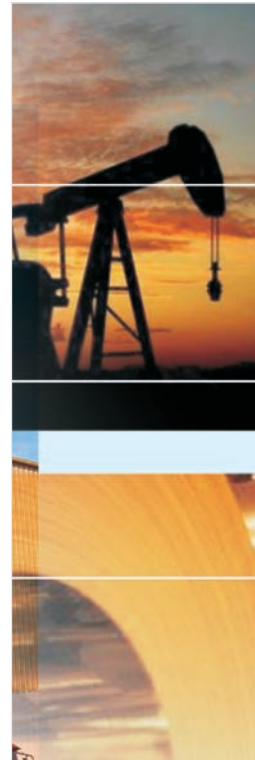




Smart solutions.
Strong relationships.

Industrial Products



Motors
upto **25 MW**

Generators
upto **70 MVA**

Drives
upto **3 MW**

*We put all our energy
into saving yours!*

LOW VOLTAGE ROTATING MACHINES

Millennium Series / Maestro Series

These motors are predominantly used for general purpose applications in MS Rolled powder coated body construction. These are available in NEMA 42, 48, 56, IEC 90 and 100S frame with foot and flange mounting arrangements. Customized mounting can be provided on request.

The highly efficient double capacitor designs in this series are suitable for any application requiring high starting torques are suitable for almost any application requiring higher starting torques such as Atta Chakki, Domestic Flour Mill, Tower Hoist, Air Compressor, Thresher.



MILLENNIUM SERIES
MAESTRO SERIES

Voltage	220 Volts or 110 Volts , 50 or 60 Hz.
Power	50 Watts to 2250 Watts
Pole	2 Pole / 4 Pole / 6 Pole
Frame	NEMA 42 & 48 (50 Watts to 370 Watts) NEMA 56 (187 Watts to 1100 Watts) IEC 100S (700 Watts to 2250 Watts)
Mounting	B3, B5, B14

Rhino Series

Cast Iron Frame Motors are most popular general purpose motors in Asia. The robust, highly reliable designs are suitable for operation for a wide range of applications such as Coupled Pump, Pulveriser, Rice Huller, Garage Compressor, Thresher, Floor Polisher. These motors can run for years without any trouble. These are offered in IEC (Metric) 80 to 132 Frame in Totally Enclosed Fan Cooled Construction.



RHINO SERIES

Voltage	220 Volts or 110 Volts , 50 or 60 Hz.
Power	750 Watts to 3700 Watts
Pole	2 Pole / 4 Pole
Frame	IEC 80 Frame to 132 Frame
Mounting	B3, B5, B14

HVAC Motors

Air handling is the major area where highly reliable and efficient motors are required. CG has got a variety of motors in different electrical starting arrangements and constructions to suit customer requirements. These are basically in rolled steel powder coated body with Permanent Split Capacitor (PSC) or 3 Phase types. Thermal protection is optional and provided against requirement. Mostly Used in Air Curtain, Chiller Unit, Condenser Unit, Exhaust Fan, Fan Coil Unit, Blowers, etc.

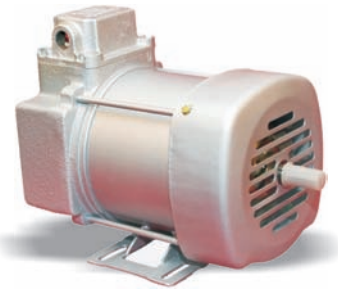


COMFORT SERIES

Voltage	220 Volts or 110 Volts , 50 or 60 Hz.
Power	35 Watts to 750 Watts
Pole	2 Pole / 4 Pole / 6 Pole
Frame	Optional - NEMA 42, 48, Custom
Mounting	Custom

Explosion Proof Motors

These motors are exclusively designed for safety against accidental Ignition or Explosions and for continuous flawless operation in explosive or inflammable atmosphere that prevails in petrol and diesel dispensing pumps, chemical factories, petrochemical industries, fertilizer and solvent extraction plants, refineries, liquor bottling plants and paints & varnish works etc. CG's Explosion proof motors are robust, highly reliable and efficient with ATEX, Bureau of Indian Standards (BIS) and (CCOE) Chief Controller of Explosives Certifications.



Agnita Series

Voltage	220 Volts or 110 Volts , 50 or 60 Hz.
Power	370 Watts to 750 Watts
Pole	4 Pole
Frame	Custom Frame
Mounting	B3

Other polarity/mounting on request.

eLiTe Series

IEC metric Frame single phase motors in aluminium diecast body construction. These motors cater to the needs of the global customer for light weight and efficient motors with improved ventilation, and are available in IP44 & IP55 enclosures. These motors are suited for applications such as Exhaust Fans, Air Curtains, Bench Drilling M/c, Hydraulic Pumps, Paint Mixing M/c, Dryers.



eLiTe SERIES

Voltage	220 Volts or 110 Volts , 50 or 60 Hz.
Power	187 Watts to 1500 Watts
Pole	2 Pole / 4 Pole
Frame	IEC 63 Frame to 132 Frame
Mounting	B3, B5, B14

Sheetal Series

Optimized design of CI body motors for robust, rigid, light & compact construction with better electrical performance. Sheetal Series will cater to the needs of rural, sub-urban customers for CI Body motors and is available in 0.5HP - 3HP in IEC 80-112 Frames. This series has an elegant design with flexible terminal box mounting & is thermally protected.



Sheetal SERIES

Voltage	220 Volts or 110 Volts , 50 or 60 Hz.
Power	370 Watts to 2250 Watts
Pole	2 Pole / 4 Pole
Frame	IEC 80 Frame to 112 Frame
Mounting	B3

LOW VOLTAGE ROTATING MACHINES

APEX Series

Energy Efficient Series Motors

Maintaining the completeness of the world's environment is the responsibility of everyone. With our company's history tracing back to 1937, we have taken this responsibility seriously and have developed the green products, an integrated system of products with the environment and user-safety in mind.

Apex IE2 series is yet another green initiative to save the energy and hence environment.



Apex Series
a green solution...

Range	Aluminium Frames	Cast Iron Frames
Output Range	0.75 kW to 7.50 kW	0.75 kW to 250 kW
Frame	IEC 80 to 132	IEC 80 to IEC 355
Pole	2 / 4 / 6	2 / 4 / 6
Mounting	Foot/Flange/Face	Foot/Flange
Voltage	415 V, Other on request	415 V, Other on request

As per new requirements of IS 12615:2011/IEC60034-30
IE3 motors are also available on request.

Agnita Series

Ex 'd', Ex 'e', Ex 'n' Hazardous Area Motors

CG offers wide range of flame proof protection Ex 'd', increased safety Ex 'e' and non sparking Ex 'n' motors suitable for hazardous area. These motors are designed to suit the ignitable atmospheres present in hazardous locations such as Zone1 and 2 or Class1 Div 1 and 2. These motors are suitable for various temperature classes & gas groups. These motors are licensed by BASEEFA for ATEX, CSA for IEC, Ex Div 2 and DGMS/CCOE.



Agnita Series

Cast Iron frames	
Output Range	0.37 kW to 325 kW
Frame	IEC 80 to 355
Pole	2 / 4 / 6 / 8
Mounting	Foot / Flange
Voltage	415 V, Other on request
Gas Group	I, IIA, IIB. (IIC on request)
Temp. Class	T4
Approved by ATEX / PESO / DGMS / BIS.	

Epact/ Premium Range Motors (NEMA / CSA / UL)

Motors with global energy efficient standard

CG offer NEMA Epact / Premium Motors as per NEMA MG 1, CSA C 22.2 No. 100 and UL 1004. These motors are most energy efficient and meet Epact/ Premium efficiency standards. These motors are also listed in DOE and ESA.



Aluminium Frames	
Output Range	0.5 HP to 20 HP
Frame	56 to 256T
Cast Iron frames	
Output Range	0.5 HP to 200 HP
Frame	56 to 447 T
Pole	2 / 4 / 6 / 8
Mounting	Foot / Flange / Face
Voltage	208- 230 / 460 V or 575 V 60 Hz

NEMA premium motors are available up to 10 HP.

NDW Series

Slipring Motors

CG has low voltage slip ring electric motors ranging from 3.7 kW to 360 kW in both TEFC (IP55) & Drip Proof (IP23) construction. These motors are designed with new Slip Ring and brush gear arrangement for trouble free operations and long lasting brush life. Slip Ring are moulded in epoxy-based insulation and excellent stability in operation at high temperature. These motors are also comply with IPSS standards to meet the requirements of Steel Plants.



Slip Ring Motors

Output Range	0.37 kW to 360 kW
Frame	IEC 112 to 400
Pole	4 / 6 / 8 Other on request
Mounting	Foot / Flange
Voltage	415 V, Other on request

Also available in SPDP Construction

ND Series

Power Behind The Drive

IEC metric frame three phase motors in cast iron construction. These motors cater to the needs of the global industrial customer. These motors are used in almost every industrial application including general manufacturing, petrochemicals, food processing, pharmaceuticals where they drive fans, pumps, compressors, conveyors, lifts and cranes amongst other things.



Output Range	0.37 kW to 500 kW
Frame	IEC 80 to 450
Pole	2 / 4 / 6 / 8 / 10 Other on request
Mounting	Foot / Flange
Voltage	415 V, Other on request
Construction	Squirrel cage

Prabal Series

Crane Duty Motors

Prabal Series squirrel cage/slip ring crane duty motors are specially designed for service on cranes and hoists. They can also be used for similar application such as material handling equipments, and cranes of all type. These motors can serve as auxiliary motors in rolling mills or where ever intermittent duty drives are required.

These are duty type rated motors developing high starting torque with low starting current. The motors are suitable for frequent start/stop and reversals. Also rapid acceleration is achieved by high pull out torque/rotor inertia ratio.



PRABAL Series
Strong & Sturdy...

Squirrel Cage	Slip Ring
Output Range	0.37 kW to 375 kW
Frame	IEC 80 to 355
Pole	4 / 6 / 8 Other on request
Mounting	Foot / Flange
Voltage	415 V, Other on request

External brake arrangement is also available on request.

LARGE ROTATING MACHINES

Squirrel Cage & Slip Ring Induction Motors in **CACA** enclosure (IC6A1A1 & IC6A1A6)

CG covers the most popular enclosure i.e. Closed Air Circuit Air method of cooling (IC6A1A1 & IC6A1A6) as per IEC 60034 for Slip ring and Squirrel motors. Squirrel cage motors are also suitable for VFD operation. These motors are widely used in all Industries for various applications like pump, fan, blower, crusher, conveyor, pulper, feeder mills, kiln etc. Application.



IC6A1A6 Cooling Type, Oil Lubricated 630 Frame

Range	Squirrel Cage	Slip Ring
Voltage	upto 15 kV	upto 15 kV
Power	upto 25000 kW	upto 25000 kW
Pole	2 Pole to 24 Pole	4 Pole to 12 Pole
Frame	355 - 1120	355 - 1000
Series	TP, FT	
Mounting	B3, V1, B35	

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

Squirrel Cage & Slip Ring Induction Motors in **CACW** enclosure (IC8A1W7)

CG offers Closed Air Circuit Water Cooled (IC8A1W7) as per IEC 60034. Squirrel cage motors are suitable for VFD operations. These motors are widely used in all Industries for various applications like pump, fan, blower, crusher, conveyor, pulper, feeder etc.



IC8A1W7 Cooling Type, Oil Lubricated 630 Frame

Range	Squirrel Cage	Slip Ring
Voltage	upto 15 kV	upto 15 kV
Power	upto 25000 kW	upto 25000 kW
Pole	2 Pole to 24 Pole	4 Pole to 12 Pole
Frame	355 - 1120	355 - 1000
Series	UW, FR	
Mounting	B3, V1, B35	

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

Squirrel Cage & Slip Ring Induction Motors in **SPDP** enclosure (IC0A1)

CG Large Re-Rolling Mill Duty slip ring induction motors (KMR series) are used to drive re-rolling mill for rolling hot steel billets into rods, flat bars, rails, channels, angles, sheets etc under arduous conditions of widely fluctuating loads & sudden overloads which last for few seconds. Screen protected drip proof (IC0A1) UDC / UDR series is suitable for operation in clean atmosphere specially pump & fan applications. SPDP motor offers higher kW in lower frame.



VUDC 1700 IP23 Drip Proof

Range	Squirrel Cage	Slip Ring
Voltage	upto 15 kV	upto 15 kV
Power	upto 11000kW	upto 9000 kW
Pole	2 Pole to 20 Pole	4 Pole to 14 Pole
Frame	355 - 1120	355 - 1000
Series	KMR, UD, FH, FW	
Mounting	B3, V1, B35	

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

Squirrel Cage & Slip Ring Induction Motors in TETV enclosure (IC5A1A1)

Totally Enclosed Tube Ventilated (IC5A1A1) motors are most suitable in highly dusty, humid & polluted atmosphere for use in industries such as cement, steel, tyre, rubber, paper, refineries, petrochemicals, fertilizers, power generation plant, mines etc. The dimensions are generally as per IEC 60072. A or IS: 8223. Motors are with double ended radial ventilation with low noise, low loss internal fan for uniform temperature gradient. These motors occupy lesser overall volume compared to CACA enclosure and hence are preferred at locations where space constraint exists.



Flange Mounted (IMV1) VTVC - Series, 1080 Frame

Range	Squirrel Cage	Slip Ring
Voltage	upto 13.2 kV	upto 13.2 kV
Power	upto 5000 kW	upto 4000 kW
Pole	2 Pole to 20 Pole	4 Pole to 12 Pole
Frame	450 - 800	450 - 800
Series	TV	
Mounting	B3, V1, B35	

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

LARGE ROTATING MACHINES

NG[®] Series Energy Efficient AC Motors



NG 400 Foot Mounted Induction Motor

NG[®] series motors belongs to a family of energy efficient, TEFC (IC4A1A1), state of art, squirrel cage induction motors. The new series of motors have high efficiency with almost flat efficiency curve from 60% to 100% loading. Additionally, the motors have desirable features of low noise & low vibrations.

Range	
Voltage	upto 11kV
Power	upto 2000 kW
Pole	2 Pole to 12 Pole
Frame	315 to 630
Mounting	B3, V1, B35

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

N^{Series}[®] Series Motor

- High Efficiency
- Low Noise & Vibration
- Better Power Factor
- Improved Power to weight ratio



2550KW, 6Pole, 11KV, 560 Frame, Fan Drive, Induction Motor

The N^{Series}[®] motors are the latest addition in CGs HT motor portfolio. These are high efficiency, low noise & low vibration motors with lower weight as compared to its contemporaries. N^{Series}[®] motors are specially designed suitable for a wide variety of demanding applications in the industry. The motors have been developed using state-of-the-art analytical simulation techniques using rigorous optimization methods & guaranteeing performance at par with best in the world.

Power	upto 12 MW
Frame	355 - 1120
Pole	2 to 20 Pole
Voltage	Upto 13.2 KV
Mounting	B3, V1

Enclosure / cooling IC6A1A1, IC8A1W7

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

Agnita^{Series} Motors For Hazardous Area



E560 Motor with Type "d" Protection & Horizontal Mounting

CG offers a wide range of motors for use in Hazardous area in CACA, TEFC & TETV enclosures. These motors are widely used in petrochemical complexes, refineries, chemical, fertilizer, oil & gas & various other industries wherein inflammable gases are likely to be present. The motors are specially designed to meet requirement of IEC: 60079-7 (for Ex-e motors) , IS/IEC: 60079-15 (for Ex-n motors), IEC:60079-2 (for Ex-p motors) & IEC:60079-1 (for Ex-d motors).

Range	Ex(e) Increased Safety	
	Ex(n) Non Sparking	
	Ex(p) Pressurised	Ex(d) Flame Proof
Voltage	upto 15 kV	6.6 kV
Power	upto 5000 kW	2000 kW
Pole	2 Pole to 20 Pole	2 Pole to 8 Pole
Frame	315 to 900	355 to 710
Mounting	B3, V1	B3, V1

Ratings for other polarity & frame sizes can be engineered suiting to specific application requirements.

ASA Industrial Duty DC Motors



CG offers a wide range of DC machines which are compact & robust, thus offer higher power to weight ratio. The range includes blower cooled, CACA, and CACW in IP22, IP23, IP54 & IP55 protection. Critical items are manufactured in-house under stringent quality control & are proven as six sigma products. Machines are with compensated windings to withstand high short time overloads under field weakening conditions. Motors are with skewed rotor construction which ensures low noise, low weight & GD² for swift mechanical response. Large size bearings & moulded design commutator ensures longer & trouble free operation. Motor conforms to IEC:60034-1, BS:5000 Part 99 & IS:4722.

Frame	100 to 710
power	2.2 kW to 2000 kW
Mounting	B3, (other on request)
Armature Voltage	400 V to 800 V

Motors with other voltage levels & speed range can also be offered, engineered to specific requirements

GENERATORS / ALTERNATORS

Generators

CG offers wide product range for your power generation needs. We offer standard rating as well as highly customised machines, which meet your power requirement.

LV Alternators

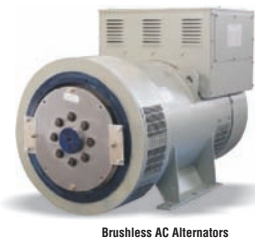
Crompton Greaves AC Generators are state-of-the-art, self-excited, self-regulated and dependable source of power. These generators incorporate advanced European Technology and are designed for optimum performance using high-end software solutions. LV alternators are widely used in agricultural application to telecom application, railway application to marine application, where they help to supply uninterrupted power supply.

Slip Ring

	Single Phase	Three Phase
Range	5kVA to 25 KVA	5kVA to 82.5 KVA
Frame	IEC 132 to 200	IEC 132 to 200
Voltage	240 V	415 V

Brushless

	Single Phase	Three Phase
Range	5kVA to 25 KVA	5kVA to 1010 KVA
Frame	IEC 132 to 200	IEC 132 to 400
Voltage	240 V	415 V



Synchronous Generator

CG has 125 years of experience in design & development of synchronous generators with state of art manufacturing facility in India & Hungary. CG has acquired GANZ Electric, inventor of generators in 1903, in 2006. CG has number of successful installations across the globe. These generators are highly efficient & reliable. Engineering is done using product life cycle management (PLM) tools & techniques to build reliability and validated through analysis tools. The manufacturing facility is automated to reduce the manufacturing lead time.

Synchronous generators are used Hydro, Steam, & Gas turbine, Diesel & Gas Engine, & Test bed applications. We offer them in either cylindrical or salient pole construction based on the application/requirement of the customer.

Parameters	Range
Rating	1 MVA - 70 MVA
Frequency	50 Hz - 200 Hz
Voltage	415 V - 15 KV
Polarity	2-40 Pole
Mounting	Horizontal / Vertical
Ambient	- 20 to 50
Altitude	upto 4000 meter
Type Of Avr	Analogue / Digital
Degree Of Protection	IP 23, IP 55IP 23
Type Of Cooling	IC 0A1, IC6A1A1, IC8A1W7
Insulation Class	Class F/ Class H
Type Of Insulation	VPI / Resin Rich
Type Of Excitation	Brushless / Static

CG also offers permanent magnet excitation as optional feature.



Hydro



Motor Generator Set



Diesel/Gas Engine



Steam/Gas

Wind Turbine Generators

The renewable energy business is experiencing phenomenal worldwide growth driven by declining costs of generation, growing electricity demand and mounting environmental concerns, particularly over climate change. CG with keen interest in renewable energy has developed technology of generators that can be used in wind mills. These generators are custom made based on the specification. CG currently offers wind turbine generators with following technologies.

- Doubly Fed Induction Generators (DFIG)
- Permanent Magnet generators (PMG)

Parameters	Range
Rating	upto 3 MW
Frequency	50 / 60 Hz
Voltage	upto 690 V
Ambient	(-) 20° to 50°C



CG FDU / VFX 2.0 Drives

Full control and optimized operation

CG FDU helps you save energy and draw maximum efficiency from your processes. CG FDU / VFX with modular concept allows cost optimization and is a perfect choice for tailor made requirements.

Range

0.75 kW to 3000 kW

Supply

400V / 525V / 690V

Application

Variable / Constant torque



Key Features

Full control and optimized operation

- Modular design
- More I/Os available - 4AI, 2AO, 8DI, 2DO, 3RO
- Operation parameters can be set in your process units, for example m/s, tons/h or cycles/min.
- One CG FDU can control up to seven units without external control systems.
- CG VFX unique direct torque control reacts extremely quickly and eliminates disturbances due to abrupt load changes
- Module fuses included as standard for sizes 300 - 3750 A (480 V) and 210 - 3000 A (690 V).
- Removable control panel with own memory means it is easy to transfer or copy settings.
- Robust and certified IP54 metal construction as standard (up to 132kW) offers cost-efficient installation close to the application.
- Speed controlled fans assures less noise, a more even drive temperature and higher efficiency.

CG CDU / CDX 2.0

Compact and Intelligent

Integrating speed control will add considerable value to your pump and enable you to increase your turnover. Optimize your pump by supplying a plug-and-play solution with built in intelligence. Your customers will benefit from simplified installation, energy savings and improved process reliability all from a single supplier.

Range

3kW to 22kW

Supply

400V/525V

Three phase

Application

Variable / Constant torque



Key Features

- No external motor cables
- Easy to install and commission
- Screw terminals for easy connection
- Robust and compact IP55
- Shock and vibration proof
- Own cooling system independent of motor cooling
- Built-in PTC thermistor
- All standard motor constructions
- Mains supply from below or side
- Logo and company colours
- Fieldbus communication
- Profibus DP
- DeviceNet
- Industrial Ethernet
- Modbus / TCP
- Serial communication
- RS232 or RS485 with Modbus RTU
- Up to three I/O boards
- Three relay outputs
- Three digital inputs
- EMC protection category C1
- PTC/PT100 for motor protection and temperature feedback without a transmitter
- Standby power supply
- Safe stops

CG MSF 2.0 Softstarters

More than just a soft start

Whilst traditional softstarters handle the most common start challenges, CG MSF 2.0 offers a lot more. Start and stop sequences are optimized. Advanced braking techniques increase productivity. Built-in monitor functionality protects your process from inefficiency, damage and downtime. Easy installation and set-up save time and money. In addition, the CG MSF is developed for selected applications, which means optimized functionality adapted to your specific needs.

Range

7.5kW to 1800kW

Supply

400V/525V/690V

Application

Variable / Constant torque



Key Features

- Torque control provides linear acceleration and deceleration. Minimizes impact on equipment and eliminates need for motor-controlled valves.
- Built-in vector brake offers quick and safe braking of screens. No need for mechanical brakes.
- Built-in shaft power monitor sends warning or stops the pump when load is outside your chosen limits. Actual load can be displayed via e.g. Profibus.
- Analogue sensor can be connected directly to MSF to control start and stop levels.
- MSF torque control minimizes start currents.

CG M20 Shaft Power Monitor

Your shield against overloads and damage

CG M20 shaft power monitor helps you save time and money. It protects your pumps and other equipment against damage and detects process inefficiency. Early warnings allow you to take preventive action. Unique features include measuring shaft power output and using the motor as a sensor. The result is reduced maintenance and installation costs, extended equipment lifetime and increased reliability.

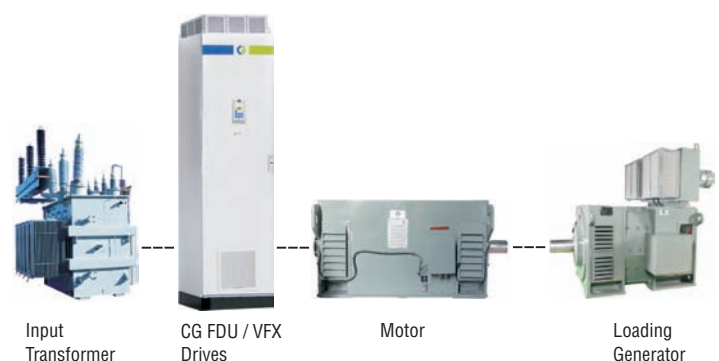
Key Features

- Detects over - and underload. Sends warning or stops the pump.
- Using pump motor as sensor eliminates need for external sensors. No moving parts increases reliability.
- Shuts pump off before it runs dry.



String test

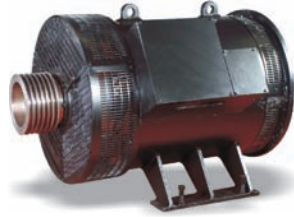
Understanding the criticality of system reliability to our customers, CG offers its customers the option of on-load test of motors with drive.



Rolling Stock Electrical Equipment



**Traction Motor Type 6 FRA 6068
TM for 6000 HP Locomotive**



**Traction Alternator Type
C1012TA for 1400 HP DEMU**



**Traction Alternator Type
C1014TA for 4000 HP Locomotive**

CG offer wide range Rolling Stock Electrics to AC Locomotives, Diesel Electric Locomotives & EMU'S / DEMU'S to Indian Railway. Application product range include Traction Motors / Alternators, Control Panel, Power Converter, Auxiliary Converter & Control Electrics. CG also offer complete solutions for Diesel Electric Multiple Unit (DEMU / EMU).

Range	
For Diesel Locomotives	upto 4500HP
For Electrical Locomotives	upto 6000HP
For DEMU & DETC	upto 1400HP
For AC EMU	25KV

Railway Signalling Relays

Technical Data

Neutral Line Relay	: QN1, QNA1, QS3, QNN1, QNNA1
Biased Relay	: QBA1, QBBA1, QBCA1
Track Relay	: QT2, QTA1, QTA2
Lamp Proving Relay	: QECX 61, QECR2, QECX 51, QECX 52, QECX 53, QUCX 1
Latch Relay	: QI 1
Special Cation	: BRB & IRS



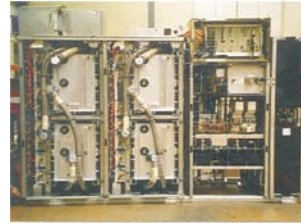
Data Logger For Railway Signalling



Technical Data

Digital Input	: From 512 up to 4096 in steps of 64
Analog Input	: From 32 up to 64
Tele Command Outputs	: 8
Display	: 4 Line Alfa-numeric LCD display
Networking	: Up to 32 nos data loggers in Multi drop / point to point configuration
Input Voltages	: 24V DC + 20%, - 10%

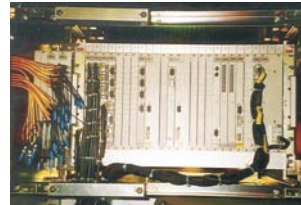
Power Converters



Power Converter
(Front View-Doors Opened) for WAG9 & WAP5

- 3000 HP, 4.5 KV grade, Bi-directional, GTO based, PWM Technology.
- Catenary 25 kV
- Trafo Secondary 1269 V
- Intermediate Circuit (DC link) 2800 V
- Motor side converter 2180 V (line to line)
- Power Output at axel 4500 kW.
- Oil cooled, Modular Design, Stainless Steel fabrication.

Control Electronic



Control Electronics (Converter Side)

- Vehicle Control Unit (VCU)
- Power Converter Bus station (CCU)
- Auxiliary Converter Bus station

Auxiliary Converters



Auxiliary Converter (Modules Opened)

- Three Auxiliary converters housed in two Panels (Box1 and Box2) per loco.
- Each converter features a short-circuit-proof 3-phase o/p with a rated voltage of 415V and output power of 100 kVA. The i/p voltage is 1000 VAC.
- Forced Air Cooled.
- Modular design, Stainless steel fabrication of IP65 Panels.

Brushless DC Railway Carriage Fan



Technical Data

Voltage Range	: 65-135
DC Sweep	: 400 mm
Power Input	: 32W Max.
Air Delivery	: 60 Cu Air
Starting Voltage	: 40V DC

Point Machines



Trailability

Trailable, Non Trailable

Voltage

110V DC, 120V DC,
380V, 3 Phase AC

Stoke lengths

143 mm, 220 mm & 175 mm

STAMPING

Stamping Introduction

Crompton Greaves Ltd, the pioneer and leader in the Electrical Industry for last seven decades, manufactures its own requirement of Stamping & Laminations for the entire range of Electric Motors, Alternators, Fans, Pumps and Chokes. Our Stampings Division is fully equipped with the latest High Speed Blanking lines, 'H' frame high tonnage presses and CNC precision notching machines. We are also equipped with ultra modern heat treatment facility having continuous roller hearth furnace with exothermic gas as protective atmosphere. We also have our own ultra modern captive Tool Room facility.

All this, coupled with professional experience and manufacturing technology, has enabled us to manufacture high quality Stampings, now available to meet the Stamping & Lamination need of the industries as well.

Stamping Product Range

- All types of Electrical Motor & alternator Stampings, Stator/Rotor auto stitched, Stator riveted/cleated and Rotor die cast as per customer requirements.
- All types of Choke Laminations
- All types of Fan, Mixer, Submersible and Mono-block Pumps, Windmill, Hydro/Turbo Generator Stampings.
- Any other types of precision Stampings as per specific customer requirements including manufacturing of tooling for the same.



Tool Design & Tool Room

Our Tool Room is equipped with more than forty precision machines, Prominent among them are:

- Swiss make CNC wire cut Electric Discharge Machines having capacity up to 400x700mm co-ordinate travel.
- Jig Boring Machine with digital read-out having capacity up to 1120x710mm co-ordinate travel.
- Jig Grinder with planetary and slot grinding attachments and optical rotary table.
- NC Milling and Boring Machine.
- VMC with FANUC control having capacity up to 2000x800mm co-ordinate travel.
- Precision Surface Grinder having capacity up to 1500x700mm with accessories like diaform attachment and sine table for grinding accurate profiles.
- CMM & Profile projector for checking of slot profile.



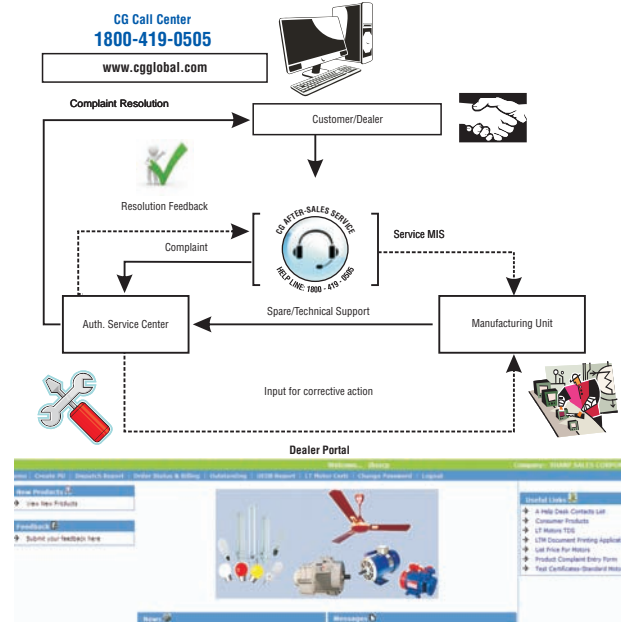
Manufacturing Facilities

Our state-of-the-art manufacturing facilities include the latest machinery such as:

- High Speed Blanking presses up to 300 ton capacity running at 250 strokes per minute with progression dies and auto-feeders.
- Schuler CNC Notching Machine with 16ton capacity for circular & segmental Stampings, 399-1250mm diameter for circular Stampings, and 300 - 4500 mm diameter for segmental Stampings.
- Precision Notching Machines up to 16 ton capacity with facility of skip notching and skew punching.
- Large Mechanical presses up to 500 ton capacity with auto-feeders up to 1200mm.
- Fully operational double loop camber free slitting line with capacity to cut 1200mm width coil & weight of 7Mt..

SERVICE PLUS PERFORMANCE.

Customer Service A Responsiveness



Leveraging After Sales Service

- Repair & Refurbishment
- Spares supply / Management
- Diagnostic services & Conditional Monitoring
- Annual Maintenance contract (AMC)
- Training

- **Response in 24 hours - service backed by wide trained more than 250 authorised service contractor and 18 service stations.**
- **Availability of CG genuine spares at service dealers outlets.**
- **Service facility at Europe, Middle East, South East Asia Regions.**







For more information:

Visit us at: www.cgglobal.com