

DC-DC Converters - Standard & Isolated Series



Standard Series

Convert 20-50 VDC to 12 or 24 VDC output for powering communication/navigation equipment, on negative ground systems. (See Isolated Series, below for positive ground applications.) Ideal for powering voice, data and navigation transceivers in mobile and marine applications.

- Excellent Regulation: Output voltage maintained within 1% under all line and load conditions within rating.
 - Heat generated by semi-conductors is extracted and dissipated by large heat sink fins that maximize air contact for cool operation and long life of components.
 - Polyurethane conformal coating on PC boards and corrosion-resistant anodized aluminum case with heavy duty shock mounts assure survival in hostile environments.
 - Numerous converter and load protection circuits: Current limiting*; automatic thermal shutdown; short circuit proof*; reverse polarity and overvoltage protection*.
- * Except 3 Amp. Model.
- Carries the CE mark

Isolated Series

Same features as Standard Series, but with the additional capability of permitting connection of negative ground gear to positive or floating ground battery systems, or vice-versa. Many models may also be used as 12 or 24 volt stabilizers for highly input voltage sensitive equipment (see page 13).

Input range: 10-56 VDC; positive, negative or floating ground.

Output: 12 or 24 VDC, 3 to 35 amps.

Options

- 24 VDC output (see specs at left)
- Operation as battery charger or parallel redundant operation* – derate to continuous duty rating (contact factory)
- Extreme vibration mounting kit. (See page 10)

* Except Model: 24-12-3

Case Size

Ref.	Inches			Centimeters		
	H	W	D	H	W	D
C-1	2.7	4.5	6.0	6.9	11.4	15.2
C-2	4.5	5.9	11.0	11.4	15.0	27.9
C-3	6.0	4.7	14.0	15.2	11.9	35.6
C-4	6.0	4.7	16.0	15.2	11.9	40.6
C-5	6.2	6.8	18.1	15.7	17.3	46.0
C-7	4.25	5.9	7.7	10.8	15.0	19.6
C-8	4.25	5.9	14.0	10.8	15.0	35.6
C-9	6.0	6.8	16.5	15.2	17.3	41.9
C-10	2.8	4.2	10.4	7.1	10.7	26.4
C-11	3.5	3.5	1.75	8.9	8.9	4.5

NEW

Model	Input voltage	Output voltage	Output Amps		Case Size	Weight	
			Intermittent	Continuous		(Lbs)	(Kg.)
Standard Series							
24-12-3	17-32	13.6	3	3	C-11	1	.45
32-12-6	20-50	13.6	6	6	C-10	2.5	.9
32-24-6	32-50	24.5	6	6	C-10	2.5	.9
32-12-10	20-50	13.6	10	10	C-2	4	1.8
32-24-10	32-50	24.5	10	10	C-2	4	1.8
32-12-15	20-50	13.6	15	15	C-2	5	2.3
32-24-15	32-50	24.5	15	15	C-2	5	2.3
32-12-25	20-50	13.6	25	20	C-3	7.5	3.4
32-24-25	32-50	24.5	25	20	C-3	7.5	3.4
32-12-35	20-50	13.6	35	30	C-4	12	5.5
32-24-35	32-50	24.5	35	30	C-4	12	5.5
32-12-50	20-50	13.6	50	40	C-5	16	7.3
32-24-50	32-50	24.5	50	40	C-5	16	7.3
Isolated Series							
12-12-12I	10-16*	13.6	12	8	C-8	6	2.7
12-24-6I	10-16*	24.5	6	4	C-8	6	2.7
12-12-35I	10-16*	13.6	35	20	C-9	12	5.5
12-24-18I	10-16*	24.5	18	10	C-9	12	5.5
48-12-6I	20-56	13.6	6	6	C-7	7	2.7
48-24-3I	20-56	24.5	3	3	C-7	7	2.7
48-12-12I	20-56	13.6	12	8	C-8	6	2.7
48-24-6I	20-56	24.5	6	4	C-8	6	2.7
48-12-18I	20-56	13.6	18	10	C-8	8	3.6
48-24-9I	20-56	24.5	9	5	C-8	8	3.6
48-12-35I	20-56	13.6	35	20	C-9	12	5.5
48-24-18I	20-56	24.5	18	10	C-9	12	5.5

*11.5 VDC minimum start-up voltage, then operates @ 10-16 VDC from 1 amp minimum to full load

Performance Specifications – Standard & Isolated Series

Output: 13.6 VDC (internally adjustable 12.6-14.5) or 24.5 VDC (or specify) - except 24-12-3

Ripple: 150 mV P-P maximum

Regulation: Standard: 1% Line/Load
Isolated: 2% Line/Load

Duty Cycle Ratings*

Intermittent - 20 minutes max on 20% duty. Current limit set at approx. 105% of intermittent rating

*24-12-3: 2 minute max. on time

Continuous - 24 hours, 100% duty

Idle Current: Standard Series: Less than 100 mA (including power "ON" light)
Isolated Series: approx. 50 mA

Operating Temp: 0-50° C,
Derate Linearly From 100% @ 40° C to 50% @ 50° C Thermal shutdown @ 70° C Case Temperature

Model 24-12-3I: Full Output -25° C to +30° C; Derate linearly from 100% @ +30° C to 45% @ +50° C

Switching Frequency: Standard: 40 Khz
Isolated: 70Khz

Efficiency: 85% - Typical.

Isolation -

Output/Chassis: Input/Chassis: 250 VDC
Input/Output: 250 VDC (Isolated Series only)

Certification: Carries the CE mark (Standard Series only)



DC Power Onboard