



Wide Input Voltage Range 15 Watt Dc-Dc Converter



FEATURES:

- 4:1 Wide Input Voltage.
- Recognized By UL 60950-1
- 15 Watt Package.
- Efficiency To 80%
- 1500Vdc Isolation
- MTBF:>1,500,000 hrs
- PI Input Filter.
- Remote Control:On/Off
- 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	mA	%TYP	uF TYP
87DS-24S05RNL	9-36	25	782	5	3000	80	3300
87DS-24S12RNL	9-36	25	762	12	1250	82	1000
87DS-24S15RNL	9-36	25	762	15	1000	82	680
87DS-24D05RNL	9-36	25	782	±5	±1500	80	±1000
87DS-24D12RNL	9-36	25	762	±12	±625	82	±470
87DS-24D15RNL	9-36	25	762	±15	±500	82	±330
87DS-48S05RNL	18-75	20	391	5	3000	80	3300
87DS-48S12RNL	18-75	20	381	12	1250	82	1000
87DS-48S15RNL	18-75	20	381	15	1000	82	680
87DS-48D05RNL	18-75	20	391	±5	±1500	80	±1000
87DS-48D12RNL	18-75	20	381	±12	±625	82	±470
87DS-48D15RNL	18-75	20	381	±15	±500	82	±330

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Filter	PI TYPE				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation	HL-LL			±1.0	%
Load Regulation	SINGLE(FL-NL)			±1.0	%
Load Regulation	DUAL(FL-NL)			±1.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Cross Regulation	DUAL(FL-1/2FL)			±5.0	%
Transient response setting time	50% load step change		350		us

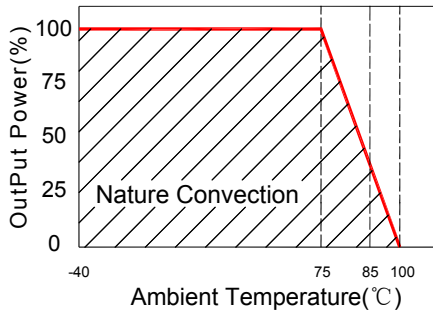
General Specifications

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			110		g
Dimensions			50.8x40.6x13.2		mm
Potting Material			Epoxy (UL94-V0)		
Conducted Emissions	EN55022		Class A		
Radiated Emissions	EN55022		Class A		

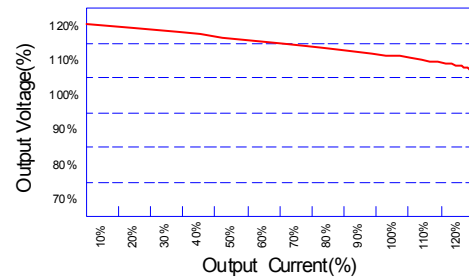


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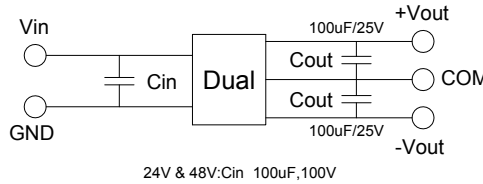
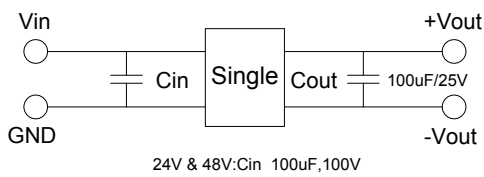
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit

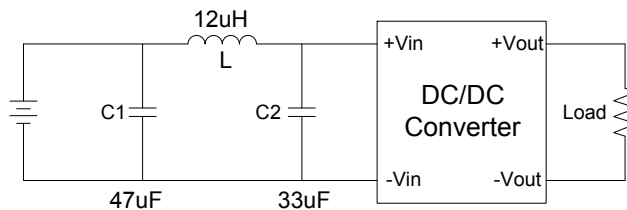


Part Number

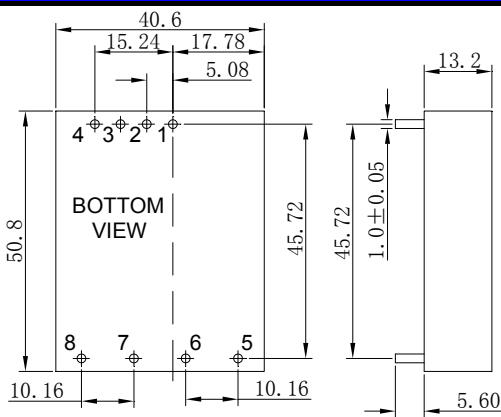
87DS - 24 S 05 R NL
A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Regulated(R)
- F:RoHS Version

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

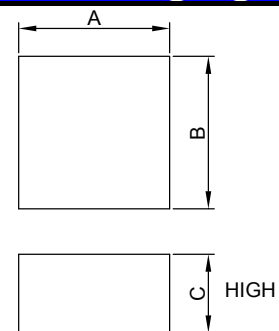


Markings and dimensions



UNIT:mm XX.X±0.5 XX.XX±0.25

Packaging



Size(mm)		
A	B	C
51.50	52.30	27.00

PIN Connection

PIN	1	2	3	4	5	6	7	8
SINGLE	+Vin	-Vin	NO PIN	Ctrl	NC	+Vout	COM	Trim
DUAL	+Vin	-Vin	NO PIN	Ctrl	+Vout	COM	-Vout	Trim