## Vishay Dale

MODEL IHD-1

IND.

# **Filter Inductors**

High Current



STANDARD ELECTRICAL SPECIFICATIONS

RATED

DCR CURRENT CURRENT

**INCRE-**

**MENTAL** 

#### **FEATURES**

MODEL IHD-3

IND.

• Printed circuit mounting (axial leads).

RATED

DCR CURRENT CURRENT

- Protected by polyolefin tubing.
- High saturation bobbin used allowing high inductance with low DC resistance.
- Pre-tinned leads.
- High resistivity core offers very high parallel resistance, resulting in maximum coil performance.
- 20 sleeveless models available at reduced cost.

INCRE-

**MENTAL** 

### **ELECTRICAL SPECIFICATIONS**

Inductance: Measured at 1V with no DC current.

**Incremental Current:** The typical current at which the inductance will be decreased by 5% from its initial zero DC value.

Dielectric Rating: 2500V RMS between winding and outer circumference to within .250" [6.35mm] of the insulating sleeve edge.

#### **Operating Temperature:**

- 55°C to + 125°C (no load).
- 55°C to + 85°C (at full rated current). Current Rating: Maximum continuous.

Operating current (DC or RMS) based on a 40°C temperature rise.

#### **MECHANICAL SPECIFICATIONS**

Wire: Solid soft copper.

Terminals: 20 AWG tinned copper leads.

Coating: Polyolefin tubing - flame

retardant UL type VW-1 per MIL-I-23053/5,

Class 3 requirements. Core Material: Ferrite.

IND. @ 1kHz (μH)		MAX. (Ohms)	(Max. Amps)	(Amps Approx.)	IND. @ 1kHz (μH)	TOL.	MAX. (Ohms)	(Max. Amps)	(Amps Approx.)
1.0	± 15%	.009	5.3	7.0	3.9	± 15%		4.0	8.2
1.2	± 15%	.010	5.0	6.4	4.7	± 15%		4.0	7.5
1.5	± 15%	.011	4.8	5.7	5.6	± 15%		4.0	6.9
1.8	± 15%	.012	4.6	5.2	6.8	± 15%		4.0	6.3
2.2	$\pm$ 15%	.013	4.4	4.7	8.2	± 15%		4.0	5.7
2.7	$\pm$ 15%	.014	4.2	4.3	10.0	± 15%		4.0	5.2
3.3	$\pm$ 15%	.016	4.0	3.9	12.0	± 15%		4.0	4.7
3.9	$\pm$ 15%	.017	3.8	3.6	15.0	± 15%		4.0	4.3
4.7	$\pm$ 15%	.022	3.4	3.3	18.0	± 15%		4.0	3.9 3.5
5.6	$\pm$ 15%	.024	3.2	3.0	22.0	± 15% ± 15%		4.0 4.0	3.5
6.8	± 15%	.026	3.1	2.7	27.0 33.0	± 15%		4.0	2.9
8.2	$\pm$ 15%	.028	3.0	2.5	39.0	± 15%		4.0	2.9
10.0	± 15%	.033	2.8	2.3	47.0	± 15%		4.0	2.7
12.0	± 15%	.037	2.6	2.1	56.0	± 15%		3.2	2.3
15.0	± 15%	.040	2.5	1.9	68.0	± 15%		2.5	2.1
18.0	± 15%	.044	2.4	1.7	82.0	± 15%		2.0	1.9
22.0	± 15%	.050	2.2	1.5	100.0	± 15%		1.6	1.7
27.0	± 15%	.070	1.9	1.4	120.0	± 15%	.113	1.6	1.6
33.0	± 15%	.075	1.8	1.3	150.0	± 15%	.129	1.6	1.4
39.0	± 15%	.084	1.7	1.2	180.0	± 15%	.150	1.6	1.3
47.0	± 15%	.104	1.6	1.1	220.0	± 15%		1.6	1.2
56.0	± 15%	.130	1.4	.97	270.0	± 15%		1.6	1.1
68.0	± 15%	.145	1.3	.88	330.0	± 15%		1.6	.95
82.0	± 15%	.152	1.3	.80	390.0	± 15%		1.6	.88
100.0 120.0	± 15% ± 15%	.208 .283	1.1 .94	.73 .66	470.0 560.0	± 15% ± 15%		1.2 1.0	.80 .74
150.0	± 15%	.330	.87	.60	680.0	± 15%		1.0	.67
180.0	± 15%	.362	.83	.54	820.0	± 15%		.80	.61
220.0	± 15%	.505	.70	.49	1000.0	± 15%		.80	.56
270.0	± 15%	.557	.67	.45	1200.0	± 15%		.60	.51
330.0	± 15%	.650	.62	.40	1500.0	± 15%		.60	.46
390.0	± 15%	.770	.57	.37	1800.0	± 15%	1.50	.60	.42
470.0	± 15%	1.03	.49	.34	2200.0	± 15%	1.76	.50	.38
560.0	± 15%	1.14	.47	.31	2700.0	± 15%		.40	.34
680.0	± 15%	1.50	.41	.28	3300.0	± 15%		.40	.31
820.0	± 15%	1.98	.36	.26	3900.0	± 15%		.40	.29
1000.0	± 15%	2.30	.33	.23		± 15%		.40	.26
1200.0	± 15%	2.55	.31	.21	5600.0	± 15%		.32 .25	.24
1500.0	± 15%	3.0	.29	.19	6800.0 8200.0	± 15% ± 15%		.25	.22 .20
1800.0	± 15%	4.0	.25	.18	10000.0			.25	.18
2200.0	$\pm$ 15%	4.40	.24	.16	12000.0			.20	.17
2700.0	$\pm$ 15%	5.80	.21	.14	15000.0			.20	.15
3300.0	$\pm$ 15%	6.56	.20	.13	18000.0			.16	.14
	$\pm$ 15%	8.63	.17	.12	22000.0			.13	.12
	$\pm$ 15%	10.1	.16	.11	27000.0		22.7	.13	.11
	± 15%	11.2	.15	.10	33000.0	± 15%	25.7	.13	.10
	± 15%	15.0	.13	.09	39000.0			.10	.09
	± 15%	20.8	.11	.08	47000.0			.10	.09
10000.0		23.4	.10	.08	56000.0			.10	.08
12000.0		26.0	.10	.07	68000.0			.08	.07
15000.0	± 15%	36.0	.08	.06	82000.0	± 15%	67.3	.07	.07

100000.0 ± 15% 76.0

.06

.08

.07

.06

### **DIMENSIONAL CONFIGURATIONS** [Numbers in brackets indicate millimeters] 1.13 [28.70] Min. Typ. ·········96-.032 [.813] Dia. Typ. A Dia #20 AWG MODEL B (Max.) A (Max.) IHD-1 .270 [6.85] .700 [17.78] IHD-3 .460 [11.68] .900 [22.86]

PART MARKING	
— Vishay Dale — Model — Value — Date code	

ноw то с	OW TO ORDER							
IHD-1	<b>3.9</b> μ <b>H</b>	$\pm$ 15%						
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE						

 $18000.0\ \pm 15\%\quad 40.0$