PRODUCT CATALOGUE

2025

POWER FOR
A BETTER FUTURE

MINMAX®

SINCE 1990

MINMAX®

ABOUT MINMAX

MINMAX TECHNOLOGY CO., LTD., founded in 1990, designs and manufactures miniaturized, isolated DC-DC and AC-DC power modules. We provide high-power density solutions for industrial automation, renewable energy, railway, medical, and other high-reliability applications.

We place strong emphasis on R&D, continuously investing in engineering talent, development tools, and in-house laboratory capabilities to enhance product performance and long-term reliability. To support global demand, MINMAX operates manufacturing in Taiwan and an expanded production site in the Philippines, enabling scalable capacity, stable quality, and competitive lead times.

With integrated capabilities spanning design, manufacturing, marketing, sales, and after-sales support, MINMAX serves customers worldwide with consistent quality, fast delivery, and responsive technical service. We maintain an international presence through overseas branches and sales offices across APAC, EMEA, and the Americas, including operations in the United States, Europe, China, Japan, South Korea, and India.

In Japan, MINMAX JAPAN (MMJ) serves as our dedicated local branch, providing closer sales coverage and engineering support.

30+	40+	5.7M+	200+
years	Countries	pcs/year	Series
In Isolated Power Converters	Distributor Coverage	Annual Shipments	Product Development

POWER FOR A BETTER FUTURE

Trusted power for smarter systems worldwide.

At MINMAX, we believe better systems start with better power.

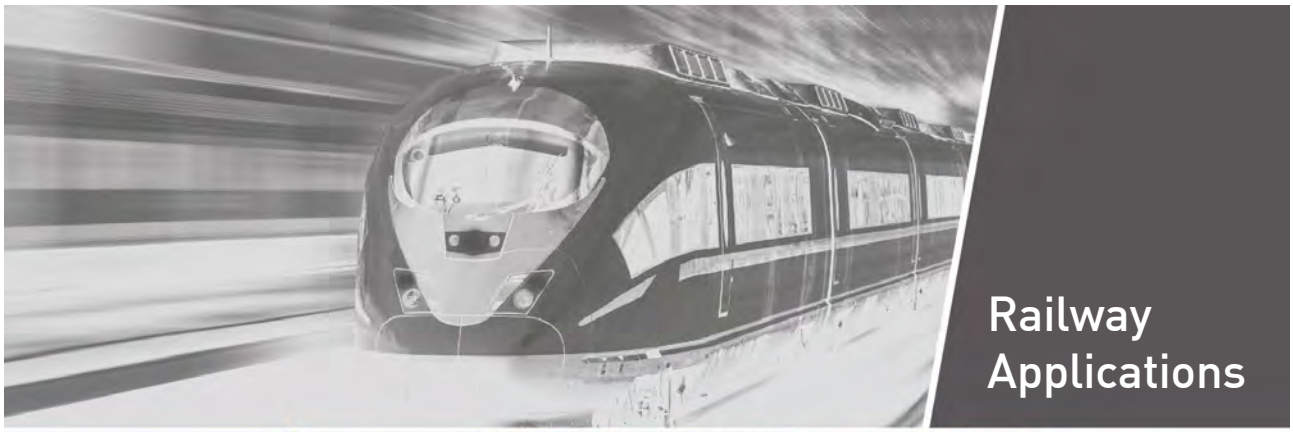
By focusing on miniaturized, isolated power solutions, we help our customers build equipment that is smaller, cleaner, and more dependable – for today and for the future.

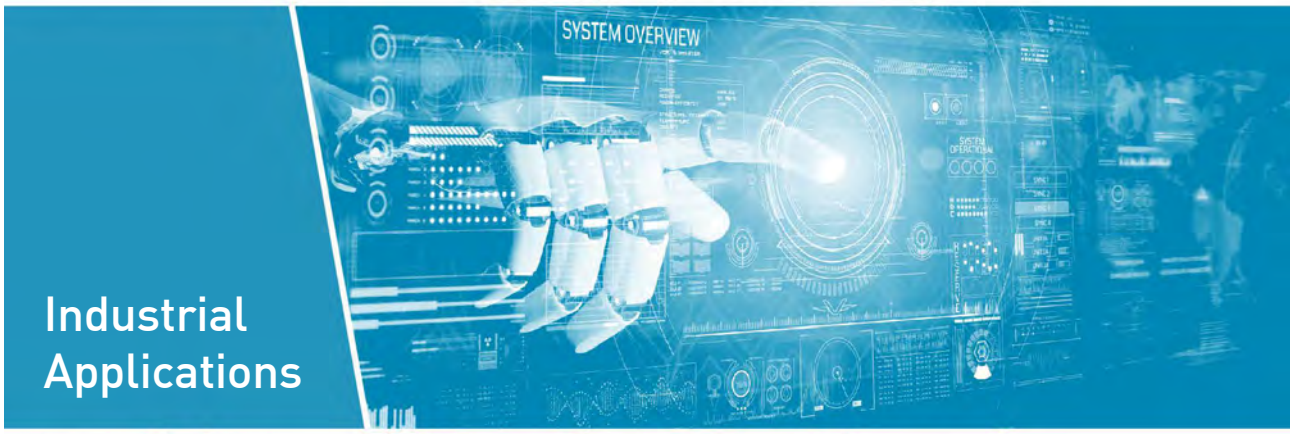
WHAT WE STAND FOR

- Powering Innovation
- Powering Reliability
- Powering Sustainability
- Powering Partnership

Find more MINMAX information at www.minmaxpower.com

KEY APPLICATIONS

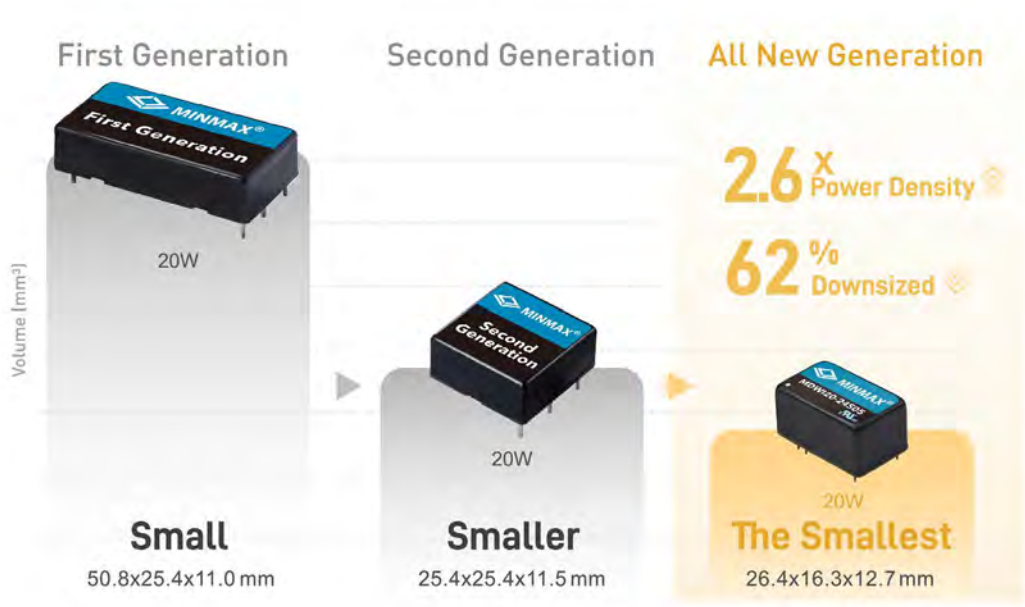




MINIATURIZED HIGH-DENSITY POWER

MINMAX power converters deliver miniaturized, high-power-density solutions with outstanding electrical performance and proven reliability.

Their compact footprints free up valuable PCB space and make system integration easier, while maintaining stable operation in demanding industrial, medical, and railway applications.



OPTIMIZED INTERNAL DESIGN

Thermal Management Design Optimization

Advanced Production Procedure

PCB Layout Design Optimization

Advanced Circuit Design

Overall Electrical Performance Optimization

High Performance, Reliable and Micro-sized Components

2026
NEW PRODUCTS

POWER FOR A
BETTER FUTURE

MINMAX®

Maximum Power. Minimal Space!
SIP-8 Isolated 10W DC-DC Converters

MCWI10 Series

NEW

Ultra-high Power Density
65W/in³

Excellent Efficiency
up to 89%

Ultra-wide Input Range
4:1 for 4.5-18, 9-36, 18-75 VDC

Real 10 Watt
No Line Derating

81% Smaller

More Info.

RoHS Compliant
CONFLICT FREE MINERALS POLICY
3 YEAR WARRANTY

MINMAX®

Unleashing Power in Tiny Form.
SIP-8 Isolated 10W DC-DC Converters

MCWI08 Series

NEW

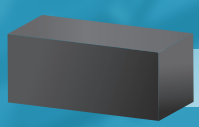
Ultra-high Power Density
52W/in³

Excellent Efficiency
up to 88%

Ultra-wide Input Range
4:1 for 4.5-18, 9-36, 18-75 VDC

Real 8 Watt
No Line Derating

81% Smaller



21.8×9.6×12.0 mm

More Info.

RoHS Compliant

CONFLICT FREE MINERALS POLICY

3 YEAR WARRANTY

MINMAX®

2"×1" Industrial 80W DC-DC Converters

MKWI80 Series

NEW

Ultra-high Power Density

93W/in³

100%

Higher Power Density

Excellent Efficiency

up to 92%

Ultra-wide Input Range

4:1 for 9-36, 18-75 VDC

Real 80 Watt

No Line Derating

More Info.

RoHS Compliant

CONFLICT FREE MINERALS POLICY

3 YEAR WARRANTY

MINMAX®

1"×1" Industrial 40W DC-DC Converters

MJWI40 Series

NEW

Ultra-high Power Density

93W/in³

Excellent Efficiency

up to 93%

Ultra-wide Input Range

4:1 for 9-36, 18-75 VDC

Real 40 Watt

No Line Derating

70% Smaller

More Info.

RoHS Compliant

CONFLICT FREE MINERALS POLICY

3 YEAR WARRANTY

MINMAX®

Railway Certified | Quarter-Brick

MRZI75 NEW Series

75W DC-DC Converters

-40°C
+105°C

Passed TCT 1000+ Cycles

Up To 91%

Excellent Efficiency

Input Output
Reinforced Insulation

I/O Isolation 2000 VAC

EN50155

EN 50155 Approved

More Info.

EN45545-2 · UL 62368-1 · CB Scheme · CE · RoHS Compliant · Conflict Free Minerals Policy · 3 Year Warranty

ALL PRODUCTS

POWER FOR A
BETTER FUTURE

SIP Package DC-DC Converters, 1-10W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation (VDC)	Package	Safety	Page
MBU100	1W	2.97-3.63, 4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 9, 12, 15	-	1000	SIP-4	-	18
MAU100	1W	4.5-5.5, 10.8-13.2, 13.5-16.5, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15	-	1000	SIP-7	•	19
MA01	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 9, 12, 15, ±5,±9, ±12, ±15	-	1000	SIP-7	•	20
MA01H	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 9, 12, 15	-	3000	SIP-7	•	21
MAU200	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15	-	3000	SIP-7	•	22
MAPU01H	1W	2.97-3.63, 4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±12, ±15	-	3000	SIP-7	•	23
MAW01	1W	4.5-9, 9-18, 18-36, 36-75	5, 12, 15, 24, ±12, ±15	•	1500	SIP-6	•	24
MAU300	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 12, 15, ±5, ±12, ±15	-	1000	SIP-7	-	25
MAPU02H	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±12, ±15	-	3000	SIP-7	-	26
MCW1000	2W	4.5-9, 9-18, 18-36, 36-75	3.3, 5, 12	•	1000	SIP-8	•	27
MCWI02	2W	4.5-18, 9-36, 18-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1500	SIP-8	•	28
MEW1000	2W	9-36, 18-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1500	SIP-9	•	29
MBSU03	3W	4.5-5.5,10.8-13.2, 21.6-26.4	5, 12, 15	-	1500	SIP-4	•	30
MA03	3W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 9, 12, 15	-	1000	SIP-7	•	31
MCW03	3W	4.5-9, 9-18, 18-36,36-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1600	SIP-8	•	32
MCWI03	3W	4.5-18, 9-36, 18-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1600	SIP-8	•	33
MCW04	4W	9-18, 18-36, 36-75	5, 12, 15, 24, ±12, ±15	•	1600	SIP-8	•	34
MCWI04	4W	9-36, 18-75	5, 12, 15, 24, ±12, ±15	•	1600	SIP-8	•	35
MCWI05	5W	4.5-18, 9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	SIP-8	•	36
NEW MCWI08	8W	4.5-18, 9-36, 18-75	5, 12, 15, 24, ±12, ±15	•	1500	SIP-8	•	37
NEW MCWI10	10W	4.5-18, 9-36, 18-75	5.1, 12, 15, 24, ±12, ±15	•	1500	SIP-8	•	38

SMD Package DC-DC Converters, 1-6W

MSLU100	1W	4.5-5.5, 10.8-13.2, 13.5-16.5, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±12, ±15	-	1500	SMD	•	39
MSLU300	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 12, 15, ±5, ±12, ±15	-	3000	SMD	-	40
MSPU01H	1W	2.97-3.63, 4.5-5.5, 10.8-13.2	3.3, 5, 12, 15, ±5, ±12, ±15	-	3000	SMD	•	41
MSCW01	1W	4.5-9, 9-18, 18-36, 36-75	5, 12, 15, ±12, ±15	•	1500	SMD	•	42
NEW MSU01	1W	2.97-3.63, 4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 12, 15, 24, ±5, ±12, ±15	-	1500	SMD	•	43
MSLU400	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 12, ±5, ±12, ±15	-	1500	SMD	-	44
MSDW1000	2W	4.5-9, 9-18, 18-36, 36-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1500	SMD	•	45
MSCWI02	2W	4.5-12, 9-36, 18-75	5, 12, 15, 24, ±12,±15	•	1500	SMD	•	46
NEW MSU02	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	3.3, 5, 12, 15, 24, ±5, ±12, ±15	-	1500	SMD	•	47
MSDWI03	3W	9-36, 18-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500	SMD	•	48
MSCWI03	3W	4.5-12, 9-36, 18-75	5, 12, 15, 24, ±12, ±15	•	1500	SMD	•	49
MSGWI06	6W	9-36, 18-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500	SMD	•	50

DIP Package DC-DC Converters, 1-20W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation (VDC)	Package	Safety	Page
MFSU01	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15	-	1500	DIP-8	-	51
MFU100	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 9, 12, 15	-	3000	DIP-8	•	52
MFPU01H	1W	2.97-3.63, 4.5-5.5, 10.8-13.2	3.3, 5, 12, 15 , ±5, ±12, ±15	-	3000	DIP-8	•	53
MFW02	2W	4.5-10, 9-18, 18-36, 36-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1500	DIP-8	•	54
MDW1000	2W	4.5-9, 9-18, 18-36. 36-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1500	DIP-16	•	55
MFW03	3W	4.5-10, 9-18, 18-36, 36-75	3.3, 5, 12, 15, ±5, ±12, ±15	•	1500	DIP-8	•	56
MDWI03	3W	9-36, 18-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500	DIP-16	•	57
MIAR03	3W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±12, ±15	•	1500	DIP-24	•	58
MIW1100	3W	4.5-9, 9-18, 18-36, 36-75, 10-30	5, 12, 15, ±12, ±15	•	1500	DIP-24	•	59
MIW03	3W	4.5-9, 9-18, 18-36, 36-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500 3000	DIP-24	•	60
MIWI03	3W	9-36, 18-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500 3000	DIP-24	•	61
MIW06	6W	9-18, 18-36, 36-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500 3000	DIP-24	•	62
MIWI06	6W	9-36, 18-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500 3000	DIP-24	•	63
MDWI06	6W	9-36, 18-75	3.3, 5, 12, 15, 24, ±5, ±12, ±15	•	1500	DIP-16	•	64
MDW08	8W	9-18, 18-36, 36-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	65
MDWI08	8W	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	66
MDW10	10W	9-18, 18-36, 36-75	3.3, 5, 5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	67
MDWI10	10W	9-36, 18-75	3.3, 5, 5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	68
MIW10	10W	9-18, 18-36, 36-75	3.3, 5, 5.1, 12, 15, ±12, ±15	•	1500	DIP-24	•	69
MIWI10	10W	9-36, 18-75	3.3, 5, 5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-24	•	70
MDW12	12W	9-18, 18-36, 36-75	5, 5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	71
MDWI12	12W	9-36, 18-75	5, 5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	72
NEW MDW15	15W	9-18, 18-36, 36-75	5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	73
NEW MDWI15	15W	9-36, 18-75	5.1, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	74
NEW MDWI20	20W	4.5-18, 9-36, 18-75	5, 12, 15, 24, ±12, ±15	•	1500	DIP-16	•	75

1" ×1" Package DC-DC Converters, 10-40W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation (VDC)	Package	Safety	Page
MJW10	10W	9-18, 18-36, 36-75	3.3, 5, 5.1, 12, 15, ±5, ±12, ±15	•	1500	1" ×1"	•	76
MJWI10	10W	9-36, 18-75	3.3, 5, 5.1, 12, 15, 24, ±5, ±12, ±15	•	1500	1" ×1"	•	77
MJW15	15W	9-18, 18-36, 36-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	1" ×1"	•	78
MJWI15	15W	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	1" ×1"	•	79
MJWI20	20W	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	1" ×1"	•	80
MJW25	25W	9-18, 18-36, 36-75	3.3, 5, 12, 15, ±12, ±15	•	1500	1" ×1"	•	81
MJWI25	25W	9-36, 18-75	3.3, 5, 12, 15, ±12, ±15	•	1500	1" ×1"	•	82
MJWI30	30W	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	1" ×1"	•	83
NEW MJWI40	40W	9-36, 18-75	5, 12, 15, 24, 48, 54, ±12, ±15	•	1500	1"x1"	•	84

2" ×1" Package DC-DC Converters, 40-80W

MKW40	40W	9-18, 18-36, 36-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	2" ×1"	•	85
MKWI40	40W	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	•	1500	2" ×1"	•	86
MKW50	50W	9-18, 18-36, 36-75	3.3, 5, 12, 15, 24	•	1500	2" ×1"	•	87
MKWI50	50W	9-36, 18-75	3.3, 5, 12, 15, 24	•	1500	2" ×1"	•	88
NEW MKWI80	80W	9-36, 18-75	5, 12, 15, 24, 48, 54, ±12, ±15	•	1500	2"x1"	•	89

Chassis & Din-Rail Mounting Package DC-DC Converters, 6-60W

MJWI06C	6W	9-36, 18-75	5, 5.1, 12,15, 24, 48, ±12, ±15, ±24	•	3000VDC	Chassis Din-Rail	•	90
MKW10C	10W	9-36, 18-75	5, 5.1, 12, 15, 24, 48, ±12, ±15, ±24	•	3000VDC	Chassis Din-Rail	•	91
MOWI20C	20W	9-36, 18-75	5.1, 12, 24, 48	•	2500VDC	Chassis Din-Rail	•	92
MQWI40C	40W	9-36, 18-75	5.1, 12, 24, 48	•	2500VDC	Chassis Din-Rail	•	93
MRWI60C	60W	9-36, 18-75	5.1, 12, 24, 48	•	2500VDC	Chassis Din-Rail	•	94

Switching Regulators, 0.5-1A

M78AR-0.5	0.5A	(4.75/6.5/8/11/15/18)-32	1.5, 1.8, 2.5, 3.3, 5, 6.5, 9, 12, 15	•	-	SIP-3	•	95
M78SAR-0.5	0.5A	(4.75/6.5/8/11/15/18)-32	1.5, 1.8, 2.5, 3.3, 5, 6.5, 9, 12, 15	•	-	SMD	•	96
M78AR-1	1A	(6.5/15)-32	3.3, 5, 12,	•	-	SIP-3	•	97

GENERAL INDUSTRIAL POWER SOLUTIONS

AC-DC Power Supplies, 3-60W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation (VAC)	Package	Safety	Page
AAF-03	3W	85 – 264VAC 120-370VDC	3.3, 5, 9, 12, 15, 24	•	3000 VAC Reinforced	PCB	•	98
ABF-04	4W	85 – 264VAC 120-370VDC	3.3, 5, 9, 12, 15, 24, 5/3.3, 12/5, ±12, ±15	•	3000 VAC Reinforced	PCB	•	99
AAF-05	5W	85 – 264VAC 120-370VDC	3.3, 5, 9, 12, 15, 24, 48	•	3000 VAC Reinforced	PCB Chassis	•	100
AMF-07	7W	85 – 264VAC 90-370VDC	5, 12, 15, 24, 48	•	3000 VAC Reinforced	PCB Chassis	•	101
ACF-10	10W	85 – 264VAC 120-370VDC	3.3, 5, 12, 15, 24, 48	•	4000 VAC Reinforced	PCB	•	102
AMF-15	15W	85 – 264VAC 90-370VDC	5.1, 12, 15, 24, 48	•	3000 VAC Reinforced	PCB Chassis DIN-Rail	•	103
AGF-15	15W	85 – 264VAC 120-370VDC	3.3, 5, 9, 12, 15, 24, 48	•	3000 VAC Reinforced	PCB	•	104
AMF-30	30W	85 – 264VAC 90-370VDC	5.1, 12, 15, 24, 48	•	3000 VAC Reinforced	PCB Chassis DIN-Rail	•	105
AMF-60	60W	85 – 264VAC 90-370VDC	5.1, 12, 15, 24, 48	•	3000 VAC Reinforced	PCB Chassis DIN-Rail	•	106

RAILWAY CERTIFIED POWER SOLUTIONS

Railway Certified DC-DC Converters, 3-150W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation	Package	Safety	Page
MIZI03	3W	9-36 ,18-75 40-160	5, 12, 15, ±12, ±15	•	3000VAC Reinforced	DIP	•	110
MKZI10	10W	9-36 ,18-75 40-160	5, 12, 15, 24, ±12, ±15	•	3000VAC Reinforced	2" ×1"	•	111
MKZI20	20W	9-36 ,18-75 40-160	5, 12, 15, 24, ±12, ±15	•	3000VAC Reinforced	2" ×1"	•	112
MKZI40	40W	36-160	5, 12, 15, 24, 54, ±12, ±15	•	3000VAC Reinforced	2" ×1"	•	113
MTQZ50	50W	43-101 66-160	5, 12, 15, 24	•	3000VAC Reinforced	Quarter Brick	•	114
NEW MRZI75	75W	36-160	5, 12, 15, 24, 54	•	2000VAC Reinforced	Quarter Brick	•	115
MRZI100	100W	36-160	5, 12, 15, 24, 54	•	2000VAC Reinforced	Quarter Brick	•	116
MRZI150	150W	36-160	5, 12, 15, 24, 54	•	2000VAC Reinforced	Quarter Brick	•	117
NEW MRHI150	150W	9-36	5, 12, 15, 24, 54	•	1680VAC Reinforced	Half Brick	•	118

Ultra-high Isolation DC-DC Converters, 1-60W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation	Package	Safety	Page
MA01-HI	1W	4.5-5.5, 10.8-13.2, 13.5-16.5, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15, +15/-9	-	5200VDC	SIP	•	122
MAEU01-HI	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15	-	3000VAC Reinforced	SIP	•	124
MAEU02-HI	2W	4.5-5.5, 10.8-13.2, 13.5-16.5, 21.6-26.4	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15, +15/-9	-	5200VDC	SIP	•	126
MSCEU01-HI	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±12, ±15	-	3000VAC Reinforced	SMD	•	128
MDEU02-HI	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±12, ±15	-	4000VAC Reinforced	DIP	•	129
MIR500	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±5, ±12, ±15	•	6000VDC	DIP	•	130
MIE03-HI	3.5W	4.5-9, 9-18, 18-36, 36-75	5, 5.8, 12, 15, 24, ±12, ±15	•	5000VAC Reinforced	DIP	•	131
MIEI03-HI	3W	9-40, 18-80	5, 12, ±12, ±15	•	8000VDC Reinforced	DIP	•	132
MIE06-HI	6W	9-18, 18-36, 36-75	5, 12, 15, 24, ±12, ±15	•	5000VAC Reinforced	DIP	•	133
MIE10-HI	10W	9-18, 18-36, 36-75	3.3, 5, 5.1, 12, 15, 24, ±12, ±15	•	5000VAC Reinforced	DIP	•	134
MKE15-HI	15W	9-18, 18-36, 36-75	5, 5.1, 12, 15, 24 ±12, ±15	•	4200VAC Reinforced	2" ×1"	•	135
MKE20-HI	20W	9-18, 18-36, 36-75	5, 5.1, 12, 15, 24 ±12, ±15	•	4200VAC Reinforced	2" ×1"	•	136
MJA06C	6W	80-160	5, 5.1, 12, 15, 24, 48, ±12, ±15, ±24	•	3000VAC Reinforced	Chassis Din-Rail	•	137
MKA10C	10W	80-160	5, 5.1, 12, 15, 24, 48, ±12, ±15, ±24	•	3000VAC Reinforced	Chassis Din-Rail	•	138
MOA20C	20W	80-160	5, 5.1, 12, 15, 24, 48, ±12, ±15, ±24	•	3000VAC Reinforced	Chassis Din-Rail	•	139
MQA40C	40W	80-160	5, 5.1, 12, 15, 24, 48, ±12, ±15, ±24	•	3000VAC Reinforced	Chassis Din-Rail	•	140
MRA60C	60W	80-160	5, 5.1, 12, 15, 24, 48, ±12, ±15, ±24	•	3000VAC Reinforced	Chassis Din-Rail	•	141

MEDICAL SAFETY POWER SOLUTIONS

Medicial Safety DC-DC Converters, 1-20W

Series	Output Power	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Regulation	Isolation (VAC)	Package	Safety	Page
MAU400	1W	4.5-5.5, 10.8-13.2	5, 12, 15, ±5, ±12, ±15	-	3000VAC Reinforced	SIP	•	144
MAU01M	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15	-	4000VAC Reinforced	SIP	•	145
MSCU01M	1W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±12, ±15	-	4000VAC Reinforced	SMD	•	146
MSHU100	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±12, ±15	-	4000VAC Reinforced	SMD	•	147
MDHU100	2W	4.5-5.5, 10.8-13.2, 21.6-26.4	5, 12, 15, ±12, ±15	-	4000VAC Reinforced	DIP	•	148
MIHW2000	3W	9-40, 18-80, 36-160	5, 12, 15, ±12, ±15	•	4000VAC Reinforced	DIP	•	149
MIW03M	3.5W	4.5-9, 9-18, 18-36, 36-75	5, 5.8, 12, 15, ±12, ±15	•	5000VAC Reinforced	DIP	•	150
MIW06M	6W	9-18, 18-36, 36-75	5, 12, 15, ±12, ±15	•	5000VAC Reinforced	DIP	•	151
MIW10M	10W	9-18, 18-36, 36-75	3.3, 5, 5.1, 12, 15, 24, ±12, ±15	•	5000VAC Reinforced	DIP	•	152
MKW15M	15W	9-18, 18-36, 36-75	5, 5.1, 12, 15, 24, ±12, ±15	•	4200VAC Reinforced	2" ×1"	•	153
MKW20M	20W	9-18, 18-36, 36-75	5, 5.1, 12, 15, 24, ±12, ±15	•	4200VAC Reinforced	2" ×1"	•	154

Medicial Safety AC-DC Power Supplies, 24-60W

Series	Output Power	Input Voltage Range (VAC)	Output Voltage (VDC)	Output Regulation	Isolation (VAC)	Package	Safety	Page
AJM-24	24W	85-264	5, 9, 12, 15, 24, ±12 ±15	•	4000VAC Reinforced	PCB Chassis DIN-Rail	•	155
APM-40	40W	85-264	5, 12, 15, 24, ±12 ±15	•	4000VAC Reinforced	PCB Chassis DIN-Rail	•	156
AYM-60	60W	85-264	5.1, 12, 15, 24, 48	•	4000VAC Reinforced	PCB Chassis DIN-Rail	•	157

POWER FOR
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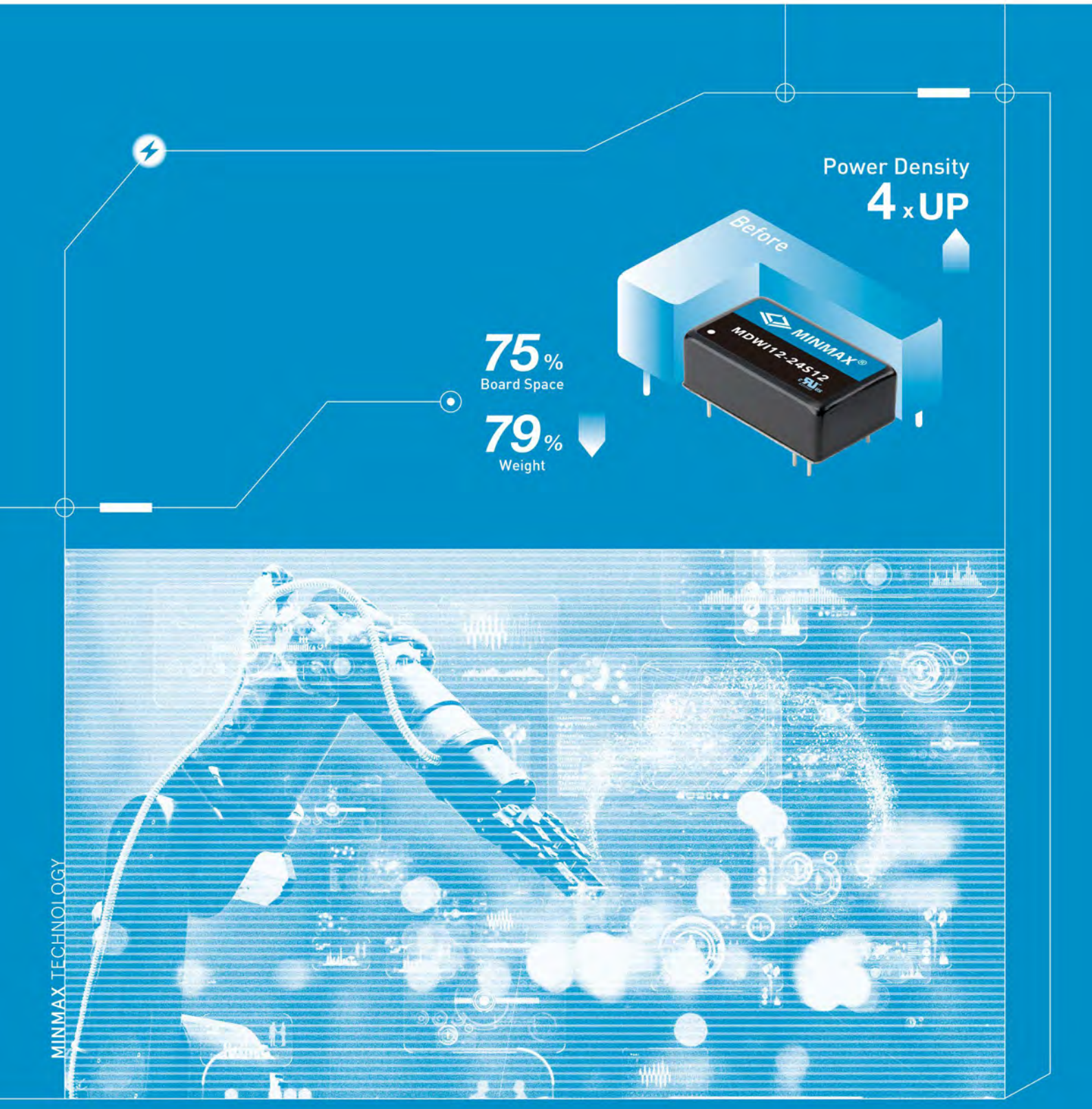
GENERAL INDUSTRIAL POWER SOLUTIONS

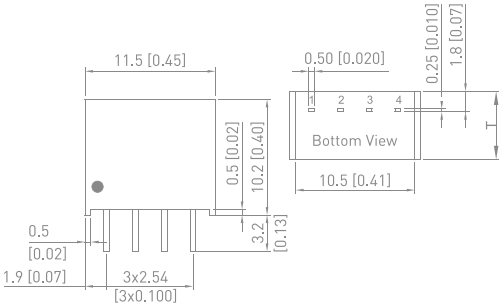


MBU100 Series | 1W

- Industrial Standard SIP-4 Package
- Unregulated Output Voltage
- I/O Isolation 1000 VDC
- Wide Operating Temperature Range

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MBU135	3.3 (2.97 - 3.63)	3.3	260	74%
MBU131		5	200	77%
MBU105	5 (4.5 - 5.5)	3.3	260	72%
MBU101		5	200	69%
MBU102		9	110	76%
MBU103		12	84	77%
MBU104		15	67	78%
MBU111	12 (10.8 - 13.2)	5	200	71%
MBU112		9	110	77%
MBU113		12	84	79%
MBU114		15	67	80%
MBU121	24 (21.6 - 26.4)	5	200	70%
MBU122		9	110	76%
MBU123		12	84	79%
MBU124		15	67	79%

Mechanical Dimensions



Pin Connections

Pin	Function
1	-Vin
2	+Vin
3	-Vout
4	+Vout

T: 6.1[0.24] for 3.3V & 5V & 12V Input Models
T: 7.1[0.28]for 24V Input Models

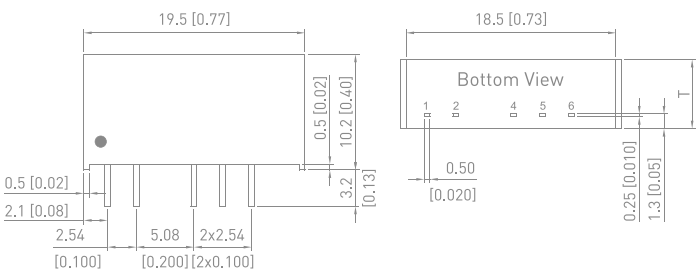
MAU100 Series | 1W

UL 60950-1 Scheme

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- I/O Isolation 1000 VDC
- Wide Operating Temperature Range
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAU101	5 (4.5 - 5.5)	3.3	260	73%
MAU102		5	200	71%
MAU103		9	110	76%
MAU104		12	84	78%
MAU105		15	67	78%
MAU106		±5	±100	72%
MAU107		±9	±56	77%
MAU108		±12	±42	78%
MAU109		±15	±34	79%
MAU111	12 (10.8 - 13.2)	3.3	260	74%
MAU112		5	200	73%
MAU113		9	110	78%
MAU114		12	84	80%
MAU115		15	67	80%
MAU116		±5	±100	74%
MAU117		±9	±56	79%
MAU118		±12	±42	81%
MAU119		±15	±34	81%
MAU151	15 (13.5 - 16.5)	5	200	72%
MAU152		12	84	79%
MAU153		15	67	79%
MAU154		±5	±100	72%
MAU155		±12	±42	80%
MAU156		±15	±34	80%
MAU121	24 (21.6 - 26.4)	3.3	260	73%
MAU122		5	200	71%
MAU123		9	110	76%
MAU124		12	84	78%
MAU125		15	67	79%
MAU126		±5	±100	72%
MAU127		±9	±56	76%
MAU128		±12	±42	79%
MAU129		±15	±34	80%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

T: 6.1[0.24] for 5V & 12V Input Models
T: 7.1[0.28]for 24V Input Models

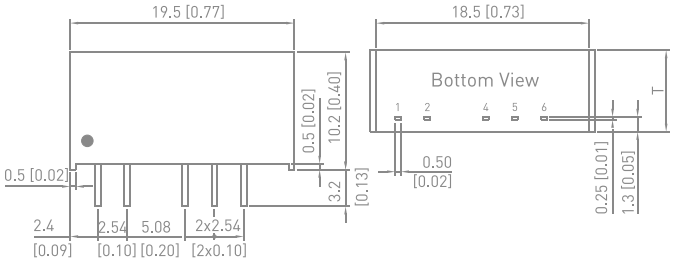
MA01 Series | 1W

UL 60950-1 Scheme

- Industrial Standard SIP-7 Package
- Semi-regulated Output Voltage
- Very High Efficiency up to 88.5%
- I/O Isolation 1000 VDC
- Wide Operating Temperature Range
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MA01-05S05	5 (4.5 ~ 5.5)	5	200	84%
MA01-05S09		9	110	87%
MA01-05S12		12	84	87%
MA01-05S15		15	67	87.5%
MA01-05D05		±5	±100	84.5%
MA01-05D09		±9	±56	86%
MA01-05D12		±12	±42	86.5%
MA01-05D15		±15	±34	86.5%
MA01-12S05	12 (10.8 ~ 13.2)	5	200	84%
MA01-12S09		9	110	86.5%
MA01-12S12		12	84	86.5%
MA01-12S15		15	67	88%
MA01-12D05		±5	±100	84.5%
MA01-12D09		±9	±56	86%
MA01-12D12		±12	±42	88.6%
MA01-12D15		±15	±34	87.5%
MA01-24S05	24 (21.6 ~ 26.4)	5	200	84%
MA01-24S09		9	110	86.5%
MA01-24S12		12	84	87.5%
MA01-24S15		15	67	87.5%
MA01-24D05		±5	±100	83.5%
MA01-24D09		±9	±56	86%
MA01-24D12		±12	±42	87%
MA01-24D15		±15	±34	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

T: 6.1[0.24] for 5V & 12V Input Models
T: 7.1[0.28]for 24V Input Models

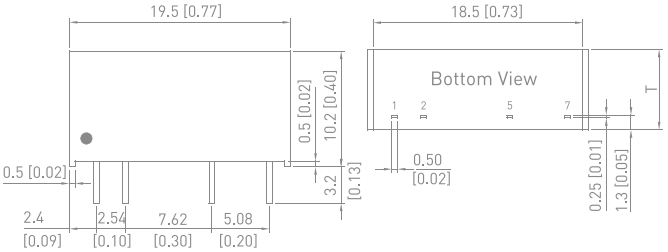
MA01H Series | 1W

UL 60950-1 Scheme

- Industrial Standard SIP-7 Package
- Semi-regulated Output Voltage
- Very High Efficiency up to 88%
- I/O Isolation 3000VDC
- Wide Operating Temperature Range
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MA01-05S05H	5 (4.5 ~ 5.5)	5	200	84%
MA01-05S09H		9	110	86.5%
MA01-05S12H		12	84	87%
MA01-05S15H		15	67	87.5%
MA01-12S05H	12 (10.8 ~ 13.2)	5	200	84%
MA01-12S09H		9	110	86%
MA01-12S12H		12	84	88%
MA01-12S15H		15	67	88%
MA01-24S05H	24 (21.6 ~ 26.4)	5	200	84%
MA01-24S09H		9	110	86.5%
MA01-24S12H		12	84	87.5%
MA01-24S15H		15	67	87.5%

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	-Vin
5	-Vout
7	+Vout

T: 6.1[0.24] for 5V & 12V Input Models
T: 7.1[0.28]for 24V Input Models

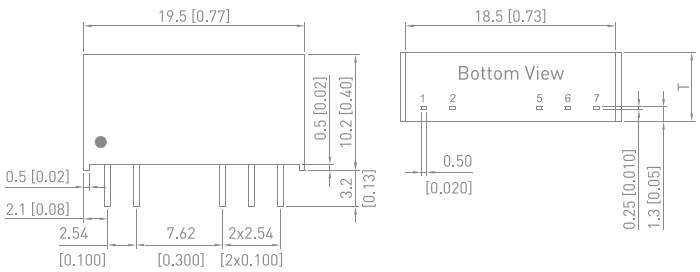
MAU200 Series | 1W

UL 60950-1 Scheme

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- I/O Isolation 3000 VDC
- Wide Operating Temperature Range
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAU201	5 (4.5 - 5.5)	3.3	260	73%
MAU202		5	200	71%
MAU203		9	110	76%
MAU204		12	84	78%
MAU205		15	67	78%
MAU206		±5	±100	72%
MAU207		±9	±56	77%
MAU208		±12	±42	78%
MAU209		±15	±34	79%
MAU211	12 (10.8 - 13.2)	3.3	260	74%
MAU212		5	200	73%
MAU213		9	110	78%
MAU214		12	84	80%
MAU215		15	67	80%
MAU216		±5	±100	74%
MAU217		±9	±56	79%
MAU218		±12	±42	81%
MAU219		±15	±34	81%
MAU221	15 (13.5 - 16.5)	3.3	260	73%
MAU222		5	200	71%
MAU223		9	110	76%
MAU224		12	84	78%
MAU225		15	67	79%
MAU226		±5	±100	72%
MAU227		±9	±56	76%
MAU228		±12	±42	79%
MAU229		±15	±34	80%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

T: 6.1[0.24] for 5V & 12V Input Models
T: 7.1[0.28]for 24V Input Models

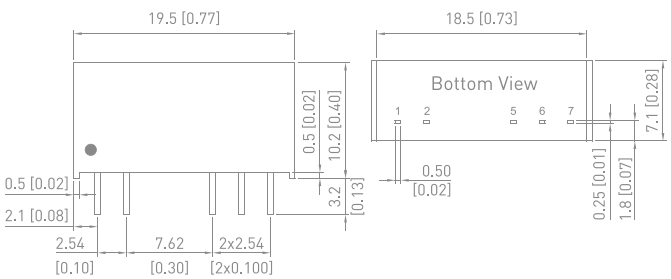
MAPU01H Series | 1W

UL 62368-1 Scheme

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- I /O Isolation 3000VDC
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAPU01-033S033H	3.3 (2.97 - 3.63)	3.3	300	77%
MAPU01-033S05H		5	200	77%
MAPU01-033S09H		9	110	78%
MAPU01-033S12H		12	84	80%
MAPU01-033S15H		15	68	79%
MAPU01-033D05H		±5	±100	77%
MAPU01-033D12H		±12	±42	79%
MAPU01-033D15H		±15	±34	79%
MAPU01-05S033H	5 (4.5 - 5.5)	3.3	300	76%
MAPU01-05S05H		5	200	78%
MAPU01-05S09H		9	110	81%
MAPU01-05S12H		12	84	82%
MAPU01-05S15H		15	68	83%
MAPU01-05D05H		±5	±100	81%
MAPU01-05D12H		±12	±42	81%
MAPU01-05D15H		±15	±34	81%
MAPU01-12S033H	12 (10.8 - 13.2)	3.3	300	79%
MAPU01-12S05H		5	200	80%
MAPU01-12S09H		9	110	82%
MAPU01-12S12H		12	84	84%
MAPU01-12S15H		15	68	83%
MAPU01-12D05H		±5	±100	81%
MAPU01-12D12H		±12	±42	82%
MAPU01-12D15H		±15	±34	82%
MAPU01-24S033H	24 (21.6 - 26.4)	3.3	300	76%
MAPU01-24S05H		5	200	81%
MAPU01-24S09H		9	110	79%
MAPU01-24S12H		12	84	82%
MAPU01-24S15H		15	68	82%
MAPU01-24D05H		±5	±100	80%
MAPU01-24D12H		±12	±42	81%
MAPU01-24D15H		±15	±34	80%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

To order the converter for another type pin, please refer to the datasheet.

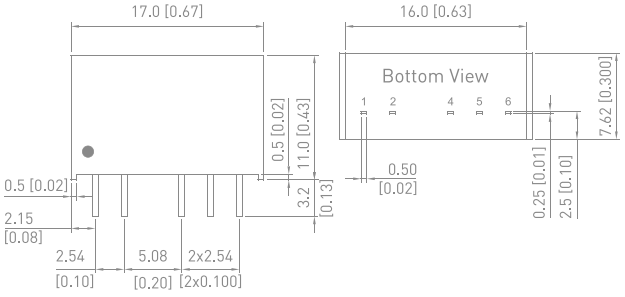
MAW01 Series | 1W

UL 62368-1 Scheme

- Industrial Standard SIP-6 Package
- Wide 2 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAW01-05S05	5 (4.5 ~ 9)	5	200	76%
MAW01-05S12		12	83	77%
MAW01-05S15		15	67	79%
MAW01-05S24		24	42	76%
MAW01-05D12		±12	±42	77%
MAW01-05D15		±15	±33	78%
MAW01-12S05	12 (9 ~ 18)	5	200	77%
MAW01-12S12		12	83	77%
MAW01-12S15		15	67	80%
MAW01-12S24		24	42	77%
MAW01-12D12		±12	±42	79%
MAW01-12D15		±15	±33	78%
MAW01-24S05	24 (18 ~ 36)	5	200	77%
MAW01-24S12		12	83	80%
MAW01-24S15		15	67	80%
MAW01-24S24		24	42	77%
MAW01-24D12		±12	±42	80%
MAW01-24D15		±15	±33	80%
MAW01-48S05	48 (36 ~ 75)	5	200	77%
MAW01-48S12		12	83	78%
MAW01-48S15		15	67	78%
MAW01-48S24		24	42	76%
MAW01-48D12		±12	±42	79%
MAW01-48D15		±15	±33	79%

Mechanical Dimensions



Pin Connections

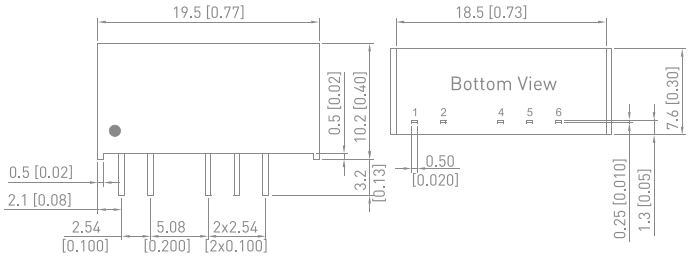
Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
4	+Vout	+Vout
5	No Pin	Common
6	-Vout	-Vout

MAU300 Series 2W

- Industrial Standard SIP-7 Package
- I/O Isolation 1000 VDC
- Wide Operating Temperature Range

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAU301	5 (4.5 ~ 5.5)	3.3	500	73%
MAU303		5	400	76%
MAU303		12	165	80%
MAU304		15	133	80%
MAU305		±5	±200	77%
MAU306		±12	±83	79%
MAU307		±15	±66	79%
MAU311	12 (10.8 ~ 13.2)	3.3	500	74%
MAU312		5	400	78%
MAU313		12	165	82%
MAU314		15	133	83%
MAU315		±5	±200	79%
MAU316		±12	±83	82%
MAU317		±15	±66	82%
MAU321	24 (21.6 ~ 26.4)	3.3	500	74%
MAU322		5	400	77%
MAU323		12	165	81%
MAU324		15	133	82%
MAU325		±5	±200	79%
MAU326		±12	±83	81%
MAU327		±15	±66	82%

Mechanical Dimensions



Pin Connections

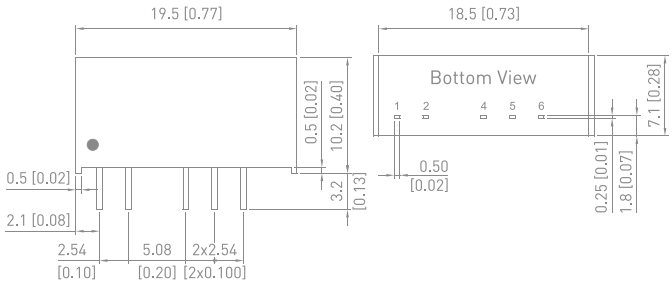
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

MAPU02H Series | 2W

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- I/O Isolation 3000VDC
- Wide Operating Temperature Range
- Short Circuit Protection

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAPU02-05S033H	5 (4.5 - 5.5)	3.3	500	74%
MAPU02-05S05H		5	400	78%
MAPU02-05S09H		9	222	79%
MAPU02-05S12H		12	168	81%
MAPU02-05S15H		15	132	80%
MAPU02-05D05H		±5	±200	77%
MAPU02-05D12H		±12	±84	79%
MAPU02-05D15H		±15	±66	78%
MAPU02-12S033H	12 (10.8 - 13.2)	3.3	500	76%
MAPU02-12S05H		5	400	78%
MAPU02-12S09H		9	222	80%
MAPU02-12S12H		12	168	82%
MAPU02-12S15H		15	132	81%
MAPU02-12D05H		±5	±200	78%
MAPU02-12D12H		±12	±84	81%
MAPU02-12D15H		±15	±66	81%
MAPU02-24S033H	24 (21.6 - 26.4)	3.3	500	76%
MAPU02-24S05H		5	400	78%
MAPU02-24S09H		9	222	79%
MAPU02-24S12H		12	168	81%
MAPU02-24S15H		15	132	79%
MAPU02-24D05H		±5	±200	76%
MAPU02-24D12H		±12	±84	80%
MAPU02-24D15H		±15	±66	79%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

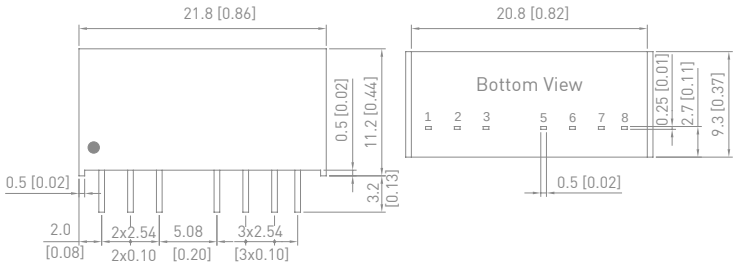
MCW1000 Series | 2W

UL 62368-1 Scheme

- Industry Standard SIP-8 Package
- Wide 2 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1000 VDC
- Wide Operating Temperature Range
- Under-Voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCW1011	5 (4.5 - 9)	3.3	500	70%
MCW1012		5	400	73%
MCW1013		12	167	75%
MCW1021	12 (9 - 18)	3.3	500	73%
MCW1022		5	400	77%
MCW1023		12	167	80%
MCW1031	24 (18 - 36)	3.3	500	72%
MCW1032		5	400	77%
MCW1033		12	167	81%
MCW1041	48 (36 - 75)	3.3	500	71%
MCW1042		5	400	73%
MCW1043		12	167	79%

Mechanical Dimensions



Pin Connections

Pin	Function
1	-Vin
2	+Vin
3	Remote On/Off
5	NC
6	+Vout
7	-Vout
8	NC

NC= No Connection

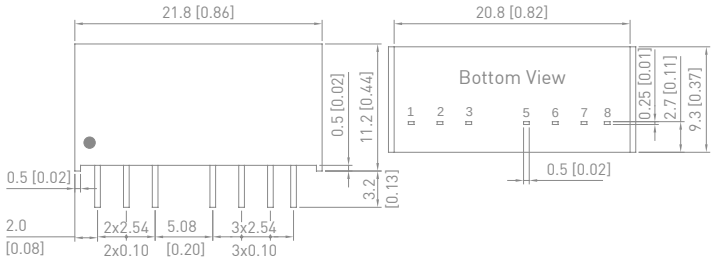
MCWI02 Series | 2W

UL 62368-1 Scheme

- Industrial Standard SIP-8 Package
- Ultra-wide 4 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCWI02-12S033	12 (4.5 - 18)	3.3	500	75%
MCWI02-12S05		5	400	80%
MCWI02-12S12		12	167	82%
MCWI02-12S15		15	134	82%
MCWI02-12D05		±5	±200	80%
MCWI02-12D12		±12	±83	82%
MCWI02-12D15		±15	±67	82%
MCWI02-24S033	24 (9 - 36)	3.3	500	75%
MCWI02-24S05		5	400	80%
MCWI02-24S12		12	167	82%
MCWI02-24S15		15	134	82%
MCWI02-24D05		±5	±200	80%
MCWI02-24D12		±12	±83	82%
MCWI02-24D15		±15	±67	82%
MCWI02-48S033	48 (18 - 75)	3.3	500	74%
MCWI02-48S05		5	400	80%
MCWI02-48S12		12	167	82%
MCWI02-48S15		15	134	82%
MCWI02-48D05		±5	±200	80%
MCWI02-48D12		±12	±83	82%
MCWI02-48D15		±15	±67	82%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC= No Connection

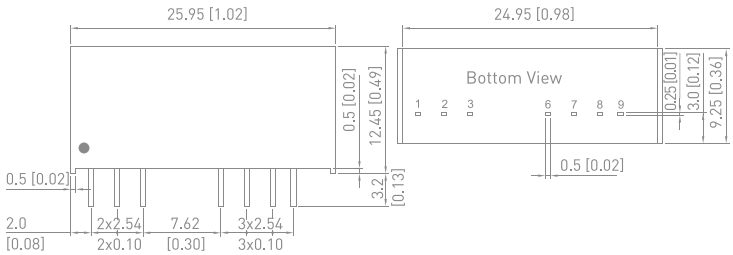
MEW1000 Series 2W

UL 62368-1 Scheme

- High Power Density in SIP-9 Package
- Small Footprint: 26 x 9.2 mm (1.02"x 0.36")
- Ultra-wide 4:1 Input Range
- Fully Regulated Output
- Wide Operating Temperature Range
- Under-Voltage, Overload and Short Circuit Protection
- I/O-Isolation Voltage 1500 VDC
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MEW1021	24 (9 ~ 36)	3.3	500	71%
MEW1022		5	400	76%
MEW1023		12	165	79%
MEW1024		15	133	80%
MEW1025		±5	±200	73%
MEW1026		±12	±83	77%
MEW1027		±15	±67	79%
MEW1031	48 (18 ~ 75)	3.3	500	70%
MEW1032		5	400	72%
MEW1033		12	165	78%
MEW1034		15	133	78%
MEW1035		±5	±200	70%
MEW1036		±12	±83	76%
MEW1037		±15	±67	76%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	+Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
6	+Vout	+Vout
7	NC	Common
8	NC	NC
9	-Vout	-Vout

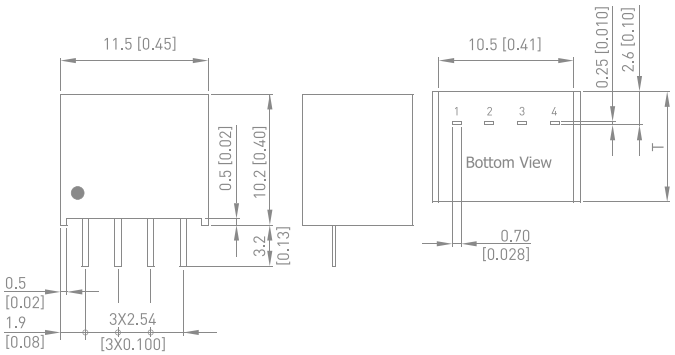
NC= No Connection

MBSU03 Series | 3W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MBSU03-05S05	5 (4.5 - 5.5)	5	600	79%
MBSU03-05S12		12	250	83%
MBSU03-05S15		15	200	84%
MBSU03-12S05	12 (10.8 - 13.2)	5	600	81%
MBSU03-12S12		12	250	85%
MBSU03-12S15		15	200	85%
MBSU03-24S05	24 (21.6 - 26.4)	5	600	82%
MBSU03-24S12		12	250	86%
MBSU03-24S15		15	200	86%

- Industrial Standard SIP-4 Package
- Unregulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- Short Circuit Protection

Mechanical Dimensions



Pin Connections

Pin	Function
1	-Vin
2	+Vin
3	-Vout
4	+Vout

T: 8.6 [0.34] for 5V & 12V Input Models
T: 9.6[0.38] for 24V Input Models

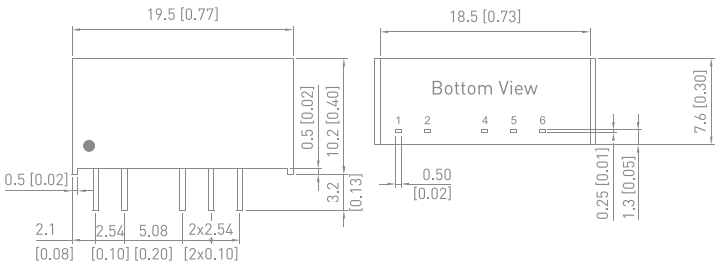
MA03 Series 3W

UL 62368-1 Scheme

- Industrial Standard SIP-7 Package
- Semi-regulated Output Voltage
- Very High Efficiency up to 89%
- High I/O Isolation 1000VDC
- Wide Operating Temperature Range
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MA03-05S05	5 (4.5 ~ 5.5)	5	600	83%
MA03-05S09		9	333	87%
MA03-05S12		12	250	85.5%
MA03-05S15		15	200	87.5%
MA03-12S05	12 (10.8 ~ 13.2)	5	600	84%
MA03-12S09		9	333	87.5%
MA03-12S12		12	250	88%
MA03-12S15		15	200	89%
MA03-24S05	24 (21.6 ~ 26.4)	5	600	82%
MA03-24S09		9	333	85%
MA03-24S12		12	250	85.5%
MA03-24S15		15	200	85%

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	-Vin
3	-Vout
5	No Pin
6	+Vout

NC= No Connection

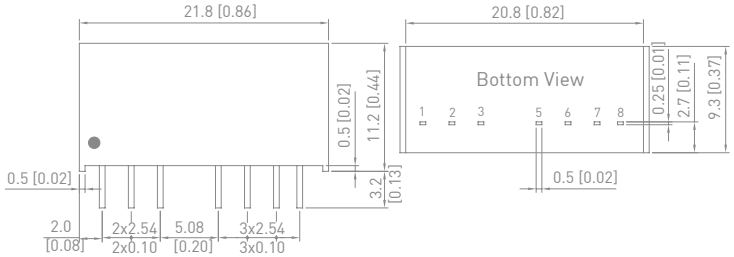
MCW03 Series | 3W

UL 62368-1 Scheme

- Compact SIP-8 Package
- Wide 2 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1600 VDC
- Wide Operating Temperature Range
- Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCW03-05S033	5 (4.5 - 9)	3.3	700	71%
MCW03-05S05		5	600	73%
MCW03-05S12		12	250	79%
MCW03-05S15		15	200	79%
MCW03-05D05		±5	±300	74%
MCW03-05D12		±12	±125	79%
MCW03-05D15		±15	±100	79%
MCW03-12S033	12 (9 - 18)	3.3	700	75%
MCW03-12S05		5	600	78%
MCW03-12S12		12	250	83%
MCW03-12S15		15	200	83%
MCW03-12D05		±5	±300	79%
MCW03-12D12		±12	±125	83%
MCW03-12D15		±15	±100	83%
MCW03-24S033	24 (18 - 36)	3.3	700	75%
MCW03-24S05		5	600	78%
MCW03-24S12		12	250	83%
MCW03-24S15		15	200	83%
MCW03-24D05		±5	±300	80%
MCW03-24D12		±12	±125	83%
MCW03-24D15		±15	±100	83%
MCW03-48S033	48 (36 - 75)	3.3	700	75%
MCW03-48S05		5	600	78%
MCW03-48S12		12	250	83%
MCW03-48S15		15	200	83%
MCW03-48D05		±5	±300	80%
MCW03-48D12		±12	±125	83%
MCW03-48D15		±15	±100	83%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC= No Connection

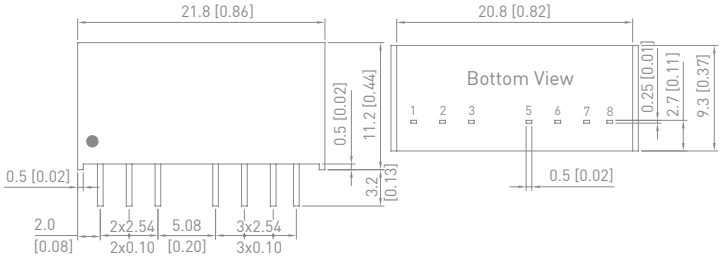
MCWI03 Series | 3W

UL 62368-1 Scheme

- Compact SIP-8 Package
- Ultra-wide 4 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1600 VDC
- Wide Operating Temperature Range
- Overload and Short Circuit Protection
- Remote On/Off Control

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCWI03-12S033	12 (4.5 - 18)	3.3	700	74%
MCWI03-12S05		5	600	78%
MCWI03-12S12		12	250	80%
MCWI03-12S15		15	200	80%
MCWI03-12D05		±5	±300	80%
MCWI03-12D12		±12	±125	80%
MCWI03-12D15		±15	±100	80%
MCWI03-24S033	24 (9 - 36)	3.3	700	75%
MCWI03-24S05		5	600	80%
MCWI03-24S12		12	250	81%
MCWI03-24S15		15	200	81%
MCWI03-24D05		±5	±300	79%
MCWI03-24D12		±12	±125	80%
MCWI03-24D15		±15	±100	81%
MCWI03-48S033	48 (18 - 75)	3.3	700	74%
MCWI03-48S05		5	600	79%
MCWI03-48S12		12	250	79%
MCWI03-48S15		15	200	79%
MCWI03-48D05		±5	±300	79%
MCWI03-48D12		±12	±125	79%
MCWI03-48D15		±15	±100	80%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC= No Connection

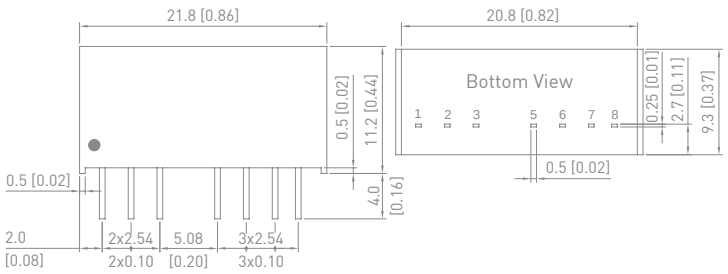
MCW04 Series | 4W

UL 62368-1 Scheme

- Compact SIP-8 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1600 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1 Safety Approval, CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCW04-12S05	12 (9 - 18)	5	800	82%
MCW04-12S12		12	333	87%
MCW04-12S15		15	266	86%
MCW04-12S24		24	166	86%
MCW04-12D12		±12	±166	85%
MCW04-12D15		±15	±133	86%
MCW04-24S05	24 (18 - 36)	5	800	81%
MCW04-24S12		12	333	86%
MCW04-24S15		15	266	86%
MCW04-24S24		24	166	86%
MCW04-24D12		±12	±166	86%
MCW04-24D15		±15	±133	85%
MCW04-48S05	48 (36 - 75)	5	800	80%
MCW04-48S12		12	333	85%
MCW04-48S15		15	266	83%
MCW04-48S24		24	166	86%
MCW04-48D12		±12	±166	84%
MCW04-48D15		±15	±133	85%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC= No Connection

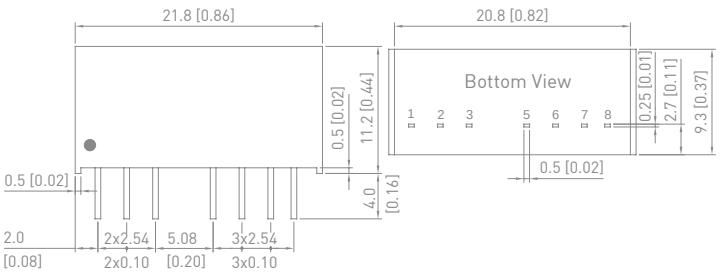
MCWI04 Series | 4W

UL 62368-1 Scheme

- Compact SIP-8 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1600 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1 Safety Approval, CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCWI04-24S05	24 (9 - 36)	5	800	79
MCWI04-24S12		12	333	83
MCWI04-24S15		15	266	83
MCWI04-24S24		24	166	83
MCWI04-24D12		±12	±166	83
MCWI04-24D15		±15	±133	83
MCWI04-48S05	48 (18 - 75)	5	800	78
MCWI04-48S12		12	333	82
MCWI04-48S15		15	266	82
MCWI04-48S24		24	166	82
MCWI04-48D12		±12	±166	82
MCWI04-48D15		±15	±133	82

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC= No Connection

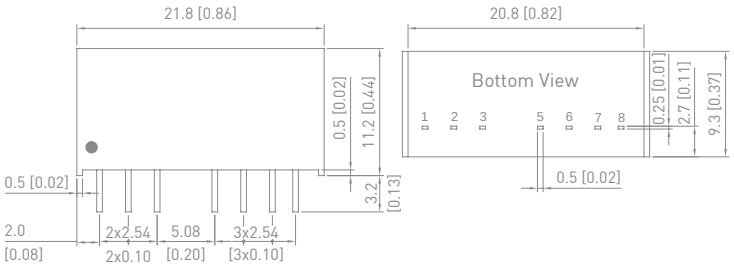
MCWI05 Series | 5W

UL 62368-1 Scheme

- Smallest Encapsulated 5W Converter
- Ultra-compact SIP-8 Package
- Ultra-wide 4 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-Voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCWI05-12S033	12 (4.5 - 18)	3.3	1,075	76%
MCWI05-12S05		5	1,000	81%
MCWI05-12S12		12	417	83%
MCWI05-12S15		15	334	83%
MCWI05-12S24		24	209	82%
MCWI05-12D12		±12	±209	81%
MCWI05-12D15		±15	±167	82%
MCWI05-24S033	24 (9 - 36)	3.3	1,075	76%
MCWI05-24S05		5	1,000	81%
MCWI05-24S12		12	417	83%
MCWI05-24S15		15	334	84%
MCWI05-24S24		24	209	83%
MCWI05-24D12		±12	±209	82%
MCWI05-24D15		±15	±167	82%
MCWI05-48S033	48 (18 - 75)	3.3	1,075	76%
MCWI05-48S05		5	1,000	80%
MCWI05-48S12		12	417	83%
MCWI05-48S15		15	334	84%
MCWI05-48S24		24	209	82%
MCWI05-48D12		±12	±209	82%
MCWI05-48D15		±15	±167	83%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC= No Connection

NEW

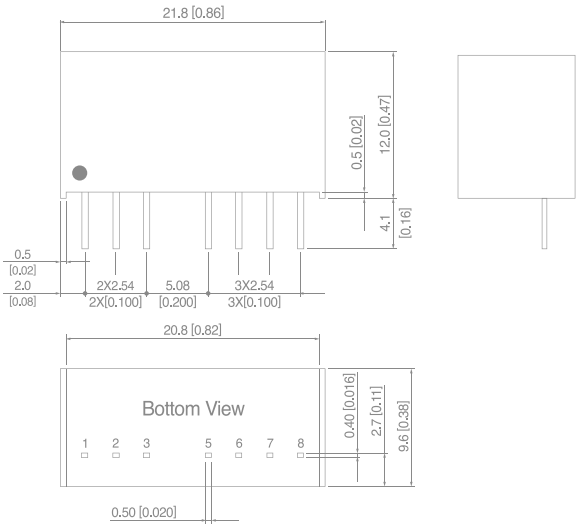
MCWI08 Series | 8W

UL 62368-1 Scheme

- Smallest Encapsulated 8W Converter
- Industrial Standard SIP-8 Package
- Ultra-wide 4 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCWI08-12S05	12 (4.5 - 18)	5	1600	84%
MCWI08-12S12		12	665	86%
MCWI08-12S15		15	535	86%
MCWI08-12S24		24	335	86%
MCWI08-12D12		±12	±335	86%
MCWI08-12D15		±15	±265	86%
MCWI08-24S05	24 (9 - 36)	5	1600	84%
MCWI08-24S12		12	665	86%
MCWI08-24S15		15	535	86%
MCWI08-24S24		24	335	86%
MCWI08-24D12		±12	±335	86%
MCWI08-24D15		±15	±265	86%
MCWI08-48S05	48 (18 - 75)	5	1600	84%
MCWI08-48S12		12	665	86%
MCWI08-48S15		15	535	86%
MCWI08-48S24		24	335	86%
MCWI08-48D12		±12	±335	86%
MCWI08-48D15		±15	±265	86%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC : No Connection

NEW

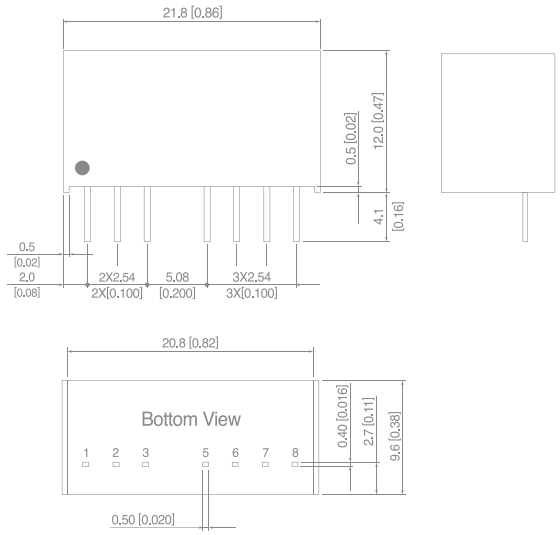
MCWI10 Series | 10W

UL 62368-1 Scheme

- Smallest Encapsulated 10W Converter
- Industrial Standard SIP-8 Package
- Ultra-high Power Density 65W/in³
- Ultra-wide 4 : 1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MCWI10-12S051	12 (4.5 - 18)	5.1	2000	89%
MCWI10-12S12		12	833	89%
MCWI10-12S15		15	666	89%
MCWI10-12S24		24	416	89%
MCWI10-12D12		±12	±416	88%
MCWI10-12D15		±15	±333	89%
MCWI10-24S051	24 (9 - 36)	5.1	2000	88%
MCWI10-24S12		12	833	89%
MCWI10-24S15		15	666	89%
MCWI10-24S24		24	416	88%
MCWI10-24D12		±12	±416	88%
MCWI10-24D15		±15	±333	88%
MCWI10-48S051	48 (18 - 75)	5.1	2000	88%
MCWI10-48S12		12	833	89%
MCWI10-48S15		15	666	89%
MCWI10-48S24		24	416	89%
MCWI10-48D12		±12	±416	89%
MCWI10-48D15		±15	±333	89%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	NC	NC
6	+Vout	+Vout
7	-Vout	Common
8	NC	-Vout

NC : No Connection

MSLU100 Series | 1W

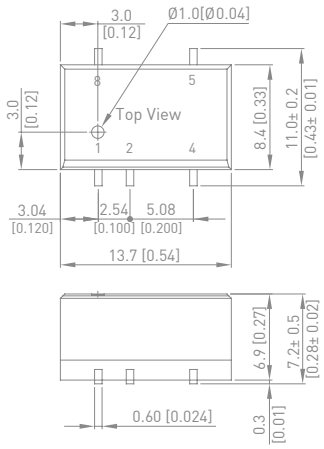
UL 62368-1 Scheme

- Industrial SMD Package
- Unregulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

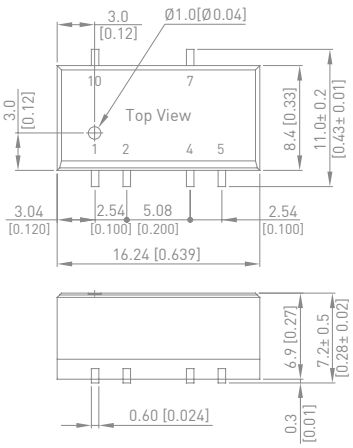
Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSLU101	5 (4.5 - 5.5)	3.3	300	73%
MSLU102		5	200	78%
MSLU103		9	110	78%
MSLU104		12	84	78%
MSLU105		15	67	79%
MSLU106		±5	±100	74%
MSLU108		±12	±42	78%
MSLU109		±15	±33	78%
MSLU111	12 (10.8 - 13.2)	3.3	300	74%
MSLU112		5	200	76%
MSLU113		9	110	78%
MSLU114		12	84	79%
MSLU115		15	67	80%
MSLU116		±5	±100	74%
MSLU118		±12	±42	78%
MSLU119		±15	±33	79%
MSLU154	15 (13.5 - 16.5)	12	84	78%
MSLU155		15	67	78%
MSLU121	24 (21.6 - 26.4)	3.3	300	72%
MSLU122		5	200	78%
MSLU123		9	110	77%
MSLU124		12	84	77%
MSLU125		15	67	79%
MSLU126		±5	±100	73%
MSLU128		±12	±42	78%
MSLU129		±15	±33	78%

Mechanical Dimensions

Single



Dual



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	No Pin	No Pin
4	-Vout	Common
5	+Vout	-Vout
6	No Pin	No Pin
7	No Pin	+Vout
8	NA	No Pin
9	---	No Pin
10	---	NA

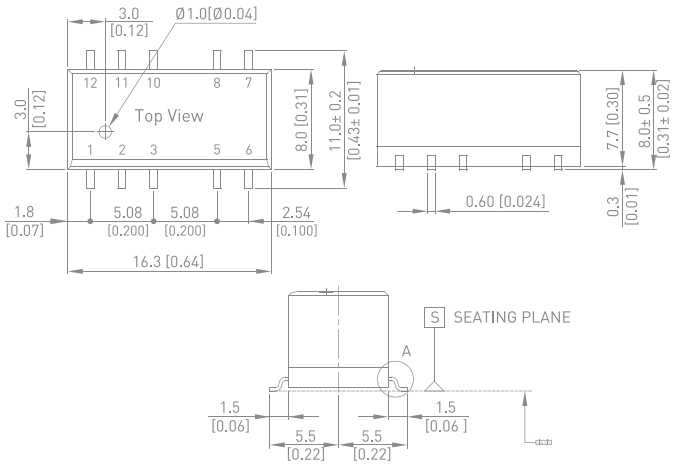
NA : Not Available for Electrical Connection

MSLU300 Series | 1W

- Industrial SMD Package
- Unregulated Output Voltage
- I/O Isolation 3000 VDC
- Wide Operating Temperature Range
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSLU301	5 (4.5 - 5.5)	3.3	260	72%
MSLU302		5	200	75%
MSLU304		12	84	79%
MSLU305		15	67	80%
MSLU306		±5	±100	75%
MSLU308		±12	±42	79%
MSLU309		±15	±34	80%
MSLU311	12 (10.8 - 13.2)	3.3	260	73%
MSLU312		5	200	76%
MSLU314		12	84	80%
MSLU315		15	67	81%
MSLU316		±5	±100	76%
MSLU318		±12	±42	80%
MSLU319		±15	±34	80%
MSLU321	24 (21.6 - 26.4)	3.3	260	70%
MSLU322		5	200	73%
MSLU324		12	84	79%
MSLU325		15	67	79%
MSLU326		±5	±100	73%
MSLU328		±12	±42	79%
MSLU329		±15	±34	79%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	NA	NA
5	-Vout	Common
6	NA	-Vout
7	NA	NA
8	+Vout	+Vout
10,11,12	NA	NA

NA : Not Available for Electrical Connection

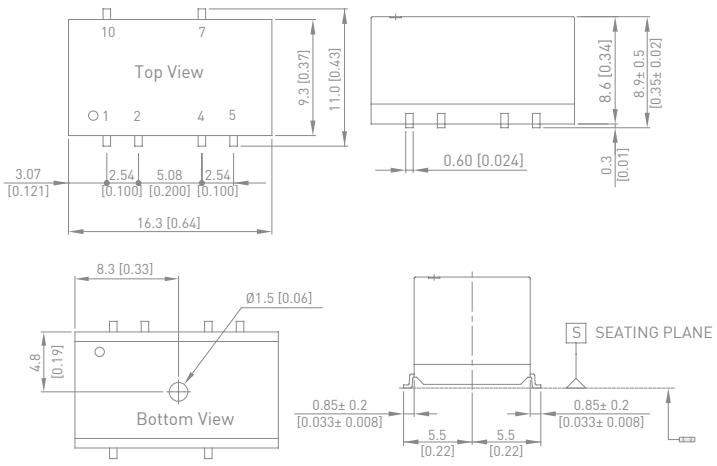
MSPU01H Series | 1W

UL 62368-1 Scheme

- Industrial SMD Package
- Unregulated Output Voltage
- I/O Isolation 3000 VDC
- Wide Operating Temperature Range
- Overload and Short Circuit Protection
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSPU01-033S033H	3.3 (2.97 - 3.63)	3.3	300	77%
MSPU01-033S05H		5	200	79%
MSPU01-033S12H		12	84	81%
MSPU01-033S15H		15	67	80%
MSPU01-033D05H		±5	±100	79%
MSPU01-033D12H		±12	±42	81%
MSPU01-033D15H		±15	±33	80%
MSPU01-05S033H	5 (4.5 - 5.5)	3.3	300	79%
MSPU01-05S05H		5	200	82%
MSPU01-05S12H		12	84	84%
MSPU01-05S15H		15	67	85%
MSPU01-05D05H		±5	±100	82%
MSPU01-05D12H		±12	±42	84%
MSPU01-05D15H		±15	±33	84%
MSPU01-12S033H	12 (10.8 - 13.2)	3.3	300	78%
MSPU01-12S05H		5	200	81%
MSPU01-12S12H		12	84	83%
MSPU01-12S15H		15	67	83%
MSPU01-12D05H		±5	±100	82%
MSPU01-12D12H		±12	±42	83%
MSPU01-12D15H		±15	±33	83%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	No Pin	No Pin
4	-Vout	Common
5	NC	-Vout
6	No Pin	No Pin
7	+Vout	+Vout
8	No Pin	No Pin
9	No Pin	No Pin
10	NC	NC

NC: No Connection

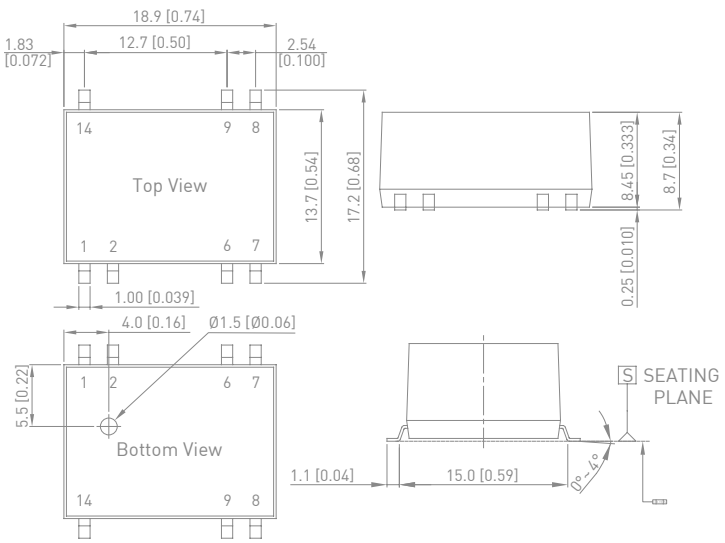
MSCW01 Series | 1W

UL 62368-1 Scheme

- Industrial SMD Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload and Short Circuit Protection
- Remote On/Off Function
- Water-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSCW01-05S05	5 (4.5 - 9)	5	200	78%
MSCW01-05S12		12	83	79%
MSCW01-05S15		15	67	81%
MSCW01-05D12		±12	±42	79%
MSCW01-05D15		±15	±33	80%
MSCW01-12S05	12 (9 - 18)	5	200	79%
MSCW01-12S12		12	83	79%
MSCW01-12S15		15	67	82%
MSCW01-12D12		±12	±42	81%
MSCW01-12D15		±15	±33	80%
MSCW01-24S05	24 (18 - 36)	5	200	79%
MSCW01-24S12		12	83	82%
MSCW01-24S15		15	67	82%
MSCW01-24D12		±12	±42	82%
MSCW01-24D15		±15	±33	82%
MSCW01-48S05	48 (36 - 75)	5	200	79%
MSCW01-48S12		12	83	80%
MSCW01-48S15		15	67	80%
MSCW01-48D12		±12	±42	81%
MSCW01-48D15		±15	±33	81%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	Remote On/Off	Remote On/Off
6	NC	Common
7	NC	-Vout
8	+Vout	+Vout
9	-Vout	Common
14	+Vin	+Vin

NC= No Connection

NEW

MSU01 Series | 1W

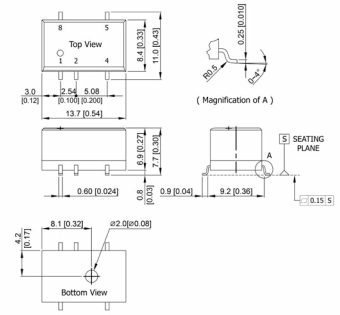
UL 62368-1

- Compact Industrial SMD Package
- Unregulated Output Voltage
- I/O Isolation 1500 VDC
- Efficiency up to 91%
- Short Circuit Protection (Hiccup Mode)
- Wide Operating Temperature Range
- Cleaning-washable Process Available
- Qualified for Lead-free Reflow Solder Process according to IPC/JEDEC J-STD-020D.1
- UL/cUL/IEC/EN 62368-1 Safety Approval

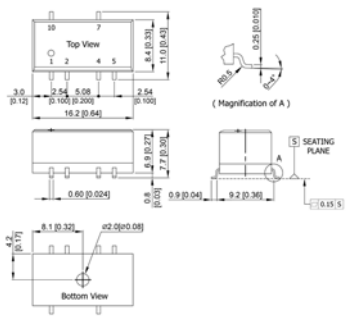
Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSU01-033S033	3.3 (2.97 -3.63)	3.3	300	84%
MSU01-033S05		5	200	87%
MSU01-05S033	5 (4.5 - 5.5)	3.3	300	85%
MSU01-05S05		5	200	88%
MSU01-05S12		12	84	90%
MSU01-05S15		15	67	90%
MSU01-05S24		24	42	90%
MSU01-05D05		±5	±100	87%
MSU01-05D12		±12	±42	90%
MSU01-05D15		±15	±33	91%
MSU01-12S033	12 (10.8 - 13.2)	3.3	300	84%
MSU01-12S05		5	200	87%
MSU01-12S12		12	84	89%
MSU01-12S15		15	67	89%
MSU01-12S24		24	42	88%
MSU01-12D05		±5	±100	88%
MSU01-12D12		±12	±42	90%
MSU01-12D15		±15	±33	90%
MSU01-24S033	24 (21.6 - 26.4)	3.3	300	81%
MSU01-24S05		5	200	84%
MSU01-24S12		12	84	85%
MSU01-24S15		15	67	86%
MSU01-24S24		24	42	85%
MSU01-24D05		±5	±100	82%
MSU01-24D12		±12	±42	85%
MSU01-24D15		±15	±33	85%

Mechanical Dimensions

Mechanical Dimensions (Single Output)



Mechanical Dimensions (Dual Output)



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	No Pin	No Pin
4	-Vout	Common
5	+Vout	-Vout
6	No Pin	No Pin
7	No Pin	+Vout
8	NA	No Pin
9	---	No Pin
10	---	NA

NA = Not Available for Electrical Connection

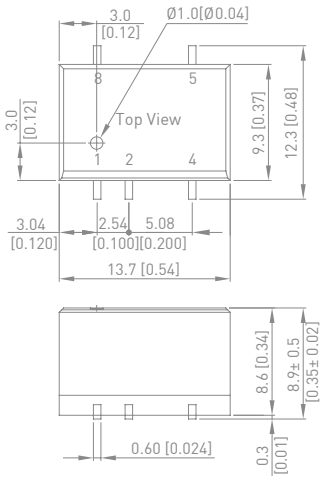
MSLU400 Series | 2W

- Industrial SMD Package
- Unregulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Cleaning-washable Process Available (option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available

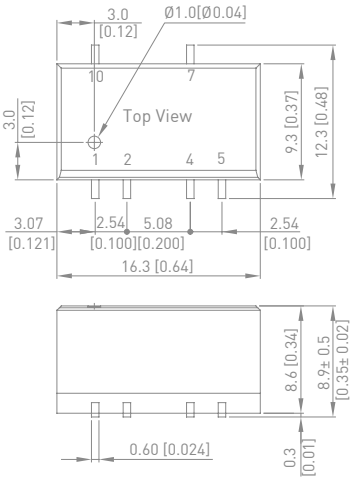
Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSLU401	5 (4.5 ~ 5.5)	3.3	500	70%
MSLU402		5	400	73%
MSLU404		12	165	77%
MSLU406		±5	±200	74%
MSLU408		±12	±83	76%
MSLU409		±15	±66	76%
MSLU411	12 (10.8 ~ 13.2)	3.3	500	72%
MSLU412		5	400	75%
MSLU414		12	165	79%
MSLU418		±12	±83	80%
MSLU419		±15	±66	80%
MSLU421	24 (21.6 ~ 26.4)	3.3	500	72%
MSLU422		5	400	75%
MSLU424		12	165	79%
MSLU428		±12	±83	79%
MSLU429		±15	±66	79%

Mechanical Dimensions

Single



Dual



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
4	-Vout	Common
5	+Vout	-Vout
7	No Pin	+Vout
8	NA	No Pin
10	No Pin	NA

NA : Not Available for Electrical Connection

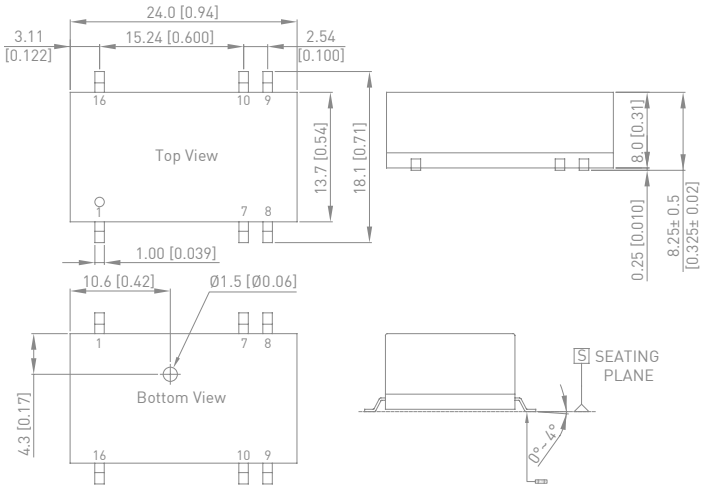
MSDW1000 Series | 2W

UL 60950-1 Scheme

- Industrial SMD Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Under-voltage and Short Circuit Protection
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSDW1011	5 (4.5 - 9)	3.3	500	70%
MSDW1012		5	400	73%
MSDW1013		12	167	75%
MSDW1014		15	134	73%
MSDW1015		±5	±200	64%
MSDW1016		±12	±83	69%
MSDW1017		±15	±67	71%
MSDW1021	12 (9 - 18)	3.3	500	73%
MSDW1022		5	400	77%
MSDW1023		12	167	80%
MSDW1024		15	134	80%
MSDW1025		±5	±200	73%
MSDW1026		±12	±83	78%
MSDW1027		±15	±67	78%
MSDW1031	24 (18 - 36)	3.3	500	72%
MSDW1032		5	400	77%
MSDW1033		12	167	80%
MSDW1034		15	134	81%
MSDW1035		±5	±200	74%
MSDW1036		±12	±83	78%
MSDW1037		±15	±67	80%
MSDW1041	48 (36 - 75)	3.3	500	71%
MSDW1042		5	400	73%
MSDW1043		12	167	79%
MSDW1044		15	134	79%
MSDW1045		±5	±200	71%
MSDW1046		±12	±83	77%
MSDW1047		±15	±67	77%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

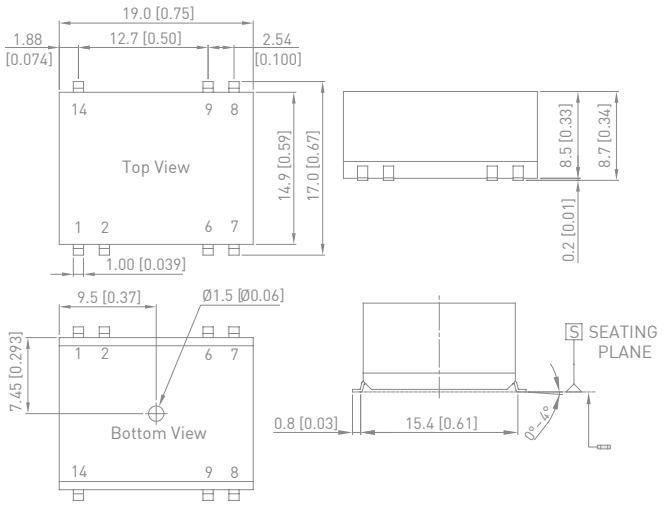
MSCWI02 Series | 2W

UL 62368-1 Scheme

- Very Compact SMD Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN55032 Class A Approved
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSCWI02-05S05	5 (4.5 - 12)	5	400	80%
MSCWI02-05S12		12	167	84%
MSCWI02-05S15		15	134	83%
MSCWI02-05S24		24	83	84%
MSCWI02-05D12		±12	±83	83%
MSCWI02-05D15		±15	±67	82%
MSCWI02-24S05	24 (9 - 36)	5	400	80%
MSCWI02-24S12		12	167	84%
MSCWI02-24S15		15	134	85%
MSCWI02-24S24		24	83	85%
MSCWI02-24D12		±12	±83	83%
MSCWI02-24D15		±15	±67	83%
MSCWI02-48S05	48 (18 - 75)	5	400	78%
MSCWI02-48S12		12	167	82%
MSCWI02-48S15		15	134	83%
MSCWI02-48S24		24	83	84%
MSCWI02-48D12		±12	±83	82%
MSCWI02-48D15		±15	±67	82%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	Remote On/Off	Remote On/Off
6	NC	Common
7	NC	-Vout
8	+Vout	+Vout
9	-Vout	Common
14	+Vin	+Vin

NC= No Connection

NEW

MSU02 Series | 2W

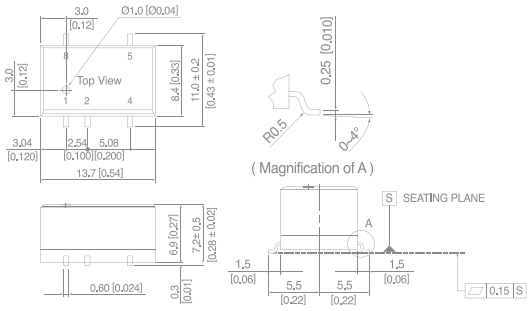
UL 62368-1

- Compact Industrial SMD Package
- Unregulated Output Voltage
- I/O Isolation 1500 VDC
- Efficiency up to 91%
- Short Circuit Protection (Hiccup Mode)
- Wide Operating Temperature Range
- Cleaning-washable Process Available (optional)
- Qualified for Lead-free Reflow Solder Process according to IPC/JEDEC J-STD-020D.1

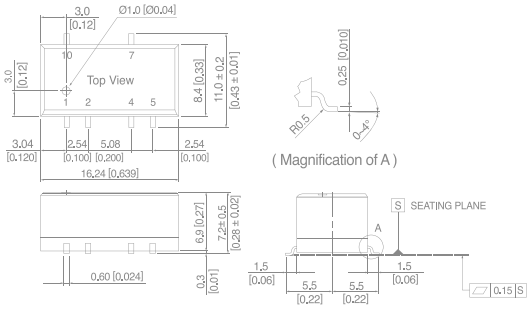
Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSU02-05S033	5 (4.5 - 5.5)	3.3	600	84%
MSU02-05S05		5	400	88%
MSU02-05S12		12	167	91%
MSU02-05S15		15	134	91%
MSU02-05S24		24	83	90%
MSU02-05D05		±5	±200	87%
MSU02-05D12		±12	±83	91%
MSU02-05D15		±15	±67	91%
MSU02-12S033	12 (10.8 - 13.2)	3.3	600	83%
MSU02-12S05		5	400	86%
MSU02-12S12		12	167	90%
MSU02-12S15		15	134	91%
MSU02-12S24		24	83	89%
MSU02-12D05		±5	±200	88%
MSU02-12D12		±12	±83	90%
MSU02-12D15		±15	±67	91%
MSU02-24S033	24 (21.6 - 26.4)	3.3	600	84%
MSU02-24S05		5	400	87%
MSU02-24S12		12	167	90%
MSU02-24S15		15	134	90%
MSU02-24S24		24	83	90%
MSU02-24D05		±5	±200	87%
MSU02-24D12		±12	±83	90%
MSU02-24D15		±15	±33	85%

Mechanical Dimensions

Mechanical Dimensions (Single Output)



Mechanical Dimensions (Dual Output)



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	No Pin	No Pin
4	-Vout	Common
5	+Vout	-Vout
6	No Pin	No Pin
7	No Pin	+Vout
8	NA	No Pin
9	---	No Pin
10	---	NA

NA = Not Available for Electrical Connection

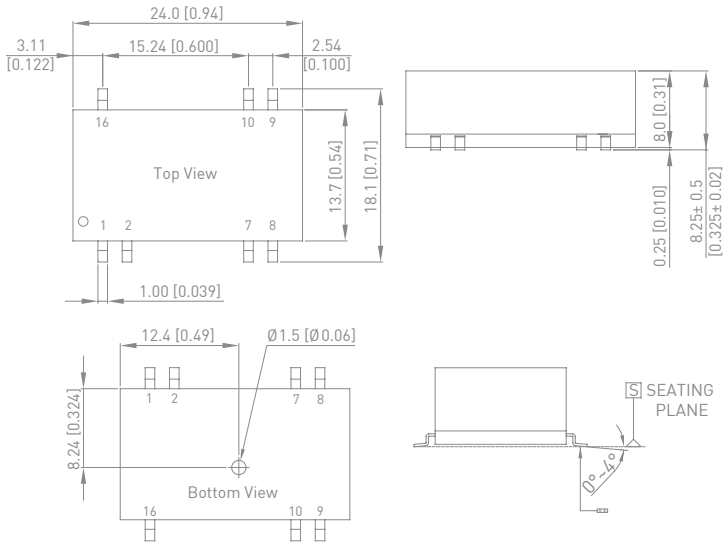
MSDWI03 Series | 3W

UL 60950-1 Scheme

- Compact SMD Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process
- According to IPC/JEDECJ-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSDWI03-24S033	24 (9 ~ 36)	3.3	600	75%
MSDWI03-24S05		5	600	78%
MSDWI03-24S12		12	250	80%
MSDWI03-24S15		15	200	80%
MSDWI03-24S24		24	125	80%
MSDWI03-24D05		±5	±300	77%
MSDWI03-24D12		±12	±125	80%
MSDWI03-24D15		±15	±100	80%
MSDWI03-48S033	48 (18 ~ 75)	3.3	600	75%
MSDWI03-48S05		5	600	78%
MSDWI03-48S12		12	250	80%
MSDWI03-48S15		15	200	80%
MSDWI03-48S24		24	125	80%
MSDWI03-48D05		±5	±300	77%
MSDWI03-48D12		±12	±125	80%
MSDWI03-48D15		±15	±100	80%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	Remote On/Off	Remote On/Off
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

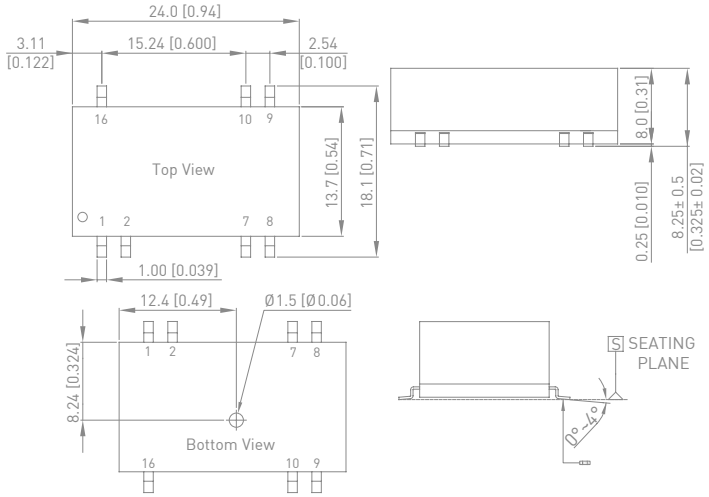
NC: No Connection

MSCWI03 Series | 3W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSCWI03-05S05	5 (4.5 - 12)	5	600	81%
MSCWI03-05S12		12	250	84%
MSCWI03-05S15		15	200	84%
MSCWI03-05S24		24	125	84%
MSCWI03-05D12		±12	±125	83%
MSCWI03-05D15		±15	±100	83%
MSCWI03-24S05	24 (9 - 36)	5	600	80%
MSCWI03-24S12		12	250	85%
MSCWI03-24S15		15	200	85%
MSCWI03-24S24		24	125	85%
MSCWI03-24D12		±12	±125	84%
MSCWI03-24D15		±15	±100	84%
MSCWI03-48S05	48 (18 - 75)	5	600	80%
MSCWI03-48S12		12	250	84%
MSCWI03-48S15		15	200	84%
MSCWI03-48S24		24	125	85%
MSCWI03-48D12		±12	±125	83%
MSCWI03-48D15		±15	±100	82%

- Very Compact SMD Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	Remote On/Off	Remote On/Off
6	NC	Common
7	NC	-Vout
8	+Vout	+Vout
9	-Vout	Common
14	+Vin	+Vin

NC= No Connection

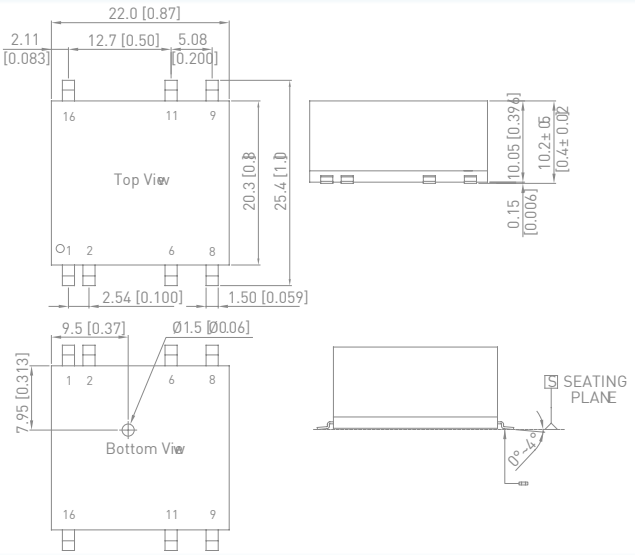
MSGWI06 Series | 6W

UL 62368-1 Scheme RoHS Compliant

- Industrial SMD Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSGWI06-24S033	24 (9 - 36)	3.3	1,450	76%
MSGWI06-24S05		5	1,200	79%
MSGWI06-24S12		12	500	83%
MSGWI06-24S15		15	400	83%
MSGWI06-24S24		24	250	83%
MSGWI06-24D05		±5	±600	82%
MSGWI06-24D12		±12	±250	83%
MSGWI06-24D15		±15	±200	83%
MSGWI06-48S033	48 (18 - 75)	3.3	1,450	76%
MSGWI06-48S05		5	1,200	79%
MSGWI06-48S12		12	500	83%
MSGWI06-48S15		15	400	83%
MSGWI06-48S24		24	250	83%
MSGWI06-48D05		±5	±600	82%
MSGWI06-48D12		±12	±250	83%
MSGWI06-48D15		±15	±200	83%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
6	NC	Common
8	NC	-Vout
9	+Vout	+Vout
11	-Vout	Common
16	+Vin	+Vin

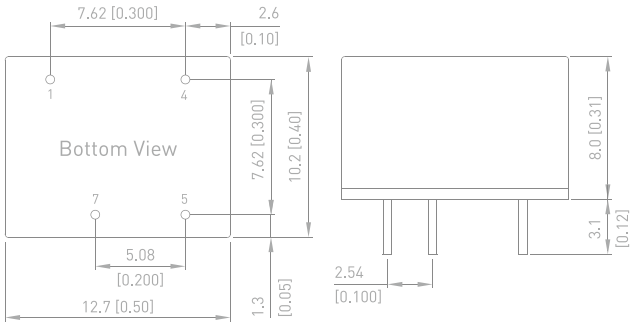
NC: No Connection

MFSU01 Series | 1W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MFSU01-05S05	5 (4.5 - 5.5)	5	200	80%
MFSU01-05S12		12	84	82%
MFSU01-05S15		15	67	83%
MFSU01-12S05	12 (10.8 - 13.2)	5	200	79%
MFSU01-12S12		12	84	81%
MFSU01-12S15		15	67	82%
MFSU01-24S05	24 (21.6 - 26.4)	5	200	78%
MFSU01-24S12		12	84	80%
MFSU01-24S15		15	67	81%

- Industrial Standard DIP-8 Package
- Unregulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- Short Circuit Protection

Mechanical Dimensions



Pin Connections

Pin	Function
1	-Vin
4	+Vin
5	+Vout
7	-Vout

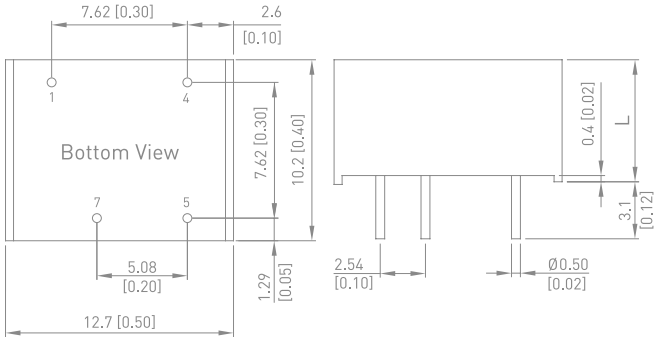
MFU100 Series | 1W

UL 60950-1 Scheme

- Industrial Standard DIP-8 Package
- I/O Isolation 3000 VDC
- Wide Operating Temperature Range
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MFU102	5 (4.5 ~ 5.5)	5	200	69%
MFU103		9	110	76%
MFU104		12	84	77%
MFU105		15	67	78%
MFU112	12 (10.8 ~ 13.2)	5	200	71%
MFU113		9	110	77%
MFU114		12	84	79%
MFU115		15	67	79%
MFU122	24 (21.6 ~ 26.4)	5	200	70%
MFU123		9	110	76%
MFU124		12	84	79%
MFU125		15	67	79%

Mechanical Dimensions



Pin Connections

Pin	Function
1	-Vin
4	+Vin
5	+Vout
7	-Vout

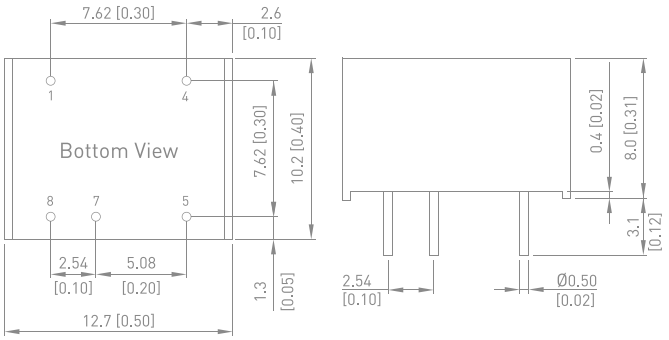
L:7.0 [0.28] for 5V & 12V Input Models
L:8.0 [0.31] for 24V Input Models

MFPU01H Series | 1W

- Industrial Standard DIP-8 Package
- Unregulated Output Voltage
- I/O Isolation 3000VDC
- Wide Operating Temperature Range
- Overload and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MFPU01-033S033H	3.3 (2.97 - 3.63)	3.3	300	75%
MFPU01-033S05H		5	200	79%
MFPU01-033S12H		12	84	80%
MFPU01-033S15H		15	67	81%
MFPU01-033D05H		±5	±100	78%
MFPU01-033D12H		±12	±42	80%
MFPU01-033D15H		±15	±33	81%
MFPU01-05S033H	5 (4.5 - 5.5)	3.3	300	77%
MFPU01-05S05H		5	200	80%
MFPU01-05S12H		12	84	82%
MFPU01-05S15H		15	67	83%
MFPU01-05D05H		±5	±100	80%
MFPU01-05D12H		±12	±42	83%
MFPU01-05D15H		±15	±33	83%
MFPU01-12S033H	12 (10.8 - 13.2)	3.3	300	77%
MFPU01-12S05H		5	200	79%
MFPU01-12S12H		12	84	81%
MFPU01-12S15H		15	67	82%
MFPU01-12D05H		±5	±100	80%
MFPU01-12D12H		±12	±42	82%
MFPU01-12D15H		±15	±33	82%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
4	+Vin	+Vin
5	+Vout	+Vout
7	-Vout	Common
8	No Pin	-Vout

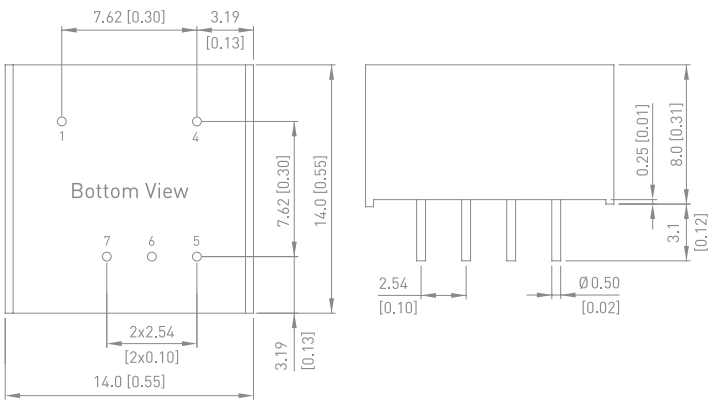
MFW02 Series | 2W

UL 62368-1 Scheme

- Smallest Encapsulated 2W Converter
- Ultra-compact DIP-8 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MFW02-05S033	5 (4.5 - 10)	3.3	400	79%
MFW02-05S05		5	400	81%
MFW02-05S12		12	167	85%
MFW02-05S15		15	134	87%
MFW02-05D05		±5	±200	83%
MFW02-05D12		±12	±83	85%
MFW02-05D15		±15	±67	85%
MFW02-12S033	12 (9 - 18)	3.3	400	80%
MFW02-12S05		5	400	83%
MFW02-12S12		12	167	87%
MFW02-12S15		15	134	87%
MFW02-12D05		±5	±200	84%
MFW02-12D12		±12	±83	86%
MFW02-12D15		±15	±67	86%
MFW02-24S033	24 (18 - 36)	3.3	400	79%
MFW02-24S05		5	400	84%
MFW02-24S12		12	167	86%
MFW02-24S15		15	134	87%
MFW02-24D05		±5	±200	84%
MFW02-24D12		±12	±83	86%
MFW02-24D15		±15	±67	86%
MFW02-48S033	48 (36 - 75)	3.3	400	79%
MFW02-48S05		5	400	83%
MFW02-48S12		12	167	85%
MFW02-48S15		15	134	86%
MFW02-48D05		±5	±200	82%
MFW02-48D12		±12	±83	84%
MFW02-48D15		±15	±67	84%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
4	+Vin	+Vin
5	+Vout	+Vout
6	No Pin	Common
7	-Vout	-Vout

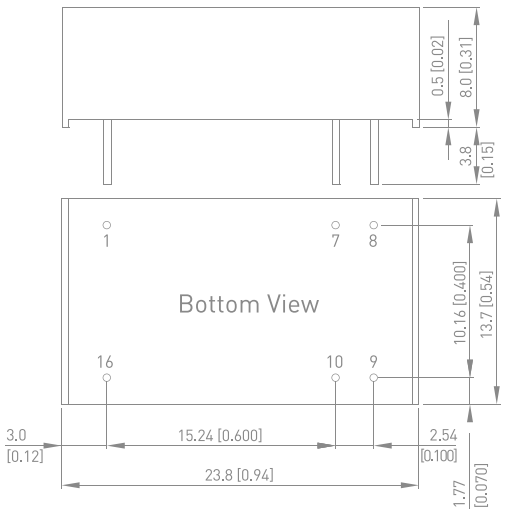
MDW1000 Series 2W

UL 62368-1 Scheme

- Industrial Standard DIP-16 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDW1011	5 (4.5 ~ 9)	3.3	500	70%
MDW1012		5	400	73%
MDW1013		12	167	75%
MDW1014		15	134	73%
MDW1015		±5	±200	64%
MDW1016		±12	±83	69%
MDW1017		±15	±67	71%
MDW1021	12 (9 ~ 18)	3.3	500	73%
MDW1022		5	400	77%
MDW1023		12	167	80%
MDW1024		15	134	80%
MDW1025		±5	±200	73%
MDW1026		±12	±83	78%
MDW1027		±15	±67	78%
MDW1031	24 (18 ~ 36)	3.3	500	72%
MDW1032		5	400	77%
MDW1033		12	167	80%
MDW1034		15	134	81%
MDW1035		±5	±200	74%
MDW1036		±12	±83	78%
MDW1037		±15	±67	80%
MDW1041	48 (36 ~ 75)	3.3	500	71%
MDW1042		5	400	73%
MDW1043		12	167	79%
MDW1044		15	134	79%
MDW1045		±5	±200	71%
MDW1046		±12	±83	77%
MDW1047		±15	±67	77%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

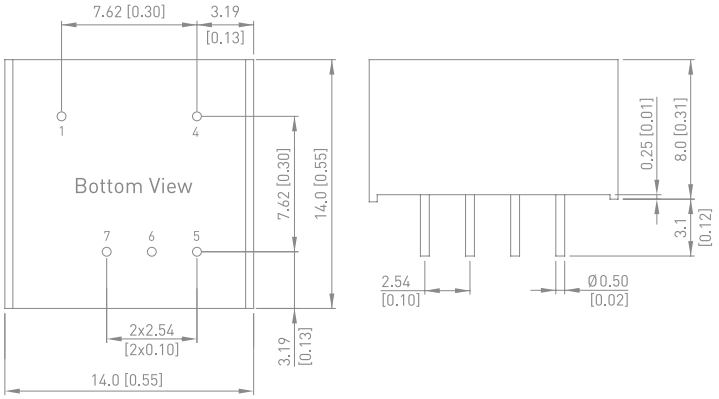
MFW03 Series | 3W

UL 62368-1 Scheme

- Smallest Encapsulated 3W Converter
- Ultra-compact DIP-8 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MFW03-05S033	5 (4.5 - 10)	3.3	600	79%
MFW03-05S05		5	600	81%
MFW03-05S12		12	250	85%
MFW03-05S15		15	200	85%
MFW03-05D05		±5	±300	82%
MFW03-05D12		±12	±125	84%
MFW03-05D15		±15	±100	85%
MFW03-12S033	12 (9 - 18)	3.3	600	80%
MFW03-12S05		5	600	83%
MFW03-12S12		12	250	87%
MFW03-12S15		15	200	87%
MFW03-12D05		±5	±300	84%
MFW03-12D12		±12	±125	86%
MFW03-12D15		±15	±100	87%
MFW03-24S033	24 (18 - 36)	3.3	600	80%
MFW03-24S05		5	600	83%
MFW03-24S12		12	250	87%
MFW03-24S15		15	200	87%
MFW03-24D05		±5	±300	84%
MFW03-24D12		±12	±125	86%
MFW03-24D15		±15	±100	87%
MFW03-48S033	48 (36 - 75)	3.3	600	79%
MFW03-48S05		5	600	82%
MFW03-48S12		12	250	86%
MFW03-48S15		15	200	86%
MFW03-48D05		±5	±300	82%
MFW03-48D12		±12	±125	85%
MFW03-48D15		±15	±100	85%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
4	+Vin	+Vin
5	+Vout	+Vout
6	No Pin	Common
7	-Vout	-Vout

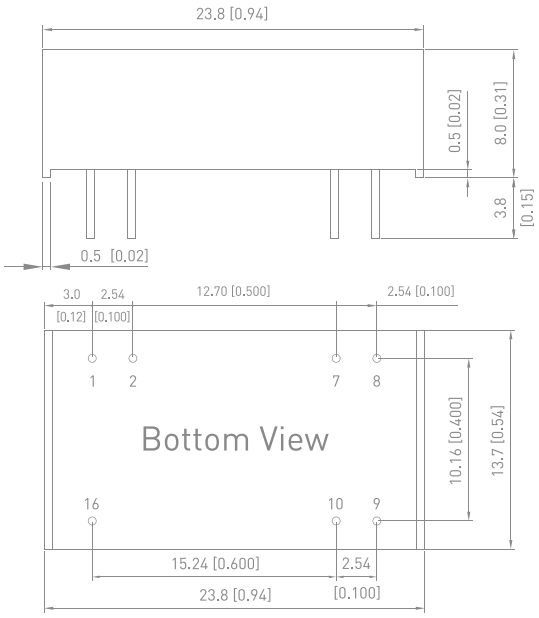
MDWI03 Series | 3W

UL 62368-1 Scheme

- Compact DIP-16 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI03-24S033	24 (9 - 36)	3.3	600	75%
MDWI03-24S05		5	600	78%
MDWI03-24S12		12	250	80%
MDWI03-24S15		15	200	80%
MDWI03-24S24		24	125	80%
MDWI03-24D05		±5	±300	77%
MDWI03-24D12		±12	±125	80%
MDWI03-24D15		±15	±100	80%
MDWI03-48S033	48 (18 - 75)	3.3	600	75%
MDWI03-48S05		5	600	78%
MDWI03-48S12		12	250	80%
MDWI03-48S15		15	200	80%
MDWI03-48S24		24	125	80%
MDWI03-48D05		±5	±300	77%
MDWI03-48D12		±12	±125	80%
MDWI03-48D15		±15	±100	80%

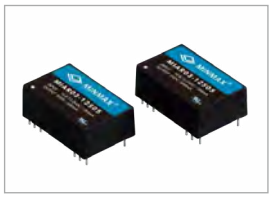
Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
2	Remote On/Off	Remote On/Off
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

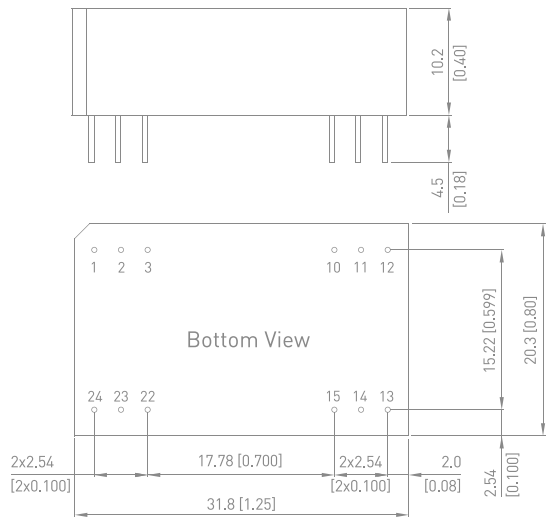
MIAR03 Series 3W



- Industrial Standard DIP-24 Package
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIAR03-05S05	5 ±10%	5	600	70%
MIAR03-05S12		12	250	78%
MIAR03-05S15		15	200	78%
MIAR03-05D12		±12	±125	78%
MIAR03-05D15		±15	±100	78%
MIAR03-12S05	12 ±10%	5	600	74%
MIAR03-12S12		12	250	80%
MIAR03-12S15		15	200	80%
MIAR03-12D12		±12	±125	81%
MIAR03-12D15		±15	±100	82%
MIAR03-24S05	24 ±10%	5	600	75%
MIAR03-24S12		12	250	80%
MIAR03-24S15		15	200	80%
MIAR03-24D12		±12	±125	81%
MIAR03-24D15		±15	±100	82%

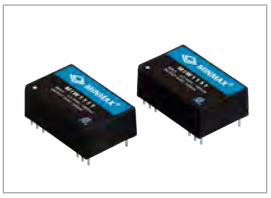
Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	NC	-Vout
3	NC	Common
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
22	NC	Common
23	NC	-Vout
24	+Vin	+Vin

MIW1100 Series | 3W

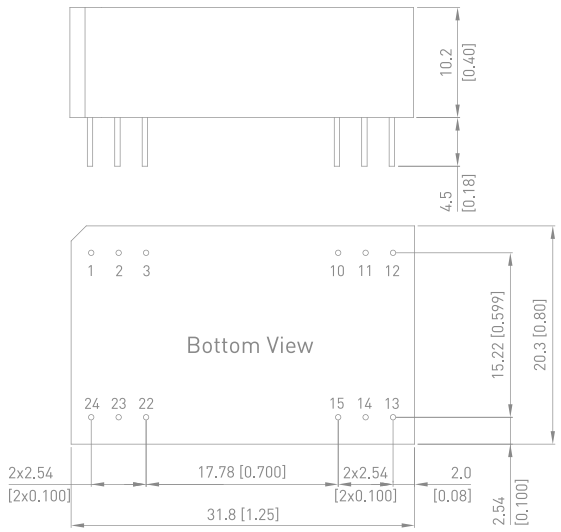


UL 62368-1

- Industrial Standard DIP-24 Package
- Wide 2:1 & 3:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Overload and Short Circuit Protection
- UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW1111	5 (4.5 ~ 9)	5	600	70%
MIW1112		12	250	74%
MIW1113		15	200	74%
MIW1114		±12	±125	74%
MIW1115		±15	±100	74%
MIW1121	12 (9 ~ 18)	5	600	76%
MIW1122		12	250	80%
MIW1123		15	200	80%
MIW1124		±12	±125	80%
MIW1125		±15	±100	80%
MIW1131	24 (18 ~ 36)	5	600	77%
MIW1132		12	250	81%
MIW1133		15	200	81%
MIW1134		±12	±125	81%
MIW1135		±15	±100	81%
MIW1141	48 (36 ~ 75)	5	600	77%
MIW1142		12	250	81%
MIW1143		15	200	81%
MIW1144		±12	±125	81%
MIW1145		±15	±100	81%
MIW1151	20 (10 ~ 30)	5	600	80%
MIW1152		12	250	80%
MIW1153		15	200	80%
MIW1154		±12	±125	80%
MIW1155		±15	±100	80%

Mechanical Dimensions

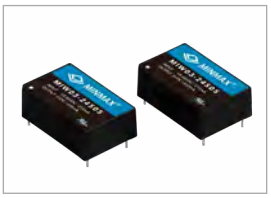


Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	NC	-Vout
3	NC	Common
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
22	NC	Common
23	NC	-Vout
24	+Vin	+Vin

NC: No Connection

MIW03 Series | 3W

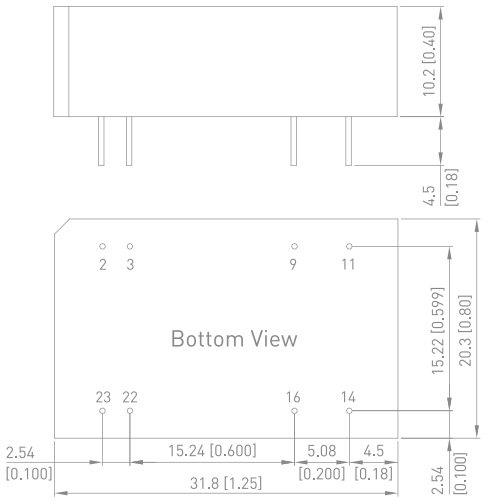


UL 62368-1 Scheme

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC (opt. 3000VDC)
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- EMI Emission EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW03-05S033	5 (4.5 - 9)	3.3	750	77%
MIW03-05S05		5	600	80%
MIW03-05S12		12	250	82%
MIW03-05S15		15	200	82%
MIW03-05S24		24	125	81%
MIW03-05D05		±5	±250	80%
MIW03-05D12		±12	±125	82%
MIW03-05D15		±15	±100	82%
MIW03-12S033	12 (9 - 18)	3.3	750	79%
MIW03-12S05		5	600	81%
MIW03-12S12		12	250	85%
MIW03-12S15		15	200	85%
MIW03-12S24		24	125	84%
MIW03-12D05		±5	±250	80%
MIW03-12D12		±12	±125	84%
MIW03-12D15		±15	±100	84%
MIW03-24S033	24 (18 - 36)	3.3	750	79%
MIW03-24S05		5	600	81%
MIW03-24S12		12	250	85%
MIW03-24S15		15	200	85%
MIW03-24S24		24	125	84%
MIW03-24D05		±5	±250	80%
MIW03-24D12		±12	±125	84%
MIW03-24D15		±15	±100	84%
MIW03-48S033	48 (36 - 75)	3.3	750	79%
MIW03-48S05		5	600	81%
MIW03-48S12		12	250	85%
MIW03-48S15		15	200	85%
MIW03-48S24		24	125	84%
MIW03-48D05		±5	±250	80%
MIW03-48D12		±12	±125	84%
MIW03-48D15		±15	±100	84%

Mechanical Dimensions

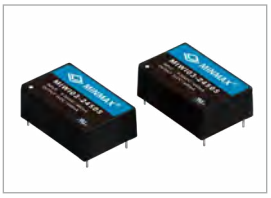


Pin Connections

Pin	Single	Dual
2,3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

NC: No Connection

MIWI03 Series | 3W

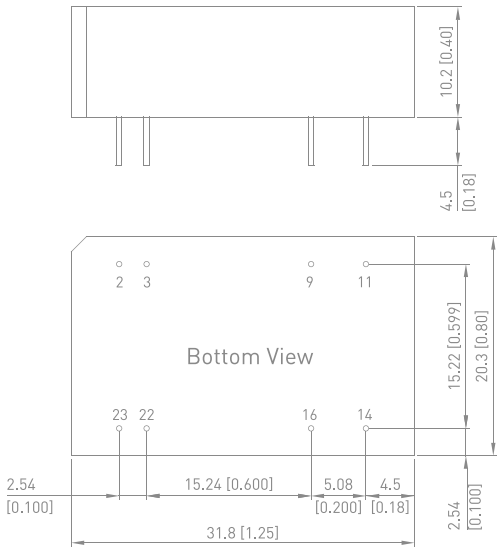


UL 62368-1 Scheme

- Industrial Standard DIP-24 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC (opt. 3000VDC)
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- EMI Emission EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIWI03-24S033	24 (9 - 36)	3.3	750	77%
MIWI03-24S05		5	600	79%
MIWI03-24S12		12	250	82%
MIWI03-24S15		15	200	83%
MIWI03-24S24		24	125	81%
MIWI03-24D05		±5	±300	80%
MIWI03-24D12		±12	±125	82%
MIWI03-24D15		±15	±100	82%
MIWI03-48S033	48 (18 - 75)	3.3	750	77%
MIWI03-48S05		5	600	80%
MIWI03-48S12		12	250	83%
MIWI03-48S15		15	200	84%
MIWI03-48S24		24	125	82%
MIWI03-48D05		±5	±300	80%
MIWI03-48D12		±12	±125	82%
MIWI03-48D15		±15	±100	82%

Mechanical Dimensions

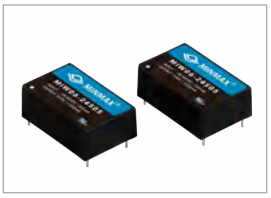


Pin Connections

Pin	Single	Dual
2,3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

NC= No Connection

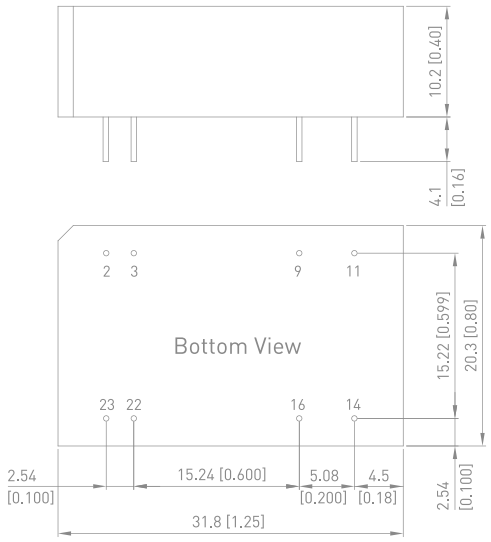
MIW06 Series | 6W



- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC (opt. 3000VDC)
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW06-12S033	12 (9 - 18)	3.3	1,200	75%
MIW06-12S05		5	1,200	78%
MIW06-12S12		12	500	82%
MIW06-12S15		15	400	82%
MIW06-12S24		24	250	84%
MIW06-12D05		±5	±500	78%
MIW06-12D12		±12	±250	82%
MIW06-12D15		±15	±200	82%
MIW06-24S033	24 (18 - 36)	3.3	1,200	77%
MIW06-24S05		5	1,200	80%
MIW06-24S12		12	500	84%
MIW06-24S15		15	400	84%
MIW06-24S24		24	250	84%
MIW06-24D05		±5	±500	80%
MIW06-24D12		±12	±250	84%
MIW06-24D15		±15	±200	84%
MIW06-48S033	48 (36 - 75)	3.3	1,200	77%
MIW06-48S05		5	1,200	80%
MIW06-48S12		12	500	84%
MIW06-48S15		15	400	84%
MIW06-48S24		24	250	84%
MIW06-48D05		±5	±500	80%
MIW06-48D12		±12	±250	84%
MIW06-48D15		±15	±200	84%

Mechanical Dimensions

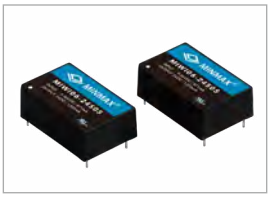


Pin Connections

Pin	Single	Dual
2,3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

NC= No Connection

MIWI06 Series | 6W

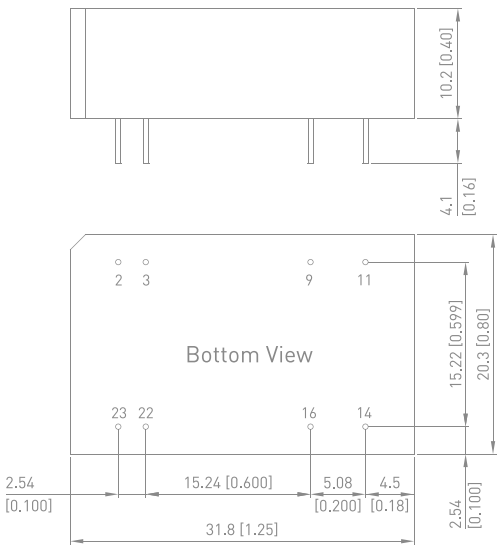


UL 62368-1 Scheme

- Industrial Standard DIP-24 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC (opt. 3000VDC)
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIWI06-24S033	24 (9 - 36)	3.3	1,200	77%
MIWI06-24S05		5	1,200	80%
MIWI06-24S12		12	500	84%
MIWI06-24S15		15	400	84%
MIWI06-24S24		24	250	84%
MIWI06-24D05		±5	±500	80%
MIWI06-24D12		±12	±250	84%
MIWI06-24D15		±15	±200	84%
MIWI06-48S033	48 (18 - 75)	3.3	1,200	77%
MIWI06-48S05		5	1,200	80%
MIWI06-48S12		12	500	84%
MIWI06-48S15		15	400	84%
MIWI06-48S24		24	250	84%
MIWI06-48D05		±5	±500	80%
MIWI06-48D12		±12	±250	84%
MIWI06-48D15		±15	±200	84%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
2,3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

NC: No Connection

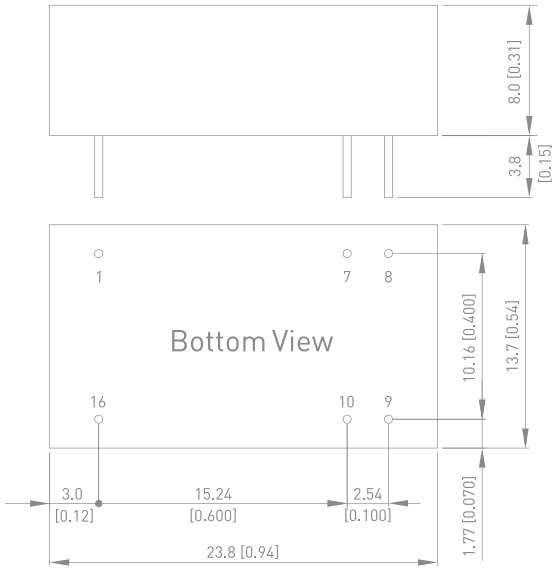
MDWI06 Series | 6W

UL 62368-1 Scheme

- Smallest Encapsulated 6W Converter
- Industrial Standard DIP-16 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI06-24S033	24 (9 - 36)	3.3	1,500	78%
MDWI06-24S05		5	1,200	82%
MDWI06-24S12		12	500	86%
MDWI06-24S15		15	400	86%
MDWI06-24S24		24	250	87%
MDWI06-24D12		±12	±250	86%
MDWI06-24D15		±15	±200	87%
MDWI06-48S033	48 (18 - 75)	3.3	1,500	78%
MDWI06-48S05		5	1,200	82%
MDWI06-48S12		12	500	86%
MDWI06-48S15		15	400	86%
MDWI06-48S24		24	250	87%
MDWI06-48D12		±12	±250	87%
MDWI06-48D15		±15	±200	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

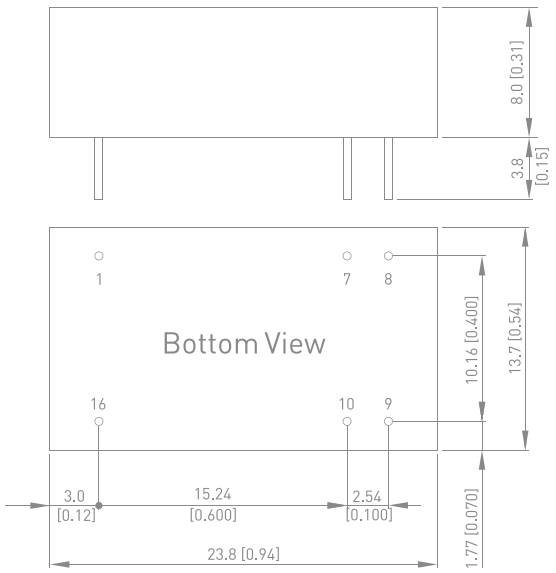
MDW08 Series | 8W

UL 62368-1 Scheme

- Smallest Encapsulated 8W Converter
- Industrial Standard DIP-16 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDW08-12S033	12 (9 - 18)	3.3	1,600	78%
MDW08-12S05		5	1,600	81%
MDW08-12S12		12	665	84%
MDW08-12S15		15	535	84%
MDW08-12S24		24	335	85%
MDW08-12D12		±12	±335	85%
MDW08-12D15		±15	±265	84%
MDW08-24S033	24 (18 - 36)	3.3	1,600	78%
MDW08-24S05		5	1,600	82%
MDW08-24S12		12	665	85%
MDW08-24S15		15	535	85%
MDW08-24S24		24	335	86%
MDW08-24D12		±12	±335	85%
MDW08-24D15		±15	±265	86%
MDW08-48S033	48 (36 - 75)	3.3	1,600	78%
MDW08-48S05		5	1,600	81%
MDW08-48S12		12	665	85%
MDW08-48S15		15	535	85%
MDW08-48S24		24	335	86%
MDW08-48D12		±12	±335	86%
MDW08-48D15		±15	±265	86%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC= No Connection

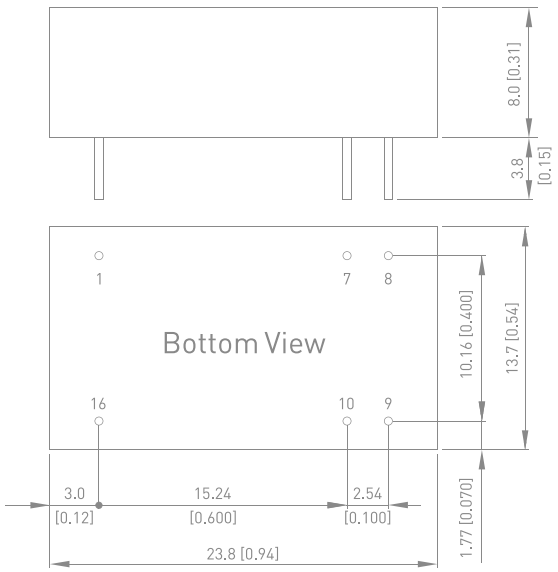
MDWI08 Series | 8W

UL 62368-1 Scheme

- Smallest Encapsulated 8W Converter
- Industrial Standard DIP-16 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI08-24S033	24 (9 - 36)	3.3	2,000	78%
MDWI08-24S05		5	1,600	82%
MDWI08-24S12		12	665	85%
MDWI08-24S15		15	535	85%
MDWI08-24S24		24	335	86%
MDWI08-24D12		±12	±335	85%
MDWI08-24D15		±15	±265	86%
MDWI08-48S033	48 (18 - 75)	3.3	2,000	78%
MDWI08-48S05		5	1,600	81%
MDWI08-48S12		12	665	85%
MDWI08-48S15		15	535	85%
MDWI08-48S24		24	335	86%
MDWI08-48D12		±12	±335	86%
MDWI08-48D15		±15	±265	86%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

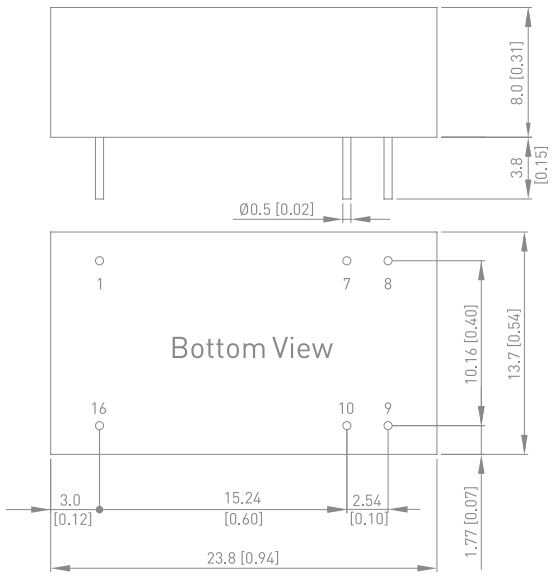
MDW10 Series | 10W

UL 62368-1 Scheme

- Smallest Encapsulated 10W Converter
- Industrial Standard DIP-16 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A & FCC Level A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDW10-12S033	12 (9 - 18)	3.3	2,700	79%
MDW10-12S05		5	2,000	82%
MDW10-12S051		5.1	2,000	82%
MDW10-12S12		12	833	86%
MDW10-12S15		15	666	87%
MDW10-12S24		24	416	87%
MDW10-12D12		±12	±416	86%
MDW10-12D15		±15	±333	86%
MDW10-24S033	24 (18 - 36)	3.3	2,700	80%
MDW10-24S05		5	2,000	83%
MDW10-24S051		5.1	2,000	83%
MDW10-24S12		12	833	87%
MDW10-24S15		15	666	88%
MDW10-24S24		24	416	88%
MDW10-24D12		±12	±416	87%
MDW10-24D15		±15	±333	87%
MDW10-48S033	48 (36 - 75)	3.3	2,700	80%
MDW10-48S05		5	2,000	83%
MDW10-48S051		5.1	2,000	83%
MDW10-48S12		12	833	87%
MDW10-48S15		15	666	88%
MDW10-48S24		24	416	88%
MDW10-48D12		±12	±416	87%
MDW10-48D15		±15	±333	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC= No Connection

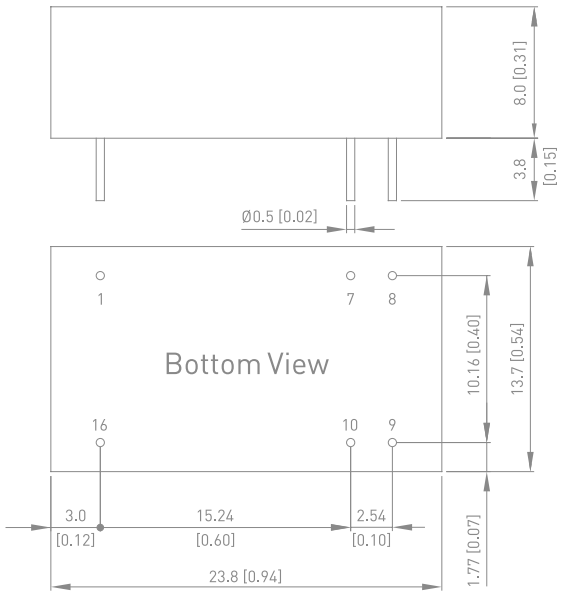
MDWI10 Series | 10W

UL 62368-1 Scheme

- Smallest Encapsulated 10W Converter
- Industrial Standard DIP-16 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI10-24S033	24 (9 - 36)	3.3	2,700	80%
MDWI10-24S05		5	2,000	83%
MDWI10-24S051		5.1	2,000	83%
MDWI10-24S12		12	833	87%
MDWI10-24S15		15	666	88%
MDWI10-24S24		24	416	88%
MDWI10-24D12		±12	±416	87%
MDWI10-24D15		±15	±333	87%
MDWI10-48S033	48 (18 - 75)	3.3	2,700	80%
MDWI10-48S05		5	2,000	83%
MDWI10-48S051		5.1	2,000	83%
MDWI10-48S12		12	833	87%
MDWI10-48S15		15	666	88%
MDWI10-48S24		24	416	88%
MDWI10-48D12		±12	±416	87%
MDWI10-48D15		±15	±333	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

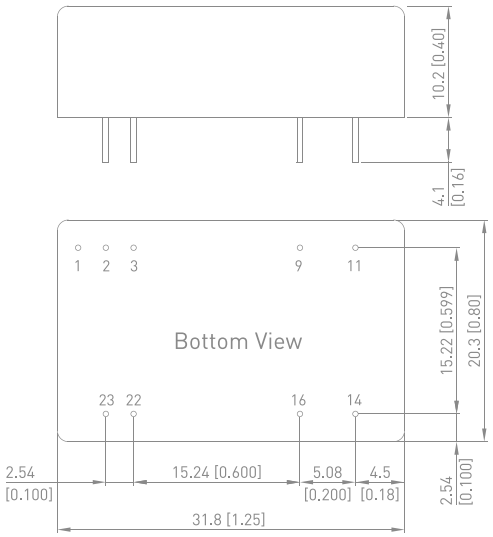
MIW10 Series | 10W

UL 62368-1 Scheme

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-Voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW10-12S033	12 (9 - 18)	3.3	2,700	86%
MIW10-12S05		5	2,000	85%
MIW10-12S051		5.1	2,000	85%
MIW10-12S12		12	833	88%
MIW10-12S15		15	666	89%
MIW10-12D12		±12	±416	88%
MIW10-12D15		±15	±333	89%
MIW10-24S033	24 (18 - 36)	3.3	2,700	86%
MIW10-24S05		5	2,000	85%
MIW10-24S051		5.1	2,000	85%
MIW10-24S12		12	833	89%
MIW10-24S15		15	666	89%
MIW10-24D12		±12	±416	88%
MIW10-24D15		±15	±333	89%
MIW10-48S033	48 (36 - 75)	3.3	2,700	86%
MIW10-48S05		5	2,000	85%
MIW10-48S051		5.1	2,000	85%
MIW10-48S12		12	833	87%
MIW10-48S15		15	666	88%
MIW10-48D12		±12	±416	87%
MIW10-48D15		±15	±333	88%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2,3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

NC= No Connection

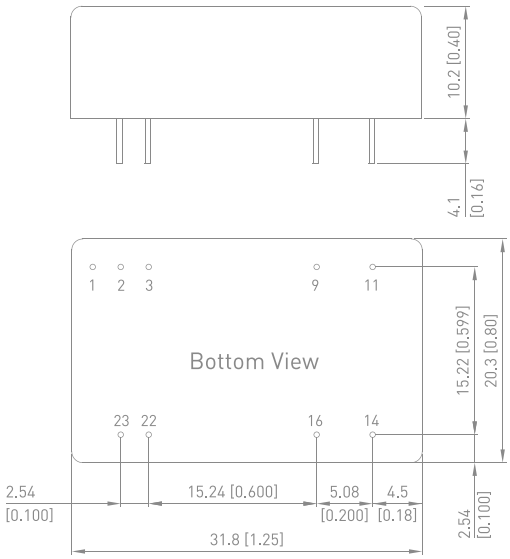
MIWI10 Series | 10W

UL 62368-1 Scheme

- Industrial Standard DIP-24 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 87%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload and Short Circuit Protection
- Remote On/Off Control
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIWI10-24S033	24 (9 - 36)	3.3	2,700	86%
MIWI10-24S05		5	2,000	85%
MIWI10-24S051		5.1	2,000	85%
MIWI10-24S12		12	833	87%
MIWI10-24S15		15	666	87%
MIWI10-24S24		24	416	87%
MIWI10-24D12		±12	±416	87%
MIWI10-24D15		±15	±333	87%
MIWI10-48S033	48 (18 - 75)	3.3	2,700	86%
MIWI10-48S05		5	2,000	85%
MIWI10-48S051		5.1	2,000	85%
MIWI10-48S12		12	833	87%
MIWI10-48S15		15	666	87%
MIWI10-48S24		24	416	87%
MIWI10-48D12		±12	±416	87%
MIWI10-48D15		±15	±333	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2,3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

NC: No Connection

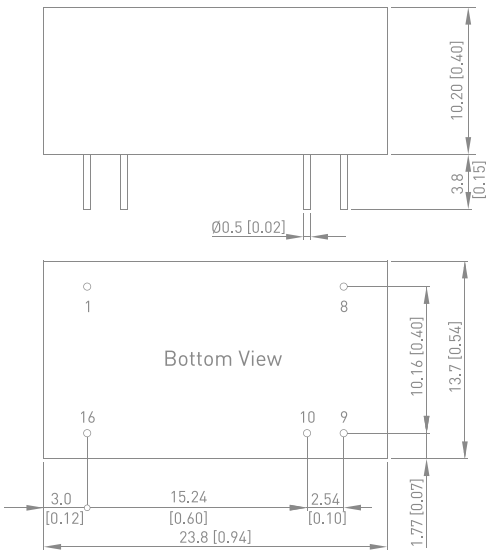
MDW12 Series | 12W

UL 62368-1 Scheme

- Smallest Encapsulated 12W Converter
- Industrial Standard DIP-16 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDW12-12S05	12 (9 - 18)	5	2,400	83%
MDW12-12S051		5.1	2,400	83%
MDW12-12S12		12	1,000	87%
MDW12-12S15		15	800	88%
MDW12-12S24		24	500	88%
MDW12-12D12		±12	±500	87%
MDW12-12D15		±15	±400	87%
MDW12-24S05	24 (18 - 36)	5	2,400	83%
MDW12-24S051		5.1	2,400	83%
MDW12-24S12		12	1,000	87%
MDW12-24S15		15	800	88%
MDW12-24S24		24	500	88%
MDW12-24D12		±12	±500	87%
MDW12-24D15		±15	±400	87%
MDW12-48S05	48 (36 - 75)	5	2,400	83%
MDW12-48S051		5.1	2,400	83%
MDW12-48S12		12	1,000	87%
MDW12-48S15		15	800	88%
MDW12-48S24		24	500	88%
MDW12-48D12		±12	±500	87%
MDW12-48D15		±15	±400	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC= No Connection

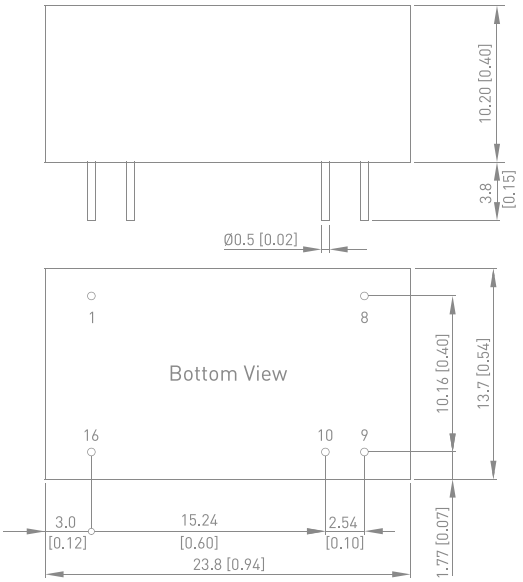
MDWI12 Series | 12W

UL 62368-1 Scheme

- Smallest Encapsulated 12W Converter
- Industrial Standard DIP-16 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI12-24S05	24 (9 - 36)	5	2,400	83%
MDWI12-24S051		5.1	2,400	83%
MDWI12-24S12		12	1,000	87%
MDWI12-24S15		15	800	88%
MDWI12-24S24		24	500	88%
MDWI12-24D12		±12	±500	87%
MDWI12-24D15		±15	±400	87%
MDWI12-48S05	48 (18 - 75)	5	2,400	83%
MDWI12-48S051		5.1	2,400	83%
MDWI12-48S12		12	1,000	87%
MDWI12-48S15		15	800	88%
MDWI12-48S24		24	500	88%
MDWI12-48D12		±12	±500	87%
MDWI12-48D15		±15	±400	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

NEW

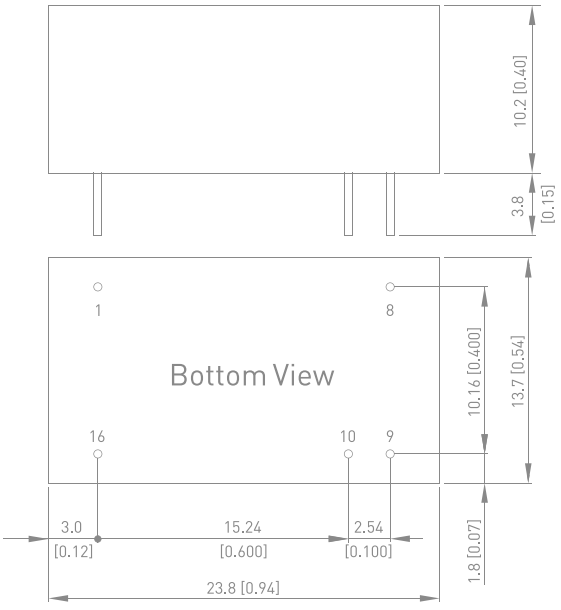
MDW15 Series | 15W

UL 62368-1 Scheme

- Smallest Encapsulated 15W Converter
- Industrial Standard DIP-16 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDW15-12S051	12 (9 - 18)	5.1	2,940	86%
MDW15-12S12		12	1,250	87%
MDW15-12S15		15	1,000	87%
MDW15-12S24		24	625	87%
MDW15-12D12		±12	±625	87%
MDW15-12D15		±15	±500	87%
MDW15-24S051	24 (18 - 36)	5.1	2,940	86%
MDW15-24S12		12	1,250	87%
MDW15-24S15		15	1,000	87%
MDW15-24S24		24	625	87%
MDW15-24D12		±12	±625	87%
MDW15-24D15		±15	±500	87%
MDW15-48S051	48 (36 - 75)	5.1	2,940	86%
MDW15-48S12		12	1,250	87%
MDW15-48S15		15	1,000	87%
MDW15-48S24		24	625	87%
MDW15-48D12		±12	±625	87%
MDW15-48D15		±15	±500	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC= No Connection

NEW

MDWI15 Series | 15W

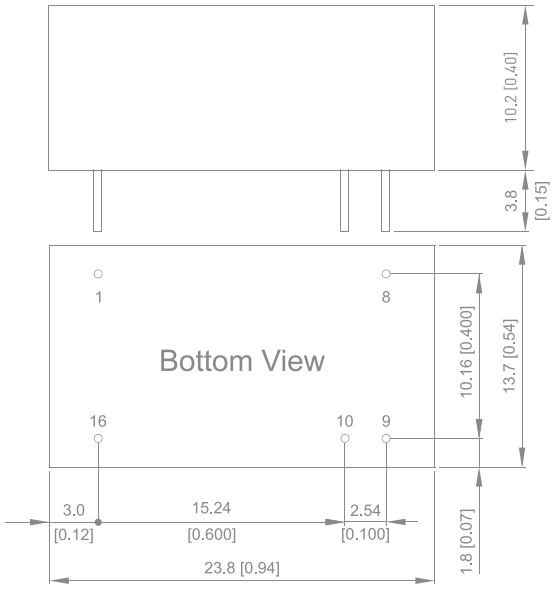
UL 62368-1 Scheme

- Smallest Encapsulated 15W Converter
- Industrial Standard DIP-16 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI15-24S051	24 (9 - 36)	5.1	2,940	86%
MDWI15-24S12		12	1,250	87%
MDWI15-24S15		15	1,000	87%
MDWI15-24S24		24	625	87%
MDWI15-24D12		±12	±625	87%
MDWI15-24D15		±15	±500	87%
MDWI15-48S051	48 (18 - 75)	5.1	2,940	86%
MDWI15-48S12		12	1,250	87%
MDWI15-48S15		15	1,000	87%
MDWI15-48S24		24	625	87%
MDWI15-48D12		±12	±625	87%
MDWI15-48D15		±15	±500	87%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC: No Connection

NEW

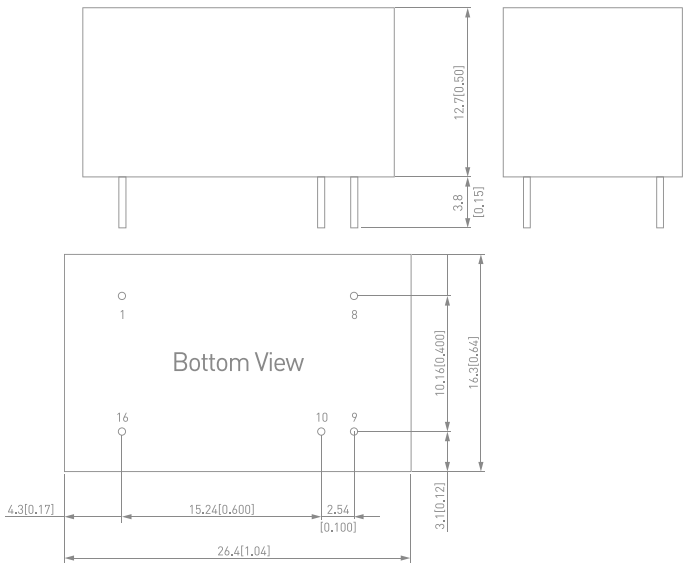
MDWI20 Series | 20W

UL 62368-1 Scheme

- Smallest Encapsulated 20W Converter
- Industrial Standard DIP-16 Package
- High Power Density 60W/in³
- Excellent Efficiency up to 90%
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Operating Ambient Temp. Range -40°C to +87.5°C
- Low No Load Power Consumption
- No Min. Load Requirement/Output Trim
- Under-voltage, Overload and Short Circuit Protection
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDWI20-12S05	12 (4.5 - 18)	5	4000	88%
MDWI20-12S12		12	1670	89%
MDWI20-12S15		15	1340	88%
MDWI20-12S24		24	835	89%
MDWI20-12D12		±12	±835	88%
MDWI20-12D15		±15	±667	87%
MDWI20-24S05	24 (9 - 36)	5	4000	89%
MDWI20-24S12		12	1670	90%
MDWI20-24S15		15	1340	89%
MDWI20-24S24		24	835	90%
MDWI20-24D12		±12	±835	89%
MDWI20-24D15		±15	±667	88%
MDWI20-48S05	48 (18 - 75)	5	4000	89%
MDWI20-48S12		12	1670	90%
MDWI20-48S15		15	1340	89%
MDWI20-48S24		24	835	90%
MDWI20-48D12		±12	±835	89%
MDWI20-48D15		±15	±667	88%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
8	Trim	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

MJW10 Series | 10W

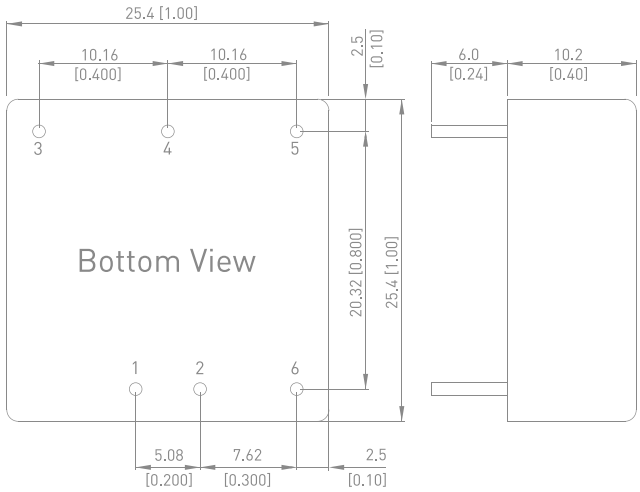
UL 62368-1 Scheme

- Industrial Standard 1" x 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control (option)
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJW10-12S033	12 (9 - 18)	3.3	2,500	82%
MJW10-12S05		5	2,000	85%
MJW10-12S051		5.1	2,000	85%
MJW10-12S12		12	830	87%
MJW10-12S15		15	670	88%
MJW10-12D05		±5	±1000	84%
MJW10-12D12		±12	±416	87%
MJW10-12D15		±15	±333	87%
MJW10-24S033	24 (18 - 36)	3.3	2,500	83%
MJW10-24S05		5	2,000	85%
MJW10-24S051		5.1	2,000	85%
MJW10-24S12		12	830	88%
MJW10-24S15		15	670	89%
MJW10-24D05		±5	±1000	85%
MJW10-24D12		±12	±416	88%
MJW10-24D15		±15	±333	89%
MJW10-48S033	48 (36 - 75)	3.3	2,500	83%
MJW10-48S05		5	2,000	86%
MJW10-48S051		5.1	2,000	85%
MJW10-48S12		12	830	89%
MJW10-48S15		15	670	89%
MJW10-48D05		±5	±1000	86%
MJW10-48D12		±12	±416	87%
MJW10-48D15		±15	±333	88%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout
6	Remote On/Off (Optional)	Remote On/Off (Optional)

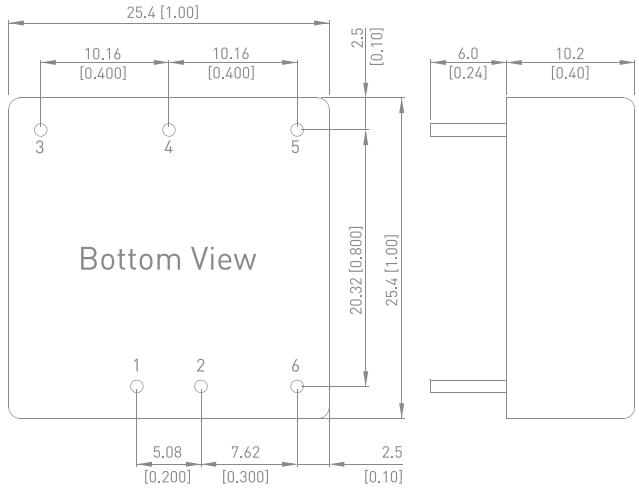
MJWI10 Series | 10W

- Ultra-compact 1"×1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 87%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI10-24S033	24 (9 - 36)	3.3	2,200	86%
MJWI10-24S05		5	2,000	84%
MJWI10-24S051		5.1	2,000	84%
MJWI10-24S12		12	830	86%
MJWI10-24S15		15	660	87%
MJWI10-24S24		24	410	86%
MJWI10-24D05		±5	±1000	84%
MJWI10-24D12		±12	±410	86%
MJWI10-24D15		±15	±330	87%
MJWI10-48S033	48 (18 - 75)	3.3	2,200	85%
MJWI10-48S05		5	2,000	84%
MJWI10-48S051		5.1	2,000	84%
MJWI10-48S12		12	830	86%
MJWI10-48S15		15	660	87%
MJWI10-48S24		24	410	86%
MJWI10-48D05		±5	±1000	84%
MJWI10-48D12		±12	±410	86%
MJWI10-48D15		±15	±330	87%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MJW15 Series | 15W

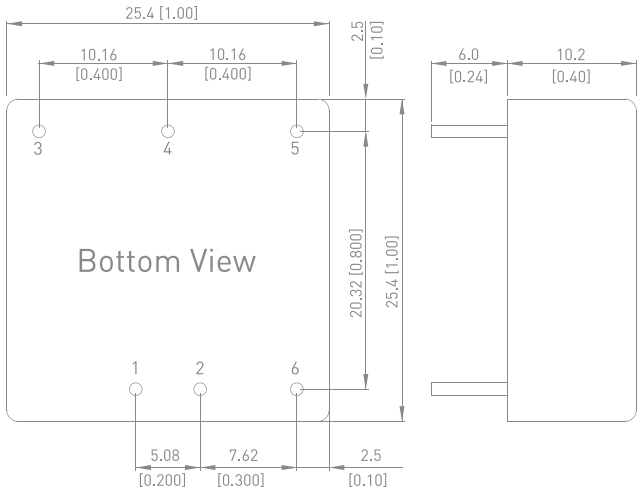
UL 62368-1 Scheme

- Industrial Standard 1" x 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJW15-12S033	12 (9 - 18)	3.3	3,400	86%
MJW15-12S05		5	3,000	89%
MJW15-12S12		12	1,250	89%
MJW15-12S15		15	1,000	89%
MJW15-12S24		24	625	90%
MJW15-12D12		±12	±625	89%
MJW15-12D15		±15	±500	90%
MJW15-24S033	24 (18 - 36)	3.3	3,400	86%
MJW15-24S05		5	3,000	88%
MJW15-24S12		12	1,250	90%
MJW15-24S15		15	1,000	90%
MJW15-24S24		24	625	91%
MJW15-24D12		±12	±625	90%
MJW15-24D15		±15	±500	90%
MJW15-48S033	48 (36 - 75)	3.3	3,400	87%
MJW15-48S05		5	3,000	88%
MJW15-48S12		12	1,250	90%
MJW15-48S15		15	1,000	90%
MJW15-48S24		24	625	91%
MJW15-48D12		±12	±625	89%
MJW15-48D15		±15	±500	90%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MJWI15 Series | 15W

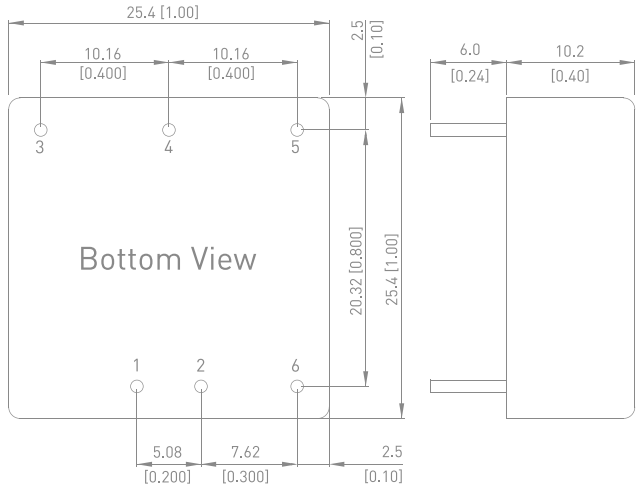
UL 62368-1 Scheme

- Industrial Standard 1" X 1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 91%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI15-24S033	24 (9 - 36)	3.3	3,400	86%
MJWI15-24S05		5	3,000	88%
MJWI15-24S12		12	1,250	88%
MJWI15-24S15		15	1,000	89%
MJWI15-24S24		24	625	91%
MJWI15-24D12		±12	±625	89%
MJWI15-24D15		±15	±500	89%
MJWI15-48S033	48 (18 - 75)	3.3	3,400	86%
MJWI15-48S05		5	3,000	88%
MJWI15-48S12		12	1,250	89%
MJWI15-48S15		15	1,000	89%
MJWI15-48S24		24	625	91%
MJWI15-48D12		±12	±625	90%
MJWI15-48D15		±15	±500	89%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MJWI20 Series | 20W

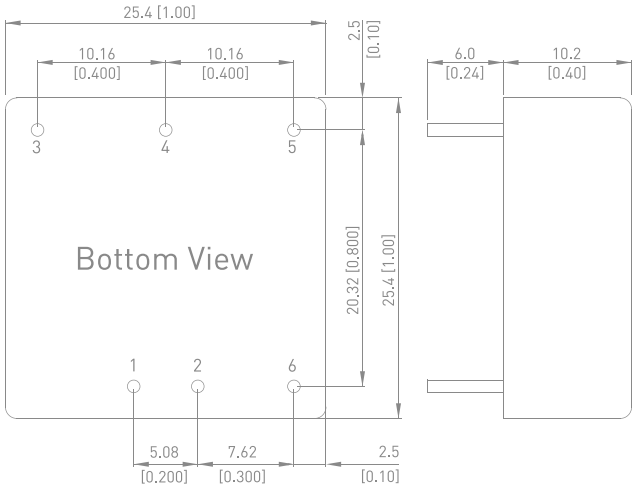
UL 62368-1 Scheme

- Smallest Encapsulated 20W Converter
- Ultra-compact 1" X 1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 89%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI20-24S033	24 (9 - 36)	3.3	4,500	87%
MJWI20-24S05		5	4,000	89%
MJWI20-24S12		12	1,670	89%
MJWI20-24S15		15	1,340	89%
MJWI20-24S24		24	835	88%
MJWI20-24D12		±12	±835	89%
MJWI20-24D15		±15	±670	89%
MJWI20-48S033	48 (18 - 75)	3.3	4,500	88%
MJWI20-48S05		5	4,000	89%
MJWI20-48S12		12	1,670	89%
MJWI20-48S15		15	1,340	89%
MJWI20-48S24		24	835	88%
MJWI20-48D12		±12	±835	89%
MJWI20-48D15		±15	±670	89%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MJW25 Series | 25W

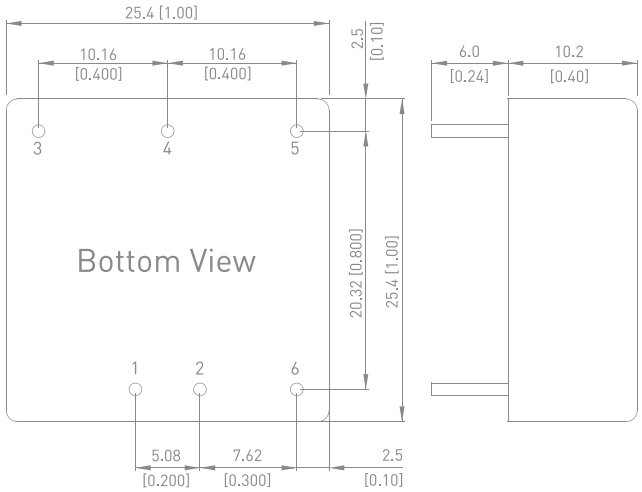
UL 62368-1 Scheme

- Smallest Encapsulated 25W Converter
- Ultra-compact 1" X 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 90%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJW25-12S033	12 (9 - 18)	3.3	6,000	87%
MJW25-12S05		5	5,000	89%
MJW25-12S12		12	2,090	89%
MJW25-12S15		15	1,670	89%
MJW25-12D12		±12	±1040	89%
MJW25-12D15		±15	±840	89%
MJW25-24S033	24 (18 - 36)	3.3	6,000	88%
MJW25-24S05		5	5,000	90%
MJW25-24S12		12	2,090	90%
MJW25-24S15		15	1,670	90%
MJW25-24D12		±12	±1040	89%
MJW25-24D15		±15	±840	89%
MJW25-48S033	48 (36 - 75)	3.3	6,000	88%
MJW25-48S05		5	5,000	90%
MJW25-48S12		12	2,090	90%
MJW25-48S15		15	1,670	90%
MJW25-48D12		±12	±1040	89%
MJW25-48D15		±15	±840	89%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MJWI25 Series | 25W

UL 62368-1 Scheme

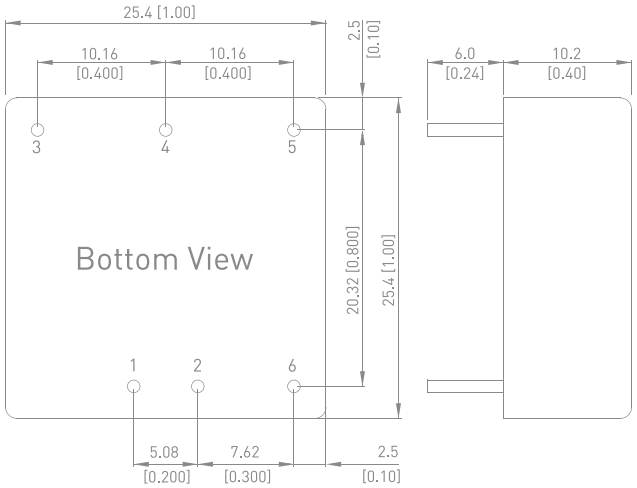
- Smallest Encapsulated 25W Converter
- Ultra-compact 1" X 1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 90%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1

Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI25-24S033	24 (9 - 36)	3.3	6,000	87%
MJWI25-24S05		5	5,000	89%
MJWI25-24S12		12	2,090	89%
MJWI25-24S15		15	1,670	90%
MJWI25-24D12		±12	±1040	89%
MJWI25-24D15		±15	±840	89%
MJWI25-48S033	48 (18 - 75)	3.3	6,000	88%
MJWI25-48S05		5	5,000	90%
MJWI25-48S12		12	2,090	90%
MJWI25-48S15		15	1,670	90%
MJWI25-48D12		±12	±1040	89%
MJWI25-48D15		±15	±840	89%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MJWI30 Series | 30W

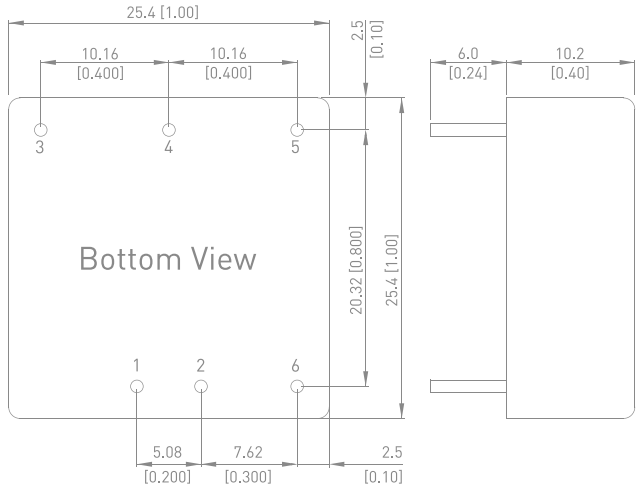
UL 62368-1 Scheme

- Smallest Encapsulated 30W Converter
- Ultra-compact 1"×1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 90%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very low no load power consumption
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI30-24S033	24 (9 - 36)	3.3	7,000	87%
MJWI30-24S05		5	6,000	88%
MJWI30-24S12		12	2,500	88%
MJWI30-24S15		15	2,000	88%
MJWI30-24S24		24	1,250	88%
MJWI30-24D12		±12	±1250	88%
MJWI30-24D15		±15	±1000	88%
MJWI30-48S033	48 (18 - 75)	3.3	7,000	87%
MJWI30-48S05		5	6,000	88%
MJWI30-48S12		12	2,500	90%
MJWI30-48S15		15	2,000	90%
MJWI30-48S24		24	1,250	90%
MJWI30-48D12		±12	±1250	90%
MJWI30-48D15		±15	±1000	90%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

NEW

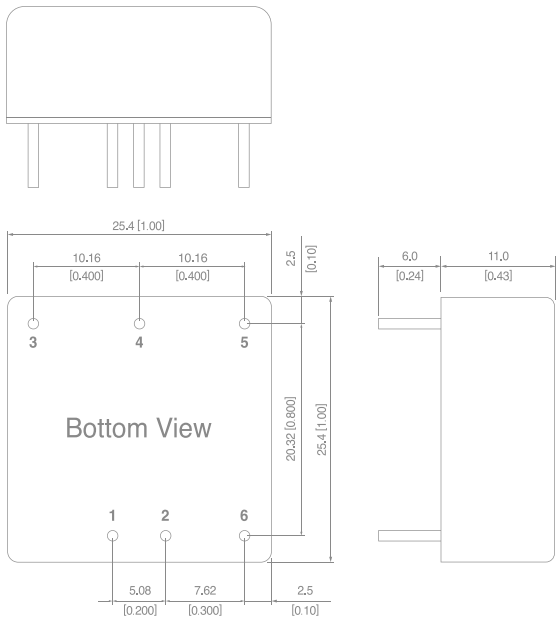
MJWI40 Series | 40W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI40-24S05	24 (9 - 36)	5	8000	91%
MJWI40-24S12		12	3350	92%
MJWI40-24S15		15	2700	92%
MJWI40-24S24		24	1700	91%
MJWI40-24S48		48	835	90%
MJWI40-24S54		54	740	91%
MJWI40-24D12		±12	±1700	91%
MJWI40-24D15		±15	±1350	91%
MJWI40-48S05	48 (18 - 75)	5	8000	92%
MJWI40-48S12		12	3350	93%
MJWI40-48S15		15	2700	93%
MJWI40-48S24		24	1700	92%
MJWI40-48S48		48	835	90%
MJWI40-48S54		54	740	91%
MJWI40-48D12		±12	±1700	91%
MJWI40-48D15		±15	±1350	90%

UL 62368-1 Scheme

- Smallest Encapsulated 40W Converter
- Ultra-compact 1"×1" Package
- Ultra-high Power Density 93W/in³
- Excellent Efficiency up to 93%
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload/Temperature and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

MKW40 Series | 40W

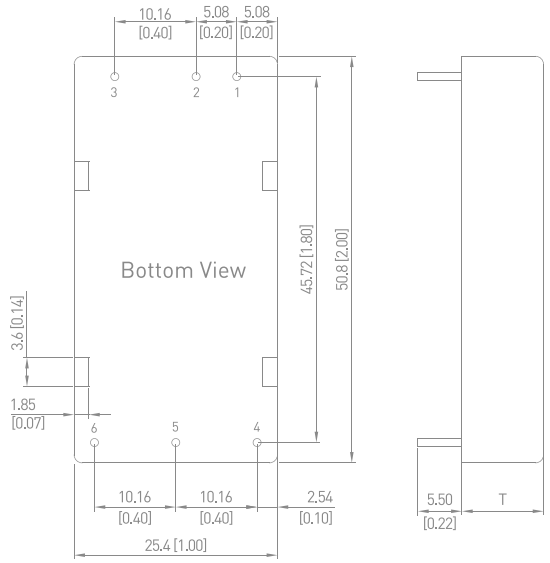
UL 62368-1 Scheme

- Smallest Encapsulated 40W Converter
- Compact Size of 2" X 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 92%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKW40-12S033	12 (9 - 18)	3.3	8,000	89%
MKW40-12S05		5	8,000	89%
MKW40-12S12		12	3,330	89%
MKW40-12S15		15	2,670	90%
MKW40-12S24		24	1,670	91%
MKW40-12D12		±12	±1670	88%
MKW40-12D15		±15	±1330	88%
MKW40-24S033	24 (18 - 36)	3.3	8,000	90%
MKW40-24S05		5	8,000	91%
MKW40-24S12		12	3,330	91%
MKW40-24S15		15	2,670	91%
MKW40-24S24		24	1,670	91%
MKW40-24D12		±12	±1670	89%
MKW40-24D15		±15	±1330	89%
MKW40-48S033	48 (36 - 75)	3.3	8,000	90%
MKW40-48S05		5	8,000	91%
MKW40-48S12		12	3,330	92%
MKW40-48S15		15	2,670	92%
MKW40-48S24		24	1,670	91%
MKW40-48D12		±12	±1670	89%
MKW40-48D15		±15	±1330	89%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

T: 10.2[0.40] for other output models
T: 11.0[0.43]for 24V output models

MKWI40 Series | 40W

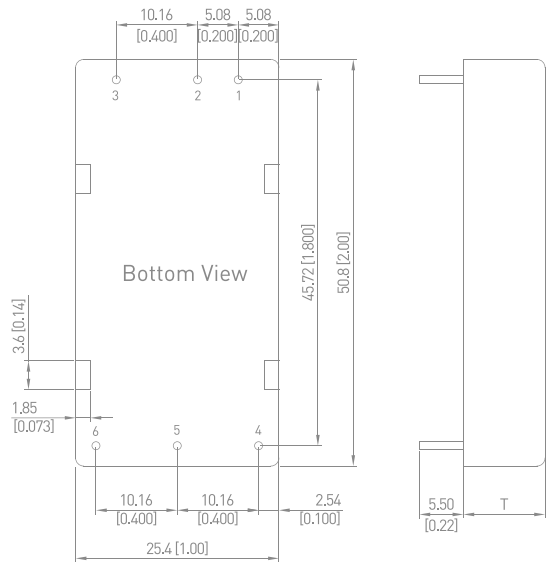
UL 62368-1 Scheme

- Smallest Encapsulated 40W Converter
- Ultra-compact 2" X 1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 91%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKWI40-24S033	24 (9 - 36)	3.3	8,000	89%
MKWI40-24S05		5	8,000	90%
MKWI40-24S12		12	3,330	89%
MKWI40-24S15		15	2,670	89%
MKWI40-24S24		24	1,670	91%
MKWI40-24D12		±12	±1670	88%
MKWI40-24D15		±15	±1330	88%
MKWI40-48S033	24 (18 - 36)	3.3	8,000	89%
MKWI40-48S05		5	8,000	90%
MKWI40-48S12		12	3,330	90%
MKWI40-48S15		15	2,670	90%
MKWI40-48S24		24	1,670	91%
MKWI40-48D12		±12	±1670	88%
MKWI40-48D15		±15	±1330	88%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

T: 10.2[0.40] for other output models
T: 11.0[0.43]for 24V output models

MKW50 Series | 50W

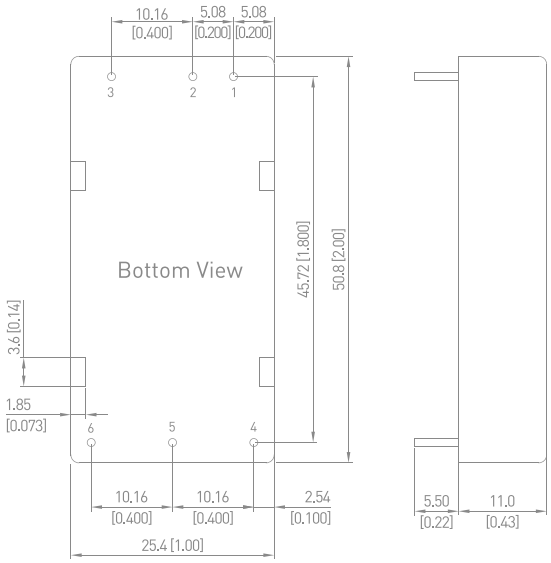
UL 62368-1 Scheme

- Smallest Encapsulated 50W Converter
- Ultra-compact 2" X 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 92%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKW50-12S033	12 (9 - 18)	3.3	10,000	89%
MKW50-12S05		5	10,000	90%
MKW50-12S12		12	4,170	91%
MKW50-12S15		15	3,330	91%
MKW50-12S24		24	2,080	91%
MKW50-24S033	24 (18 - 36)	3.3	10,000	89%
MKW50-24S05		5	10,000	92%
MKW50-24S12		12	4,170	92%
MKW50-24S15		15	3,330	92%
MKW50-24S24		24	2,080	91%
MKW50-48S033	48 (36 - 75)	3.3	10,000	89%
MKW50-48S05		5	10,000	92%
MKW50-48S12		12	4,170	92%
MKW50-48S15		15	3,330	92%
MKW50-48S24		24	2,080	91%

*To order the converter with heatsink, please add a suffix –HS.

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	-Vin
3	Remote On/Off
4	+Vout
5	-Vout
6	Trim

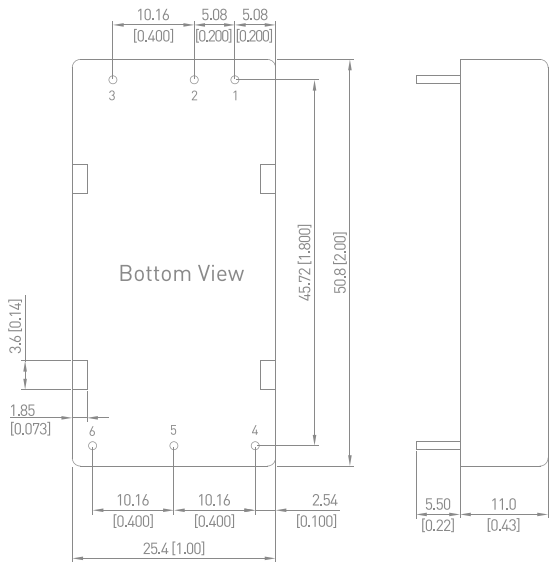
MKWI50 Series | 50W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKWI50-24S033	24 (9 - 36)	3.3	10,000	90%
MKWI50-24S05		5	10,000	91%
MKWI50-24S12		12	4,170	92%
MKWI50-24S15		15	3,330	92%
MKWI50-24S24		24	2,080	91%
MKWI50-48S033	48 (18 - 75)	3.3	10,000	90%
MKWI50-48S05		5	10,000	91%
MKWI50-48S12		12	4,170	92%
MKWI50-48S15		15	3,330	92%
MKWI50-48S24		24	2,080	91%

UL 62368-1 Scheme

- Smallest Encapsulated 50W Converter
- Compact Size of 2" X 1" Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 92%
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	-Vin
3	Remote On/Off
4	+Vout
5	-Vout
6	Trim

NEW

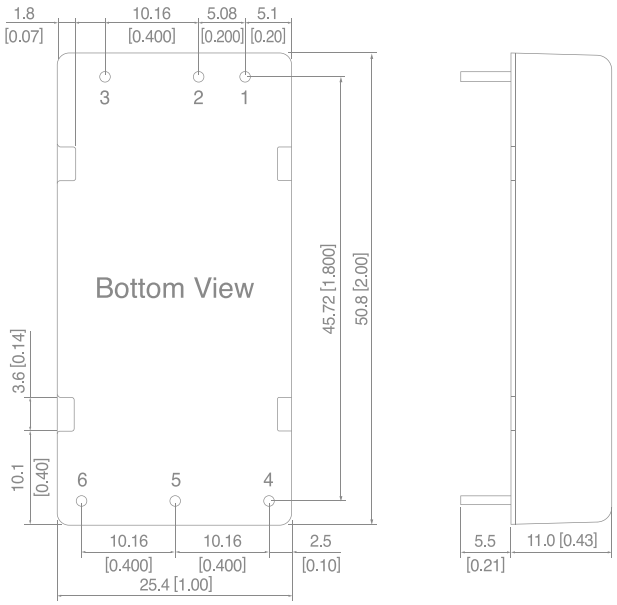
MKWI80 Series | 80W

UL 62368-1 Scheme

- Smallest Encapsulated 80W Converter
- Ultra-compact 2"×1" Package
- Ultra-high Power Density 93W/in³
- Excellent Efficiency up to 92%
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 1500 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload/Temperature and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Shielded Metal Case with Insulated Baseplate
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKWI80-24S05	24 (9 – 36)	5	16000	91%
MKWI80-24S12		12	6600	92%
MKWI80-24S15		15	5300	92%
MKWI80-24S24		24	3300	92%
MKWI80-24S48		48	1670	92%
MKWI80-24S54		54	1480	92%
MKWI80-24D12		±12	±3300	92%
MKWI80-24D15		±15	±2660	92%
MKWI80-48S05	48 (18 – 75)	5	16000	91%
MKWI80-48S12		12	6600	92%
MKWI80-48S15		15	5300	92%
MKWI80-48S24		24	3300	92%
MKWI80-48S48		48	1670	92%
MKWI80-48S54		54	1480	92%
MKWI80-48D12		±12	±3300	92%
MKWI80-48D15		±15	±2660	92%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

NC= No Connection

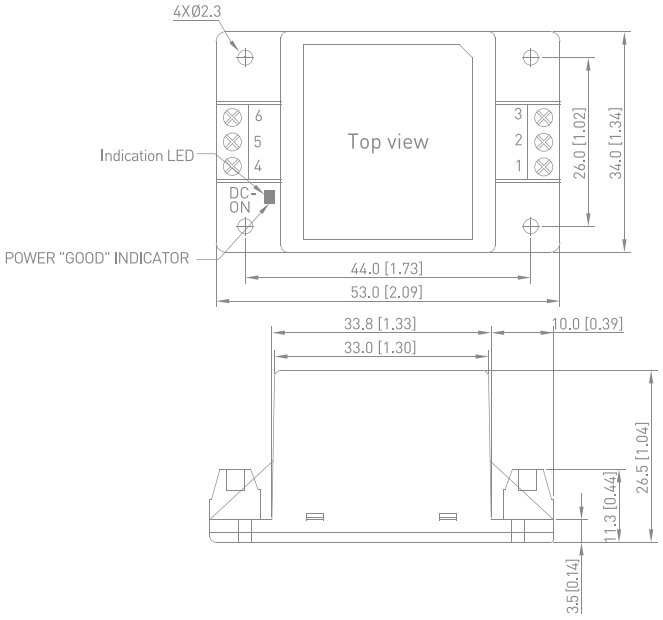
MJWI06C Series | 6W

UL 62368-1

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 85%
- I/O Isolation 3000 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJWI06-24S05C	24 (9 - 36)	5	1,200	81%
MJWI06-24S051C		5.1	1,200	81%
MJWI06-24S12C		12	500	84%
MJWI06-24S15C		15	400	84%
MJWI06-24S24C		24	250	85%
MJWI06-24S48C		48	125	83%
MJWI06-24D12C		±12	±250	84%
MJWI06-24D15C		±15	±200	85%
MJWI06-24D24C		±24	±125	84%
MJWI06-48S05C	48 (18 - 75)	5	1,200	80%
MJWI06-48S051C		5.1	1,200	80%
MJWI06-48S12C		12	500	84%
MJWI06-48S15C		15	400	84%
MJWI06-48S24C		24	250	85%
MJWI06-48S48C		48	125	83%
MJWI06-48D12C		±12	±250	85%
MJWI06-48D15C		±15	±200	85%
MJWI06-48D24C		±24	±125	84%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	-Vout	-Vout
5	NC	Common
6	+Vout	+Vout

NC= No Connection

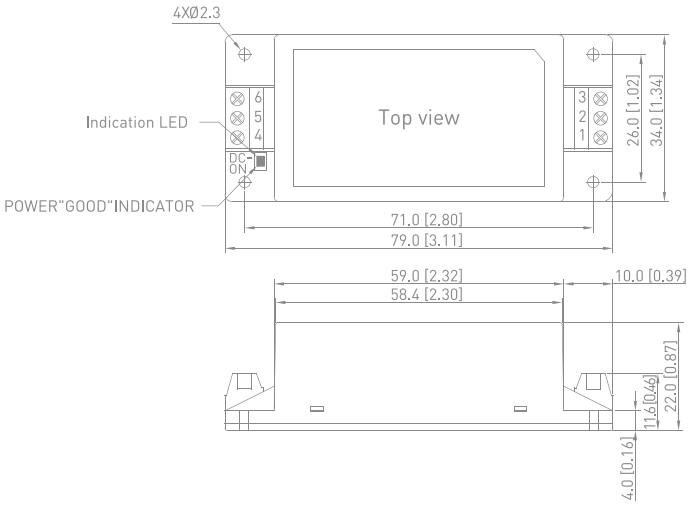
MKWI10C Series | 10W

UL 62368-1

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 86%
- I/O Isolation 3000 VDC
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKWI10-24S05C	24 (9 - 36)	5	2,000	84%
MKWI10-24S051C		5.1	2,000	84%
MKWI10-24S12C		12	833	86%
MKWI10-24S15C		15	666	86%
MKWI10-24S24C		24	416	86%
MKWI10-24S48C		48	208	84%
MKWI10-24D12C		±12	±416	86%
MKWI10-24D15C		±15	±333	86%
MKWI10-24D24C		±24	±208	85%
MKWI10-48S05C	24 (18 - 36)	5	2,000	84%
MKWI10-48S051C		5.1	2,000	84%
MKWI10-48S12C		12	833	86%
MKWI10-48S15C		15	666	86%
MKWI10-48S24C		24	416	86%
MKWI10-48S48C		48	208	84%
MKWI10-48D12C		±12	±416	86%
MKWI10-48D15C		±15	±333	86%
MKWI10-48D24C		±24	±208	85%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	-Vout	-Vout
5	NC	Common
6	+Vout	+Vout

NC: No Connection

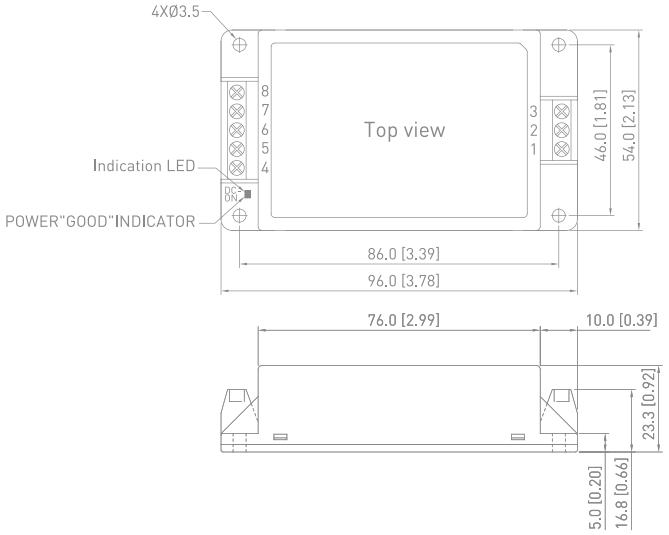
MOWI20C Series | 20W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MOWI20-24S051C	24 (9 - 36)	5.1	4,000	90%
MOWI20-24S12C		12	1,670	91%
MOWI20-24S24C		24	835	91%
MOWI20-24S48C		48	420	89%
MOWI20-48S051C	48 (18 - 75)	5.1	4,000	90%
MOWI20-48S12C		12	1,670	91%
MOWI20-48S24C		24	835	91%
MOWI20-48S48C		48	420	89%

UL 62368-1 Scheme

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 91%
- I/O Isolation 2500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload/Voltage and Short Circuit Protection
- No Min. Load Requirement
- Remote On/Off Control
- Conducted EMI EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	Remote On/Off
2	-Vin
3	+Vin
4	NC
5	-Vout
6	NC
7	+Vout
8	NC

NC= No Connection

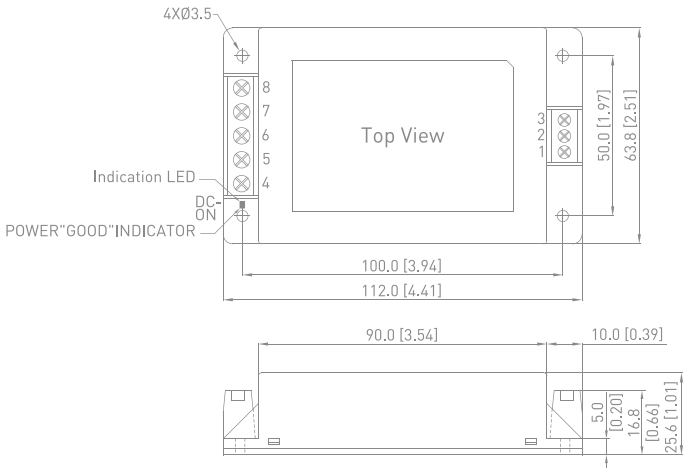
MQWI40C Series | 40W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MQWI40-24S051C	24 (9 - 36)	5.1	8,000	90%
MQWI40-24S12C		12	3,330	90%
MQWI40-24S24C		24	1,670	90%
MQWI40-24S48C		48	835	89%
MQWI40-48S051C	48 (18 - 75)	5.1	8,000	89%
MQWI40-48S12C		12	3,330	91%
MQWI40-48S24C		24	1,670	92%
MQWI40-48S48C		48	835	90%

UL 62368-1 Scheme

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 92%
- I/O Isolation 2500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload/Voltage and Short Circuit Protection
- No Min. Load Requirement
- Remote On/Off Control
- Conducted EMI EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	Remote On/Off
2	-Vin
3	+Vin
4	+Vout
5	NC
6	-Vout
7	NC
8	NC

NC= No Connection

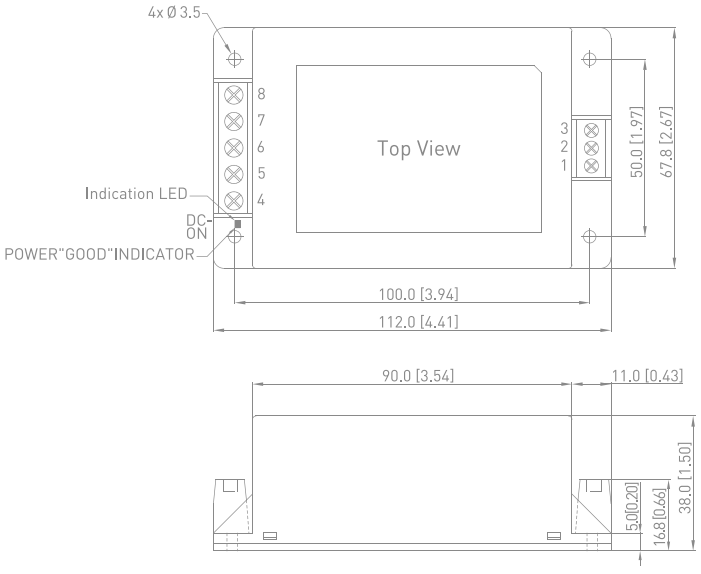
MRWI60C Series | 60W

UL 62368-1 Scheme

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Excellent Efficiency up to 92%
- I/O Isolation 2500 VDC
- Wide Operating Temperature Range
- Under-voltage, Overload/Voltage and Short Circuit Protection
- No Min. Load Requirement
- Remote On/Off Control
- Conducted EMI EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MRWI60-24S051C	24 (9 - 36)	5.1	12,000	90%
MRWI60-24S12C		12	5,000	91%
MRWI60-24S24C		24	2,500	91%
MRWI60-24S48C		48	1,250	91%
MRWI60-48S051C	48 (18 - 75)	5.1	12,000	91%
MRWI60-48S12C		12	5,000	92%
MRWI60-48S24C		24	2,500	91%
MRWI60-48S48C		48	1,250	91%

Mechanical Dimensions



Pin Connections

Pin	Function
1	Remote On/Off
2	-Vin
3	+Vin
4	NC
5	+Vout
6	NC
7	-Vout
8	NC

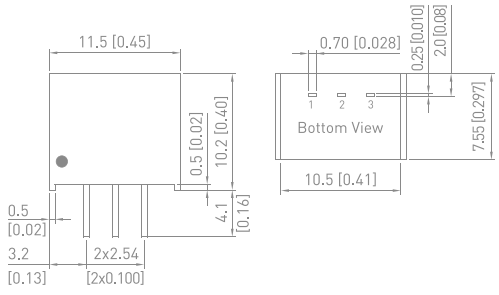
NC= No Connection

M78AR-0.5 Series | 0.5A

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
M78AR015-0.5	4.75 - 32	1.5	500	63%
M78AR018-0.5		1.8	500	71%
M78AR025-0.5		2.5	500	77%
M78AR033-0.5		3.3	500	81%
M78AR05-0.5	6.5 - 32	5	500	86%
M78AR065-0.5	8 - 32	6.5	500	88%
M78AR09-0.5	11 - 32	9	500	92%
M78AR12-0.5	15 - 32	12	500	94%
M78AR15-0.5	18 - 32	15	500	95%

- Industrial Standard SIP-3 Package
- Pin-out compatible with LM78xx Linear Regulators
- Fully Regulated Output Voltage
- Low Ripple & Noise
- Excellent Efficiency up to 97%
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Over Temp. and Short Circuit Protection

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	GND
3	+Vout

M78SAR-0.5 Series | 0.5A

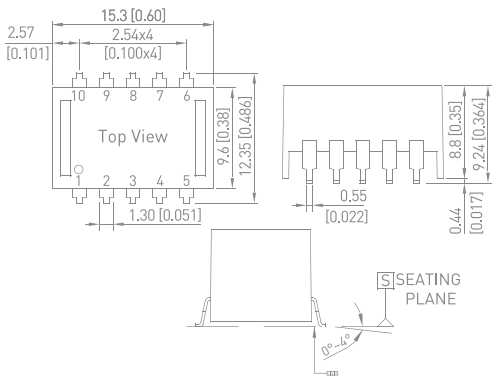
Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
M78SAR015-0.5	4.75 - 32	1.5	500	63%
M78SAR018-0.5		1.8	500	71%
M78SAR025-0.5		2.5	500	77%
M78SAR033-0.5		3.3	500	81%
M78SAR05-0.5	6.5 - 32	5	500	86%
M78SAR065-0.5	8 - 32	6.5	500	88%
M78SAR09-0.5	11 - 32	9	500	92%
M78SAR12-0.5	15 - 32	12	500	94%
M78SAR15-0.5	18 - 32	15	500	95%

- Industrial SMD Package
- Fully Regulated Output Voltage
- Low Ripple & Noise
- Excellent Efficiency up to 97%
- Wide Operating Temperature Range
- No Min. Load Requirement
- Over Temp. and Short Circuit Protection
- Remote ON/OFF Control, Output Voltage Trim
- Qualified for Lead-free Reflow Solder Process

According to IPC/JEDEC J-STD-020D.1

- Tape & Reel Package Available

Mechanical Dimensions



Pin Connections

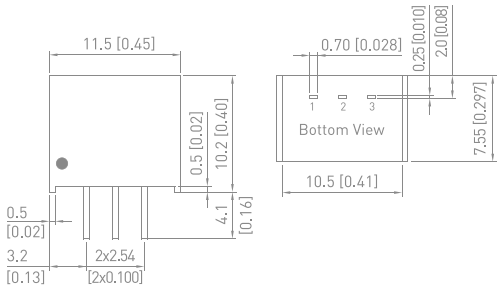
Pin	Function
1	+Vin
2	+Vin
3	GND
4	+Vout
5	+Vout
6	Vadj.
7	GND
8	GND
9	GND
10	Remote On/Off

M78AR-1 Series | 1A

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
M78AR033-1	6.5 - 32	3.3	1,000	87%
M78AR05-1	6.5 - 32	5	1,000	90%
M78AR12-1	6.5 - 32	12	1,000	94%

- Industrial Standard SIP-3 Package
- Pin-out compatible with LM78xx Linear Regulators
- Fully Regulated Output Voltage
- Low Ripple & Noise
- Excellent Efficiency up to 96%
- Wide Operating Temperature Range
- Low No Load Power Consumption
- No Min. Load Requirement
- Over Temp. and Short Circuit Protection

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	GND
3	+Vout

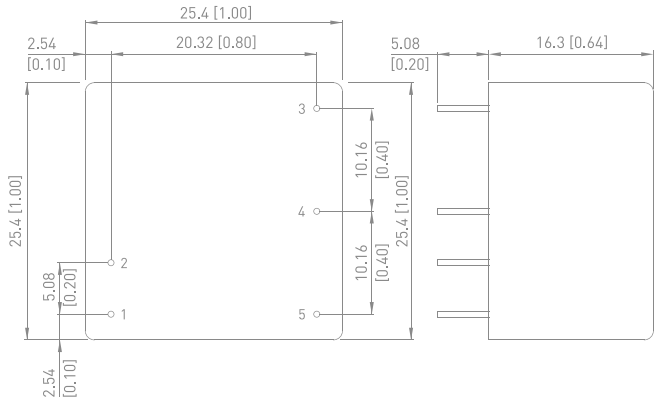
AAF-03 Series | 3W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AAF-03S03	85-264VAC 120-370VDC	3.3	900	70%
AAF-03S05		5	600	72%
AAF-03S09		9	333	77%
AAF-03S12		12	250	78%
AAF-03S15		15	200	78%
AAF-03S24		24	125	78%

UL 62368-1

- Ultra Compact Size 1.0" x 1.0" x 0.64"
- Fully Encapsulated Plastic Case for PCB Mounting
- Universal Input 85-264VAC
- I/O Isolation 3000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55032/14-1 Class B Approved
- EMS Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Eco Design, Low No Load Power Consumption ← 150mW
- UL/cUL/IEC/EN 62368-1(60950-1), TUV/IEC/EN 60335-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	AC Netural
2	AC Line
3	NC
4	-Vout
5	+Vout

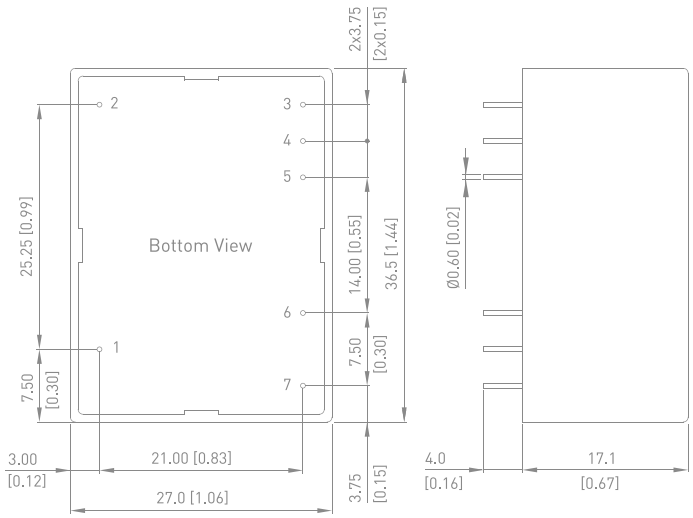
ABF-04 Series | 4W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
ABF-04S03	85-264VAC 120-370VDC	3.3	1,200	70%
ABF-04S05		5	800	72%
ABF-04S09		9	444	75%
ABF-04S12		12	333	76%
ABF-04S15		15	267	76%
ABF-04S24		24	167	77%
ABF-04D53		+5	600	72%
		+3.3	150	
ABF-04D125		+12	250	75%
		+15	120	
ABF-04D12		±12	±166	77%
ABF-04D15		±15	±133	77%

UL 62368-1

- Fully Encapsulated Plastic Case for PCB Mounting
- Universal Input 85-264VAC, 47-440Hz
- I/O Isolation 3000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- No Min. Load Requirement
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN55032 Class B Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Eco Design, Compliant to Energy Star Specification and ErP Directive 2009/125/EC
- UL/cUL/IEC/EN (62368-1)60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	D12/D15	D53/D125
1	NC		
2	NC		
3	+Vout	+Vout	+Vout1
4	-Vout	Common	Common
5	No Pin	-Vout	+Vout2
6	AC Netural		
7	AC Line		

NC: No Connection

AAF-05 Series | 5W

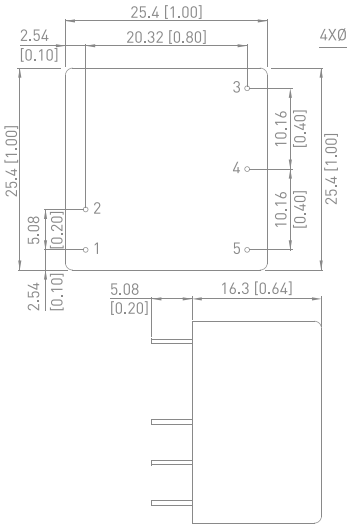
Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AAF-05S03	85-264VAC 120-370VDC	3.3	1,515	74%
AAF-05S05		5	1,000	80%
AAF-05S09		9	555	82%
AAF-05S12		12	416	82%
AAF-05S15		15	333	83%
AAF-05S24		24	208	83%
AAF-05S48		48	104	85%

UL 62368-1

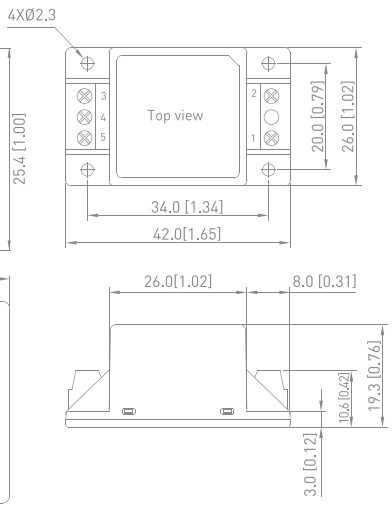
- Ultra Compact Size 1.0 x 1.0 x 0.64"
- Fully Encapsulated Plastic Case for PCB and Chassis Mounting Version
- Universal Input 85-264VAC
- I/O Isolation 3000VAC with Reinforced Insulation
- No Min. Load Requirement
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55032/14-1 Class B Approved
- EMS Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Eco Design, No Load Input Power 300mW max.
- Safety Approval to UL/cUL/IEC/EN 62368-1(60950-1),TUV IEC/EN 60335-1 & CE Marking

Mechanical Dimensions

PCB



Chassis



Pin Connections

Pin	Function
1	AC Netural
2	AC Line
3	NC
4	-Vout
5	+Vout

NC= No Connection

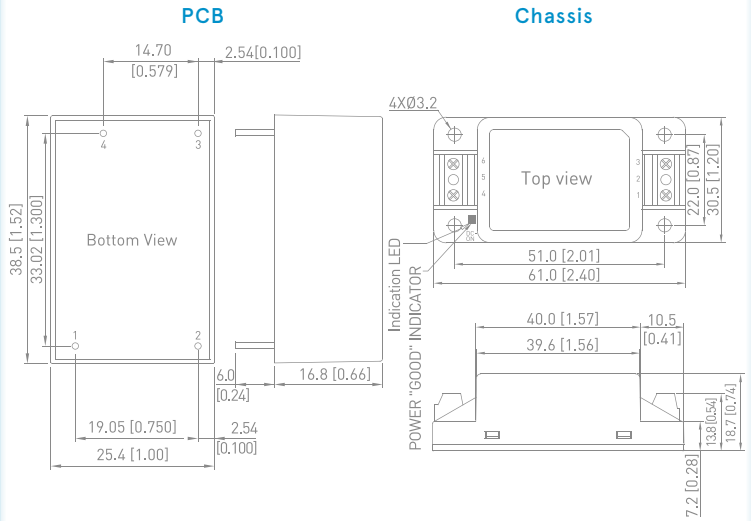
AMF-07 Series | 7W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AMF-07S05	85-264VAC 90-370VDC	5	1,400	80%
AMF-07S12		12	585	84%
AMF-07S15		15	467	84%
AMF-07S24		24	292	85%
AMF-07S48		48	146	84%

UL 62368-1

- Ultra Compact Size 1.52x1.00x0.66"
- Fully Encapsulated Plastic Case for PCB and Chassis Mounting Version
- Universal Input 85-264VAC, 90-370VDC, 47-440Hz
- I/O Isolation 3000VAC with Reinforced Insulation
- No Min. Load Requirement & Low no-load power consumption
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN55014-1/55032 Class B Approved
- EMS Immunity EN61000-4-2,3,4,5,6,8,11 Approved
- Safety Approval to UL/cUL/IEC/EN 62368-1, IEC/EN 60335-1 & CE Marking

Mechanical Dimensions



Pin Connections

Pin	PCB	Chassis
1	AC Netural	AC Netural
2	AC Line	No Pin
3	-Vout	AC Line
4	+Vout	-Vout
5	-	No Pin
6	-	+Vout

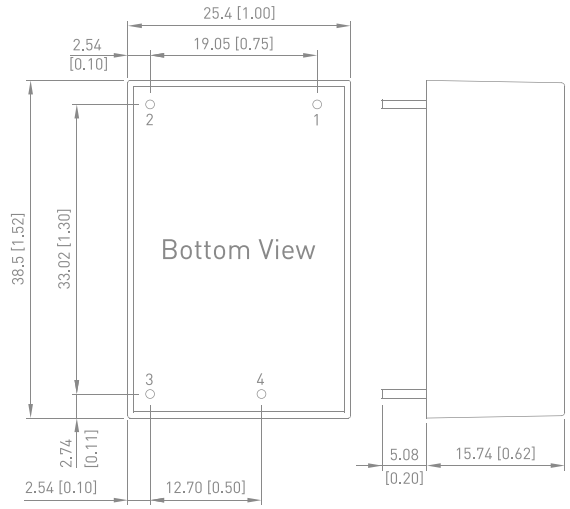
ACF-10 Series | 10W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
ACF-10S03	85-264VAC 120-370VDC	3.3	2,600	77%
ACF-10S05		5	2,000	80%
ACF-10S09		9	1,100	83%
ACF-10S12		12	830	84%
ACF-10S15		15	660	84%
ACF-10S24		24	410	86%
ACF-10S48		48	210	84%

UL 62368-1 TÜVRheinland TÜV 60335-1 CB Scheme RoHS Compliant

- Ultra Compact Size 1.5 x 1.0 x 0.6"
- Fully Encapsulated Module for PCB Mounting
- Universal Input 85-264VAC, 47-440Hz
- I/O Isolation 4000VAC with Reinforced Insulation
- No Min. Load Requirement
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55032/14-1 Class B Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Eco Design, Low No Load Power Consumption← 150mW
- Safety Approval to UL/cUL/IEC/EN 62368-1(60950-1),TUV IEC/EN 60335-1 & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	AC Netural
2	AC Line
3	-Vout
4	+Vout

AMF-15 Series | 15W

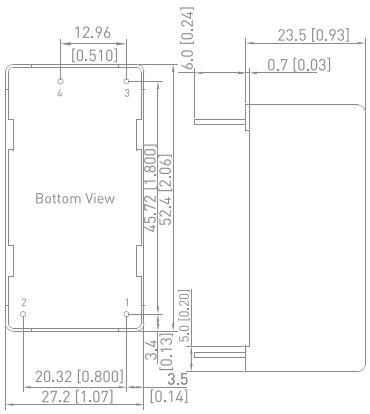
Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AMF-15S051	85-264VAC 90-370VDC	5.1	3,000	80%
AMF-15S12		12	1,250	85%
AMF-15S15		15	1,000	86%
AMF-15S24		24	625	86%
AMF-15S48		48	313	86%

UL 62368-1

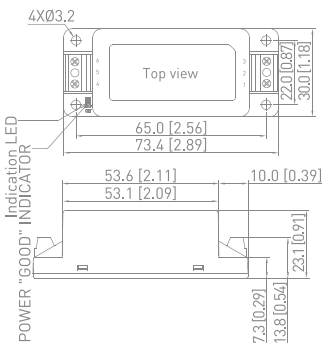
- Ultra Compact Size 2.52x1.77x0.94 "
- Fully Encapsulated Plastic Case for PCB, Chassis and DIN-Rail Mounting Version
- Universal Input 85-264VAC, 90-370VDC, 47-440Hz
- I/O Isolation 3000VAC with Reinforced Insulation
- No Min. Load Requirement & Low no-load power consumption
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN55014-1/55032 Class B Approved
- EMS Immunity EN61000-4-2,3,4,5,6,8,11 Approved
- Safety Approval to UL/cUL/IEC/EN 62368-1, IEC/EN 60335-1 &CE Marking

Mechanical Dimensions

PCB



Chassis



Pin Connections

Pin	PCB	Chassis
1	AC Netural	AC Netural
2	AC Line	No Pin
3	-Vout	AC Line
4	+Vout	+Vout
5	-	No Pin
6	-	-Vout

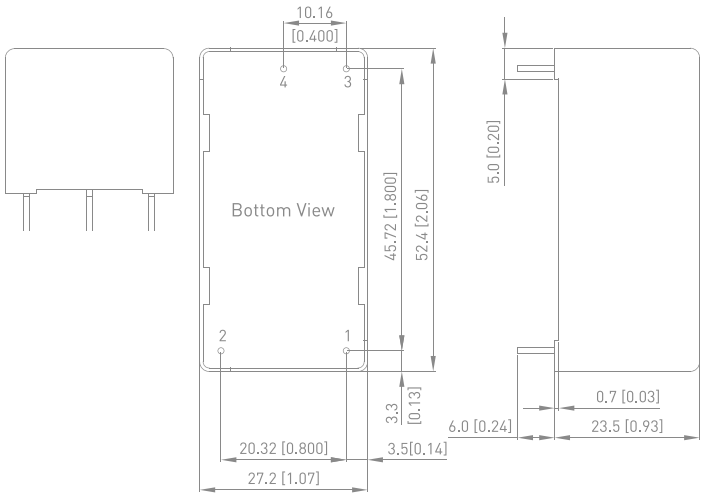
AGF-15 Series | 15W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AGF-15S033	85-264VAC 120-370VDC	3.3	3,500	75%
AGF-15S05		5	3,000	79%
AGF-15S09		9	1,667	81%
AGF-15S12		12	1,250	82%
AGF-15S15		15	1,000	82%
AGF-15S24		24	625	84%
AGF-15S48		48	313	82%

UL 62368-1 TUV 60335-1 CB Scheme RoHS

- Ultra Compact Size 2.06 x 1.07 x 0.93"
- Fully Encapsulated Module for PCB Mounting
- Universal Input 85-264VAC, 47-440Hz
- I/O Isolation 3000VAC with Reinforced Insulation
- No Min. Load Requirement
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55032/14-1 Class B Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Eco Design, Low No Load Power Consumption ← 100mW
- UL/cUL/IEC/EN 62368-1(60950-1), TUV IEC/EN 60335-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	AC Netural
2	AC Line
3	+Vout
4	-Vout

NEW

AMF-30 Series | 30W

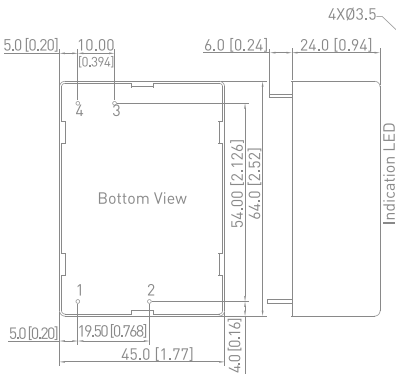
Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AMF-30S051	85-264VAC 90-370VDC	5.1	5,000	86%
AMF-30S12		12	2,500	88%
AMF-30S15		15	2,000	88%
AMF-30S24		24	1,250	88%
AMF-30S48		48	625	88%

UL 62368-1

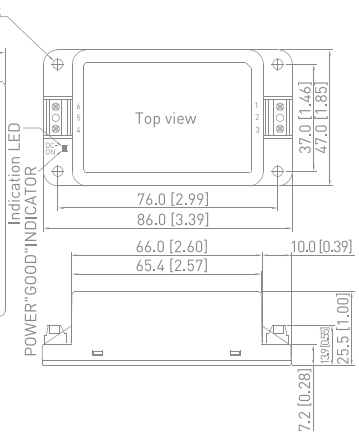
- Ultra Compact Size 2.52x1.77x0.94 "
- Fully Encapsulated Plastic Case for PCB, Chassis and DIN-Rail Mounting Version
- Universal Input 85-264VAC, 90-370VDC, 47-440Hz
- I/O Isolation 3000VAC with Reinforced Insulation
- No Min. Load Requirement & Low no-load power consumption
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN55014-1/55032 Class B Approved
- EMS Immunity EN61000-4-2,3,4,5,6,8,11 Approved
- Safety Approval to UL/cUL/IEC/EN 62368-1, IEC/EN 60335-1 &CE Marking

Mechanical Dimensions

PCB



Chassis



Pin Connections

Pin	PCB	Chassis
1	AC Line	AC Line
2	AC Netural	No Pin
3	+Vout	AC Netural
4	-Vout	+Vout
5	-	No Pin
6	-	-Vout

AMF-60 Series 60W

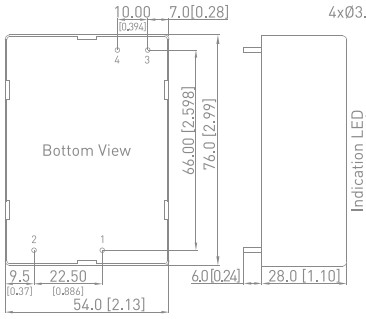
Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AMF-60S051	85-264VAC 90-370VDC	5.1	10,000	87%
AMF-60S12		12	5,000	89%
AMF-60S15		15	4,000	89%
AMF-60S24		24	2,500	89%
AMF-60S48		48	1,250	89%

UL 62368-1

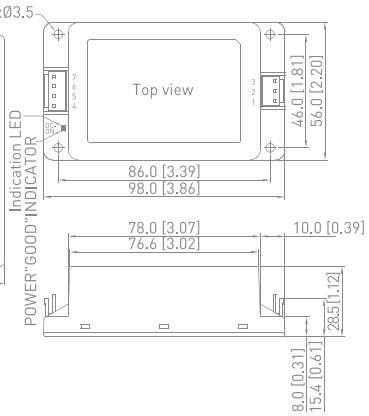
- Ultra Compact Size 2.99x2.13x1.10 "
- Fully Encapsulated Plastic Case for PCB, Chassis and DIN-Rail Mounting Version
- Universal Input 85-264VAC, 90-370VDC, 47-440Hz
- I/O Isolation 3000VAC with Reinforced Insulation
- No Min. Load Requirement & Low no-load power consumption
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN55014-1/55032 Class B Approved
- EMC Immunity EN61000-4-2,3,4,5,6,8,11 Approved
- Safety Approval to UL/cUL/IEC/EN 62368-1, IEC/EN 60335-1 & CE Marking

Mechanical Dimensions

PCB



Chassis



Pin Connections

Pin	PCB	Chassis
1	AC Line	AC Line
2	AC Netural	No Pin
3	-Vout	AC Netural
4	+Vout	-Vout
5	-	-Vout
6	-	+Vout
7	-	+Vout

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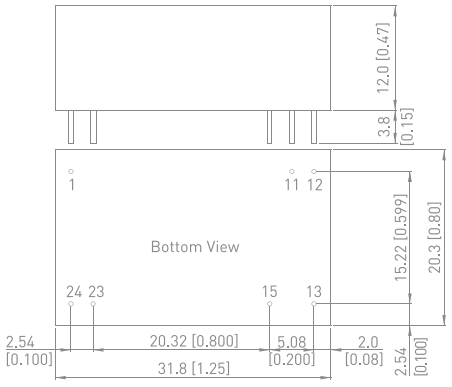
MINMAX TECHNOLOGY

MIZI03 Series | 3W

- Industrial Standard DIP-24 Package
- Ultra-wide Input Ranges 9-36VDC, 18-75VDC, 40-160VDC
- I/O Isolation 3000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-Voltage, Overload and Short Circuit Protection
- EMI Emission EN 55032/11 Class A Approved
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIZI03-24S05	24 (9 - 36)	5	600	80%
MIZI03-24S12		12	250	84%
MIZI03-24S15		15	200	85%
MIZI03-24D12		±12	±125	83%
MIZI03-24D15		±15	±100	84%
MIZI03-48S05	48 (18 - 75)	5	600	80%
MIZI03-48S12		12	250	83%
MIZI03-48S15		15	200	84%
MIZI03-48D12		±12	±125	83%
MIZI03-48D15		±15	±100	83%
MIZI03-110S05	110 (40 - 160)	5	600	80%
MIZI03-110S12		12	250	84%
MIZI03-110S15		15	200	84%
MIZI03-110D12		±12	±125	83%
MIZI03-110D15		±15	±100	85%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MKZI10 Series | 10W

- Industrial Standard 2"×1" Package
- Ultra-wide Input Range 9-36VDC, 18-75VDC, 40-160VDC
- I/O Isolation 3000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off, Output Voltage Trim
- Conducted EMI EN 55032/11 Class A Approved
- Passed Temperature Cycling Test (TCT) 500 cycles (with suffix P)
- Passed Temperature and Humidity Bias Test (THB) for 1000 hours (with suffix P)
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKZI10-24S05	24 (9 - 36)	5	2,000	84%
MKZI10-24S12		12	835	86%
MKZI10-24S15		15	670	87%
MKZI10-24S24		24	417	88%
MKZI10-24D12		±12	±417	86%
MKZI10-24D15		±15	±335	87%
MKZI10-48S05	48 (18 - 75)	5	2,000	85%
MKZI10-48S12		12	835	87%
MKZI10-48S15		15	670	87%
MKZI10-48S24		24	417	86%
MKZI10-48D12		±12	±417	89%
MKZI10-48D15		±15	±335	88%
MKZI10-110S05	110 (40 - 160)	5	2,000	82%
MKZI10-110S12		12	835	85%
MKZI10-110S15		15	670	85%
MKZI10-110S24		24	417	85%
MKZI10-110D12		±12	±417	86%
MKZI10-110D15		±15	±335	86%

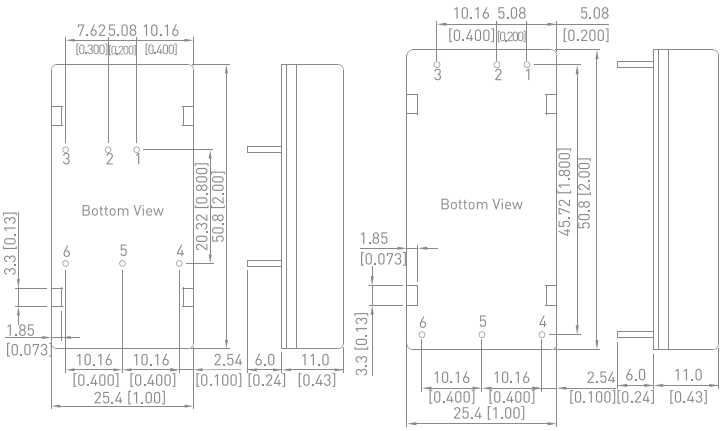
*To order the converter with heatsink, please add a suffix –HS.

*To order the converter with package type A, please add a suffix A.

- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions

Package Type A



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	Trim	Common
6	-Vout	-Vout

Pin Connections(For Type A)

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

MKZI20 Series | 20W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKZI20-24S05	24 (9 - 36)	5	4,000	87%
MKZI20-24S12		12	1,670	87%
MKZI20-24S15		15	1,330	87%
MKZI20-24S24		24	833	87%
MKZI20-24D12		±12	±833	86%
MKZI20-24D15		±15	±667	86%
MKZI20-48S05	48 (18 - 75)	5	4,000	87%
MKZI20-48S12		12	1,670	88%
MKZI20-48S15		15	1,330	88%
MKZI20-48S24		24	833	88%
MKZI20-48D12		±12	±833	87%
MKZI20-48D15		±15	±667	87%
MKZI20-110S05	110 (40 - 160)	5	4,000	84%
MKZI20-110S12		12	1,670	86%
MKZI20-110S15		15	1,330	86%
MKZI20-110S24		24	833	86%
MKZI20-110D12		±12	±833	86%
MKZI20-110D15		±15	±667	86%

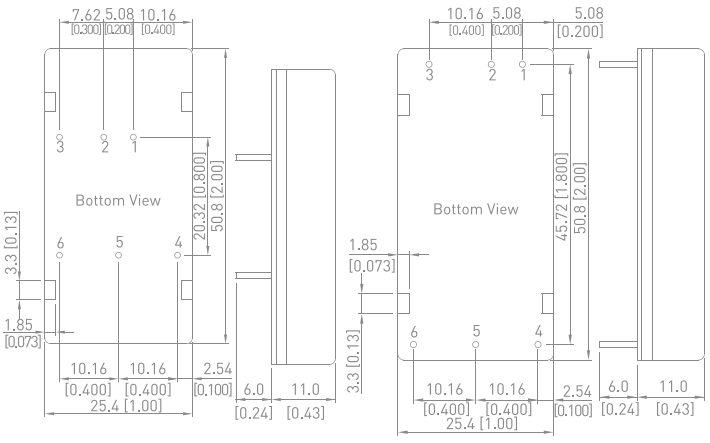
*To order the converter with heatsink, please add a suffix –HS.

*To order the converter with package type A, please add a suffix A.

- Industrial Standard 2"x1" Package
- Ultra-wide Input Range 9-36VDC, 18-75VDC, 40-160VDC
- I/O Isolation 3000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off, Output Voltage Trim
- Conducted EMI EN 55032/11 Class A Approved
- Passed Temperature Cycling Test (TCT) 500 cycles (with suffix P)
- Passed Temperature and Humidity Bias Test (THB) for 1000 hours (with suffix P)
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions

Package Type A



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	Trim	Common
6	-Vout	-Vout

Pin Connections(For Type A)

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

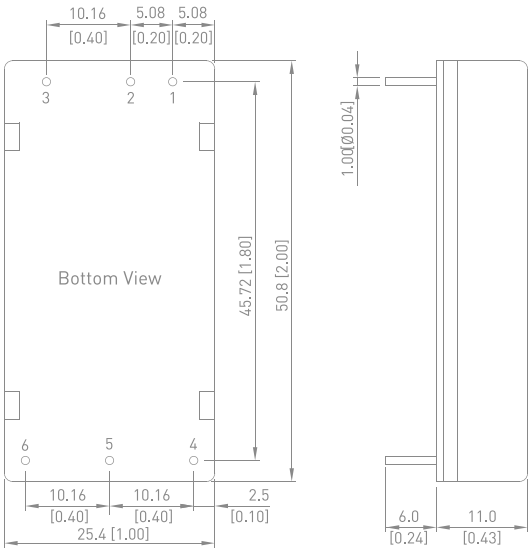
MKZI40 Series | 40W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKZI40-110S05	110 (36 - 160)	5	8,000	88%
MKZI40-110S12		12	3,330	89%
MKZI40-110S15		15	2,670	89%
MKZI40-110S24		24	1,670	89%
MKZI40-110S54		54	741	90%
MKZI40-110D12		±12	±1670	89%
MKZI40-110D15		±15	±1330	89%

*To order the converter with heatsink, please add a suffix –HS.

- Industrial Standard 2"×1" Package
- Ultra-wide Input Range 36-160VDC
- I/O Isolation 3000VAC with Reinforced Insulation
- Excellent Efficiency up to 90%
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

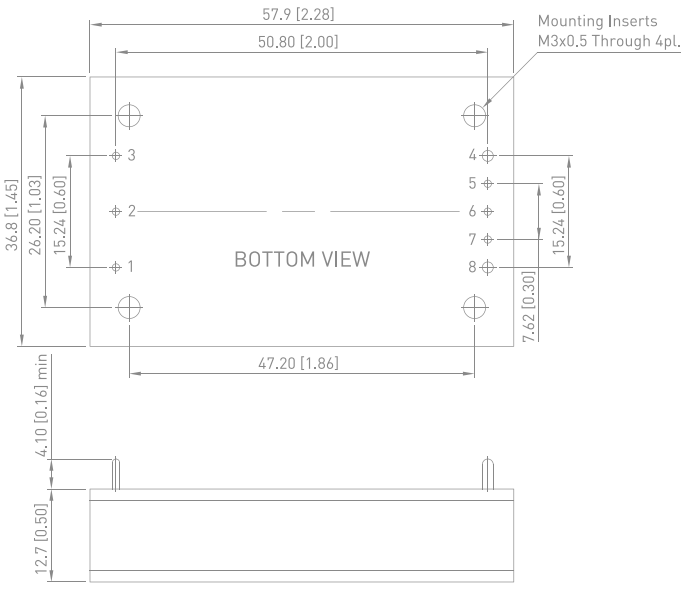
MTQZ50 Series | 50W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MTQZ50-72S05	72 (43 - 101)	5	10,000	90%
MTQZ50-72S12		12	4,170	92%
MTQZ50-72S15		15	3,330	92%
MTQZ50-72S24		24	2,080	91%
MTQZ50-110S05	110 (66 - 160)	5	10,000	90%
MTQZ50-110S12		12	4,170	91%
MTQZ50-110S15		15	3,330	92%
MTQZ50-110S24		24	2,080	91%

*To order the converter with heatsink, please add a suffix –HS.

- Industrial Standard Quarter Brick Package
- Wide Input Range 43-101VDC & 66-160VDC
- Excellent Efficiency up to 92%
- I/O Isolation 3000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off, Output Voltage Trim, Output Sensing
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	Remote On/Off
3	-Vin
4	-Vout
5	* -Sense
6	Trim
7	* +Sense
8	+Vout

*If remote sense not used the +sense should be connected to +output and –sense should be connected to –output
Maximum output deviation is 10% inclusive of trim

NEW

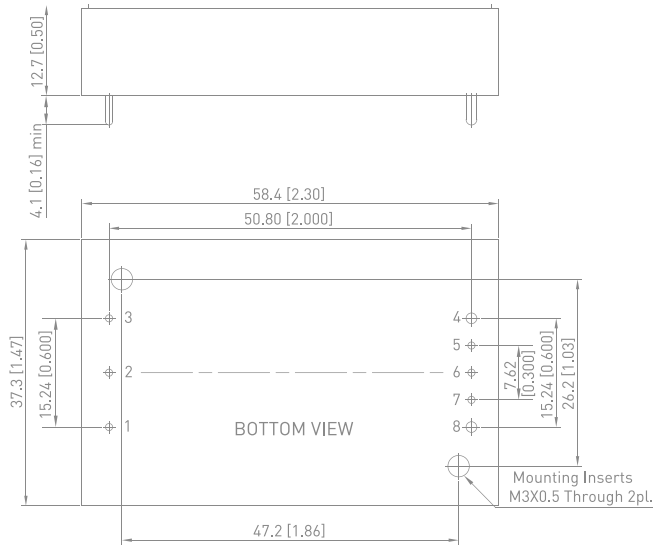
MRZI75 Series | 75W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MRZI75-110S05	110 (36 - 160)	5	15,000	89%
MRZI75-110S12		12	6,250	91%
MRZI75-110S15		15	5,000	91%
MRZI75-110S24		24	3,125	90%
MRZI75-110S54		54	1,390	89%

*To order the converter with heatsink, please add a suffix –HS.

- Industrial Standard Quarter Brick Package
- Ultra-wide Input Range 36-160VDC
- Excellent Efficiency up to 91%
- I/O Isolation 2000VAC with Reinforced Insulation
- Temperature Cycle Test (TCT) more than 1000 Cycles Passed
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim, Output Sense
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	Remote On/Off
3	-Vin
4	-Vout
5	* -Sense
6	Trim
7	* +Sense
8	+Vout

*If remote sense not used the +sense should be connected to +output and –sense should be connected to –output
Maximum output deviation is 10% inclusive of trimection

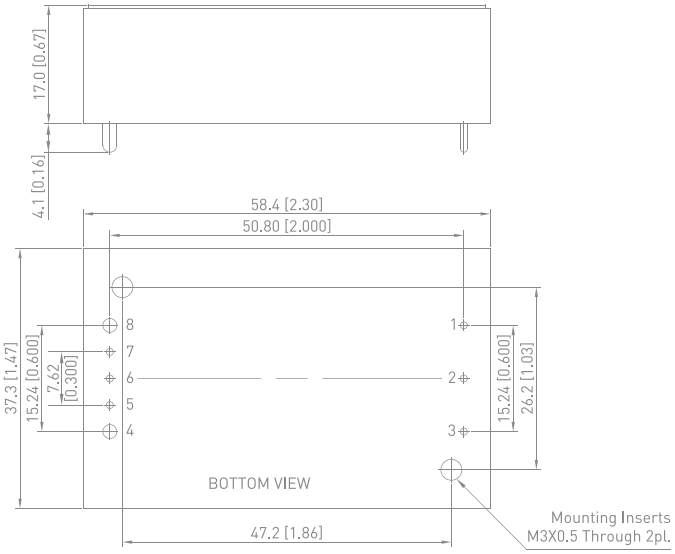
MRZI100 Series | 100W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MRZI100-110S05	110 (36 - 160)	5	20,000	91.5%
MRZI100-110S12		12	8,400	91%
MRZI100-110S15		15	6,700	90.5%
MRZI100-110S24		24	4,200	89%
MRZI100-110S54		54	1,850	89%

*To order the converter with heatsink, please add a suffix –HS.

- Industrial Standard Quarter Brick Package
- Ultra-wide Input Range 36-160VDC
- I/O Isolation 2000VAC with Reinforced Insulation
- Excellent Efficiency up to 91.5%
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim, Output Sense
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	Remote On/Off
3	-Vin
4	-Vout
5	* -Sense
6	Trim
7	* +Sense
8	+Vout

*If remote sense not used the +sense should be connected to +output and –sense should be connected to –output
Maximum output deviation is 10% inclusive of trim

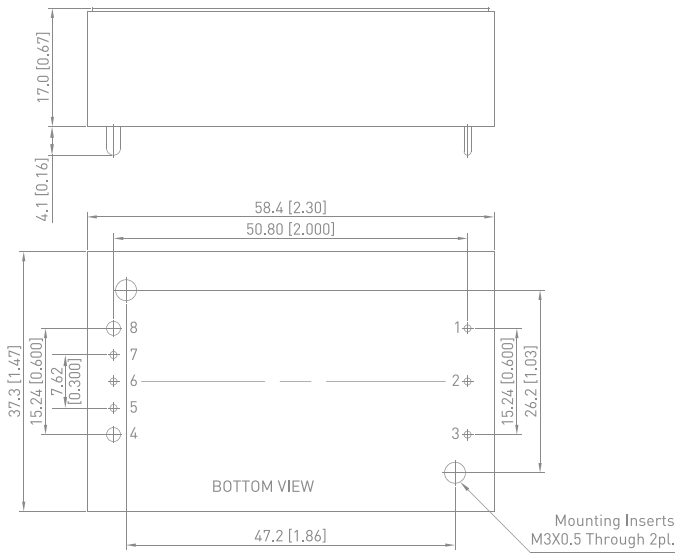
MRZI150 Series | 150W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MRZI150-110S05	110 (36 - 160)	5	27,000	90%
MRZI150-110S12		12	12,500	90%
MRZI150-110S15		15	10,000	89%
MRZI150-110S24		24	6,250	88%
MRZI150-110S54		54	2,780	88.5%

*To order the converter with heatsink, please add a suffix –HS.

- Industrial Standard Quarter Brick Package
- Ultra-wide Input Range 36-160VDC
- I/O Isolation 2000VAC with Reinforced Insulation
- Excellent Efficiency up to 90%
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim, Output Sense
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	Remote On/Off
3	-Vin
4	-Vout
5	* -Sense
6	Trim
7	* +Sense
8	+Vout

*If remote sense not used the +sense should be connected to +output and -sense should be connected to -output
Maximum output deviation is 10% inclusive of trim

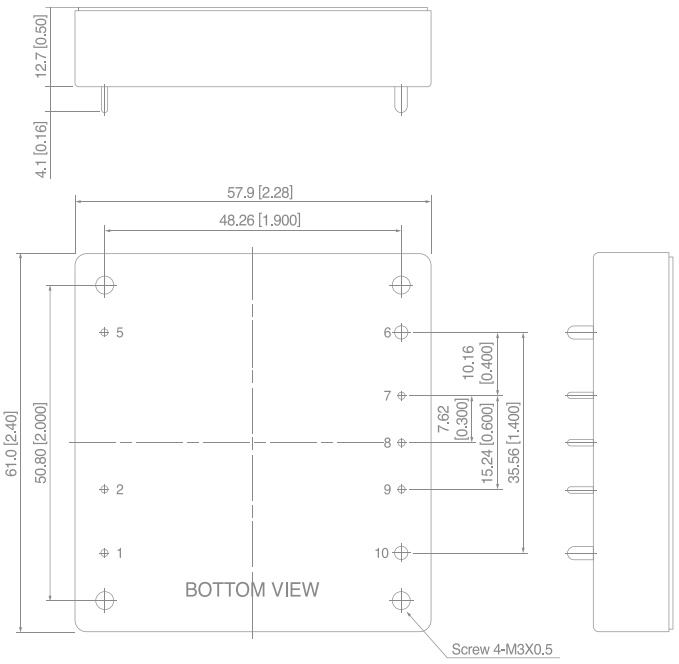
NEW

MRHI150 Series | 150W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MRHI150-24S05	24 (9 - 36)	5	30,000	87.5%
MRHI150-24S12		12	12,500	90%
MRHI150-24S15		15	10,000	90%
MRHI150-24S24		24	6,250	90%
MRHI150-24S54		54	2,780	90%

- Industry standard Half Brick size
- Wide input voltage range 9-36VDC
- Excellent efficiency of 90%
- Reinforced insulation, isolation voltage 1680VAC
- Wide Operating Temperature Range
- Passed Temperature Cycling Test (TCT) 500 cycles
- No minimum load required
- Under-voltage, Overload/Voltage/Temp. and Short Circuit Protection
- Remote On/Off Control, Output Voltage Trim, Output Sense
- Vibration and Shock/Bump Test EN 61373 Approved
- Cooling, Dry & Damp Heat Test IEC/EN 60068-2-1, 2, 30 Approved
- Railway EMC Standard EN 50121-3-2 Approved
- Railway Certified EN 50155 (IEC60571) Approved
- Fire Protection Test EN 45545-2 Approved
- Operating Altitude 5000m
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



The screw locked torque: MAX 5.0 kgf-cm/0.49 N-m

Pin Connections

Pin	Function
1	+Vin
2	Remote On/Off
5	-Vin
6	-Vout
7	* -Sense
8	Trim
9	* +Sense
10	+Vout

NC: No Connection

*If remote sense not used the +sense should be connected to +output and –sense should be connected to –output

Maximum output deviation is 10% inclusive of trim

POWER FOR
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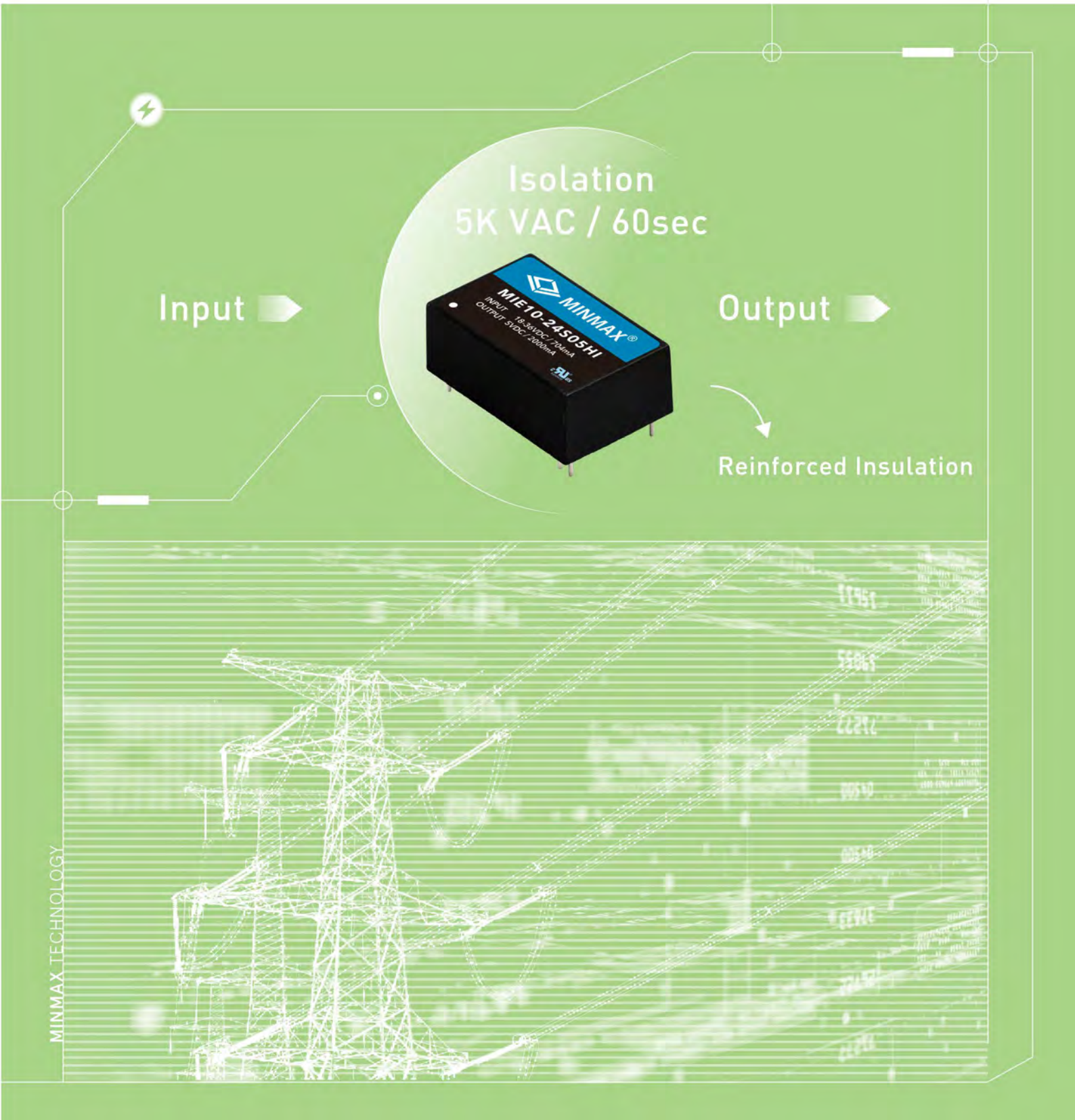
ULTRA-HIGH ISOLATION POWER SOLUTIONS



MINMAX TECHNOLOGY

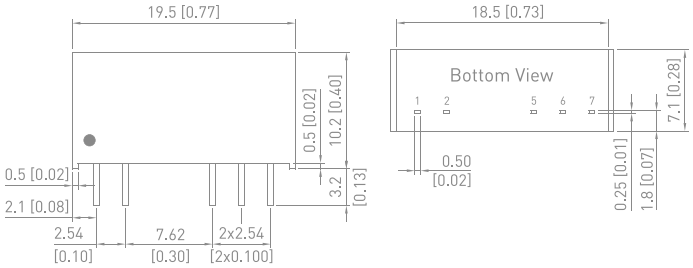
MA01-HI Series | 1W

UL 62368-1 Scheme

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- Ultra-high I/O Isolation 5200VDC
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MA01-05S033HI	5 (4.95-5.05)	3.3	303	70%
MA01-05S05HI		5	200	70%
MA01-05S09HI		9	111	75%
MA01-05S12HI		12	84	77%
MA01-05S15HI		15	66	78%
MA01-05D05HI		±5	±100	71%
MA01-05D09HI		±9	±56	75%
MA01-05D12HI		±12	±42	77%
MA01-05D15HI		±15	±33	78%
MA01-05A1509HI		15 -9	33 -55	76%
MA01-12S033HI	12 (11.88-12.12)	3.3	303	71%
MA01-12S05HI		5	200	71%
MA01-12S09HI		9	111	76%
MA01-12S12HI		12	84	78%
MA01-12S15HI		15	66	79%
MA01-12D05HI		±5	±100	72%
MA01-12D09HI		±9	±56	76%
MA01-12D12HI		±12	±42	78%
MA01-12D15HI		±15	±33	79%
MA01-12A1509HI		15 -9	33 -55	77%
MA01-15S033HI	15 (14.85-15.15)	3.3	303	70%
MA01-15S05HI		5	200	70%
MA01-15S09HI		9	111	75%
MA01-15S12HI		12	84	75%
MA01-15S15HI		15	66	79%
MA01-15D05HI		±5	±100	71%
MA01-15D09HI		±9	±56	75%
MA01-15D12HI		±12	±42	78%
MA01-15D15HI		±15	±33	79%
MA01-15A1509HI		15 -9	33 -55	76%
MA01-24S033HI	24 (23.76-24.24)	3.3	303	70%
MA01-24S05HI		5	200	70%
MA01-24S09HI		9	111	75%
MA01-24S12HI		12	84	78%
MA01-24S15HI		15	66	80%
MA01-24D05HI		±5	±100	71%
MA01-24D09HI		±9	±56	75%
MA01-24D12HI		±12	±42	77%
MA01-24D15HI		±15	±33	78%
MA01-24A1509HI		15 -9	33 -55	75%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

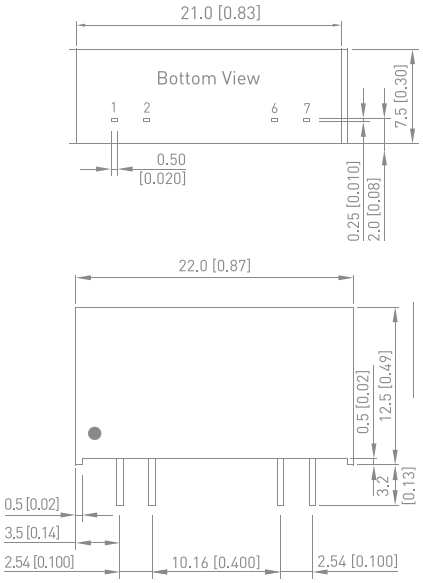
MAEU01-HI Series | 1W

UL 62368-1 Scheme

- Industrial Standard SIP-7 Package
- Ultra-high I/O Isolation 8000VDC with Reinforced Insulation, rate for 480Vrms working voltage
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL/IEC/EN 62368-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAEU01-05S05HI	5 (4.5 - 5.5)	5	200	79%
MAEU01-05S12HI		12	84	80%
MAEU01-05S15HI		15	68	81%
MAEU01-12S05HI	12 (10.8 - 13.2)	5	200	79%
MAEU01-12S12HI		12	84	81%
MAEU01-12S15HI		15	68	79%
MAEU01-24S05HI	24 (21.6 - 26.4)	5	200	76%
MAEU01-24S12HI		12	84	79%
MAEU01-24S15HI		15	68	79%

Mechanical Dimensions



Pin Connections

Pin	Function
1	+Vin
2	-Vin
6	-Vout
7	+Vout

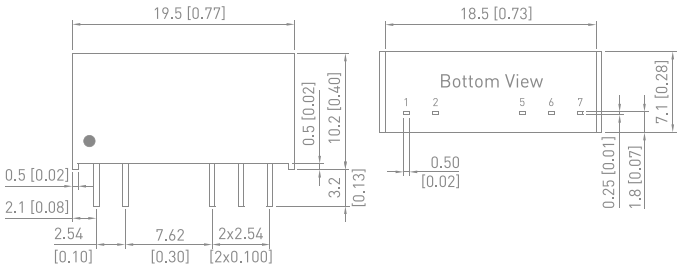
MAEU02-HI Series | 2W

UL 62368-1 Scheme

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- Ultra-high I/O Isolation 5700VDC
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAEU02-05S033HI	5 (4.95-5.05)	3.3	500	74%
MAEU02-05S05HI		5	400	80%
MAEU02-05S09HI		9	222	81%
MAEU02-05S12HI		12	168	82%
MAEU02-05S15HI		15	132	79%
MAEU02-05D05HI		±5	±200	78%
MAEU02-05D09HI		±9	±112	80%
MAEU02-05D12HI		±12	±84	80%
MAEU02-05D15HI		±15	±66	79%
MAEU02-05A1509HI		15 -9	66 -110	80%
MAEU02-12S033HI	12 (11.88-12.12)	3.3	500	76%
MAEU02-12S05HI		5	400	79%
MAEU02-12S09HI		9	222	81%
MAEU02-12S12HI		12	168	83%
MAEU02-12S15HI		15	132	82%
MAEU02-12D05HI		±5	±200	79%
MAEU02-12D09HI		±9	±112	81%
MAEU02-12D12HI		±12	±84	82%
MAEU02-12D15HI		±15	±66	83%
MAEU02-12A1509HI		15 -9	66 -110	81%
MAEU02-15S033HI	15 (14.85-15.15)	3.3	500	77%
MAEU02-15S05HI		5	400	79%
MAEU02-15S09HI		9	222	83%
MAEU02-15S12HI		12	168	83%
MAEU02-15S15HI		15	132	85%
MAEU02-15D05HI		±5	±200	81%
MAEU02-15D09HI		±9	±112	84%
MAEU02-15D12HI		±12	±84	82%
MAEU02-15D15HI		±15	±66	82%
MAEU02-15A1509HI		15 -9	66 -110	83%
MAEU02-24S033HI	24 (23.76-24.24)	3.3	500	76%
MAEU02-24S05HI		5	400	77%
MAEU02-24S09HI		9	222	81%
MAEU02-24S12HI		12	168	82%
MAEU02-24S15HI		15	132	82%
MAEU02-24D05HI		±5	±200	77%
MAEU02-24D09HI		±9	±112	81%
MAEU02-24D12HI		±12	±84	81%
MAEU02-24D15HI		±15	±66	80%
MAEU02-24A1509HI		15 -9	66 -110	81%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

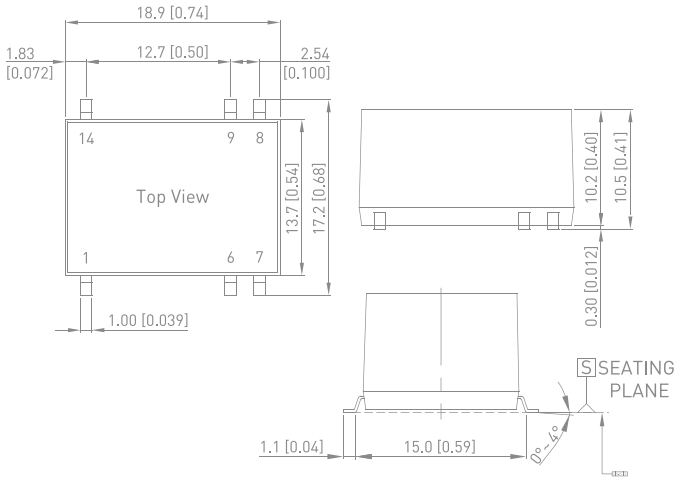
MSCEU01-HI Series | 1W

UL 62368-1 CB Scheme RoHS Compliant

- Industrial Standard SMD Package
- Ultra-high I/O Isolation 8000VDC with Reinforced Insulation, rate for 480Vrms Working Voltage
- Wide Operating Temperature Range
- Short Circuit Protection
- UL/cUL/IEC/EN 62368-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSCEU01-05S05HI	5 (4.5 - 5.5)	5	200	76%
MSCEU01-05S12HI		12	84	80%
MSCEU01-05S15HI		15	68	83%
MSCEU01-05D12HI		±12	±42	80%
MSCEU01-05D15HI		±15	±33	84%
MSCEU01-12S05HI	12 (10.8 - 13.2)	5	200	76%
MSCEU01-12S12HI		12	84	79%
MSCEU01-12S15HI		15	68	80%
MSCEU01-12D12HI		±12	±42	79%
MSCEU01-12D15HI		±15	±33	80%
MSCEU01-24S05HI	24 (21.6 - 26.4)	5	200	76%
MSCEU01-24S12HI		12	84	80%
MSCEU01-24S15HI		15	68	80%
MSCEU01-24D12HI		±12	±42	80%
MSCEU01-24D15HI		±15	±33	80%

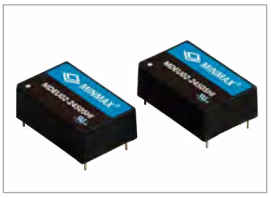
Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
6	NC	Common
7	NC	-Vout
8	+Vout	+Vout
9	-Vout	Common
14	+Vin	+Vin

MDEU02-HI Series | 2W

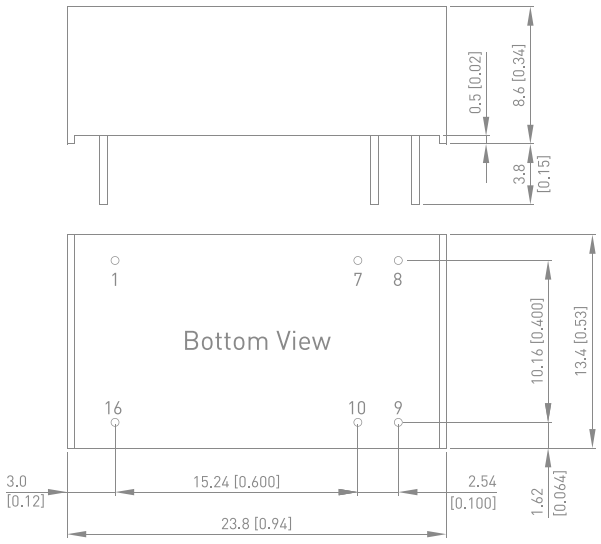


UL 62368-1 CB Scheme RoHS Compliant

- Industrial Standard DIP-16 Package
- Unregulated Output Voltage
- Ultra-high I/O Isolation 8000VDC with Reinforced Insulation,rate for 300Vrms Working Voltage
- Wide Operating Temperature Range
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDEU02-05S05HI	5 (4.5 - 5.5)	5	400	65%
MDEU02-05S12HI		12	165	65%
MDEU02-05S15HI		15	133	66%
MDEU02-05D12HI		±12	±83	72%
MDEU02-05D15HI		±15	±66	73%
MDEU02-12S05HI	12 (10.8 - 13.2)	5	400	65%
MDEU02-12S12HI		12	165	65%
MDEU02-12S15HI		15	133	66%
MDEU02-12D12HI		±12	±83	74%
MDEU02-12D15HI		±15	±66	75%
MDEU02-24S05HI	24 (21.6 - 26.4)	5	400	65%
MDEU02-24S12HI		12	165	65%
MDEU02-24S15HI		15	133	66%
MDEU02-24D12HI		±12	±83	74%
MDEU02-24D15HI		±15	±66	75%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

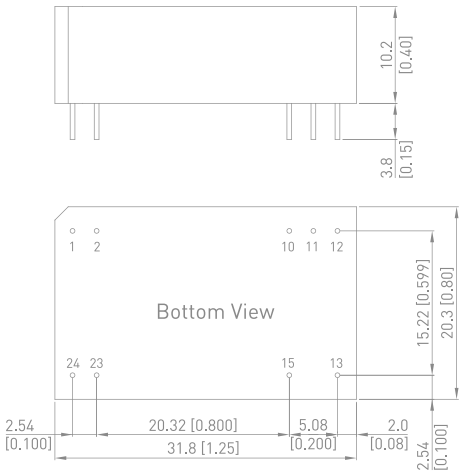
NC= No Connection

MIR500 Series | 2W

- Low Cost
- 6000VDC Isolation
- MTBF → 600,000 Hours
- Short Circuit Protection
- Input 5, 12 and 24VDC
- Output 5, 12, 15, ±5, ±12 and ±15VDC
- Regulated Outputs
- Low Isolation Capacitance
- Low Leakage Current
- 3 Years Product Warranty

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIR501	5 (4.5 ~ 5.5)	5	400	62%
MIR502		12	165	63%
MIR503		15	133	64%
MIR504		±5	±100	42%
MIR505		±12	±83	57%
MIR506		±15	±66	57%
MIR511	12 (10.8 ~ 13.2)	5	400	62%
MIR512		12	165	63%
MIR513		15	133	64%
MIR514		±5	±100	45%
MIR515		±12	±83	59%
MIR516		±15	±66	59%
MIR521	24 (21.6 ~ 26.4)	5	400	62%
MIR522		12	165	63%
MIR523		15	133	64%
MIR524		±5	±100	45%
MIR525		±12	±83	58%
MIR526		±15	±66	58%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	+Vin	+Vin
10	No Pin	Common
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

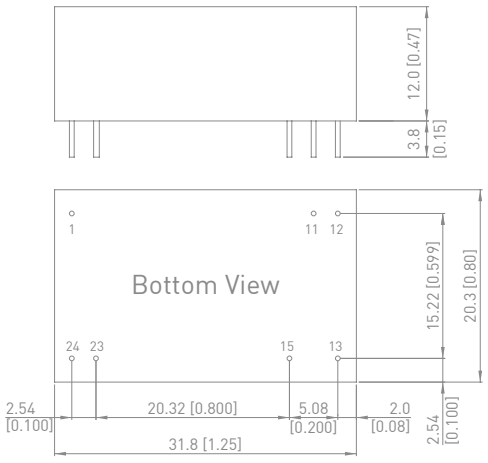
MIE03-HI Series | 3W

UL 62368-1

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Ultra-high I/O Isolation 9000VDC with Reinforced Insulation,rate for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-Voltage, Overload/Voltage and Short Circuit Protection
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIE03-05S05HI	5 (4.5 - 9)	5	700	82%
MIE03-05S058HI		5.8	600	82%
MIE03-05S12HI		12	290	83%
MIE03-05S15HI		15	235	84%
MIE03-05S24HI		24	146	83%
MIE03-05D12HI		±12	±145	84%
MIE03-05D15HI		±15	±115	84%
MIE03-12S05HI	12 (9 - 18)	5	700	82%
MIE03-12S12HI		12	290	86%
MIE03-12S15HI		15	235	87%
MIE03-12S24HI		24	146	86%
MIE03-12D12HI		±12	±145	87%
MIE03-12D15HI		±15	±115	87%
MIE03-24S05HI	24 (18 - 36)	5	700	82%
MIE03-24S12HI		12	290	85%
MIE03-24S15HI		15	235	87%
MIE03-24S24HI		24	146	86%
MIE03-24D12HI		±12	±145	87%
MIE03-24D15HI		±15	±115	86%
MIE03-48S05HI	48 (36 - 75)	5	700	82%
MIE03-48S12HI		12	290	85%
MIE03-48S15HI		15	235	85%
MIE03-48S24HI		24	146	83%
MIE03-48D12HI		±12	±145	84%
MIE03-48D15HI		±15	±115	84%

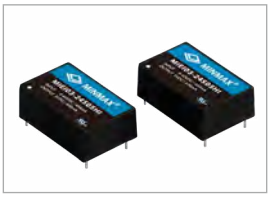
Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MIEI03-HI Series | 3W

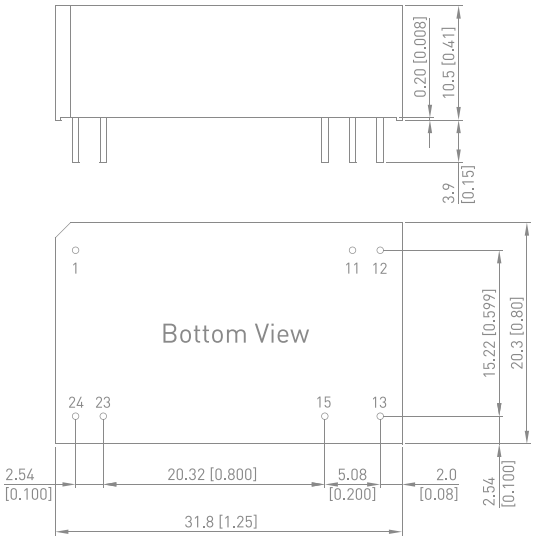


UL 62368-1 Scheme

- Industrial Standard DIP-24 Package
- Ultra-wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- Ultra-high Isolation 8000VDC with Reinforced Insulation, rate for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- Overload and Short Circuit Protection
- Designed-in Conducted EMI meets EN 55032 Class A
- UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIEI03-24S05HI	24 (9 ~ 40)	5	600	77%
MIEI03-24S12HI		12	250	82%
MIEI03-24D12HI		±12	±125	83%
MIEI03-24D15HI		±15	±100	83%
MIEI03-48S05HI	48 (18 ~ 80)	5	600	77%
MIEI03-48S12HI		12	250	82%
MIEI03-48D12HI		±12	±125	83%
MIEI03-48D15HI		±15	±100	83%

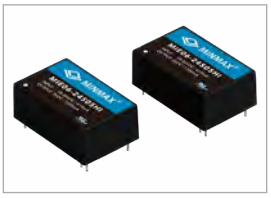
Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MIE06-HI Series | 6W

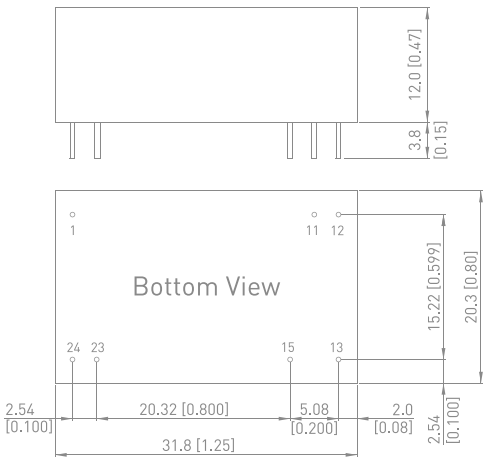


UL 62368-1

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Ultra-high I/O Isolation 9000VDC with Reinforced Insulation, rate for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-Voltage, Overload/Voltage and Short Circuit Protection
- Conducted EMI EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIE06-12S05HI	12 (9 - 18)	5	1,200	83%
MIE06-12S12HI		12	500	86%
MIE06-12S15HI		15	400	86%
MIE06-12S24HI		24	250	86%
MIE06-12D12HI		±12	±250	87%
MIE06-12D15HI		±15	±200	87%
MIE06-24S05HI	24 (18 - 36)	5	1,200	83%
MIE06-24S12HI		12	500	86%
MIE06-24S15HI		15	400	87%
MIE06-24S24HI		24	250	85%
MIE06-24D12HI		±12	±250	86%
MIE06-24D15HI		±15	±200	87%
MIE06-48S05HI	48 (36 - 75)	5	1,200	83%
MIE06-48S12HI		12	500	86%
MIE06-48S15HI		15	400	89%
MIE06-48S24HI		24	250	86%
MIE06-48D12HI		±12	±250	87%
MIE06-48D15HI		±15	±200	88%

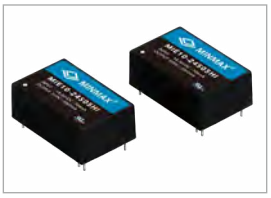
Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MIE10-HI Series | 10W

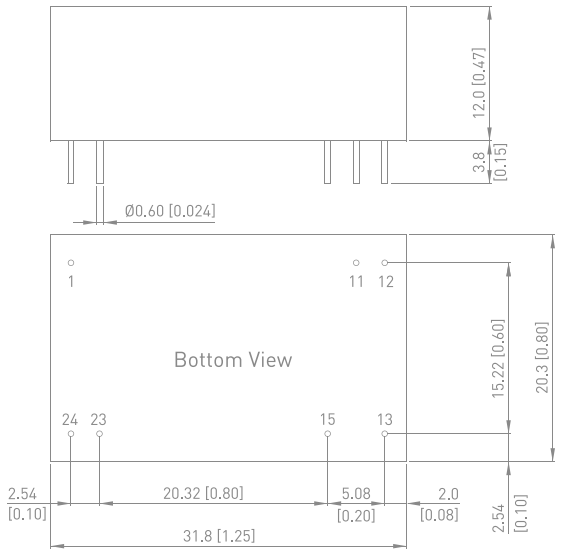


UL 62368-1

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Ultra-high I/O Isolation 9000VDC with reinforced Insulation, rate for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55032 Class A Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIE10-12S033HI	12 (9 - 18)	3.3	2,700	81%
MIE10-12S05HI		5	2,000	83%
MIE10-12S051HI		5.1	2,000	83%
MIE10-12S12HI		12	833	86%
MIE10-12S15HI		15	666	88%
MIE10-12S24HI		24	416	88%
MIE10-12D12HI		±12	±416	88%
MIE10-12D15HI		±15	±333	87%
MIE10-24S033HI	24 (18 - 36)	3.3	2,700	81%
MIE10-24S05HI		5	2,000	84%
MIE10-24S051HI		5.1	2,000	84%
MIE10-24S12HI		12	833	87%
MIE10-24S15HI		15	666	88%
MIE10-24S24HI		24	416	88%
MIE10-24D12HI		±12	±416	88%
MIE10-24D15HI		±15	±333	87%
MIE10-48S033HI	48 (36 - 75)	3.3	2,700	81%
MIE10-48S05HI		5	2,000	84%
MIE10-48S051HI		5.1	2,000	84%
MIE10-48S12HI		12	833	87%
MIE10-48S15HI		15	666	88%
MIE10-48S24HI		24	416	87%
MIE10-48D12HI		±12	±416	87%
MIE10-48D15HI		±15	±333	87%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

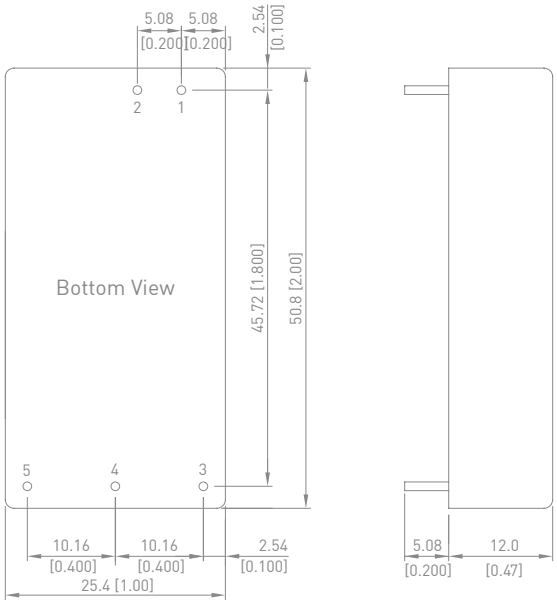
MKE15-HI Series | 15W

UL 62368-1

- Industrial Standard 2"x1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Ultra-high I/O Isolation 8000VDC with Reinforced Insulation,rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- EMI Emission EN55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKE15-12S05HI	12 (9 - 18)	5	3,000	85%
MKE15-12S051HI		5.1	3,000	85%
MKE15-12S12HI		12	1,250	88%
MKE15-12S15HI		15	1,000	88%
MKE15-12S24HI		24	625	88%
MKE15-12D12HI		±12	±625	88%
MKE15-12D15HI		±15	±500	89%
MKE15-24S05HI	24 (18 - 36)	5	3,000	87%
MKE15-24S051HI		5.1	3,000	87%
MKE15-24S12HI		12	1,250	88%
MKE15-24S15HI		15	1,000	89%
MKE15-24S24HI		24	625	90%
MKE15-24D12HI		±12	±625	90%
MKE15-24D15HI		±15	±500	89%
MKE15-48S05HI	48 (36 - 75)	5	3,000	87%
MKE15-48S051HI		5.1	3,000	87%
MKE15-48S12HI		12	1,250	87%
MKE15-48S15HI		15	1,000	90%
MKE15-48S24HI		24	625	89%
MKE15-48D12HI		±12	±625	89%
MKE15-48D15HI		±15	±500	88%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

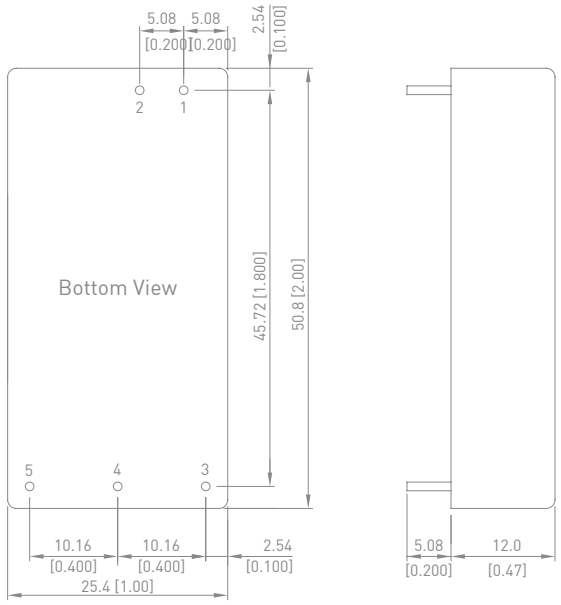
MKE20-HI Series | 20W

UL 62368-1

- Industrial Standard 2"x1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- Ultra-high I/O Isolation 8000VDC with Reinforced Insulation, rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- EMI Emission EN55032 Class A Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKE20-12S05HI	12 (9 - 18)	5	4,000	85%
MKE20-12S051HI		5.1	4,000	85%
MKE20-12S12HI		12	1,670	88%
MKE20-12S15HI		15	1,333	88%
MKE20-12S24HI		24	840	89%
MKE20-12D12HI		±12	±840	89%
MKE20-12D15HI		±15	±670	89%
MKE20-24S05HI	24 (18 - 36)	5	4,000	87%
MKE20-24S051HI		5.1	4,000	87%
MKE20-24S12HI		12	1,670	88%
MKE20-24S15HI		15	1,333	89%
MKE20-24S24HI		24	840	90%
MKE20-24D12HI		±12	±840	90%
MKE20-24D15HI		±15	±670	90%
MKE20-48S05HI	48 (36 - 75)	5	4,000	87%
MKE20-48S051HI		5.1	4,000	87%
MKE20-48S12HI		12	1,670	88%
MKE20-48S15HI		15	1,333	90%
MKE20-48S24HI		24	840	89%
MKE20-48D12HI		±12	±840	89%
MKE20-48D15HI		±15	±670	90%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

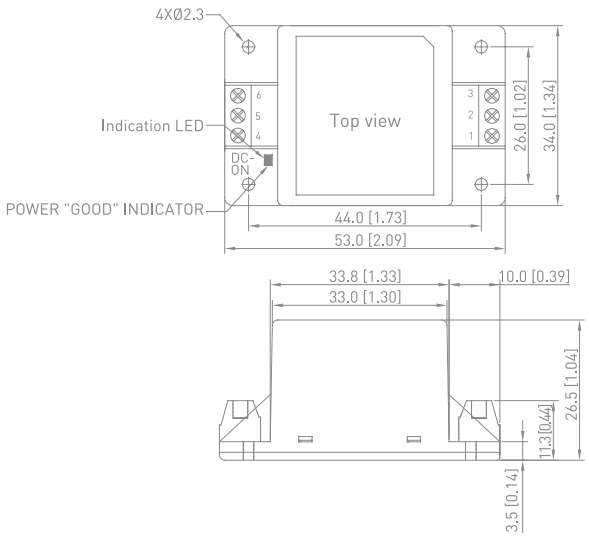
MJA06C Series | 6W

UL 62368-1

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- 80-160VDC Wide Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 84%
- I/O Isolation 3000VAC with Reinforced Insulation,rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MJA06-110S05C	110 (80 - 160)	5	1,200	79%
MJA06-110S051C		5.1	1,200	79%
MJA06-110S12C		12	500	83%
MJA06-110S15C		15	400	83%
MJA06-110S24C		24	250	84%
MJA06-110S48C		48	125	82%
MJA06-110D12C		±12	±250	84%
MJA06-110D15C		±15	±200	84%
MJA06-110D24C		±24	±125	83%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	-Vout	-Vout
5	NC	Common
6	+Vout	+Vout

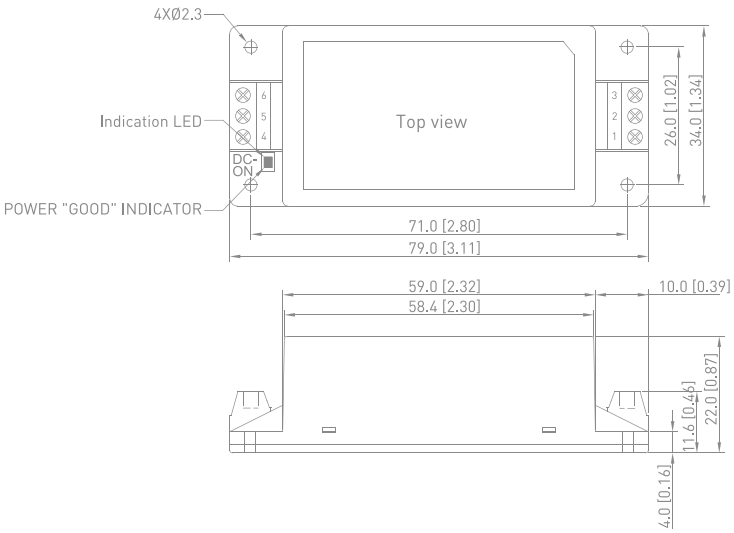
NC= No Connection

MKA10C Series | 10W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKA10-110S05C	110 (80 - 160)	5	2,000	83%
MKA10-110S051C		5.1	2,000	83%
MKA10-110S12C		12	833	85%
MKA10-110S15C		15	666	85%
MKA10-110S24C		24	416	85%
MKA10-110S48C		48	208	83%
MKA10-110D12C		±12	±416	85%
MKA10-110D15C		±15	±333	85%
MKA10-110D24C		±24	±208	84%

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- 80-160VDC Wide Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 85%
- I/O Isolation 3000VAC with Reinforced Insulation, rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	-Vout	-Vout
5	NC	Common
6	+Vout	+Vout

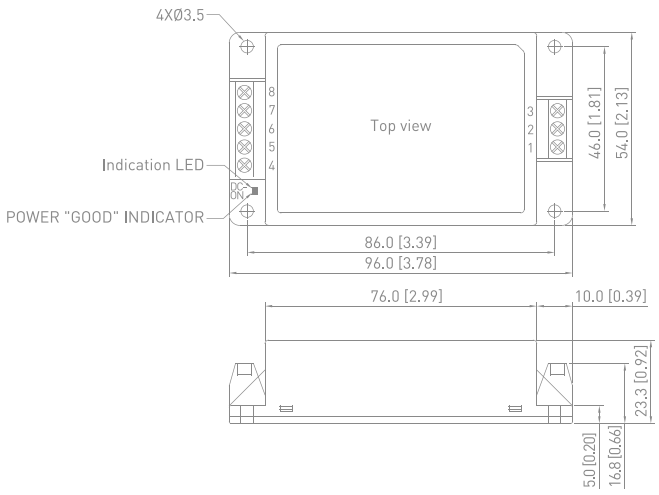
NC= No Connection

MOA20C Series | 20W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MOA20-110S05C	110 (80 - 160)	5	4,000	87%
MOA20-110S051C		5.1	4,000	87%
MOA20-110S12C		12	1,670	88%
MOA20-110S15C		15	1,340	88%
MOA20-110S24C		24	830	88%
MOA20-110S48C		48	420	86%
MOA20-110D12C		±12	±830	87%
MOA20-110D15C		±15	±670	87%
MOA20-110D24C		±24	±420	87%

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- 80-160VDC Wide Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 88%
- I/O Isolation 3000VAC with Reinforced Insulation, rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN 61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	NC	NC
5	-Vout	-Vout
6	NC	Common
7	+Vout	+Vout
8	NC	NC

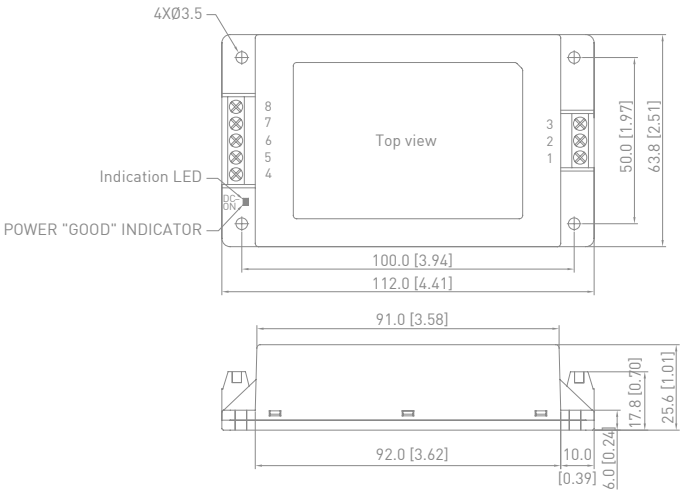
NC= No Connection

MQA40C Series | 40W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MQA40-110S05C	110 (80 - 160)	5	8,000	87%
MQA40-110S051C		5.1	8,000	87%
MQA40-110S12C		12	3,330	89%
MQA40-110S15C		15	2,670	89%
MQA40-110S24C		24	1,670	89%
MQA40-110S48C		48	840	87%
MQA40-110D12C		±12	±1670	89%
MQA40-110D15C		±15	±1330	89%
MQA40-110D24C		±24	±830	87%

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- 80-160VDC Wide Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 89%
- I/O Isolation 3000VAC with Reinforced Insulation, rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Very Low No Load Power Consumption
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	+Vout	+Vout
5	NC	NC
6	-Vout	Common
7	NC	NC
8	NC	-Vout

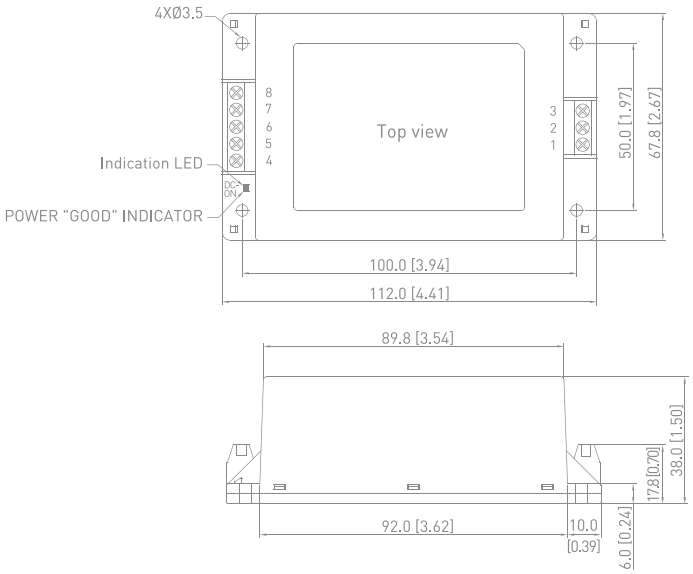
NC= No Connection

MRA60C Series | 60W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MRA60-110S05C	110 (80 - 160)	5	12,000	88%
MRA60-110S051C		5.1	12,000	88%
MRA60-110S12C		12	5,000	89%
MRA60-110S15C		15	4,000	89%
MRA60-110S24C		24	2,500	88%
MRA60-110S48C		48	1,250	88%
MRA60-110D12C		±12	±2500	88%
MRA60-110D15C		±15	±2000	88%
MRA60-110D24C		±24	±1250	88%

- Fully Encapsulated Plastic Case for Chassis and DIN-Rail Mounting Version
- 80-160VDC Wide Input Voltage Range
- Fully Regulated Output Voltage
- High Efficiency up to 89%
- I/O Isolation 3000VAC with Reinforced Insulation,rated for 1000Vrms Working Voltage
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- Remote On/Off Control
- EMI Emission EN 55032 Class A Approved
- EMC Immunity EN61000-4-2,3,4,5,6,8 Approved
- UL/cUL/IEC/EN 62368-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
3	+Vin	+Vin
4	NC	+Vout
5	+Vout	NC
6	NC	Common
7	-Vout	NC
8	NC	-Vout

NC= No Connection

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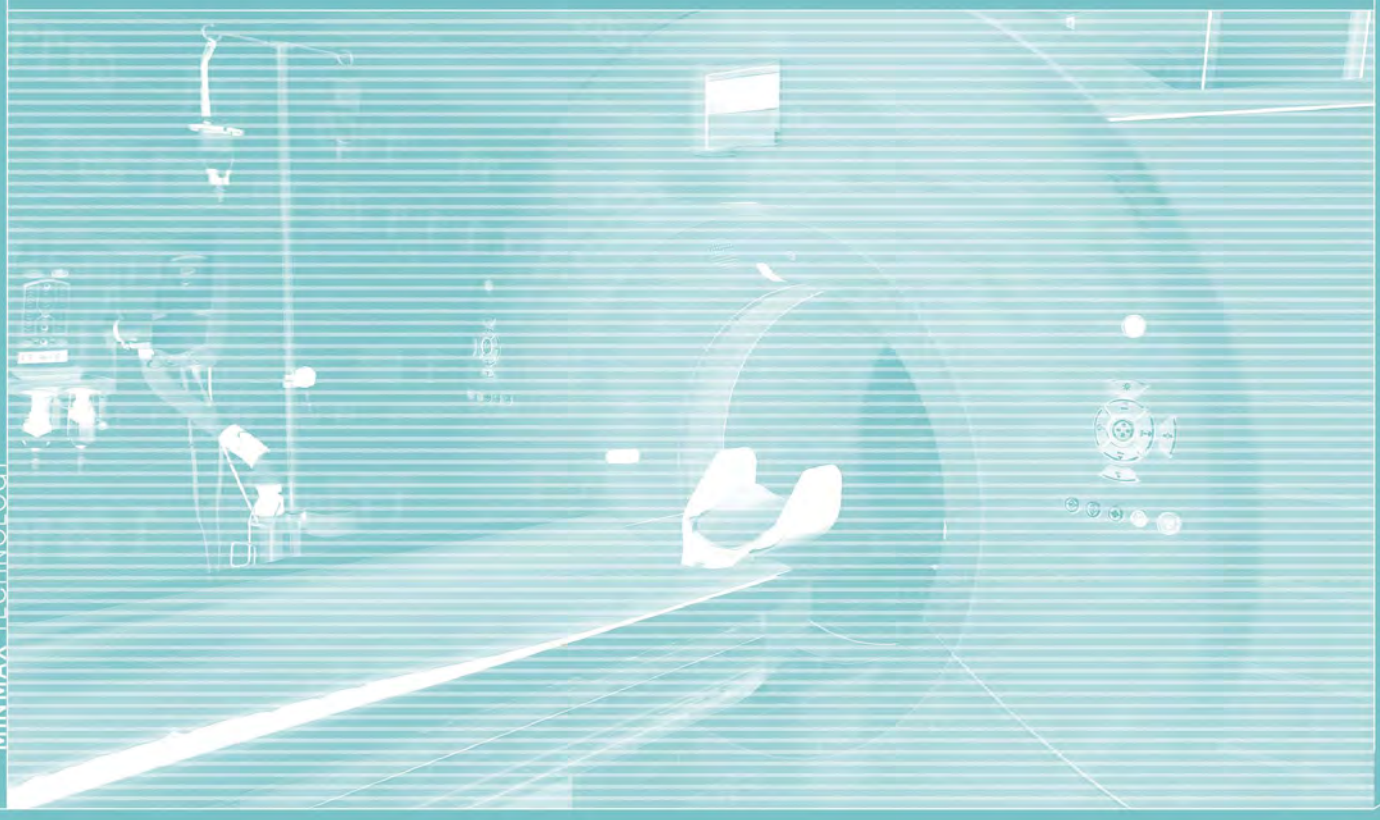
IEC 60601-1 APPROVED

2 X MOPP



MINMAX TECHNOLOGY

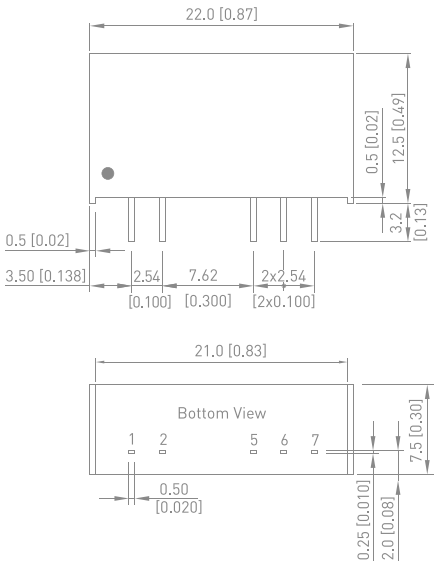
MAU400 Series | 1W

ANSI/AAMI ES60601-1 · IEC 60601-1 · UL 62368-1 · CB Scheme · CE · RoHS Compliant · 5 YEAR

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- I/O Isolation 3000VAC with Reinforced Insulation,rated for 300Vrms Working Voltage
- Wide Operating Temperature Range
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 1xMOPP & 2xMOOP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAU401	5 (4.5 - 5.5)	5	200	66%
MAU402		12	80	66%
MAU403		15	65	66%
MAU404		±5	±100	66%
MAU405		±12	±40	72%
MAU406		±15	±35	73%
MAU411	12 (10.8 - 13.2)	5	200	66%
MAU412		12	80	66%
MAU413		15	65	66%
MAU414		±5	±100	66%
MAU415		±12	±40	74%
MAU416		±15	±35	75%

Mechanical Dimensions



Pin Connections

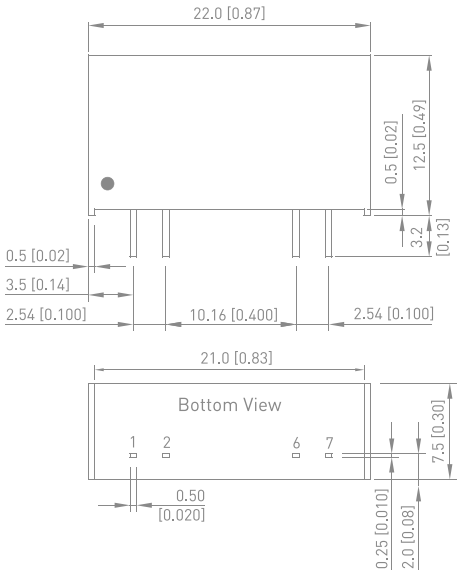
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

MAU01M Series | 1W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MAU01-05S05M	5 (4.5 - 5.5)	5	200	79%
MAU01-05S12M		12	84	80%
MAU01-05S15M		15	68	81%
MAU01-12S05M	12 (10.8 - 13.2)	5	200	79%
MAU01-12S12M		12	84	81%
MAU01-12S15M		15	68	79%
MAU01-24S05M	24 (21.6 - 26.4)	5	200	76%
MAU01-24S12M		12	84	79%
MAU01-24S15M		15	68	79%

- Industrial Standard SIP-7 Package
- Unregulated Output Voltage
- I/O Isolation 4000VAC with Reinforced Insulation,rated for 300Vrms Working Voltage
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- Short Circuit Protection
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Mechanical Dimensions



Pin Connections

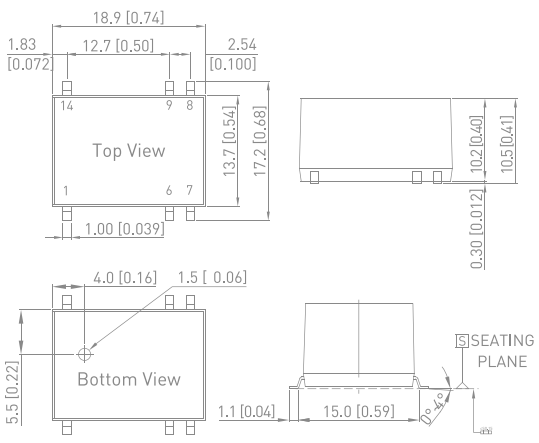
Pin	Dual
1	+Vin
2	-Vin
6	-Vout
7	+Vout

MSCU01M Series | 1W

- Industrial Standard SMD Package
- Unregulated Output Voltage
- I/O Isolation 4000VAC with Reinforced Insulation,rated for 250Vrms Working Voltage
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- Cleaning-washable Process Available (option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available Short Circuit Protection
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSCU01-05S05M	5 (4.5 - 5.5)	5	200	76%
MSCU01-05S12M		12	84	80%
MSCU01-05S15M		15	68	83%
MSCU01-05D12M		±12	±42	80%
MSCU01-05D15M		±15	±33	84%
MSCU01-12S05M	12 (10.8 - 13.2)	5	200	76%
MSCU01-12S12M		12	84	79%
MSCU01-12S15M		15	68	80%
MSCU01-12D12M		±12	±42	79%
MSCU01-12D15M		±15	±33	80%
MSCU01-24S05M	24 (21.6 - 26.4)	5	200	76%
MSCU01-24S12M		12	84	80%
MSCU01-24S15M		15	68	80%
MSCU01-24D12M		±12	±42	80%
MSCU01-24D15M		±15	±33	80%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
6	NC	Common
7	NC	-Vout
8	+Vout	+Vout
9	-Vout	Common
14	+Vin	+Vin

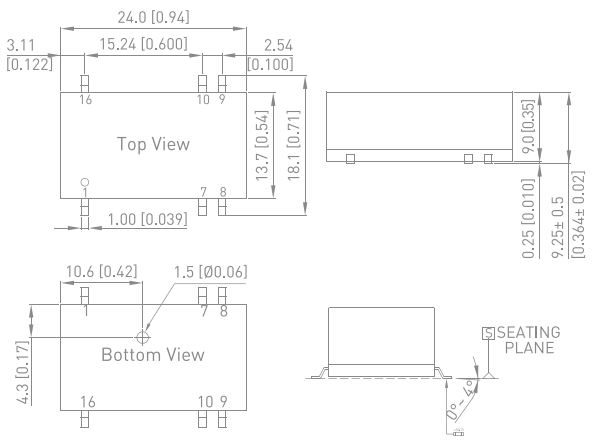
NC: No Connection

MSHU100 Series | 2W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MSHU102	5 (4.5 - 5.5)	5	400	66%
MSHU104		12	165	66%
MSHU105		15	133	66%
MSHU108		±12	±83	72%
MSHU109		±15	±66	73%
MSHU112	12 (10.8 - 13.2)	5	400	66%
MSHU114		12	165	66%
MSHU115		15	133	66%
MSHU118		±12	±83	74%
MSHU119		±15	±66	75%
MSHU122	24 (21.6 - 26.4)	5	400	66%
MSHU124		12	165	66%
MSHU125		15	133	66%
MSHU128		±12	±83	74%
MSHU129		±15	±66	75%

- Industrial Standard SMD Package
- Unregulated Output Voltage
- I/O Isolation 4000VAC with Reinforced Insulation,rated for 300Vrms Working Voltage
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- Cleaning-washable Process Available(option)
- Qualified for Lead-free Reflow Solder Process According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 1xMOPP & 2xMOOP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

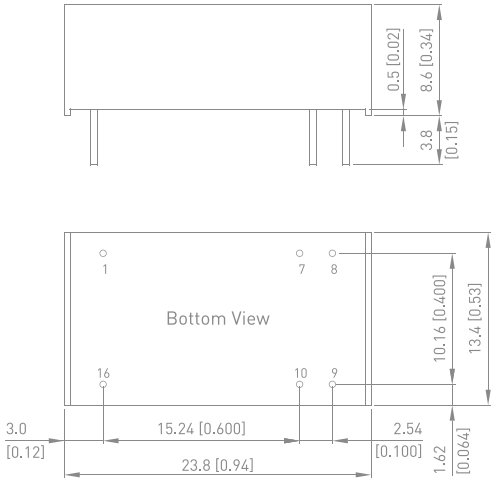
NC: No Connection

MDHU100 Series | 2W

- Industry Standard DIP-16 Package
- Unregulated Output Voltage
- I/O Isolation 4000VAC with Reinforced Insulation,rated or 300Vrms Working Voltage
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 1xMOPP & 2xMOOP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MDHU102	5 (4.5 - 5.5)	5	400	66%
MDHU104		12	165	66%
MDHU105		15	133	66%
MDHU108		±12	±83	72%
MDHU109		±15	±66	73%
MDHU112	12 (10.8 - 13.2)	5	400	66%
MDHU114		12	165	66%
MDHU115		15	133	66%
MDHU118		±12	±83	74%
MDHU119		±15	±66	75%
MDHU122	24 (21.6 - 26.4)	5	400	66%
MDHU124		12	165	66%
MDHU125		15	133	66%
MDHU128		±12	±83	74%
MDHU129		±15	±66	75%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

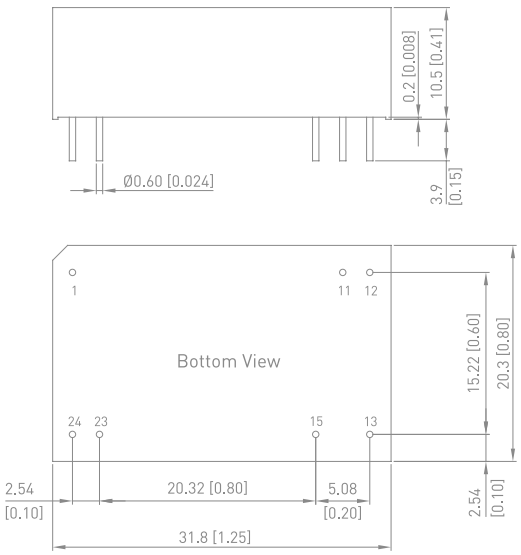
NC: No Connection

MIHW2000 Series | 3W

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIHW2022	24 (9 - 40)	5	600	78%
MIHW2023		12	250	83%
MIHW2026		±12	±125	83%
MIHW2027		±15	±100	83%
MIHW2032	48 (18 - 80)	5	600	78%
MIHW2033		12	250	83%
MIHW2036		±12	±125	83%
MIHW2037		±15	±100	83%
MIHW2042	110 (36 - 160)	5	600	78%
MIHW2043		12	250	83%
MIHW2046		±12	±125	83%
MIHW2047		±15	±100	83%

- Industrial Standard DIP-24 Package
- Ultra-Wide 4:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 4000VAC with Reinforced Insulation,rated for 1000Vrms Working Voltage
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- Under-Voltage, Overload and Short Circuit Protection
- Conducted EMI EN 55011/22 Class A Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 1xMOPP & 2xMOOP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections

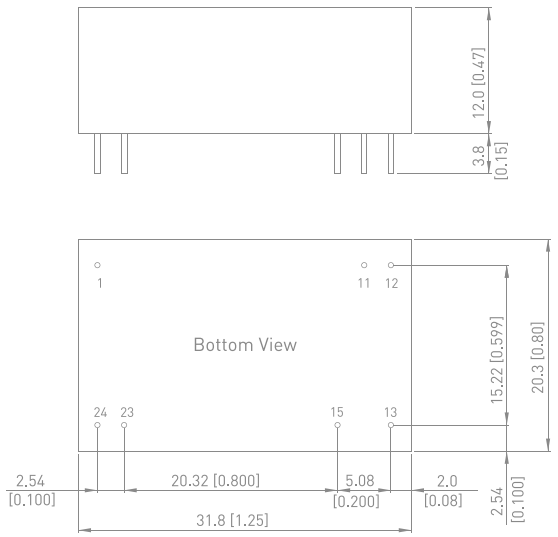
Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MIW03M Series | 3.5W

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 5000VAC with Reinforced Insulation,rated for 250Vrms Working Voltage
- Creepage & Clearance Distance meet 8mm
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- No Min. Load Requiremnt
- Under-Voltage, Overload/Voltage and Short Circuit Protection
- Conducted EMI EN 55011 Class A Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW03-05S05M	5 (4.5 - 9)	5	700	83%
MIW03-05S058M		5.8	600	83%
MIW03-05S12M		12	290	84%
MIW03-05S15M		15	235	84%
MIW03-05D12M		±12	±145	84%
MIW03-05D15M		±15	±115	84%
MIW03-12S05M	12 (9 - 18)	5	700	83%
MIW03-12S12M		12	290	87%
MIW03-12S15M		15	235	87%
MIW03-12D12M		±12	±145	87%
MIW03-12D15M		±15	±115	87%
MIW03-24S05M	24 (18 - 36)	5	700	83%
MIW03-24S12M		12	290	86%
MIW03-24S15M		15	235	87%
MIW03-24D12M		±12	±145	87%
MIW03-24D15M		±15	±115	86%
MIW03-48S05M	48 (36 - 75)	5	700	83%
MIW03-48S12M		12	290	86%
MIW03-48S15M		15	235	85%
MIW03-48D12M		±12	±145	84%
MIW03-48D15M		±15	±115	84%

Mechanical Dimensions



Pin Connections

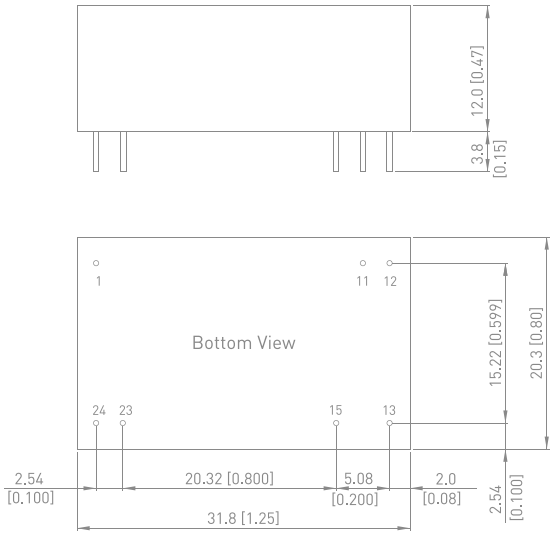
Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MIW06M Series | 6W

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 5000VAC with Reinforced Insulation,rated for 250Vrms Working Voltage
- Creepage & Clearance Distance meet 8mm
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- No Min. Load Requiremnt
- Under-Voltage, Overload/Voltage and Short Circuit Protection
- Conducted EMI EN 55011 Class A Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW06-12S05M	12 (9 - 18)	5	1200	84%
MIW06-12S12M		12	500	87%
MIW06-12S15M		15	400	86%
MIW06-12D12M		±12	±250	87%
MIW06-12D15M		±15	±200	87%
MIW06-24S05M	24 (18 - 36)	5	1200	84%
MIW06-24S12M		12	500	87%
MIW06-24S15M		15	400	87%
MIW06-24D12M		±12	±250	86%
MIW06-24D15M		±15	±200	87%
MIW06-48S05M	48 (36 - 75)	5	1200	84%
MIW06-48S12M		12	500	87%
MIW06-48S15M		15	400	89%
MIW06-48D12M		±12	±250	87%
MIW06-48D15M		±15	±200	88%

Mechanical Dimensions



Pin Connections

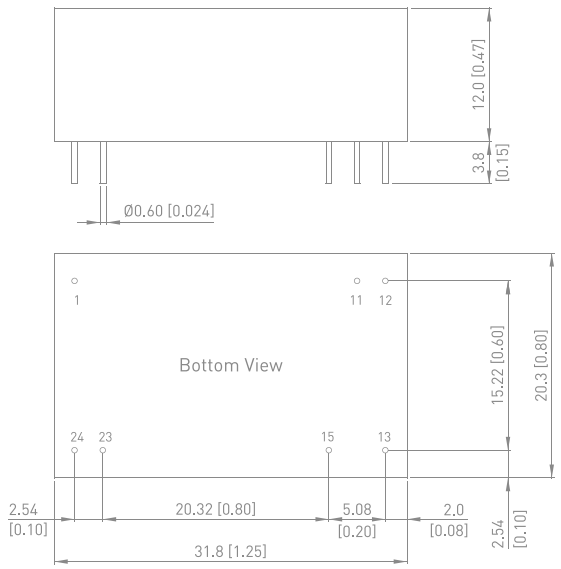
Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MIW10M Series | 10W

- Industrial Standard DIP-24 Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 5000VAC with Reinforced Insulation, rated for 250Vrms Working Voltage
- Creepage & Clearance Distance meet 8mm
- Low I/O Leakage Current ← 2μA
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-Voltage, Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55011 Class A Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MIW10-12S033M	12 (9 - 18)	3.3	2700	81%
MIW10-12S05M		5	2000	84%
MIW10-12S051M		5.1	2000	84%
MIW10-12S12M		12	833	87%
MIW10-12S15M		15	666	88%
MIW10-12S24M		24	416	88%
MIW10-12D12M		±12	±416	88%
MIW10-12D15M		±15	±333	87%
MIW10-24S033M	24 (18 - 36)	3.3	2700	81%
MIW10-24S05M		5	2000	85%
MIW10-24S051M		5.1	2000	85%
MIW10-24S12M		12	833	88%
MIW10-24S15M		15	666	88%
MIW10-24S24M		24	416	88%
MIW10-24D12M		±12	±416	88%
MIW10-24D15M		±15	±333	87%
MIW10-48S033M	48 (36 - 75)	3.3	2700	81%
MIW10-48S05M		5	2000	85%
MIW10-48S051M		5.1	2000	85%
MIW10-48S12M		12	833	88%
MIW10-48S15M		15	666	88%
MIW10-48S24M		24	416	87%
MIW10-48D12M		±12	±416	87%
MIW10-48D15M		±15	±333	87%

Mechanical Dimensions



Pin Connections

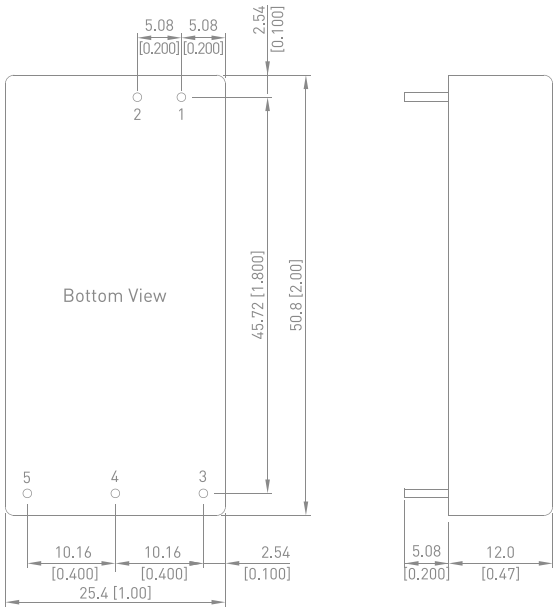
Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

MKW15M Series | 15W

- Industrial Standard 2" X 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 4200VAC with Reinforced Insulation, rated for 300Vrms Working Voltage
- Low I/O Leakage Current ← 5μA
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55011 Class A Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKW15-12S05M	12 (9 - 18)	5	3000	86%
MKW15-12S051M		5.1	3000	86%
MKW15-12S12M		12	1250	89%
MKW15-12S15M		15	1000	88%
MKW15-12S24M		24	625	88%
MKW15-12D12M		±12	±625	88%
MKW15-12D15M		±15	±500	89%
MKW15-24S05M	24 (18 - 36)	5	3000	88%
MKW15-24S051M		5.1	3000	88%
MKW15-24S12M		12	1250	89%
MKW15-24S15M		15	1000	89%
MKW15-24S24M		24	625	90%
MKW15-24D12M		±12	±625	90%
MKW15-24D15M		±15	±500	89%
MKW15-48S05M	48 (36 - 75)	5	3000	88%
MKW15-48S051M		5.1	3000	88%
MKW15-48S12M		12	1250	88%
MKW15-48S15M		15	1000	90%
MKW15-48S24M		24	625	89%
MKW15-48D12M		±12	±625	89%
MKW15-48D15M		±15	±500	88%

Mechanical Dimensions



Pin Connections

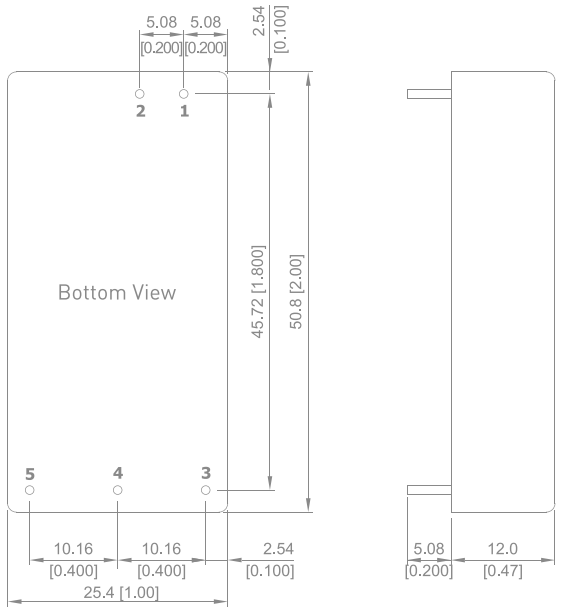
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

MKW20M Series | 20W

- Industrial Standard 2" X 1" Package
- Wide 2:1 Input Voltage Range
- Fully Regulated Output Voltage
- I/O Isolation 4200VAC with Reinforced Insulation,rated for 300Vrms Working Voltage
- Low I/O Leakage Current ← 5μA
- Wide Operating Temperature Range
- No Min. Load Requirement
- Under-voltage, Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55011 Class A Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 and EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved with CE Marking

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency
MKW20-12S05M	12 (9 - 18)	5	4000	86%
MKW20-12S051M		5.1	4000	86%
MKW20-12S12M		12	1670	89%
MKW20-12S15M		15	1333	88%
MKW20-12S24M		24	840	89%
MKW20-12D12M		±12	±840	89%
MKW20-12D15M		±15	±670	89%
MKW20-24S05M	24 (18 - 36)	5	4000	88%
MKW20-24S051M		5.1	4000	88%
MKW20-24S12M		12	1670	89%
MKW20-24S15M		15	1333	89%
MKW20-24S24M		24	840	90%
MKW20-24D12M		±12	±840	90%
MKW20-24D15M		±15	±670	90%
MKW20-48S05M	48 (36 - 75)	5	4000	88%
MKW20-48S051M		5.1	4000	88%
MKW20-48S12M		12	1670	89%
MKW20-48S15M		15	1333	90%
MKW20-48S24M		24	840	89%
MKW20-48D12M		±12	±840	89%
MKW20-48D15M		±15	±670	90%

Mechanical Dimensions



Pin Connections

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

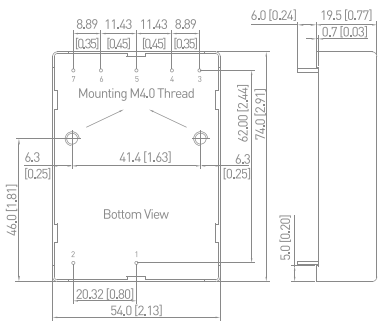
AJM-24 Series | 24W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AJM-24S05	85-264VAC 120-370VDC	5	3,000	77%
AJM-24S09		9	2,666	82%
AJM-24S12		12	2,000	83%
AJM-24S15		15	1,600	82%
AJM-24S24		24	1,000	85%
AJM-24D12		±12	±1000	84%
AJM-24D15		±15	±800	84%

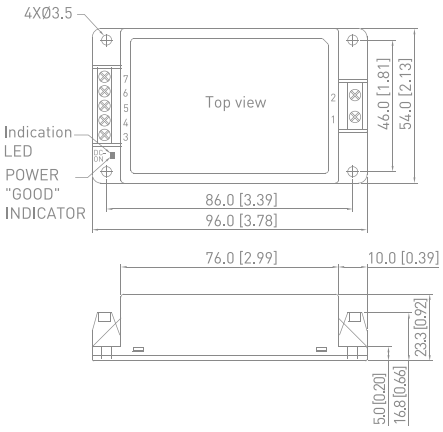
- Fully Encapsulated Plastic Case for PCB, Chassis and DIN-Rail Mounting Version
- Universal Input 85-264VAC, 47-440Hz
- I/O Isolation 4000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55011/32 Class B Approved
- EMS Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 & EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL508 Safety Approval Specifically for Industrial Application
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions

PCB



Chassis



Pin Connections (PCB&Chassis)

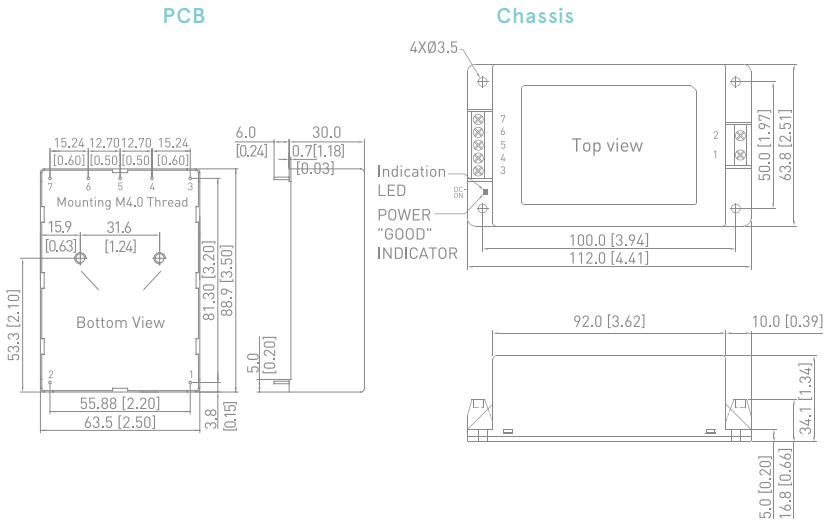
Pin	Single	Dual
1	AC Netural	AC Netural
2	AC Line	AC Line
3	No Pin	No Pin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout
7	No Pin	No Pin

APM-40 Series | 40W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
APM-40S05	85-264VAC 120-370VDC	5	8,000	81%
APM-40S12		12	3,330	84%
APM-40S15		15	2,660	85%
APM-40S24		24	1,660	84%
APM-40D12		±12	±1660	84%
APM-40D15		±15	±1330	85%

- Fully Encapsulated Plastic Case for PCB, Chassis and DIN-Rail Mounting Version
- Universal Input 85-264VAC, 47-440Hz
- I/O Isolation 4000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55011/32 Class B Approved
- EMS Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 & EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL508 Safety Approval Specifically for Industrial Application
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions



Pin Connections (PCB&Chassis)

Pin	PCB	Chassis
1	AC Netural	AC Netural
2	AC Line	AC Line
3	+Vout	+Vout
4	No Pin	No Pin
5	-Vout	Common
6	No Pin	No Pin
7	NC	-Vout

NC: No Connection

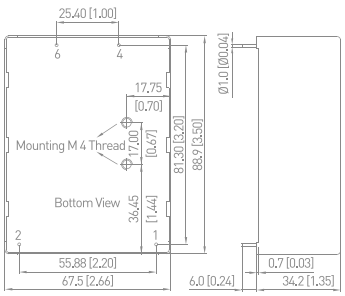
AYM-60 Series | 60W

Model Number	Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency
AYM-60S051	85-264VAC 120-370VDC	5.1	10,000	84%
AYM-60S12		12	5,000	87%
AYM-60S15		15	4,000	87%
AYM-60S24		24	2,500	87%
AYM-60S48		48	1,250	88%

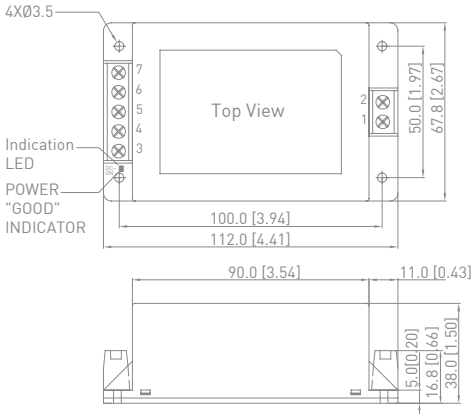
- Fully Encapsulated Plastic Case for PCB, Chassis and DIN-Rail Mounting Version
- Universal Input 85-264VAC, 47-440Hz
- I/O Isolation 4000VAC with Reinforced Insulation
- Wide Operating Temperature Range
- Overload/Voltage and Short Circuit Protection
- EMI Emission EN 55011/32 Class B Approved
- EMS Immunity EN 61000-4-2,3,4,5,6,8,11 Approved
- Medical EMC Standard with 4th Edition of EMI EN 55011 & EMS EN 60601-1-2 Approved
- Medical Safety with 2xMOPP per 3rd Edition of IEC/EN 60601-1 & ANSI/AAMI ES60601-1 Approved
- UL508 Safety Approval Specifically for Industrial Application
- UL/cUL/IEC/EN 62368-1, UL/cUL 60950-1 Safety Approval & CE Marking

Mechanical Dimensions

PCB



Chassis



Pin Connections

Pin	Single	Dual
1	AC Netural	AC Netural
2	AC Line	AC Line
3	-	NC
4	+Vout	+Vout
5	-	NC
6	-Vout	-Vout
7	-	NC

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MINMAX®

ADDRESS
No.77,Sec.1,Zhonghua W.Rd.,
South Dist.,Tainan City 702,Taiwan

MAIL
sales@minmax.com.tw

TELEPHONE
(+886) 6-2923150

FAX
(+886) 6-2923149

MINMAX TECHNOLOGY CO., LTD.