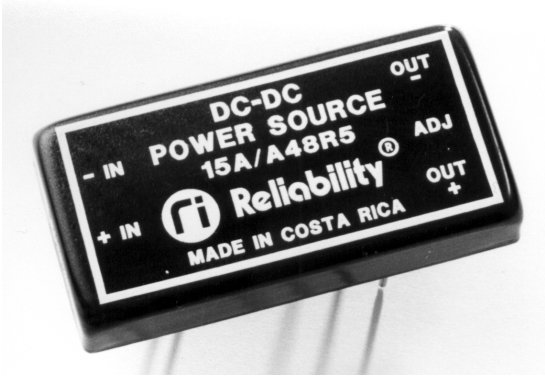
Reliability Power®

Product Data Sheet

15 Watt DC/DC Converters

Key Features

- **High Density, 20W/cu.in.**
- **Wide/Ultra Wide Input Range: 2:1, 4:1**
- **Typical Efficiency of 80%**
- **Overload/Short Circuit Protection**
- **Overvoltage Protection (Output)**
- **No derating to 71°C**
- **Meets FCC Section 15 Sub Part J Class A Radiated and Conducted**
- **Input/Output Isolation**
- **Output Enable (AE Package only)**
- **Designed to meet UL60950**
- **CE (LVD)**



Applications

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

The 15 Watt DC/DC series of converters operate from a nominal 24 or 48 VDC input source. This series is available in 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.

General Electrical Specifications

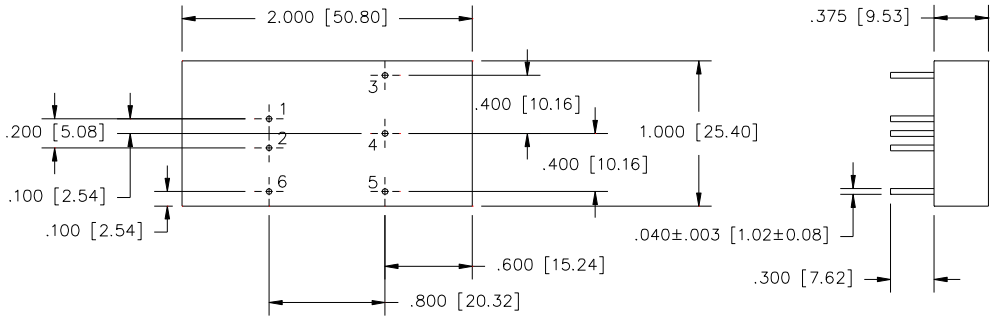
(Specifications at Nominal Input and 25 C, nominal input voltage and rated output current unless otherwise noted.)

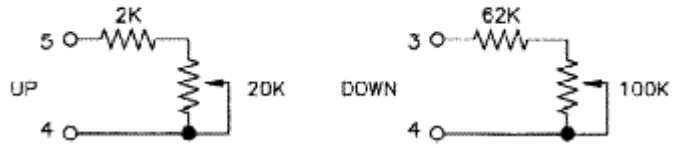
Parameter	Limits	Conditions
Input Voltage Range	See Selection Guide	
Input Filter	L-C Section	
Input Ripple Current	50 mA (P-P)	Typical
Input/Output Isolation	3000 VDC	15A/A Model Types
	1500 VDC	15AW Model Types
Output Voltage Accuracy	2%	Nom. Line at Full Load
Minimum Load	10% of Full Load	
Output Noise: All units	100 mV (P-P)	20 MHz Bandwidth
Load Regulation: Singles	0.5%	10% to 100% of Full Load
Line Regulation: Singles	0.5%	Full Load
Efficiency	80%	Typical
Operating Temperature	-25°C to +71°C	No derating
Storage Temperature	-55°C to +125°C	
Short Circuit Protection	Continuous	
Overvoltage Protection	4.3 VDC	3.3 VDC Output
	6.2 VDC	5.0 VDC Output
	14 VDC	12.0 VDC Output
	17 VDC	15.0 VDC Output
	20 VDC	18.0 VDC Output
	30 VDC	±12 VDC Output
Temperature Coefficient	.02% per °C	

SELECTION GUIDE

Device Type	Input Voltage Range VDC	Input Current A(Max)	Output Voltage VDC	Output Current ma(Max)	Package/ Pinout
15A/A24R3.3	18 - 36	.860	+ or - 3.3	4500	A
15A/A24R5	18 - 36	.840	+ or - 5	3000	A
15A/A24R12	18 - 36	.840	+ or - 12	1250	A
15A/A24R15	18 - 36	.840	+ or - 15	1000	A
15A/A24R12-12	18 - 36	.840	±12	±625	A
15A/A24R15-15	18 - 36	.840	± 15	±500	A
15A/A24R18-18	18 - 36	1.050	± 18	±420	AE
15A/A48R3.3	36 - 75	.420	+ or - 3.3	4500	A
15A/A48R5	36 - 75	.420	+ or - 5	3000	A
15A/A48R12	36 - 75	.420	+ or - 12	1250	A
15A/A48R15	36 - 75	.420	+ or - 15	1000	A
15A/A48R12-12	36 - 75	.420	±12	±625	A
15A/A48R15-15	36 - 75	.420	±15	±500	A
15AW48R5	18 - 75	.420	+ or - 5	3000	A
15AW48R12	18 - 75	.420	+ or - 12	1250	A
15AW48R12-12	18 – 72	.380	±12	±625	A

Mechanical Specification (dimensions in inches, bottom view)





Notes (all devices and packages):

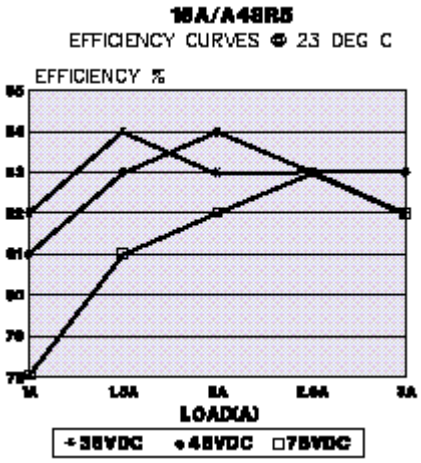
1. All dimensions in parentheses are metric
2. Tolerances unless otherwise specified:
   .xx ± .03 (.76)
   .xxx ± .015 (.38)
3. Adjust Pin 4 should be left open. No connection if trimming is not desired. Pin 4 omitted for model 15A/A24R3.3, 15A/A48R3.3, and All "15AW" model types.
4. The enable pin control (Pin 6 on AE Package) disables converter output when pulled to the -V input (Pin 2). Pin 6 can be left open if output enable control not needed.
5. A .1µf capacitor is recommended across each output, installed close to the output pins.

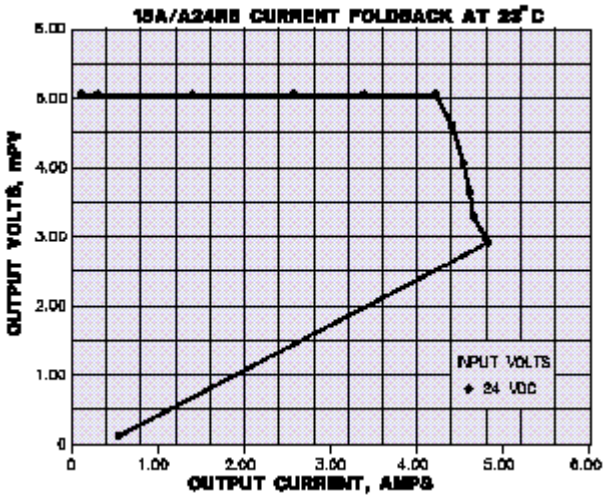
Pin Connections:

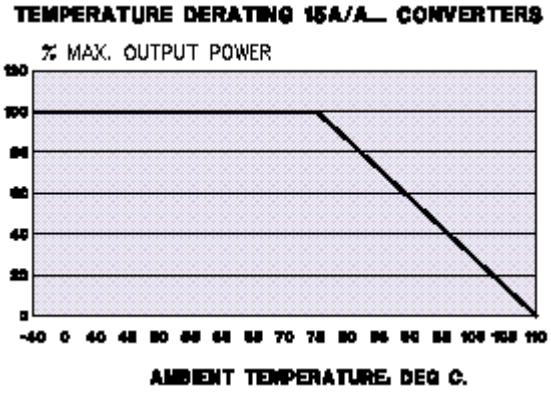
Pin	Single Output	Dual Output
1	+ Input	+ Input
2	- Input	- Input
3	+ Output	+ Output
4	Adjust (5V only)/No Pin *	Output Common
5	Output Common	- Output
6	N/A	Enable (AE Package only) +

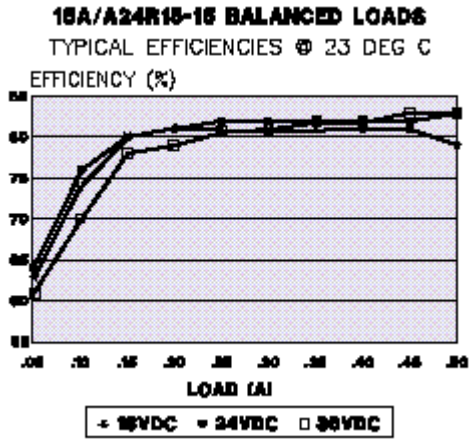
*See note 3 +See note 4

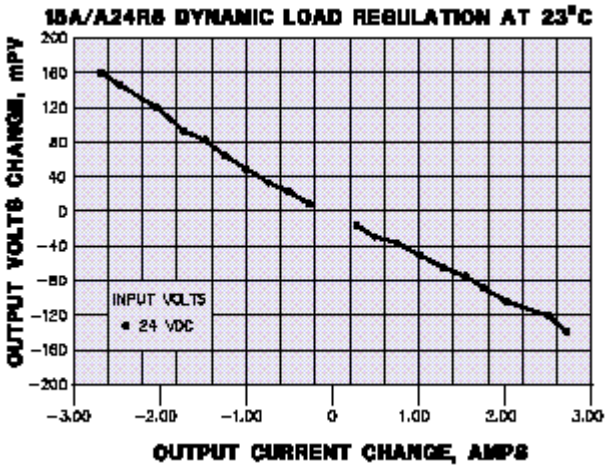
Performance Data











Reliability Power Locations	
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