



Wide Input Voltage Range 10 Watt Dc-Dc Converter



FEATURES:

- 2:1 Wide Input Voltage.
- Recognized By UL 60950-1
- 10 Watt Package.
- Efficiency To 80%
- PI Input Filter.
- MTBF:>1,500,000 hrs
- 1500Vdc Isolation
- Operating Temperature:-40°C TO +100°C



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Voltage	Input Current		Output Voltage	Output Current	Efficiency	Capacitor Load
	Vdc	No-Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load(mA)	%TYP	uF TYP
61D-12S03RNL	9-18	30	705	3.3	2000	78	2200
61D-12S05RNL	9-18	30	1016	5	2000	82	2200
61D-12S09RNL	9-18	30	1004	9	1111	83	1000
61D-12S12RNL	9-18	30	992	12	833	84	680
61D-12S15RNL	9-18	30	992	15	666	84	470
61D-12S18RNL	9-18	30	980	18	555	85	470
61D-12S24RNL	9-18	30	980	24	416	85	330
61D-12D05RNL	9-18	30	1016	±5	±1000	82	±1000
61D-12D09RNL	9-18	30	992	±9	±555	84	±470
61D-12D12RNL	9-18	30	992	±12	±416	84	±470
61D-12D15RNL	9-18	30	980	±15	±333	85	±330
61D-12D18RNL	9-18	30	980	±18	±277	85	±220
61D-12D24RNL	9-18	30	980	±24	±208	85	±220
61D-24S03RNL	18-36	25	352	3.3	2000	78	2200
61D-24S05RNL	18-36	25	508	5	2000	82	2200
61D-24S09RNL	18-36	25	496	9	1111	84	1000
61D-24S12RNL	18-36	25	496	12	833	84	680
61D-24S15RNL	18-36	25	490	15	666	85	470
61D-24S18RNL	18-36	25	490	18	555	85	470
61D-24S24RNL	18-36	25	484	24	416	86	330
61D-24D05RNL	18-36	25	508	±5	±1000	82	±1000
61D-24D09RNL	18-36	25	502	±9	±555	83	±470
61D-24D12RNL	18-36	25	496	±12	±416	84	±470
61D-24D15RNL	18-36	25	496	±15	±333	84	±330
61D-24D18RNL	18-36	25	490	±18	±277	85	±220
61D-24D24RNL	18-36	25	490	±24	±208	85	±220
61D-48S03RNL	36-72	20	176	3.3	2000	78	2200
61D-48S05RNL	36-72	20	251	5	2000	83	2200
61D-48S09RNL	36-72	20	248	9	1111	84	1000
61D-48S12RNL	36-72	20	248	12	833	84	680
61D-48S15RNL	36-72	20	248	15	666	84	470
61D-48S18RNL	36-72	20	245	18	555	85	470
61D-48S24RNL	36-72	20	245	24	416	86	330
61D-48D05RNL	36-72	20	254	±5	±1000	82	±1000
61D-48D09RNL	36-72	20	248	±9	±555	84	±470
61D-48D12RNL	36-72	20	245	±12	±416	85	±470
61D-48D15RNL	36-72	20	245	±15	±333	85	±330
61D-48D18RNL	36-72	20	242	±18	±277	86	±220
61D-48D24RNL	36-72	20	242	±24	±208	86	±220

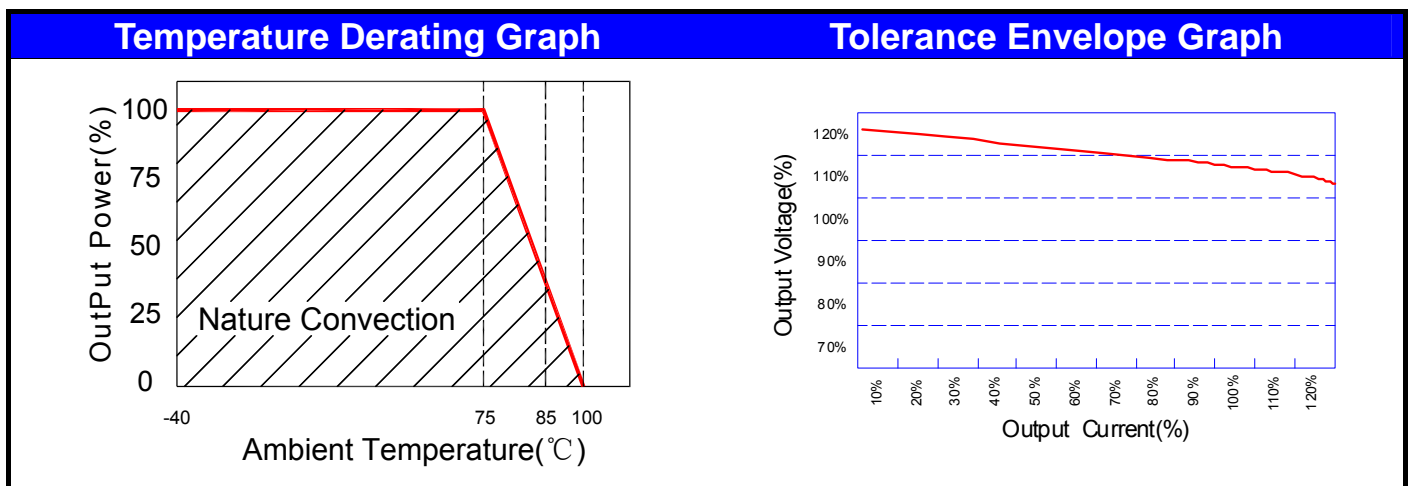


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Input Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Pi TYPE				

Output Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	SINGLE(25% to 100%)			±0.5	%
Load Regulation	DUAL			±2.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			300		KHz
Operating Temperature		-40		100	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated With Non-Conductive Base or Black Coated Copper With Non-Conductive Base				
Weight			36.5		g
Dimensions		50.8x25.4x10.2			mm
Potting Material	Epoxy (UL94V-0 rated)				
Radiated Emissions	EN55022	CLASS A			
	FCC 47 CFR Part 15 subpart A	CLASS A			





Wide Input Voltage Range 10 Watt Dc-Dc Converter

Recommended Test Circuit		Part Number
<p>Single converter test circuit diagram showing input Vin, GND, Cin, Single converter, Cout, 100uF/25V capacitor, and output +Vout, -Vout.</p> <p>12V :Cin 100uF,25V 24V & 48V:Cin 10uF,100V</p>	<p>Dual converter test circuit diagram showing input Vin, GND, Cin, Dual converter, two Cout capacitors, 100uF/25V capacitors, and output +Vout, COM, -Vout.</p> <p>12V :Cin 100uF,25V 24V & 48V:Cin 10uF,100V</p>	<p>61D - <u>12</u> <u>S</u> <u>05</u> <u>R</u> <u>NL</u> A B C D E F</p> <p>A:Series B:Input Voltage C:Single(S)Dual(D) D:Output Voltage E:Regulated(R) F:RoHS Version</p>

Suggest adding input external filter(C1,C2,L)to meet conducted emissions(EN55022 class A)

The diagram shows an input filter circuit with a 330uF capacitor (C1), a 12uH inductor (L), and a 100uF capacitor (C2) connected to the +Vin and -Vin pins of a DC/DC Converter. The converter's output is connected to a Load.

Markings and dimensions	Packaging									
<p>Dimensions and markings of the converter. Top view shows a length of 50.8mm and a width of 25.4mm. Bottom view shows pin positions 1, 2, 3, 4, 5 with dimensions 15.20, 20.30, 10.20, 5.10, 7.60, 2.50, 12.70. Side view shows a height of 10.2mm and a pin width of 1.0±0.05mm. Another side view shows a height of 5.6mm. A table below shows size dimensions in mm.</p> <table border="1"> <thead> <tr> <th colspan="3">Size(mm)</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>210.00</td> <td>210.00</td> <td>30.00</td> </tr> </tbody> </table>	Size(mm)			A	B	C	210.00	210.00	30.00	<p>3D perspective view of the converter showing dimensions A, B, and C.</p>
Size(mm)										
A	B	C								
210.00	210.00	30.00								

UNIT:mm XX.X±0.5 XX.XX±0.25

PIN Connection					
PIN	1	2	3	4	5
SINGLE	+Vin	-Vin	+Vout	NO PIN	-Vout
DUAL	+Vin	-Vin	+Vout	COM	-Vout