

PV15

Photovoltaic Power Supply With 12:1 Ultra-wide Input

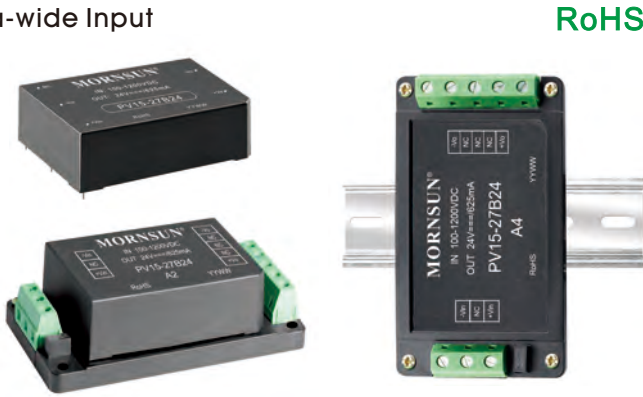
Features

- Ultra-wide input voltage range: 100~1200VDC
- Operating temperature: -25°C~+70°C
- Isolation: 4000VDC
- High efficiency, low ripple & noise
- Input reverse protection
- High reliability, long life, three years warranty
- Fast start-up without derating within the input range
- Over voltage, input under voltage, short circuit protection
- Optional package: PCB mounting, chassis mounting and Din-Rail mounting

Product Program

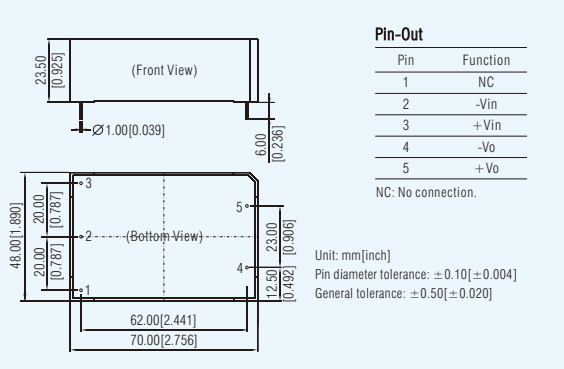
Model Number	Input Voltage Range	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
PV15-27B12	100~1200VDC	12	1250	78
PV15-27B15		15	1000	79
PV15-27B24		24	625	80

Note: series with suffix "A2" are chassis mounting, with suffix "A4" are DIN-Rail mounting.

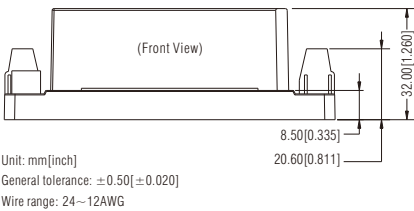
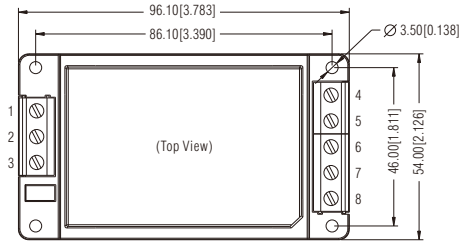


RoHS

Package Dimension LxWxH: 70.00x48.00x23.50(mm)



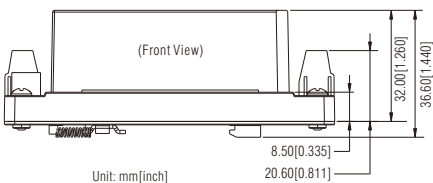
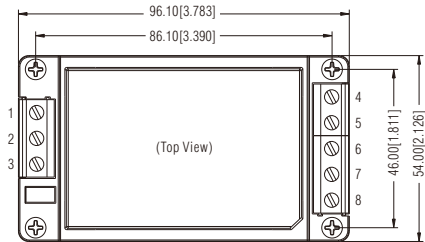
A2 Chassis Mounting Package Dimension LxWxH: 96.10x54.00x32.00(mm)



Unit: mm[inch]
General tolerance: ±0.50[±0.020]
Wire range: 24~12AWG

Pin	Function
1	-Vin
2	NC
3	+Vin
4	-Vo
5	NC
6	NC
7	NC
8	+Vo

A4 DIN-Rail Mounting Package Dimension LxWxH: 96.10x54.00x36.60(mm)



Unit: mm[inch]
General tolerance: ±0.50[±0.020]
Wire range: 24~12AWG

Pin	Function
1	-Vin
2	NC
3	+Vin
4	-Vo
5	NC
6	NC
7	NC
8	+Vo

• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

PV05-R & PV10-R

Photovoltaic Power Supply With 6:1 Ultra-wide Input

Features

- Ultra-wide input voltage range: 200~1200VDC
- Operating temperature: -25°C~+70°C
- Isolation: 4000VDC
- High efficiency, low ripple & noise
- Input reverse protection
- High reliability, long life, three years warranty
- Fast start-up without derating within the input range
- Over voltage, input under voltage, short circuit protection

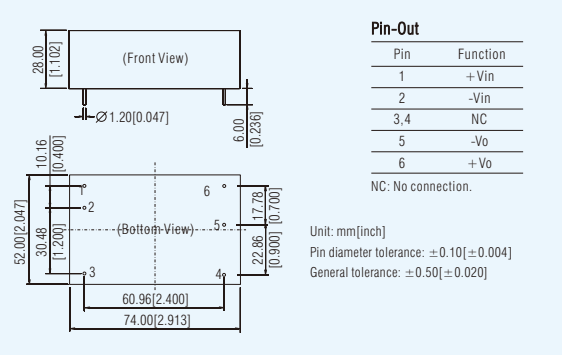
Product Program

Model Number	Input Voltage Range	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
PV05-27B05R	200~1200VDC	5	1000	73
PV10-27B05R		5	2000	75
PV10-27B24R		24	420	82

RoHS



Package Dimension LxWxH: 74.00x52.50x28.00(mm)



PV40

Photovoltaic Power Supply With 6:1 Ultra-wide Input

Features

- Ultra-wide input voltage range: 200~1200VDC
- Operating temperature: -25°C~+70°C
- Isolation: 4000VDC
- High efficiency, low ripple & noise
- Input reverse protection
- High reliability, long life, three years warranty
- Fast start-up without derating within the input range
- Over voltage, input under voltage, short circuit protection

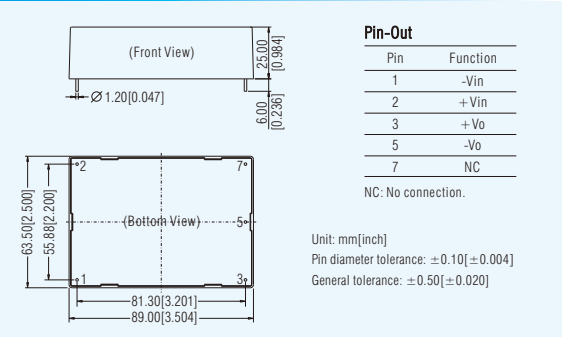
Product Program

Model Number	Input Voltage Range	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
PV40-27B12	200~1200VDC	12	3333	83
PV40-27B15		15	2667	84
PV40-27B24		24	1667	84

RoHS



Package Dimension LxWxH: 89.00x63.50x25.00(mm)



• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

HK_B(V)

Specially Designed for Application of Intelligent Passive Transmitter

Features

- Operating temperature: -40°C~+85°C
- High accuracy, high stability
- High efficiency, high reliability
- High isolation, high density
- Low temperature rise, free convection

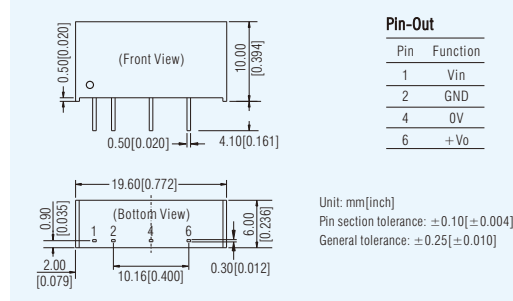
RoHS



Product Program

Model Number	Input Voltage (VDC)	Input Current (mA)	Output Voltage (VDC)	Output Current (mA)	Max.Capacitive Load (μF)
HK5S03B	5	4-20	3.3	3.2	10
HK5S05B		4-20	5	2	10
HK5S03BV		3.5-22	3.3	3	10
HK8S03B	7.5	4-20	3.3	3.5	10
HK8SX3B		4-20	3	5	10
HK8S051B		4-20	5	3.5	10

Package Dimension LxWxH: 19.60x6.00x10.00(mm)



Pin	Function
1	Vin
2	GND
4	0V
6	+Vo

CB_XT-1W

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

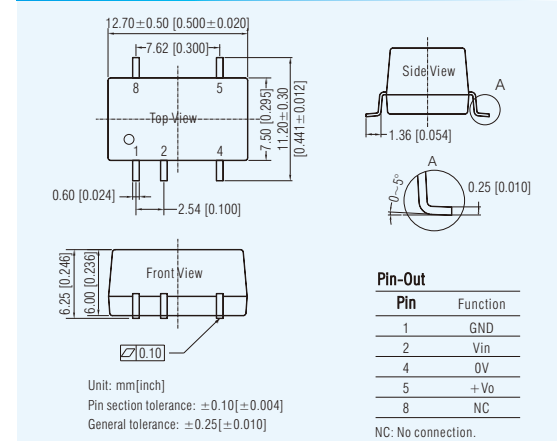
Features

- Operating temperature: -40°C~+85°C
- Isolation: 1000VDC
- Line regulation: $\pm 1.2\%$
- Miniature SMD package
- The production process meet TS16949 system requirements
- Suitable for electric vehicle application

RoHS



Package Dimension LxWxH: 12.70x7.50x6.00(mm)



Pin	Function
1	GND
2	Vin
4	0V
5	+Vo
8	NC

NC: No connection.

CF_XT-1WR2

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

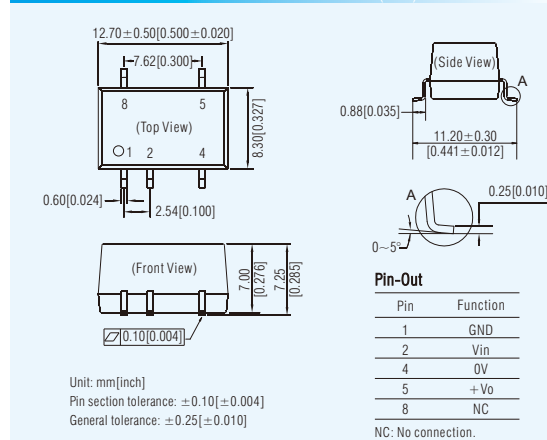
Features

- Operating temperature: -50°C~+125°C
- Isolation: 3500VDC
- Line regulation: $\pm 1.2\%$
- Ultra-miniature SMD package
- Continuous short circuit protection, self-recovery
- Components meet AEC-Q100 standard
- The production process meet TS16949 system requirements
- Reflow soldering meets IPC/JEDEC J-STD-020D standard
- Suitable for electric vehicle application

RoHS



Package Dimension LxWxH: 12.70x8.30x7.00(mm)



Pin	Function
1	GND
2	Vin
4	0V
5	+Vo
8	NC

NC: No connection.

CB_D-1W

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

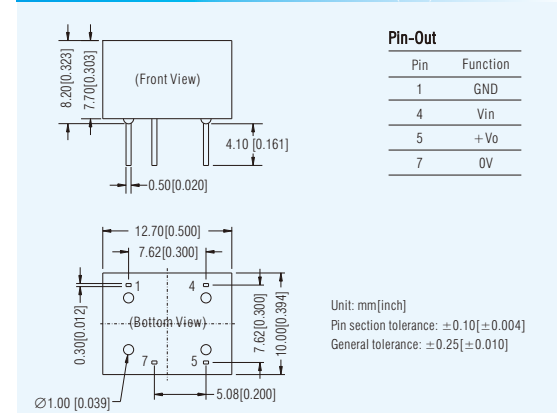
Features

- Operating temperature: -40°C~+85°C
- Isolation: 1000VDC
- Anti-static protection: $\pm 8KV$
- Line regulation: $\pm 1.2\%$
- Ultra-miniature DIP package
- The production process meet TS16949 system requirements
- Suitable for electric vehicle application

RoHS



Package Dimension LxWxH: 12.70x10.00x7.70(mm)



Pin	Function
1	GND
4	Vin
5	+Vo
7	0V

B_XT-W2R2

0.25W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

RoHS

Features

- Operating temperature: -40°C~+105°C
- Derating temperature up to 100°C
- Isolation: 1500VDC
- Ripple & noise down to 10mVp-p
- Anti-static protection: ±6KV
- Line regulation: ±1.2%
- Ultra-miniature SMD package
- Continuous short circuit protection, self-recovery

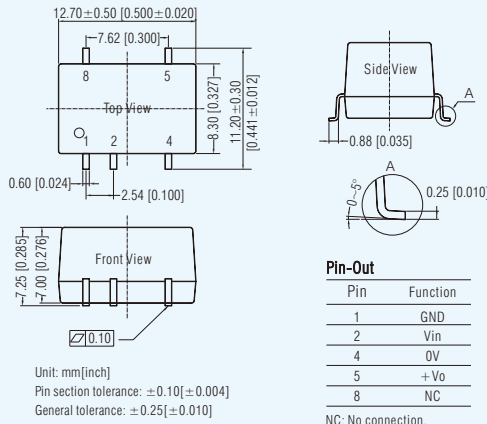
Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0503XT-W2R2	4.5-5.5 (5VDC)	3.3	76	74
B0505XT-W2R2		5	50	79
B1205XT-W2R2	10.8-13.2 (12VDC)	5	50	79
B1212XT-W2R2		12	21	79
B2405XT-W2R2	21.6-26.4(24VDC)	5	20	71

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 12.70x8.30x7.00(mm)



B_XT-1WR2

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

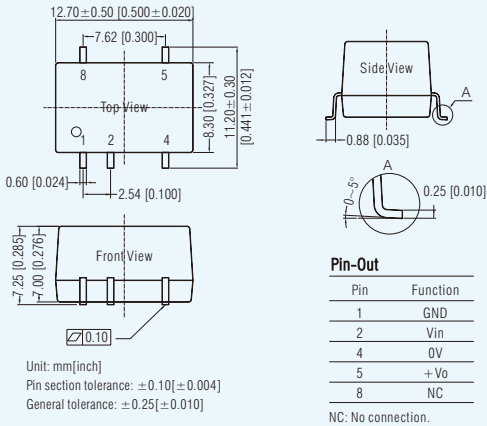
RoHS

Features

- Operating temperature: -40°C~+105°C
- Isolation: 1500VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±6KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SMD package



Package Dimension LxWxH: 12.70x8.30x7.00(mm)



Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

A_XT-1WR2

1W Fixed Input, Isolated & Unregulated Dual Output DC-DC Converter

RoHS

Features

- Operating temperature: -40°C~+105°C
- Isolation: 1500VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±6KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SMD package

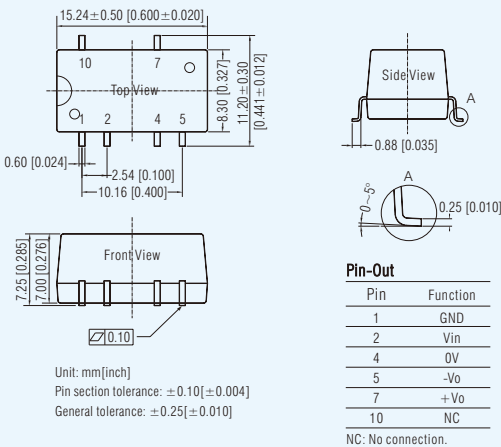


Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
A0305XT-1WR2	2.97-3.63 (3.3VDC)	±5	±100	78
A0312XT-1WR2		±12	±42	78
A0315XT-1WR2		±15	±33	78
A0505XT-1WR2	4.5-5.5 (5VDC)	±5	±100	80
A0509XT-1WR2		±9	±56	80
A0512XT-1WR2		±12	±42	81
A0515XT-1WR2		±15	±33	81
A0524XT-1WR2		±24	±21	81
A1205XT-1WR2	10.8-13.2 (12VDC)	±5	±100	80
A1212XT-1WR2		±12	±42	81
A1215XT-1WR2		±15	±33	81
A1515XT-1WR2	13.5-16.5(15VDC)	±15	±33	81
A2405XT-1WR2		±5	±100	80
A2412XT-1WR2		±12	±42	81
A2415XT-1WR2		±15	±33	82
A2424XT-1WR2	21.6-26.4 (24VDC)	±24	±21	82

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 15.24x11.20x7.25(mm)



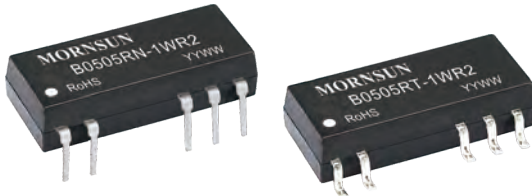
B_RN-1WR2 & B_RT-1WR2

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

RoHS

Features

- Operating temperature: -40°C~+105°C
- Isolation: 1500VDC
- Small dimension, ultra-thin package
- Continuous short circuit protection

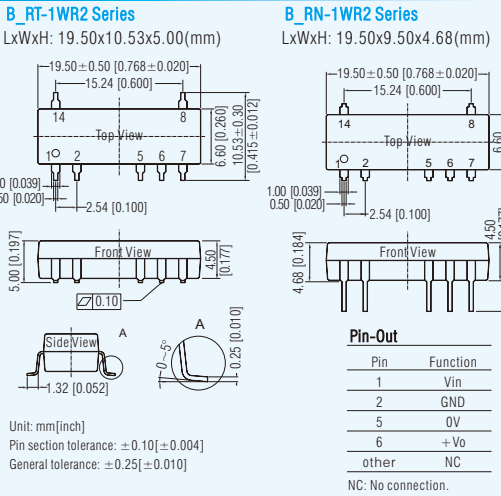


Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0505RN-1WR2	4.5-5.5 (5VDC)	5	200	76
B0505RT-1WR2		5	200	76

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension



E_XT-1WAR2

1W Fixed Input, Isolated & Unregulated Dual Output DC-DC Converter

Features

- Operating temperature: -40℃~+105℃
- Isolation: 3000VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±6KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SMD package

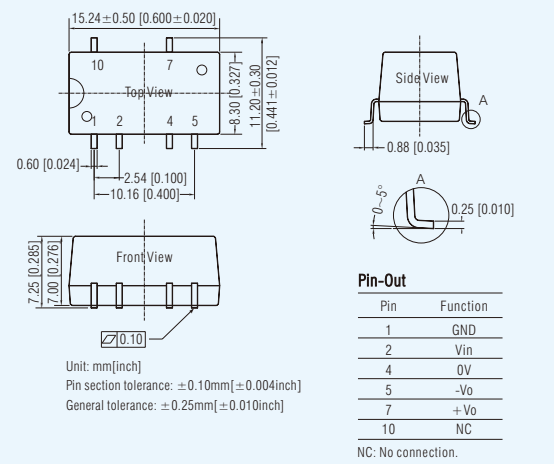
RoHS



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
E0305XT-1WAR2	2.97-3.63 (3.3VDC)	±5	±100	78
E0312XT-1WAR2		±12	±42	78
E0505XT-1WAR2		±5	±100	80
E0509XT-1WAR2		±9	±56	80
E0512XT-1WAR2		±12	±42	81
E0515XT-1WAR2	4.5-5.5 (5VDC)	±15	±33	81
E0524XT-1WAR2		±24	±21	81
E1205XT-1WAR2	10.8-13.2 (12VDC)	±5	±100	80
E1209XT-1WAR2		±9	±56	80
E1212XT-1WAR2		±12	±42	81
E1215XT-1WAR2		±15	±33	81
E1224XT-1WAR2	13.5-16.5 (15VDC)	±24	±21	81
E1515XT-1WAR2		±15	±33	81
E2405XT-1WAR2	21.6-26.4 (24VDC)	±5	±100	80
E2409XT-1WAR2		±9	±56	80
E2412XT-1WAR2		±12	±42	81
E2415XT-1WAR2		±15	±33	82
E2424XT-1WAR2		±24	±21	82

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 15.24x11.20x7.25(mm)



F_XT-1WR2

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

- Operating temperature: -40℃~+105℃
- Isolation: 3000VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±6KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SMD package

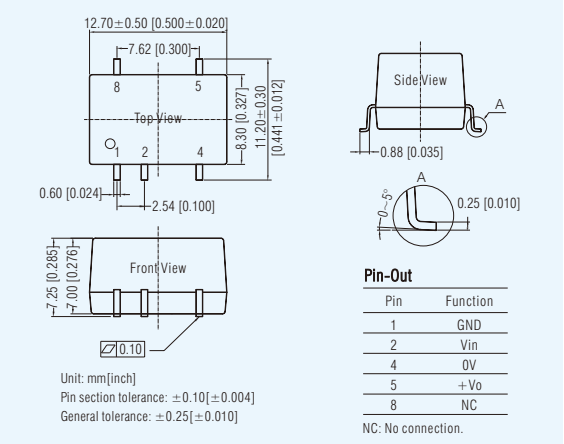
RoHS



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
F0303XT-1WR2	2.97-3.63 (3.3VDC)	3.3	303	72
F0305XT-1WR2		5	200	74
F0503XT-1WR2	4.5-5.5 (5VDC)	3.3	303	74
F0505XT-1WR2		5	200	80
F0512XT-1WR2		12	84	80
F0515XT-1WR2		15	67	80
F0524XT-1WR2	10.8-13.2 (12VDC)	24	42	80
F1203XT-1WR2		3.3	303	74
F1205XT-1WR2		5	200	80
F1212XT-1WR2		12	84	81
F1215XT-1WR2		15	67	81
F1224XT-1WR2	21.6-26.4 (24VDC)	24	42	81
F2405XT-1WR2		5	200	80
F2409XT-1WR2		9	111	80
F2415XT-1WR2		15	67	81
F2424XT-1WR2		24	42	81

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 12.70x11.20x7.25(mm)



A_S-1WR2 & B_LS-1WR2

1W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40℃~+105℃
- Isolation: 1500VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±8KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SIP package

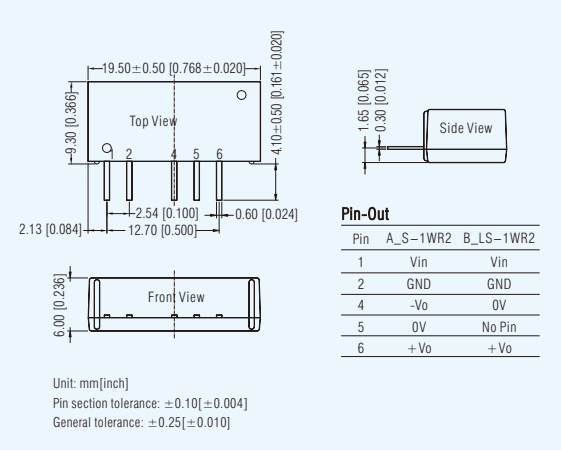
RoHS



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
A0505S-1WR2	4.5-5.5 (5VDC)	±5	±100	80
A0512S-1WR2		±12	±42	80
A0515S-1WR2		±15	±34	80
A0524S-1WR2		±24	±21	80
B0505LS-1WR2		5	200	80
B0512LS-1WR2	10.8-13.2 (12VDC)	12	84	80
B0515LS-1WR2		15	67	80
B0524LS-1WR2		24	42	80
A1205S-1WR2	21.6-26.4 (24VDC)	±5	±100	80
A1212S-1WR2		±12	±42	80
A1215S-1WR2		±15	±34	80
B1205LS-1WR2		5	200	80
B1212LS-1WR2		12	84	80
B1215LS-1WR2		15	67	80
A2405S-1WR2		±5	±100	80
A2412S-1WR2		±12	±42	80
A2415S-1WR2		±15	±34	80
A2424S-1WR2		±24	±21	80
B2405LS-1WR2		5	200	80
B2412LS-1WR2		12	84	80
B2415LS-1WR2		15	67	80
B2424LS-1WR2		24	42	80

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 19.50x6.00x9.30(mm)



B_S-1WR2

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

- Operating temperature: -40℃~+105℃
- Isolation: 1500VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±8KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SIP package

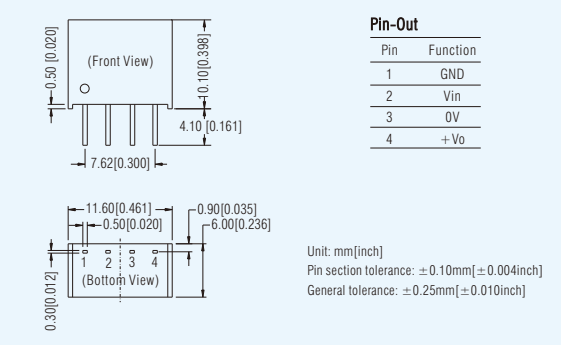
RoHS



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0303S-1WR2	2.97-3.63 (3.3VDC)	3.3	303	75
B0305S-1WR2		5	200	80
B0503S-1WR2	4.5-5.5 (5VDC)	3.3	303	76
B0505S-1WR2		5	200	80
B0509S-1WR2		9	111	80
B0512S-1WR2		12	84	81
B0515S-1WR2	10.8-13.2 (12VDC)	15	67	81
B0524S-1WR2		24	42	81
B1203S-1WR2		3.3	303	76
B1205S-1WR2		5	200	80
B1209S-1WR2	21.6-26.4 (24VDC)	9	111	80
B1212S-1WR2		12	83	81
B1215S-1WR2		15	67	80
B2403S-1WR2		3.3	303	76
B2405S-1WR2		5	200	80
B2409S-1WR2		9	111	80
B2412S-1WR2		12	84	81
B2415S-1WR2		15	67	82
B2424S-1WR2		24	42	82

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 11.60x6.00x10.00(mm)



B_D-1WR2

1W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

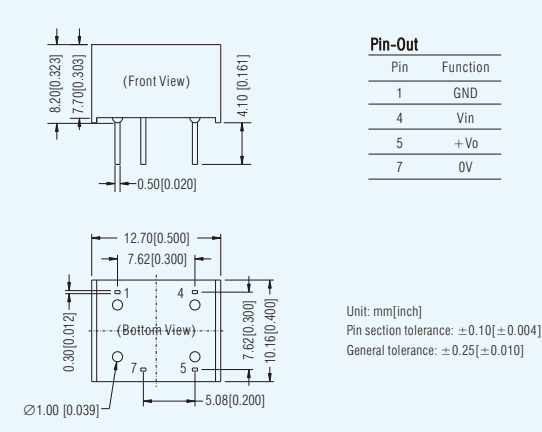
- Operating temperature: -40°C~+105°C
- Isolation: 1500VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±8KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature DIP package



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0303D-1WR2	2.97-3.63 (3.3VDC)	3.3	303	75
B0305D-1WR2		5	200	80
B0503D-1WR2		3.3	303	76
B0505D-1WR2		5	200	80
B0509D-1WR2		9	111	80
B0512D-1WR2		12	84	81
B0515D-1WR2	4.5-5.5 (5VDC)	15	67	81
B0524D-1WR2		24	42	81
B1203D-1WR2	10.8-13.2 (12VDC)	3.3	303	76
B1205D-1WR2		5	200	80
B1209D-1WR2		9	111	80
B1212D-1WR2		12	83	81
B1215D-1WR2		15	67	80
B2403D-1WR2	21.6-26.4 (24VDC)	3.3	303	76
B2405D-1WR2		5	200	80
B2409D-1WR2		9	111	80
B2412D-1WR2		12	84	81
B2415D-1WR2		15	67	82
B2424D-1WR2		24	42	82

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 12.70x10.16x8.20(mm)



E_S-1WR2 & F_S-1WR2

1W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter

Features

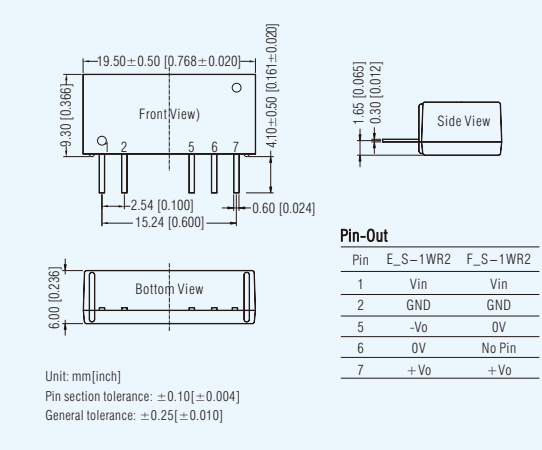
- Operating temperature: -40°C~+105°C
- Isolation: 3000VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±8KV
- Line regulation: ±1.2%
- Low consumption at light load
- Ultra-miniature SIP package



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
E0505S-1WR2	4.5-5.5 (5VDC)	±5	±100	80
E0512S-1WR2		±12	±42	80
E0515S-1WR2		±15	±33	81
E0524S-1WR2		±24	±21	81
F0505S-1WR2		5	200	80
F0512S-1WR2		12	83	80
F0515S-1WR2	10.8-13.2 (12VDC)	15	67	81
F0524S-1WR2		24	42	81
E1205S-1WR2	21.6-26.4 (24VDC)	±5	±100	80
E1212S-1WR2		±12	±42	81
E1215S-1WR2		±15	±33	81
F1205S-1WR2		5	200	80
F1212S-1WR2		12	83	80
F1215S-1WR2		15	67	81
E2405S-1WR2	21.6-26.4 (24VDC)	±5	±100	80
E2412S-1WR2		±12	±42	81
E2415S-1WR2		±15	±33	79
F2405S-1WR2		5	200	79
F2412S-1WR2		12	83	81
F2415S-1WR2		15	67	81

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 19.50x6.00x9.30(mm)



G_S-1W & H_S-1W

1W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter

Features

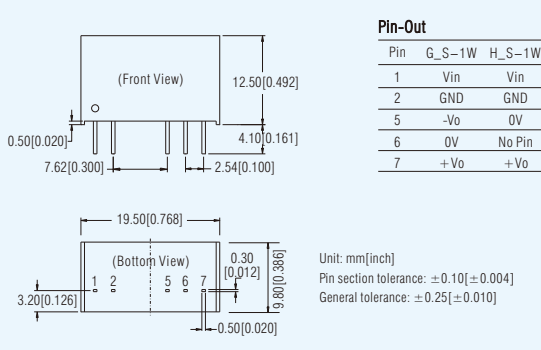
- Operating temperature: -40°C~+105°C
- Isolation: 6000VDC
- Good temperature characteristic
- Continuous short circuit protection, self-recovery
- Anti-static protection: ±8KV
- Line regulation: ±1.2%
- Ultra-miniature SIP package
- Suitable for medical application



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
G0505S-1W	4.5-5.5 (5VDC)	±5	±100	78
G0507S-1W		±7.2	±70	78
G0509S-1W		±9	±56	79
G0512S-1W		±12	±42	79
G0515S-1W		±15	±33	79
H0505S-1W		5	200	78
H0509S-1W		9	111	79
H0512S-1W		12	84	79
H0515S-1W		15	67	79
H0524S-1W		24	42	80
G1205S-1W	10.8-13.2 (12VDC)	±5	±100	80
G1207S-1W		±7.2	±70	80
G1209S-1W		±9	±56	82
G1212S-1W		±12	±42	81
G1215S-1W		±15	±33	82
H1205S-1W		5	200	80
H1207S-1W		7.2	139	80
H1209S-1W		9	111	82
H1212S-1W		12	84	81
H1215S-1W		15	67	82
G1515S-1W	13.5-16.5(15VDC)	±15	±33	81
G2412S-1W	21.6-26.4 (24VDC)	±12	±42	80
H2405S-1W		5	200	80
H2412S-1W		12	84	80
H2415S-1W		15	67	80

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 19.50x9.80x12.50(mm)



EY_D-1W & FY_D-1W

1W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter

Features

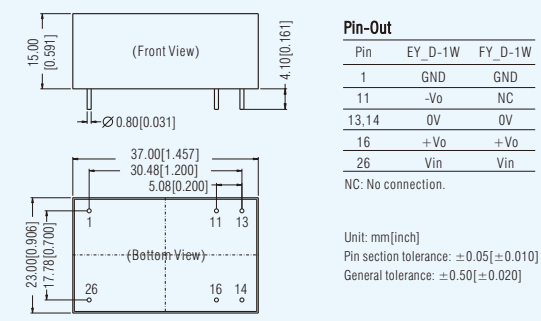
- Operating temperature: -40°C~+85°C
- Isolation: 15000VDC
- Anti-static protection ±8KV
- Line regulation: ±1.2%
- Continuous short circuit protection, self-recovery
- Suitable for medical application



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
EY0505D-1W	4.5-5.5 (5VDC)	±5	±100	76
EY1212D-1W	10.8-13.2 (12VDC)	±12	±41.6	78
FY1212D-1W		12	83	78

Note:1. This converter during high isolation voltage test(typically 7000VDC or more) , the air is ionized by high voltage and a faint sound, which is a normal phenomenon.
2. Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

Package Dimension LxWxH: 37.00x23.00x15.00(mm)



B_XT-2WR2 & F_XT-2WR2

2W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

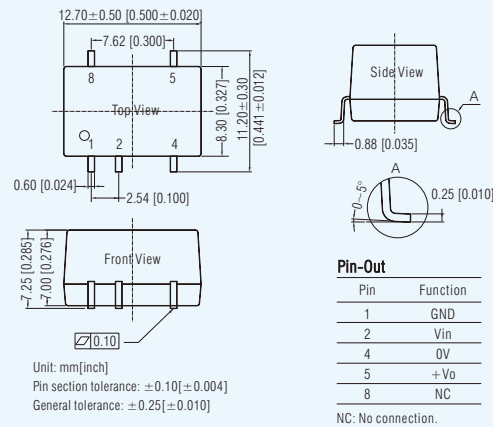
- Operating temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ • Miniature SMD package
- Isolation: 1500VDC/3000VDC • Continuous short circuit protection, self-recovery

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0503XT-2WR2	4.5-5.5 (5VDC)	3.3	400	72
B0505XT-2WR2		5	400	79
B0509XT-2WR2		9	222	82
B0512XT-2WR2		12	167	82
B0515XT-2WR2		15	133	83
B1205XT-2WR2	10.8-13.2 (12VDC)	5	400	79
B1212XT-2WR2		12	167	82
B1215XT-2WR2		15	133	83
B1224XT-2WR2		24	83	84
B1515XT-2WR2	13.5-16.5(15VDC)	15	133	83
B2405XT-2WR2	21.6-26.4 (24VDC)	5	400	79
B2412XT-2WR2		12	167	82
B2415XT-2WR2		15	133	83
B2424XT-2WR2		24	83	86
F0503XT-2WR2	4.5-5.5 (5VDC)	3.3	400	72
F0505XT-2WR2		5	400	79
F0509XT-2WR2		9	222	82
F0512XT-2WR2		12	167	82
F0515XT-2WR2		15	133	83
F1205XT-2WR2	10.8-13.2 (12VDC)	5	400	79
F1212XT-2WR2		12	167	82
F1215XT-2WR2		15	133	83
F1224XT-2WR2		24	83	84
F1515XT-2WR2	13.5-16.5(15VDC)	15	133	83
F2405XT-2WR2	21.6-26.4 (24VDC)	5	400	79
F2412XT-2WR2		12	167	82
F2415XT-2WR2		15	133	83
F2424XT-2WR2		24	83	86

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Product Program LxWxH: 12.70x11.20x7.25(mm)



RoHS

A_S-2WR2 & B_S-2WR2

2W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter

Features

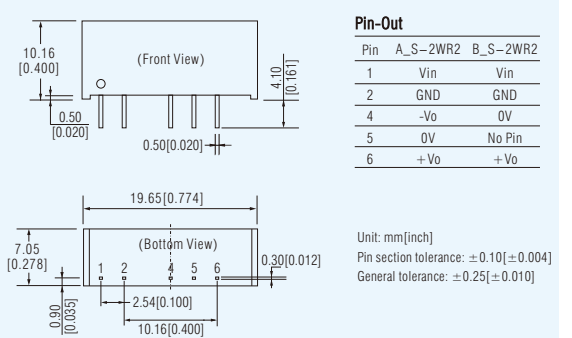
- Operating temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ • Anti-static protection: $\pm 8\text{KV}$
- Isolation: 1500VDC • Line regulation: $\pm 1.2\%$
- Ripple & noise down to 60mVp-p • Low consumption at light load
- Continuous short circuit protection, self-recovery • Ultra-miniature SIP package

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
A0505S-2WR2	4.5-5.5 (5VDC)	± 5	± 200	80
A0512S-2WR2		± 12	± 83	84
A0515S-2WR2		± 15	± 67	84
A0524S-2WR2		± 24	± 42	84
B0505S-2WR2	10.8-13.2 (12VDC)	5	400	89
B0512S-2WR2		12	167	84
B0515S-2WR2		15	133	84
B0524S-2WR2		24	83	84
A1205S-2WR2	10.8-13.2 (12VDC)	± 5	± 200	84
A1212S-2WR2		± 12	± 83	85
A1215S-2WR2		± 15	± 67	84
B1205S-2WR2		5	400	84
B1212S-2WR2	21.6-26.4 (24VDC)	12	167	84
B1215S-2WR2		15	133	84
A2405S-2WR2		± 5	± 200	84
A2412S-2WR2		± 12	± 83	84
A2415S-2WR2		± 15	± 67	84
B2405S-2WR2		5	400	84
B2412S-2WR2	21.6-26.4 (24VDC)	12	167	84
B2415S-2WR2		15	133	84

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 19.65x7.05x10.16(mm)



RoHS

H_LT-2W

2W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

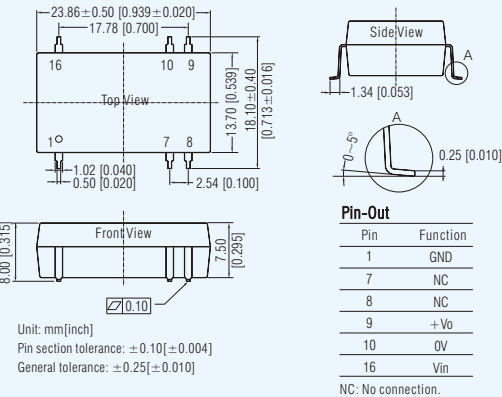
- Operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Isolation: 6000VDC
- Efficiency up to 80%
- Continuous short circuit protection

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
H0505LT-2W	4.5-5.5 (5VDC)	5	400	78
H0512LT-2W		12	167	78
H0515LT-2W		15	133	78
H1205LT-2W	10.8-13.2 (12VDC)	5	400	79
H1212LT-2W		12	167	79
H1215LT-2W		15	133	80
H2403LT-2W	21.6-26.4 (24VDC)	3.3	400	73
H2405LT-2W		5	400	77
H2415LT-2W		15	133	80

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Product Program LxWxH: 23.86x18.10x8.00(mm)



RoHS

A_D-2WR2 & B_D-2WR2

2W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter

Features

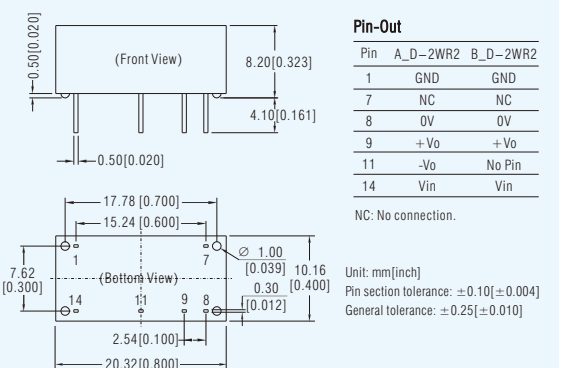
- Operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ • Anti-static protection: $\pm 8\text{KV}$
- Isolation: 1500VDC • Line regulation: $\pm 1.2\%$
- Low ripple & noise • Low consumption at light load
- Continuous short circuit protection, self-recovery • Ultra-miniature DIP package

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
A0505D-2WR2	4.5-5.5 (5VDC)	± 5	± 200	80
A0509D-2WR2		± 9	± 111	84
A0512D-2WR2		± 12	± 83	84
A0515D-2WR2		± 15	± 67	84
A0524D-2WR2	10.8-13.2 (12VDC)	± 24	± 42	84
B0503D-2WR2		3.3	400	79
B0505D-2WR2		5	400	79
B0509D-2WR2		9	222	84
B0512D-2WR2	10.8-13.2 (12VDC)	12	167	84
B0515D-2WR2		15	133	84
B0524D-2WR2		24	83	84
A1205D-2WR2	10.8-13.2 (12VDC)	± 5	± 200	80
A1209D-2WR2		± 9	± 111	86
A1212D-2WR2		± 12	± 83	83
A1215D-2WR2		± 15	± 67	85
A1224D-2WR2	21.6-26.4 (24VDC)	± 24	± 42	85
B1205D-2WR2		5	400	82
B1209D-2WR2		9	222	85
B1212D-2WR2		12	167	82
B1215D-2WR2	21.6-26.4 (24VDC)	15	133	84
B1224D-2WR2		24	83	86
A2405D-2WR2	21.6-26.4 (24VDC)	± 5	± 200	80
A2409D-2WR2		± 9	± 111	85
A2412D-2WR2		± 12	± 83	83
A2415D-2WR2		± 15	± 67	84
A2424D-2WR2	21.6-26.4 (24VDC)	± 24	± 42	83
B2405D-2WR2		5	400	80
B2409D-2WR2		9	222	84
B2412D-2WR2		12	167	83
B2415D-2WR2	21.6-26.4 (24VDC)	15	133	84
B2424D-2WR2		24	83	83

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 20.32x10.16x8.20(mm)



RoHS

E_S-2WR2 & F_S-2WR2

2W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter



Features

- Operating temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Isolation: 3000VDC
- Ripple & noise down to 60mVp-p
- Continuous short circuit protection, self-recovery
- Anti-static protection: $\pm 8\text{KV}$
- Line regulation: $\pm 1.2\%$
- Low consumption at light load
- Ultra-miniature SIP package

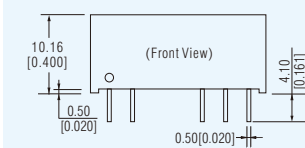
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
E0505S-2WR2	4.5-5.5 (5VDC)	± 5	± 200	80
E0512S-2WR2		± 12	± 83	84
E0515S-2WR2		± 15	± 67	84
E0524S-2WR2		± 24	± 42	84
F0505S-2WR2		5	400	89
F0512S-2WR2		12	167	84
F0515S-2WR2	10.8-13.2 (12VDC)	15	133	84
F0524S-2WR2		24	83	84
E1205S-2WR2		± 5	± 200	84
E1212S-2WR2		± 12	± 83	85
E1215S-2WR2		± 15	± 67	84
F1205S-2WR2		5	400	84
F1212S-2WR2	21.6-26.4 (24VDC)	12	167	84
F1215S-2WR2		15	133	84
E2405S-2WR2		± 5	± 200	84
E2412S-2WR2		± 12	± 83	84
E2415S-2WR2		± 15	± 67	84
F2405S-2WR2		5	400	84
F2412S-2WR2		12	167	84
F2415S-2WR2		15	133	84

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 19.65x7.05x10.16(mm)



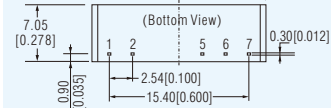
Pin-Out

Pin	E_S-2WR2	F_S-2WR2
1	Vin	Vin
2	GND	GND
5	-Vo	0V
6	0V	No Pin
7	+Vo	+Vo

Unit: mm[inch]

Pin section tolerance: $\pm 0.10[\pm 0.004]$

General tolerance: $\pm 0.25[\pm 0.010]$



E_D-2WR2 & F_D-2WR2

2W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter



Features

- Operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Isolation: 3000VDC
- Low ripple & noise
- Continuous short circuit protection, self-recovery
- Anti-static protection: $\pm 8\text{KV}$
- Line regulation: $\pm 1.2\%$
- Low consumption at light load
- Ultra-miniature DIP package

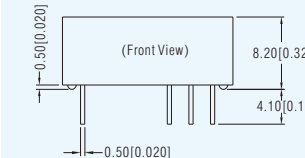
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
E0505D-2WR2	4.5-5.5 (5VDC)	± 5	± 200	80
E0509D-2WR2		± 9	± 111	84
E0512D-2WR2		± 12	± 83	84
E0515D-2WR2		± 15	± 67	84
E0524D-2WR2		± 24	± 42	84
F0505D-2WR2		5	400	79
F0509D-2WR2	10.8-13.2 (12VDC)	9	222	84
F0512D-2WR2		12	167	84
F0515D-2WR2		15	133	84
F0524D-2WR2		24	83	84
E1205D-2WR2		± 5	± 200	80
E1209D-2WR2		± 9	± 111	86
E1212D-2WR2	21.6-26.4 (24VDC)	± 12	± 83	83
E1215D-2WR2		± 15	± 67	85
E1224D-2WR2		± 24	± 42	85
F1205D-2WR2		5	400	82
F1209D-2WR2		9	222	85
F1212D-2WR2		12	167	82
F1215D-2WR2		15	133	84
F1224D-2WR2		24	83	86
E2405D-2WR2		± 5	± 200	80
E2409D-2WR2		± 9	± 111	85
E2412D-2WR2		± 12	± 83	83
E2415D-2WR2		± 15	± 67	84
E2424D-2WR2		± 24	± 42	83
F2405D-2WR2		5	400	80
F2409D-2WR2		9	222	84
F2412D-2WR2		12	167	83
F2415D-2WR2		15	133	84
F2424D-2WR2		24	83	83

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 20.32x10.16x8.20(mm)



Pin-Out

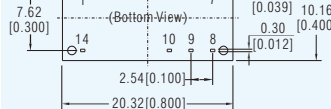
Pin	E_D-2WR2	F_D-2WR2
1	GND	GND
7	NC	NC
8	+Vo	+Vo
9	0V	No Pin
10	-Vo	0V
14	Vin	Vin

NC: No connection.

Unit: mm[inch]

Pin section tolerance: $\pm 0.10[\pm 0.004]$

General tolerance: $\pm 0.25[\pm 0.010]$



G_S-2W & H_S-2W

2W Fixed Input, Isolated & Unregulated Dual/Single Output DC-DC Converter EN60601

Features

- Operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Isolation: 6000VDC
- Good temperature characteristic
- Continuous short circuit protection, self-recovery
- Anti-static protection: $\pm 8\text{KV}$
- Line regulation: $\pm 1.2\%$
- Ultra-miniature SIP package
- Suitable for medical application

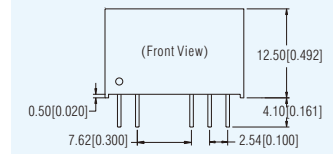
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
G0505S-2W	4.5-5.5 (5VDC)	± 5	± 200	74
G0509S-2W		± 9	± 111	77
G0512S-2W		± 12	± 83	77
G0515S-2W		± 15	± 67	77
H0505S-2W		5	400	74
H0509S-2W		9	222	77
H0512S-2W	10.8-13.2 (12VDC)	12	167	77
H0515S-2W		15	133	77
G1205S-2W		± 5	± 200	75
G1209S-2W		± 9	± 111	78
G1212S-2W		± 12	± 83	80
G1215S-2W		± 15	± 67	78
H1205S-2W	21.6-26.4 (24VDC)	5	400	75
H1209S-2W		9	222	78
H1212S-2W		12	167	80
H1215S-2W		15	133	78
G2405S-2W		± 5	± 200	75
G2412S-2W		± 12	± 83	80
G2415S-2W		± 15	± 67	79
H2405S-2W		5	400	75
H2409S-2W		9	222	77
H2412S-2W		12	167	80
H2415S-2W		15	133	79

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 19.50x9.80x12.50(mm)



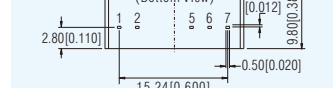
Pin-Out

Pin	G_S-2W	H_S-2W
1	Vin	Vin
2	GND	GND
5	-Vo	0V
6	0V	No Pin
7	+Vo	+Vo

Unit: mm[inch]

Pin section tolerance: $\pm 0.10[\pm 0.004]$

General tolerance: $\pm 0.25[\pm 0.010]$



B_T-3W

3W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

- Operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Isolation: 1500VDC
- Anti-static protection: $\pm 8\text{KV}$
- Line regulation: $\pm 1.2\%$
- Ultra-miniature SMD package
- Continuous short circuit protection, self-recovery

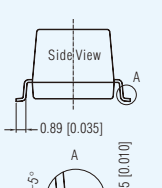
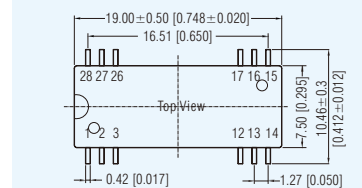
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0505T-3W	4.5-5.5 (5VDC)	5	600	85

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

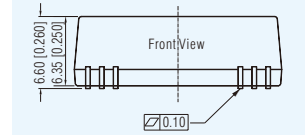
Package Dimension LxWxH: 19.00x10.46x6.60(mm)



Pin-Out

Pin	Function
1	Vin
2	GND
3	GND
12	0V
13	+Vo
Others	NC

NC: No connection.



Unit: mm[inch]

Pin section tolerance: $\pm 0.10[\pm 0.004]$

General tolerance: $\pm 0.25[\pm 0.010]$

B_S-3WR2

3W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

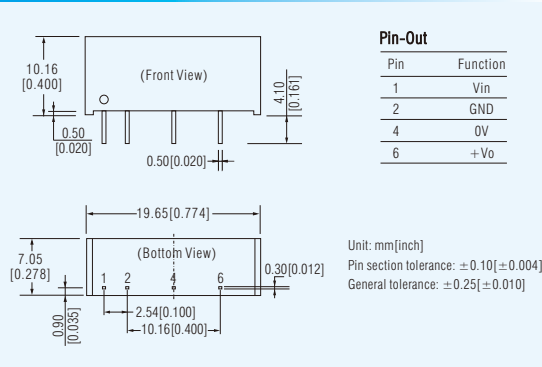
- Operating temperature: -40℃~+85℃
- Isolation: 1500VDC
- Anti-static protection ±8KV
- Line regulation:: ±1.2%
- Low ripple & noise
- Low consumption at light load
- Ultra-miniature SIP package
- Continuous short circuit protection, self-recovery

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
B0505S-3WR2	4.5-5.5 (5VDC)	5	600	78
B0509S-3WR2		9	333	84
B1212S-3WR2	10.8-13.2 (12VDC)	12	250	87

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 19.65x7.05x10.16(mm)



RoHS

F_S-3WR2

3W Fixed Input, Isolated & Unregulated Single Output DC-DC Converter

Features

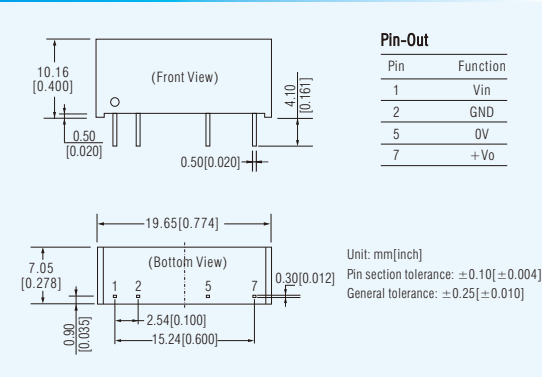
- Operating temperature: -40℃~+85℃
- Isolation: 3000VDC
- Anti-static protection: ±8KV
- Line regulation: ±1.2%
- Low ripple & noise
- Low consumption at light load
- Ultra-miniature SIP package
- Continuous short circuit protection, self-recovery

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
F0505S-3WR2	4.5-5.5 (5VDC)	5	600	78
F1205S-3WR2		5	600	81
F1212S-3WR2	10.8-13.2 (12VDC)	12	250	87

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 19.65x7.05x10.16(mm)



RoHS

IB_XT-1WR2 & IF_XT-1WR2

1W Fixed Input, Isolated & Regulated Single Output DC-DC Converter

Features

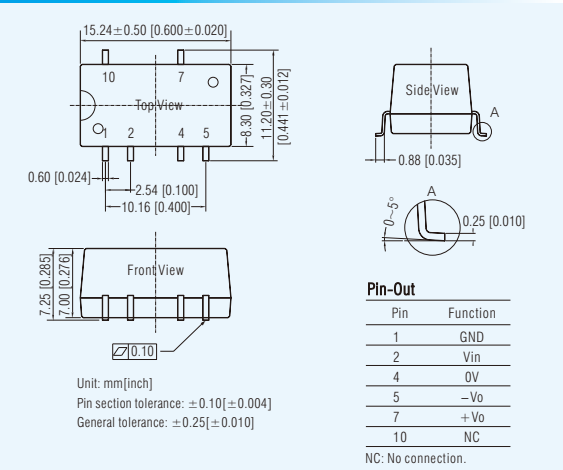
- Operating temperature: -40℃~+85℃
- Isolation: 1500VDC/3000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection ±8KV
- Line regulation: ±0.25%
- Ultra-miniature SMD package
- Continuous short circuit protection, self-recovery

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IB0503XT-1WR2	4.75-5.25 (5VDC)	3.3	243	58
IB0505XT-1WR2		5	200	72
IB0512XT-1WR2		12	84	73
IB0515XT-1WR2		15	67	74
IB1205XT-1WR2	11.4-12.6 (12VDC)	5	200	73
IB1212XT-1WR2		12	84	73
IB2405XT-1WR2	22.8-25.2 (24VDC)	5	200	73
IB2412XT-1WR2		12	84	73
IF0505XT-1WR2	4.75-5.25 (5VDC)	5	200	72
IF0509XT-1WR2		9	111	74
IF0512XT-1WR2		12	83	73
IF0515XT-1WR2		15	67	74
IF1205XT-1WR2	11.4-12.6 (12VDC)	5	200	73
IF1209XT-1WR2		9	111	74
IF1212XT-1WR2		12	83	73
IF1215XT-1WR2		15	67	75

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 15.24x11.20x7.25(mm)



RoHS

IA_KS-1W

1W Fixed Input, Isolated & Regulated Dual Output DC-DC Converter

Features

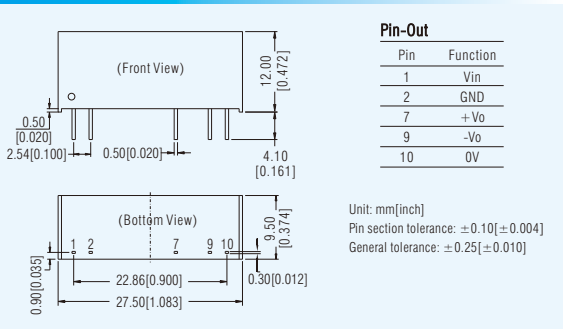
- Operating temperature: -40℃~+85℃
- Isolation: 1000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection: ±6KV
- Line regulation: ±0.25%

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IA0505KS-1W	4.75-5.25 (5VDC)	±5	±100	54
IA0509KS-1W		±9	±56	63
IA0512KS-1W		±12	±42	63
IA0515KS-1W		±15	±33	65
IA1205KS-1W	11.4-12.6 (12VDC)	±5	±100	56
IA1209KS-1W		±9	±56	62
IA1212KS-1W		±12	±42	65
IA1215KS-1W		±15	±33	66
IA2405KS-1W	22.8-25.2 (24VDC)	±5	±100	54
IA2409KS-1W		±9	±56	62
IA2412KS-1W		±12	±42	64
IA2415KS-1W		±15	±33	66

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 27.50x9.50x12.00(mm)



RoHS

IB_LS-1W

1W Fixed Input, Isolated & Regulated Single Output DC-DC Converter

Features

- Operating temperature: -40℃~ +85℃
- Isolation: 1000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection: ±8KV
- Line regulation: ±0.25%

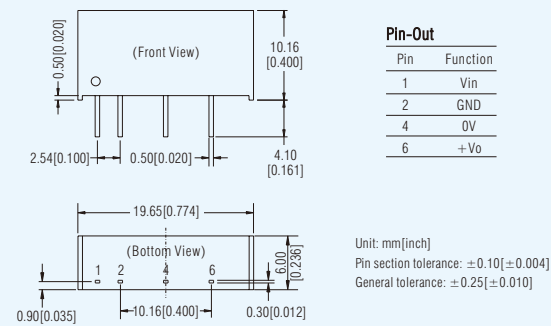
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IB0505LS-1W	4.75-5.25 (5VDC)	5	200	67
IB0509LS-1W		9	111	70
IB0512LS-1W		12	83	71
IB0515LS-1W		15	67	73
IB0524LS-1W	11.4-12.6 (12VDC)	24	42	68
IB1205LS-1W		5	200	67
IB1209LS-1W		9	111	72
IB1212LS-1W		12	83	70
IB1215LS-1W	22.8-25.2 (24VDC)	15	67	74
IB1224LS-1W		24	42	68
IB2405LS-1W		5	200	68
IB2409LS-1W		9	111	68
IB2412LS-1W		12	83	73
IB2415LS-1W		15	67	75
IB2424LS-1W		24	42	68

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 19.65x6.00x10.16(mm)



IF_S-1W

1W Fixed Input, Isolated & Regulated Single Output DC-DC Converter

Features

- Operating temperature: -40℃~ +85℃
- Isolation: 3000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection: ±6KV
- Line regulation: ±0.25%

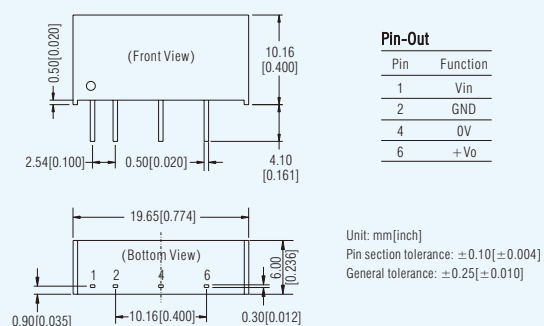
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IF0505S-1W	4.75-5.25 (5VDC)	5	200	66
IF0509S-1W		9	111	70
IF0512S-1W		12	83	72
IF0515S-1W		15	67	73
IF1205S-1W	11.4-12.6 (12VDC)	5	200	71
IF1212S-1W		12	83	73
IF1215S-1W		15	67	74
IF2405S-1W	22.8-25.2 (24VDC)	5	200	72
IF2412S-1W		12	83	73
IF2415S-1W		15	67	74

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 19.65x6.00x10.16(mm)



IE_KS-1W

1W Fixed Input, Isolated & Regulated Dual Output DC-DC Converter

Features

- Operating temperature: -40℃~ +85℃
- Isolation: 3000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection: ±6KV
- Line regulation: ±0.25%

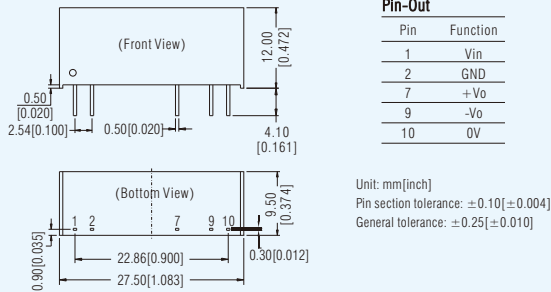
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IE0505KS-1W	4.75-5.25 (5VDC)	±5	±100	54
IE0509KS-1W		±9	±56	61
IE0512KS-1W		±12	±42	62
IE0515KS-1W		±15	±33	64
IE1205KS-1W	11.4-12.6 (12VDC)	±5	±100	54
IE1209KS-1W		±9	±56	61
IE1212KS-1W		±12	±42	63
IE1215KS-1W		±15	±33	64
IE2405KS-1W	22.8-25.2 (24VDC)	±5	±100	54
IE2409KS-1W		±9	±56	60
IE2412KS-1W		±12	±42	63
IE2415KS-1W		±15	±33	64

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 27.50x9.50x12.00(mm)



IA_KS-2W

2W Fixed Input, Isolated & Regulated Dual Output DC-DC Converter

Features

- Operating temperature: -40℃~ +85℃
- Isolation: 1000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection: ±6KV
- Line regulation: ±0.25%

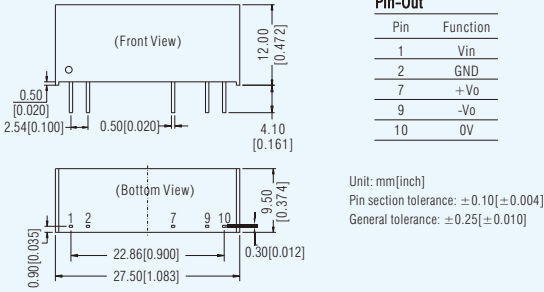
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IA0509KS-2W	4.75-5.25 (5VDC)	±9	±100	62
IA0512KS-2W		±12	±83	64
IA0515KS-2W		±15	±67	65
IA1209KS-2W	11.4-12.6 (12VDC)	±9	±100	63
IA1212KS-2W		±12	±83	65
IA1215KS-2W		±15	±67	68
IA2409KS-2W	22.8-25.2 (24VDC)	±9	±100	63
IA2412KS-2W		±12	±83	67
IA2415KS-2W		±15	±67	69

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 27.50x9.50x12.00(mm)



IB_S-2W & IF_S-2W

2W Fixed Input, Isolated & Regulated Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- Isolation: IB_S-2W:1000VDC, IF_S-2W:3000VDC
- Ripple & noise down to 60mVp-p
- Anti-static protection: $\pm 6\text{KV}$
- Line regulation: $\pm 0.5\%$
- Continuous short circuit protection, self-recovery

Product Program

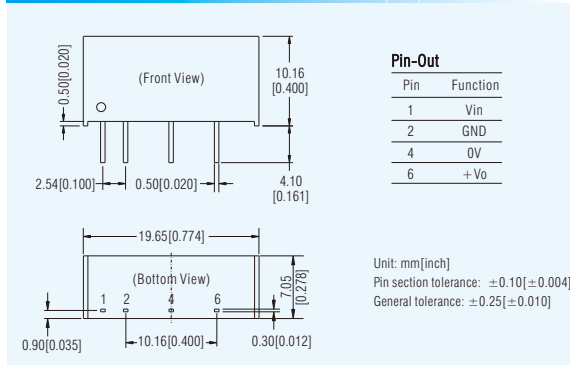
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
IB0505S-2W	4.75-5.25 (5VDC)	5	400	69
IB1205S-2W	11.4-12.6 (12VDC)	5	400	70
IB2405S-2W	22.8-25.2 (24VDC)	5	400	70
IF0505S-2W	4.75-5.25 (5VDC)	5	400	69
IF1205S-2W	11.4-12.6 (12VDC)	5	400	70
IF2405S-2W	22.8-25.2 (24VDC)	5	400	70

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 19.65x7.05x10.16(mm)



WRA_S-1WR2 & WRB_S-1WR2

1W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- EMI meet CISPR22/EN55022 CLASS B
- Continuous short circuit protection, self-recovery
- Isolation: 1500VDC
- Noise down to 55mVp-p
- Remote ON/OFF

Product Program

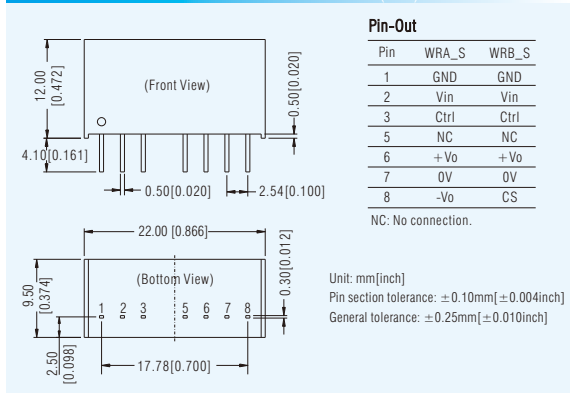
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
WRA0505S-1WR2	4.5-9 (5VDC)	± 5	± 100	73
WRA0512S-1WR2		± 12	± 42	76
WRA0515S-1WR2		± 15	± 33	75
WRB0505S-1WR2		5	200	72
WRB0512S-1WR2	9-18 (12VDC)	12	83	76
WRB0515S-1WR2		15	67	75
WRA1205S-1WR2		± 5	± 100	78
WRA1212S-1WR2		± 12	± 42	81
WRA1215S-1WR2	18-36 (24VDC)	± 15	± 33	80
WRB1205S-1WR2		5	200	77
WRB1212S-1WR2		12	83	80
WRB1215S-1WR2		15	67	80
WRA2405S-1WR2	36-75 (48VDC)	± 5	± 100	80
WRA2412S-1WR2		± 12	± 42	80
WRA2415S-1WR2		± 15	± 33	80
WRB2405S-1WR2		5	200	77
WRB2412S-1WR2		12	83	81
WRB2415S-1WR2		15	67	79
WRB2424S-1WR2		24	42	77
WRA4805S-1WR2		± 5	± 100	76
WRA4812S-1WR2		± 12	± 42	80
WRA4815S-1WR2		± 15	± 33	80
WRB4805S-1WR2		5	200	76
WRB4812S-1WR2		12	83	81
WRB4815S-1WR2		15	67	80

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 22.00x9.50x12.00(mm)



WRE_S-1WR2 & WRF_S-1WR2

1W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- EMI meet CISPR22/EN55022 CLASS B
- Continuous short circuit protection, self-recovery
- Isolation: 3000VDC
- Noise down to 50mVp-p
- Remote ON/OFF

Product Program

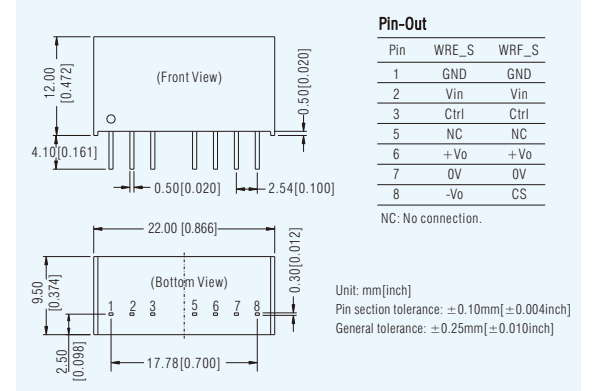
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
WRE0505S-1WR2	4.5-9 (5VDC)	± 5	± 100	73
WRE0512S-1WR2		± 12	± 42	76
WRE0515S-1WR2		± 15	± 33	75
WRF0505S-1WR2		5	200	72
WRF0512S-1WR2	9-18 (12VDC)	12	83	76
WRF0515S-1WR2		15	67	75
WRE1205S-1WR2		± 5	± 100	78
WRE1212S-1WR2		± 12	± 42	81
WRE1215S-1WR2	18-36 (24VDC)	± 15	± 33	80
WRF1205S-1WR2		5	200	77
WRF1212S-1WR2		12	83	80
WRF1215S-1WR2		15	67	80
WRE2405S-1WR2	36-75 (48VDC)	± 5	± 100	80
WRE2412S-1WR2		± 12	± 42	80
WRE2415S-1WR2		± 15	± 33	80
WRF2405S-1WR2		5	200	77
WRF2412S-1WR2		12	83	81
WRF2415S-1WR2		15	67	79
WRF2424S-1WR2		24	42	77
WRE4805S-1WR2		± 5	± 100	76
WRE4812S-1WR2		± 12	± 42	80
WRE4815S-1WR2		± 15	± 33	80
WRF4805S-1WR2		5	200	76
WRF4812S-1WR2		12	83	81
WRF4815S-1WR2		15	67	80

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 22.00x9.50x12.00(mm)



WRA_S-3WR2 & WRB_S-3WR2

3W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- EMI meet CISPR22/EN55022 CLASS B
- Continuous short circuit protection, self-recovery
- Isolation: 1500VDC
- Noise down to 35mVp-p
- Remote ON/OFF

Product Program

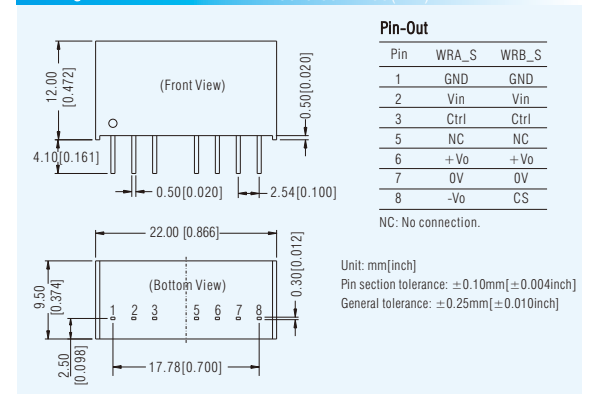
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
WRA0505S-3WR2	4.5-9 (5VDC)	± 5	± 250	74
WRA0512S-3WR2		± 12	± 104	77
WRA0515S-3WR2		± 15	± 83	77
WRB0505S-3WR2		5	500	73
WRB0512S-3WR2	9-18 (12VDC)	12	208	77
WRB0515S-3WR2		15	167	74
WRA1205S-3WR2		± 5	± 300	78
WRA1212S-3WR2		± 12	± 125	79
WRA1215S-3WR2	18-36 (24VDC)	± 15	± 100	80
WRB1205S-3WR2		5	600	76
WRB1212S-3WR2		12	250	82
WRB1215S-3WR2		15	200	83
WRA2405S-3WR2	36-75 (48VDC)	± 5	± 300	79
WRA2412S-3WR2		± 12	± 125	83
WRA2415S-3WR2		± 15	± 100	83
WRB2405S-3WR2		5	600	81
WRB2412S-3WR2		12	250	83
WRB2415S-3WR2		15	200	83
WRB2424S-3WR2		24	125	83
WRB4805S-3WR2		5	600	76
WRB4812S-3WR2		12	250	80
WRB4815S-3WR2		15	200	84

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 22.00x9.50x12.00(mm)



WRE_S-3WR2 & WRF_S-3WR2

3W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

产品特点

- Operating temperature: -40°C~+85°C
- EMI meet CISPR22/EN55022 CLASS B
- Continuous short circuit protection, self-recovery
- Isolation: 3000VDC
- Noise down to 50mVp-p
- Remote ON/OFF

Product Program

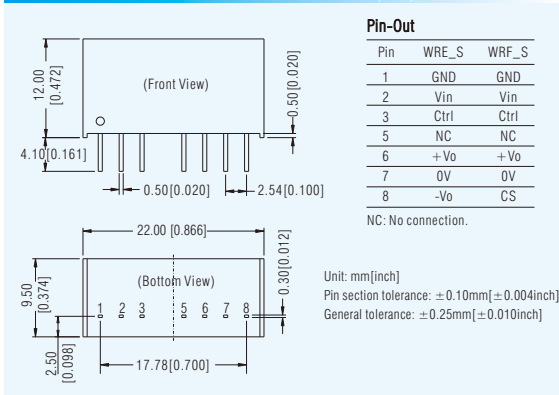
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
WRE0505S-3WR2	4.5-9 (5VDC)	±5	±250	74
WRE0512S-3WR2		±12	±104	77
WRE0515S-3WR2		±15	±83	77
WRF0505S-3WR2		5	500	73
WRF0512S-3WR2		12	208	77
WRF0515S-3WR2		15	167	74
WRE1205S-3WR2	9-18 (12VDC)	±5	±300	78
WRE1212S-3WR2		±12	±125	79
WRE1215S-3WR2		±15	±100	80
WRF1205S-3WR2		5	600	76
WRF1212S-3WR2		12	250	82
WRF1215S-3WR2		15	200	83
WRE2405S-3WR2	18-36 (24VDC)	±5	±300	79
WRE2412S-3WR2		±12	±125	83
WRE2415S-3WR2		±15	±100	83
WRF2405S-3WR2		5	600	81
WRF2412S-3WR2		12	250	83
WRF2415S-3WR2		15	200	83
WRF2424S-3WR2		24	125	83
WRF4805S-3WR2	36-75 (48VDC)	5	600	76
WRF4812S-3WR2		12	250	80
WRF4815S-3WR2		15	200	84

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 22.00x9.50x12.00(mm)



WRE_P-3WR2 & WRF_P-3WR2

3W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Isolation: 3000VDC
- Noise down to 50mVp-p

Product Program

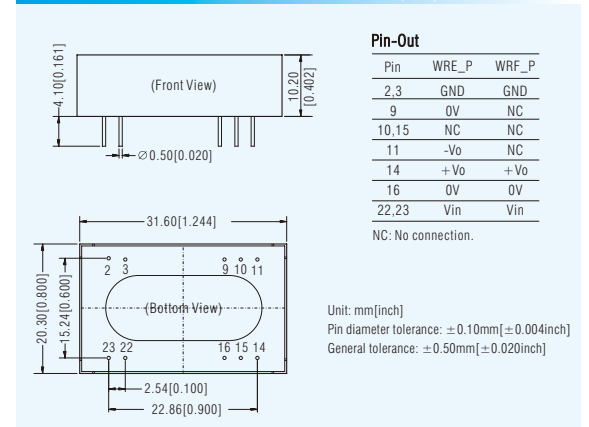
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
WRE0505P-3WR2	4.5-9 (5VDC)	±5	±300	76
WRE0512P-3WR2		±12	±125	78
WRE0515P-3WR2		±15	±100	78
WRF0505P-3WR2		5	600	74
WRF0512P-3WR2		12	250	77
WRF0515P-3WR2		15	200	77
WRE1205P-3WR2	9-18 (12VDC)	±5	±300	81
WRE1209P-3WR2		±9	±166	84
WRE1212P-3WR2		±12	±125	84
WRE1215P-3WR2		±15	±100	85
WRF1205P-3WR2		5	600	81
WRF1212P-3WR2		12	250	83
WRF1215P-3WR2		15	200	82
WRF1224P-3WR2		24	125	83
WRE2405P-3WR2	18-36 (24VDC)	±5	±300	82
WRE2412P-3WR2		±12	±125	84
WRE2415P-3WR2		±15	±100	84
WRF2403P-3WR2		3.3	909	78
WRF2405P-3WR2		5	600	81
WRF2412P-3WR2		12	250	86
WRF2415P-3WR2		15	200	86
WRF2424P-3WR2		24	125	85
WRE4805P-3WR2	36-75 (48VDC)	±5	±300	82
WRE4812P-3WR2		±12	±125	84
WRE4815P-3WR2		±15	±100	85
WRF4805P-3WR2		5	600	82
WRF4812P-3WR2		12	250	86
WRF4815P-3WR2		15	200	86

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 31.60x20.30x10.20(mm)



WRA_(Z)P-3WR2 & WRB_(Z)P-3WR2

3W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Isolation: 1500VDC
- Noise down to 50mVp-p

Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
WRA0505(Z)P-3WR2	4.5-9 (5VDC)	±5	±300	76
WRA0512(Z)P-3WR2		±12	±125	78
WRA0515(Z)P-3WR2		±15	±100	78
WRB0505(Z)P-3WR2		5	600	74
WRB0512(Z)P-3WR2		12	250	77
WRB0515(Z)P-3WR2		15	200	77
WRA1205(Z)P-3WR2	9-18 (12VDC)	±5	±300	81
WRA1209(Z)P-3WR2		±9	±166	84
WRA1212(Z)P-3WR2		±12	±125	84
WRA1215(Z)P-3WR2		±15	±100	85
WRB1205(Z)P-3WR2		5	600	81
WRB1212(Z)P-3WR2		12	250	83
WRB1215(Z)P-3WR2		15	200	82
WRB1224(Z)P-3WR2		24	125	83
WRA2405(Z)P-3WR2	18-36 (24VDC)	±5	±300	82
WRA2412(Z)P-3WR2		±12	±125	84
WRA2415(Z)P-3WR2		±15	±100	84
WRB2403(Z)P-3WR2		3.3	909	78
WRB2405(Z)P-3WR2		5	600	81
WRB2412(Z)P-3WR2		12	250	86
WRB2415(Z)P-3WR2		15	200	86
WRB2424(Z)P-3WR2		24	125	85
WRA4805(Z)P-3WR2	36-75 (48VDC)	±5	±300	82
WRA4812(Z)P-3WR2		±12	±125	84
WRA4815(Z)P-3WR2		±15	±100	85
WRB4805(Z)P-3WR2		5	600	82
WRB4812(Z)P-3WR2		12	250	86
WRB4815(Z)P-3WR2		15	200	86

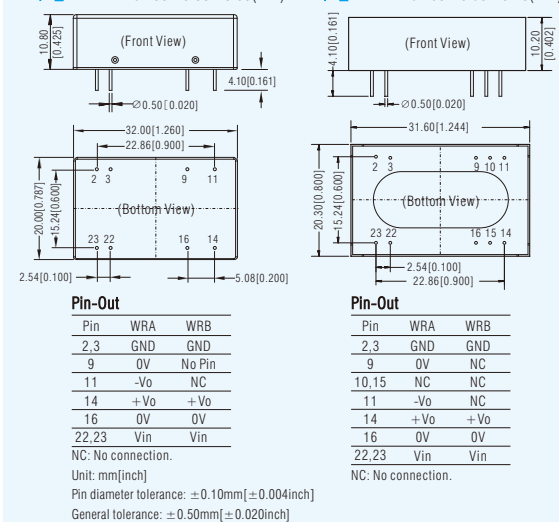
Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension

WRA/B_ZP LxWxH: 32.00x20.00x10.80(mm) WRA/B_P LxWxH: 31.60x20.30x10.20(mm)



VRA_ZP-6WR2 & VRB_ZP-6WR2

6W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 71°C
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Isolation: 1500VDC
- Output over voltage protection
- DIP package with metal case

Product Program

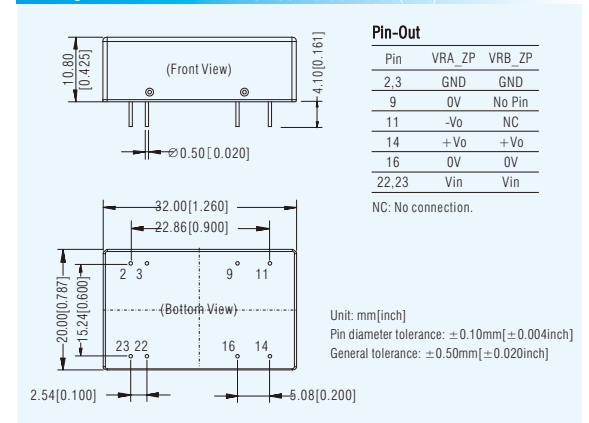
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
VRA1205ZP-6WR2	9-18 (12VDC)	±5	±600	81
VRA1212ZP-6WR2		±12	±250	85
VRA1215ZP-6WR2		±15	±200	85
VRB1203ZP-6WR2		3.3	1500	76
VRB1205ZP-6WR2		5	1200	81
VRB1212ZP-6WR2		12	500	85
VRB1215ZP-6WR2		15	400	85
VRB1224ZP-6WR2		24	250	87
VRA2405ZP-6WR2	18-36 (24VDC)	±5	±600	83
VRA2412ZP-6WR2		±12	±250	87
VRA2415ZP-6WR2		±15	±200	87
VRB2403ZP-6WR2		3.3	1500	79
VRB2405ZP-6WR2		5	1200	83
VRB2409ZP-6WR2		9	667	85
VRB2412ZP-6WR2		12	500	87
VRB2415ZP-6WR2		15	400	89
VRB2424ZP-6WR2		24	250	88
VRA4805ZP-6WR2	36-75 (48VDC)	±5	±600	83
VRA4812ZP-6WR2		±12	±250	87
VRA4815ZP-6WR2		±15	±200	88
VRB4803ZP-6WR2		3.3	1500	79
VRB4805ZP-6WR2		5	1200	83
VRB4812ZP-6WR2		12	500	88
VRB4815ZP-6WR2		15	400	88

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



RoHS

Package Dimension LxWxH: 32.00x20.00x10.80(mm)



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VRA_YMD-6WR2 & VRB_YMD-6WR2

6W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter 

Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 71°C
- Isolation: 1500VDC
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting

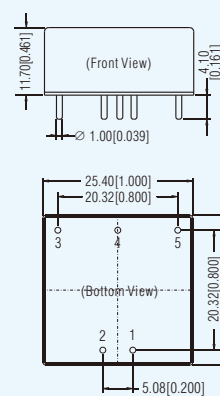


Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
VRA1205YMD-6WR2	9-18 (12VDC)	±5	±600	81
VRA1212YMD-6WR2		±12	±250	85
VRA1215YMD-6WR2		±15	±200	85
VRB1203YMD-6WR2		3.3	1500	76
VRB1205YMD-6WR2		5	1200	81
VRB1212YMD-6WR2		12	500	85
VRB1215YMD-6WR2	18-36 (24VDC)	15	400	85
VRB1224YMD-6WR2		24	250	86
VRA2405YMD-6WR2		±5	±600	83
VRA2412YMD-6WR2		±12	±250	87
VRA2415YMD-6WR2		±15	±200	87
VRB2403YMD-6WR2		3.3	1500	79
VRB2405YMD-6WR2		5	1200	83
VRB2412YMD-6WR2		12	500	87
VRB2415YMD-6WR2		15	400	87
VRB2424YMD-6WR2		24	250	87
VRA4805YMD-6WR2	36-75 (48VDC)	±5	±600	83
VRA4812YMD-6WR2		±12	±250	87
VRA4815YMD-6WR2		±15	±200	88
VRB4803YMD-6WR2		3.3	1500	79
VRB4805YMD-6WR2		5	1200	83
VRB4812YMD-6WR2		12	500	87
VRB4815YMD-6WR2		15	400	88
VRB4824YMD-6WR2		24	250	88

Note: 1. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
2. if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

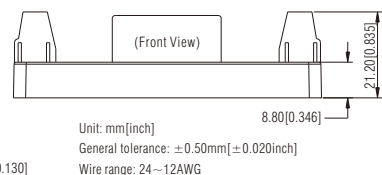
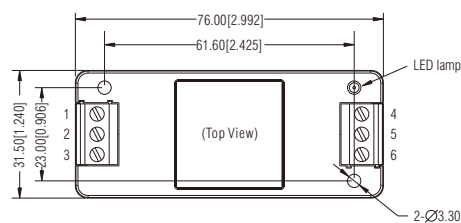
Package Dimension LxWxH: 25.40x25.40x11.70(mm)



Pin	VRA_YMD	VRB_YMD
1	GND	GND
2	Vin	Vin
3	+Vo	+Vo
4	0V	No Pin
5	-Vo	0V

Unit: mm[inch]
Pin diameter tolerance: ±0.10mm[±0.004inch]
General tolerance: ±0.50mm[±0.020inch]

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)

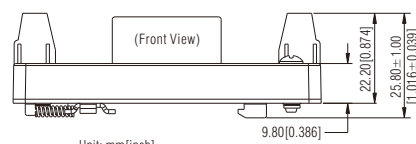
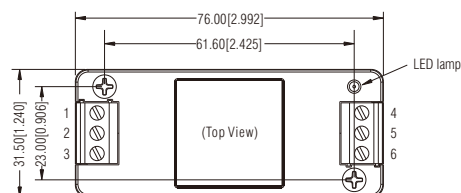


Pin-Out

Pin	VRA_YMD	VRB_YMD
1	NC	NC
2	GND	GND
3	Vin	Vin
4	-Vo	0V
5	0V	NC
6	+Vo	+Vo

Unit: mm[inch]
General tolerance: ±0.50mm[±0.020inch]
Wire range: 24~12AWG

A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



Pin-Out

Pin	VRA_YMD	VRB_YMD
1	NC	NC
2	GND	GND
3	Vin	Vin
4	-Vo	0V
5	0V	NC
6	+Vo	+Vo

Unit: mm[inch]
General tolerance: ±0.50mm[±0.020inch]
Wire range: 24~12AWG

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VRA_(X)D-10WR2 & VRB_(X)D-10WR2

10W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter 

Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 71°C
- Isolation: 1500VDC
- Remote ON/OFF
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting

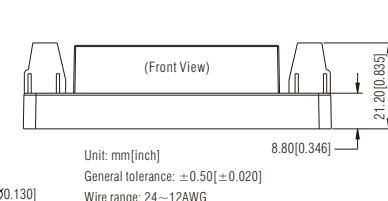
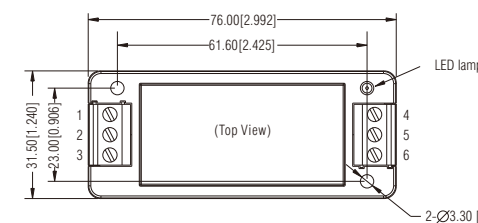


Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
VRA1205(X)D-10WR2	9-18 (12VDC)	±5	±1000	82
VRA1212(X)D-10WR2		±12	±416	86
VRA1215(X)D-10WR2		±15	±333	87
VRA1224(X)D-10WR2		±24	±208	87
VRB1203(X)D-10WR2		3.3	2400	77
VRB1205(X)D-10WR2		5	2000	82
VRB1212(X)D-10WR2	18-36 (24VDC)	12	833	86
VRB1215(X)D-10WR2		15	667	87
VRB1224(X)D-10WR2		24	416	88
VRA2405(X)D-10WR2		±5	±1000	83
VRA2412(X)D-10WR2		±12	±416	86
VRA2415(X)D-10WR2		±15	±333	88
VRB2403(X)D-10WR2		3.3	2400	77
VRB2405(X)D-10WR2		5	2000	84
VRB2412(X)D-10WR2		12	833	88
VRB2415(X)D-10WR2		15	667	90
VRB2424(X)D-10WR2		24	416	87
VRA4805(X)D-10WR2	36-75 (48VDC)	±5	±1000	83
VRA4812(X)D-10WR2		±12	±416	88
VRA4815(X)D-10WR2		±15	±333	89
VRA4824(X)D-10WR2		±24	±208	88
VRB4803(X)D-10WR2		3.3	2400	78
VRB4805(X)D-10WR2		5	2000	82
VRB4812(X)D-10WR2		12	833	88
VRB4815(X)D-10WR2		15	667	89
VRB4824(X)D-10WR2		24	416	88

Note: 1. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
2. if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)

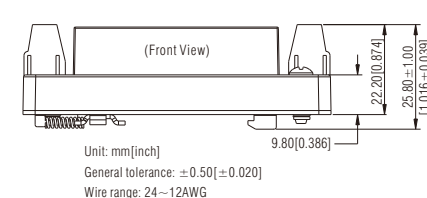
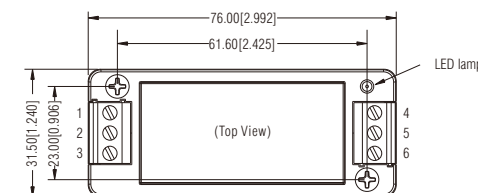


Pin-Out

Pin	VRA_(X)D	VRB_(X)D
*1	Ctrl	Ctrl
2	GND	GND
3	Vin	Vin
4	-Vo	0V
5	0V	NC
6	+Vo	+Vo

*VRA/B_XD-10WR2 series without this pin.

A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



Pin-Out

Pin	VRA_(X)D	VRB_(X)D
*1	Ctrl	Ctrl
2	GND	GND
3	Vin	Vin
4	-Vo	0V
5	0V	NC
6	+Vo	+Vo

*VRA/B_XD-10WR2 series without this pin.

• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

VRA_LD-15WR2 & VRB_LD-15WR2

15W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter 

Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 65°C(up to 70°C with heat sink)
- Isolation: 1500VDC
- Efficiency up to 90%
- Remote ON/OFF and output voltage trimming
- EMI meet CISPR22/EN55022 CLASS A
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting



Product Program

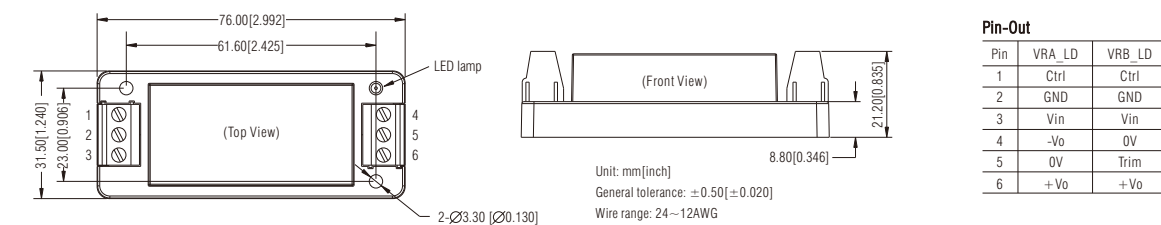
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
VRA1205LD-15WR2	9-18 (12VDC)	±5	±1500	86
VRA1212LD-15WR2		±12	±625	88
VRA1215LD-15WR2		±15	±500	88
VRA1224LD-15WR2		±24	±313	88
VRB1203LD-15WR2		3.3	4000	87
VRB1205LD-15WR2		5	3000	89
VRB1212LD-15WR2	18-36 (24VDC)	12	1250	89
VRB1215LD-15WR2		15	1000	89
VRB1224LD-15WR2		24	625	90
VRA2405LD-15WR2		±5	±1500	86
VRA2412LD-15WR2		±12	±625	88
VRA2415LD-15WR2		±15	±500	88
VRA2424LD-15WR2		±24	±313	88
VRB2403LD-15WR2	36-75 (48VDC)	3.3	4000	88
VRB2405LD-15WR2		5	3000	90
VRB2412LD-15WR2		12	1250	89
VRB2415LD-15WR2		15	1000	90
VRB2424LD-15WR2		24	625	90
VRA4805LD-15WR2		±5	±1500	86
VRA4812LD-15WR2	36-75 (48VDC)	±12	±625	88
VRA4815LD-15WR2		±15	±500	88
VRA4824LD-15WR2		±24	±313	88
VRB4803LD-15WR2		3.3	4000	87
VRB4805LD-15WR2		5	3000	87
VRB4812LD-15WR2		12	1250	89
VRB4815LD-15WR2	36-75 (48VDC)	15	1000	90
VRB4824LD-15WR2		24	625	89

Note: 1. series with suffix "H" are heat sink mounting.

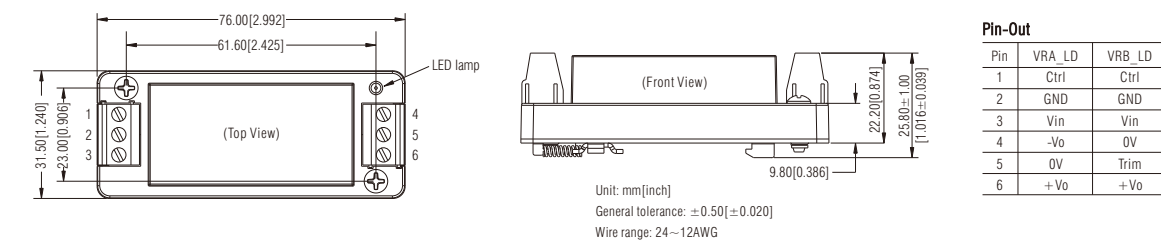
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.

3.if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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VRA_LD-20WR2 & VRB_LD-20WR2

20W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter 

Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 60°C(up to 65°C with heat sink)
- Isolation: 1500VDC
- Efficiency up to 90%
- Remote ON/OFF and output voltage trimming
- EMI meet CISPR22/EN55022 CLASS A
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting



Product Program

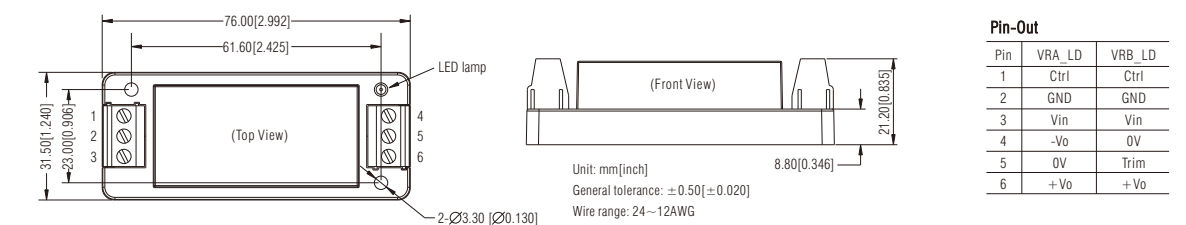
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
VRA1205LD-20WR2	9-18 (12VDC)	±5	±2000	86
VRA1212LD-20WR2		±12	±834	88
VRA1215LD-20WR2		±15	±667	88
VRA1224LD-20WR2		±24	±417	88
VRB1203LD-20WR2		3.3	5000	86
VRB1205LD-20WR2		5	4000	89
VRB1212LD-20WR2	18-36 (24VDC)	12	1667	89
VRB1215LD-20WR2		15	1333	89
VRB1224LD-20WR2		24	834	90
VRA2405LD-20WR2		±5	±2000	86
VRA2412LD-20WR2		±12	±834	88
VRA2415LD-20WR2		±15	±667	88
VRA2424LD-20WR2		±24	±417	88
VRB2403LD-20WR2	36-75 (48VDC)	3.3	5000	86
VRB2405LD-20WR2		5	4000	90
VRB2412LD-20WR2		12	1667	89
VRB2415LD-20WR2		15	1333	90
VRB2424LD-20WR2		24	834	90
VRA4805LD-20WR2		±5	±2000	86
VRA4812LD-20WR2	36-75 (48VDC)	±12	±834	88
VRA4815LD-20WR2		±15	±667	89
VRA4824LD-20WR2		±24	±417	89
VRB4803LD-20WR2		3.3	5000	86
VRB4805LD-20WR2		5	4000	90
VRB4812LD-20WR2		12	1667	89
VRB4815LD-20WR2	36-75 (48VDC)	15	1333	90
VRB4824LD-20WR2		24	834	89

Note: 1. series with suffix "H" are heat sink mounting.

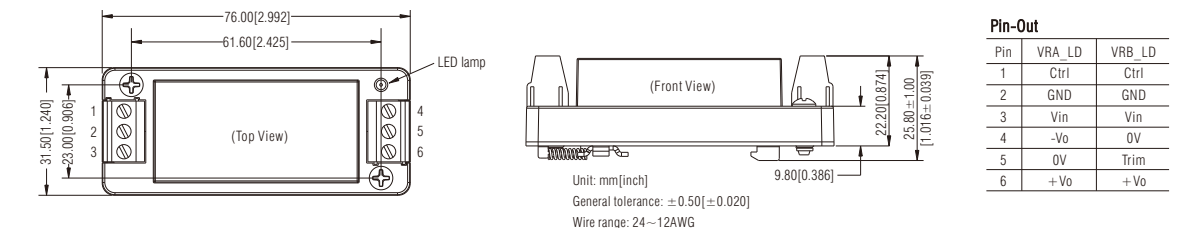
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.

3.if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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VRA_LD-30WR2 & VRB_LD-30WR2 & VRB_LD-50W

30W/50W 2:1 Wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

Features

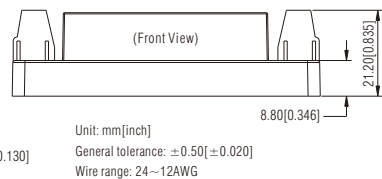
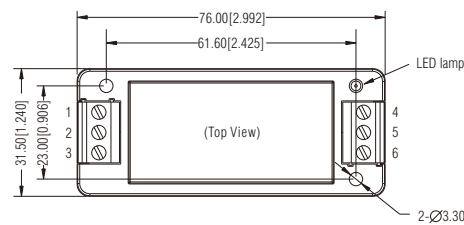
- Operating temperature: -40°C~+85°C
- Derating temperature up to 55°C(up to 65°C with heat sink)
- Isolation: 1500VDC
- Efficiency up to 93%
- Remote ON/OFF and output voltage trimming
- EMI meet CISPR22/EN55022 CLASS A(30WR2)
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi.(%) (typ)
VRA2405LD-30WR2	18-36 (24VDC)	±5	±3000	88
VRA2412LD-30WR2		±12	±1250	88
VRA2415LD-30WR2		±15	±1000	89
VRA2424LD-30WR2		±24	±625	89
VRB2403LD-30WR2		3.3	6000	87
VRB2405LD-30WR2		5	6000	88
VRB2409LD-30WR2		9	3333	88
VRB2412LD-30WR2		12	2500	88
VRB2415LD-30WR2	36-75 (48VDC)	15	2000	89
VRB2424LD-30WR2		24	1250	89
VRB4803LD-30WR2		3.3	6000	87
VRB4805LD-30WR2		5	6000	88
VRB4812LD-30WR2		12	2500	89
VRB4815LD-30WR2		15	2000	89
VRB4824LD-30WR2		24	1250	88
VRB2403LD-50W	18-36 (24VDC)	3.3	10000	91
VRB2405LD-50W		5	10000	93
VRB2412LD-50W		12	4167	93
VRB2415LD-50W		15	3333	93
VRB2424LD-50W	36-75 (48VDC)	24	2083	93
VRB4803LD-50W		3.3	10000	91
VRB4805LD-50W		5	10000	93
VRB4812LD-50W		12	4167	93
VRB4815LD-50W		15	3333	93
VRB4824LD-50W		24	2083	93

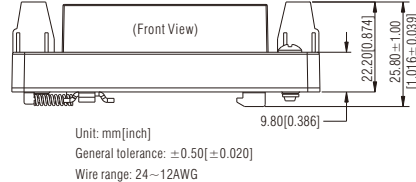
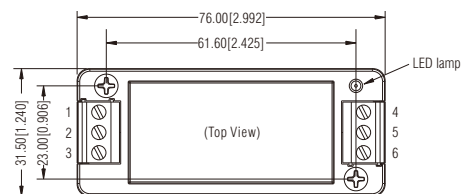
Note: 1. series with suffix "H" are heat sink mounting.
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



Pin-Out		
Pin	VRA_LD	VRB_LD
1	Ctrl	Ctrl
2	GND	GND
3	Vin	Vin
4	-Vo	Trim
5	0V	0V
6	+Vo	+Vo

A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



Pin-Out		
Pin	VRA_LD	VRB_LD
1	Ctrl	Ctrl
2	GND	GND
3	Vin	Vin
4	-Vo	Trim
5	0V	0V
6	+Vo	+Vo

• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

PWB_ZP-3WR2

3W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter

RoHS

Features

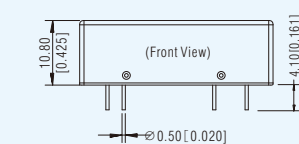
- Operating temperature: -40°C~+85°C
- Isolation: 1500VDC
- Ripple & noise down to 35mVp-p
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- DIP package with metal case

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi.(%) (typ)
PWB2403ZP-3WR2	9-36 (24VDC)	3.3	909	75
PWB2405ZP-3WR2		5	600	80
PWB2409ZP-3WR2		9	333	80
PWB2412ZP-3WR2		12	250	81
PWB2415ZP-3WR2	18-75 (48VDC)	15	200	82
PWB2424ZP-3WR2		24	125	82
PWB4803ZP-3WR2		3.3	909	76
PWB4805ZP-3WR2		5	600	79
PWB4809ZP-3WR2		9	333	81
PWB4812ZP-3WR2		12	250	82
PWB4815ZP-3WR2		15	200	83

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

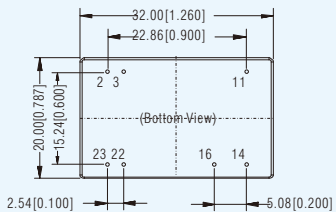


Package Dimension LxWxH: 32.00x20.00x10.80(mm)



Pin-Out	
Pin	Function
2,3	GND
11	NC
14	+Vo
16	0V
22,23	Vin

Unit: mm[inch]
Pin diameter tolerance: ±0.10[±0.004]
General tolerance: ±0.50[±0.020]



URA_ZP-6WR2 & URB_ZP-6WR2

6W 4:1 Ultra-wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter

RoHS

Features

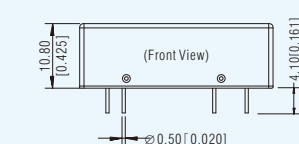
- Operating temperature: -40°C~+85°C
- Isolation: 1500VDC
- Derating temperature up to 71°C
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- DIP package with metal case
- Continuous short circuit protection, self-recovery

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi.(%) (typ)
URA2405ZP-6WR2	9-36 (24VDC)	±5	±600	83
URA2412ZP-6WR2		±12	±250	87
URA2415ZP-6WR2		±15	±200	87
URB2403ZP-6WR2		3.3	1500	79
URB2405ZP-6WR2	18-75 (48VDC)	5	1200	83
URB2412ZP-6WR2		12	500	87
URB2415ZP-6WR2		15	400	88
URA4805ZP-6WR2		±5	±600	83
URA4812ZP-6WR2		±12	±250	87
URA4815ZP-6WR2		±15	±200	88
URB4803ZP-6WR2		3.3	1500	80
URB4805ZP-6WR2		5	1200	84
URB4812ZP-6WR2		12	500	87
URB4815ZP-6WR2		15	400	88

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

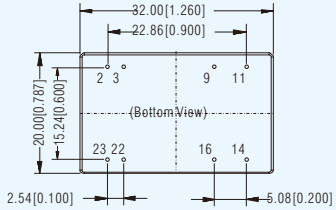


Package Dimension LxWxH: 32.00x20.00x10.80(mm)



Pin-Out		
Pin	URA_ZP	URB_ZP
2,3	GND	GND
9	0V	No Pin
11	-Vo	NC
14	+Vo	+Vo
16	0V	0V
22,23	Vin	Vin

Unit: mm[inch]
Pin diameter tolerance: ±0.10[±0.004]
General tolerance: ±0.50[±0.020]



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URA_YMD-6WR2 & URB_YMD-6WR2

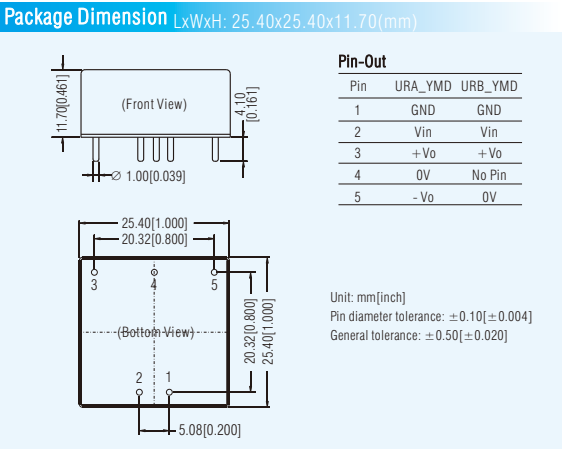
6W 4:1 Ultra-wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter  **RoHS**

Features

- Operating temperature: -40℃~+85℃
- Derating temperature up to 71℃
- Isolation: 1500VDC
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting

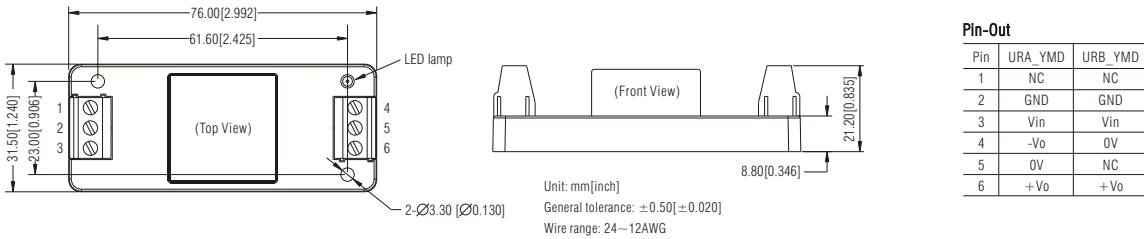


Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URA2405YMD-6WR2	9-36 (24VDC)	±5	±600	83
URA2412YMD-6WR2		±12	±250	87
URA2415YMD-6WR2		±15	±200	88
URB2403YMD-6WR2		3.3	1500	79
URB2405YMD-6WR2		5	1200	83
URB2412YMD-6WR2		12	500	87
URB2415YMD-6WR2	18-75 (48VDC)	15	400	88
URB2424YMD-6WR2		24	250	88
URA4805YMD-6WR2		±5	±600	83
URA4812YMD-6WR2		±12	±250	87
URA4815YMD-6WR2		±15	±200	88
URB4803YMD-6WR2		3.3	1500	79
URB4805YMD-6WR2		5	1200	83
URB4812YMD-6WR2		12	500	87
URB4815YMD-6WR2		15	400	88
URB4824YMD-6WR2		24	250	88

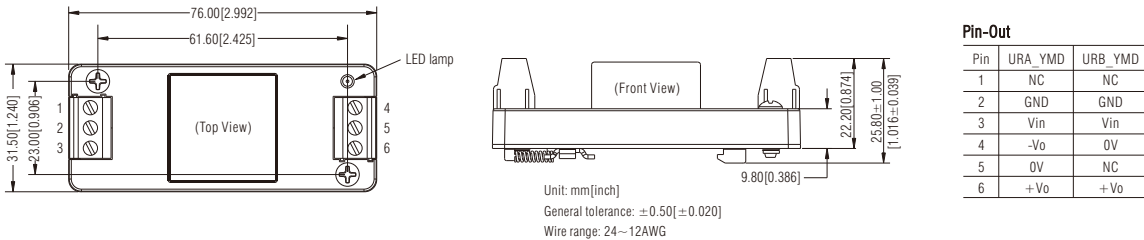


Note: 1. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
2. if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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URA_(X)D-10WR2 & URB_(X)D-10WR2

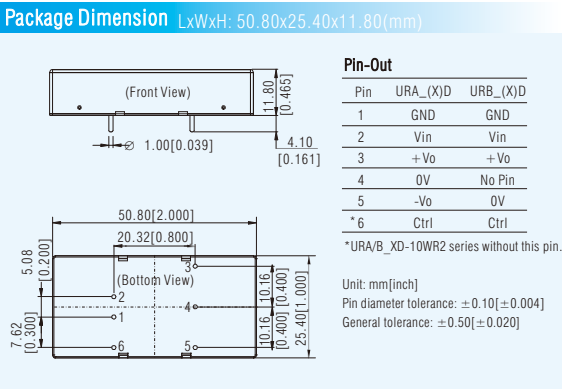
10W 4:1 Ultra-wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter  **RoHS**

Features

- Operating temperature: -40℃~+85℃
- Derating temperature up to 71℃
- Isolation: 1500VDC
- Remote ON/OFF
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Optional package: PCB mounting, chassis mounting and Din-Rai(TS35) mounting

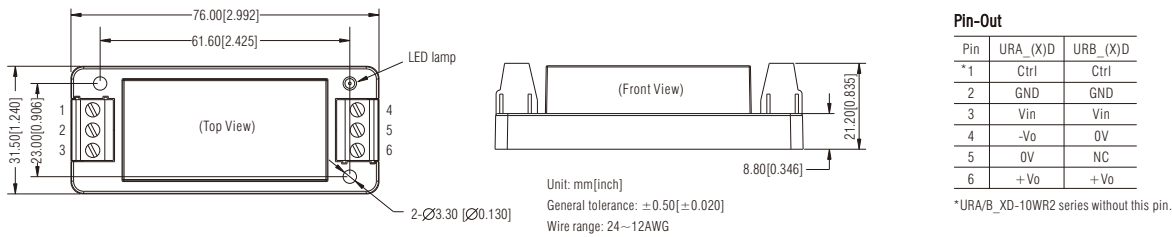


Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URA2405(X)D-10WR2	9-36 (24VDC)	±5	±1000	83
URA2412(X)D-10WR2		±12	±416	86
URA2415(X)D-10WR2		±15	±333	88
URB2403(X)D-10WR2		3.3	2400	79
URB2405(X)D-10WR2		5	2000	82
URB2412(X)D-10WR2		12	833	86
URB2415(X)D-10WR2	18-75 (48VDC)	15	667	87
URB2424(X)D-10WR2		24	416	87
URA4805(X)D-10WR2		±5	±1000	83
URA4812(X)D-10WR2		±12	±416	86
URA4815(X)D-10WR2		±15	±333	88
URB4803(X)D-10WR2		3.3	2400	79
URB4805(X)D-10WR2		5	2000	82
URB4812(X)D-10WR2		12	833	86
URB4815(X)D-10WR2		15	667	87
URB4824(X)D-10WR2		24	416	87

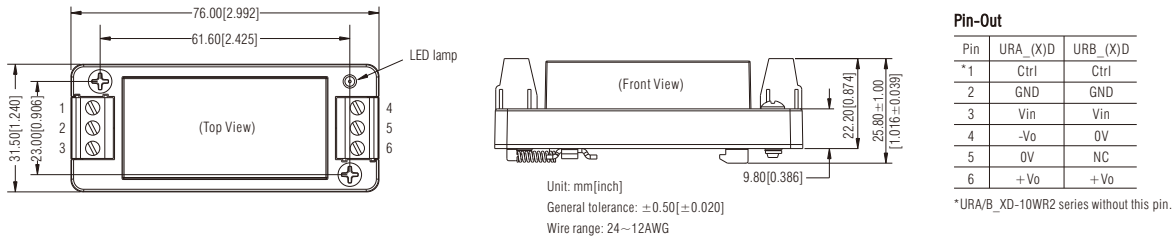


Note: 1. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
2. if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.

A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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URA_LD-15WR2 & URB_LD-15WR2

15W 4:1 Ultra-wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter



Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 60°C(up to 65°C with heat sink)
- Isolation: 1500VDC
- Efficiency up to 90%
- Remote ON/OFF and output voltage trimming
- EMI meet CISPR22/EN55022 CLASS A
- Optional package: PCB mounting, chassis mounting and Din-Rai(TS35)I mounting

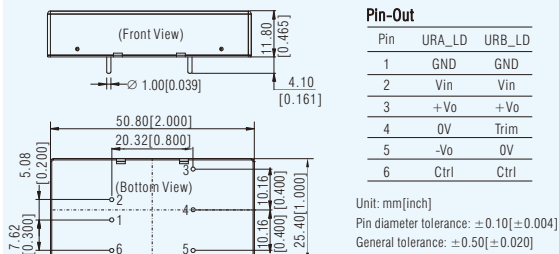


Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URA2405LD-15WR2	9-36 (24VDC)	±5	±1500	86
URA2412LD-15WR2		±12	±625	88
URA2415LD-15WR2		±15	±500	88
URB2403LD-15WR2		3.3	4000	87
URB2405LD-15WR2		5	3000	90
URB2412LD-15WR2		12	1250	89
URB2415LD-15WR2	18-75 (48VDC)	15	1000	89
URB2424LD-15WR2		24	625	90
URA4805LD-15WR2		±5	±1500	86
URA4812LD-15WR2		±12	±625	88
URA4815LD-15WR2		±15	±500	89
URB4803LD-15WR2		3.3	4000	87
URB4805LD-15WR2		5	3000	89
URB4812LD-15WR2		12	1250	88
URB4815LD-15WR2		15	1000	90

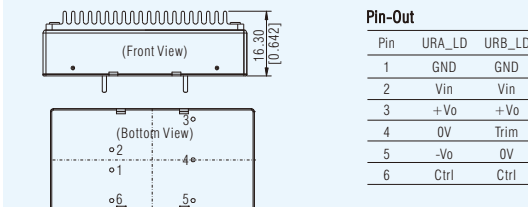
Note: 1. series with suffix "H" are heat sink mounting.
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

Package Dimension

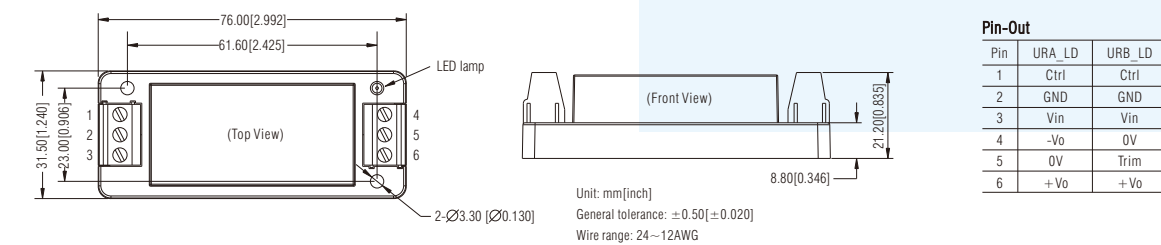
Without heat sink LxWxH: 50.80x25.40x11.80(mm)



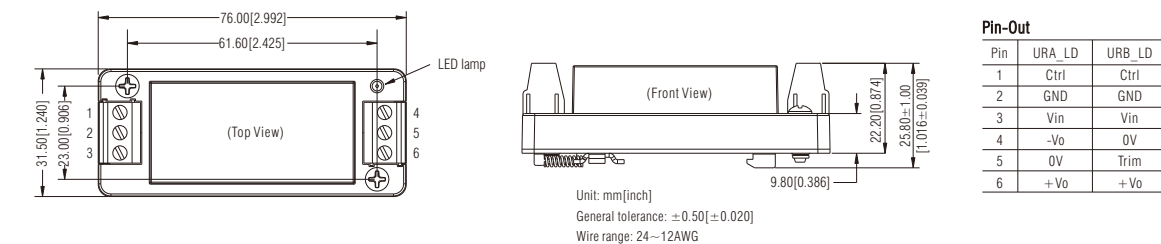
With heat sink LxWxH: 50.80x25.40x16.30(mm)



A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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URA_LD-20WR2 & URB_LD-20WR2

20W 4:1 Ultra-wide Input, Isolated & Regulated Dual/Single Output DC-DC Converter



Features

- Operating temperature: -40°C~+85°C
- Derating temperature up to 55°C(up to 60°C with heat sink)
- Isolation: 1500VDC
- Efficiency up to 90%
- Remote ON/OFF and output voltage trimming
- EMI meet CISPR22/EN55022 CLASS A
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting

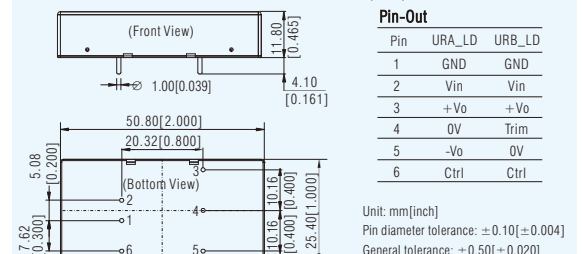


Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URA2405LD-20WR2	9-36 (24VDC)	±5	±2000	86
URA2412LD-20WR2		±12	±834	88
URA2415LD-20WR2		±15	±667	88
URB2403LD-20WR2		3.3	5000	86
URB2405LD-20WR2		5	4000	90
URB2412LD-20WR2		12	1667	89
URB2415LD-20WR2	18-75 (48VDC)	15	1333	90
URB2424LD-20WR2		24	834	90
URA4805LD-20WR2		±5	±2000	86
URA4812LD-20WR2		±12	±834	88
URA4815LD-20WR2		±15	±667	89
URB4803LD-20WR2		3.3	5000	86
URB4805LD-20WR2		5	4000	90
URB4812LD-20WR2		12	1667	89
URB4815LD-20WR2		15	1333	90
URB4824LD-20WR2		24	834	90

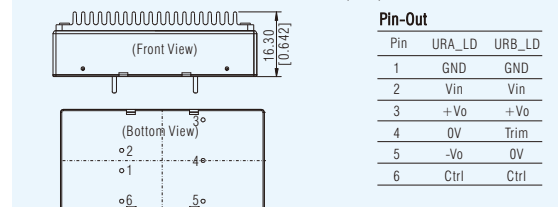
Note: 1. series with suffix "H" are heat sink mounting.
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

Package Dimension

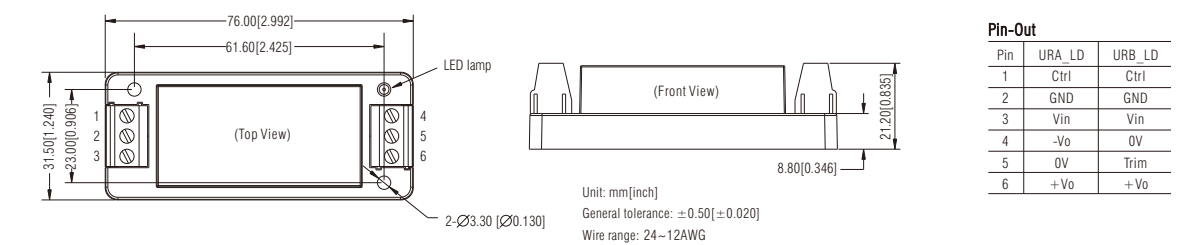
Without heat sink LxWxH: 50.80x25.40x11.80(mm)



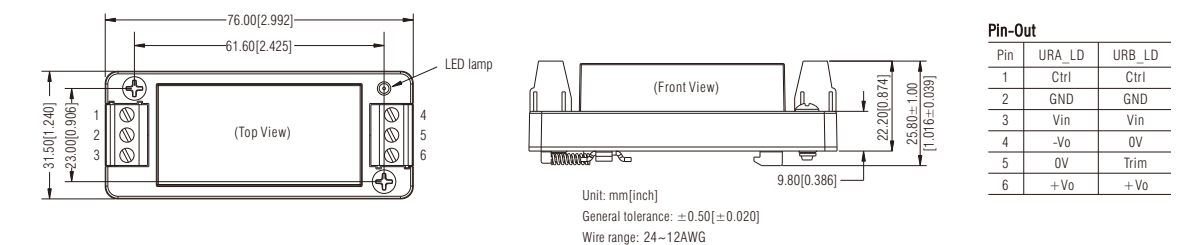
With heat sink LxWxH: 50.80x25.40x16.30(mm)



A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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URB_YMD-20W

20W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter

RoHS

Features

- Operating temperature: -40℃~+85℃
- Derating temperature up to 55℃(up to 65℃ with heat sink)
- Isolation: 1500VDC
- Efficiency up to 90%
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting

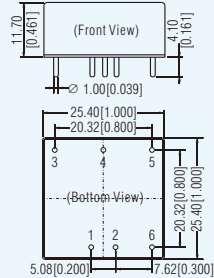


Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URB2403YMD-20W	9-36 (24VDC)	3.3	5000	87
URB2405YMD-20W		5	4000	90
URB2412YMD-20W		12	1667	90
URB2415YMD-20W		15	1333	90
URB4803YMD-20W	18-75 (48VDC)	3.3	5000	88
URB4805YMD-20W		5	4000	90
URB4812YMD-20W		12	1667	90
URB4815YMD-20W		15	1333	90

Note: 1. series with suffix "H" are heat sink mounting.
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

Package Dimension

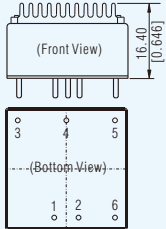
Without heat sink LxWxH: 25.40x25.40x11.70(mm)



Pin	Function
1	Vin
2	GND
3	+Vo
4	Trim
5	0V
6	Ctrl

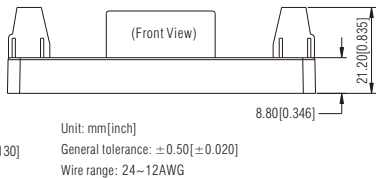
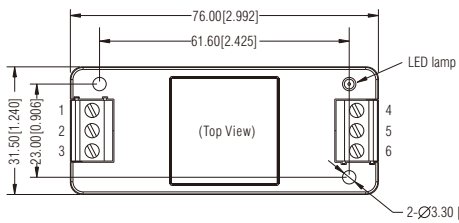
Unit: mm[inch]
Pin diameter tolerance: ±0.10[±0.004]
General tolerance: ±0.50[±0.020]

With heat sink LxWxH: 25.40x25.40x16.40(mm)



Pin	Function
1	Vin
2	GND
3	+Vo
4	Trim
5	0V
6	Ctrl

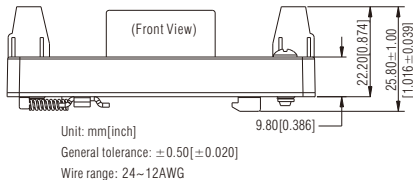
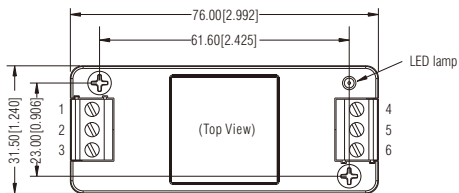
A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



Pin	Function
1	Ctrl
2	GND
3	Vin
4	0V
5	Trim
6	+Vo

Unit: mm[inch]
General tolerance: ±0.50[±0.020]
Wire range: 24~12AWG

A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



Pin	Function
1	Ctrl
2	GND
3	Vin
4	0V
5	Trim
6	+Vo

Unit: mm[inch]
General tolerance: ±0.50[±0.020]
Wire range: 24~12AWG

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URA_D-30WR2 & URB_D-30WR2 & URC_D-30WR2

30W 4:1 Ultra-wide Input, Isolated & Regulated Dual/Single/Triple Output DC-DC Converter

RoHS

Features

- Operating temperature: -40℃~+85℃
- Derating temperature up to 60℃(up to 70℃ with heat sink)
- Isolation: 1500VDC
- Efficiency up to 90%
- Six-sided metal shield
- Remote ON/OFF and output voltage trimming
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery

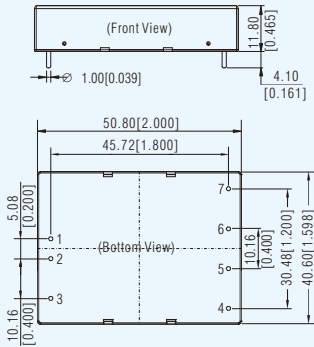


Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URA2405D-30WR2	9-36 (24VDC)	±5	±3000	86
URA2412D-30WR2		±12	±1250	89
URA2415D-30WR2		±15	±1000	90
URB2405D-30WR2		5	6000	88
URB2412D-30WR2		12	2500	88
URB2415D-30WR2		15	2000	90
URC240312D-30WR2	18-75 (48VDC)	3.3/±12	3500/±625	85
URC240315D-30WR2		3.3/±15	3500/±500	86
URC240512D-30WR2		5/±12	3000/±625	88
URC240515D-30WR2		5/±15	3000/±500	88
URA4805D-30WR2		±5	±3000	86
URA4812D-30WR2		±12	±1250	87
URA4815D-30WR2		±15	±1000	87
URB4805D-30WR2		5	6000	88
URB4812D-30WR2		12	2500	88
URB4815D-30WR2		15	2000	89
URC480312D-30WR2		3.3/±12	3500/±625	85
URC480315D-30WR2		3.3/±15	3500/±500	85
URC480512D-30WR2		5/±12	3000/±625	88
URC480515D-30WR2		5/±15	3000/±500	87

Note: 1. series with suffix "H" are heat sink mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

Package Dimension

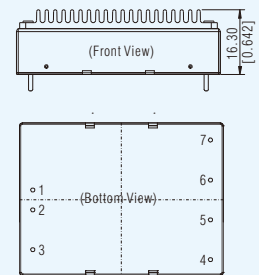
Without heat sink LxWxH: 50.80x40.60x11.80(mm)



Pin	URA_D	URB_D	URC_D
1	Vin	Vin	Vin
2	GND	GND	GND
3	Ctrl	Ctrl	Ctrl
4	Trim	Trim	-Vo2
5	-Vo	0V	0V
6	0V	+Vo	+Vo1
7	+Vo	No Pin	+Vo2

Unit: mm[inch]
Pin diameter tolerance: ±0.10[±0.004]
General tolerance: ±0.50[±0.020]

With heat sink LxWxH: 50.80x40.60x16.30(mm)



Pin	URA_D	URB_D	URC_D
1	Vin	Vin	Vin
2	GND	GND	GND
3	Ctrl	Ctrl	Ctrl
4	Trim	Trim	-Vo2
5	-Vo	0V	0V
6	0V	+Vo	+Vo1
7	+Vo	No Pin	+Vo2

• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

URF_P-6WR2

6W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter

RoHS

Features

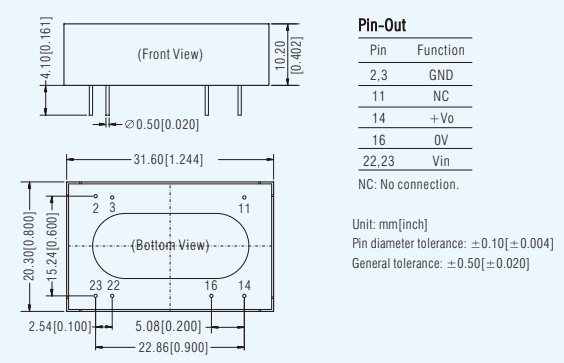
- Operating temperature: -40°C~+85°C
- Derating temperature up to 71°C
- Isolation: 3000VDC
- Output over voltage protection
- EMI meet CISPR22/EN55022 CLASS A
- Continuous short circuit protection, self-recovery

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URF2405P-6WR2	9-36 (24VDC)	5	1200	83
URF2412P-6WR2		12	500	87
URF2415P-6WR2		15	400	88
URF2424P-6WR2		24	250	87
URF4805P-6WR2	18-75 (48VDC)	5	1200	83
URF4812P-6WR2		12	500	87
URF4815P-6WR2		15	400	88
URF4824P-6WR2		24	250	87

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 31.60x20.30x10.20(mm)



URB1D_YMD-6W

6W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter (Railway)

RoHS

Features

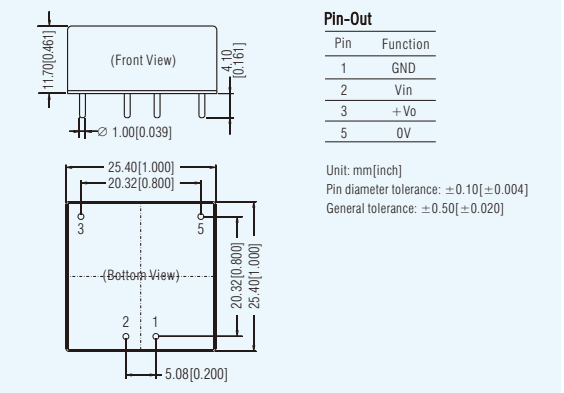
- Universal input voltage range: 40~160VDC
- Operating temperature: -40°C~+85°C
- Isolation: 1500VDC
- Ripple & noise down to 70mVp-p
- Efficiency up to 85%
- Output over voltage protection
- Transient input voltage meet FC-CX1D-RIA with external circuit
- Suitable for railway application

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URB1D05YMD-6W	40-160 (110VDC)	5	1200	81
URB1D12YMD-6W		12	500	83
URB1D15YMD-6W		15	400	85
URB1D24YMD-6W		24	250	85

Note: if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



Package Dimension LxWxH: 25.40x25.40x11.70(mm)



URB1D_XD-10W

10W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter(Railway)

RoHS

Features

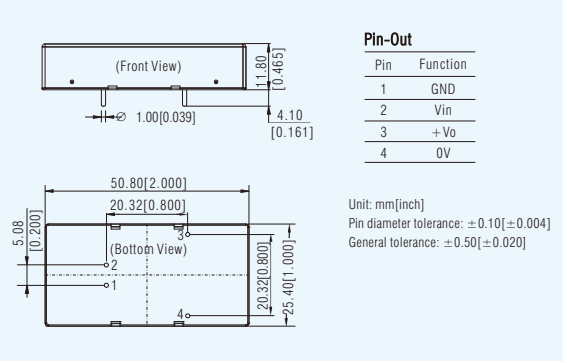
- Universal input voltage range: 40~160VDC
- Operating temperature: -40°C~+85°C
- Isolation: 1500VDC
- Ripple & noise down to 60mVp-p
- Efficiency up to 86%
- Output over voltage protection
- Transient input voltage meet FC-CX1D-RIA with external circuit
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting
- Suitable for railway application

Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URB1D05XD-10W	40-160 (110VDC)	5	2000	81
URB1D12XD-10W		12	833	85
URB1D15XD-10W		15	667	85
URB1D24XD-10W		24	416	86

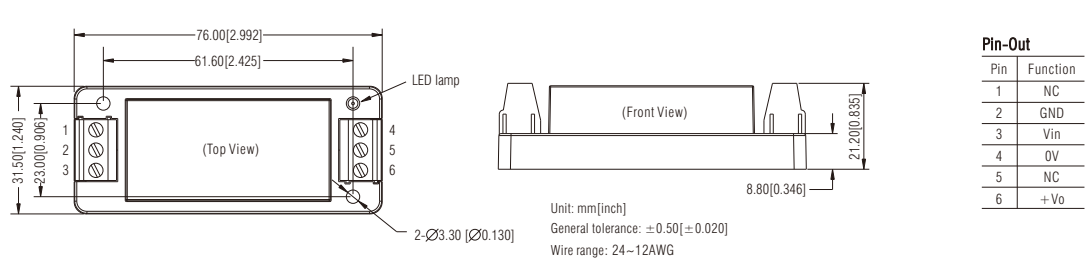
Note: 1. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
2. if the application has a higher requirement for EMC, you can choose our matching EMC auxiliary device.



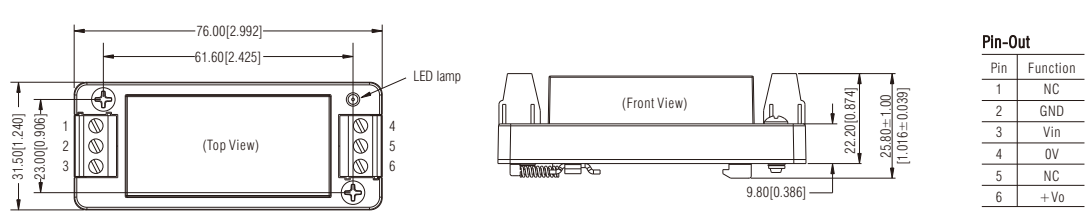
Package Dimension LxWxH: 50.80x25.40x11.80(mm)



A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



URB1D_LD-15W

15W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter (Railway)

Features

- Universal input voltage range: 40~160VDC
- Derating temperature up to 70°C(up to 80°C with heat sink)
- Isolation: 1500VDC
- Ripple & noise down to 50mVp-p
- Efficiency up to 89%
- Output over voltage protection
- Meet RIA12 with FC-CX1D-RIA
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting
- Suitable for railway application

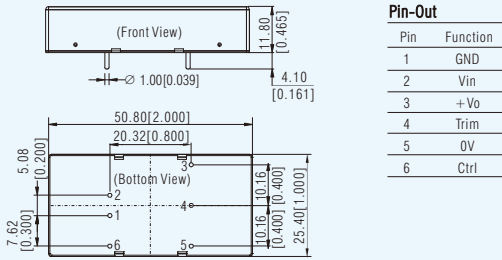
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URB1D03LD-15W	40-160 (110VDC)	3.3	4000	87
URB1D05LD-15W		5	3000	89
URB1D12LD-15W		12	1250	88
URB1D15LD-15W		15	1000	88
URB1D24LD-15W		24	625	88

Note: 1. series with suffix "H" are heat sink mounting.
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

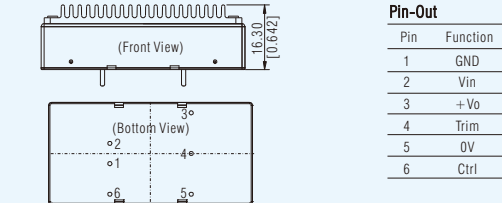


Package Dimension

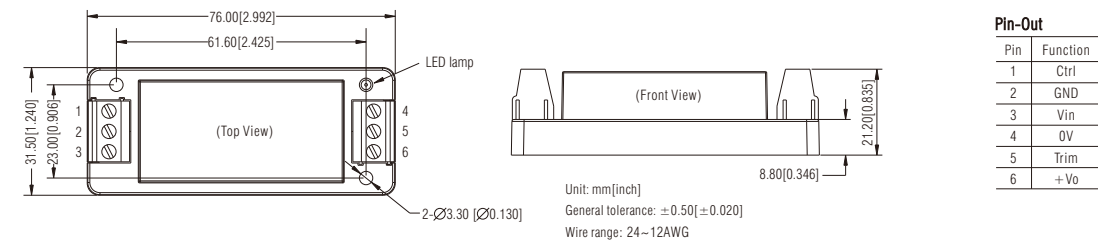
Without heat sink LxWxH: 50.80x25.40x11.80(mm)



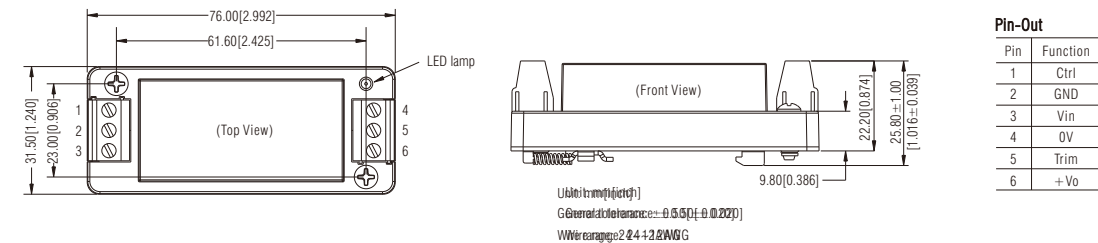
With heat sink LxWxH: 50.80x25.40x16.30(mm)



A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



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URB1D_LD-20W

20W 4:1 Ultra-wide Input, Isolated & Regulated Single Output DC-DC Converter (Railway)

Features

- Universal input voltage range: 40~160VDC
- Derating temperature up to 65°C(up to 75°C with heat sink)
- Isolation: 1500VDC
- Ripple & noise down to 50mVp-p
- Efficiency up to 89%
- Output over voltage protection
- Meet RIA12 with FC-CX1D-RIA
- Optional package: PCB mounting, chassis mounting and Din-Rail(TS35) mounting
- Suitable for railway application

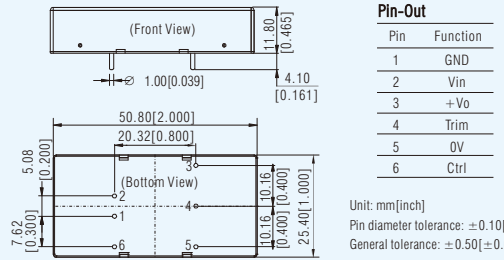
Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (typ)
URB1D05LD-20W	40-160 (110VDC)	5	4000	89
URB1D12LD-20W		12	1667	88
URB1D15LD-20W		15	1333	88
URB1D24LD-20W		24	833	88

Note: 1. series with suffix "H" are heat sink mounting.
2. series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting.
3. if the application has a higher requirement for heat dissipation, you can choose modules with heat sink.

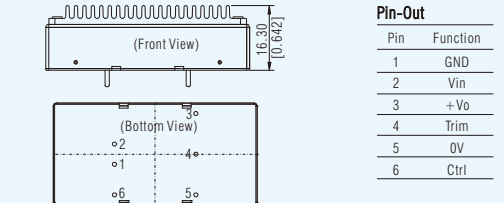


Package Dimension

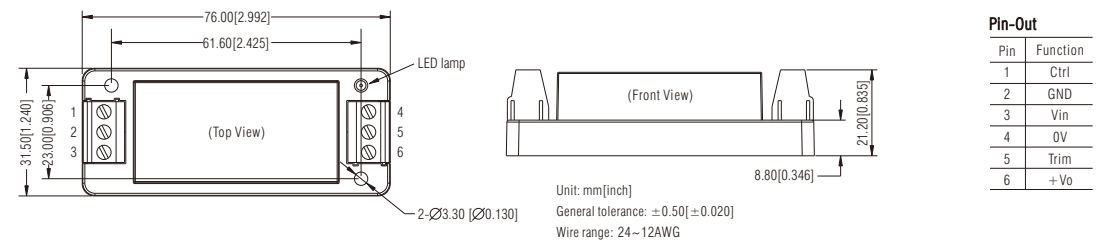
Without heat sink LxWxH: 50.80x25.40x11.80(mm)



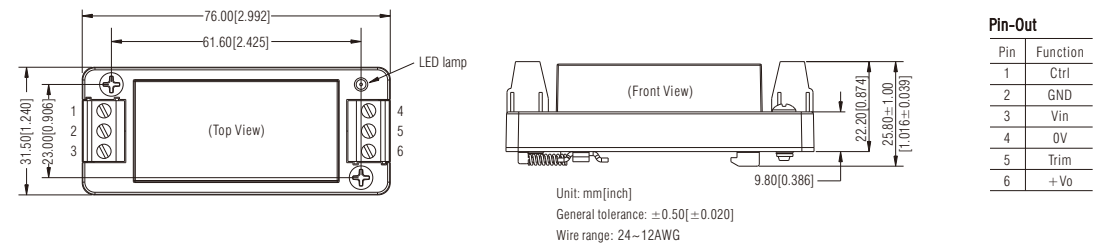
With heat sink LxWxH: 50.80x25.40x16.30(mm)



A2S Chassis Mounting Package Dimension LxWxH: 76.00x31.50x21.20(mm)



A4S DIN-Rail Mounting Package Dimension LxWxH: 76.00x31.50x25.80(mm)



• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

K78-500R2

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

Features

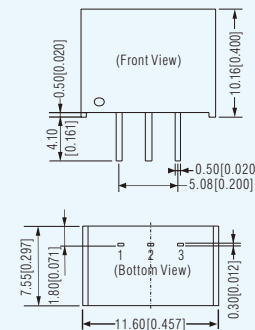
- Non-isolated output
- Ripple & noise down to 20mVp-p
- Efficiency up to 96%
- Continuous short circuit protection, self-recovery
- Supporting negative output perfectly
- Low standby power consumption
- No heat sink required
- Ultra-miniature SIP package



Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K7801-500R2	4.75-28(12VDC)	1.5	500	77
	4.75-25(12VDC)	-1.5	-400	66
K78X2-500R2	4.75-28(12VDC)	1.8	500	81
	4.75-25(12VDC)	-1.8	-400	70
K7802-500R2	4.75-28(12VDC)	2.5	500	87
	4.75-25(12VDC)	-2.5	-400	73
K7803-500R2	4.75-28(24VDC)	3.3	500	91
	4.75-25(12VDC)	-3.3	-400	78
K7805-500R2	6.5-32(24VDC)	5.0	500	94
	6.5-27(12VDC)	-5.0	-400	83
K78X6-500R2	8-32(24VDC)	6.5	500	94
	6.5-25(12VDC)	-6.5	-300	84
K7809-500R2	11-32(24VDC)	9.0	500	95
	7-23(12VDC)	-9.0	-200	86
K7812-500R2	15-32(24VDC)	12	500	95
	7-20(12VDC)	-12	-200	87
K7815-500R2	18-32(24VDC)	15	500	96
	7-17(12VDC)	-15	-200	87

Package Dimension LxWxH: 11.60x7.55x10.16(mm)



Pin-Out

Pin	Positive output	Negative output
1	+Vin	+Vin
2	GND	-Vout
3	+Vout	GND

Unit: mm[inch]
Pin section tolerance: $\pm 0.10[\pm 0.004]$
General tolerance: $\pm 0.25[\pm 0.010]$

K78L-500R2

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

Features

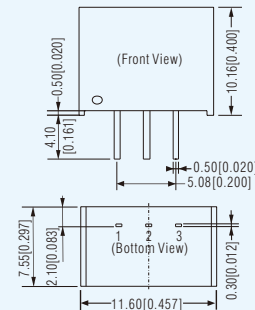
- Non-isolated output
- Ripple & noise down to 20mVp-p
- Efficiency up to 93%
- Continuous short circuit protection, self-recovery
- Cost effective
- Low standby power consumption
- No heat sink required
- Ultra-miniature SIP package



Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K78L03-500R2	4.75-18 (12VDC)	3.3	500	90
K78L05-500R2	7-18 (12VDC)	5.0	500	93

Package Dimension LxWxH: 11.60x7.55x10.16(mm)



Pin-Out

Pin	Function
1	+Vin
2	GND
3	+Vout

Unit: mm[inch]
Pin section tolerance: $\pm 0.10[\pm 0.004]$
General tolerance: $\pm 0.25[\pm 0.010]$

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K78L-1000R2

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

Features

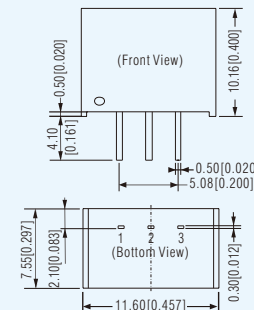
- Non-isolated output
- Ripple & noise down to 20mVp-p
- Efficiency up to 91%
- Continuous short circuit protection, self-recovery
- Cost effective
- Low standby power consumption
- No heat sink required
- Ultra-miniature SIP package



Product Program

Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K78L01-1000R2	4.75-18 (12VDC)	1.5	1000	76
K78LX2-1000R2	4.75-18 (12VDC)	1.8	1000	78
K78L02-1000R2	4.75-18 (12VDC)	2.5	1000	83
K78L03-1000R2	4.75-18 (12VDC)	3.3	1000	86
K78L05-1000R2	6.5-18 (12VDC)	5.0	1000	91

Package Dimension LxWxH: 11.60x7.55x10.16(mm)



Pin-Out

Pin	Function
1	+Vin
2	GND
3	+Vout

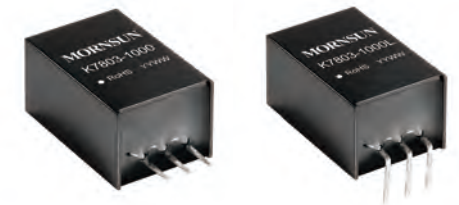
Unit: mm[inch]
Pin section tolerance: $\pm 0.10[\pm 0.004]$
General tolerance: $\pm 0.25[\pm 0.010]$

K78-1000 & K78-1000L

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

Features

- Non-isolated output
- Ripple & noise down to 25mVp-p
- Efficiency up to 97%
- Continuous short circuit protection, self-recovery
- Low standby power consumption
- No heat sink required
- Ultra-miniature SIP package



Product Program

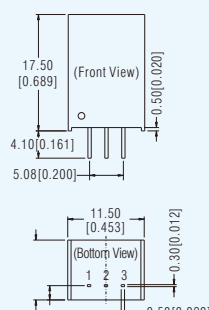
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K7801-1000(L)	4.75-26(12VDC)	1.5	1000	80
	4.75-24(12VDC)	-1.5	-800	73
K78X2-1000(L)	4.75-26(12VDC)	1.8	1000	83
	4.75-24(12VDC)	-1.8	-800	75
K7802-1000(L)	4.75-28(12VDC)	2.5	1000	88
	4.75-25(12VDC)	-2.5	-800	79
K7803-1000(L)	4.75-28(24VDC)	3.3	1000	90
	4.75-25(12VDC)	-3.3	-600	82
K7805-1000(L)	6.5-32(24VDC)	5.0	1000	93
	7-27(12VDC)	-5.0	-600	86
K78X6-1000(L)	9.0-32(24VDC)	6.5	1000	94
	7-25(12VDC)	-6.5	-400	88
K7809-1000(L)	12-32(24VDC)	9.0	1000	95
	7-23(12VDC)	-9.0	-400	90
K7812-1000(L)	16-32(24VDC)	12	1000	96
	7-20(12VDC)	-12	-300	91
K7815-1000(L)	20-32(24VDC)	15	1000	97
	7-17(12VDC)	-15	-300	92

Note: series with suffix "L" for right angle pin-out, for example: K7805-1000L.

Package Dimension

K78-1000 Series

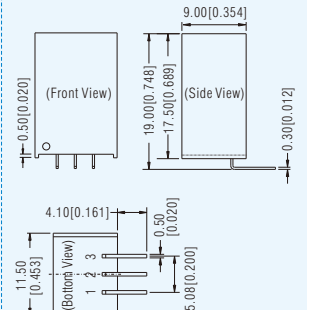
LxWxH: 11.50x9.00x17.50(mm)



Unit: mm[inch]
Pin section tolerance: $\pm 0.10[\pm 0.004]$
General tolerance: $\pm 0.25[\pm 0.010]$

K78-1000L Series

LxWxH: 19.00x11.50x9.00(mm)



Pin-Out

Pin	Positive output	Negative output
1	+Vin	+Vin
2	GND	-Vout
3	+Vout	GND

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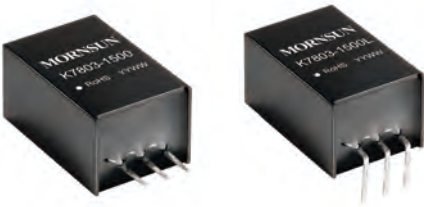
K78-1500 & K78-1500L

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

RoHS

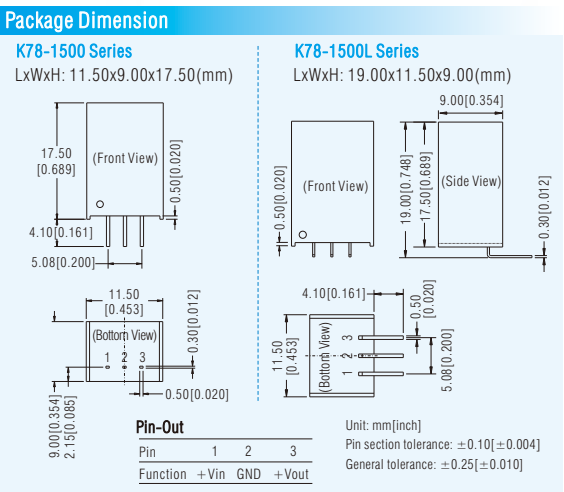
Features

- Non-isolated output
- Low standby power consumption
- Ripple & noise down to 25mVp-p
- No heat sink required
- Efficiency up to 95%
- Ultra-miniature SIP package
- Continuous short circuit protection, self-recovery



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K7801-1500(L)	4.75-18 (12VDC)	1.5	1500	83
K78X2-1500(L)	4.75-18 (12VDC)	1.8	1500	85
K7802-1500(L)	4.75-18 (12VDC)	2.5	1500	88
K7803-1500(L)	4.75-18 (12VDC)	3.3	1500	91
K7805-1500(L)	6.5-18 (12VDC)	5.0	1500	93
K78X6-1500(L)	8-18 (12VDC)	6.5	1500	95

Note: series with suffix "L" for right angle pin-out, for example: K7805-1500L.



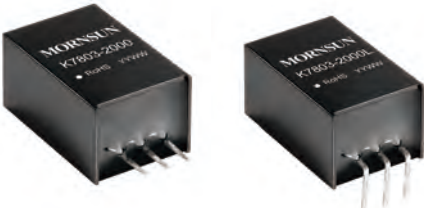
K78-2000 & K78-2000L

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

RoHS

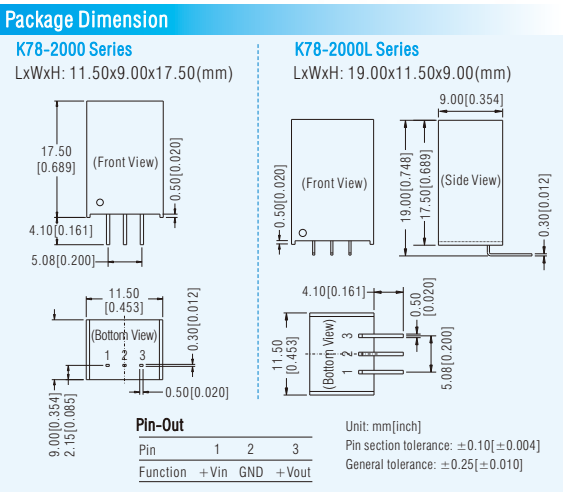
Features

- Non-isolated output
- Low standby power consumption
- Ripple & noise down to 25mVp-p
- No heat sink required
- Efficiency up to 92%
- Ultra-miniature SIP package
- Continuous short circuit protection, self-recovery



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K7801-2000(L)	4.75-18 (12VDC)	1.5	2000	79
K78X2-2000(L)	4.75-18 (12VDC)	1.8	2000	81
K7802-2000(L)	4.75-18 (12VDC)	2.5	2000	85
K7803-2000(L)	4.75-18 (12VDC)	3.3	2000	87
K7805-2000(L)	7-18 (12VDC)	5.0	2000	91
K78X6-2000(L)	8.5-18 (12VDC)	6.5	2000	92

Note: series with suffix "L" for right angle pin-out, for example: K7805-2000L.



• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com

K78_T-500 & K78_T-1000

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

RoHS

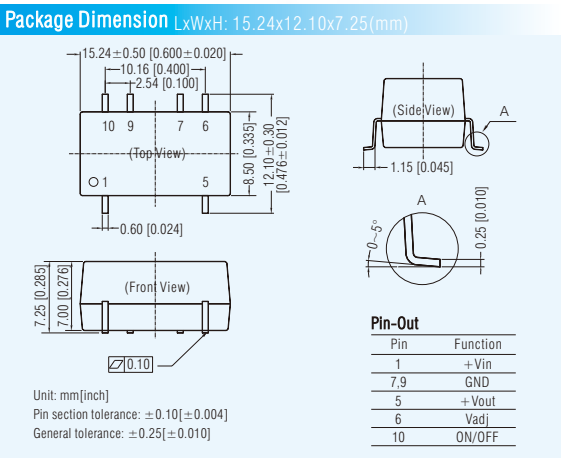
Features

- Non-isolated output
- Low standby power consumption
- Ripple & noise down to 10mVp-p
- No heat sink required
- Efficiency up to 96%
- Ultra-miniature SMD package
- Remote ON/OFF
- Output voltage adjustable
- Continuous short circuit protection, self-recovery



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K7803T-500	4.5-28 (12VDC)	3.3	500	90
K7805T-500	6.0-28 (12VDC)	5.0	500	94
K7809T-500	11-28 (24VDC)	9.0	500	95
K7812T-500	14-28 (24VDC)	12	500	95
K7815T-500	17-28 (24VDC)	15	500	96
K7801T-1000	4.75-15 (12VDC)	1.5	1000	76
K78X2T-1000	4.75-15 (12VDC)	1.8	1000	79
K7802T-1000	5.0-18 (12VDC)	2.5	1000	83
K7803T-1000	5.0-18 (12VDC)	3.3	1000	84
K7805T-1000	7.0-18 (12VDC)	5.0	1000	90
K78X6T-1000	8.5-18 (12VDC)	6.5	1000	93

Note: 1. satisfy for Vin-Vo > 2V if wanted to adjust the output voltage.
2. K7812T-500, K7815T-500 are not allowed to use under no load.



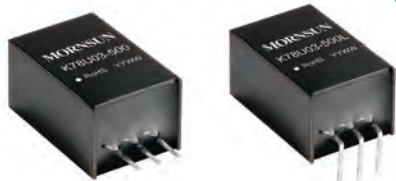
K78U-500 & K78U-500L

Wide Input, Non-isolated & Regulated Single Output DC-DC Converter

RoHS

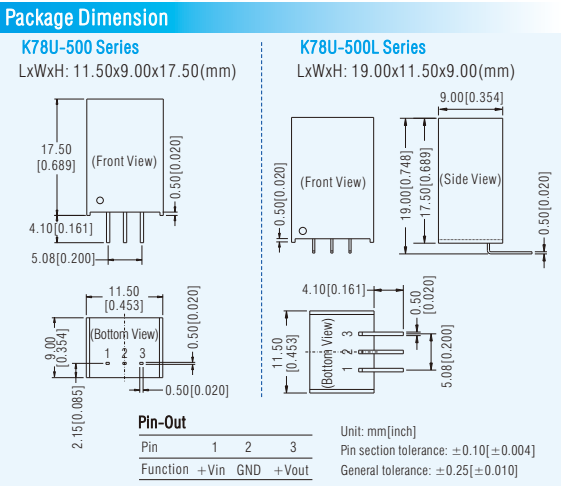
Features

- Non-isolated output
- Low standby power consumption
- Ripple & noise down to 20mVp-p
- No heat sink required
- Efficiency up to 95%
- Ultra-miniature SIP package
- Continuous short circuit protection, self-recovery



Product Program				
Model Number	Input Voltage Range (Nominal)	Output Voltage (VDC)	Output Current (mA)	Effi(%) (max)
K78U03-500(L)	9-72 (48VDC)	3.3	500	82
K78U05-500(L)	9-72 (48VDC)	5.0	500	87
K78UX6-500(L)	9-72 (48VDC)	6.5	500	91
K78U09-500(L)	14-72 (48VDC)	9.0	500	92
K78U12-500(L)	17-72 (48VDC)	12	500	93
K78U15-500(L)	20-72 (48VDC)	15	500	94
K78U24-300(L)	36-72 (48VDC)	24	300	95

Note: series with suffix "L" for right angle pin-out, for example: K78U05-500L.



• This catalog is for reference only, please visit our website for detailed datasheets: www.mornsun-power.com