



Smart Solutions.  
Strong Relationship.

GLOBAL

# GLOBAL SERIES

Aluminium AC Motors  
Frame Sizes 63 to 132

ALUMINIUM MOTORS





Crompton Greaves (CG) is part of the US\$4 bn Avantha Group conglomerate with an impressive global footprint. Since its inception, CG has been synonymous with electricity. CG's India operations were established in 1937, and since then the company has retained its leadership position in the management and application of electrical energy. Today Crompton Greaves India's largest private sector enterprise has diversified extensively and is engaged in designing, manufacturing and marketing technologically advanced electrical products and services related to power generation, transmission and distribution, besides executing turnkey projects. The company's customer-centric focus is the single largest source for a wide variety of electrical equipment and products. With several international acquisitions, Crompton Greaves is fast emerging as a first choice global supplier for high quality equipment through its three business groups viz;

#### Power Systems :

- Transformers
- Switchgear
- Power Quality
- Engineering Projects

#### Industrial Systems :

- Motors
- Alternators
- Drives
- Railway Signaling
- Stampings

#### Consumer Products :

- Fans
- Appliances
- Lighting
- Integrated Security Solutions & Home Automation
- Pumps



AVANTHA  
GROUP COMPANY

**Crompton Greaves Ltd.**

CG is a leading manufacturer of electric motors for the industrial market with motor solutions which benefit a wider range of customers.

Our products are used in almost every industrial activity including water treatment, building services, chemical/petrochemical processing and manufacturing where they drive fans, pumps, compressors, conveyors, etc.

Global Series aluminium motor range covers products with output as little as 0.18kw to 11kw in frame sizes EC60 to 132. Global series have a multi-mount facility simply changing the position of feet the users are able to obtain right foot or top mounted terminal box position and by changing the standard end shield you can change for flange or face version. They are widely used in a diverse range of applications from food/drink water to sewage heating and ventilation to refrigeration.

Some of the benefits of aluminium over cast iron include high resistance to corrosion and atmospheric attack (except chlorine salt-laden or sulphuric acid) and the fact that aluminium is approximately one third the weight of cast iron.

**Quality assurance**

Stringent quality procedures are observed from first design to finished product in accordance with the ISO 9000 documented quality systems. All of our factories have been assessed to meet these requirements further assurance that only the highest possible standards of quality are accepted.

**Multi-Mount**

By simply changing the position of the feet the user is able to obtain right, left or top mounted terminal box position and by removing the standard end shield you can change for a flange or face version.

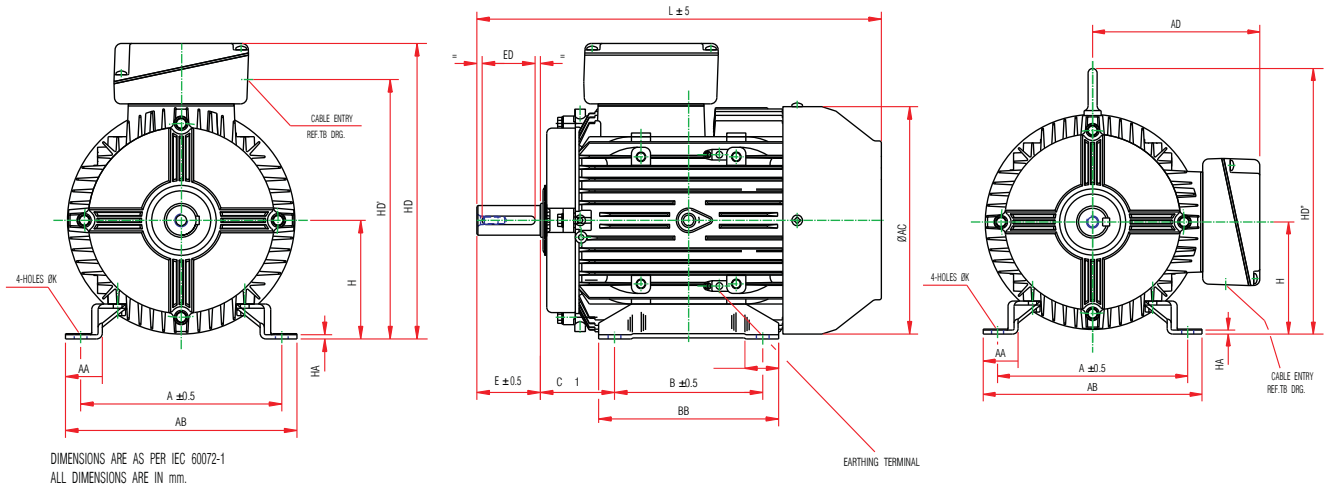
**Benefits include:**

- High efficiency for low running costs
- Low noise levels
- High power factors
- High torque with smooth acceleration and low current
- IP55 protection

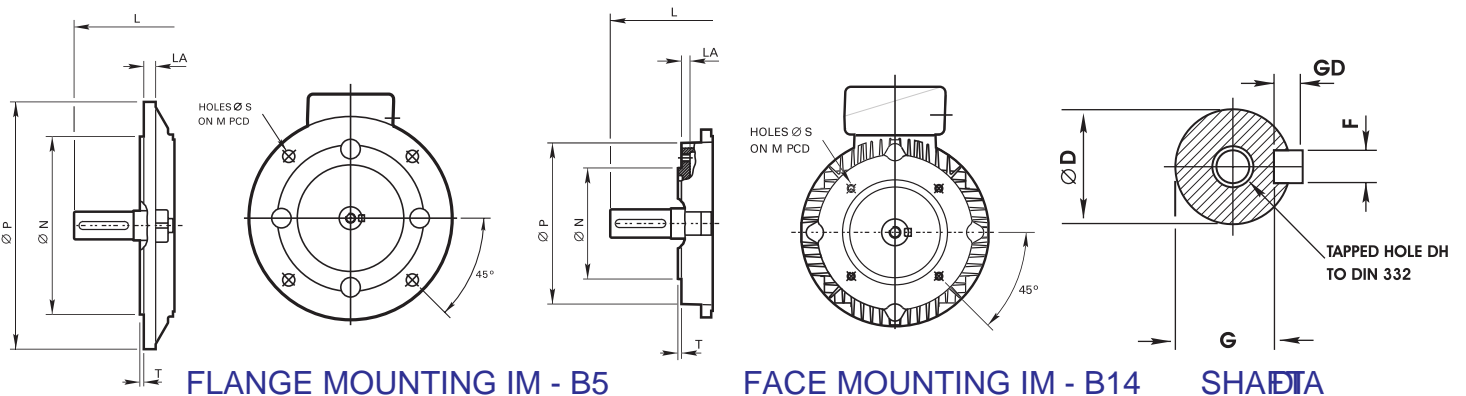
**Reference Standards**

Standard	Description
IS 325	Three phase Induction motors-specification
IS 900	Code of practice for installation and maintenance of induction motors
IS 1231	Dimension of three-phase foot mounted A.C. induction motors
IS 2223	Dimensions of flange mounted A.C. induction motors
IS 4029	Guide for testing three phase induction motors
IS 4691	Degree of protection provided by Enclosures for Rotating Electrical Machinery
IS 6362	Designation of methods of cooling for rotating electrical machines
IS 12065	Permissible limits of noise level for rotating electrical machines
IS 12075	Mechanical vibration of rotating electrical machines
IS 12615	Energy Efficient Induction motors - Three phase
IEC 60034-1	Rotating electrical machines - Outputs
IEC 60034-30	Rotating electrical machines - Performance
IEC 60034-2	Rotating electrical machines - Measurement of Efficiency
IEC 60034-5	Rotating electrical machines - degree of protection
IEC 60072-1	Rotating electrical machines - Dimensions

## OUTLINE DIMENSION DRAWING FOR 3 PHASE 500 ALUMINIUM INDUCTION MOTORS



Type	General											Terminabx				
	A	B	C	H	K	L	AA	AB	AC	BB	HA	HD	HD'	TBW	TBH	KK
GD63	100	80	40	63	7	207	19	119	126	100	2	163	138	86	86	20
GD71	112	90	45	71	7	238	19	131	140	110	2	186	162	86	86	20
GD80	125	100	50	80	10	278	27	157	160	127	4	212	183	86	86	20
GD90S	140	100	56	90	10	322	28	164	178	150	4	225	201	86	86	20
GD90L	140	125	56	90	10	322	28	164	178	150	4	225	201	86	86	20
GD100L	160	140	63	100	12	368	28	184	199	170	4	254	223	106	106	20
GD112M	190	140	70	112	12	382	35	218	215	170	4	279	245	127	127	25
GD132S	216	140	89	132	12	451	38	242	255	208	5	320	287	127	127	25
GD132M	216	178	89	132	12	451	38	242	255	208	5	320	287	127	127	25



FLANGE MOUNTING IM - B5

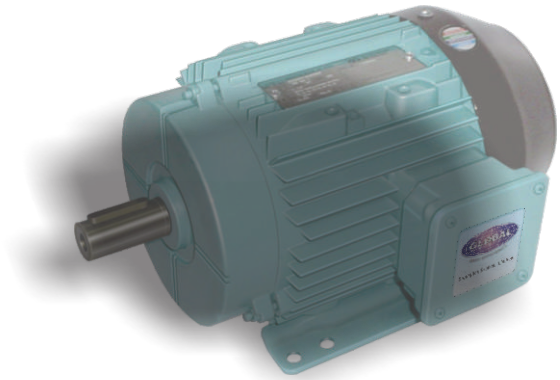
FACE MOUNTING IM - B14

SHAFT

TYPE	IM B5 MOUNTING						IM B14 MOUNTING						SHAFT DIMENSIONS							
	M	N	P	S	T	LA	M	N	P	S	T	LA	TYPE	D	E	F	G	EB	ED	DH
GD63	115	95	140	10	3	7	75	60	90	M5	2.5	7	GD63	11	23	4	8.5	10	13	M4X10
GD71	130	110	160	10	3.5	7	85	70	105	M6	2.5	9	GD71	14	30	5	11	20	5	M5X12.5
GD80	165	130	200	12	3.5	12	100	80	120	M6	3	9	GD80	19	40	6	15.5	32	4	M6X16
GD90S/L	165	130	200	12	4	10	115	95	140	M8	3	9	GD90S/L	24	50	8	20	40	5	M8X19
GD100L	215	180	250	14.5	4	12	130	110	160	M8	3.5	12	GD100L	28	60	8	24	50	5	M10X22
GD112M	215	180	250	14.5	4	12	130	110	164	M8	3.5	13	GD112M	28	60	8	24	50	5	M10X22
GD132S/M265	230	300	14.5	4	14	165	130	200	M10	3.5	13	GD132S/M38	80	10	33	70	5	M12X28		

## GLOBAL Aluminium motors

Range	
Output	0.75 kW to 7.50 kW
Frames	GD 63 TO GD 132
Poles	2,4,6,8



Framesizes	63 to 132	-
Enclosure	IP55	IP56/IP65
Mountingoption	Foot (B3)	Flange (B5)/Face(B14)or Pad(B30)
Terminal box position	Top	Right/left handside
Voltage	415	As per request
Frequency	50 Hz	60 Hz
Cooling	IC41	IC40
Lubrication	63 to 132 double shield bearing	-
Insulation	class F	class H
Temperature rise	class B	class F
Paint colour	water blue (RAL 5021)	on request
Frame cover	Steel	Plastic
Thermal protection	-	80 to 132
Anti condensation heater	-	132
Inverter Duty (with derate)	Variable Torque: 10:1 Constant Torque: 2:1	Alternative speed range
Ambient temperature	- 20°C to + 45°C	50°C
AC & DC brake	-	80 to 132

The above specification and options give a brief summary of features available for the GLOBAL Aluminium range. For a full listing of optional features please contact our sales.



## Performance Data for Global Series Motors.

Voltage 415 +/- 10% Type Squirrel cage Ambient 45° C  
 Frequency 50 Hz +/- 5% Rating S1 Temp.rise 75° C  
 Combined Variation +/- 10% Absolute Sum Insulation Class "F" with Class "B" rise IP 55

CG PRODUCT CODE	OUTPUT		FRAME	FL		FLT	EFFICIENCY			POWER FACTOR			D.O.L			GD <sup>2</sup> kgm <sup>2</sup>	APPROX NET.WT kg
	KW	h.p.		RPM	CURRENT	Kg-m	FL	3/4	1/4	FL	3/4	1/4	STG. T %FLT	STG. C %FLT	POT %FLT		
<b>2 pole, 3000 rpm</b>																	
0.18KG2	0.18	0.25	GD63S	2810	0.57	0.06	64.0	61.0	56.0	0.69	0.60	0.49	190	350	240	0.002	5.0
0.25KG2	0.25	0.33	GD63S	2810	0.67	0.09	66.0	64.0	60.0	0.79	0.72	0.61	230	450	250	0.003	5.0
0.55KG2	0.55	0.75	GD71S	2820	1.19	0.19	74.0	75.0	73.0	0.87	0.81	0.73	190	500	210	0.003	6.5
0.37KG2	0.37	0.50	GD71S	2815	0.85	0.13	72.0	73.0	72.0	0.84	0.78	0.66	180	500	210	0.002	6.5
0.75KG2	0.75	1.00	GD80M	2850	1.63	0.25	77.0	77.0	73.0	0.83	0.79	0.68	220	550	250	0.006	9.0
1.10KG2	1.10	1.50	GD80M	2870	2.30	0.38	81.0	81.0	79.0	0.82	0.77	0.66	270	670	270	0.008	9.0
1.50KG2	1.50	2.00	GD90S	2870	3.10	0.51	82.0	82.0	80.0	0.82	0.77	0.66	250	600	300	0.009	12.5
2.20KG2	2.20	3.00	GD90L	2850	4.24	0.75	84.0	84.0	82.0	0.86	0.83	0.73	250	630	300	0.011	14.5
3.00KG2	3.00	4.00	GD100L	2890	5.48	1.02	86.5	87.0	86.5	0.88	0.83	0.75	300	780	310	0.025	24.3
3.70KG2	3.70	5.00	GD100L	2875	6.76	1.27	86.5	87.5	86.5	0.88	0.83	0.75	300	780	310	0.028	25.5
4.00KG2	4.00	5.50	GD112M	2870	6.95	1.37	88.0	89.0	89.0	0.91	0.89	0.85	300	780	310	0.032	29.4
5.50KG2	5.50	7.50	GD132S	2910	9.89	1.86	86.0	86.0	84.0	0.90	0.85	0.73	270	820	300	0.032	45.0
7.50KG2	7.50	10.00	GD132S	2900	12.88	2.52	89.0	89.0	88.0	0.91	0.87	0.82	250	820	300	0.080	45.0
9.30KG2	9.30	12.50	GD132M	2900	15.80	3.12	90.0	90.0	89.0	0.91	0.89	0.82	250	800	300	0.090	54.0
<b>4 pole, 1500 rpm</b>																	
0.18KG4	0.18	0.25	GD63S	1370	0.61	0.13	64.0	63.0	58.0	0.64	0.58	0.47	220	500	250	0.003	5.0
0.25KG4	0.25	0.33	GD71S	1400	0.77	0.17	68.0	68.0	63.0	0.66	0.59	0.49	180	400	220	0.003	6.5
0.37KG4	0.37	0.50	GD71S	1410	1.07	0.25	71.0	69.5	64.5	0.68	0.61	0.50	180	400	220	0.003	6.5
0.55KG4	0.55	0.75	GD80M	1410	1.52	0.38	75.0	75.0	73.0	0.67	0.61	0.51	200	420	220	0.006	9.0
0.75KG4	0.75	1.00	GD80M	1410	1.81	0.52	78.0	78.0	76.0	0.74	0.68	0.54	200	440	220	0.008	9.0
1.10KG4	1.10	1.50	GD90S	1410	2.55	0.76	79.0	79.0	77.0	0.76	0.69	0.56	220	510	250	0.011	12.5
1.50KG4	1.50	2.00	GD90L	1420	3.99	1.03	81.0	82.0	81.0	0.76	0.71	0.59	250	560	280	0.014	14.5
2.20KG4	2.20	3.00	GD100L	1415	4.61	1.51	83.0	82.0	81.0	0.80	0.76	0.64	200	550	210	0.032	24.3
3.00KG4	3.00	4.00	GD100L	1415	6.21	2.05	83.0	84.4	84.3	0.81	0.75	0.61	210	570	240	0.032	24.3
3.70KG4	3.70	5.00	GD112M	1435	7.67	2.54	85.0	85.0	84.0	0.79	0.75	0.68	200	550	210	0.044	29.4
4.00KG4	4.00	5.50	GD112M	1440	8.08	2.74	85.0	86.0	84.0	0.81	0.74	0.60	250	690	290	0.044	29.4
5.50KG4	5.50	7.50	GD132S	1445	11.02	3.70	85.7	86.0	85.0	0.81	0.78	0.67	240	700	300	0.076	45.0
7.50KG4	7.50	10.00	GD132M	1445	14.63	5.06	87.0	87.0	86.0	0.82	0.78	0.68	240	720	300	0.100	52.0
9.30KG4	9.30	12.50	GD132M	1445	18.14	6.27	87.0	88.3	87.6	0.82	0.76	0.63	240	720	300	0.110	57.0
<b>6 pole, 1000 rpm</b>																	
0.18KG6	0.18	0.25	GD71S	910	0.64	0.19	65.0	63.0	58.0	0.61	0.54	0.45	170	300	190	0.003	6.5
0.25KG6	0.25	0.33	GD71S	920	0.90	0.27	65.0	63.0	58.0	0.60	0.53	0.43	170	300	190	0.003	6.5
0.37KG6	0.37	0.50	GD80M	920	1.22	0.39	69.0	68.0	65.0	0.61	0.55	0.45	200	370	220	0.006	9.0
0.55KG6	0.55	0.75	GD80M	920	1.71	0.58	71.0	71.0	66.0	0.63	0.58	0.46	200	370	230	0.008	9.0
0.75KG6	0.75	1.00	GD90S	920	2.04	0.80	74.0	74.0	72.0	0.69	0.62	0.50	220	410	240	0.011	12.5
1.10KG6	1.10	1.50	GD90L	940	3.11	1.14	78.0	77.0	75.0	0.63	0.56	0.46	280	450	300	0.016	14.5
1.50KG6	1.50	2.00	GD100L	930	4.13	1.57	79.0	79.0	77.0	0.64	0.58	0.47	200	420	230	0.036	24.3
2.20KG6	2.20	3.00	GD112M	950	5.33	2.25	82.0	82.0	80.0	0.70	0.63	0.51	280	580	280	0.056	29.4
3.00KG6	3.00	4.00	GD132S	965	6.84	3.07	86.0	86.0	84.0	0.71	0.64	0.52	220	650	270	0.108	45.0
3.70KG6	3.70	5.00	GD132S	960	7.76	1.27	86.0	85.6	85.1	0.77	0.68	0.59	280	580	280	0.108	50.0
4.00KG6	4.00	5.50	GD132M	960	8.69	4.05	86.5	86.5	86.0	0.74	0.67	0.55	210	620	260	0.108	45.0
5.50KG6	5.50	7.50	GD132M	960	11.69	5.58	87.0	87.0	86.0	0.75	0.69	0.58	200	550	250	0.116	50.0
<b>8 pole, 750 rpm</b>																	
0.18KG8	0.18	0.25	GD80M	695	0.77	0.25	60.0	55.0	46.0	0.54	0.46	0.37	170	300	190	0.005	9.0
0.25KG8	0.25	0.33	GD80M	695	1.04	0.35	61.0	57.0	51.0	0.55	0.48	0.38	170	300	190	0.006	9.3
0.37KG8	0.37	0.50	GD90S	700	1.57	0.51	62.0	59.0	51.0	0.53	0.44	0.34	180	320	200	0.012	12.5
0.55KG8	0.55	0.75	GD90L	680	2.04	0.76	67.0	62.0	55.0	0.56	0.44	0.33	180	320	200	0.016	14.5
0.75KG8	0.75	1.00	GD100L	690	2.76	1.04	70.0	68.0	61.0	0.25	0.49	0.40	170	330	190	0.036	24.5
1.10KG8	1.10	1.50	GD100L	690	3.81	1.52	73.0	70.5	68.0	0.55	0.50	0.39	170	330	190	0.040	25.4
1.50KG8	1.50	2.00	GD112M	690	4.24	2.07	74.5	74.0	71.0	0.66	0.56	0.44	170	400	190	0.056	29.8
2.20KG8	2.20	3.00	GD132S	720	6.00	2.92	78.5	77.0	74.0	0.65	0.57	0.45	150	500	190	0.108	50.0
3.00KG8	3.00	4.00	GD132M	720	7.81	3.98	81.0	80.0	78.0	0.66	0.58	0.45	150	500	190	0.116	52.0
3.70KG8	3.70	5.00	GD132M	710	9.63	5.08	81.0	80.0	78.0	0.66	0.58	0.45	150	500	190	0.124	54.0