

# LM-NP/-LP 1000 Series - Line Matching Transformers

**BOURNS®**

## Part Numbers And Specifications

Parameters		Unit	LM-NP 1001-B1L	LM-NP 1002L	LM-NP 1003L	LM-NP 1004L	LM-NP 1005L	LM-LP 1001L	LM-LP 1002L	LM-LP 1003L	LM-LP 1004L	LM-LP 1005L
Ref. Temperature Data		°C	25	25	25	25	25	25	25	25	25	25
Impedance (min./at 1.0 kHz)	Primary	Ω	600	600	600	600 (150, 150)	600 (150+150)	600	600	600	600 (150, 150)	600 (150+150)
	Secondary	Ω	600	600 (150,150)	600 (150+150)	600 (150,150)	600 (150+150)	600	600 (150,150)	600 (150+150)	600 (150,150)	600 (150+150)
Inductance (min./at 0.2 kHz)	Primary	H	2.8	2.8	2.8	2.8 (0.7, 0.7)	2.8 (0.7+0.7)	2.8	2.8	2.8	2.8 (0.7, 0.7)	2.8 (0.7+0.7)
	Secondary	H	2.8	2.8 (0.7, 0.7)	2.8 (0.7+0.7)	2.8 (0.7, 0.7)	2.8 (0.7+0.7)	2.8	2.8 (0.7, 0.7)	2.8 (0.7+0.7)	2.8 (0.7, 0.7)	2.8 (0.7+0.7)
DC-Resistance (typical/±10 %)	Primary	Ω	66	66	66	66 (33,33)	66 (33+33)	90	90	90	90 (45,45)	90 (45+45)
	Secondary	Ω	66	66 (33,33)	66 (33+33)	66 (33,33)	66 (33+33)	90	90 (45,45)	90 (45+45)	90 (45,45)	90 (45+45)
Turns Ratio (≤ ±2 %)		—	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
Winding Configurations		—	—	one winding center tapped	one winding split	both windings center tapped	both windings split	—	one winding center tapped	one winding split	both windings center tapped	both windings split
Insertion Loss (at 2.0 kHz)		dB	≤ 1.5					≤ 2.0				
Return Loss	Transformer (0.2 - 4.0 kHz) In Networks	dB	≥ 10.0					≥ 8.0				
			≥ 21.0					≥ 20.0				
Shunt Loss (typical)		kΩ	9.0					9.0				
Frequency Response (typ./0.2 - 3.5 kHz)		dB	- 0.3					- 0.5				
Wide Band Response (0.2 - 10.0 kHz)		dB	-2.5					-4.5				
Power Level		dBm	- 45.0 to + 3.0					- 43.0 to + 3.0				
Longitudinal Balance (0.3 - 4.0 kHz)		dB	-80.0					- 70.0				
Distortion (0 dB/at 1.0 kHz)		%	≤ 0.1					≤ 0.25				
Leakage Induction (typical)		mH	14.0					14.0				
Dielectric Strength (P/S)		kVDC	6.5					6.5				
Temperature Range	Operation	°C	-10 to +60					-10 to +60				
	Storage	°C	-20 to +70					-20 to +70				
Specifications Met		BS 6204: Construction and flammability (UL 94V0) CCITT: Rec. T/CD 1-1 (Sept. 1982) BS 6301: Isolation BS 6305: Return loss (1982/paragraph 4.3.2.2/b)										

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Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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