

Single & Dual 10W DC/DC Converters

1000HN Series

ISO 9001

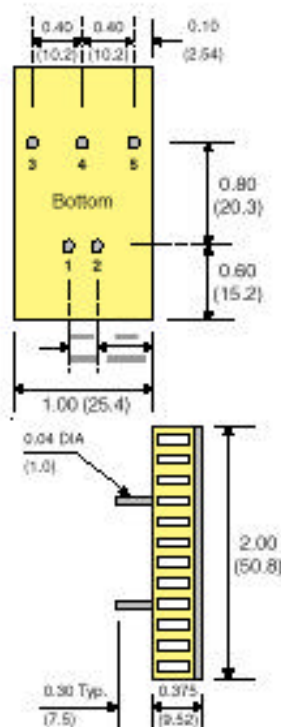
- Unencapsulated construction
- 4:1 Ultra-wide input voltage range
- Industry standard footprint
1" x 2" x 0.375"
- Wide operating temperature
-40 to 85 °C
- Meets UL, CSA, TUV and CE specifications

The 1000HN series is a new family of low cost, high performance, single and dual output 10W DC/DC converters.

Ideal for telecommunications equipment, mixed analog/digital subsystems, distributed power networks, data communications equipment and process/machine control equipment.

PIN CONNECTIONS

Pin	Single Output	Dual Output
1	+V IN	+V IN
2	-V IN	-V IN
3	+V OUT	+V OUT
4	No Pin	Common
5	-V OUT	-V OUT



SPECIFICATION

INPUT

Voltage range 4:1 see selection guide

Input filter LC network

OUTPUT

Voltage accuracy $\pm 1\%$ max.

Voltage balance $\pm 2\%$ max. (Dual outputs)

Minimum load 0% single outputs
10% dual outputs

Ripple & noise 50mV or 1% pk to pk
20MHz bandwidth

Line regulation $\pm 0.5\%$

Load regulation $\pm 0.5\%$ single, $\pm 1\%$ dual

Transient recover time 200µs/25% load step

Temp. coefficient 0.02%/°C @ full load

Short circuit protection - continuous (hiccup mode)

GENERAL

Isolation voltage 1500Vdc min. (1 min.)

Isolation resistance 10^{12}

Switching frequency 40kHz fixed

ENVIRONMENTAL

Operating temp. -40 to 85 °C with derating

Storage temp. -55 to 125 °C baseplate

Max. case temp. 105 °C baseplate

Humidity Up to 95% (non-condensing)

Cooling Free-air convection

PHYSICAL

Dimensions 25.4 x 50.8 x 9.52mm

Weight 16.0g (0.57oz)

Case material Aluminium baseplate with 5 sided aluminium cover

RELIABILITY

MTBF >1,460,000 hours

Model	Input Voltage(Vdc)		UML0	Output		OVP (Vdc)	Efficiency @ FL (%)	Product Code
	Nominal	Range		Voltage (Vdc)	Current (A)			
1003S12HN	12	9 to 18	8.5	3.3	2.400	3.9	76	909 889 94
1005S12HN	12	9 to 18	8.5	5.0	2.000	6.8	80	909 889 95
1012S12HN	12	9 to 18	8.5	12.0	0.833	15	82	909 889 96
1015S12HN	12	9 to 18	8.5	15.0	0.667	18	83	909 889 97
1005D12HN	12	9 to 18	8.5	± 5.0	± 1.000	13*	80	909 889 98
1012D12HN	12	9 to 18	8.5	± 12.0	± 0.416	30*	82	909 889 99
1015D12HN	12	9 to 18	8.5	± 15.0	± 0.333	36*	83	909 890 00
1003S48HN	48	18 to 75	16	3.3	2.400	3.9	78	909 890 01
1005S48HN	48	18 to 75	16	5.0	2.000	6.8	82	909 890 02
1012S48HN	48	18 to 75	16	12.0	0.833	15	86	909 890 03
1015S48HN	48	18 to 75	16	15.0	0.667	18	87	909 890 04
1005D48HN	48	18 to 75	16	± 5.0	± 1.000	13*	82	909 890 05
1012D48HN	48	18 to 75	16	± 12.0	± 0.416	30*	83	909 890 06
1015D48HN	48	18 to 75	16	± 15.0	± 0.333	36*	84	909 890 07

* OVP for dual output units is measured across both outputs