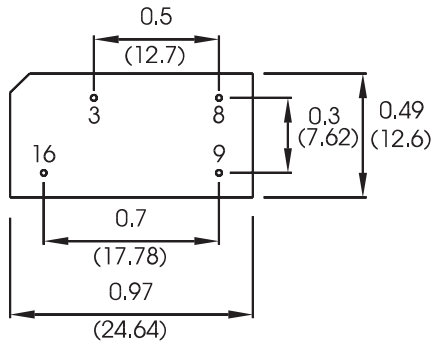


ISOLATED DC/DC CONVERTERS Unregulated

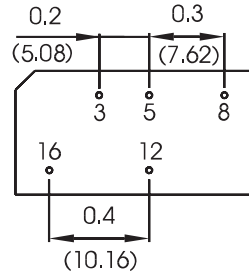
1CN/1CS 0.3/0.75 WATT



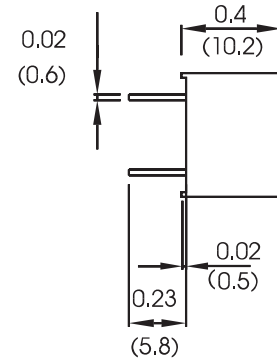
BOTTOM VIEW
SINGLE



BOTTOM VIEW
DUAL



SIDE VIEW



Tolerances : $\pm 0,004$ inches (Tolerances : $\pm 0,1$ mm)

All dimensions in inches (millimeters)

Pin	Single output
3	-Input
8	-Output
9	+Output
16	+Input

Pin	Dual output
3	-Input
5	-Output
8	Common
12	+Output
16	+Input

MODEL	INPUT SPECIFICATIONS			OUTPUT SPECIFICATIONS				
	minimum	maximum	nominal	Vout +	Iout +	Vout -	Iout -	power
	(Vdc)	(Vdc)	(Vdc)	(Vdc)	(mA)	(Vdc)	(mA)	(W)
1 CN 0505 S	4,5	5,5	5	5	60			0,30
1 CN 0512 S	4,5	5,5	5	12	33			0,40
1 CN 0515 S	4,5	5,5	5	15	26			0,39
1 CN 1205 S	10,8	13,2	12	5	80			0,40
1 CN 1212 S	10,8	13,2	12	12	41			0,49
1 CN 1215 S	10,8	13,2	12	15	33			0,50
1 CN 2405 S	21,6	26,4	24	5	80			0,40
1 CN 2412 S	21,6	26,4	24	12	41			0,49
1 CN 2415 S	21,6	26,4	24	15	33			0,50
1 CS 0505 D	4,5	5,5	5	5	50	5	50	0,50
1 CS 0512 D	4,5	5,5	5	12	30	12	30	0,72
1 CS 0515 D	4,5	5,5	5	15	25	15	25	0,75
1 CS 1205 D	10,8	13,2	12	5	50	5	50	0,50
1CS 1212 D	10,8	13,2	12	12	30	12	30	0,72
1 CS 1215 D	10,8	13,2	12	15	25	15	25	0,75
1 CS 2405 D	21,6	26,4	24	5	50	5	50	0,50
1 CS 2412 D	21,6	26,4	24	12	30	12	30	0,72
1 CS 2415 D	21,6	26,4	24	15	25	15	25	0,75

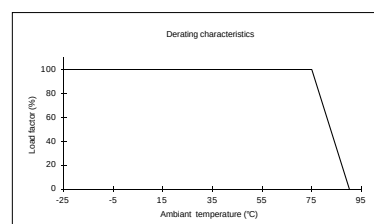
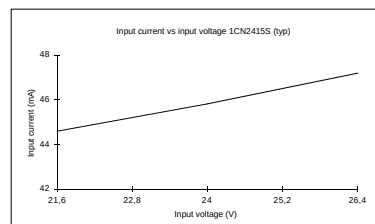
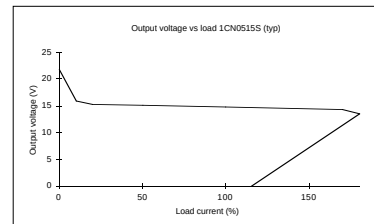
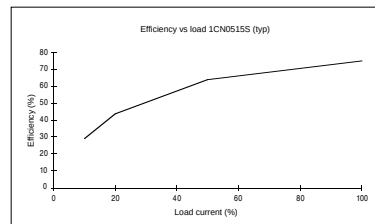
- NOTE 1 : These converters operate without any external components. However, in low noise applications it is commended that a low ESR capacitor be placed across the output or the input pins.
- Conducted noise filtering to EN 55022-B, VDE0871-B may be accomplished by putting an external capacitor. For more information, please contact factory.
- On dual output, the outputs are not isolated from each other and may be connected to provide 10 V, 24 V or 30 V.
- It is recommended to protect the input by fuses or other protection devices. Fuses are never supplied internally, and, without them, severe damage or even fire can occur in the event of a module failure. A slow fuse with a rating of 2X the I_{in} max is recommended.

ETRI 1CN/1CS DC/DC Converters

0.3/0.75 W

PARAMETERS	CONDITIONS	1 CN / 1 CS								
		5 V			12 V			24 V		
Input voltage	Tc = - 25 °C to + 90 °C	5 V			12 V			24 V		
Input voltage range	Iout = 0 % to 100 %	4,5 V to 5,5 V			10,8 V to 13,2 V			21,6 V to 26,4 V		
Input over voltage	0,1 second Max.	10 V			20 V			32 V		
No load input current	Iout = 0 mA : Vin = Nom.	30 mA			15 mA			8 mA		
Output voltage	Iout = 100 % : Vin = Nom.	5 V	12 V	15 V	5 V	12 V	15 V	5 V	12 V	15 V
Output current (Single)	Vin = Min. to Max.	60 mA	33 mA	26 mA	80 mA	41 mA	33 mA	80 mA	41 mA	33 mA
Output current (Dual)	Tc = - 25 °C to + 90 °C	± 50 mA	± 30 mA	± 25 mA	± 50 mA	± 30 mA	± 25 mA	± 50 mA	± 30 mA	± 25 mA
Input current Max.	Vin = Min. : Iout = Max.	170 mA	240 mA		70 mA	90 mA		35 mA	45 mA	
Efficiency	Vin = Nom. : Iout = Max.	60 %	62 %	65 %		68 %		65 %	68 %	
Output voltage accuracy	Vin = Nom. : Iout = Max.	± 10 %	± 5 %		± 10 %	± 5 %		± 10 %	± 5 %	
Load regulation (Iout = 50% to 100%)	Vin = Nom.	+ 10 % to 0	+ 6 % to 0	+ 4 % to 0	+ 10 % to 0	+ 6 % to 0	+ 4 % to 0	+ 10 % to 0	+ 6 % to 0	+ 4 % to 0
Line regulation (Vin = Min. to Max.)	Iout = Max.	1,2 % of Vout per 1 % of Vin								
Limitation range (Vin = Min. to Max.)	Vout = Vout - 4 %	180 % of Iout Max.								
Output ripple peak to peak	BW = 10 Hz to 20 MHz	60 mV	50 mV	40 mV	60 mV	50 mV	40 mV	60 mV	50 mV	40 mV
Input filter (see note 1)		Capacitor								
Temperature coefficient	Tc = - 25 °C to + 90 °C	≤ 0,02 % per °C between - 25 °C to + 75 °C								
Input / Output isolation	1 Minute	500 VDC								
Isolation resistance	Vtest = 500 VDC	> 10 Gohm								
Input / Output coupling capacitor	Rh = 48 % : Tc = 25 °C	15 pF at 100 Hz								
Switching frequency	Vin = Nom. : Iout = Max.	60 KHz								
Operating temperature range	Ta:	- 25 °C to + 75 °C								
Storage temperature	Ts:	- 40 °C to + 105 °C								
Maximum package temperature	Tc:	+ 90 °C								
MTBF : MIL-HDBK-217, Rev E	Ground bening, Ta = 25 °C	> 1.000.000 h								
Weight	Gr	5 Gr								

PERFORMANCE CURVES



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