

3-Phase Line Reactor BL 542 | Upto 250 A

General Details

BLA etech Load Reactors are engineered to convert the rectangular PWM output of modern motor drives into a smooth sine wave with very low residual ripple.

This conversion reduces dv/dt stress, minimizes cable ringing, and lowers motor overheating—thereby extending motor service life and enhancing overall system reliability.

Typical Applications and Features

- **Improved Motor Protection:** Reduces high dv/dt and overvoltages that can cause premature motor damage.
- **Enhanced System Performance:** Delivers a smooth sine wave output, minimizing eddy current losses and reducing cable ringing.
- **Robust & Compact Design:** Designed with a durable open frame structure and UL-rated materials for long-term reliability.
- **Wide Operating Range:** Suitable for motor drives operating at 3x480 VAC up to 3x530 VAC with a rated current range from 2.3 A to 250 A.



Certifications

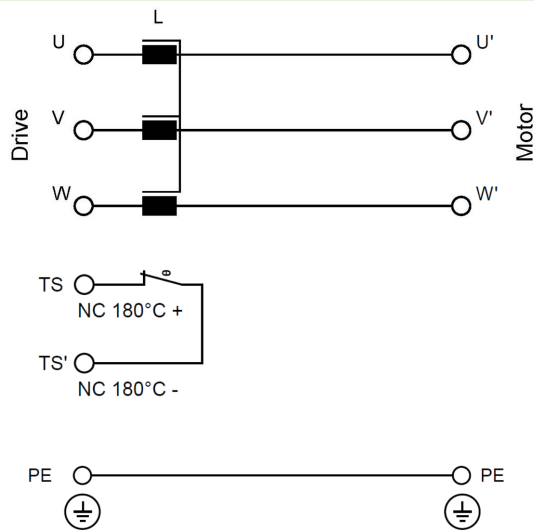


Technical Characteristics

Operating Voltage:	3x530 VAC (Max), 3x480 VAC (Nominal)
Current	2.3 to 250 A @45°C
Overload Capability	1.5× rated current for 1 min/hour
Current Ratings	1.76A to 640A @ 45°C
Residual Ripple Voltage:	<5%
Impedance:	6% at 400 V, 50 Hz
High Potential Test Voltage (P→E):	2480 VAC for 1 second
Overvoltage Category:	OV III (per IEC 60664-1)
Temperature Range:	Operating: –40°C to +45°C Derated Operation: +45°C to +100°C Transport/Storage: –40°C to +100°C
Climatic Category:	40/070/21
Motor Frequency	0-60 Hz (up to 200 Hz with derating)
Switching Frequency	0-16 kHz
Protection:	IP 00, UL 94 V-2 flammability
MTBF:	>500,000 h @ 45°C/480 V

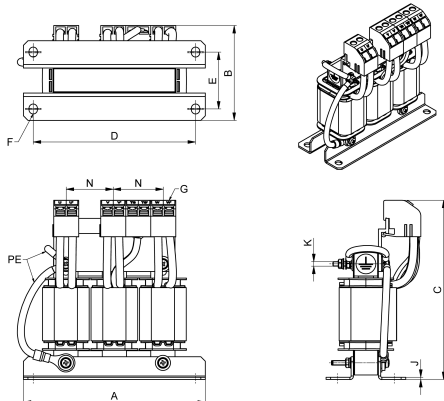
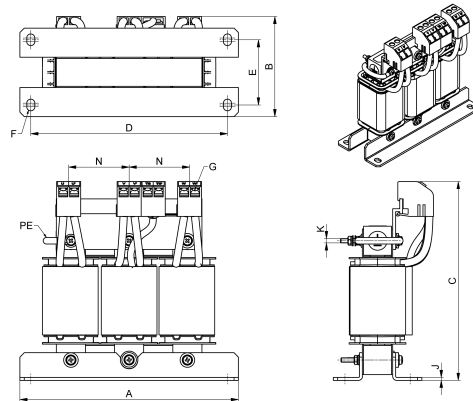
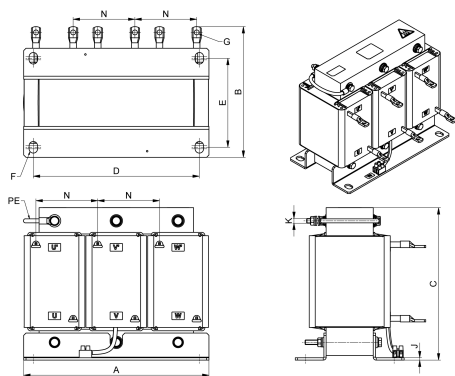
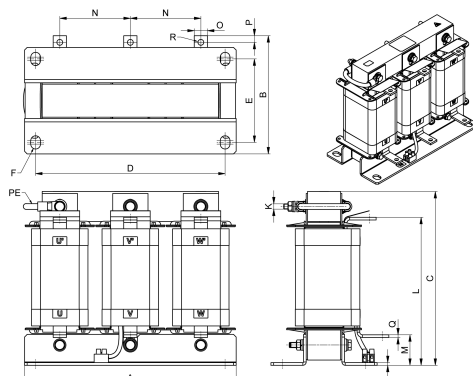
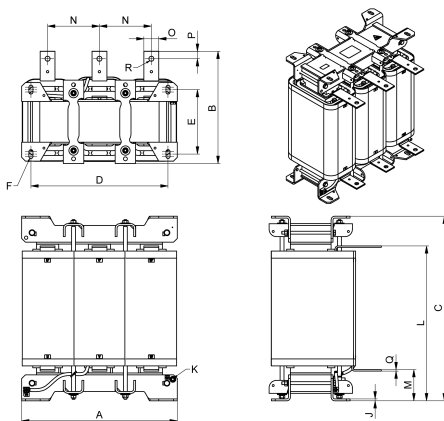
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Electrical Schematic



Product Model & Performance

Model	Rated Current(A)	Nominal Inductance(mH)	Power Losses(W)	Weights(kg)
BL-2.3	2.3	19.2	41	1.05
BL-3.1	3.1	14.2	45	1.04
BL-5.9	5.9	7.48	76	2.00
BL-10	10.2	4.32	91	4.32
BL-13	13	3.34	89	5.1
BL-18	18	2.45	150	6.20
BL-26	26	1.70	127	8.90
BL-32	32	1.38	196	11.2
BL-38	38	1.16	229	11.40
BL-45	45	0.98	272	12.8
BL-60	60	0.735	283	17.50
BL-75	75	0.588	154	20.3
BL-90	90	0.49	239	23.6
BL-110	110	0.401	283	27.10
BL-145	145	0.304	472	51
BL-180	180	0.245	658	52
BL-200	200	0.221	707	54
BL-250	250	0.176	882	69.00

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Mechanical Data
1.5 to 3.1A Types

5.9 to 18 A types

26 to 60 A types

75 to 110 A Types

110 to 250 A Types


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Mechanical Dimension

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
2.3A	120	63	118	107	38	6.5*5.5	-88	-	1.5	M3	-	-	32	-	-	-	-
3.1A	120	73	118	107	47.2	6.5*5.5	-88	-	1.5	M3	-	-	32	-	-	-	-
5.9A	150	69	137	135	45.3	8*5.5	-88	-	2	M3	-	-	42	-	-	-	-
10.2A	195	95	159	170	71.5	12*9	-88	-	2.5	M4	-	-	50	-	-	-	-
13.2A	195	95	160	170	71.5	12*9	-89	-	2.5	M4	-	-	50	-	-	-	-
18A	220	84.5	183	200	57.5	12*9	-89	-	2.5	M6	-	-	60	-	-	-	-
26A	220	139	157	200	77.5	12*9	6.4	-	2.5	M6	-	-	60	-	-	-	-
32A	240	142	178	220	84.5	12*9	6.4	-	2.5	M6	-	-	68	3	6.6		
38A	240	142	178	220	95	12*9	6.4	-	2.5	M6	-	-	68	4	9		
45A	240	149	197	215	115	15*11	6.4	-	3	M6	-	-	80	4	11		
60A	240	169	197	215	129	15*11	6.4	-	3	M6	-	-	80	12.5	4		
75A	240	178	198	215	126	15*11	-	-	3	M6	170	37	80	20	10	3	9
90A	265	177	218	240	138	15*11	-	-	3	M8	185	42	88	20	10	3	9
110A	290	183	234	260	134	15*11	-	-	3	M8	201	43	96	20	10	3	9
145A	420	223	338	370	134	24*11	-	-	5	M8	263	79	140	25	12.5	4	11
180A	420	226	338	370	134	24*11	-	-	5	M8	263	79	140	25	12.5	4	11
200A	420	239	338	370	134	24*11	-	-	5	M8	263	79	140	25	12.5	4	11
250A	420	263	403	370	134	24*11	-	-	5	M8	321	87	140	40	20	4	13.5