

Motor reactor MDB



General Data

Rated voltage 3 x 400 Vac
Rated current 6.3 - 176 A
For motor rated output 2.2 - 90 kW
For switching frequencies of 2 to 6 kHz
Rated frequency from 0 to 120 Hz
Insulation class F
Maximum ambient temperature 40 °C
Degree of protection IP 00

Advantages

High damping of edge steepness
High damping of inverter switching frequency
Reduction of leakage current
Long shielded cable lengths possible
High efficiency
Very good corrosion protection and low noise thanks to vacuum impregnation

Standards

Output reactor for frequency inverter
DIN EN 61558-2-20, IEC 61558-2-20

Approvals



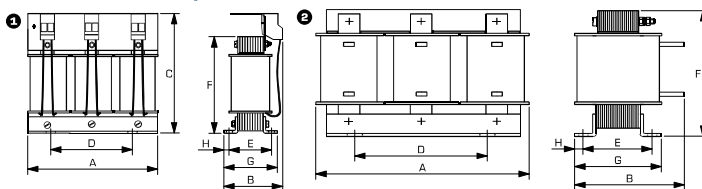


Motor reactor MDB



Type		MDB 400/6,3	MDB 400/9,4	MDB 400/13	MDB 400/16	MDB 400/24	MDB 400/30
Electrical data	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
	Voltage range	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac
	Rated current	6.30 A	9.40 A	13.00 A	16.00 A	24.00 A	30.00 A
	for motor rated output approx.	2.20 kW	4.00 kW	5.50 kW	7.50 kW	11.00 kW	15.00 kW
	Inductance	2.000 mH	0.900 mH	0.900 mH	0.900 mH	0.450 mH	0.450 mH
	Rated frequency	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz
	Switching frequency	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz
Environment							
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	
Safety and protection							
Type	Open type	Open type	Open type	Open type	Open type	Open type	Open type
Insulation class	F	F	F	F	F	F	F
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I	I	I
Test voltage	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz
Order numbers							
Order Number	MDB 400/6,3	MDB 400/9,4	MDB 400/13	MDB 400/16	MDB 400/24	MDB 400/30	
Mechanical data	Terminal and mounting						
	Terminals phase	Screw clamp, 2,5 mm²	Screw clamp, 2,5 mm²	Screw clamp, 4 mm²	Screw clamp, 10 mm²	Screw clamp, 10 mm²	Flat copper
	Terminals PE	Bolt, M4	Bolt, M4	Bolt, M4	Bolt, M4	Bolt, M4	Bolt, M6
	Fixing method	Fixing rail	Fixing rail	Fixing rail	Fixing rail	Fixing rail	Fixing rail
	Fixing screws	M5	M5	M5	M6	M6	M6
	Measures and weights						
	Weight	4.50 kg	4.50 kg	5.50 kg	10.00 kg	10.00 kg	11.20 kg
	Dimension picture (in mm)	1	1	1	1	1	2
	A	155	155	155	190	190	210
	B	70	70	85	115	115	130
C	160	160	160	193	193	-	
D	130	130	130	170	170	175	
E	55	55	70	75	75	95	
F	128	128	128	155	155	182	
G	75	75	90	100	100	115	
H	10	10	10	12,5	12,5	10	

Dimension pictures



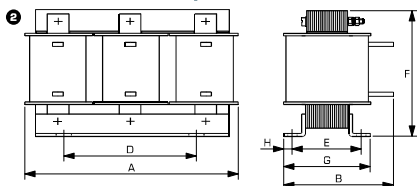


Motor reactor MDB



Type		MDB 400/39	MDB 400/46	MDB 400/61	MDB 400/72	MDB 400/91	MDB 400/110
Electrical data	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
	Voltage range	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac	0 - 3 x 500 Vac
	Rated current	39.00 A	46.00 A	61.00 A	72.00 A	91.00 A	110.00 A
	for motor rated output approx.	18.50 kW	22.00 kW	30.00 kW	37.00 kW	45.00 kW	55.00 kW
	Inductance	0.300 mH	0.150 mH	0.100 mH	0.050 mH	0.050 mH	0.050 mH
	Rated frequency	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz	0 - 120 Hz
	Switching frequency	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz	2 - 6 kHz
	Environment						
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection	Safety and protection						
	Type	Open type	Open type	Open type	Open type	Open type	Open type
	Insulation class	F	F	F	F	F	F
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
	Safety class (prepared)	I	I	I	I	I	I
	Test voltage	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz	2500 Vac, 50 Hz
Order numbers							
Order Number		MDB 400/39	MDB 400/46	MDB 400/61	MDB 400/72	MDB 400/91	MDB 400/110
Mechanical data	Terminal and mounting						
	Terminals phase	Flat copper	Flat copper	Flat copper	Flat copper	Flat copper	Flat copper
	Terminals PE	Bolt, M6	Bolt, M6	Bolt, M6	Bolt, M6	Bolt, M6	Bolt, M8
	Fixing method	Fixing rail	Fixing rail	Fixing rail	Fixing rail	Fixing rail	Fixing rail
	Fixing screws	M6	M6	M6	M6	M6	M8
	Measures and weights						
	Weight	11.30 kg	10.30 kg	10.30 kg	10.30 kg	10.30 kg	20.00 kg
	Dimension picture (in mm)	2	2	2	2	2	2
	A	210	210	210	210	210	240
	B	130	120	120	120	120	131
	C	-	-	-	-	-	-
	D	175	175	175	175	175	190
	E	95	85	85	85	85	95
	F	182	182	182	182	182	205
	G	115	105	105	105	105	121
	H	10	10	10	10	10	13

Dimension pictures



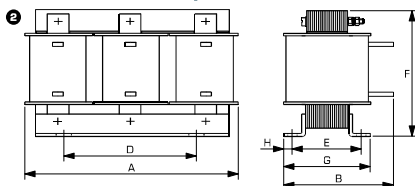


Motor reactor MDB



Type	MDB 400/150	MDB 400/176				
Electrical data						
Operating data						
Rated voltage	3 x 400 Vac	3 x 400 Vac				
Voltage range	0 - 3 x 500 Vac	0 - 3 x 500 Vac				
Rated current	150.00 A	176.00 A				
for motor rated output approx.	75.00 kW	90.00 kW				
Inductance	0.050 mH	0.050 mH				
Rated frequency	0 - 120 Hz	0 - 120 Hz				
Switching frequency	2 - 6 kHz	2 - 6 kHz				
Environment						
Ambient temperature max.	40 °C	40 °C				
Safety and protection						
Type	Open type	Open type				
Insulation class	F	F				
Protection index	IP 00	IP 00				
Safety class (prepared)	I	I				
Test voltage	2500 Vac, 50 Hz	2500 Vac, 50 Hz				
Order numbers						
Order Number	MDB 400/150	MDB 400/176				
Mechanical data						
Terminal and mounting						
Terminals phase	Flat copper	Flat copper				
Terminals PE	Bolt, M8	Bolt, M8				
Fixing method	Fixing rail	Fixing rail				
Fixing screws	M8	M8				
Measures and weights						
Weight	24.30 kg	27.50 kg				
Dimension picture (in mm)						
A	240	240				
B	141	165				
C	-	-				
D	190	190				
E	105	129				
F	205	205				
G	131	155				
H	13	13				

Dimension pictures



Motor reactor MR3 400



General Data

Rated voltage 3 x 400 Vac
Rated current 2,5 - 61,0 A
For motor rated output 0,75 - 30 kW
For switching frequencies of 3 to 8 kHz
Rated frequency from 0 to 50 Hz
Inductance 2,55 - 0,10 mH
Insulation class B
Maximum ambient temperature 40 °C

Advantages

High damping of edge steepness
High damping of inverter switching frequency
Reduction of leakage current at low construction volumes
Long shielded cable lengths possible
High efficiency
Very good corrosion protection and low noise thanks to vacuum impregnation

Applications

Motor reactor for the limitation of the voltage peaks damaging to the motor insulation (dv/dt).

Standards



Output reactor for frequency inverter
DIN EN 61558-2-20, IEC 61558-2-20

Approvals





Motor reactor MR3 400



Electrical data	Type	MR3 400/2,5	MR3 400/4	MR3 400/6	MR3 400/8	MR3 400/10	MR3 400/13
	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
	Voltage range	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac
	Rated current	2.5 A	4 A	6 A	8 A	10 A	13 A
	for motor rated output approx.	0.75 kW	1.10 kW	2.20 kW	3.00 kW	4.00 kW	5.50 kW
	Inductance	2.550 mH	1.590 mH	1.060 mH	0.800 mH	0.640 mH	0.490 mH
	Rated frequency	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz
	Switching frequency	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz
	Approvals	cURus	cURus	cURus	cURus	cURus	cURus
	Environment						
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
	Safety and protection						
	Type	Open type	Open type	Open type	Open type	Open type	Open type
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
	Safety class (prepared)	I	I	I	I	I	I
	Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz
	Insulation class	VDE=B, UL=class 130	VDE=B, UL=class 130	VDE=B, UL=class 130	VDE=B, UL=class 130	VDE=F, UL=class 130	VDE=F, UL=class 130
	Order numbers						
	Order Number	MR3 400/2,5	MR3 400/4	MR3 400/6	MR3 400/8	MR3 400/10	MR3 400/13

Electrical data	Type	MR3 400/18	MR3 400/24	MR3 400/30	MR3 400/37	MR3 400/42	MR3 400/48
	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
	Voltage range	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac	3 x 0 - 500 Vac
	Rated current	18 A	24 A	30 A	37 A	42 A	48 A
	for motor rated output approx.	7.50 kW	11.00 kW	15.00 kW	18.50 kW	22.00 kW	22.00 kW
	Inductance	0.350 mH	0.270 mH	0.210 mH	0.170 mH	0.150 mH	0.130 mH
	Rated frequency	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz	0 - 50 Hz
	Switching frequency	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz	3 - 8 kHz
	Approvals	cURus	cURus	cURus	cURus	cURus	cURus
	Environment						
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
	Safety and protection						
	Type	Open type	Open type	Open type	Open type	Open type	Open type
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
	Safety class (prepared)	I	I	I	I	I	I
	Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz
	Insulation class	VDE=F, UL=class 130	VDE=F, UL=class 130	VDE=F, UL=class 130	VDE=F, UL=class 130	VDE=F, UL=class 130	VDE=F, UL=class 130
	Order numbers						
	Order Number	MR3 400/18	MR3 400/24	MR3 400/30	MR3 400/37	MR3 400/42	MR3 400/48



Motor reactor MR3 400



Electrical data	Typ	MR3 400/61					
	Operating data						
Rated voltage	3 x 400 Vac						
Voltage range	3 x 0 - 500 Vac						
Rated current	61 A						
for motor rated output approx.	30.00 kW						
Inductance	0.100 mH						
Rated frequency	0 - 50 Hz						
Switching frequency	3 - 8 kHz						
Approvals							
Approvals	cURus						
Environment							
Ambient temperature max.	40 °C						
Safety and protection							
Type	Open type						
Protection index	IP 00						
Safety class (prepared)	I						
Test voltage	4000 Vac, 50 Hz						
Insulation class	VDE=F, UL=class 130						
Order numbers							
Order Number	MR3 400/61						



Motor reactor MR3 400



Mechanical data	Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)												
								A	B	C	D	d1	d2	E	e1	e2	F		
	MR3 400/2,5	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M4	0,8 kg	1	78	63	100	50	65	-	42	47	-	-		
	MR3 400/4	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M4	0,9 kg	1	77	63	100	50	65	-	42	47	-	-		
	MR3 400/6	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M4	1,1 kg	1	95	60	117	56	71	-	38	45	-	-		
	MR3 400/8	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M4	1,2 kg	1	95	60	117	56	71	-	38	45	-	-		
	MR3 400/10	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M4	1,8 kg	2	120	85	140	90	105	-	35	68	-	-		
	MR3 400/13	Screw clamp, 4 mm ²	Bolt, M5	Fixing rail	M4	1,9 kg	2	240	170	276,8	90	105	-	39	63,5	-	-		
	MR3 400/18	Screw clamp, 4 mm ²	Bolt, M5	Fixing rail	M4	2,1 kg	2	240	190	274,6	49	73,5	-	45	78	-	-		
	MR3 400/24	Screw clamp, 4 mm ²	Bolt, M5	Fixing rail	M4	2,2 kg	2	120	95	142	90	105	-	49	73,5	-	-		
	MR3 400/30	Screw clamp, 4 mm ²	Bolt, M5	Fixing rail	M5	3,5 kg	3	155	95	170	113	135	-	50	72,4	-	-		
	MR3 400/37	Screw clamp, 4 mm ²	Bolt, M5	Fixing rail	M5	3,6 kg	3	310	190	335,4	113	135	-	50	72,4	-	-		
	MR3 400/42	Screw clamp, 10 mm ²	Bolt, M5	Fixing rail	M5	6,5 kg	3	155	110	170	113	135	-	65	87,4	-	-		
	MR3 400/48	Screw clamp, 16 mm ²	Bolt, M5	Fixing rail	M5	6,5 kg	4	185	100	211	136	170	-	70	57,5	-	-		
	MR3 400/61	Screw clamp, 16 mm ²	Bolt, M6	Fixing rail	M6	7,8 kg	4	185	112	210	136	170	-	80	67	-	-		

Dimension pictures

