

**Wide Input Voltage Range 12 Watt Dc-Dc Converter**



**FEATURES:**

- 12W DIL PACKAGE
- 4:1 WIDE INPUT RANGE
- 100% BURNED IN
- HIGH EFFICIENCY
- UL94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- 3 YEARS WARRANTY
- Remote Control:On/Off



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
	Vdc	No-Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	%TYP
68DW12-24S03RNL	9-36	30	602	3.3	3500	80
68DW12-24S05RNL	9-36	30	610	5	2400	82
68DW12-24S12RNL	9-36	30	602	12	1000	83
68DW12-24S15RNL	9-36	30	602	15	800	83
68DW12-24D05RNL	9-36	30	602	±5	±1200	83
68DW12-24D12RNL	9-36	30	602	±12	±500	83
68DW12-24D15RNL	9-36	30	602	±15	±400	83
68DW12-48S03RNL	18-75	30	301	3.3	3500	80
68DW12-48S05RNL	18-75	30	305	5	2400	82
68DW12-48S12RNL	18-75	30	301	12	1000	83
68DW12-48S15RNL	18-75	30	301	15	800	83
68DW12-48D05RNL	18-75	30	301	±5	±1200	83
68DW12-48D12RNL	18-75	30	301	±12	±500	83
68DW12-48D15RNL	18-75	30	301	±15	±400	83

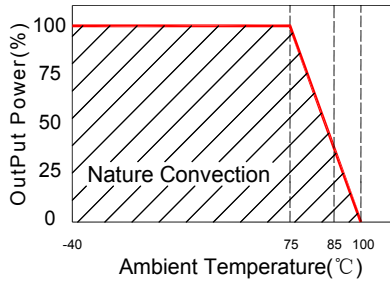
Input Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Voltage Types				4:1		
Filter	Pi Network					
Protection	Fuse Recommended					

Output Specifications (Temperature Coefficient : ±0.05%/°C)						
Parameters	Conditions	Min	Typ	Max	Units	
Voltage Tolerance	Single/Dual			±2	%	
Short Circuit/ Restart	Continuous/ Automatic					
Over Load Protection			150		%	
Line Regulation	High Line to Low Line			±0.5	%	
Load Regulation	Single & Dual (F.L-25%F.L)			±0.5	%	
Minimum Load	10% of Full Load					
Ripple & Noise	BW=DC To 20MHz (with 1uF Cap.)			100	mVp-p	
Transient response setting time	current change from 25% to 100%			350	us	

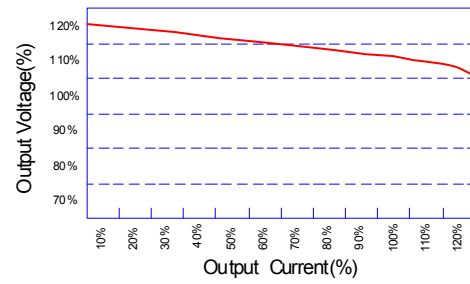
General Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Isolation Resistance	500Vdc	1000			MΩ	
Switching Frequency			400		KHz	
Operating Temperature		-40		100	°C	
Humidity	Non Condensing			95	%	
Cooling	Free air Convection					
Case material	Five-Side Shielded Case					
Weight			17.5		g	
Dimensions	Appearance size		31.6X20.1X10.0		mm	
Potting Material			Epoxy (UL94V-0 rated)			
Radiated Emissions	EN55022		CLASS A			
Conducted Emissions	EN55022		CLASS A			
Efficiency		80			%	
Isolation Voltage	For 10 seconds			1500	VDC	
MTBF	MIL-HDBK-217F @25°C , Ground Benign	900000			Hours	
Storage Temperature		-55		+125	°C	
Case Temperature				+95	°C	

## Wide Input Voltage Range 12 Watt Dc-Dc Converter

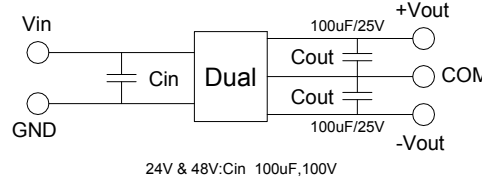
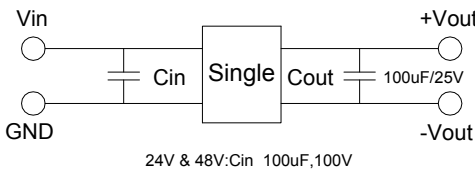
### Temperature Derating Graph



### Tolerance Envelope Graph



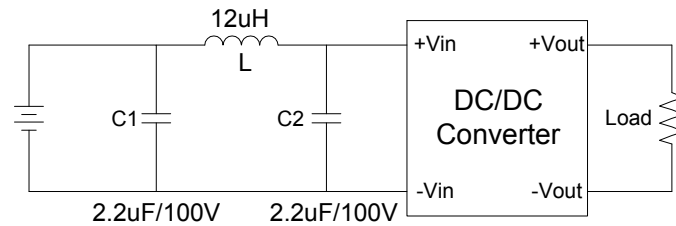
### Recommended Test Circuit



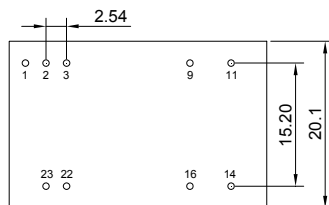
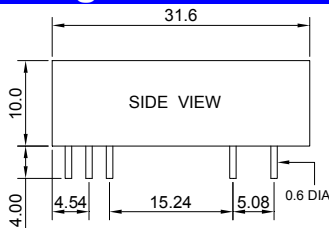
### Part Number

68DW12-12 S 03 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

Input filter components(C1, C2,L) are used to help meet conducted emissions (EN55022 class A) requirement for the module . These components should be mounted as close as possible to the module; and all leads should be minimized to decrease radiated noise.

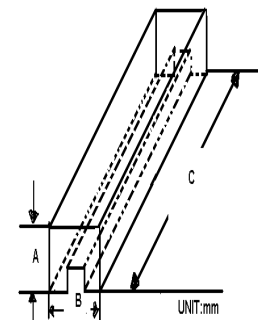


### Markings and dimensions



UNIT:mm XX.X±0.5 XX.XX±0.25  
 Pin Size Tolerance: 0.6Φ ±0.05mm

### Packaging



SIZE(mm)		
A	B	C
18.71	23.00	522

### PIN Connection

PIN	1	2.3	9	11	14	16	22.23
SINGLE	Remote On/Off	-Vin	NC	NC	+Vout	-Vout	+Vin
DUAL	Remote On/Off	-Vin	Common	-Vout	+Vout	Common	+Vin