

Features:

- 3 W To 6 W DIL Package
- 9-18 V, 18-36 V, 36-72 V, 9-36 V, 18-72 V Wide Input Range
- 100% Burned In
- High Efficiency
- UL 94-V0 Package Material
- Custom Solutions Available
- RoHS Compliant

Specifications:

Output Specifications	Voltage Setpoint Accuracy Temperature Coefficient Ripple & Noise (20MHz BW) ¹ Line Regulation ² Load Regulation ³ Minimum Load Short Circuit Protection Short Circuit Restart Over Load Protection Transient Response ⁴	+/-2% max +/-0.05%/°C 100mVp-p max +/-1% max +/-0.5% max 10% of Full Load Continuous Automatic 110%~180% 200uS max
Input Specifications	Input Voltage Range Input Filter Protection	2:1 or 4:1 Input Range Pi Network Fuse Recommended
Environmental Specifications	Operating Temperature Storage Temperature Case Temperature Humidity Cooling	-40°C to +71°C -55°C to +125°C +95°C max 95% max Free-Air Convection
General Specifications	Efficiency Isolation Voltage ⁵ Isolation Resistance Isolation Capacitance Switching Frequency MTBF ⁶ Weight Case Material Case Size Potting Material Conducted Emissions Radiated Emissions	70% min 3000VDC min 109 ohms min 250pF max 50KHz min >900,000 Hours 17.5g Typ Five-Side Shielded Case 31.8mm*20.3mm*12.2mm Epoxy(UL94-V0) EN55022 Class A EN55022 Class A

All Specifications Typical at Nominal Line, Full Load, and 25 °C Unless Otherwise Noted.

Footnotes: ¹ Measured with 1uF ceramic capacitor connect to the output pins. ² High Line to Low Line.
³ Load Regulation is for output load current change from 10% to 100%. ⁴ 25% Step Load Change.
⁵ For 3 seconds. ⁶ MIL-HDBK-217F @25°C , Ground Benign.

Selection Guide 2:1 3 W 3000 VDC Isolation Package A

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ¹ CURRENT(mA)		EFF ² (%)	ISOLATION ³ (VDC)
				FULL LOAD	NO LOAD		
EP9-18-03,3S700-3K	9-18	3.3	700	275	18	70	3000
EP9-18-05S600-3K	9-18	5	600	338	18	74	3000
EP9-18-09S330-3K	9-18	9	330	316	18	79	3000
EP9-18-12S250-3K	9-18	12	250	313	18	80	3000
EP9-18-15S200-3K	9-18	15	200	313	18	80	3000
EP9-18-05D300-3K	9-18	+/-5	+/-300	338	18	74	3000
EP9-18-12D125-3K	9-18	+/-12	+/-125	316	18	79	3000
EP9-18-15D100-3K	9-18	+/-15	+/-100	316	18	79	3000
EP18-36-03,3S910-3K	18-36	3.3	910	163	10	77	3000
EP18-36-05S600-3K	18-36	5	600	167	10	75	3000
EP18-36-09S330-3K	18-36	9	330	158	10	79	3000
EP18-36-12S250-3K	18-36	12	250	156	10	80	3000
EP18-36-15S200-3K	18-36	15	200	156	10	80	3000
EP18-36-05D300-3K	18-36	+/-5	+/-300	167	10	75	3000
EP18-36-12D125-3K	18-36	+/-12	+/-125	156	10	80	3000
EP18-36-15D100-3K	18-36	+/-15	+/-100	156	10	80	3000
EP36-72-03,3S700-3K	36-72	3.3	700	69	5	72	3000
EP36-72-05S600-3K	36-72	5	600	82	5	76	3000
EP36-72-09S330-3K	36-72	9	330	79	5	79	3000
EP36-72-12S250-3K	36-72	12	250	76	5	82	3000
EP36-72-15S200-3K	36-72	15	200	76	5	82	3000
EP36-72-05D300-3K	36-72	+/-5	+/-300	82	5	76	3000
EP36-72-12D125-3K	36-72	+/-12	+/-125	80	5	78	3000
EP36-72-15D100-3K	36-72	+/-15	+/-100	76	5	82	3000

Note: Other input to output voltages may be available. Please contact factory.

Ordering Information

For Example: EP9-18-05S600-3K (3W Single Output)

Footnotes: ¹ Nominal Input Voltage
² Nominal Input Voltage, Full Load

³ For 3 Seconds

Selection Guide 4:1 3 W 3000VDC Isolation Package A

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ¹ CURRENT(mA)		EFF ² (%)	ISOLATION ³ (VDC)
				FULL LOAD	NO LOAD		
EP9-36-03,3S700-3K	9-36	3.3	700	285	20	68	3000
EP9-36-05S600-3K	9-36	5	600	347	18	72	3000
EP9-36-12S250-3K	9-36	12	250	320	18	78	3000
EP9-36-15S200-3K	9-36	15	200	320	18	78	3000
EP9-36-05D300-3K	9-36	+/-5	+/-300	352	18	71	3000
EP9-36-12D125-3K	9-36	+/-12	+/-125	320	18	78	3000
EP9-36-15D100-3K	9-36	+/-15	+/-100	320	18	78	3000
EP18-72-03,3S700-	18-72	3.3	700	136	10	71	3000
EP18-72-05S600-3K	18-72	5	600	169	10	74	3000
EP18-72-12S250-3K	18-72	12	250	156	10	80	3000
EP18-72-15S200-3K	18-72	15	200	156	10	80	3000
EP18-72-05D300-3K	18-72	+/-5	+/-300	169	10	74	3000
EP18-72-12D125-3K	18-72	+/-12	+/-125	160	10	78	3000
EP18-72-15D100-3K	18-72	+/-15	+/-100	160	10	78	3000

Note: Other input to output voltages may be available. Please contact factory.

Ordering Information

For Example: EP9-36-05S600-3K (3 W Single Output)
EP18-72-05D300-3K (3 W Dual Output)



Footnotes: ¹ Nominal Input Voltage
² Nominal Input Voltage, Full Load

³ For 3 Seconds

Selection Guide 2:1 4W-6W 3000 VDC Isolation Package A

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ¹ CURRENT(mA)		EFF ² (%)	ISOLATION ³ (VDC)
				FULL LOAD	NO LOAD		
EP9-18-03,3S1200-3K	9-18	3.3	1200	438	40	75	3000
EP9-18-05S1000-3K	9-18	5	1000	556	40	75	3000
EP9-18-09S556-3K	9-18	9	556	520	40	80	3000
EP9-18-12S470-3K	9-18	12	470	587	40	80	3000
EP9-18-15S400-3K	9-18	15	400	617	41	81	3000
EP9-18-05D500-3K	9-18	+/-5	+/-500	556	40	75	3000
EP9-18-12D230-3K	9-18	+/-12	+/-230	585	40	79	3000
EP9-18-15D190-3K	9-18	+/-15	+/-190	586	41	81	3000
EP18-36-03,3S1200-	18-36	3.3	1200	217	20	76	3000
EP18-36-05S1000-3K	18-36	5	1000	270	20	77	3000
EP18-36-09S556-3K	18-36	9	556	257	20	81	3000
EP18-36-12S470-3K	18-36	12	470	287	22	82	3000
EP18-36-15S400-3K	18-36	15	400	301	21	83	3000
EP18-36-05D500-3K	18-36	+/-5	+/-500	270	20	77	3000
EP18-36-12D230-3K	18-36	+/-12	+/-230	279	20	82	3000
EP18-36-15D190-3K	18-36	+/-15	+/-190	286	21	83	3000
EP36-72-03,3S1200-	36-72	3.3	1200	112	10	74	3000
EP36-72-05S1000-3K	36-72	5	1000	135	10	77	3000
EP36-72-09S556-3K	36-72	9	556	126	9	83	3000
EP36-72-12S470-3K	36-72	12	470	146	9	80	3000
EP36-72-15S400-3K	36-72	15	400	147	10	85	3000
EP36-72-05D500-3K	36-72	+/-5	+/-500	135	10	77	3000
EP36-72-12D230-3K	36-72	+/-12	+/-230	138	12	83	3000
EP36-72-15D190-3K	36-72	+/-15	+/-190	139	10	85	3000

Note: Other input to output voltages may be available. Please contact factory.

Ordering Information

For Example: EP9-18-05S1000-3K (5 W Single Output)
EP18-36-05D500-3K (5 W Dual Output)

Footnotes: ¹ Nominal Input Voltage
² Nominal Input Voltage, Full Load

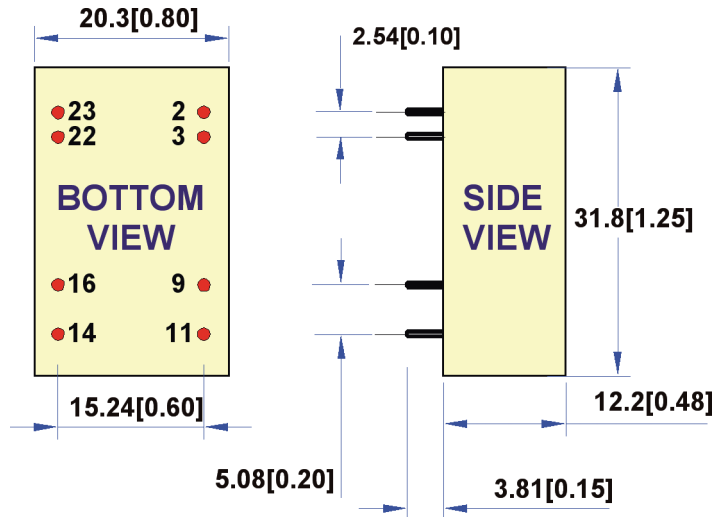
³ For 3 Seconds

Mechanical Dimensions

Package A

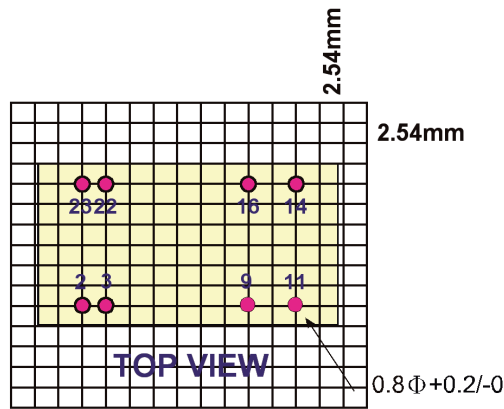
PIN	SINGLE	DUAL
2 & 3	-Vin	-Vin
9	NC	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22 & 23	+Vin	+Vin

All dimensions are in mm (inches)
Note: Pin Size is Tolerance $0.6 \pm 0.05\text{mm}$
Tolerance .X or .XX = $\pm 0.5\text{mm}$



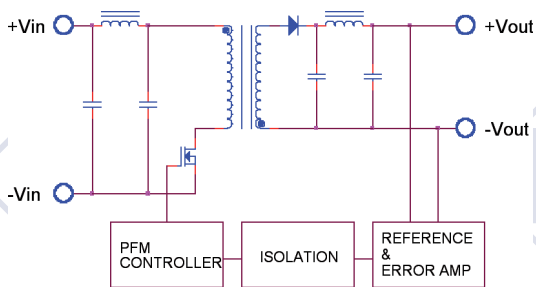
Recommended Footprint Details

Package A

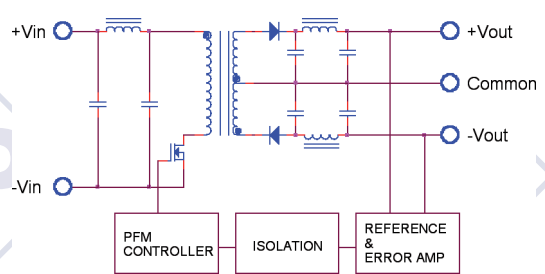


Simplified Schematic

Single Output



Dual Output

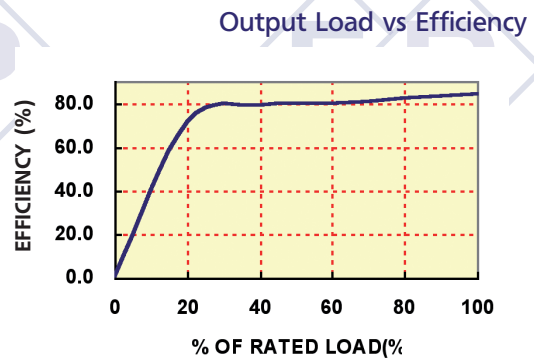
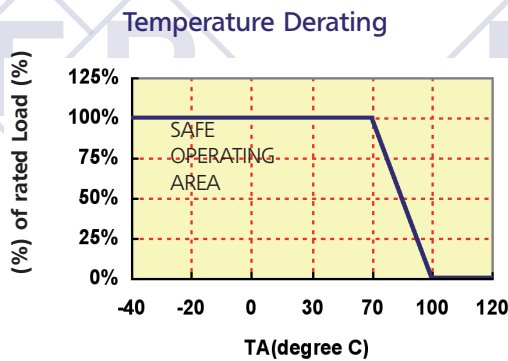


Typical Applications



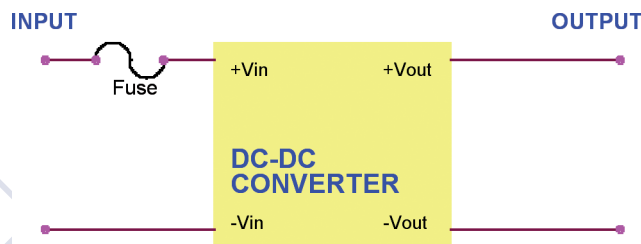
Typical Performance Curves

Specifications typical at $t_a=25^\circ\text{C}$, nominal input voltage, rated output current unless otherwise specified.



Input Fuse Selection Guide

4.5-6.0V or 4.5-9V Input Voltage(VDC)	9-18V or 9-36V Input Voltage(VDC)	18-36V or 18-72V Input Voltage(VDC)	36-72V Input Voltage(VDC)
3000mA Slow-Blow Type	1500mA Slow-Blow Type	800mA Slow-Blow Type	400mA Slow-Blow Type



Note: Certain applications may require the installation of external fuse in front of the input.

EP Series Application Notes

External Capacitance Requirements:

No external capacitance is required for operation of the EP series.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 1000uF.

We Can Offer EMC-Filter According To EN55011/22 Class B.

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

Spezifikationen können jederzeit ohne Vorankündigung geändert werden./Subject to change without notice.

