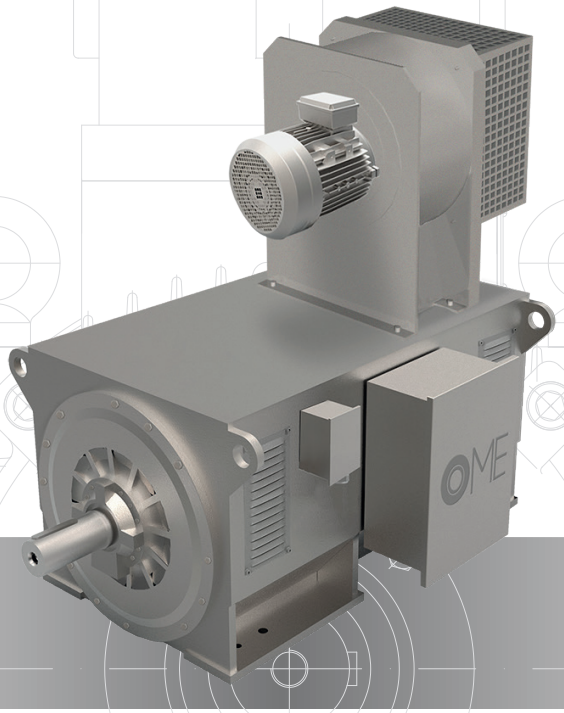
OMDC Series

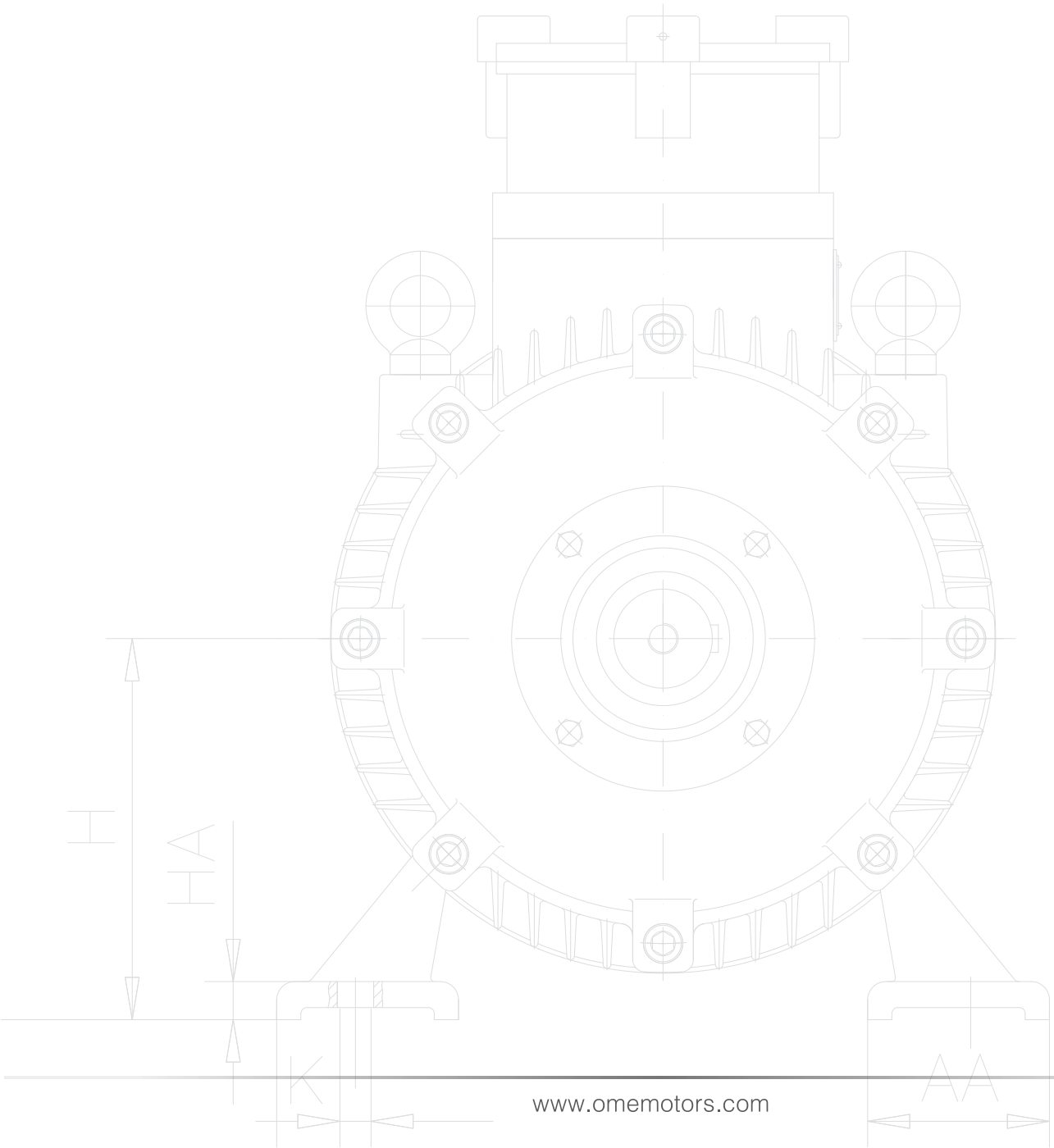
DC Motor

www.omemotors.com



ISO14000 ISO9001

GENERAL INFORMATION



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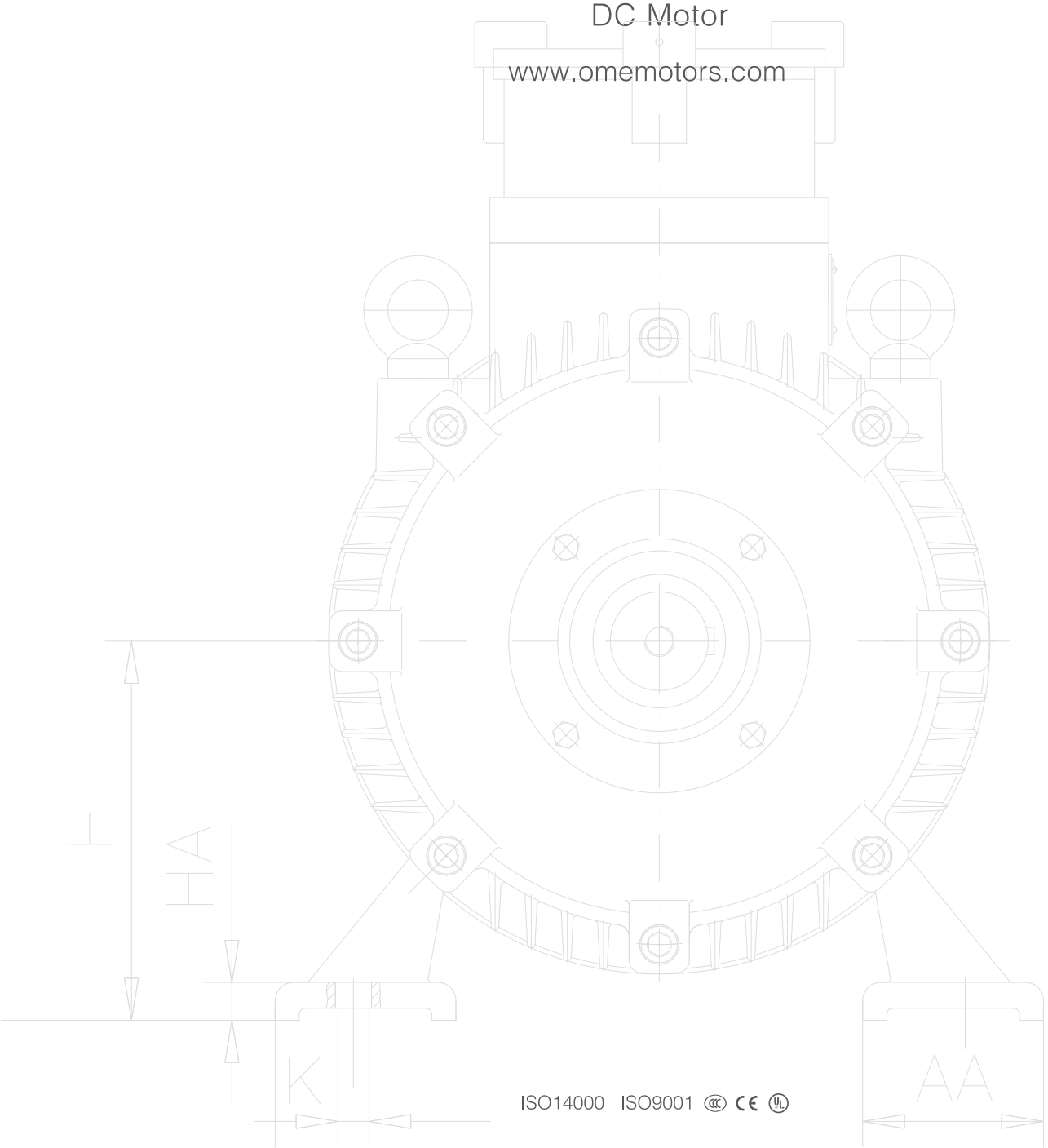


ISO14000 ISO9001

OME Electric Motors

OME IEC low voltage motors are suitable for all industrial sectors and applications, complying with national and international mandatory efficiency rules.
OME's motors help our customers increase their productivity, save energy, improve quality and generate power.

- Standard low voltage motors - or IEC motors - designed and manufactured by OME are low voltage motors that offer high efficiency and at the same time effective energy savings, in line with environmental regulations.

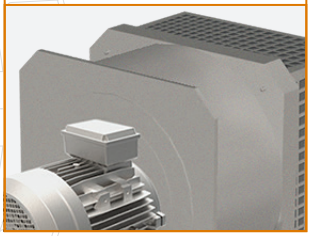
- OME high efficiency motors ensure significant optimisation of energy consumption, safeguarding the environment and ensuring substantial savings in operating costs.

- High quality components including superior copper, metal cable glands and SKF bearings.
Thanks to their high quality, OME electric motors are perfectly suitable for heavy duty applications, with Long lasting performances.

High quality production

- OME also pays exceptional care and to the design attention of its electric motors.
This increase the cooling efficiency and also the looking of the product.

Modern design



- Customized packaging that provides increased protection during transport and an easyer handling.

Superior packaging

OME Electric Motors and Orsatti Group

OME is a well-established global reality born from the Orsatti family's long experience in the electrical machinery sector and characterized by a history in continuous evolution.

The key points that distinguish the Orsatti Group are in particular:

- Technical experience of over 50 years
- The continuous research for new solutions to increase the performance of our electric motors
- Development of technical solutions in compliance with current standards
- The tailor-made service to customize the motors on customer request
- The wide range of production to meet any market need
- The constant research for suitable solutions to increase the efficiency of our electric motors
- Compliance with the standards required for energy saving and environmental protection

MISSION

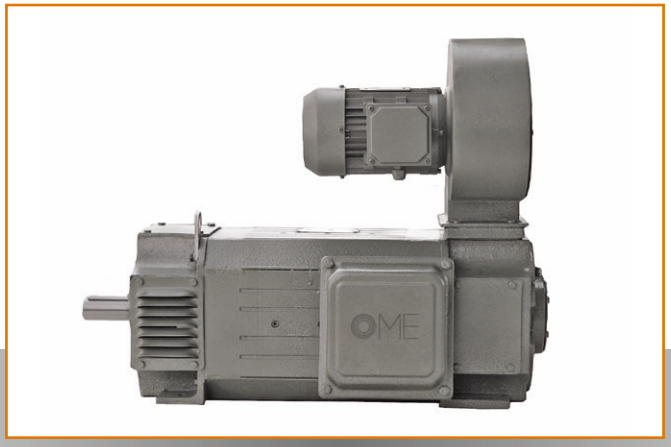
Our mission is to be a leading company in the production of electric motors at an international level.

VISION

Our vision is to design and manufacture highly customized motors, meeting the most varied customer requirements, managing to make competitive even the smallest realities.

VALUES

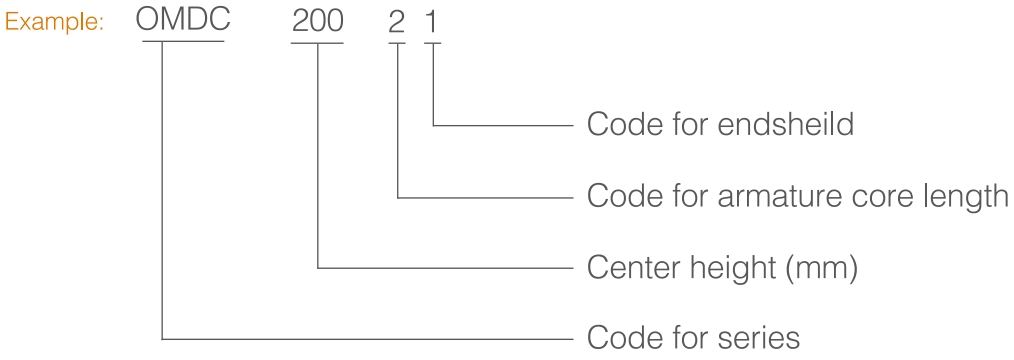
- The high quality of production, sales, service and maintenance;
- Intelligent and low costs logistics;
- Providing motors, services and expertise to save energy and improve customer processes throughout the life cycle of our products and beyond.



Series OMDC

SERIES DC MOTOR

Type Designation



Electrical Performance

1. Data listed in the technical data sheet should be employed under the following conditions;
a. Altitude above sea level maximal 1,000m;
b. Cooling air temperature maximal 40 C;
c. Ambient conditions for motors should be free from acidic, alkali fumes or other aggressive gases which corrodeinsulation;
d. Duty: Continuous(S1);
e. Armature and field circuit for motors may be either operated on staticthyristor controlled supplies, or from d-c generator;

2. Nominal rated voltage: 160V or 440V, Values for 220V or 400V or other voltage may be derived on request.

3. Rated speed: 3000,1500,1000,750,600,500,400,300and 200r/min. lotal nine grades. Decrease armature voltage to make speed regulating under constant torque, lowering down field voltage to make speed regulating at constant output. Speed regulating range: see technical data.The given multiple of load to rated load of different speed regulating range: see technical data. The given multiple of load to rated load of different speed range see Appendix 1. The torque can be remained consta by reducing speed via armature voltage weakening below ratsd value. It is stipulated that armature speed range down to maximal 20r/min at constant torque and stable running.

4. Nominal field voltage: 180V. Other excitation voltage are also acceptable on request. Forced excitation is allowed with the voltage of less than 500V. When a motor is normally runnning, its excitaion current must not be higher than the rated excitation current.To assure the reliability of insulation of excitation system, the motor must be protected against self-induced voltages by a release resistor connected in parallel with the field winding when the wxcitation circuit of the motor is interrupted. At rated field voltage the value of shunt resistor is about seven times field winding resistance(cold). While the field voltage is higher than nominal voltage, the value of shunt resistance may be lower than seven times field resistance, otherwise higher than seven times.

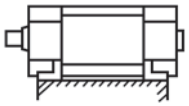
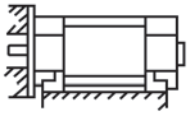
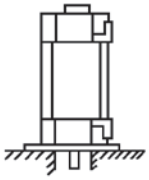
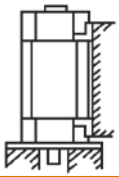
5. Four frame size 315 355 400 450 compensating windings are provided. For frame size 250 and 280 the Motors are feasible with a compensating winding too.

6. A marked earthing terminal is provided for the motors.

7. The efficiencies listed in the data sheet are for rated output, voltage and speed, and include excitation losses, excluding separate ventilating fans.

• Construction

1. Protection, mounting and type of construction:
a. Types of protection of the whole series: IP21S
b. Mounting modes comply with the State Standard stipulated as follows.

Mounting Type		For Use in
IMB-3		100~450
IMB-35		100~315
IMV-1		100~225 (The machines are always delivered with feet, even when they are flange-mounted)
IMV-15		100~315

2. Methode of Cooling:
Modes of cooling for all teh motors are separate cooling, force ventilated. Cooling by frame radially fan, and attached an air filter. Modes of cooling for motors may be made into three types, namely IC-06, IC-17 and IC- 37.
a. For 100~160, the blower is mounted on the non-drive side.
b. For 180~450, the blower is mounted on the drive side.
c. The required cooling air volume, air pressure and fan motor capacity are shown below.

Table 1

Frame Size	Air Volume	Static Pressure	Motor Output
	m^3/h	Pa	kW
100	160	200	0.04
112	220	300	0.06
132	360	450	0.18
160	790	600	0.37
180	1200	940	1.1
200	1600	800	1.1
225	2880	1400	3.0
250	3000	1400	3.0
280	4000	1600	4.0
315	4680	1600	5.5
355	5200	1600	5.5
400	7200	1800	5.5
450	9000	1800	7.5

• Motors with the following five methods of cooling can be also ordered, but prior consultations are needed.

a. Frame size 100 up to 180 may be made into the totally enclosed(IC410);

b. Frame size 160 up to 250 may be made into the separately ventilated motor with blower mounted on its nondriveside(IC05);

c. Frame size 100 up to 160 may be maed into the self cooled open motor with its own fan mounted on the shaft (IC01).

d. Frame size 160 up to 315 may be maed into totally enclosed motor with internal cooling air circulation by independent air-air heat exchanger mounted on it (IC666);

e. Frame size 160 up to 450 may be made into totally enclosed motor with independent air-water heat exchanger mounted on it (IC86w).

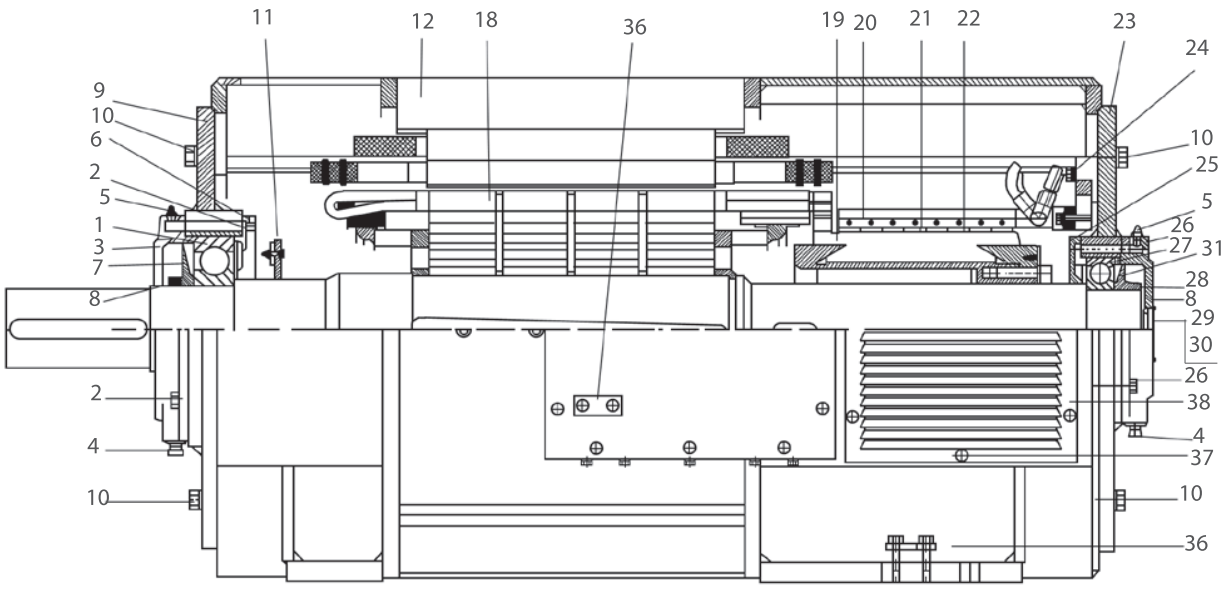
3. Standard terminal box mounting is on the fight hand side seen from the drive end of the motor.As an alternative, mounting at the top or on the left-hand side is possible on request. 4. Motors, if need be, can be fitted a tachogenerator or other accessories at the non-drive end. 5. Motors, when directly coupled, must use elastic or flexible couplings. The drive and driven nuits must be aligned with the utmost care.

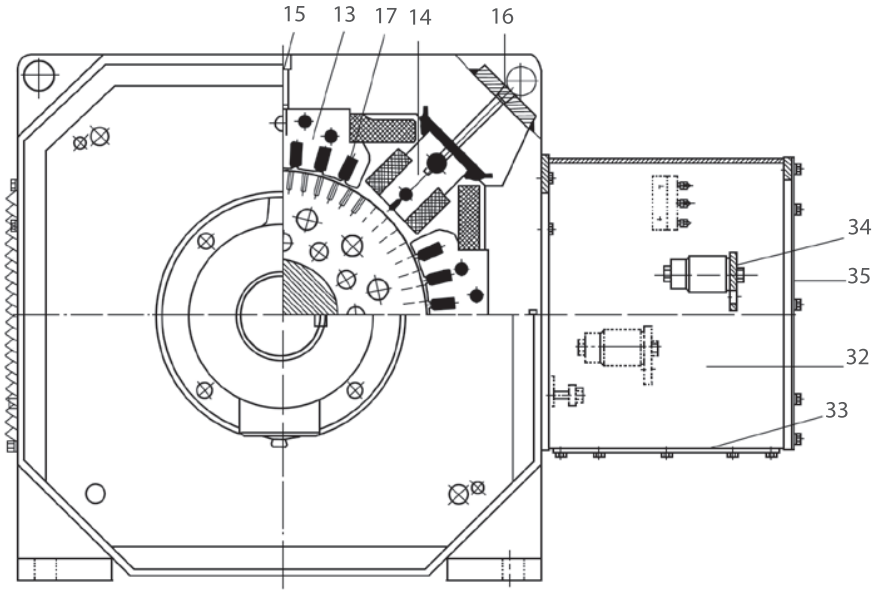
Radial forces acting on the shaft extenwsions (belt or pinion drive) must not exceed the values given in the diagrams on the following pages (see Appendix 2).

Motors are of compact structure, elegant appearance, spacious terminal box, eadier wiring, servicing and maintenance.

Remarks: The ratings, output and speed range through field weakening etc. listed below are merely for reference. For purposes of incessantly adopting up-todate technology, the data listed in the following table are subject to relevant change.

Notice on Order 1. Please refer to our catalogue before ordering . If the types, ratings you need are not covered by our booklet please contact us. Should you have particular needs, please offer us specific proposal in advance. A contract or pilot production agreement may be made when the requirements are fixed by common consent. **2.** Please write clearly the type, out put, volts, speed, duty, type of construction excitation, field voltage, No. of shaft-end, location of terminal box, necessary accessories and spare parts etc. **3.** If the humid-tropical type required, please mark “TH” behind the original type No.





1. Ball bearing AS*
2. Screw of bearing cover AS
3. Bearing cover AS outer
4. Oil-cap of ball bearing AS & NS**
5. Oil nipple AS & NS
6. Bearing cover AS inner
7. Centrifugal disc AS
8. Headless screw for centrifugal disc AS & NS 9. Endshield AS
10. Fastening screw of endshield AS & NS
11. Balancing disc AS
12. Frame
13. Main pole
14. Compole
15. Screw of main pole
16. Screw of compole
17. Compensating winding
18. Armature
19. Commutator
20. Brush rocker
21. Brush holder
22. Carbon brush
23. Endshield NS
24. Fastening screw with washer NS
25. Bearing cover NS inner
26. Screw of bearing cover NS
27. Bearing cover NS outer
28. Centrifugal disc NS
29. Endplate NS
30. Screw of endplate NS
31. Ball bearing NS
32. Terminal box
33. Outlet plate with gasket-sealing
34. Terminal
35. Terminal box lid
36. Grounding bolt
37. Screw of louvre NS
38. Louvre NS

Note: * AS: Drive side
** NS: Non-drive side

TECHNICAL DATA

Table 2

Type	Rated Out put P_N	Rated Speed 160V 400V 440V	Speed with Field Weaking n_F	Arm. Curr. I_N	Field Power P_F	Arm. Circuit Resistance R	Arm. Circuit Inductance L_A	Field Inductance L_F	Smoothing Induct. L_R	Eff.	Moment of Inertia GD^2	Wt.
	kW	r/min	r/min	A	W	Ω(20°C)	mH	H	mH	%	$kg.m^2$	kg
OMDC 100-1	2.2	1490	3000	17.9	315	1.19	11.2	22	15	67.8	0.044	72
	1.5	955	2000	13.3		2.17	21.4	13	15	58.5		
	4	2630	4000	12		2.82	26	18		78.9		
	4	2960	4000	10.7						80.1		
	2	1310	3000	6.6		9.12	86	18		68.4		
	2.2	1480	3000	6.5						70.6		
	1.4	860	2000	5.1		16.76	163	18		60.3		
	1.5	990	2000	4.77						63.2		
OMDC 112/2-1	3	1540	3000	24	320	0.785	7.1	14	20	69.1	0.072	100
	2.2	975	2000	19.6		1.498	14.1	13	20	62.1		
	5.5	2630	4000	16.4		1.933	17.9	17		79.9		
	5.5	2940	4000	14.7						81.1		
	2.8	1340	3000	9.1		6	59	17		71.2		
	3	1500	3000	8.6						72.8		
	1.9	855	2000	6.9		11.67	110	13		61.1		
	2.2	965	2000	7.1						63.5		
OMDC 112/2-2	4	1450	3000	31.3	350	0.567	6.2	14	12	72.6	0.088	107
	3	1070	2000	24.8		0.934	10.3	14	10	66.8		
	7	2660	4000	20.4		1.305	14	19		82.4		
	7.5	2980	4000	19.7						83.5		
	3.7	1320	3000	11.7		4.24	48.5	19		74.1		
	4	1500	3000	11.2						76		
	2.6	895	2000	9		7.62	83	14		65.1		
	3	1010	2000	9.1						67.3		
OMDC 112/4-1	5.5	1520	3000	42.5	500	0.38	3.85	6.8	6.5	73	0.128	106
	4	990	2000	33.7		0.741	7.7	6.7	4.5	64.9		
	10	2680	3500	29		0.89	9	6.8		82.7		
	11	2950	3500	28.8						83.3		
	5	1340	1800	15.7		3.01	30.5	6.8		74.3		
	5.5	1480	1800	15.4						75.7		
	3.7	855	1100	13		5.78	60	6.7		65.2		
	4	980	1100	12.2						68.7		
OMDC 112/4-2	5.5	1090	2000	43.5	570	0.441	5.1	7.8	6	69.5	0.156	114
	13	2740	3600	37		0.574	6.4	5.8		84.4		
	15	3035	3600	38.6						85.4		
	6.7	1330	1800	20.6		2.12	24.1	7.8		76.8		
	7.5	1480	1800	20.6						78.4		
	5	955	1200	16.1		3.46	40.5	5.8		71.1		
	5.5	1025	1200	15.7						71.9		

Type	Rated Out put P_N	Rated Speed 400V 440V	Speed with Field Weaking n_F	Arm. Curr. I_N	Field Power P_F	Arm. Circuit Resistance R	Arm. Circuit Inductance L_A	Field Inductance L_F	Eff.	Moment of Inertia GD^2	Wt.
	kW	r/min	r/min	A	W	Ω(20°C)	mH	H	%	$kg.m^2$	kg
OMDC 132-1	18.5	2610	4000	52.2	650	0.368	5.3	6.5	85	0.32	140
	18.5	2850	4000	47.1					85.9		
	10	1330	2100	30.1		1.309	18.9	8.9	79.4		
	11	1480	2200	29.6					80.9		
	7	865	1600	22.7		2.56	37.5	6.3	71.9		
	7.5	975	1600	21.4					74.5		
OMDC 132-2	20	2800	3600	55.4	730	0.226	3.65	10	87.7	0.4	160
	22	3090	3600	55.3					88.3		
	15	1360	2500	44.5		0.811	13.5	7.7	81.2		
	15	1510	2500	39.5					83.4		
	10	905	1400	31.1		1.565	26	6	75.6		
	11	995	1400	30.5					77.7		
OMDC 132-3	27	2720	3600	74.5	800	0.1905	3.4	21	88.2	0.48	180
	30	3000	3600	75					88.6		
	18.5	1390	2100	53.2		0.531	9.8	6.6	83.6		
	18.5	1540	2200	47.6					84.7		
	13.5	945	1600	40.5		0.976	19.4	6.5	79.4		
	15	1050	1600	40.5					80.5		
OMDC 160-11	33	2710	3500	93.4	820	0.1835	3.15	10	87.4	0.64	220
	37	3000							88.5		
22	19.5	1350	3000	58.8		0.593	10.4	7.7	80.4		
	22	1500							82.6		
160-21	40.5	2710	3500	113	920	0.1426	2.7	10	88.2	0.76	242
	45	3000							89.1		
	16.5	900	2000	50.5		0.862	17.7	6	77.9		
	18.5	1000							79.4		
32 OMDC 160-31	49.5	2710	3500	137	1050	0.097	2.07	11	89.1	0.88	268
	55	3010							90.2		
	27	1350	3000	77.8		0.376	8.3	10	84.7		
	30	1500							85.7		
31	19.5	900	2000	59.1		0.675	15.2	6.3	79.1		
	22	1000							81.7		
OMDC 180-11	33	1350	3000	95.4	1200	0.29	5.8	7.1	84.7	1.52	326
	37	1500							86.5		
	16.5	670	1900	51.4		0.947	17.6	5.6	75.5		
	18.5	750							78.1		
	13	540	1400	42.4		1.264	25	5.6	73		
	15	600							74.1		

Type	Rated Out put P_N	Rated Speed 400V 440V	Speed with Field Weaking n_F	Arm. Curr. I_N	Field Power P_F	Arm. Circuit Resistance R	Arm. Circuit Inductance L_A	Field Inductance L_F	Eff.	Moment of Inertia GD^2	Wt.
	kW	r/min	r/min	A	W	Ω(20°C)	mH	H	%	$kg.m^2$	kg
OMDC 180-22	67	2710	3400	185	1400	0.0555	1.16	6.9	89.5	1.72	350
	75	3000							90.7		
OMDC 180-21	40.5	1350	2800	115		0.2125	4.65	6.6	85.8		
	45	1500							87		
	27	900	2000	79		0.419	9.3	7.3	82.2		
	30	1000							83.7		
OMDC 180-21	19.5	670	1400	61		0.756	15.7	7.1	77.3		
	22	750							79.7		
OMDC 180-21	16.5	540	1600	52		1.003	21.9	5	73.8		
	18.5	600							76.8		
OMDC 180-31	33	900	2000	97	1500	0.332	7.7	6.6	82.8	1.92	380
	37	1000							83.6		
	19.5	540	1250	62		0.801	19	6.6	74.8		
	22	600							76.6		
OMDC 180-42	81	2710	3200	221	1700	0.051	1.16	12	91	2.2	410
	90	3000							91.3		
OMDC 180-41	50	1350	3000	139		0.1417	3.2	5.7	87.5		
	55	1500							87.7		
OMDC 180-41	27	670	2000	80		0.459	10.4	6.3	80.4		
	30	750							81.1		
OMDC 200-12	99	2710	3000	271	1400	0.0373	0.83	7.62	90.2	3.68	485
	110	3000							91.6		
OMDC 200-11	40.5	900	2000	118		0.2653	8.4	7.01	83.4		
	45	1000							85.5		
OMDC 200-11	33	670	1600	99		0.369	10.6	7.77	80.2		
	37	750							82.9		
OMDC 200-11	19.5	450	1000	64		0.93	21.9	7.3	72.2		
	22	500							77.4		
OMDC 200-21	67	1350	3000	188	1500	0.0885	2.8	6.78	88.7	4.2	530
	75	1500							89.6		
OMDC 200-21	27	540	1000	82		0.535	14	9.64	78.8		
	30	600							80.4		
OMDC 200-32	119	2710	3200	322	1750	0.0266	0.79	10.9	91.7	4.8	580
	132	3000							92.4		
OMDC 200-31	81	1350	2800	224		0.0771	2.6	5.61	88.7		
	90	1500							90		
OMDC 200-31	49.5	900	2000	141		0.1751	4.8	8.54	85.6		
	55	1000							87.1		
OMDC 200-31	40.5	670	1400	119		0.283	8.5	8.35	82.5		
	45	750							84.1		
OMDC 200-31	33	540	1200	101		0.42	12.2	8.42	79.6		
	37	600							82		
OMDC 200-31	27	450	750	84		0.598	17.1	8.4	77.5		
	30	500							79.5		

Type	Rated Out put P_N kW	Rated Speed 400V 440V r/min	Speed with Field Weaking n_F r/min	Arm. Curr. I_N A	Field Power P_F W	Arm. Circuit Resistance R Ω(20°C)	Arm. Circuit Inductance L_A mH	Field Inductance L_F H	Eff. %	Moment of Inertia GD^2 kg.m^2	Wt. kg
OMDC 225-11	99	1360	3000	276	2300	0.0664	2.1	4.45	87.9	5	680
	110	1500							89.4		
	67	900	2000	193		0.1406	4.9	4.28	84.4		
	75	1000							86.5		
	49	680	1300	146		0.2433	8.7	5.77	81.2		
	55	750							84		
	40	540	1200	123		0.356	9.5	6.38	78.2		
	45	600							80.8		
	33	450	1000	103		0.476	15.2	6.10	76.5		
	37	500							78.8		
OMDC 225-21	49	540	1000	148	2470	0.2648	9.5	4.14	79.3	5.6	740
	55	600							82.4		
	40	450	1000	125		0.397	13.7	5.41	76.6		
	45	500							78.9		
OMDC 225-31	119	1360	2400	327	2580	0.0454	1.5	5.33	89.3	6.2	800
	132	1500							90.5		
	81	900	2000	227		0.093	3.4	5.3	86.9		
	90	1000							88		
	67	680	2250	197		0.167	5.1	5.44	82.5		
	75	750							85.1		
OMDC 250-12	144	1360	2100	399	2500	0.0444	1.3	4.29	88.8	8.8	890
	160	1500							89.9		
OMDC 250-11	99	900	2000	281		0.0911	2.4	4.55	86.2		
	110	1000							88.1		
OMDC 250-21	167	1360	2200	459	2750	0.0325	0.91	4.28	89.8	10	970
	185	1500							90.5		
	81	680	2250	234		0.1306	3.9	5.41	83.2		
	90	750							85.2		
OMDC 250-31	180	1360	2400	493	2850	0.0281	0.87	5.32	90.4	11.2	1070
	200	1500							91.5		
	119	900	2000	334		0.0668	1.7	5.46	87.4		
	132	1000							89.1		
	67	540	2000	204		0.202	4.0	4.0	80.8		
	75	600							84.6		
	49	450	1500	152		0.305	7.3	5.1	78.5		
	55	500							82.4		

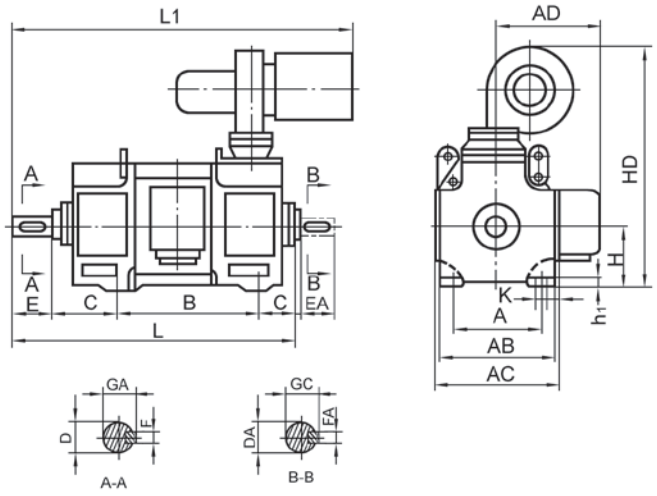
Type	Rated Out put P_N	Rated Speed 400V 440V	Speed with Field Weaking n_F	Arm. Curr. I_N	Field Power P_F	Arm. Circuit Resistance R	Arm. Circuit Inductance L_A	Field Inductance L_F	Eff.	Moment of Inertia GD^2	Wt.
	kW	r/min	r/min	A	W	Ω(20°C)	mH	H	%	$kg.m^2$	kg
41	198	1360	2400	539	3000	0.0237	0.93	6.19	91	12.8	1180
	220	1500							91.7		
42	144	900	2000	401		0.0485	1.9	4.53	88.0		
	160	1000							89.2		
OMDC 250-41	99	680	1900	283		0.0102	2.6	5.3	85.8		
	110	750							87.4		
41	81	540	1600	236		0.141	4.7	6.36	83.4		
	90	600							85		
41	67	450	1500	201		0.195	5.1	4.97	80		
	75	500							83.4		
OMDC 280-11	226	1355	2000	614	3100	0.02134	0.69	4.58	90.9	16.4	1280
	250	1500							91.6		
22	253	1355	1800	684	3500	0.01796	0.77	5.3	91.5	18.4	1400
	280	1500							92.1		
OMDC 280-21	180	900	2000	498		0.0373	1.2	4.46	89.1		
	200	1000							90.1		
21	119	675	1600	333		0.0662	2.3	4.37	87.1		
	132	750							88.6		
21	99	540	1500	281		0.093	3.1	4.57	84.7		
	110	600							86		
32	284	1360	1800	768	3600	0.01493	0.59	6.94	91.7	21.2	1550
	315	1500							92.6		
31	198	900	2000	545		0.0314	1.1	5.54	89.7		
	220	1000							90.6		
OMDC 280-32	144	675	1700	402		0.0532	2	5.47	87.8		
	160	750							89.1		
31	118	540	1000	339		0.0839	2.6	5.77	85.4		
	132	600							86.8		
31	80	450	1400	234		0.1377	5.3	9.03	84.1		
	90	500							85.4		
42	225	900	1800	616	4000	0.02545	0.96	5.29	90.2	24	1700
	250	1000							91.1		
OMDC 280-41	166	675	1900	464		0.0457	1.7	5.19	88.1		
	185	750							89.4		
41	98	450	1000	282		0.0993	3.7	6.86	85.1		
	110	500							86.9		

Type	Rated Out put P_N kW	Rated Speed 400V 440V r/min	Speed with Field Weaking n_F r/min	Arm. Curr. I_N A	Field Power P_F W	Arm. Circuit Resistance R Ω(20°C)	Arm. Circuit Inductance L_A mH	Field Inductance L_F H	Eff. %	Moment of Inertia GD^2 kg.m^2	Wt. kg
OMDC 315-12	321	1360	1800	865	3850	0.015	0.39	8.64	92.2	21.2	1890
	355	1500							92.8		
	253	900	1600	690		0.02355	0.46	5.06	90.4		
	280	1000							91.6		
	180	680	1900	500		0.04371	0.83	4.97	88.4		
	200	750							89.4		
OMDC 315-11	144	540	1900	409		0.06919	1.3	7.6	86.4		
	160	600							87.4		
	118	450	1600	344		0.1	2.3	9.43	84.4		
	132	500							86.3		
	98	360	1200	294		0.1415	2.9	9.96	81.7		
	110	400							84.3		
OMDC 315-22	284	900	1600	772	4350	0.02034	0.49	5.91	91	24	2080
	315	1000							91.5		
	225	680	1600	624		0.03392	0.74	18.8	88.7		
	250	750							89.6		
OMDC 315-21	166	540	1600	468		0.05382	1.2	25	87.2		
	185	600							88.5		
	143	450	1500	413		0.076	1.5	19	84.7		
	160	500							86		
OMDC 315-32	320	900	1600	867	4650	0.01658	0.39	23.1	91.0	27.2	2290
	355	1000							92.0		
	252	680	1600	698		0.03043	0.82	21.5	89.1		
	280	750							89.8		
	180	540	1500	501		0.04536	0.95	31.6	88.2		
	200	600							89.4		
OMDC 315-31	118	360	1200	344		0.1002	2.1	23.3	83.2		
	132	400							85.3		
OMDC 315-42	361	900	1400	971	5200	0.01302	0.33	29	92.1	30.8	2520
	400	1000							92.7		
	284	680	1600	778		0.02364	0.67	20.8	90		
	315	750							90.7		
	225	540	1600	626		0.03554	0.87	21.9	88.3		
	250	600							89		
OMDC 315-41	166	450	1500	468		0.055	1.4	37.4	87.3		
	185	500							88.3		
	143	360	1200	416		0.0803	1.8	22.2	84		
	160	400							85.3		

Type	Rated Out put P_N	Rated Speed 400V 440V	Speed with Field Weaking n_F	Arm. Curr. I_N	Field Power P_F	Arm. Circuit Resistance R	Arm. Circuit Inductance L_A	Field Inductance L_F	Eff.	Moment of Inertia GD^2	Wt.
	kW	r/min	r/min	A	W	Ω(20°C)	mH	H	%	$kg.m^2$	kg
OMDC 355-12	406	900	1500	1094	4700	0.01259	0.36	37.6	91.8	42	2890
	450	1000							92.8		
	321	680	1500	877		0.02087	0.59	28.1	90.4		
	355	750							91.2		
OMDC 355-11	253	540	1500	697		0.02952	0.91	22	89.2		
	280	600							90.2		
	180	450	1500	506		0.0502	1.5	8.91	87.6		
	200	500							88.9		
	166	360	1200	478		0.066	1.8	22.4	84.9		
	185	400							85.9		
OMDC 355-22	361	680	1600	978	5600	0.01583	0.44	15.6	90.8	46	3170
	400	750							91.7		
	284	540	1500	783		0.02676	0.81	34.7	89.5		
	315	600							90.5		
	225	450	1600	624		0.03462	1.0	20.5	88.4		
	250	500							89.5		
OMDC 355-21	180	360	1200	511		0.05642	1.6	35.5	86.3		
	200	400							87.5		
OMDC 355-32	406	680	1100	1098	6000	0.01362	0.39	19	91.3	52	3490
	450	750							92.1		
	320	540	1600	877		0.02153	0.7	24.3	89.9		
	355	600							91		
	284	450	1500	789		0.0293	0.91	18.5	88.3		
	315	500							89.5		
OMDC 355-31	197	360	1200	559		0.04957	1.3	34.6	86.6		
	220	400							88.4		
OMDC 355-42	361	540	1300	985	6500	0.01836	0.64	29.6	90.5	60	3840
	400	600							91.2		
	320	450	1200	882		0.02361	0.76	17.7	88.9		
	355	500							89.2		
	225	360	1200	627		0.0358	1.2	17.7	87.5		
	250	400							88.8		

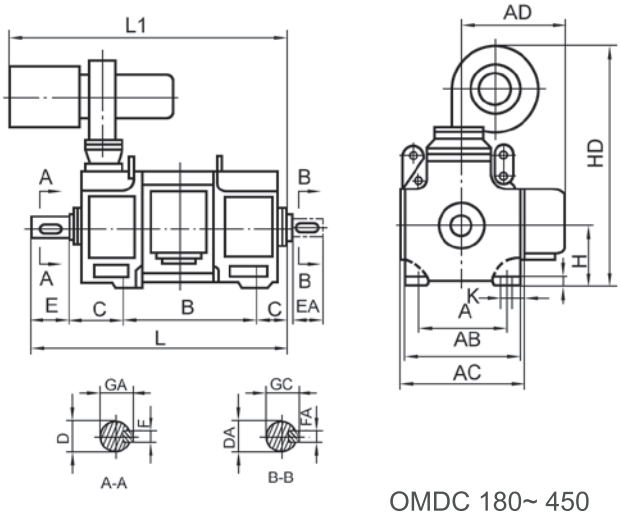
Type	Rated Out put P_N kW	Rated Speed 400V 440V r/min	Speed with Field Weaking n_F r/min	Arm. Curr. I_N A	Field Power P_F W	Arm. Circuit Resistance R Ω(20°C)	Arm. Circuit Inductance L_A mH	Field Inductance L_F H	Eff. %	Moment of Inertia GD^2 kg.m^2	Wt. kg
OMDC 400-22	435	680	1400	1175	5700	0.0139	0.33	7.85	90.8	74	4500
	480	750							92		
OMDC 400-21	235	360	1200	675		0.0497	1	7.3	84.8		
	260	400							86.3		
OMDC 400-21	180	270	900	537		0.0804	1.6	7.44	81.8		
	200	300							83.1		
OMDC 400-32	500	680	1400	1340	6400	0.0112	0.3	9.57	91.2	84	4900
	550	750							92.5		
OMDC 400-32	400	540	1300	1083		0.0162	0.35	4.51	89.9		
	440	600							91.1		
OMDC 400-32	344	450	1300	952		0.0248	0.58	6	88.1		
	380	500							89.5		
OMDC 400-31	270	360	1200	768		0.03821	0.82	6.11	86		
	300	400							87.5		
OMDC 400-31	208	270	900	611		0.0659	1.5	5.89	82.8		
	230	300							84		
OMDC 400-42	435	540	1300	1175	7100	0.0134	0.32	5.54	90.8	94	5300
	480	600							92		
OMDC 400-42	390	450	1400	1070		0.0201	0.47	6.86	88.6		
	430	500							90		
OMDC 400-41	316	360	1200	880		0.0274	0.73	5.41	87.7		
	350	400							89		
OMDC 400-41	235	270	900	676		0.0508	1.2	5.38	84		
	260	300							85.4		
OMDC 450-22	472	540	1200	1286	6500	0.0133	0.29	10.2	90.8	138	5600
	520	600							92.1		
OMDC 450-22	408	450	1400	1114		0.0159	0.41	7.99	90		
	450	500							91.3		
OMDC 450-22	362	360	1200	1010		0.0232	0.61	5.79	88.1		
	400	400							89.4		
OMDC 450-21	253	270	900	720		0.0415	1	5.82	85.8		
	280	300							87.1		

Type	Rated Out put P_N	Rated Speed 400V 440V	Speed with Field Weaking n_F	Arm. Curr. I_N	Field Power P_F	Arm. Circuit Resistance R	Arm. Circuit Inductance L_A	Field Inductance L_F	Eff.	Moment of Inertia GD^2	Wt.
	kW	r/min	r/min	A	W	Ω(20°C)	mH	H	%	$kg.m^2$	kg
OMDC 450-32	500	540	1200	1358	7100	0.0134	0.39	19.6	90.8	156	6000
	550	600							92		
OMDC 450-32	453	450	1300	1228		0.0145	0.32	7.36	90		
	500	500							91.4		
OMDC 450-32	408	360	1200	1130		0.0205	0.53	7.17	88.5		
	450	400							89.7		
OMDC 450-32	309	270	900	875		0.0342	0.83	4.8	85.9		
	340	300							87.1		
OMDC 450-31	200	180	600	595		0.0751	1.9	9.09	81.3		
	220	200							82.6		
OMDC 450-42	545	540	1100	1492	7800	0.0134	0.51	28.2	90.3	174	6700
	600	600							91.5		
OMDC 450-42	500	450	1100	1367		0.0145	0.43	18.6	90		
	550	500							91.4		
OMDC 450-42	453	360	1200	1254		0.0178	0.42	5.85	88.9		
	500	400							90		
OMDC 450-42	345	270	900	972		0.0275	0.81	5.62	86.8		
	380	300							88.1		
OMDC 450-41	235	180	600	698		0.0612	1.7	5.73	81.7		
	260	200							83		



OMDC 100~ 160

Fig 1



OMDC 180~ 450

Horizontal Foot-Mounted

Table 3 mm

Type	Mounting Dimensions in millimeter													Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	DA	EA	FA	GC	H	K	AB	AC	AD	HD	L	L1	h
OMDC 100-1	160	318	63	24	50	8	27	24	50	8	27	100	12	197	234	179	398	500	580	10
OMDC 100-2		358																540	620	
OMDC 112/2-1	190	337	70	28	60	8	31	28	60	8	31	112	12	221	255	202	452	544	612	10
OMDC 112/2-2		367																574	642	
OMDC 112/2-3		407																614	682	
OMDC 112/2-4		477																684	752	
OMDC 112/4-1	190	347	70	32	80	10	35	32	80	10	35	112	12	221	255	202	452	573	642	10
OMDC 112/4-2		387																613	682	
OMDC 112/4-3		437																663	732	
OMDC 112/4-4		497																723	792	
OMDC 132-1	216	355	89	38	80	10	41	38	80	10	41	132	12	260	295	240	527	619	814	12
OMDC 132-2		405																669	864	
OMDC 132-3		465																729	924	
OMDC 132-4		545																809	1004	
OMDC 160-11	254	411	108	48	110	14	51.5	48	110	14	51.5	160	15	316	346	283	625	744	953	14
OMDC 160-12		476																809	986	
OMDC 160-21		451																784	993	
OMDC 160-22		516																849	1026	
OMDC 160-31		501																834	1043	
OMDC 160-32		566																899	1076	
OMDC 160-41		561																894	1103	
OMDC 160-42		626																959	1136	
OMDC 160-51		631																964	1173	
OMDC 160-52		696																1029	1206	
OMDC 180-11	279	436	121	55	110	16	59	55	110	16	59	180	15	356	390	305	731	794	1022	16
OMDC 180-12		501																859	1087	
OMDC 180-21		476																834	1062	
OMDC 180-22		541																899	1127	
OMDC 180-31		526																884	1112	
OMDC 180-32		591																949	1177	
OMDC 180-41		586																944	1172	
OMDC 180-42		651																1009	1237	
OMDC 180-51		656																1014	1242	
OMDC 180-52		721																1079	1307	

Horizontal Foot-Mounted

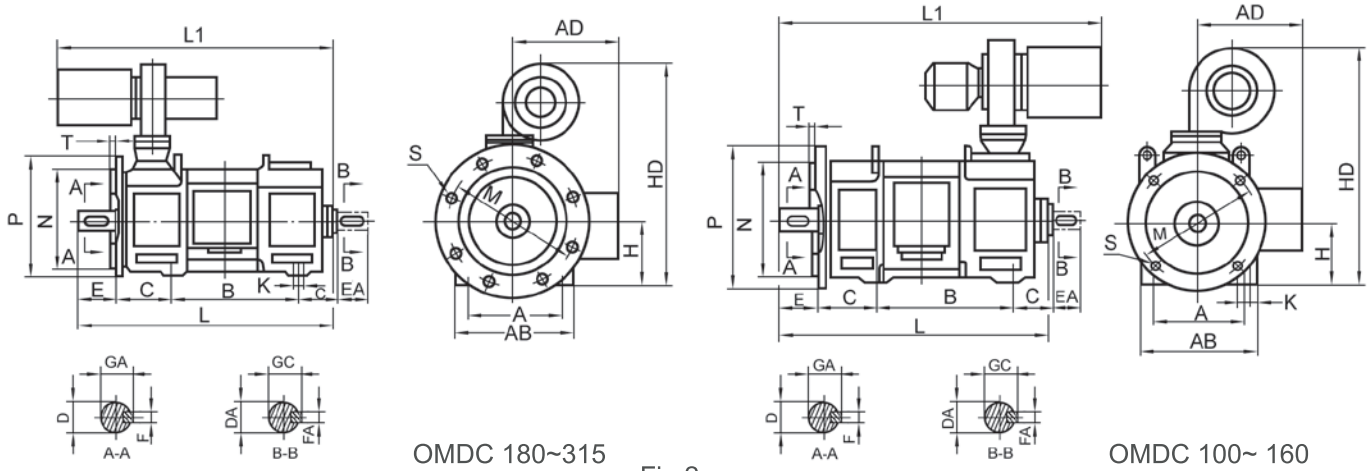
Table 3 mm

Type	Mounting Dimensions in millimeter													Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	DA	EA	FA	GC	H	K	AB	AC	AD	HD	L	L1	h
OMDC 200-11	318	566	133	65	140	18	69	65	140	18	69	200	19	396	430	355	799	977	1158	18
OMDC 200-12		614																1025	1206	
OMDC 200-21		606																1017	1198	
OMDC 200-22		654																1065	1246	
OMDC 200-31		686																1097	1278	
OMDC 200-32		734																1145	1326	
OMDC 200-41		756																1167	1348	
OMDC 200-42		804																1215	1396	
OMDC 225-11	356	701	149	75	140	20	79.5	75	140	20	79.5	225	19	440	474	398	981	1140	1605	20
OMDC 225-12		761																1200	1665	
OMDC 225-21		751																1190	1655	
OMDC 225-22		811																1250	1715	
OMDC 225-31		811																1250	1715	
OMDC 225-32		871																1310	1775	
OMDC 250-11	406	715	168	85	170	22	90	75	140	20	79.5	250	24	490	524	432	1031	1225	1657	25
OMDC 250-12		775																1285	1717	
OMDC 250-21		765																1275	1707	
OMDC 250-22		825																1335	1767	
OMDC 250-31		825																1335	1767	
OMDC 250-32		885																1395	1827	
OMDC 250-41		895																1405	1837	
OMDC 250-42		955																1465	1897	
OMDC 280-11	457	762	190	95	170	25	100	85	170	22	90	280	24	550	584	462	1130	1315	1748	25
OMDC 280-12		852																1405	1838	
OMDC 280-21		822																1375	1808	
OMDC 280-22		912																1465	1898	
OMDC 280-31		892																1445	1878	
OMDC 280-32		982																1535	1968	
OMDC 280-41		972																1525	1958	
OMDC 280-42		1062																1615	2048	
OMDC 280-51		1062																1615	2048	
OMDC 280-52		1152																1705	2138	

Horizontal Foot-Mounted

Table 3 mm

Type	Mounting Dimensions in millimeter													Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	DA	EA	FA	GC	H	K	AB	AC	AD	HD	L	L1	h
OMDC 315-11	508	887	216	100	210	28	106	95	170	25	100	315	28	620	654	497	1221	1532	1897	30
OMDC 315-12		977																1622	1987	
OMDC 315-21		967																1612	1977	
OMDC 315-22		1057																1702	2067	
OMDC 315-31		1057																1702	2067	
OMDC 315-32		1147																1792	2157	
OMDC 315-41		1157																1802	2167	
OMDC 315-42		1247																1892	2257	
OMDC 355-11	610	968	254	110	210	28	116	110	210	28	116	355	28	700	734	701	1301	1689	2010	30
OMDC 355-12		1058																1779	2100	
OMDC 355-21		1058																1779	2100	
OMDC 355-22		1148																1869	2190	
OMDC 355-31		1158																1879	2200	
OMDC 355-32		1248																1969	2290	
OMDC 355-41		1268																1989	2310	
OMDC 355-42		1358																2079	2400	
OMDC 400-11	686	959	280	120	210	32	127	120	210	32	127	400	35	790	830	750	1620	1732	1817	35
OMDC 400-12		1079																1852	1937	
OMDC 400-21		1039																1812	1897	
OMDC 400-22		1159																1932	2017	
OMDC 400-31		1129																1902	1987	
OMDC 400-32		1249																2022	2107	
OMDC 400-41		1229																2002	2087	
OMDC 400-42		1349																2122	2207	
OMDC 450-11	800	1061	315	140	250	36	148	140	250	36	148	450	35	890	924	800	1720	1944	2050	40
OMDC 450-12		1181																2064	2070	
OMDC 450-21		1151																2034	2140	
OMDC 450-22		1271																2154	2260	
OMDC 450-31		1251																2134	2240	
OMDC 450-32		1371																2254	2360	
OMDC 450-41		1361		160	300	40	169											2294	2350	
OMDC 450-42		1481																2414	2470	
OMDC 450-51		1481																2414	2470	
OMDC 450-52		1601																2534	2590	



OMDC 180~315

OMDC 100~ 160

Fig 2

Horizontal Flanged Foot-Mounted

Table 4 mm

Type	Mounting Dimensions in millimeter																	Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	DA	EA	FA	GC	H	K	M	N	S	Holes	T	P	AB	AC	AD	HD	L	L1
OMDC 100-1	160	318	63	24	50	8	27	24	50	8	27	100	12	215	180	15	4	4	250	197	234	179	398	500	580
OMDC 100-2		358																						540	620
OMDC 112/2-1	190	337	70	28	60	8	31	28	60	8	31	112	12	215	180	15	4	4	250	221	255	202	452	544	612
OMDC 112/2-2		367																						574	642
OMDC 112/2-3		407																						614	682
OMDC 112/2-4		477																						684	752
OMDC 112/4-1	190	347	70	32	80	10	35	32	80	10	35	112	12	215	180	15	4	4	250	221	255	202	452	573	642
OMDC 112/4-2		387																						613	682
OMDC 112/4-3		437																						663	732
OMDC 112/4-4		497																						723	792
OMDC 132-1	216	355	89	38	80	10	41	38	80	10	41	132	12	265	230	15	4	4	300	260	295	240	527	619	814
OMDC 132-2		405																						669	864
OMDC 132-3		465																						729	924
OMDC 132-4		545																						809	1004
OMDC 160-11	254	411	108	48	110	14	51.5	48	110	14	51.5	160	15	300	250	19	4	5	350	316	346	283	625	744	953
OMDC 160-12		476																						809	986
OMDC 160-21		451																						784	993
OMDC 160-22		516																						849	1026
OMDC 160-31		501																						834	1043
OMDC 160-32		566																						899	1076
OMDC 160-41		561																						894	1103
OMDC 160-42		626																						959	1136
OMDC 160-51		631																						964	1173
OMDC 160-52		696																						1029	1206
OMDC 180-11	279	436	121	55	110	16	59	55	110	16	59	180	15	350	300	19	4	5	400	356	390	305	731	794	1022
OMDC 180-12		501																						859	1087
OMDC 180-21		476																						834	1062
OMDC 180-22		541																						899	1127
OMDC 180-31		526																						884	1112
OMDC 180-32		591																						949	1177
OMDC 180-41		586																						944	1172
OMDC 180-42		651																						1009	1237
OMDC 180-51		656																						1014	1242
OMDC 180-52		721																						1079	1307

Horizontal Flanged Foot-Mounted

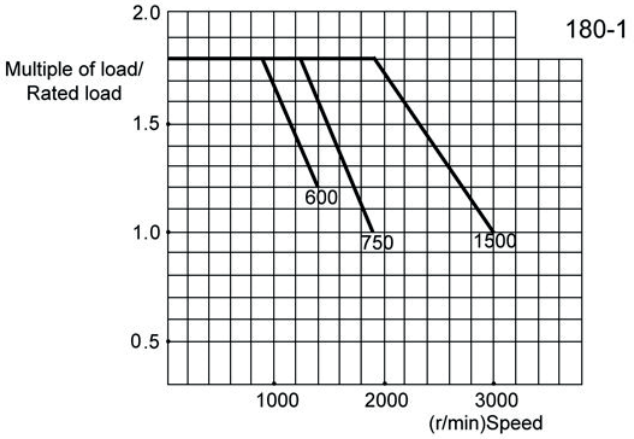
Table 4 mm

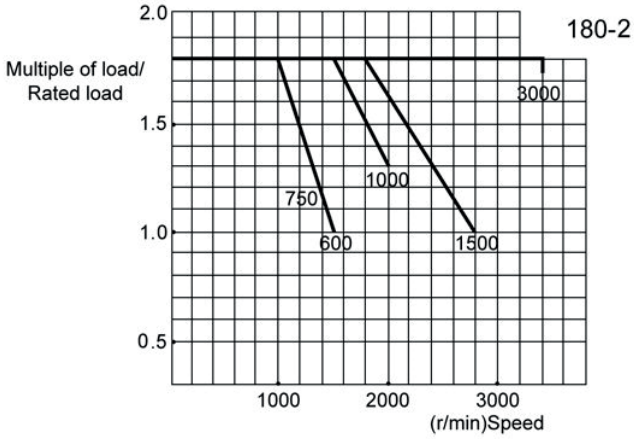
Type	Mounting Dimensions in millimeter																	Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	DA	EA	FA	GC	H	K	M	N	S	Holes	T	P	AB	AC	AD	HD	L	L1
OMDC 200-11	318	566	133	65	140	18	69	65	140	18	69	200	19	400	350	19	8	5	450	396	430	355	779	977	1158
OMDC 200-12		614																						1025	1206
OMDC 200-21		606																						1017	1198
OMDC 200-22		654																						1065	1246
OMDC 200-31		686																						1097	1278
OMDC 200-32		734																						1145	1326
OMDC 200-41		756																						1167	1348
OMDC 200-42		804																						1215	1396
OMDC 225-11	356	701	149	75	140	20	79.5	75	140	20	79.5	225	19	500	450	19	8	5	550	440	474	398	981	1140	1605
OMDC 225-12		761																						1200	1665
OMDC 225-21		751																						1190	1655
OMDC 225-22		811																						1250	1715
OMDC 225-31		811																						1250	1715
OMDC 225-32		871																						1310	1775
OMDC 250-11	406	715	168	85	170	22	90	75	140	20	79.5	250	24	600	550	24	8	6	660	490	524	432	1031	1225	1657
OMDC 250-12		775																						1285	1717
OMDC 250-21		765																						1275	1707
OMDC 250-22		825																						1335	1767
OMDC 250-31		825																						1335	1767
OMDC 250-32		885																						1395	1827
OMDC 250-41		895																						1405	1837
OMDC 250-42		955																						1465	1897
OMDC 280-11	457	762	190	95	170	25	100	85	170	22	90	280	24	600	550	24	8	6	660	550	584	462	1130	1315	1748
OMDC 280-12		852																						1405	1838
OMDC 280-21		822																						1375	1808
OMDC 280-22		912																						1465	1898
OMDC 280-31		892																						1445	1878
OMDC 280-32		982																						1535	1968
OMDC 280-41		972																						1525	1958
OMDC 280-42		1062																						1615	2048
OMDC 280-51		1062																						1615	2048
OMDC 280-52		1152																						1705	2138
OMDC 315-11	508	887	216	100	210	28	106	95	170	25	100	315	28	740	680	24	8	6	800	620	654	497	1221	1532	1897
OMDC 315-12		977																						1622	1987
OMDC 315-21		967																						1612	1977
OMDC 315-22		1057																						1702	2067
OMDC 315-31		1057																						1702	2067
OMDC 315-32		1147																						1792	2157
OMDC315-41		1157																						1802	2167
OMDC 315-42		1247																						1892	2257

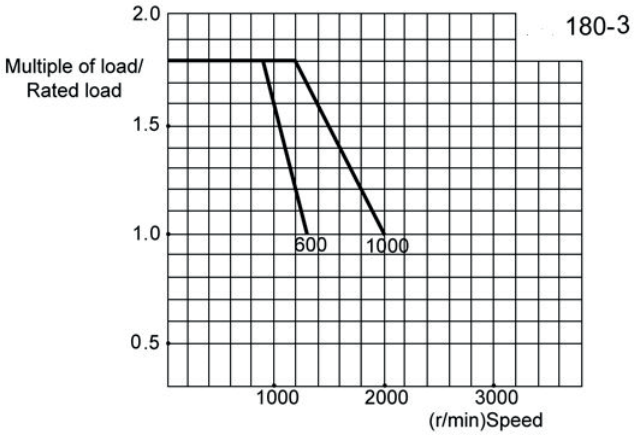
Illustration (Appendix 1)

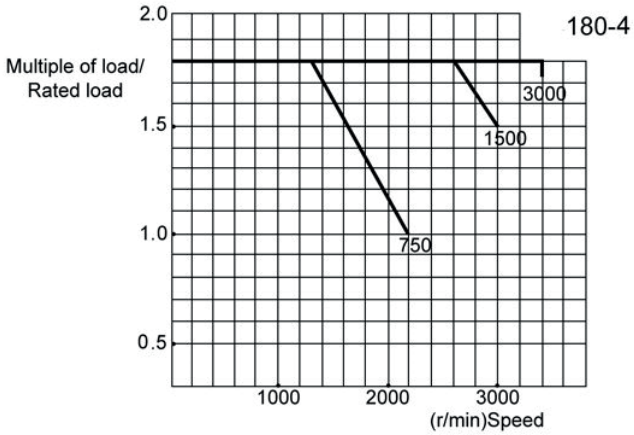
1. Multiple of load implies the multiple of armature current (armature circuit characteristic factor).
2. The figures beside the curves in the drawing are the rated speed of motors.
3. The multiple of load under speed regulation via feld weakening for frame size OMDC 160 and below may consult with the manufacturer.

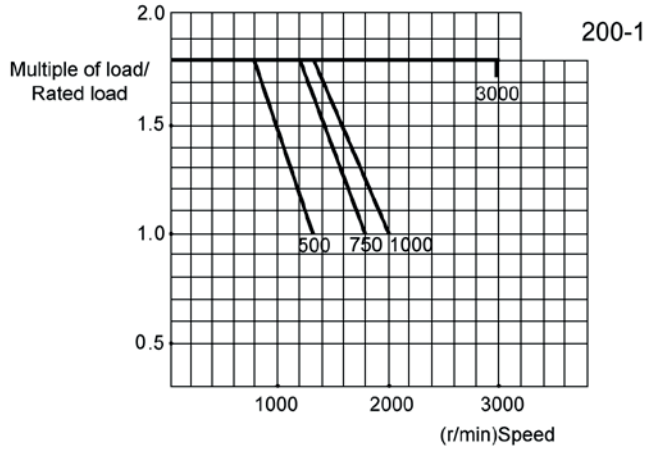
Appendix 1: Armature Circuit Characteristic Factor

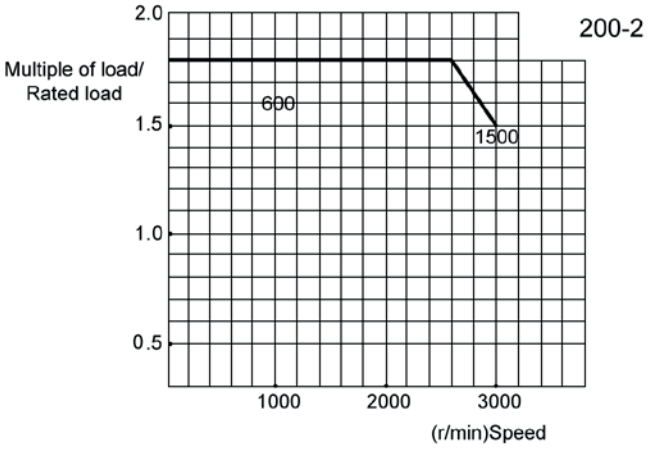


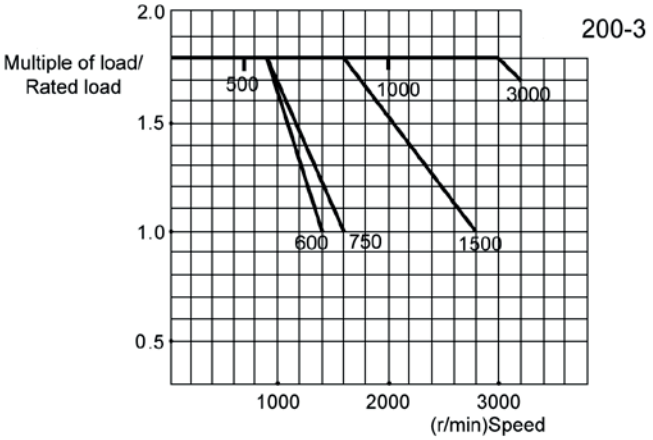


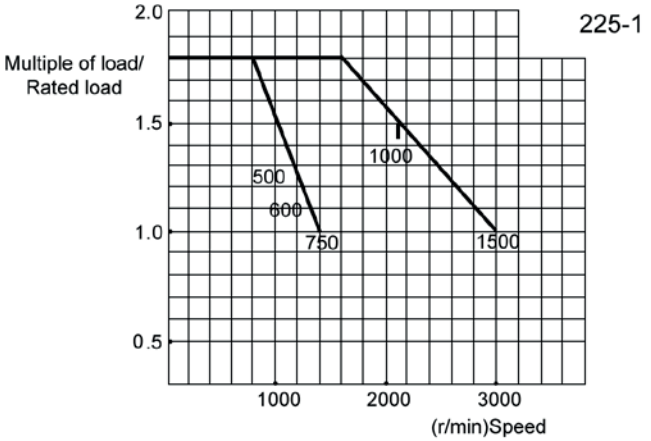


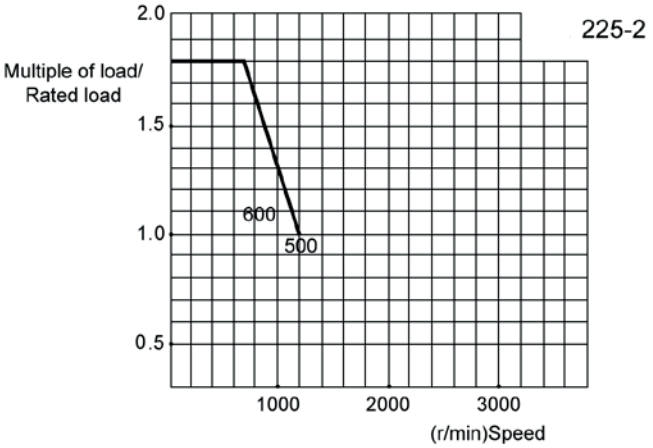


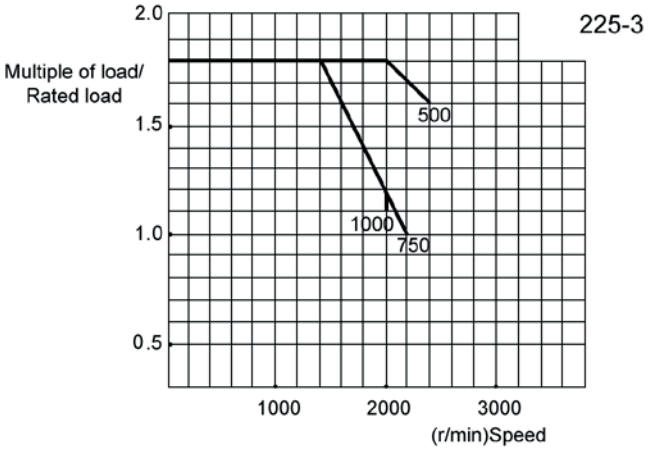

200-1
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
3000
500
750
1000
1000
2000
3000
(r/min)Speed

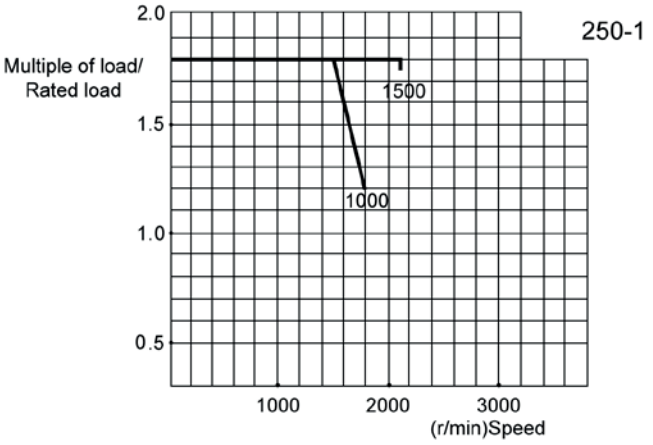

200-2
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
600
1500
1000
2000
3000
(r/min)Speed

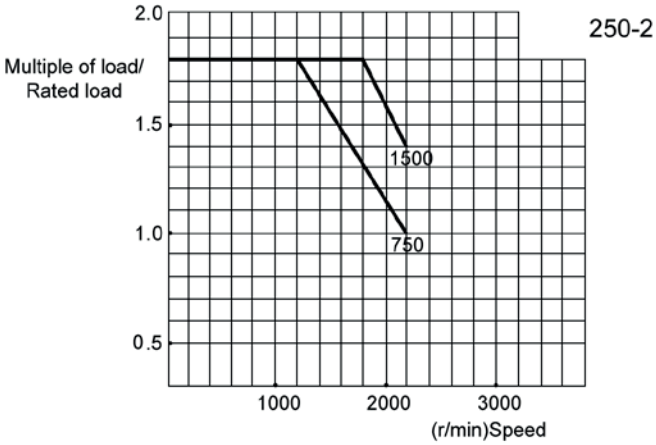

200-3
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
500
1000
3000
600
750
1500
1000
2000
3000
(r/min)Speed

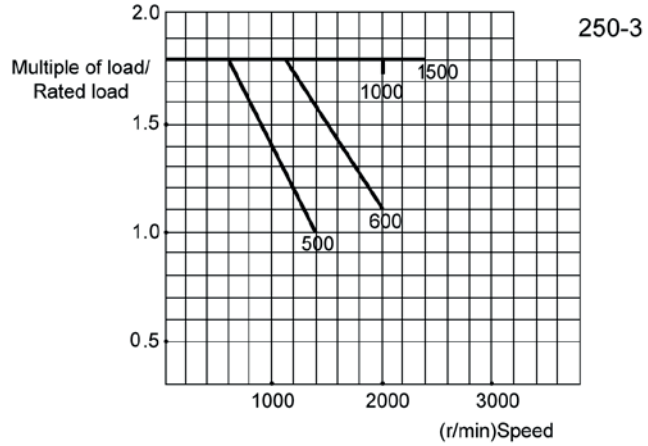

225-1
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1000
500
600
750
1500
1000
2000
3000
(r/min)Speed

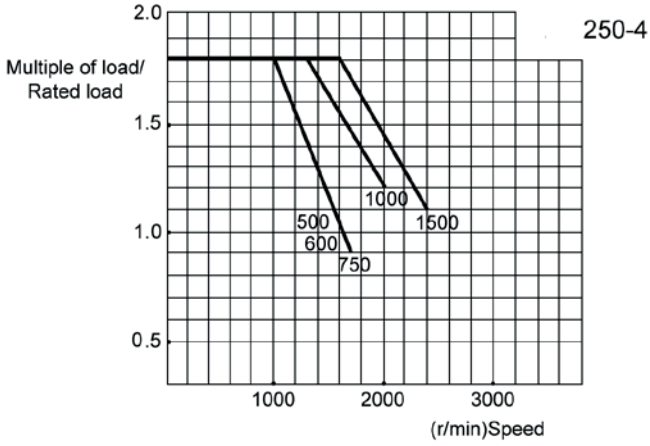

225-2
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
600
500
1000
2000
3000
(r/min)Speed

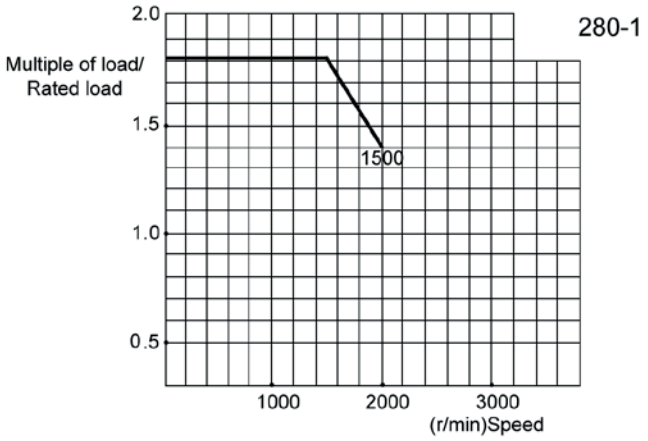

225-3
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
500
1000
750
1000
2000
3000
(r/min)Speed

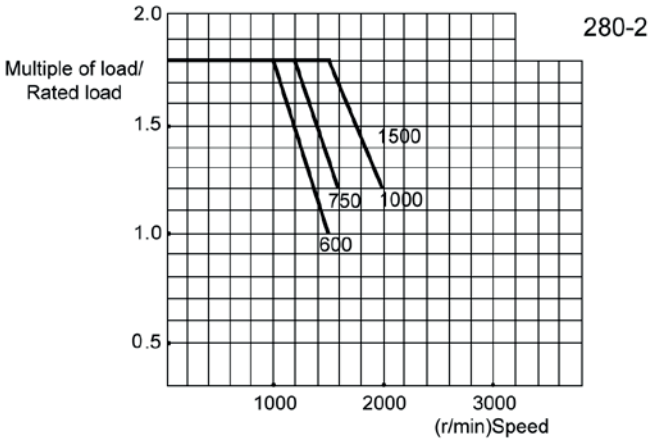

250-1
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1500
1000
1000
2000
3000
(r/min)Speed

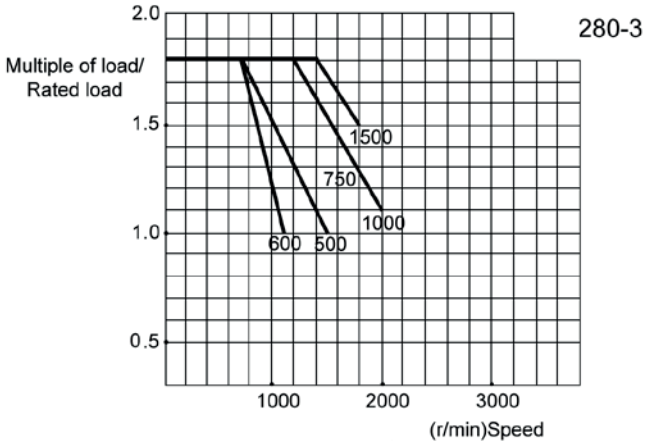

250-2
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1500
750
1000
2000
3000
(r/min)Speed

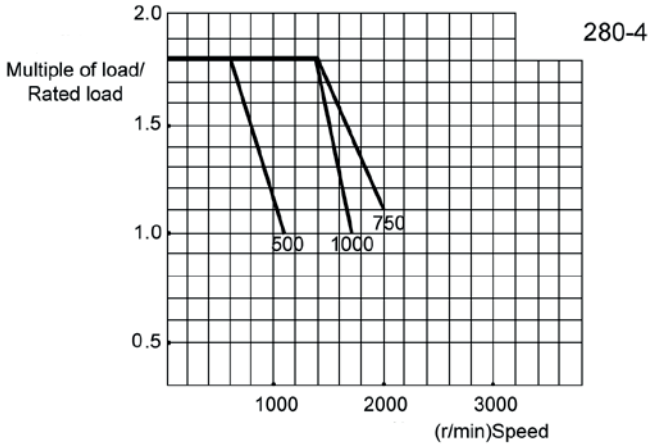

250-3
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1500
1000
600
500
1000
2000
3000
(r/min)Speed

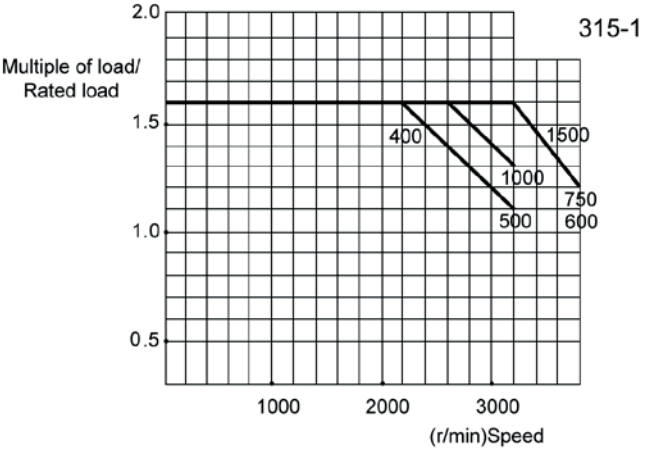

250-4
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1000
1500
500
600
750
1000
2000
3000
(r/min)Speed

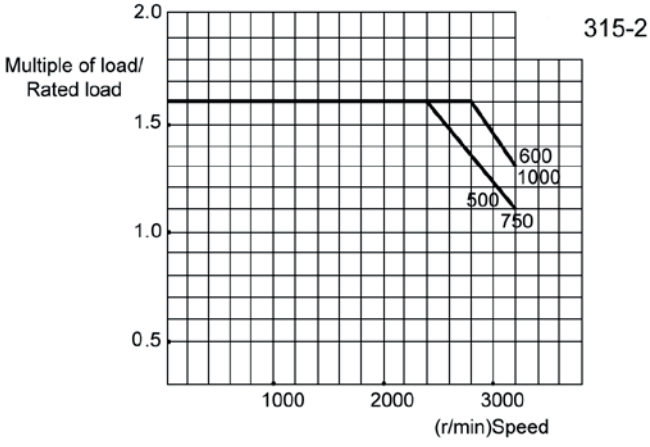

280-1
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1500
1000
2000
3000
(r/min)Speed

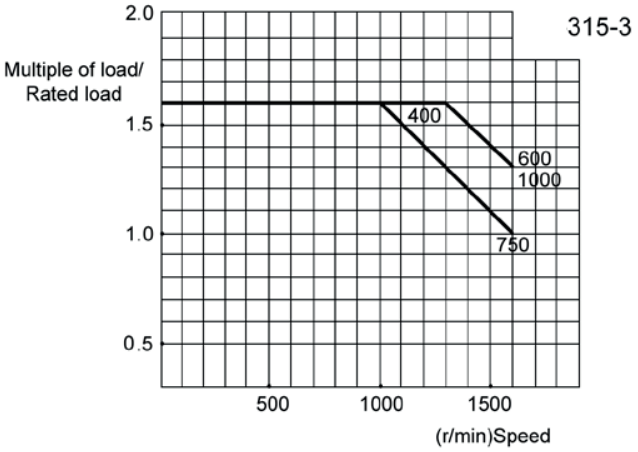

280-2
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1500
750
1000
600
1000
2000
3000
(r/min)Speed

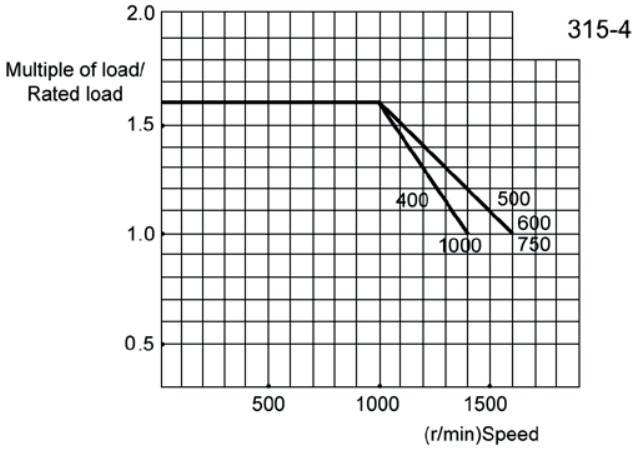

280-3
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
1500
750
1000
600
500
1000
2000
3000
(r/min)Speed

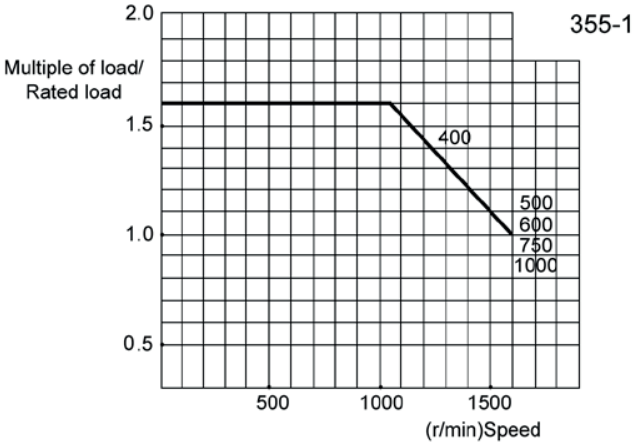

280-4
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
750
500
1000
1000
2000
3000
(r/min)Speed

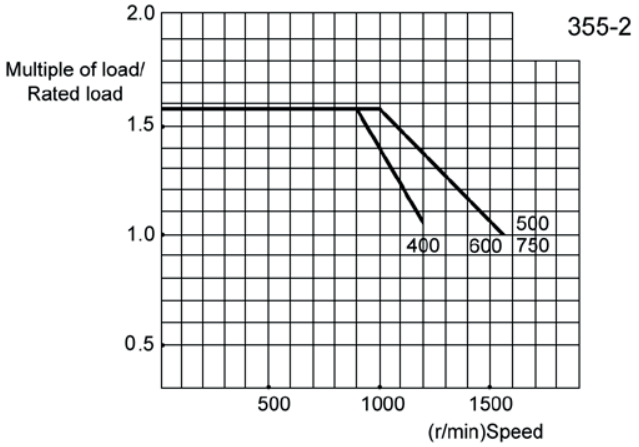

315-1
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
1500
1000
750
500
600
1000
2000
3000
(r/min)Speed

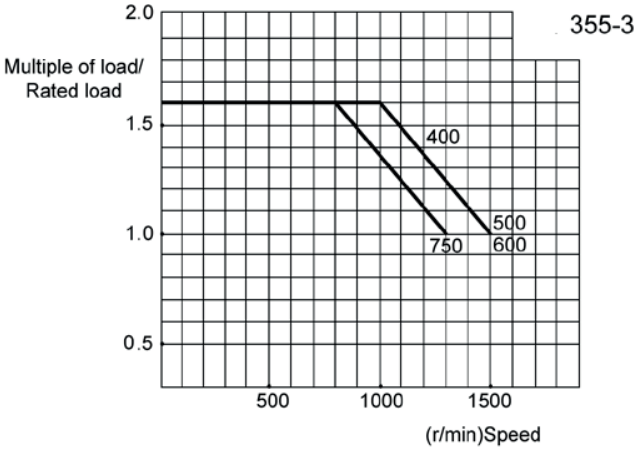

315-2
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
600
1000
500
750
1000
2000
3000
(r/min)Speed

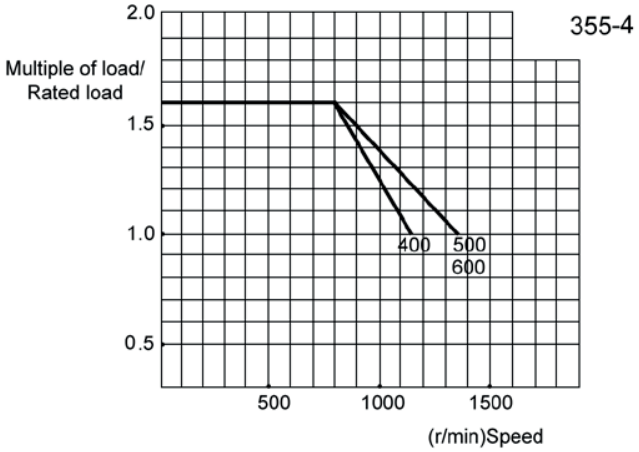

315-3
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
600
1000
750
500
1000
1500
(r/min)Speed

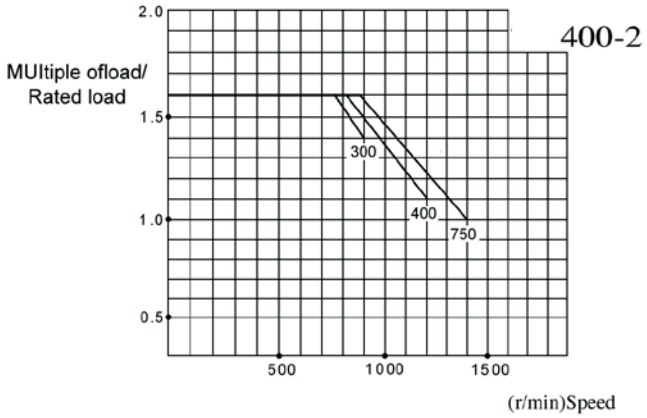

315-4
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
500
600
1000
750
500
1000
1500
(r/min)Speed

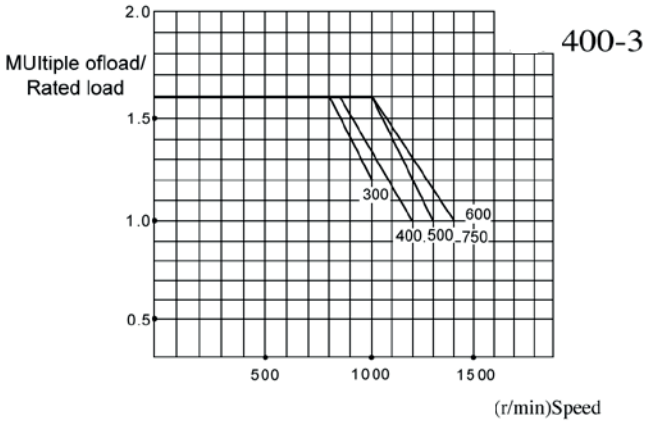

355-1
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
500
600
750
1000
500
1000
1500
(r/min)Speed

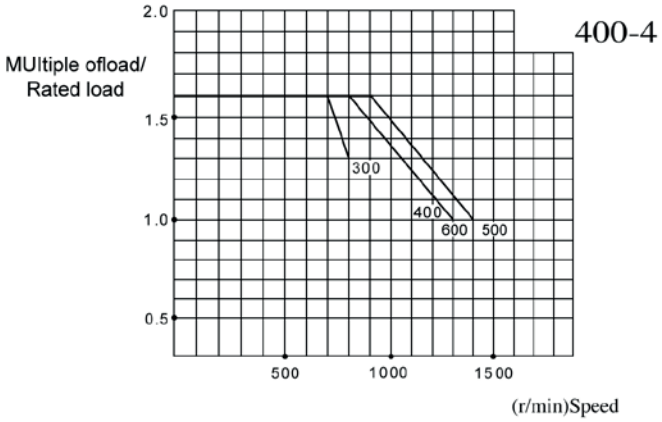

355-2
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
500
600
750
500
1000
1500
(r/min)Speed

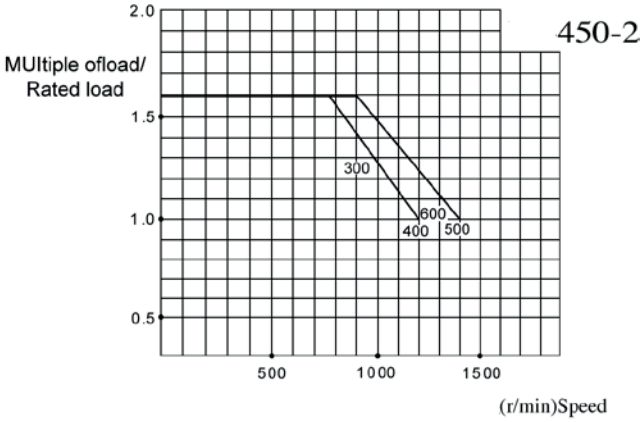

355-3
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
500
750
600
500
1000
1500
(r/min)Speed

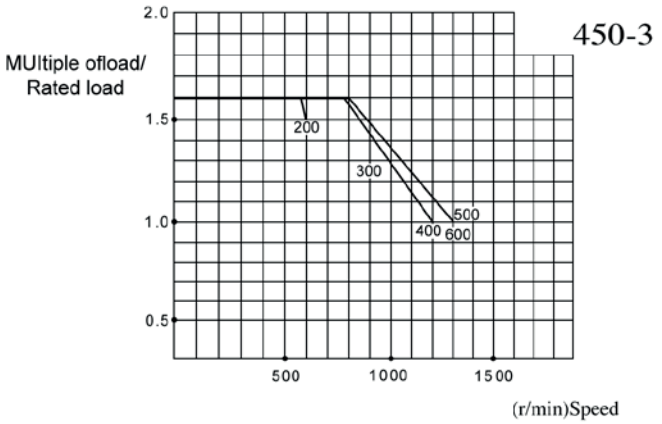

355-4
Multiple of load/
Rated load
2.0
1.5
1.0
0.5
400
500
600
500
1000
1500
(r/min)Speed

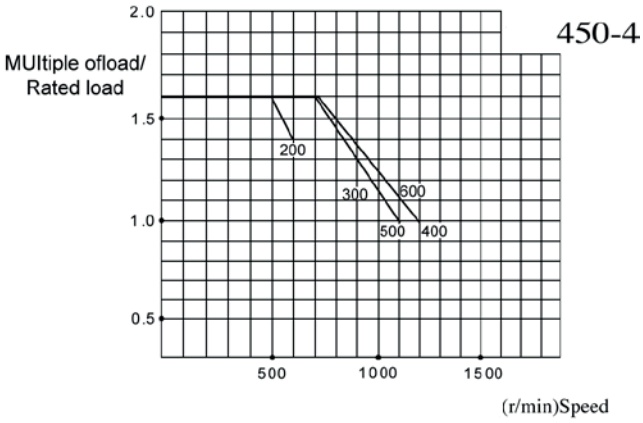










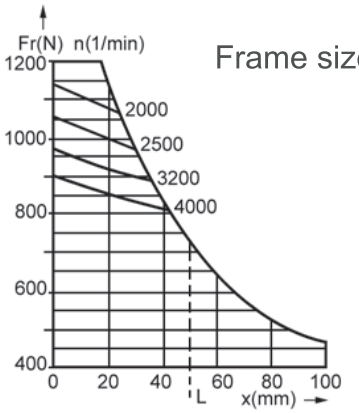


Remarks:

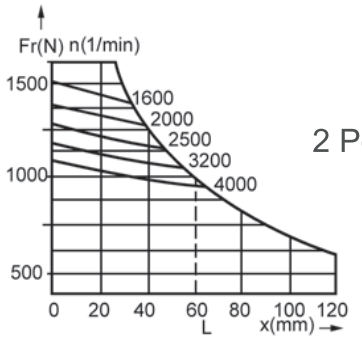
During starting a separately excited motor, it needs to turn on the field winding to its rated voltage before switch on the armature circuit, And cut off the armature circuit firtly and then switch off the field circuit avoiding excessive fast speed through field weakening when it is starting or stopping.

Appendix 2A

Frame size: 100

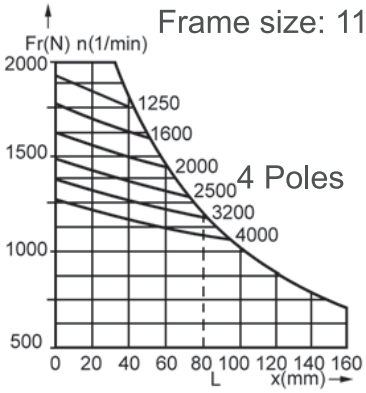


Frame size: 112



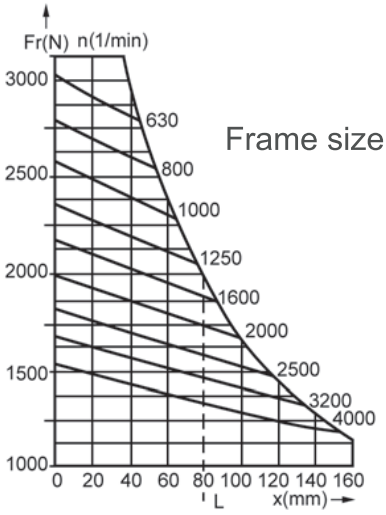
2 Poles

Frame size: 112

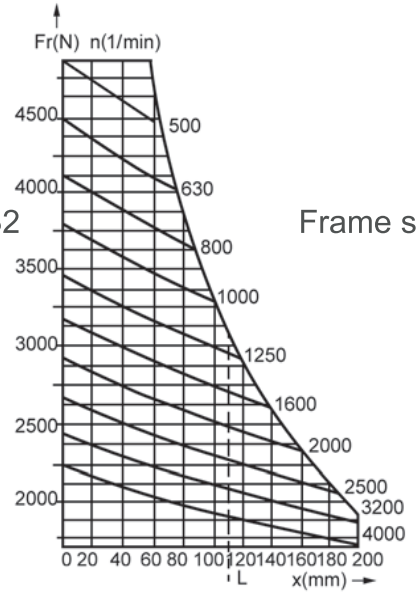


4 Poles

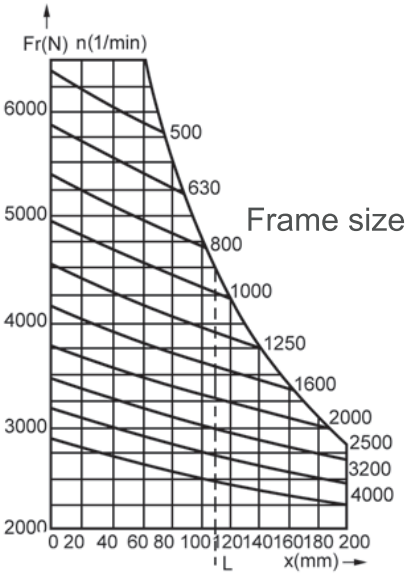
Frame size: 132

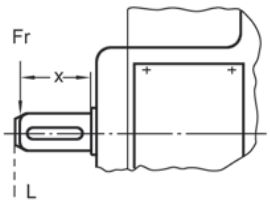


Frame size: 160



Frame size: 180





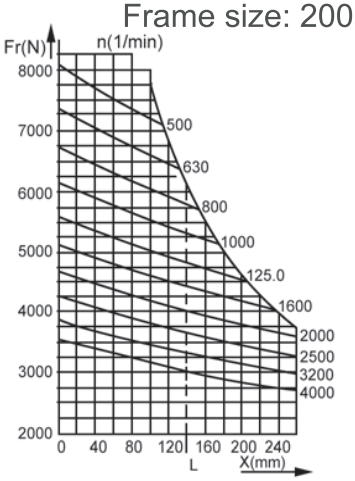
Normal shaft end

Additional radial forces drive end

horizontal construction

Appendix 2A

Frame size: 200



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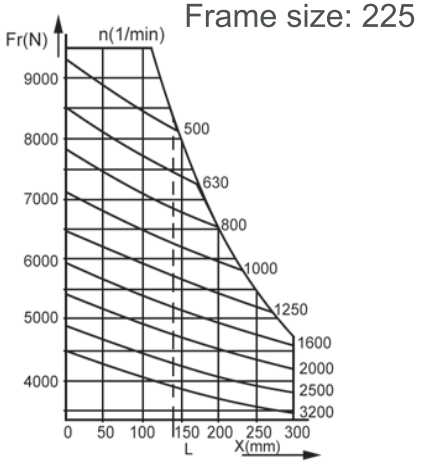

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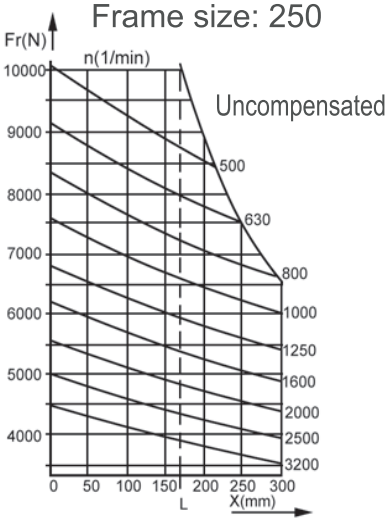

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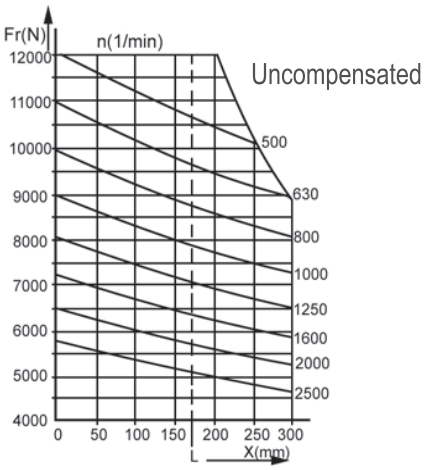

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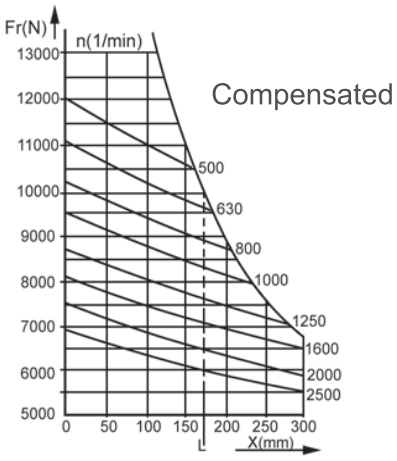

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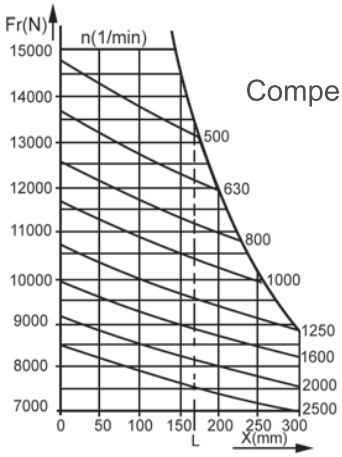
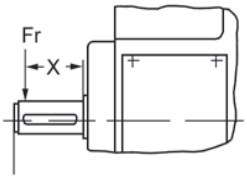
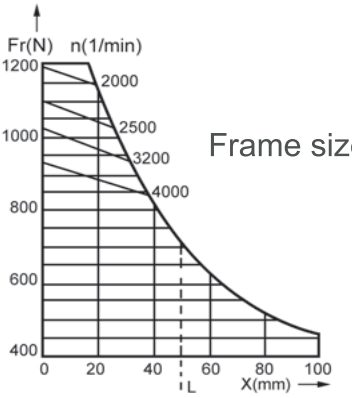




Normal shaft end

Additional radial forces drive end
horizontal construction

Appendix 2B



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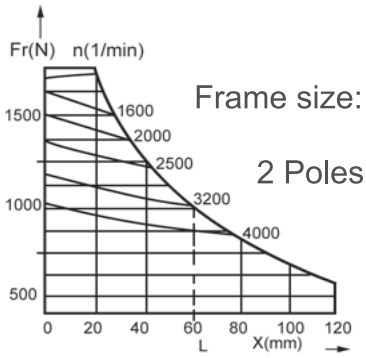
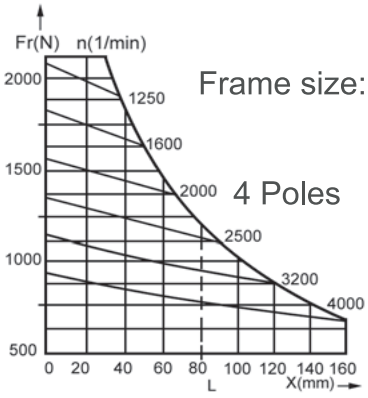


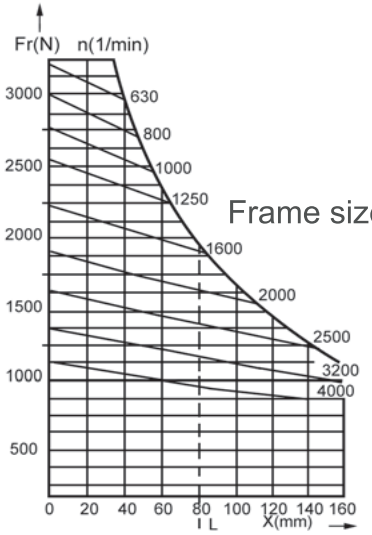
Frame size: 112

2 Poles



Frame size: 112

4 Poles



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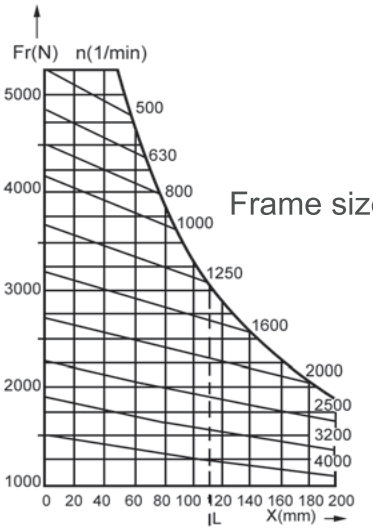

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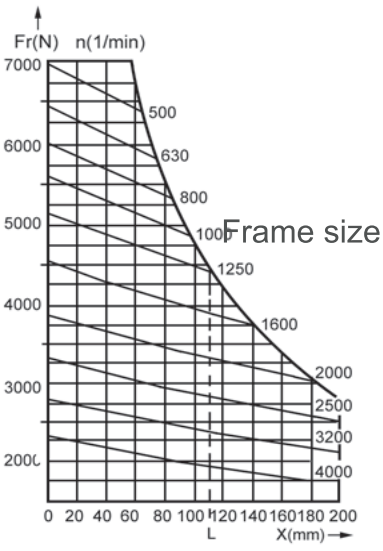

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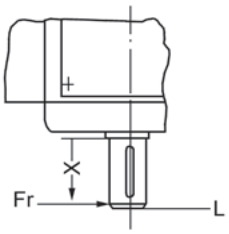
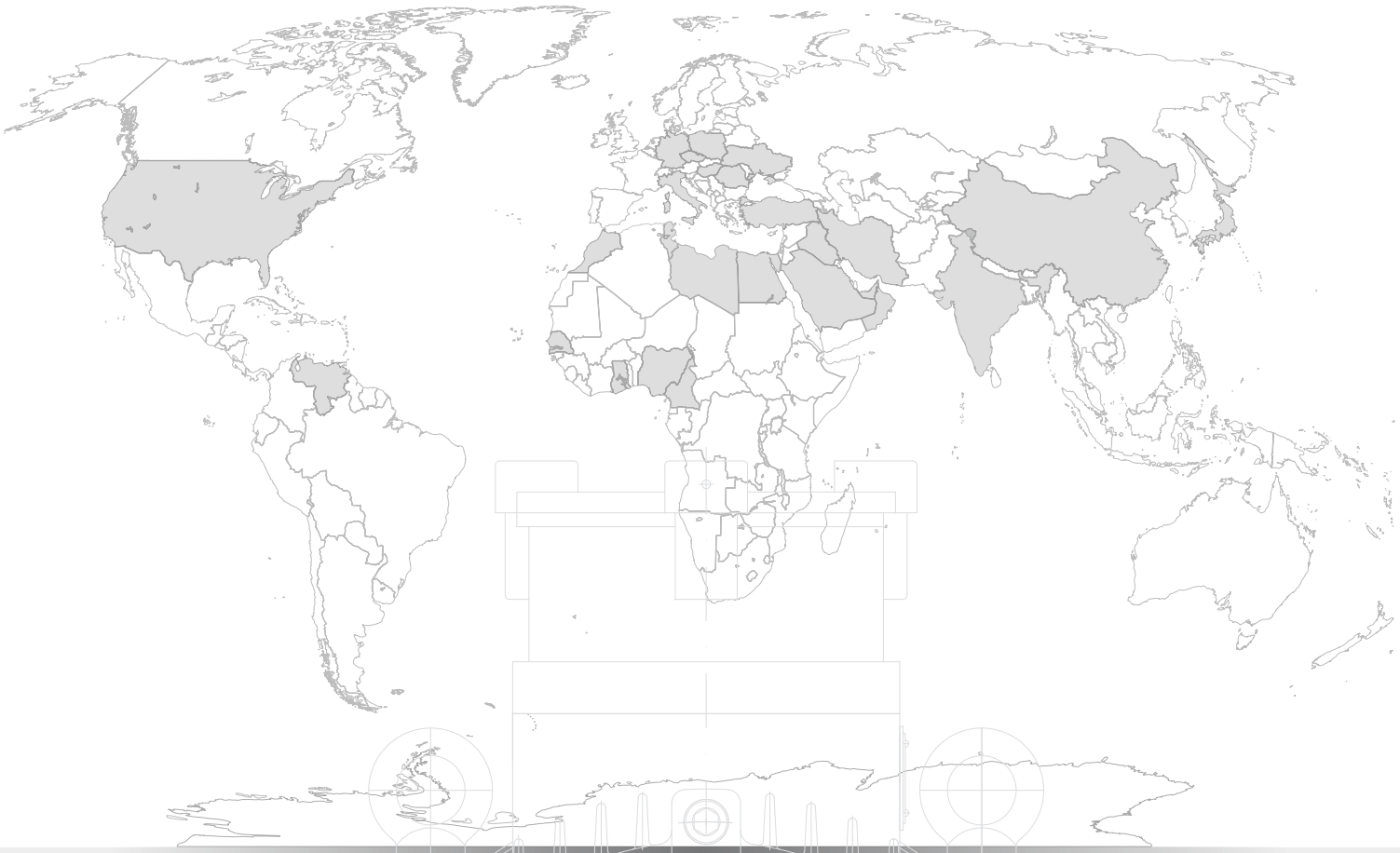


Normal shaft end

Additional radial forces drive end
vertical construction

CATALOGUE

OMDC Series DC Motor



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