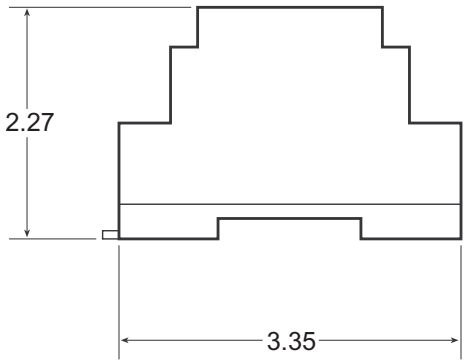
15 Watt DIN Rail Mount DC/DC Converter

Selection Chart				
Model	Input Range VDC		Output VDC	Output mA
	Min	Max		
12S24.625DIN	9	18	+24	625

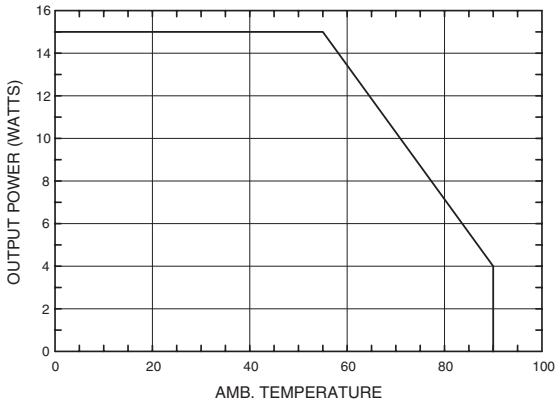
General Specifications			
12S24.625DIN			Units
Isolation			
Input to Output, 10µA Leakage	MIN	700	VDC
Input to Output Capacitance	TYP	1500	pF
Environmental			
Calculated MTBF, Bellcore Method 1, case 1		> 2,000,000	Hr
Ambient Operating Temperature Range, No Derating	MIN MAX	-40 +55	°C
Ambient Operating Temperature Range, With Derating (Fig. 1)	MIN MAX	-40 +90	°C
Storage Temperature	MIN MAX	-40 +90	°C
General			
Unit Weight		2.6	oz
Package		Non-conductive Plastic	
Case Dimension		3.35 x 2.27 x 1.37	in

Mechanical Outline and Connector Pin Assignments



Pin	Function
1	+INPUT
2	+INPUT
3	N/C
4	-INPUT
5	-INPUT
6	+24 VOLT OUTPUT
7	+24 VOLT OUTPUT
8	N/C
9	+24 VOLT RETURN (CMN)
10	+24 VOLT RETURN (CMN)

TEMPERATURE DERATING
FOR 12S24.625DIN



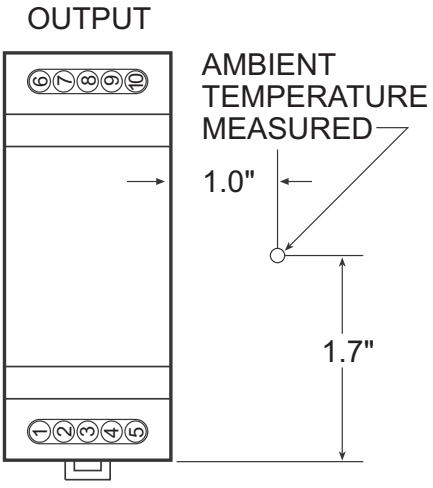


FIGURE 1

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Unless otherwise stated, these specifications apply for ambient temperature T_A=25°C, V_{in} = V_{typ}, and maximum rated load. (1)

Input Parameters			
Model		**12S24.625DIN**	**Units**
Voltage Range	MIN TYP MAX	9 12 18	VDC
Input Current No Load 100% Load	TYP TYP	35 1.45	mADC ADC
Reflected Ripple, 20MHz BW	TYP	250	mA P-P
Efficiency	TYP	86	%
Switching Frequency	TYP	300	kHz
Recommended Fuse		(3)	AMPS

Output Parameters			
Model		**12S24.625DIN**	**Units**
Output Voltage		24	VDC
Output Voltage Setpoint Accuracy	MIN TYP MAX	23.2 24 24.8	VDC
Rated Load Range (5)	MIN MAX	0.05 0.625	ADC
Noise, Fundamental Component	TYP	20	mV P-P
Noise, 20 MHz BW(2)	TYP	75	mV P-P
Load Transient Overshoot (4)	TYP	350	mV peak
Load Transient Recovery Time error band = ±2% (4)	TYP	1.3	mSec
Load Regulation Min - Full Load	TYP MAX	0.1 0.5	%
Line Regulation Vin = Min - Max	TYP MAX	0.1 0.5	%
Short Circuit Protection, Output to Common		Continuous	
Restart after Short Circuit		Auto	

NOTES:

(1) Refer to the CALEX Application Notes for the definition of terms.

(2) Fundamental component of noise is at the switching frequency and also is commonly referred to as ripple

(3) External fusing should be used for system protection due to a catastrophic failure. See CALEX Application Note 9 in the CALEX DC/DC Catalog to determine correct fuse.

(4) Load Transient Overshoot is the output voltage peak amplitude referenced to the final value due to step load change of 50-75% occurring only on the measured output. “Load Transient Overshoot” and “ Dynamic Response” are the same specification. Load Transient Recovery Time is the time for the output to return to within the specified voltage error band centered about the final value. “Load Transient Recovery Time” and “Transient Response” are the same specification.

(5) Below the minimum rated load, the output may exhibit noise performance degradation. Operation with less than the minimum rated load will not damage unit, and DC regulation is not significantly affected.

(6) Specifications subject to change without notice.

(7) Water Washability - Calex DC/DC converters are designed to withstand most solder/wash processes. Careful attention should be used when assessing the applicability in your specific manufacturing process. Converters are not hermetically sealed.

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