

# 15A SERIES

## 15 WATT DC/DC CONVERTER

### KEY FEATURES

- Wide Input Range: 2:1
- Efficiencies to 80%
- L-C Input Filter
- Overload/Short Circuit Protection,
- Overvoltage Protection (Output)
- No Derating To 71 °C
- Designed To Meet FCC SEC 15, Sub-part J, Class B Radiated and Conducted
- Six-sided Shielding
- Three Year Warranty



### SPECIAL FEATURES

- Low Input Current Ripple
- 3000V Isolation
- Optional Remote On/Off
- Tested And Certified To EN60950

### APPLICATIONS

- Telecommunications Equipment
- Industrial Control Systems
- Digital Circuits
- Analog Systems
- Private Branch Exchange (PBX, PABX)
- Distributed Power Systems

### DESCRIPTION

The 15A series of DC/DC converters operates from a nominal 24 or 48 VDC input source. The range comprises both single and dual output models. Maximum output power is 15 watts. These board mountable, low profile DC/DC converters are ideal for the requirements of the industrial control and telecommunications industries.

### SELECTION GUIDE

#### Standard Products

DEVICE TYPE	INPUT VOLTAGE RANGE VDC	INPUT CURRENT A (MAX)	OUTPUT VOLTAGE VDC	OUTPUT CURRENT ma (MAX)	PACKAGE / PINOUT
15A24RN5	18 - 36	.840	+ or -5	3000	A
15A24RN12	18 - 36	.840	+ or -12	1250	A
15A24RN15	18 - 36	.840	+ or -15	1000	A
15A24RN12-12	18 - 36	.840	± 12	625	A
15A24RN15-15	18 - 36	.840	±15	500	A
15A48RN5	36 - 72	.420	+ or -5	3000	A
15A48RN12	36 - 72	.420	+ or -12	1250	A
15A48RN15	36 - 72	.420	+ or -15	1000	A
15A48RN12-12	36 - 72	.420	±12	625	A
15A48RN15-15	36 - 72	.420	±15	500	A



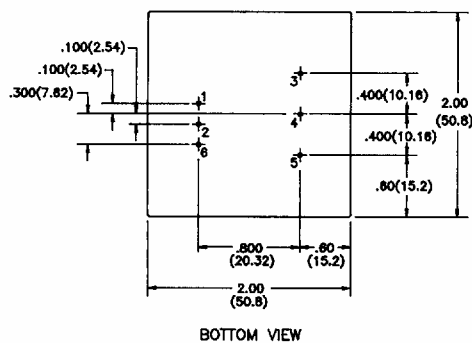
## GENERAL ELECTRICAL SPECIFICATIONS

(Specifications at Nominal Input and 25°C)

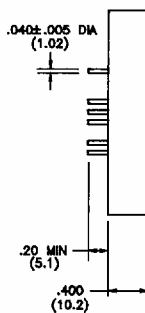
PARAMETER	LIMIT	CONDITIONS
Input Voltage Range	18 - 36 VDC 36 - 72 VDC	24V Input Devices 48V Input Devices
Input Filter	L-C Section	
Input Ripple Current	50 mA (P-P)	20MHz Bandwidth
Input/Output Isolation	3000 VDC	
Output Voltage Accuracy	2%	Full Load Nominal Line
Minimum Load	10% of Full Load	
Output Ripple: All Units	100 mV (P-P)	20 MHz Bandwidth
Line Regulation: Singles	0.5%	Full Load
DUALS	0.5%	Full Load
Load Regulation: Singles	0.5%	10% to 100% of Full Load
DUALS	0.5%	20% to 100% of Full Load
Efficiency	Up to 80%	
Operating Temperature	-25°C to +71°C	No Derating
Storage Temperature	-55°C to 125°C	
Short Circuit Protection	Continuous	
Overvoltage Protection	6.2 VDC 14 VDC 17 VDC	5.0 VDC Output 12.0 VDC Output 15.0 VDC Output
Temperature Coefficient	.02%/°C	

Remote On/Off - TTL compatible - unit off when low. Add SD to part number when ordering.

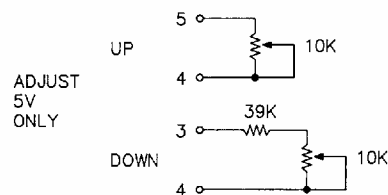
### MECHANICAL SPECIFICATIONS



BOTTOM VIEW



PIN	SINGLE OUTPUT	PIN	DUAL OUTPUT
1	+INPUT	1	+INPUT
2	-INPUT	2	-INPUT
3	+OUTPUT	3	+OUTPUT
4	ADJUST (5V ONLY)	4	OUTPUT COMMON
5	OUTPUT COMMON	5	-OUTPUT
6	REMOTE ON/OFF	6	REMOTE ON/OFF



PIN 4, NO CONNECTION IF TRIMMING IS NOT DESIRED.

**NOTES:**

1. ALL DIMENSIONS IN PARENTHESES ARE METRIC.
2. TOLERANCES UNLESS OTHERWISE SPECIFIED: .XX = ±.03 (.76)  
.XXX = ±.015 (.38)
3. PIN 6 IS OPTIONAL.

Reliability Incorporated  
P.O. Box 218370  
Houston, TX 77218  
TEL: (713) 492-0550  
FAX: (713) 492-0615

East Coast Sales Office  
P.O. Box 157  
Dunstable, MA 01827  
TEL: (508) 937-4055  
FAX: (508) 649-9319

Reliability Singapore Pte. Ltd.  
5004 Ang Mo Kio  
Avenue 5, #04-01  
Singapore 2056  
TEL: 65-481-9266  
FAX: 65-481-2612

RICR de Costa Rica S.A.  
P.O. Box 1-3006  
Zone Franca Metropolitana  
Barreal, Heredia  
Costa Rica, A.C.  
TEL: 506-293-4384  
FAX: 506-293-4621

European Sales Office  
P.O. Box 87  
Newbury  
Berkshire, RG14 6YT  
England  
TEL: 44-635-522298  
FAX: 44-635-580870

Copyright© 1994, Reliability Incorporated.  
Reliability reserves the right to make changes in the product at any time, without notification.

12-44-12M-694