

POWER RESISTORS

- Neutral Grounding Resistors
- Generator Neutral Grounding & Leads Cubicles
- Inverter Braking Resistors
- Motor Starting & Control Resistors
- Cubicle Heaters
- Harmonic Filter Resistors
- Current Limiting Resistors
- RC Filters

REACTORS

- Current Limiting Reactors
- Neutral Grounding Reactors
- Shunt Reactors
- Harmonic Filtering Reactors
- Motor Starting Reactors
- Electric Arc Furnace Reactors
- Smoothing Reactors
- Line and Load Reactors
- Test Laboratory Reactors

TESTING SYSTEMS

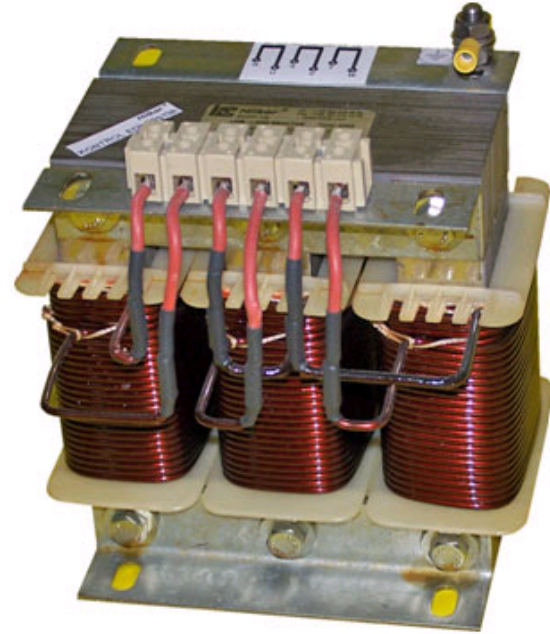
- Turn-key Short Circuit Laboratories
- High Current Injection Test Sets
- R - L - C Load Banks

LINE/LOAD REACTORS

Line/load reactors are generally serial-connected to the input terminal of three phase systems such as motor speed controllers which operate under IGBT method.

These reactors are designed in order to provide 4% voltage drop. Different voltage drop values are provided on demand.

Reactors reduce the harmonic current dissipated by the motor speed controllers, reduce the starting current, provide silent operation for motors, limit peak current, enable fuse selection depending on nominal motor current, decreases motor temperature, reduce over voltage (dv/dt) during switch off.



3 x 400 V 50 Hz LINE / LOAD REACTORS

$$I_{\max} = 1.2 I_n \text{ (continuous)}$$

$$\%Z = 4.16 \text{ V (phase to phase)}$$

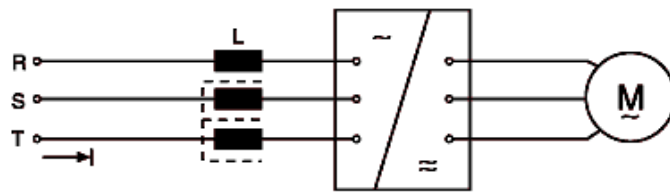
$$9.2 \text{ V (phase to neutral)}$$

$$I_{lin} = 1.6 I_n$$

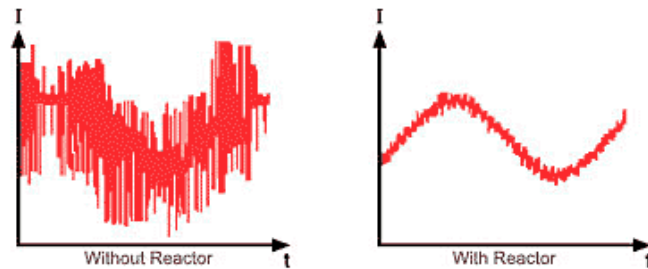
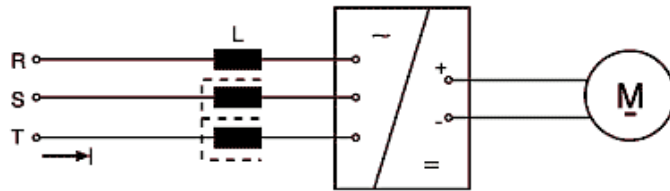
$$I_{\max} = 2I_n \text{ (60 seconds)}$$

Insulation class : F (155°C)

1 Insulation level for one minute : 3kV 50 Hz



Speed Controller



FEATURES

- Dry type
- Indoor
- Enclosures are available on demand
- Aluminum or copper winding
- - 40 °C / + 55 °C ambient temperature range
- F class (155 °C) or customer specific design
- Fiberglass resin spacers are available in order to provide ease of cooling when necessary
- AN (air-natural) cooling method

STANDARD

EN 60289 or depending on customer requirements.

INSULATION

- . F class (155 °C) film insulation or epoxy resin reinforced fiberglass.
- . Epoxy based paint & insulating varnish.

TESTS

All the routine tests are performed in accordance with EN 60289 or other standards depending on customer request. Type test reports are available on request. All the test reports are submitted to customer.

Basic testing program includes some or all of the following tests:

- Routine Tests (Inductance, Resistance, One Minute AC Insulation Voltage Withstand Test and Impulse Voltage Withstand Test)
- Short Circuit Withstand Test
- Temperature Rise Test
- Sound Level Test
- Seismic Test

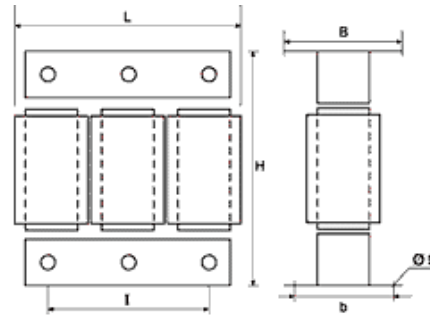
QUALITY ASSURANCE

Hilkar maintains a complete quality assurance program including ISO 9001 and other major industry standards in manufacturing plant.

TECHNICAL SUPPORT

Hilkar provides complete technical assistance to contractors and end customers for applications, design, calculations and field installation. All Hilkar reactors are custom designed for different applications by considering the voltage, current, inductance, size, loss characteristics that are required to provide the most efficient design at the most economical prices.

DIMENSIONS OF LINE REACTORS



Type	I_n (A)	I_{max} 'da L (mH)	Motor (kW)	Loss (W)	Weight (kg)	(mm)					
						L	I	B	H	b	
MR5	K6	10	2.93	4	31	10.5	180	120	95	160	85
MR5	P6	16	1.83	7.5	43	10.8	180	120	95	160	85
MR10	P8	20	1.47	10	45	11	180	120	95	160	85
MR10	P8	25	1.17	11	52	11.2	180	120	95	160	85
MR10	P8	35	0.84	15	54	11.5	180	120	95	160	85
MR15	P8	40	0.73	18.5	60	19	240	160	160	210	112
MR15	P10	50	0.59	22	65	19.2	240	160	160	210	112
MR20	P10	63	0.47	30	75	20	240	160	160	210	112
MR25	P10	80	0.37	37	86	20.5	240	160	160	210	112
MR30	P10	100	0.29	45	86	21	240	160	160	210	112
MR40	P10	125	0.23	55	180	30.5	300	200	170	260	120
MR50	P10	160	0.18	75	180	33	300	200	170	260	120
MR60	P10	200	0.15	90	170	43	300	200	195	260	120

Connection terminals:

K6 = 6 mm² terminal

P8 = Metric 8 ring type terminal

P10 = Metric 10 ring type terminal

Hilkar reserves the right to make any changes in dimensions without prior notice.

