20.00 mm)

#### MPM-30SV - 30W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-30SV-05	30W	90 - 305 (VAC)	5	4600	84
MPM-30SV-12	30W		12	2500	88
MPM-30SV-15	30W		15	2000	87
MPM-30SV-24	30W		24	1250	86

Size: 2.54 x 1.79 x 0.87 in (64.60 x 45.40 x 22.0 mm)

#### MPM-50SV - 50W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-50SV-12	50W	90 - 305 (VAC)	12	4167	89
MPM-50SV-15	50W		15	3333	88
MPM-50SV-24	50W		24	2083	88

Size: 2.92 x 1.85 x .91 in (74.20 x 47.00 x 23.1 mm)

# MPM-10S/IS Series

# MODULE AC/DC POWER SUPPLIES

## 10W Single and Dual Output Modules

### FEATURES

- Isolation Voltage: MPM-10IS: 3000 VAC, MPM-10S: 4000 VAC
- Operating temperature range: MPM-10IS: -25°C to +71°C  
MPM-10S: -40°C to +85°C
- Efficiency: Up to 86%



#### MPM-10IS - 10W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-10S-03IS	10W	85 - 265 (VAC)	3.3	2000	70
MPM-10S-05IS	10W		5	2000	73
MPM-10S-12IS	10W		12	833	76
MPM-10S-15IS	10W		15	666	76
MPM-10S-24IS	10W		24	416	76
MPM-10D-12IS	10W		±12	+380/-380	77
MPM-10D-15IS	10W		±15	+300/-300	77

Size: 2.52 x 1.77 x 0.75 in (64.00 x 44.75 x 19.00 mm)

#### MPM-10S - 10W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-10S-05	10W	90 - 305 (VAC)	5	2000	80.5
MPM-10S-12	10W		12	833	85
MPM-10S-15	10W		15	667	86
MPM-10S-24	10W		24	417	85.5

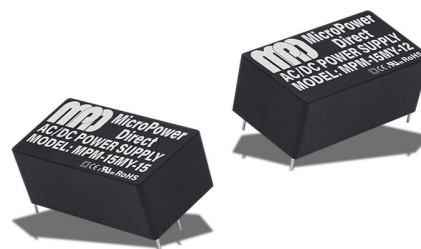
Size: 2.52 x 1.77 x 0.75 in (64.00 x 44.75 x 19.00 mm)

**MPM-10S Available with Chassis Mount**

## 5W to 90W Modules

### FEATURES

- Isolation Voltage: 3000 VAC to 4000 VAC
- Operating temperature range: -30°C to +70°C
- Efficiency: Up to 93%
- A2S Chassis Mount Available: MPM-30MY, MPM-45MY, MPM-60MY, MPM-90MY



MPM-05MY - 5W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-05MY-033	5W	85 - 305 (VAC)	3.3	1250	68
MPM-05MY-05	5W		5	1000	71
MPM-05MY-12	5W		12	420	75
MPM-05MY-15	5W		15	330	75
MPM-05MY-24	5W		24	230	77

Size: 1.80 x 1.00 x .85 in (46.0 x 25.4 x 21.5 mm)

MPM-10MY - 10W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-10MY-033	10W	85 - 305 (VAC)	3.3	2500	74
MPM-10MY-05	10W		5	2000	77
MPM-10MY-12	10W		12	850	82
MPM-10MY-15	10W		15	670	82
MPM-10MY-24	10W		24	420	82

Size: 1.80 x 1.00 x .85 in (46.0 x 25.4 x 21.5 mm)

MPM-15MY - 15W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-15MY-033	15W	85 - 305 (VAC)	3.3	3500	74
MPM-15MY-05	15W		5	3000	78
MPM-15MY-12	15W		12	1250	82
MPM-15MY-15	15W		15	1000	82
MPM-15MY-24	15W		24	630	83

Size: 2.06 x 1.07 x 0.95 in (52.40 x 27.20 x 24.00 mm)

MPM-20MY - 20W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-20MY-033	20W	85 - 305 (VAC)	3.3	4500	76
MPM-20MY-05	20W		5	4000	79
MPM-20MY-12	20W		12	1800	84
MPM-20MY-15	20W		15	1400	84
MPM-20MY-24	20W		24	900	85

Size: 2.06 x 1.07 x 0.95 in (52.40 x 27.20 x 24.00 mm)

MPM-30MY - 30W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-30MY-05	30W	85 - 305 (VAC)	5	6000	83
MPM-30MY-12	30W		12	2500	88
MPM-30MY-15	30W		15	2000	88
MPM-30MY-24	30W		24	1250	88.5
MPM-30MY-48	30W		48	630	90

Size: 2.74 x 1.54 x 0.95 in (69.50 x 39.00 x 24.00 mm)

MPM-45MY - 45W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-45MY-05	45W	85 - 305 (VAC)	5	8000	83.5
MPM-45MY-12	45W		12	3800	87.5
MPM-45MY-15	45W		15	3000	88.5
MPM-45MY-24	45W		24	1900	89.5
MPM-45MY-48	45W		48	940	90.5

Size: 3.43 x 2.05 x 1.17 in (87.00 x 52.00 x 29.50 mm)

MPM-60MY - 60W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-60MY-05	60W	85 - 305 (VAC)	5	10000	84
MPM-60MY-12	60W		12	5000	87.5
MPM-60MY-15	60W		15	4000	89
MPM-60MY-24	60W		24	2500	90
MPM-60MY-48	60W		48	1250	91

Size: 3.43 x 2.05 x 1.17 in (87.00 x 52.00 x 29.50 mm)

MPM-90MY - 90W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-90MY-12	90W	85 - 305 (VAC)	12	6700	92
MPM-90MY-15	90W		15	5670	92.5
MPM-90MY-24	90W		24	3750	93
MPM-90MY-48	90W		48	1880	93

Size: 3.43 x 2.05 x 1.16 in (87.00 x 52.00 x 29.50 mm)

# MPM-15xx Series

# MODULE AC/DC POWER SUPPLIES

## 15W Triple Output Modules

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -25°C to +71°C
- Efficiency: Up to 79%
- MPM-15CM only available on chassis mount



MPM-15IS - 15W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-15S-05IS	15W	85 - 265 (VAC)	5	3000	75
MPM-15S-12IS	15W		12	1250	79
MPM-15S-15IS	15W		15	1000	79
MPM-15S-24IS	15W		24	625	79
MPM-15S-48IS	15W		48	310	79
MPM-15D-12IS	15W		±12	+625/-625	79
MPM-15D-15IS	15W		±15	+500/-500	79
MPM-15T-0512IS	15W		5	+200/+200/-200	74
MPM-15T-0515IS	15W		5	+180/+150/-150	74

Size: 2.91 x 2.13 x 0.76 in (54.00 x 74.00 x 19.30 mm)

MPM-15CM - 15W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-15S-05CM	15W	85 - 265 (VAC)	5	3000	75
MPM-15S-12CM	15W		12	1250	79
MPM-15S-15CM	15W		15	1000	79
MPM-15S-24CM	15W		24	625	79
MPM-15S-48CM	15W		48	310	79
MPM-15D-12CM	15W		±12	+625/-625	79
MPM-15D-15CM	15W		±15	+500/-500	79
MPM-15T-0512CM	15W		5	+200/+200/-200	74
MPM-15T-0515CM	15W		5	+180/+150/-150	74

Size: 3.78 x 1.81 x 0.92 in (96.00 x 54.00 x 23.30 mm)

# MPM-24M Series

# MODULE AC/DC POWER SUPPLIES

## 24W Medical Approved Module

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 85%
- Chassis mount option available



MPM-24M - 24W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-24MS-05	24W	85 - 264 (VAC)	5	3000	77
MPM-24MS-09	24W		9	2660	82
MPM-24MS-12	24W		12	2000	83
MPM-24MS-15	24W		15	1600	82
MPM-24MS-24	24W		24	1000	85
MPM-24MD-12	24W		±12	±1000	84
MPM-24MD-15	24W		±15	±800	84

Size: 2.91 x 2.50 x 0.77 in (74.00 x 63.5 x 19.5 mm)



# MODULE AC/DC POWER SUPPLIES

# MPM-xxSVI Series

## 20W to 150W High Isolation Modules

### FEATURES

- Isolation Voltage: 4300 VAC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 90%



MPM-20SVI - 20W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-20SVI-05	20W	90 - 305 (VAC)	5	4000	85
MPM-20SVI-12	20W		12	1670	86
MPM-20SVI-15	20W		15	1330	87
MPM-20SVI-24	20W		24	833	87
MPM-20SVI-5/12	18.4W		5/12	+2000/-700	81
MPM-20SVI-12D	20W		±12	+833/-833	85
MPM-20SVI-15D	20W		±15	+666/-666	85

Size: 2.07 x 1.08 x 0.93 in (52.50 x 27.50 x 23.50 mm)

MPM-40SVI - 40W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-40SVI-05	35W	90 - 305 (VAC)	5	7000	87
MPM-40SVI-12	40W		12	3333	90
MPM-40SVI-15	40W		15	2666	90
MPM-40SVI-24	40W		24	1666	89
MPM-40SVI-48	40W		5/12	833	89

Size: 2.52 x 1.79 x 0.93 in (64.10 x 45.60 x 23.50 mm)

MPM-60SVI - 60W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-60SVI-12	60W	90 - 305 (VAC)	12	5000	90
MPM-60SVI-15	60W		15	4000	90
MPM-60SVI-24	60W		24	2500	90

Size: 2.92 x 1.85 x 0.91 in (74.20 x 47.0 x 23.10 mm)

MPM-100SVI - 100W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-100SVI-12	100W	90 - 305 (VAC)	12	8333	93
MPM-100SVI-24	100W		24	4166	93.5
MPM-100SVI-48	100W		48	2083	93

Size: 3.50 x 2.50 x 1.08 in (89.00 x 63.50 x 27.60 mm)

MPM-150SVI - 150W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-150SVI-12	150W	90 - 305 (VAC)	12	12500	93
MPM-150SVI-24	150W		24	6250	93.5
MPM-100SVI-48	150W		48	3125	93.5

Size: 3.50 x 2.50 x 1.08 in (89.00 x 63.50 x 27.60 mm)



# MPM-25VPB Series

# MODULE AC/DC POWER SUPPLIES

## 25W Compact Module

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 87%
- Chassis mount option available



MPM-25VPB - 25W Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-25SV-05PB	25W	90 - 305 (VAC)	5	3922	84
MPM-25SV-12PB	25W		12	2083	88
MPM-25SV-15PB	25W		15	1666	88
MPM-25SV-24PB	25W		24	1042	87

Size: 2.06 x 1.08 x 0.93 in (52.50 x 27.50 x 23.50 mm)

# MPM-40 Series

# MODULE AC/DC POWER SUPPLIES

## 40W Triple Output Module

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 83%



MPM-40 - 40W Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-40S-03	40W	90 - 264 (VAC)	3.3	8000	76
MPM-40S-05	40W		5	8000	81
MPM-40S-09	40W		9	4444	83
MPM-40S-12	40W		12	3333	84
MPM-40S-15	40W		15	2666	83
MPM-40S-24	40W		24	1667	83
MPM-40D-05	40W		±5	±4000	81
MPM-40D-12	40W		±12	±1666	83
MPM-40D-15	40W		±15	±1333	83
MPM-40D-0512	40W		5	5000/1250	82
MPM-40D-0524	40W		5	5000/625	82
MPM-40T-0512	40W		±5	+5000/±600	82
MPM-40T-0515	40W		±5	+5000/±500	81

Size: 3.50 x 2.50 x 0.98 in (89.00 x 63.50 x 25.00 mm)



# MODULE AC/DC POWER SUPPLIES

## MPM-50S Series

### 50W Module

#### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 90%



MPM-50S - 50W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-50S-05	50W	90 - 264 (VAC)	5	8000	86
MPM-50S-12	50W		12	4167	90
MPM-50S-15	50W		15	3333	87
MPM-50S-24	50W		24	2083	88
MPM-50S-48	50W		48	1040	89

Size: 2.92 x 2.13 x 0.85 in (74.10 x 54.10 x 21.80 mm)

# MODULE AC/DC POWER SUPPLIES

## MPM-60PB Series

### 60W Module

#### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 86%



MPM-60PB - 60W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPM-60S-05PB	50W	85 - 265 (VAC)	5	10000	82
MPM-60S-09PB	60W		9	6660	84
MPM-60S-12PB	60W		12	5000	86
MPM-60S-15PB	60W		15	4000	86
MPM-60S-24PB	60W		24	2500	86
MPM-60S-48PB	60W		48	1250	86

Size: 4.30 x 2.30 x 1.18 in (109.00 x 58.50 x 30.00 mm)

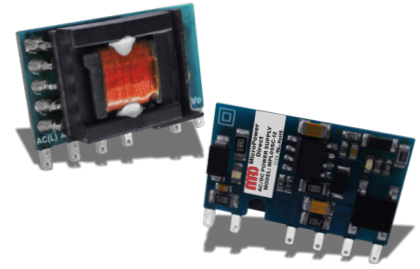


# MPL-xxSC Series **OPEN FRAME AC/DC POWER SUPPLIES**

3W to 15W Compact Open Frame

## FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +85°C
- Efficiency: Up to 84%
- MPL-15SC is an enclosed SIP package



MPL-03SC - 3W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPL-03SC-03	3W	85 - 305 (VAC)	3.3	600	67
MPL-03SC-05	3W		5	600	72
MPL-03SC-09	3W		9	333	76
MPL-03SC-12	3W		12	250	77
MPL-03SC-15	3W		15	200	78
MPL-03SC-24	3W		24	125	80

Size: 1.04 x 0.50 x 0.43 in (26.40 x 12.58 x 11.00 mm)

MPL-05SC - 5W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPL-05SC-03	5W	85 - 305 (VAC)	3.3	1000	69
MPL-05SC-05	5W		5	1000	76
MPL-05SC-09	5W		9	560	77
MPL-05SC-12	5W		12	420	79
MPL-05SC-15	5W		15	340	79
MPL-05SC-24	5W		24	210	81

Size: 1.04 x 0.58 x 0.43 in (26.40 x 14.73 x 11.00 mm)

MPL-10SC - 10W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPL-10SC-03	10W	85 - 305 (VAC)	3.3	2000	70
MPL-10SC-05	10W		5	2000	77
MPL-10SC-09	10W		9	1100	80
MPL-10SC-12	10W		12	830	82
MPL-10SC-15	10W		15	670	82
MPL-10SC-24	10W		24	420	83

Size: 1.50 x 0.79 x 0.60 in (38.00 x 20.00 x 15.25 mm)

MPL-15SC - 15W

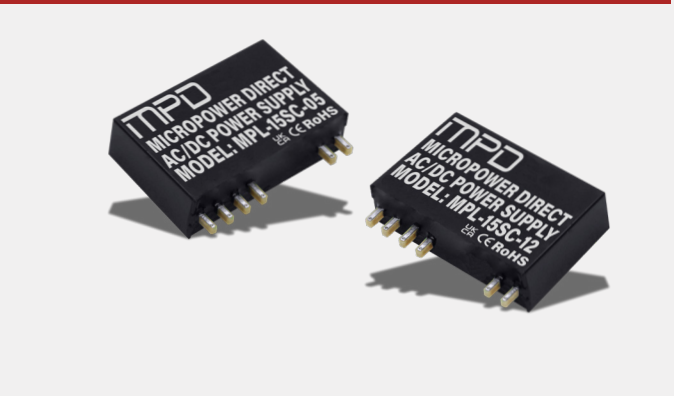
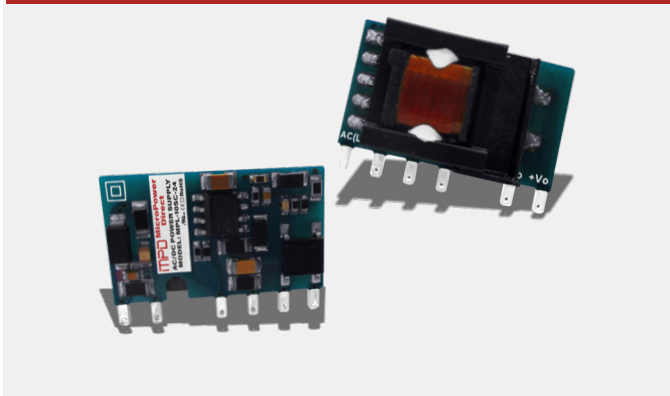
[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (mA, Max)	Efficiency (% Typ)
MPL-15SC-03	15W	85 - 305 (VAC)	3.3	3000	78
MPL-15SC-05	15W		5	3000	81
MPL-15SC-09	15W		9	1670	84
MPL-15SC-12	15W		12	1250	84
MPL-15SC-15	15W		15	1000	84
MPL-15SC-24	15W		24	625	84

Size: 1.31 x 0.85 x 0.38 in (33.34 x 21.50 x 9.72 mm)

## MPL-10SC

## MPL-15SC



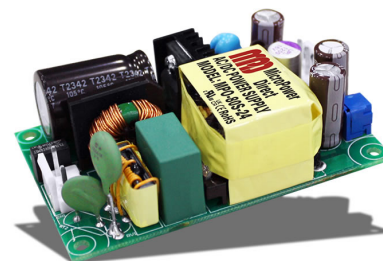
# OPEN FRAME AC/DC POWER SUPPLIES

## MPO-xxS Series

### 40W to 80W Compact, Wide Input Open Frame

#### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +80°C
- Efficiency: Up to 90%



MPO-40S - 40W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPO-40S-12	40W	90 - 264 (VAC)	12	3.33	90
MPO-40S-24	40W		24	1.66	89

Size: 3.00 x 1.50 x 0.87 in (76.20 x 38.10 x 22.00 mm)

MPO-65S - 65W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPO-65S-12	65W	90 - 265 (VAC)	12	5.41	89.5
MPO-65S-24	65W		24	2.7	90

Size: 3.00 x 2.00 x 0.87 in (76.20 x 50.80 x 22.00 mm)

MPO-80S - 80W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPO-80S-12	80W	90 - 264 (VAC)	12	6.66	89.5
MPO-80S-24	80W		24	3.33	90

Size: 3.00 x 2.00 x 0.87 in (76.20 x 50.80 x 22.00 mm)

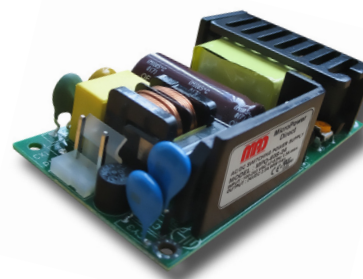
# OPEN FRAME AC/DC POWER SUPPLIES

## MPO-60S Series

### 60W Compact Open Frame

#### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 86%



MPO-60S - 60W

Datasheet

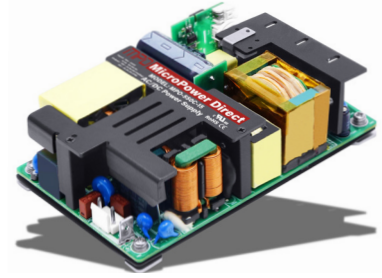
Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPO-60S-05T	50W	90 - 264 (VAC)	5	10	82
MPO-60S-09T	60W		9	6.66	84
MPO-60S-12T	60W		12	5	86
MPO-60S-15T	60W		15	4	86
MPO-60S-24T	60W		24	2.5	86
MPO-60S-48T	60W		48	1.25	86

Size: 4.09 x 2.05 x 0.93 in (103.90 x 52.10 x 23.60 mm)



### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: MPO-120C: -40°C to +85°C  
All Other Models: -40°C to +70°C
- Efficiency: Up to 94%
- Insulation 2 x MOPP



MPO-120C - 120W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPO-120C-12	114W	85 - 264 (VAC)	12	9.5	94
MPO-120C-15	114W		15	7.6	94
MPO-120C-19	119.7W		19	6.3	93
MPO-120C-24	120W		24	5	95
MPO-120C-27	119.9W		27	4.44	95
MPO-120C-36	120W		36	3.33	94
MPO-120C-48	120W		48	2.5	94
MPO-120C-54	120W		54	2.22	94

Size: 3.00 x 2.00 x 1.22 in (76.20 x 50.80 x 31.00 mm)

MPO-225C - 225W

Datasheet

Model	Power (13 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (13CFM)	Efficiency (% Typ)
MPO-225C-12	225W	85 - 264 (VAC)	12	18.75	93
MPO-225C-15	225W		15	15	93
MPO-225C-18	225W		18	12.5	93
MPO-225C-19	225W		19	11.84	93
MPO-225C-24	225W		24	9.4	94
MPO-225C-27	225W		27	8.35	94
MPO-225C-36	225W		36	6.25	94
MPO-225C-48	225W		48	4.7	94
MPO-225C-54	225W		54	4.17	94

Size: 4.00 x 2.00 x 1.00 in (101.60 x 50.80 x 25.40 mm)

MPO-350C - 350W

Datasheet

Model	Power (20.5 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (20.5CFM)	Efficiency (% Typ)
MPO-350C-12	300W	90 - 264 (VAC)	12	25	92
MPO-350C-15	325W		15	21.67	92
MPO-350C-18	324W		18	18	92.5
MPO-350C-19	324.9W		19	17.1	92.5
MPO-350C-24	350.4W		24	14.6	93
MPO-350C-27	351W		27	13	93
MPO-350C-36	350.2W		36	9.73	93
MPO-350C-48	350.4W		48	7.3	94
MPO-350C-54	351W		54	6.5	94

Size: 5.00 x 3.00 x 1.00 in (127.00 x 76.20 x 25.40 mm)

MPO-450C - 450W

Datasheet

Model	Power (25 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (25CFM)	Efficiency (% Typ)
MPO-450C-12	400W	90 - 264 (VAC)	12	33.3	91
MPO-450C-15	400W		15	26.7	92
MPO-450C-18	399.6W		18	22.2	92.5
MPO-450C-19	399.6W		19	21.1	92.5
MPO-450C-24	450W		24	18.75	93
MPO-450C-27	450W		27	16.7	93.5
MPO-450C-36	450W		36	12.5	93
MPO-450C-48	450W		48	9.4	94
MPO-450C-54	449.8W		54	8.33	94

Size: 5.00 x 3.00 x 1.52 in (127.00 x 76.20 x 38.50 mm)

MPO-550C - 550W

Datasheet

Model	Power (25 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (25CFM)	Efficiency (% Typ)
MPO-550C-12	499.2W	90 - 264 (VAC)	12	41.6	91
MPO-550C-15	499.5W		15	33.3	92
MPO-550C-18	500.4W		18	27.8	92.5
MPO-550C-19	499.7W		19	26.3	92.5
MPO-550C-24	549.6W		24	22.9	93

Size: 5.00 x 3.00 x 1.59 in (127.00 x 76.20 x 40.50 mm)

MPO-550C - 550W

Datasheet

Model	Power (25 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (25CFM)	Efficiency (% Typ)
MPO-550C-27	550.8W	90 - 264 (VAC)	27	20.4	93.5
MPO-550C-36	550.8W		36	15.3	94
MPO-550C-48	550W		48	11.46	94
MPO-550C-54	550.8W		54	10.2	94

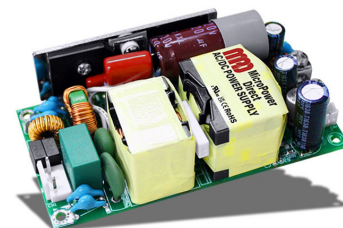
Size: 5.00 x 3.00 x 1.59 in (127.00 x 76.20 x 40.50 mm)

# OPEN FRAME AC/DC POWER SUPPLIES MPO-xxxSAR Series

## 130W and 240W Very Compact Open Frame

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: MPO-130SAR: -30°C to +70°C  
MPO-240SAR: -30°C to +80°C
- Efficiency: Up to 94%
- Also available in U-Channel and Enclosed



MPO-130SAR - 130W

Datasheet

Model	Power (8CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (8 CFM)	Efficiency (% Typ)
MPO-130SAR-12	130W	90 - 264 (VAC)	12	10.833	90
MPO-130SAR-24	130W		24	5.417	90
MPO-130SAR-48	130W		48	2.708	91

Size: 3.59 x 2.15 x 1.26 in (91.19 x 54.61 x 32.10 mm)

MPO-240SAR - 240W

Datasheet

Model	Power (8CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (8 CFM)	Efficiency (% Typ)
MPO-240SAR-12	240W	90 - 264 (VAC)	12	20	92.5
MPO-240SAR-24	240W		24	10	93
MPO-240SAR-48	240W		48	5	94

Size: 4.01 x 3.75 x 2.05 in (101.9 x 95.20 x 52.10 mm)

Also available in U-Channel (MPU-xxxSAR) and Enclosed (MPE-xxxSARC)

# OPEN FRAME AC/DC POWER SUPPLIES

## MPO-120S Series

### 180W Open Frame

#### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -30°C to +70°C
- Efficiency: Up to 93%
- Also available in U-channel and Enclosed
- Terminal Block, Molex and Clamp Terminal Block options available



MPO-120S - 180W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPO-120S-05Y	150W	90 - 264 (VAC)	12	20	87
MPO-120S-12Y	180W		24	10	90
MPO-120S-15Y	180W		48	8	90
MPO-120S-24Y	180W		24	5	93
MPO-120S-48Y	180W		48	2.5	93

Size: 5.00 x 3.00 x 1.16 in (127.00 x 76.20 x 29.50 mm)



# MPU-60S Series

# U-CHANNEL AC/DC POWER SUPPLIES

60W Single Output U-Channel

## FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 86%



MPU-60S - 60W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-60S-05T	50W	90 - 265 (VAC)	5	10	82
MPU-60S-09T	60W		9	6.66	84
MPU-60S-12T	60W		12	5	86
MPU-60S-15T	60W		15	4	86
MPU-60S-24T	60W		24	2.5	86
MPU-60S-48T	60W		48	1.25	86

Size: 4.57 x 2.28 x 1.50 in (116.0 x 58.0 x 38.1 mm)

# MPU-120S Series

# U-CHANNEL AC/DC POWER SUPPLIES

180W Single Output U-Channel

## FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -25°C to +70°C
- Efficiency: Up to 93%
- Cover option available
- Terminal Block, Molex and Clamp Terminal Block options available



MPU-120S - 120W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-120S-05	150W	90 - 264 (VAC)	5	24	87
MPU-120S-12	180W		12	10	90
MPU-120S-15	180W		15	8	90
MPU-120S-24	180W		24	5	93
MPU-120S-48	180W		48	2.5	93

Size: 5.00 x 3.24 x 1.50 in (127.00 x 82.20 x 38.10 mm)



# U-CHANNEL AC/DC POWER SUPPLIES MPU-xxxSAR Series

## 130W and 240W Very Compact U-Channel

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -30°C to +80°C
- Efficiency: Up to 94%
- Also available in Open Frame and Enclosed



MPU-130SAR - 130W

Datasheet

Model	Power (with 8 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (w/8 CFM)	Efficiency (% Typ)
MPU-130SAR-12	130W	90 - 264 (VAC)	12	10.833	90
MPU-130SAR-24	130W		24	5.417	90
MPU-130SAR-48	130W		48	2.708	91

Size: 3.15 x 2.35 x 1.50 in (80.00 x 59.70 x 38.00 mm)

MPU-240SAR - 240W

Contact Factory

Model	Power (with 8 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (w/8 CFM)	Efficiency (% Typ)
MPU-240SAR-12	240W	90 - 264 (VAC)	12	20	92.5
MPU-240SAR-24	240W		24	10	93
MPU-240SAR-48	240W		48	5	94

Size: 4.09 x 2.46 x 1.54 in (104.00 x 62.50 x 39.2 mm)

Also available in Open Frame (MPO-xxxSAR) and Enclosed (MPE-xxxSARC)

# U-CHANNEL AC/DC POWER SUPPLIES MPU-xxxS Series

## 240W and 400W PFC U-Channel

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -10°C to +70°C
- Efficiency: Up to 93%
- Cover option available



MPU-240S - 240W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-240S-05	180W	90 - 264 (VAC)	5	36	87
MPU-240S-12	240W		12	20	90
MPU-240S-15	240W		15	16	90
MPU-240S-24	240W		24	10	93
MPU-240S-28	240W		28	8.57	93
MPU-240S-32	240W		32	7.5	90
MPU-240S-36	240W		36	6.66	90
MPU-240S-48	240W		48	5	93

Size: 5.90 x 4.17 x 1.46 in (150.00 x 106.00 x 37.00 mm)

MPU-400CS - 400W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-400CS-12	400W	90 - 264 (VAC)	12	20.83	80
MPU-400CS-24	400W		24	10.41	80
MPU-400CS-48	400W		48	5.2	80

Size: 8.00 x 5.00 x 1.60 in (203.20 x 127.00 x 40.64 mm)

**Options**

MPU-240S: Terminal Block, Molex and Clamp Terminal Block

MPU-400CS: Terminal Block, Molex, Current share up to 4 units

# MPU-250F Series

# U-CHANNEL AC/DC POWER SUPPLIES

## 250W PFC U-Channel

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: 0°C to +70°C
- Efficiency: Up to 80%
- Terminal Block and Molex options available



MPU-250F - 250W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-250S-12F	250W	90 - 264 (VAC)	12	20.83	80
MPU-250S-15F	250W		15	16.66	80
MPU-250S-24F	250W		24	10.42	80
MPU-250S-48F	250W		48	5.21	80

Size: 5.00 x 3.20 x 2.00 in (127.00 x 81.28 x 50.30 mm)



# MPU-xxxD Series

# U-CHANNEL AC/DC POWER SUPPLIES

## 300W and 400W Dual Output PFC U-Channel

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: 0°C to +50°C
- Efficiency: Up to 80%
- Cover, End Fan and Top Fan option available
- Terminal Block and Molex options available



MPU-300D - 300W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-300D-0512	300W	90 - 264 (VAC)	+5	15	75
	300W		+12	10.42	75
MPU-300D-0524	300W		+5	15	75
	300W		+24	5.2	75
MPU-300D-0548	300W		+5	15	75
	300W		+48	2.6	75
MPU-300D-1224	300W		+12	12.5	75
	300W		+24	6.25	75

Size: 6.00 x 4.00 x 1.50 in (152.40 x 101.60 x 38.10 mm)

MPU-400D - 400W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-400D-0512	400W	90 - 264 (VAC)	+5	30	80
	400W		+12	20.83	80
MPU-400D-0524	400W		+5	30	80
	400W		+24	10.42	80
MPU-400D-0548	400W		+5	30	80
	400W		+48	5.21	80
MPU-400D-1224	400W		+12	20.83	80
	400W		+24	10.42	80

Size: 6.00 x 4.00 x 1.50 in (152.40 x 101.60 x 38.10 mm)

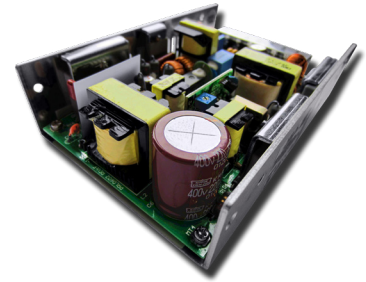
# U-CHANNEL AC/DC POWER SUPPLIES

# MPU-xxxS Series

## 250W to 500W PFC U-Channel

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: MPU-400S: 0°C to +50°C  
All Other Models: 0°C to +70°C
- Efficiency: Up to 83%



### MPU-250S - 250W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-250S-05	250W	90 - 264 (VAC)	5	20	83
MPU-250S-09	250W		9	13.5	83
MPU-250S-12	250W		12	13.5W	83
MPU-250S-15	250W		15	135W	83
MPU-250S-18	250W		18	135W	83
MPU-250S-24	250W		24	135W	83
MPU-250S-28	250W		28	135W	83
MPU-250S-36	250W		36	135W	83
MPU-250S-48	250W		48	135W	83
MPU-250S-52	250W		52	135W	83

Size: 5.00 x 3.20 x 1.50 in (127.00 x 81.28 x 38.10 mm)

### MPU-400S - 400W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-400S-12	400W	90 - 264 (VAC)	12	33.33	75
MPU-400S-24	400W		24	16.67	75
MPU-400S-48	400W		48	8.33	75

Size: 6.00 x 4.00 x 1.50 in (152.40 x 101.60 x 38.10 mm)

### MPU-300S - 300W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-300S-12	300W	90 - 264 (VAC)	12	12.5	80
MPU-300S-15	300W		15	10	80
MPU-300S-24	300W		24	6.25	80
MPU-300S-48	300W		48	3.12	80

Size: 5.00 x 3.20 x 1.50 in (127.00 x 81.28 x 38.10 mm)

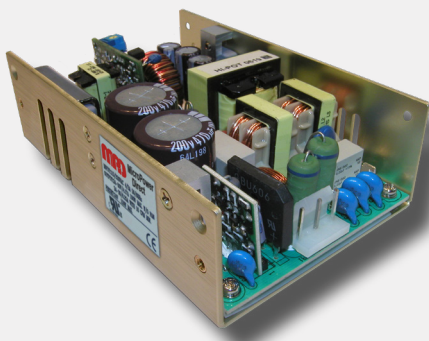
### MPU-500S - 500W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPU-500S-12	500W	90 - 264 (VAC)	12	41.67	80
MPU-500S-24	500W		24	27.73	83
MPU-500S-48	500W		48	10.42	83

Size: 8.00 x 4.33 x 2.50 in (203.20 x 110.00 x 63.50 mm)

## MPU-300S



## Options

- MPU-250S: Terminal Block and Molex  
Top Fan available
- MPU-300S: Terminal Block and Molex  
Cover Option available
- MPU-400S: Terminal Block and Molex  
Cover Option available  
End Fan or Top Fan available
- MPU-500S: Terminal Block, Molex  
Cover Option available  
Current share up to 4 units

# MPU-500AS Series U-CHANNEL AC/DC POWER SUPPLIES

60W Single Output U-Channel

## FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -40°C to +70°C
- Efficiency: Up to 86%



MPU-500AS(F) - 500W

Datasheet

Model	Power (Convection)	Power (with 30 CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (Convection 100VAC)	Output Current (A, Max) (with 30 CFM)	Efficiency (% Typ)
MPU-500AS-12(F)	400W (100 VAC) 450W (230 VAC)	500W	90 - 264 (VAC)	12	20.83	41.5	90.5
MPU-500AS-24(F)		500W		24	10.42	20.8	91
MPU-500AS-48(F)		500W		48	52.1	10.41	92

Size: 5.10 x 3.25 x 1.60 in (129.70 x 82.55 x 40.60 mm)

# MPE-xxxSARC Series ENCLOSED AC/DC POWER SUPPLIES

130W and 240W Very Compact Enclosed

## FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -30°C to +80°C
- Efficiency: Up to 94%



MPU-130SARC - 130W

Datasheet

Model	Power (8CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (8CFM)	Efficiency (% Typ)
MPU-130SAR-12C	130W	90 - 264 (VAC)	12	10.833	90
MPU-130SAR-24C			24	5.417	90
MPU-130SAR-48C			48	2.708	91

Size: 3.15 x 2.35 x 1.70 in (80.00 x 59.70 x 43.20 mm)

MPU-240SARC - 240W

Contact Factory

Model	Power (8CFM)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (8CFM)	Efficiency (% Typ)
MPU-240SAR-12C	240W	90 - 264 (VAC)	12	20	92.5
MPU-240SAR-24C			24	10	93
MPU-240SAR-48C			48	5	94

Size: 4.09 x 2.46 x 1.54 in (104.00 x 62.50 x 39.20 mm)

Also available in Open Frame (MPO-xxxSAR) and U-Channel (MPU-xxxSAR)

## 35W to 450W Compact U-Channel

### FEATURES

- Isolation Voltage: MPE-200C, MPE-350C: 3000 VAC  
All Other Models: 4000 VAC
- Operating temperature range: -30°C to +70°C (-40°C MPM-450C)
- Efficiency: Up to 92%



#### MPE-35C - 35W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-35C-05	35W	85 - 264 (VAC)	5	7	86
MPE-35C-12	36W		12	3	87
MPE-35C-15	36W		15	2.4	88
MPE-35C-24	36W		24	1.5	88

Size: 3.90 x 3.23 x 1.18 in (99.00 x 82.00 x 30.00 mm)

#### MPE-75C - 75W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-75C-05	70W	85 - 264 (VAC)	5	14	86
MPE-75C-12	72W		12	6	88
MPE-75C-15	75W		15	5	88
MPE-75C-24	76.8W		24	3.2	90
MPE-75C-36	76.8W		36	2.1	90
MPE-75C-48	76.8W		48	1.6	91.5

Size: 3.90 x 3.82 x 1.18 in (99.00 x 97.00 x 30.00 mm)

#### MPE-150C - 150W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-150C-12	150W	85 - 264 (VAC)	12	12.5	86
MPE-150C-15	150W		15	10	87
MPE-150C-24	156W		24	6.5	88
MPE-150C-36	154.8W		36	4.3	88
MPE-150C-48	158.4W		48	3.3	89

Size: 6.20 x 3.82 x 1.18 in (159.00 x 97.00 x 30.00 mm)

#### MPE-350C - 350W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-350C-05	300W	90 - 264 (VAC)	5	60	83.5
MPE-350C-12	348W		12	29	85
MPE-350C-15	348W		15	23.2	86
MPE-350C-24	350.4W		24	14.6	87
MPE-350C-36	349.2W		36	9.7	88
MPE-350C-48	350.4W		48	7.3	88.5

Size: 8.47 x 4.53 x 1.82 in (215.00 x 115.00 x 30.00 mm)

#### MPE-50C - 50W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-50C-05	50W	85 - 264 (VAC)	5	10	86
MPE-50C-12	50.4W		12	4.2	87
MPE-50C-15	51W		15	3.4	88
MPE-50C-24	52.8W		24	2.2	89
MPE-50C-36	52.2W		36	1.45	89
MPE-50C-48	52.8W		48	1.1	90

Size: 3.90 x 3.23 x 1.18 in (99.00 x 82.00 x 30.00 mm)

#### MPE-100C - 100W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-100C-05	90W	85 - 264 (VAC)	5	18	85
MPE-100C-12	102W		12	8.5	86.5
MPE-100C-15	105W		15	7	86.5
MPE-100C-24	108W		24	4.5	89.5
MPE-100C-36	100.8W		36	2.8	89.5
MPE-100C-48	110.4W		48	2.3	90.5

Size: 5.08 x 3.82 x 1.18 in (129.00 x 97.00 x 30.00 mm)

#### MPE-200C - 200W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-200C-05	150W	90 - 264 (VAC)	5	30	87
MPE-200C-12	204W		12	17	87.5
MPE-200C-15	210W		15	14	88
MPE-200C-24	211.2W		24	8.8	88.5
MPE-200C-36	212.4W		36	5.9	89
MPE-200C-48	211.2W		48	4.4	89.5

Size: 7.05 x 3.90 x 1.18 in (179.00 x 99.00 x 30.00 mm)

#### MPE-450C - 450W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-450C-12	450W	100 - 240 (VAC)	12	37.5	90
MPE-450C-15	450W		15	30	90
MPE-450C-24	451.2W		24	18.8	91
MPE-450C-27	450.9W		27	16.7	91
MPE-450C-36	450W		36	12.5	92
MPE-450C-42	449.4W		42	10.7	92
MPE-450C-48	451.2W		48	9.4	92

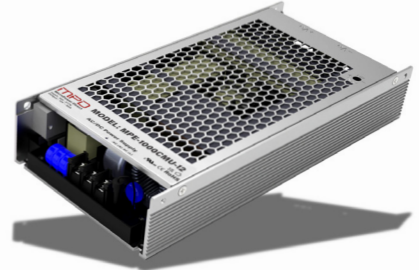
Size: 8.86 x 4.88 x 1.38 in (225.00 x 124.0 x 35.0 mm)

# MPE-xxxCMU Series **ENCLOSED AC/DC POWER SUPPLIES**

## 200W to 1000W Ultra Narrow Fanless Enclosed

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: MPE-200CMU, MPE-750CMU: -40°C to +70°C  
All Other Models: -40°C to +85°C
- Efficiency: Up to 96%
- Terminal Block option available



MPE-200CMU - 200W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-200CMU-05	200W	85 - 305 (VAC)	5	40	91
MPE-200CMU-12	200.4W		12	16.7	93
MPE-200CMU-24	201.6W		24	8.4	94
MPE-200CMU-28	200.2W		28	7.15	94
MPE-200CMU-36	201.6W		36	5.6	94
MPE-200CMU-48	201.6W		48	4.2	94
MPE-200CMU-54	199.8W		54	3.7	94

Size: 7.64 x 2.17 x 1.02 in (194.00 x 55.00 x 26.00 mm)

MPE-350CMU - 350W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-350CMU-05	300W	85 - 305 (VAC)	5	60	90
MPE-350CMU-12	350.4W		12	29.2	92
MPE-350CMU-24	350.4W		24	14.6	94
MPE-350CMU-28	350W		28	12.5	94
MPE-350CMU-36	351W		36	9.75	94
MPE-350CMU-48	350.4W		48	7.32	94
MPE-350CMU-54	349.92W		54	6.48	94

Size: 8.66 x 12.44 x 1.22 in (220.00 x 62.00 x 31.00 mm)

MPE-500CMU - 500W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-500CMU-05	400W	85 - 305 (VAC)	5	80	90
MPE-500CMU-12	500.4W		12	41.7	94
MPE-500CMU-15	499.5W		15	33.3	94
MPE-500CMU-24	501.6W		24	20.9	94.5
MPE-500CMU-36	500.4W		36	13.9	95
MPE-500CMU-48	501.6W		48	10.45	95

Size: 9.13 x 3.19 x 1.22 in (232.00 x 81.00 x 31.00 mm)

MPE-750CMU - 750W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-750CMU-12	750W	80 - 277 (VAC)	12	62.5	92
MPE-750CMU-15	750W		15	50	92
MPE-750CMU-24	750W		24	31.3	94
MPE-750CMU-27	750W		27	27.8	94
MPE-750CMU-48	750W		48	15.7	94

Size: 7.28 x 5.00 x 1.59 in (185.00 x 127.00 x 40.50 mm)

MPE-1000CMU - 1000W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-1000CMU-12	960W	85 - 305 (VAC)	12	80	94
MPE-1000CMU-24	1008W		24	42	95
MPE-1000CMU-36	1008W		36	28	95.5
MPE-1000CMU-48	1008W		48	21	96

Size: 9.13 x 4.53 x 1.61 in (232.00 x 115.00 x 41.00 mm)



# ENCLOSED AC/DC POWER SUPPLIES

# MPE-xxxCM Series

## 320W to 3000W PFC Enclosed

### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: MPE-320CM: -30°C to +70°C  
MPE-3000CM: -40°C to +85°C  
All Other Models: -40°C to +70°C
- Efficiency: Up to 94%



MPE-320CM - 320W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-320CM-05	300W	85 - 305 (VAC)	5	60	84
MPE-320CM-12	320.4W		12	26.7	87.5
MPE-320CM-15	321W		15	21.4	89
MPE-320CM-24	321.6W		24	13.4	91
MPE-320CM-27	321.3W		27	11.9	91
MPE-320CM-36	320.4		36	8.9	91.5
MPE-320CM-48	321.6W		48	6.7	91.5

Size: 8.47 x 4.53 x 1.18 in (215.00 x 115.00 x 30.00 mm)

MPE-600CM - 600W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-600CM-12	600W	85 - 277 (VAC)	12	50	92
MPE-600CM-15	600W		15	40	92
MPE-600CM-24	600W		24	25	94
MPE-600CM-27	600W		27	22.3	94
MPE-600CM-36	600W		36	16.7	94
MPE-600CM-48	600W		48	12.6	94

Size: 8.00 x 4.00 x 1.60 in (200.60 x 101.60 x 40.60 mm)

MPE-1000CM - 1000W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-1000CM-12	960W	90 - 264 (VAC)	12	80	92
MPE-1000CM-15	960W		15	64	92
MPE-1000CM-24	1008W		24	42	94
MPE-1000CM-27	1007W		27	37.3	94
MPE-1000CM-36	1008W		36	28	94
MPE-1000CM-48	1008W		48	21	94
MPE-1000CM-54	1009W		54	18.7	94

Size: 7.48 x 5.00 x 1.59 in (190.00 x 127.00 x 40.50 mm)

MPE-1500CM - 1500W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-1500CM-12	1510W	85 - 264 (VAC)	12	125	92
MPE-1500CM-15	1510W		15	100	92
MPE-1500CM-24	1510W		24	62.5	94
MPE-1500CM-27	1522W		27	56	94
MPE-1500CM-36	1522W		36	42	94
MPE-1500CM-48	1546W		48	32	94
MPE-1500CM-54	1522W		54	28	94

Size: 9.65 x 5.00 x 1.59 in (245.00 x 127.00 x 40.50 mm)

MPE-3000CM - 3000W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-3000CM-12	2410W	85 - 277 (VAC)	12	200	90
MPE-3000CM-24	3010W		24	125	92
MPE-3000CM-48	3010W		48	62.5	93

Size: 11.00 x 7.00 x 2.50 in (279.40 x 177.80 x 63.50 mm)



### FEATURES

- Isolation Voltage: MPE-600SAR: 3000 VAC  
MPE-700SAR: 4000 VAC, MPE-1000SAR: 4300 VAC
- Operating temperature range: MPE-600SAR: -25°C to +70°C  
MPE-700SAR: -30°C to +70°C, MPE-1000SAR: -20°C to +70°C
- Efficiency: Up to 93%



#### MPE-600SAR - 600W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-600SAR-12	540W	90 - 264 (VAC)	12	45	90
MPE-600SAR-24	600W		24	25	92
MPE-600SAR-48	600W		48	12.5	92
MPE-600SAR-54	600W		54	11.1	93

Size: 8.74 x 4.13 x 1.73 in (222.00 x 105.00 x 44.00 mm)

#### MPE-700SAR - 700W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-700SAR-12	625W	90 - 264 (VAC)	12	52.08	89
MPE-700SAR-15	625W		15	41.66	90
MPE-700SAR-24	700W		24	29.16	91
MPE-700SAR-28	700W		28	25	92
MPE-700SAR-48	700W		48	14.58	92

Size: 6.70 x 3.66 x 1.61 in (170.00 x 93.00 x 41.00 mm)

#### MPE-1000SAR - 1000W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MPE-1000SAR-12	800W	90 - 264 (VAC)	12	66.67	89
MPE-1000SAR-24	1000W		24	41.67	92
MPE-1000SAR-48	1000W		48	20.84	93

Size: 7.60 x 4.02 x 1.61 in (193.00 x 102.00 x 41.00 mm)



### AC/DC Power Supply Selection

MicroPower Direct's AC/DC power supplies deliver efficient, reliable power conversion with wide input ranges and high efficiency. Available in open-frame, enclosed, module, U-channel, and DIN rail configurations, they support power levels from 1W to 3000W to meet a variety of application needs.



# DIN-RAIL AC/DC POWER SUPPLIES

# MDR-xxxLY Series

## 10W to 100W Thin Plastic Case DIN-Rail

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: MDR-100LY -10°C to +60°C  
All Other Models: -20°C to +70°C
- Efficiency: Up to 87%



MDR-10LY - 10W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-10LY-05	10W	90 - 264 (VAC)	5	2	77
MDR-10LY-12	10W		12	0.84	81
MDR-10LY-15	10W		15	0.67	81
MDR-10LY-24	10W		24	0.42	84

Size: 3.94 x 3.62 x 0.90 in (100.00 x 92.00 x 23.00 mm)

MDR-20LY - 20W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-20LY-05	20W	90 - 264 (VAC)	5	3	76
MDR-20LY-12	20W		12	1.67	80
MDR-20LY-15	20W		15	1.34	81
MDR-20LY-24	20W		24	1	84

Size: 3.94 x 3.62 x 0.90 in (100.00 x 92.00 x 23.00 mm)

MDwR-40LY - 40W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-40LY-05	40W	90 - 264 (VAC)	5	6	78
MDR-40LY-12	40W		12	3.33	86
MDR-40LY-15	40W		15	1.7	88
MDR-40LY-24	40W		24	0.83	88

Size: 3.94 x 3.62 x 1.61 in (100.00 x 92.00 x 41.00 mm)

MDR-60LY - 60W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-60LY-05	60W	90 - 264 (VAC)	5	10	78
MDR-60LY-12	60W		12	5	86
MDR-60LY-24	60W		24	2.5	88
MDR-60LY-48	60W		48	1.25	78

Size: 3.94 x 3.62 x 1.61 in (100.00 x 92.00 x 41.00 mm)

MDR-100LY - 100W

[Datasheet](#)

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-100LY-12	100W	90 - 264 (VAC)	12	7.5	83
MDR-100LY-24	100W		24	4	86
MDR-100LY-48	100W		48	2	87

Size: 3.94 x 3.62 x 1.61 in (100.00 x 92.00 x 41.00 mm)

Also available in a thin metal case

## MDR-40LY MDR-100LY



### FEATURES

- Isolation Voltage: 4000 VAC
- Operating temperature range: -20°C to +70°C
- Efficiency: Up to 95%



MDR-15SY - 15W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-15SY-05	12W	90 - 264 (VAC)	5	2.4	80
MDR-15SY-12	15W		12	1.25	85
MDR-15SY-15	15W		15	1	85.5
MDR-15SY-24	15W		24	0.63	86
MDR-15SY-48	15W		48	0.31	87

Size: 3.54 x 2.28 x 0.71 in (90.00 x 58.00 x 18.00 mm)

MDR-30SY - 30W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-30SY-05	15W	90 - 264 (VAC)	5	3	82
MDR-30SY-12	30W		12	2.5	88
MDR-30SY-15	30W		15	2	89
MDR-30SY-24	36W		24	1.5	89
MDR-30SY-48	30W		48	0.63	90

Size: 3.54 x 2.28 x 1.39 in (90.00 x 58.00 x 35.00 mm)

MDR-60SY - 60W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-60SY-05	22.5W	90 - 264 (VAC)	5	4.5	95
MDR-60SY-12	54W		12	4.5	88
MDR-60SY-15	60W		15	4	89
MDR-60SY-24	60W		24	2.5	90
MDR-60SY-48	60W		48	1.25	91

Size: 3.54 x 2.28 x 2.05 in (90.00 x 58.00 x 52.00 mm)

MDR-100SY - 100W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-100SY-12	85.2W	90 - 264 (VAC)	12	7.1	88
MDR-100SY-15	97.5W		15	6.5	89
MDR-100SY-24	100W		24	4.17	90
MDR-100SY-48	100W		48	2.08	90

Size: 3.54 x 2.30 x 2.76 in (90.00 x 58.40 x 70.20 mm)

MDR-150SY - 150W

Datasheet

Model	Power (230Vin)	Input Voltage (VAC)	Output Voltage	Output Current (A, Max) (230Vin)	Efficiency (% Typ)
MDR-150SY-12	135.6W	90 - 264 (VAC)	12	7.1	89
MDR-150SY-15	142.5W		15	6.5	89.5
MDR-150SY-24	150W		24	4.17	90.5
MDR-150SY-48	153.6W		48	2.08	90.5

Size: 4.13 x 2.30 x 3.54 in (105.00 x 58.40 x 90.00 mm)



## 60W to 480W Wide Input DIN-Rail

### FEATURES

- Isolation Voltage: MDR-60WY: 4700 VAC  
All Other Models: 3000 VAC
- Operating temperature range: MDR-60WY: -30°C to +85°C  
MDR-120WY -25°C to +70°C  
MDR-240WY, MDR-480WY -30°C to +70°C
- Efficiency: Up to 93%



MDR-60WY - 60W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-60WY-5	60W	180 - 550 (VAC)	5	10	83.5
MDR-60WY-12	60W		12	5	86.5
MDR-60WY-24	60W		24	2.5	89
MDR-60WY-48	60W		48	1.25	90.5

Size: 4.92 x 3.96 x 1.26 in (125.00 x 100.50 x 32.00 mm)

MDR-120WY - 120W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-120WY-12	120W	180 - 550 (VAC)	12	10	89.5
MDR-120WY-24	120W		24	5	91
MDR-120WY-48	120W		48	2.5	92

Size: 4.92 x 4.45 x 1.57 in (125.00 x 113.00 x 40.00 mm)

MDR-240WY - 240W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-240WY-24	240W	180 - 550 (VAC)	24	10	91
MDR-240WY-48	240W		48	5	91

Size: 4.92 x 4.47 x 2.48 in (125.00 x 113.50 x 63.00 mm)

MDR-480WY - 480W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-480WY-24	480W	180 - 550 (VAC)	24	20	91
MDR-480WY-48	480W		48	10	93

Size: 4.92 x 5.08 x 3.37 in (125.00 x 129.00 x 85.50 mm)



### Versatile Power Solutions for Every

Whether it's for industrial automation, medical equipment, transportation, renewable energy, railway or smart home applications, our comprehensive product lines are built to perform.



# MDR-xxxSNY Series

# DIN-RAIL AC/DC POWER SUPPLIES

75W to 480W Thin Metal Case DIN-Rail

## FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: -20°C to +70°C
- Efficiency: Up to 92%



MDR-75SNY - 75W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-75SNY-12	75.6W	90 - 264 (VAC)	12	6.3	85.5
MDR-75SNY-24	76.8W		24	3.2	88
MDR-75SNY-48	76.8W		48	1.6	88

Size: 4.92 x 3.96 x 1.26 in (125.00 x 100.50 x 32.00 mm)

MDR-150SNY - 150W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-150SNY-12	120W	90 - 264 (VAC)	12	10	85.5
MDR-150SNY-24	120W		24	5	88
MDR-150SNY-48	120W		48	2.5	89

Size: 4.92 x 4.45 x 1.57 in (125.00 x 113.00 x 40.00 mm)

MDR-240SNY - 240W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-240SNY-24	240W	90 - 264 (VAC)	24	3.2	87
MDR-240SNY-48	240W		48	1.6	88

Size: 4.92 x 4.47 x 2.48 in (125.00 x 113.50 x 63.00 mm)

MDR-480SNY - 480W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-480SNY-24	480W	90 - 264 (VAC)	24	20	92
MDR-480SNY-48	480W		48	10	92

Size: 4.92 x 5.08 x 3.37 in (125.00 x 129.00 x 85.50 mm)

# MDR-xxxTY Series

# DIN-RAIL AC/DC POWER SUPPLIES

240W and 480W 3-Phase High Input DIN-Rail

## FEATURES

- Isolation Voltage: MDR-240TY: 4870 VAC  
MDR-480TY: 3000 VAC
- Operating temperature range: MPE-600SAR: -30°C to +70°C
- Efficiency: Up to 93%



MDR-240TY - 240W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-240TY-24	240W	340 - 550 (VAC)	24	10	92
MDR-240TY-48	240W		48	5	92

Size: 4.92 x 4.45 x 2.48 in (125.00 x 113.00 x 63.00 mm)

MDR-480TY - 480W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-480TY-24	480W	340 - 550 (VAC)	24	20	92.5
MDR-480TY-48	480W		48	10	93

Size: 4.92 x 5.08 x 3.37 in (125.00 x 129.00 x 85.50 mm)

# DIN-RAIL AC/DC POWER SUPPLIES

# MDR-xxxHY Series

## 120W to 960W High Performance DIN-Rail

### FEATURES

- Isolation Voltage: 3000 VAC
- Operating temperature range: MDR-960HY: -30°C to +70°C  
All Other Models: -25°C to +70°C
- Efficiency: Up to 94%



MDR-120HY - 120W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-120HY-12	120W	90 - 264 (VAC)	12	10	89
MDR-120HY-24	120W		24	5	91
MDR-120HY-48	120W		48	2.5	91

Size: 4.92 x 4.45 x 1.57 in (125.00 x 113.00 x 40.00 mm)

MDR-240HY - 240W

Contact Factory

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-240HY-12	192W	90 - 264 (VAC)	12	16	90
MDR-240HY-24	240W		24	10	90
MDR-240HY-48	240W		48	5	90

Size: 4.92 x 4.47 x 2.48 in (125.00 x 113.50 x 63.00 mm)

MDR-480HY - 480W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-480HY-24	480W	90 - 264 (VAC)	24	20	94
MDR-480HY-48	480W		48	10	94

Size: 4.92 x 5.08 x 3.37 in (125.00 x 129.00 x 85.50 mm)

MDR-960HY - 960W

Datasheet

Model	Power	Input Voltage (VAC)	Output Voltage	Output Current (A, Max)	Efficiency (% Typ)
MDR-960HY-24	960W	180 - 264 (VAC)	24	40	93
MDR-960HY-48	960W		48	20	93

Size: 4.91 x 5.91 x 4.33 in (124.70 x 150.20 x 110.00 mm)

### Powering Your Success with Expert Support

What truly sets MicroPower Direct apart is our unwavering commitment to exceptional customer service, providing expert support, fast response times, and tailored solutions to meet our customers' unique power needs.

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