

HIGH VOLTAGE/HIGH POWER AIR/COMPOSITE CORE REACTORS

MHVXL –Series

MACR reactor are air cooled type with ultraviolet-proof insulation coatings core construction with have many advantages, such as low loss, high strength, low noise, being easy to mount and simple for maintenance. Their life expectancy is more than 30 years. In addition to the normal fixed inductance type of coil, we also manufactures Adjustable Reactor including multi-tapped adjustable ones and continuous adjustable ones. Generally, the variation in inductance of coil is 5% or extended. These are available for variety of applications like Shunt Reactor, Thyristor Controlled Shunt Reactor (TCR), Series Reactor, Series Reactor used in electric railway, Current-limiting Reactor, Filter Reactor, Smoothing Reactor, Test Lab Reactor, Damping Reactor, Splitting Reactor, Neutral-Grounding Current-limiting Reactor, Starting Reactor, Load-sharing Reactor, Lighting Coils, etc

Shunt Reactors & Thyristor controlled Reactors

Shunt reactors are parallel connected with the transformer tertiary winding in 220kV or 500kV Substation. They are used to compensate for the capacitive VAR reactance of the underground cable in transmission line of long distance and low load whereas Thyristor Controlled Shunt Reactors (TCR) are used in static VAR compensating device and can dynamically change the VAR compensating power and keep the voltage stability.

Series Reactors and damping reactor

Series reactors are series connected with VAR compensating shunt capacitor bank. They are used to restrain harmonic voltages, reduce distortion of system voltage and limit inrush current when capacitor circuit is putted into network for operation whereas damping reactor are associated with capacitors bank. They are specially used to limit surge currents when capacitor circuit are switched into A.C.circuit network for operation

Filter Reactors & filter reactor

Filter reactors are series connected with filter capacitor bank to form resonant circuit, which can filter specified harmonic currents whereas smoothing reactor are used to reduce the amplitude of harmonic current or voltage in D.C.system and restrain the speed o and peak value of short circuit current. They are used in HVDC transmission system and also series connected large rectification feed D.C. motor in steel and non-ferrous mettallurgical plant.

Current-Limiting Reactors/ Splitting reactor & Load sharing reactor

Current-limiting reactors are series connected with power system (bus, line and load) they can reduce the short circuit current to allowable level for other equipment whereas these reactors are used to limit transient surge of current and are composed of two or multiple coil and are used in separating feed power systems which are isolated under any condition. Load sharing reactors are used for balancing current in parrellal circuits.

Neutral grounding current limiting reactor & Motor starting reactor

It is single coil reactor connected between neutral of H.V.shunt reactor or transformer and ground to limit the ground to line fault current level whereas motor starting reactor are meant for limiting starting inrush current.

Lightning reactor & Test lab reactor

Lightening reactors are used to arrest the effect of lightening for low capacity power station and generators stations. These are connected in series with power line at entrance of power station to reduce the lightening impulse voltage and its surge current whereas test lab reactor are installed in high voltage test lab and are kinds of reactor which are designed to satisfy the variable need of high voltage electric system.

MOTORON SEMICONDUCTORS CORPORATION

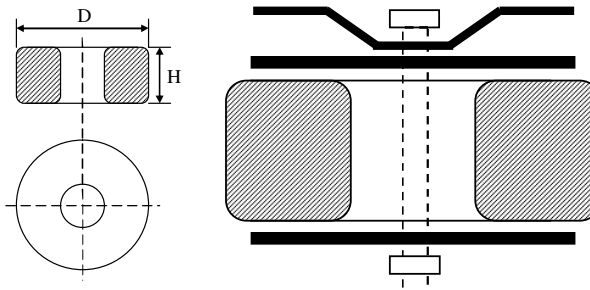
11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23655454/23648181
motorons@hotmail.com

HIGH VOLTAGE/HIGH POWER AIR/COMPOSITE CORE REACTORS

MHVXL –Series

Advantage:

- Energy efficient due to low no-load current.
- Reduce dv/dt and di/dt
- Better voltage regulation due to low inductance/resistance.
- Minimize flicker / voltage fluctuation/power oscillation
- Compact size/ unbalanced loads/ Low inrush current.
- High kilo Voltage fluctuation/ Low stress on switch gear
- Enhance capacity of distribution/transmission/transformer/motor
- Reduce stress on switchgear/semiconductor devices



General operating condition:

1. Altitude is no more than 2000 meters;
2. Ambient temperature:-5°C+40°C;
3. Relative humidity:≤50% at 40°C;≤90% at 20°C;
4. No corrosive gas;conductive dust,inflammable and explosive medium surrounded.
5. No violent vibration at the mounting position.

Electrical & Mechanical Specification(Current limiting reactor-Low/High frequent) Reactive Power < 1000,000 VAR

Model	Capacity (ampere) / %I _{imp}	Kilo volts	Peak-current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MCLR-103	200/3	06	12.8	1.654	109	970	602/521	75	OPTION
MCLR-153	200/4	06	12.8	2.205	126	1020	662/521	75	OPTION
MCLR-203	200/5	06	12.8	2.756	141	1020	722/521	75	OPTION
MCLR-253	200/6	06	12.8	3.308	156	1070	762/521	75	OPTION
MCLR-303	200/8	06	12.8	4.411	182	1070	872/521	75	OPTION
MCLR-403	200/10	06	12.8	5.513	207	1070	912/521	75	OPTION
MCLR-503	400/3	06	25.5	0.827	135	990	542/597	75	OPTION
MCLR-753	400/4	06	25.5	1.103	155	1040	582/521	75	OPTION
MCLR-993	400/5	06	25.5	1.378	174	1040	632/521	75	OPTION
MCLR-503	400/6	06	25.5	1.654	192	1090	662/521	75	OPTION
MCLR-753	400/8	06	25.5	2.205	225	1140	732/597	75	OPTION
MCLR-993	400/10	06	25.5	2.757	254	1440	812/597	75	OPTION
MCLR-503	600/4	10	38.3	1.225	231	1160	602/597	75	OPTION
MCLR-753	600/5	10	38.3	1.531	274	1160	632/597	75	OPTION
MCLR-993	600/6	10	38.3	1.838	300	1170	672/597	75	OPTION
MCLR-503	600/8	10	38.3	2.450	349	1220	732/597	75	OPTION
MCLR-753	600/10	10	38.3	3.063	414	1270	812/597	75	OPTION

Company may modify so33me of the specification(electrical/mechanical) in light of operation aspect of site.



TUNING REACTOR



three phase current limiting reactor

MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23655454/23648181

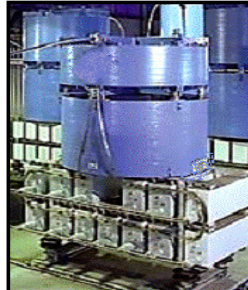
motoron@hotmail.com

HIGH VOLTAGE/HIGH POWER AIR/COMPOSITE CORE REACTORS

MHVXL-Series



Plinth mounted H.V. Harmonic reactor



high voltage passive harmonic filter



Pole mounted harmonic filter

Electrical & Mechanical Specification(Current limiting reactor-Low/High frequent) Reactive Power < 1000,000 VAR

Model	Capacity Ampere/ %Zimp	Kilo Volts A.C.	Peak- Current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MCLR-153	800/4	10	51	0.919	275	1180	582/597	75	OPTION
MCLR-203	800/5	10	51	1.149	322	1230	622/597	75	OPTION
MCLR-253	800/6	10	51	1.378	356	1240	632/597	75	OPTION
MCLR-303	800/8	10	51	1.838	427	1290	692/597	75	OPTION
MCLR-403	800/10	10	51	2.297	497	1290	772/597	75	OPTION
MCLR-503	1500/4	10	95.5	0.490	447	1430	724/671	75	OPTION
MCLR-753	1500/5	10	95.5	0.613	511	1430	784/671	75	OPTION
MCLR-993	1500/6	10	95.5	0.738	570	1480	824/821	75	OPTION
MCLR-503	1500/7	10	95.5	0.980	649	1530	914/821	75	OPTION
MCLR-753	1500/10	10	95.5	1.225	760	1680	934/821	75	OPTION
MCLR-503	2000/4	10	102	0.368	561	806	821	75	OPTION
MCLR-753	2000/5	10	102	0.459	625	866	821	75	OPTION
MCLR-993	2000/6	10	102	0.551	680	896	821	75	OPTION
MCLR-503	2000/8	10	102	0.735	705	976	821	75	OPTION
MCLR-753	2000/10	10	102	0.919	925	946	897	75	OPTION

Company may modify some of the specification(electrical/mechanical) in light of operation aspect of site.

Electrical & Mechanical Specification(splitting reactor) Reactive Power < 1000,000 VAR

Model	Capacity Ampere/ %Zimp	Kilo Volts A.C.	Peak- Current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MSR-153	2X1500	10	2X95.6	2X0.980	1445	1180	582/597	75	OPTION
MSR-203	2X2000	10	2X102	2X0.368	1258	1230	622/597	75	OPTION
MSR-253	2X2000	10	1X102	2X0.735	1752	1240	632/597	75	OPTION
MSR-303	2X2500	10	2X128	2X0.294	1344	1290	692/597	75	OPTION
MSR-403	2X2500	10	2X128	2X0.588	2041	1290	772/597	75	OPTION
MSR-503	2X3000	10	2X128	2X0.245	1492	1430	724/671	75	OPTION
MSR-753	2X3000	10	2X128	2X0.490	2254	1430	784/671	75	OPTION
MSR-993	2X3000	10	2X128	2X0.613	2522	1480	824/821	75	OPTION

Company may modify some of the specification(electrical/mechanical) in light of operation aspect of site.

MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23655454/23648181

motoron@hotmail.com

HIGH VOLTAGE/HIGH POWER AIR/COMPOSITE CORE REACTORS

MHVXL –Series

Electrical & Mechanical Specification(Lightening reactor)

Model	Kilo Volts A.C.	K.A.	Peak-Current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MSR-153	150	100	-	0.919	-	OPTION	OPTION	75	N.A.
MSR-203	150	100	-	1.149	-	OPTION	OPTION	75	N.A.
MSR-253	150	100	-	1.378	-	OPTION	OPTION	75	N.A.
MSR-303	300 & 400	100	-	1.838	-	OPTION	OPTION	75	N.A.
MSR-403	300 & 400	100	-	2.297	-	OPTION	OPTION	75	N.A.
MSR-503	150	200	-	0.490	-	OPTION	OPTION	75	N.A.
MSR-753	150	200	-	0.613	-	OPTION	OPTION	75	N.A.
MSR-993	150	200	-	0.738	-	OPTION	OPTION	75	N.A.
MSR-503	300	200	-	0.980	-	OPTION	OPTION	75	N.A.
MSR-753	400 & 600	200	-	1.225	-	OPTION	OPTION	75	N.A.
MSR-503	600 & 800	500	-	0.368	-	OPTION	OPTION	75	N.A.
MSR-753	150 & 300	500	-	0.459	-	OPTION	OPTION	75	N.A.
MSR-993	300 & 400	500	-	0.551	-	OPTION	OPTION	75	N.A.
MSR-503	400 & 600	500	-	0.735	-	OPTION	OPTION	75	N.A.
MSR-753	800 & 1000	500	-	0.919	-	OPTION	OPTION	75	N.A.

Company may modify some of the specification(electrical/mechanical) in light of operation aspect of site.

Electrical & Mechanical Specification(Grounding reactor)

Model	Kilo Volts A.C.	K.A.	Peak-Current DI/Dt	Real impedance	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D mm	H mm		
MSR-153	330	100	020	550	OPTION	OPTION	OPTION	75	N.A.
MSR-203	300	12	020	230	OPTION	OPTION	option	75	N.A.
MSR-253	500	30	030	900	OPTION	OPTION	OPTION	75	N.A.
MSR-303	500	100	900	5	OPTION	OPTION	OPTION	75	N.A.

Company may modify some of the specification(electrical/mechanical) in light of operation aspect of site.

Electrical & Mechanical Specification(Smoothing reactor)

Model	Kilo Volts A.C.	K.A.	Peak-Current DI/Dt	Inductance m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D mm	H mm		
MSR-153	500	1200	5.6-1	150	59870	3430	4130	75	N.A.
MSR-203	300	3125	4.4-3	75	74445	4100	4200	75	N.A.
MSR-253	500	4497	5.9-3	75	122830	4767	20922	75	N.A.

MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23655454/23648181

motoron@hotmail.com

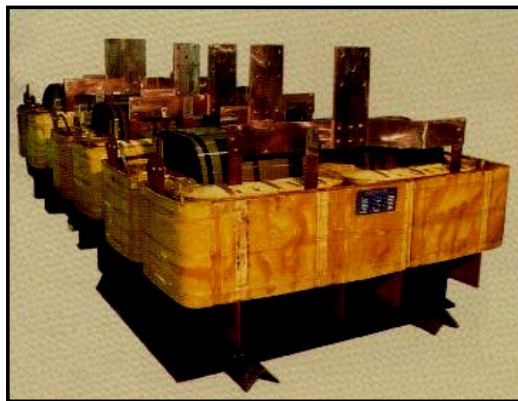
HIGH VOLTAGE/HIGH POWER AIR/COMPOSITE CORE REACTORS

MHVXL –Series

Electrical & Mechanical Specification(Adjustable Filter reactor):

Model	Kilo Volts A.C.	K.A.	Peak- Current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MAFR-153	6	500	OPTION	0.21	488	OPTION	OPTION	75	N.A.
MAFR-203	6	237	OPTION	1.88	531	OPTION	OPTION	75	N.A.
MAFR-253	6	300	OPTION	1.96	725	OPTION	OPTION	75	N.A.
MAFR-303	6	365	OPTION	1.87	623	OPTION	OPTION	75	N.A.
MAFR-403	6	400	OPTION	2.47	860	OPTION	OPTION	75	N.A.
MAFR-503	6	140	OPTION	1.87	508	OPTION	OPTION	75	N.A.
MAFR-753	6	410	OPTION	0.36	524	OPTION	OPTION	75	N.A.
MAFR-993	6	406	OPTION	0.5	599	OPTION	OPTION	75	N.A.
MAFR-503	35	104	OPTION	89.4	818	OPTION	OPTION	75	N.A.
MAFR-753	35	105	OPTION	101.0	1000	OPTION	OPTION	75	N.A.
MAFR-503	35	100	OPTION	291.1	1700	OPTION	OPTION	75	N.A.
MAFR-753	35	155	OPTION	176.7	1921	OPTION	OPTION	75	N.A.
MAFR-993	35	72	OPTION	61.9	1161	OPTION	OPTION	75	N.A.
MAFR-503	35	56	OPTION	121.3	1076	OPTION	OPTION	75	N.A.
MAFR-753	35	64	OPTION	190.9	1256	OPTION	OPTION	75	N.A.
MAFR-503	110	64	OPTION	381.2	1517	OPTION	OPTION	75	N.A.
MAFR-753	110	110	OPTION	35.3	715	OPTION	OPTION	75	N.A.
MAFR-993	110	110	OPTION	57.8	943	OPTION	OPTION	75	N.A.
MAFR-503	110	105	OPTION	98.3	1529	OPTION	OPTION	75	N.A.
MAFR-753	110	105	OPTION	212.0	1984	OPTION	OPTION	75	N.A.
MAFR-503	220	308	OPTION	14.0	1321	OPTION	OPTION	75	N.A.

Company may modify some of the specification(electrical/mechanical) in light of operation aspect of site.



MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23655454/23648181

motoron@hotmail.com

HIGH VOLTAGE/HIGH POWER AIR/COMPOSITE CORE REACTORS

MHVXL –Series

Electrical & Mechanical Specification(Series Reactor):

Model	Capacity (ampere) / %I _{imp}	Kilo volts	Peak- current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MCLR-103	252	10	12.8	1.654	109	970	602/521	75	N.A.
MCLR-153	231	10	12.8	2.205	126	1020	662/521	75	N.A.
MCLR-203	262	10	12.8	2.756	141	1020	722/521	75	N.A.
MCLR-253	241	10	12.8	3.308	156	1070	762/521	75	N.A.
MCLR-303	283	10	12.8	4.411	182	1070	872/521	75	N.A.
MCLR-403	260	10	12.8	5.513	207	1070	912/521	75	N.A.
MCLR-503	315	10	25.5	0.827	135	990	542/597	75	N.A.
MCLR-753	289	10	25.5	1.103	155	1040	582/521	75	N.A.
MCLR-993	290	10	25.5	1.378	174	1040	632/521	75	N.A.
MCLR-503	346	10	25.5	1.654	192	1090	662/521	75	N.A.
MCLR-753	316	10	25.5	2.205	225	1140	732/597	75	N.A.
MCLR-993	367	10	25.5	2.757	254	1440	812/597	75	N.A.
MCLR-503	337	10	38.3	1.225	231	1160	602/597	75	N.A.
MCLR-753	377	10	38.3	1.531	274	1160	632/597	75	N.A.
MCLR-993	347	10	38.3	1.838	300	1170	672/597	75	N.A.
MCLR-503	420	10	38.3	2.450	349	1220	732/597	75	N.A.
MCLR-753	385	10	38.3	3.063	414	1270	812/597	75	N.A.

Electrical & Mechanical Specification(Series Reactor):

Model	Capacity (ampere) / %I _{imp}	Kilo volts	Peak- current	Henry m.H	Weight Kg	Formal Size		Thermal °C	Fix-OS (mm)
						D(mm)	H (mm)		
MCLR-103	200/3	10	12.8	1.654	109	970	602/521	75	N.A.
MCLR-153	200/4	10	12.8	2.205	126	1020	662/521	75	N.A.
MCLR-203	200/5	10	12.8	2.756	141	1020	722/521	75	N.A.
MCLR-253	200/6	10	12.8	3.308	156	1070	762/521	75	N.A.
MCLR-303	200/8	10	12.8	4.411	182	1070	872/521	75	N.A.
MCLR-403	200/10	10	12.8	5.513	207	1070	912/521	75	N.A.
MCLR-503	400/3	10	25.5	0.827	135	990	542/597	75	N.A.
MCLR-753	400/4	10	25.5	1.103	155	1040	582/521	75	N.A.
MCLR-993	400/5	10	25.5	1.378	174	1040	632/521	75	N.A.
MCLR-503	400/6	10	25.5	1.654	192	1090	662/521	75	N.A.
MCLR-753	400/8	10	25.5	2.205	225	1140	732/597	75	N.A.
MCLR-993	400/10	10	25.5	2.757	254	1440	812/597	75	N.A.
MCLR-503	600/4	10	38.3	1.225	231	1160	602/597	75	N.A.

MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23655454/23648181

motoron@hotmail.com