

Statronics Power Supplies

Rifala Pty Ltd, ACN 002612473

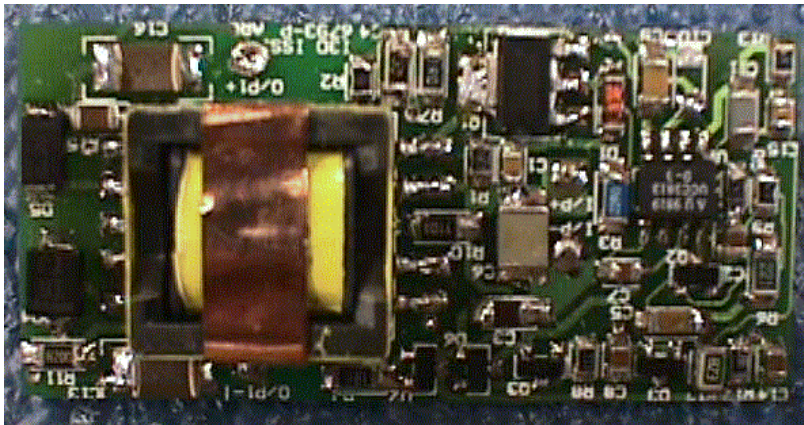


ISO 9001

Units 5 & 6, 26 Leighton Place
HORNSBY NSW 2077
AUSTRALIA.
E-Mail: sales@statronics.com.au

Phone: 61 2 9477 5011
Fax: 61 2 9476 6914
Mobile: 61 4 1941 4392
Web-site: <http://www.statronics.com.au>

i3 SERIES **INDUSTRY- STANDARD FOOTPRINT** **VERY WIDE INPUT RANGE, DUAL AND SINGLE 3WATT,** **HIGH-ISOLATION DC-DC-CONVERTERS**



i3 SERIES are compact, efficient, economical, 3 watt, isolated DC-DC Converters with single or dual outputs, suitable for mounting as a through hole component on printed circuit boards.

1 Converter for 4 nominal input voltages !!!!

Dimensions:

Width: 25 mm, 1 inches
Height: < 10 mm, <0.4 inches
Length: 51 mm, 2 inches

Features and performance

- Cool - over 70% efficient.
- User friendly - NO external components necessary.
- Overload protected - can be shorted indefinitely.
- **VERY wide input range** - 9V to 72V DC.
- - suitable for **12V, 24V, 32V or 48V nominal input.**
- Compact, low profile outline - less than 10mm total height above motherboard.
- Simple mounting - standard footprint, **replace 2 or 3 models with just one!**
- Very High reliability - 100% SMD, no electrolytic or tantalum capacitors.
- - MTBF > 800,000 Hrs (MIL-HDBK 217F G.B.)
- Low input noise - Class A with one 100µF low ESR external input capacitor.
- Good regulation - post regulation usually not necessary.
- Soft Start and no overshoot - no "bad habits".
- - will drive most capacitive and non-linear loads.
- High Isolation - meets many telecommunications and industrial standards.
- Reliable in hot environment - continuously rated to 70°C, natural convection cooling.
- Serviceable - Open construction = repairable after the long warranty.



See also, R3 series, 30V to 150V (200V surge) for **48V or 120V nominal input.**

This series is especially suitable for High Reliability Telecommunications, Industrial Process Control, Information Technology Equipment, Distributed Power Systems, etc., **particularly** where a **very wide input range** is required, such as when the DC power source is an "unknown quantity".

SPECIFICATIONS

DC Outputs: (See Table)	One or two, both regulated, common zero.
DC Output Power:	3 Watts maximum (continuous)
Ripple And Noise: (See Table)	Typically <70mV RMS, <200mV P-P (24V O/P)
Minimum Load:	0 A. No minimum load is required for normal performance.
Load Regulation: (See curves)	< 2% For all loads from 10% to full load
Line Regulation: (See curves)	< 0.02% For all input voltages from 10 to 56 V DC
Line Regulation: (See curves)	< 0.03% For all input voltages from 9 to 72 V DC
Voltage Setting accuracy:	< ± 2% at 24V input, full load.
Temperature Coefficient:	< 0.1% per °C after 1 Hr. Any change in output voltage due to warm-up drift and temperature does not exceed regulation limits.
Isolation, Input to Output	20MΩ, 3,500V DC, 2500V RMS. Capacitance: < 57pF
Short Circuit and Over Current protection:	100% to 120% of full power, indefinite short circuit period.
Reverse Input Protection:	Reversed Input Polarity Blows external input fuse (1/2A SF)
Operating Temperature:	-35°C to 65°C, no de-rating, Relative Humidity: 5% to 95%
Shipping and Storage:	-35°C to 105°C , Relative Humidity: 5% to 95%
Withstand Vibration :	5.2G, 3 axes to 400Hz Under operation
Withstand Shock:	28G 3 axes Under operation
Standards, Safety:	IEC 950, AS 3260, UL 1950, CSA22.2 No. 950
Standards, EMI:	CISPR 22, AS 3548, FCC, VDE 0871, all Class A conducted (with a single 100μF low ESR external input capacitor).
Input Ripple Current	< 400mA P-P at 18V input, 150KHz
Efficiency: (See Curves)	No Load dissipation < 500mW at 9V in, < 700mW at 72V in
Step Load Response:	10% to 70% step load < 6% peak or dip, Settling Time < 1ms

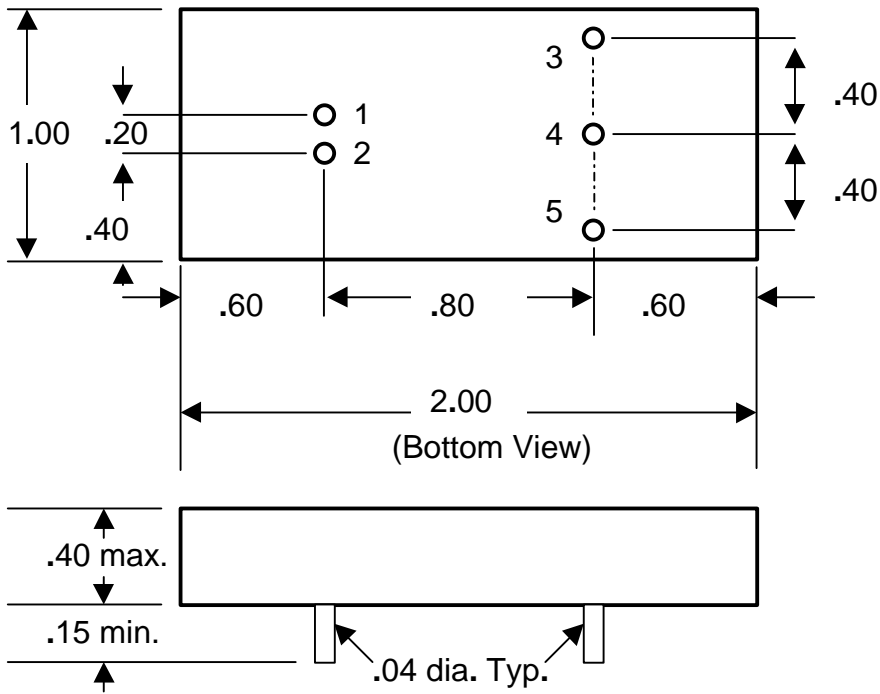
Common Mode Noise Filtering:

For efficient reduction of common-mode noise, a 1000pF Y-rated capacitor may be connected, if required, between one pole of the input and the output common. For best results, tracking on the motherboard should be short to minimize stray inductance.

Selector Guide -

Output	Model	Max. Load (either O/P) ¹	Ripple (RMS, P-P) ²	Notes:
± 5V	i3D05	600 mA	75mV	<ol style="list-style-type: none"> On dual models, up to the full power may be drawn from either output, but the total power should not exceed 3 watts. Output Ripple is specified at worst-case input voltage, full load and for dual models, at a load of 1.5 watts on each output. Ripple is better than approximately linearly related to load current where the dual loads are unbalanced. These dual models can be used as 24V, 30V, 48V or 56V single output by removing the center output pin (if desired).
± 6V	i3D07	430 mA	100mV	
± 12V ³	i3D12	250 mA	120mV	
± 15V ³	i3D15³	200 mA	150mV	
± 24V ³	i3D24³	125 mA	200mV	
± 28V ³	i3D28³	107 mA	200mV	
3.3V	i3S03	910 mA	75mV	
5V	i3S05	600 mA	75mV	
6V	i3S07	430 mA	100mV	
12V	i3S12	250 mA	120mV	
15V	i3S15	200 mA	150mV	
24V	i3S24	125 mA	200mV	

DIMENSIONS (inches)



PIN ASSIGNMENTS

SINGLE OUTPUT

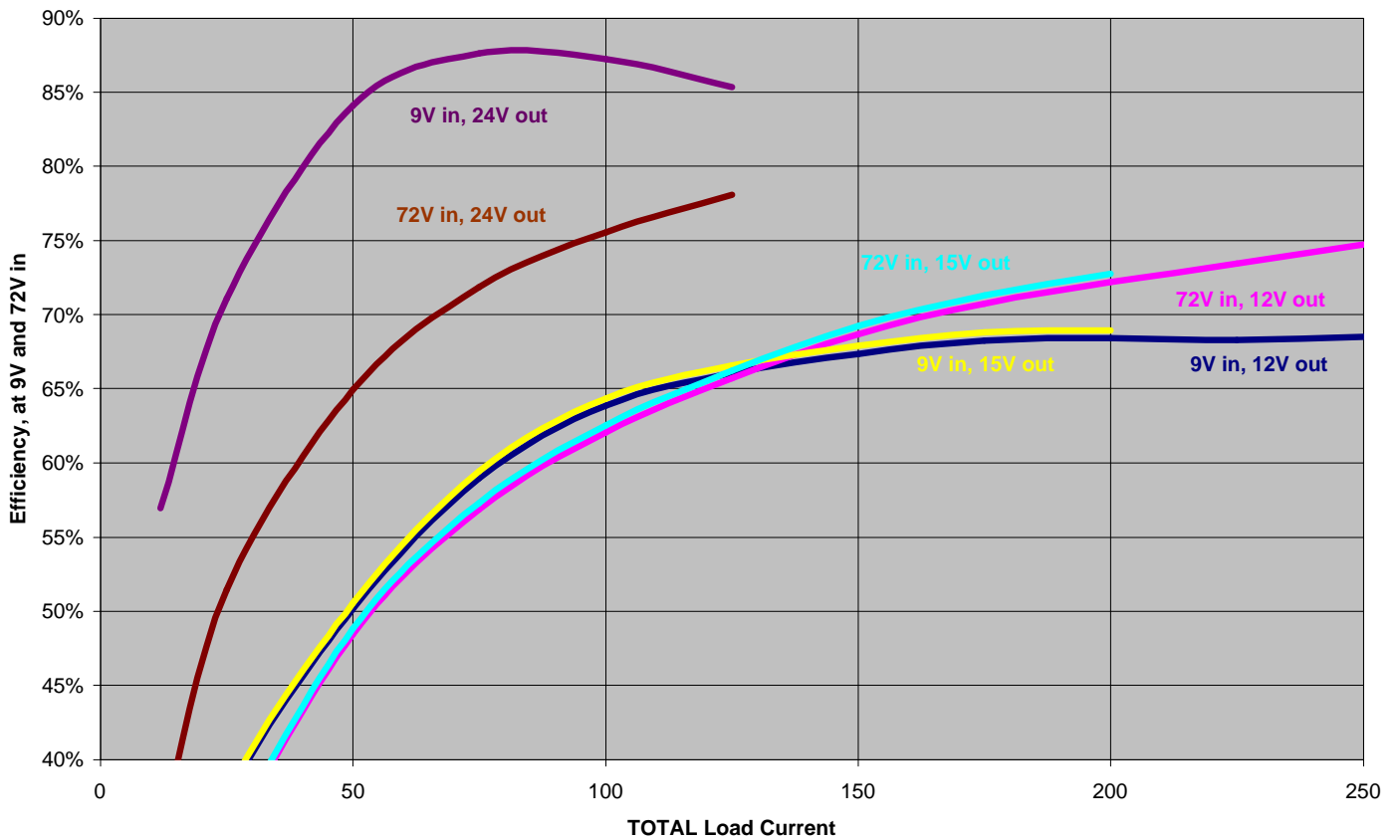
- 1. + V in
- 2. - V in
- 3. + V out
- 4. No Pin
- 5. - V out

DUAL OUTPUT

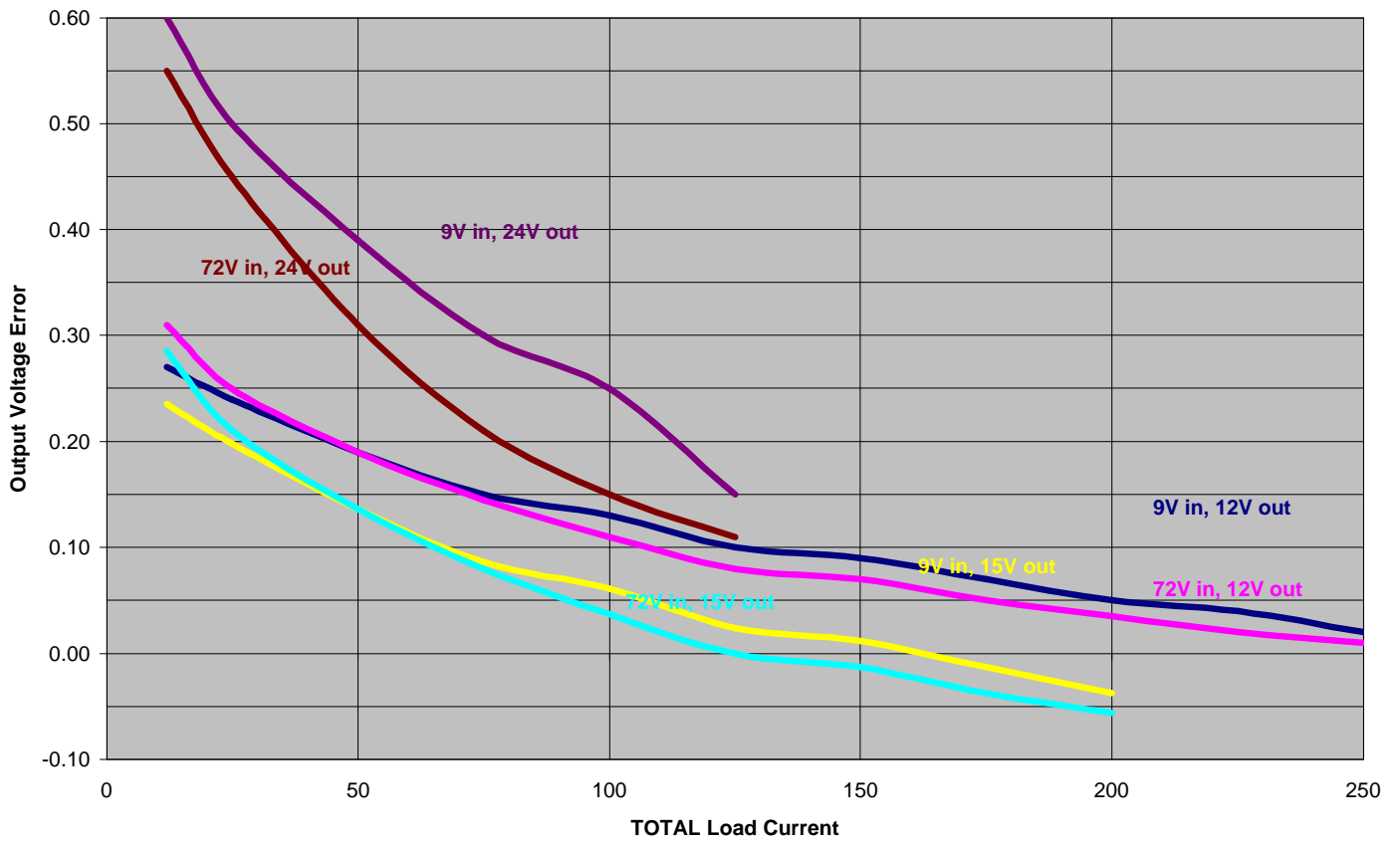
- 1. + V in
- 2. - V in
- 3. + V out
- 4. out COM
- 5. - V out

Suggested holes size: .05 (1.27mm)

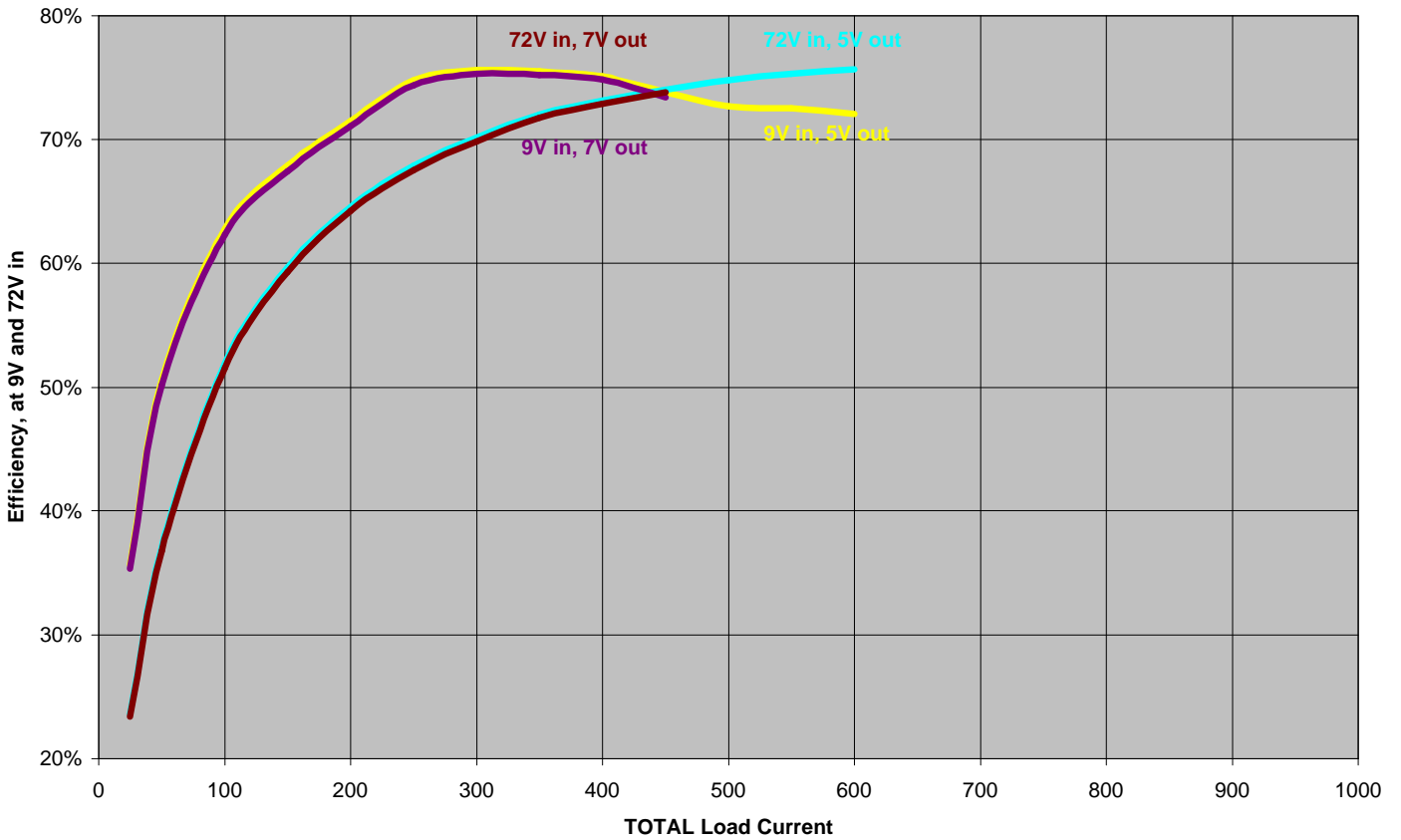
Typical Efficiency, 12, 15 and 24V Models



Typical Load & Line Regulation, 12, 15 and 24V Models



Typical Efficiency, 5 and 7V Models



Typical Load & Line Regulation, 3, 5 & 7V Models

