

**FEATURES**

- Single Isolated Output
- Industry Standard Pinout
- 1kVDC Isolation
- Efficiency to 80%
- Power Density 1.45W/cm<sup>3</sup>
- 24V & 48V Input
- 5V, 9V, 12V and 15V Output
- Footprint from 0.69cm<sup>2</sup>
- UL 94V-0 Package Material
- No Heatsink Required
- Internal SMD Construction
- Toroidal Magnetics
- Fully Encapsulated
- No External Components Required
- Custom Solutions Available
- Pin Compatible with LME
- SIP & DIP Package Styles

**DESCRIPTION**

The NME Series of DC-DC Converters is particularly suited to isolating and/or converting DC power rails. The galvanic isolation allows the device to be configured to provide an isolated negative rail in systems where only positive rails exist.

SELECTION GUIDE							
	Nominal Input Voltage	Output Voltage	Output Current	Efficiency	Isolation Capacitance	MTTF <sup>1</sup>	Package Style
Order Code	(V)	(V)	(mA)	(%)	(pF)	kHrs	
<b>NME2405D</b>	24	5	200	70	40	201	DIP
<b>NME2409D</b>	24	9	111	75	59	185	
<b>NME2412D</b>	24	12	83	80	78	163	
<b>NME2415D</b>	24	15	66	80	79	136	
<b>NME2405S</b>	24	5	200	70	40	201	SIP
<b>NME2409S</b>	24	9	111	75	59	185	
<b>NME2412S</b>	24	12	83	80	78	163	
<b>NME2415S</b>	24	15	66	80	79	136	
<b>NME4805D</b>	48	5	200	70	32	213	DIP
<b>NME4809D</b>	48	9	111	75	50	194	
<b>NME4812D</b>	48	12	83	80	76	164	
<b>NME4815D</b>	48	15	66	80	75	140	
<b>NME4805S</b>	48	5	200	70	32	213	SIP
<b>NME4809S</b>	48	9	111	75	50	194	
<b>NME4812S</b>	48	12	83	80	76	164	
<b>NME4815S</b>	48	15	66	80	75	140	

When operated **with** additional external load capacitance the rise time of the input voltage will determine the maximum external capacitance value for guaranteed start up. The slower the rise time of the input voltage the greater the maximum value of the additional external capacitance for reliable start up.

INPUT CHARACTERISTICS					
Parameter	Conditions	MIN	TYP	MAX	Units
Voltage Range	Continuous operation, 24V input types	21.6	24	26.4	V
	Continuous operation, 48V input types	43.2	48	52.8	

OUTPUT CHARACTERISTICS					
Parameter	Conditions	MIN	TYP	MAX	Units
Rated Power <sup>2</sup>	T <sub>A</sub> = 0°C to 70°C			1	W
Voltage Set Point Accuracy	See tolerance envelope				
Line Regulation	High V <sub>IN</sub> to low V <sub>IN</sub>			1.2	%/%
Load Regulation	10% load to rated load, 5V output types			15	%
	10% load to rated load, all other output types			10	
Ripple & Noise	BW=DC to 20MHz, all input types			150	mV p-p

ABSOLUTE MAXIMUM RATINGS	
Short-circuit duration <sup>3</sup>	1 second
Lead temperature 1.5mm from case for 10 seconds	300°C
Input voltage V <sub>IN</sub> , NME24 types	28V
Input voltage V <sub>IN</sub> , NME48 types	54V

1 Calculated using MIL-HDBK-217F with nominal input voltage at full load.  
 2 See derating curve  
 3 Supply voltage must be discontinued at the end of the short circuit duration.  
 All specifications typical at T<sub>A</sub>=25°C, nominal input voltage and rated output current unless otherwise specified.

# NME 24V & 48V SERIES

Isolated 1W Single Output DC-DC Converters

## ISOLATION CHARACTERISTICS

Parameter	Conditions	MIN	TYP	MAX	Units
Isolation Test Voltage	Flash tested for 1 second	1000			VDC
Resistance	Viso=500VDC	1			G

## GENERAL CHARACTERISTICS

Parameter	Conditions	MIN	TYP	MAX	Units
Switching Frequency	All input types		100		kHz

## TEMPERATURE CHARACTERISTICS

Parameter	Conditions	MIN	TYP	MAX	Units
Specification	All output types	0		70	°C
Storage		-55		150	°C
Cooling	Free air convection				

## PIN CONNECTIONS

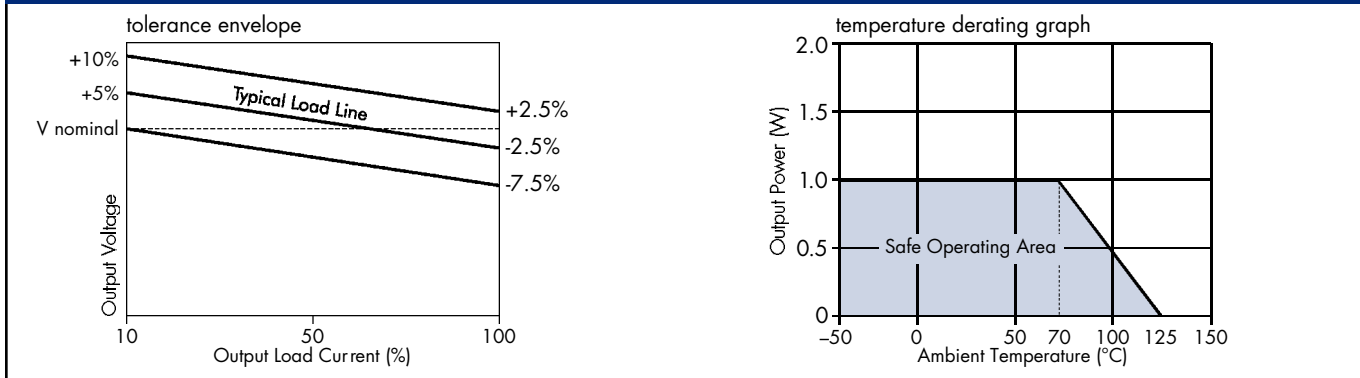
8 Pin DIP

PIN	
1	GND
4	VIN
5	+V
7	0V

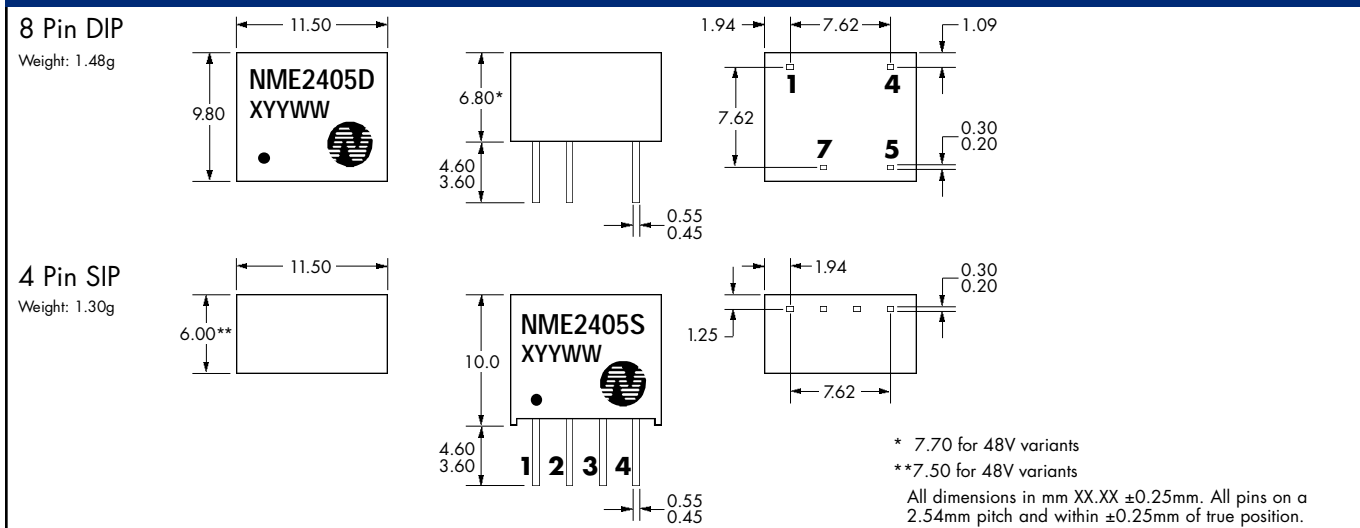
4 Pin SIP

PIN	
1	GND
2	VIN
3	0V
4	+V

## PERFORMANCE CHARACTERISTICS



## MECHANICAL DIMENSIONS



C&D Technologies (NCL) Limited reserve the right to alter or improve the specification, internal design or manufacturing process at any time, without notice. Please check with your supplier or visit our web site to ensure that you have the current and complete specification for your product before use.

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