



Smart solutions.
Strong relationships.

Large Re-rolling mill duty induction motors

Over the years CGL has developed a highly standardized range of motors dedicated specifically to re-rolling mill industry.

Re-rolling mill duty motors are used to drive re-rolling mill for rolling hot steel billets into rods, flat bars, rails, channels, angles sheet etc under arduous condition of widely fluctuating loads and sudden overloads which last few seconds. CGL re-rolling mill duty induction motors are compact, robust, simple construction requiring least attention and offering greater reliability

Constructional Features

Stator

The stator coils are made from class 'F' varnish, bonded, double glass covered rectangular copper strips.

For HT motors, thermosetting type mica-based insulation system is used. The stator windings are designed and manufactured with specially incorporated strapping methods to ensure high degree of mechanical rigidity making them suitable against vibrations and electromechanical forces during starting and overloading conditions encountered in re-rolling mill applications.

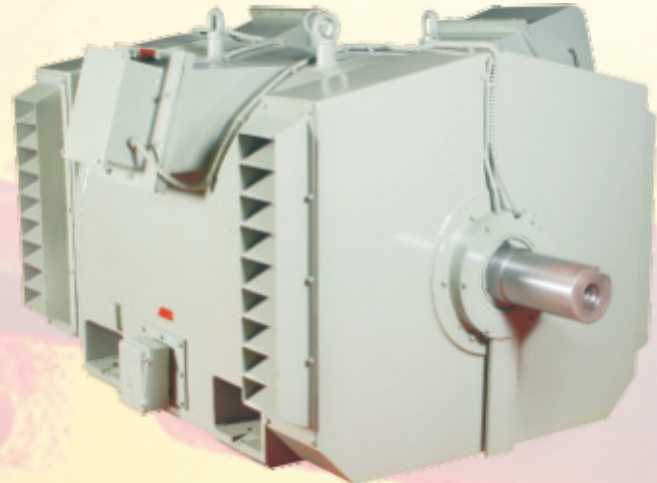
Rotor

The rotor winding is made up of class 'F' insulated, heavy duty, rectangular copper strips. Connections between bars as well as the phase interconnections are tig brazed ensuring high thermal and mechanical strength.

Banding of rotor overhang is done by means of high tensile resin loaded glass tapes which prevent flaring of the overhangs due to centrifugal forces, vibrations, surge loads, etc.

Shaft

Heavy duty shafts are manufactured from carbon steel forgings as per IS 2004 and are 100 percent ultrasonically tested to detect any flaws / defects, thus ensuring long life. Spider shaft construction with large effective diameters, ensures very low rotor deflections, and thus, low vibrations and smooth operation.



Drip Proof (IP23) KMR500L, 1250HP Re-rolling Mill Duty Motor

Specifications of RRM Range of Asynchronous Motors.

HP	FRAME	ROTOR VOLTS	ROTOR AMPS	FULL LOAD SPEED	FULL LOAD CURRENT	PULL OUT TORQUE
350	KMR 450 S	455	340	488	738	275
400	KMR 450 S	520	340	558	739	275
500	KMR 450 S	610	365	694	739	275
600	KMR 450 S	665	400	805	737	275
800	KMR 500 M	680	530	1052	735	275
1000	KMR 500 MX	820	540	1350	737	275
1250	KMR 500 L	1050	530	1625	737	275
1500	KMR 560 L	1070	625	1918	739	275
2000	KMR 560 LX	1500	590	2549	741	275

Bearings

Heavy duty grease-lubricated, anti-friction bearings are liberally selected for long life under the worst operating conditions. On-line greasing arrangement is provided as a standard feature.

Sliprings

Over-sized sliprings with large creepage distances are mounted external to the main enclosure on the non-drive end, for ease of maintenance. Inspection windows are also provided for monitoring the condition of the slipring and brushes.

Balancing

Rotors are dynamically balanced to Grade 2.5 as per ISO 1940, thus ensuring low vibration levels.

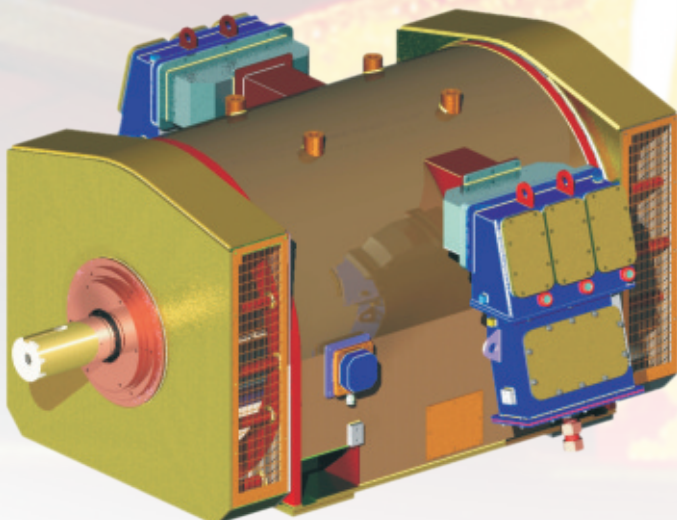
Accessories

Space heaters of adequate ratings are fitted inside the motors to prevent moisture condensation on the windings during shut down of the motor.

6 Nos. PTC (Positive Temperature Coefficient) type thermistors for monitoring the stator winding temperature and 2 Nos. RTDs (Resistance Temperature Detectors) or DTTs (Dial Type Thermometer) for measuring the bearing temperatures are also available on request.

Quality Control

Stringent quality checks at all critical stages viz. in-coming, in-process, final assembly and testing, ensure high quality and reliable products.



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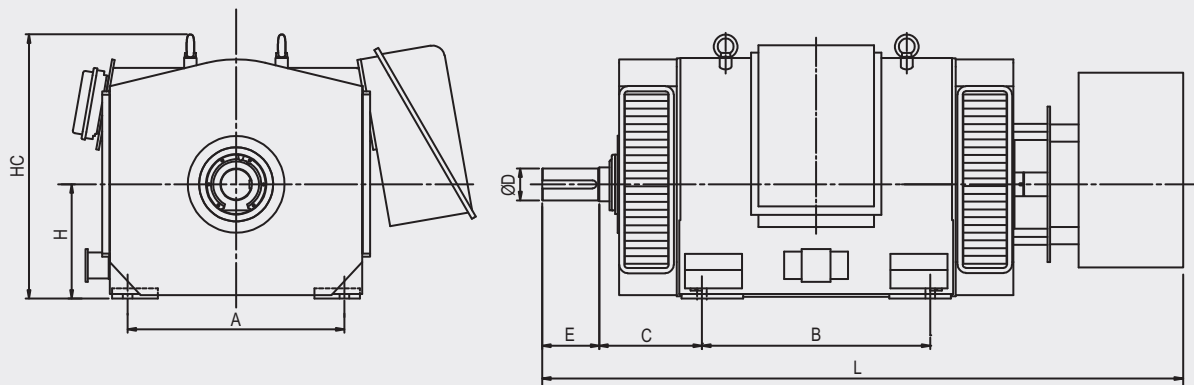
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KMR-Series

Rugged Design **Crompton Greaves large re-rolling mill duty induction motors are equipped with IP23 (IEC 60034-5, IC0A1, IEC 60034-6)**

- Suitable for 3 phase, 415 volts $\pm 10\%$ & 50Hz $\pm 5\%$
- Class F insulated stator and rotor winding (temperature index 155°C) suitable for 45°C ambient with temperature rise restricted to 75°C by resistance (class B rise)
- Suitable for 125% class IV overload for 2 Hrs. typifying re-rolling mill duty
- All performance figures are subjected to tolerances as per IS: 325/ IEC 60034-1
- All main dimension conform to IEC 60072-A
- To monitor winding temperature motors are equipped with PTC thermistor
- Motors of higher ratings and higher voltages with different frequency, are also available on request.

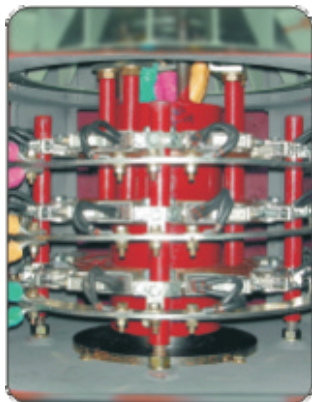
General Arrangement Drawing



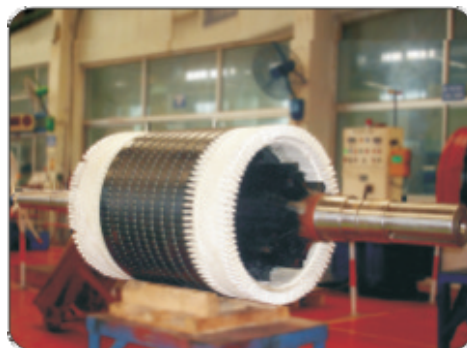
Overall Dimensions of Motor

Type	Rating HP/ kW	Poles	A	B	C	ØD	E	H	HC	L
KMR 450 S	350 / 261	8	850	750	355	125	210	450	1040	2250
KMR 450 S	400 / 298	8	850	750	355	125	210	450	1040	2250
KMR 450 S	500 / 373	8	850	750	355	125	210	450	1040	2250
KMR 450 S	600 / 448	8	850	750	355	125	210	450	1040	2250
KMR 500 MX	800 / 597	8	950	850	450	140	250	500	1175	2550
KMR 500 MX	1000 / 746	8	950	900	450	140	250	500	1175	2600
KMR 500 L	1250 / 932	8	950	1000	450	140	250	500	1175	2700
KMR 560 L	1500 / 1119	8	1000	1120	500	170	300	560	1295	2990
KMR 560 LX	2000 / 1492	8	1000	1250	500	160	300	560	1295	3200

All dimensions are in mm



Fabricated Type Slip Ring Unit



Wound Rotor



Spaciouly Designed Terminal Box

Note : Due to continuous improvements and developments, the above data is likely to be changed without prior notice.