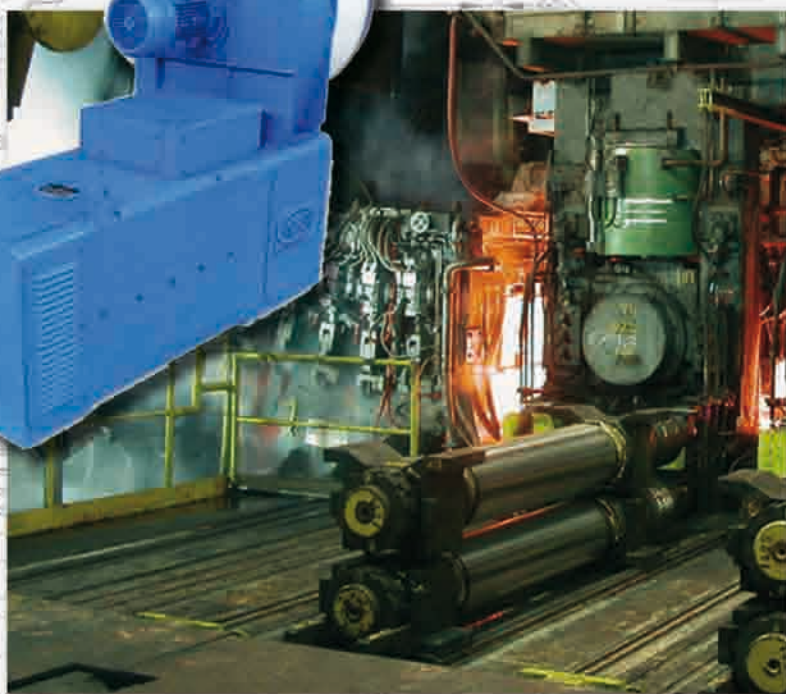
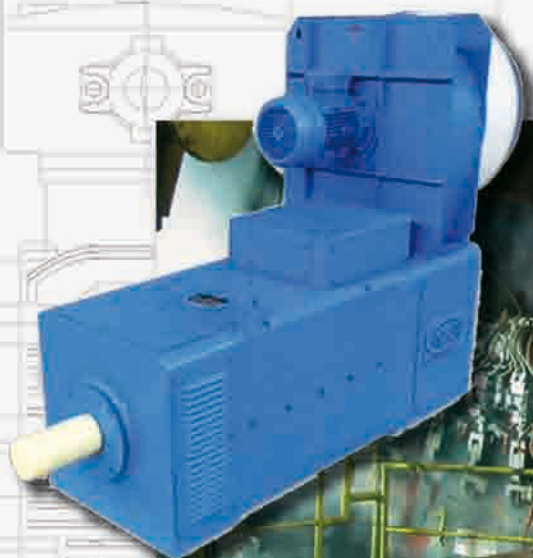




ELECTRIC MOTORS

DC Motors



ORSATTI
G R O U P

OM DC Motors Series

I .Features and Uses

OM DC motors Series are new developed products. The products have found wide use for prime mover in various machinery, such as mill auxiliary in metallurgical industry, metal cutting machine-tool, paper-making, print, textile, printing and dyeing, cement-making, plastic extruding machine etc.

Outline mounting dimensions of the motors comply with IEC 72 Standard, except for the axial distance between the mounting holes (dimension B).

Performances and technical requirements of the DC motors can be checked in accordance with IEC 34-1 Standard of the International Electro-technical Committee, or DIN 57530 Norm of the Deutsche Industrial-Norm.

The angular shape of the machine makes good use of space. The motors have laminated yokes, which means that when used for rectifier power supplies they can endure both current ripple and rapid current changes (load change) under dynamic condition. The stator design leads to high accuracy of pole spacing and consequent good commutation.

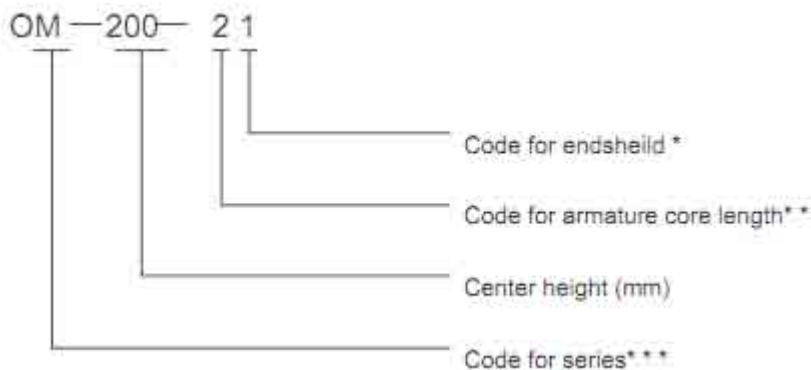
The DC Motors are class F insulation with reliable insulation construction and impregnating process, ensuring stable dielectric performance and excellent heat dissipation.

The DC motors possess the features of small size, good performance, light weight, large output, high efficiency and reliability, being able to match the current international advanced level.

The DC motors can be lastingly operated from fully controlled three phase bridge without a smoothing reactor. DC Motors for 160V may be operated on single phase bridge thyristor.

II . Item Define

Example:



* The digit 1,2 for short, and long end shield.

** As regards frame size OM-112, the first digit means No. of poles, the second digit for core length.

*** The letter "Z " for dc machine, the digit "F " for ordinal number of the fourth series design.

III. 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. Ambient conditions for DC motors should be free from acidic, alkali fumes or other aggressive gases which corrode insulation;

d. Duty: Continuous (S1);

e. Armature and field circuit for DC motors may be either operated on static thyristor controlled supplies, or from DC generator;

f. Performances of DC motors all comply with State Standard GB/T755<<Fundamental technical rules for electrical machines>>.

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 750 600 500 400 300 and 200r/min. Total 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 torque can remain constant by reducing speed via armature voltage weakening below rated 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 running, its excitation 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 excitation 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 OM-315 OM-355 OM-400 OM-450 compensating windings are provided. For frame size Z4-250 and the OM-280 motors are feasible with a compensating winding too.

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

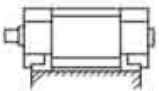
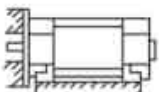
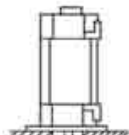
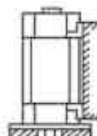
7. The efficiencies listed in the data sheet are for rated output, voltage and speed, and include excitation losses, excluding separate ventilating fans.

IV. 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 GB/T997 stipulated as follows.

Mounting Type	For Use in
 IMB-3	OM-100~Z4-450
 IMB-35	OM-100~Z4-315
 IMV-1	OM-100~Z4-225 (The machines are always delivered with feet, even when they are flange-mounted)
 IMV-15	OM-100~Z4-315

2. Methods of Cooling:

Modes of cooling for all the motors are separate cooling, force ventilated. Cooling by frame radially fan, and attached an air filter. Modes of cooling for DC motors may be made into three types, namely IC-06, IC-17 and IC-37.

- For OM-100~OM-160, the blower is mounted on the non-drive side.
- For OM-180~OM-450, the blower is mounted on the drive side.
- The required cooling air volume, air pressure and fan motor capacity are shown below. (All the ventilating fan motors are of three phase, two pole, 380V.)

Table 1

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

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

- Frame size 100 up to 180 may be made into the totally enclosed, frame cooled motor(IC410);
- Frame size 160 up to 250 may be made into the separately ventilated motor with blower mounted on its non-drive side (IC05);
- Frame size 100 up to 160 may be made into the self cooled open motor with its own fan mounted on the shaft (IC01).
- Frame size 160 up to 315 may be made into totally enclosed motor with internal cooling air circulation by independent air-air heat exchanger mounted on it (IC666);
- 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 right 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. DC Motors, if necessary, can fit into a tachogenerator or other accessories at the non-drive end.

5. DC Motors, when directly coupled, must use elastic or flexible couplings. The driving and driven units must be aligned with the utmost care.

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

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

Remarks:

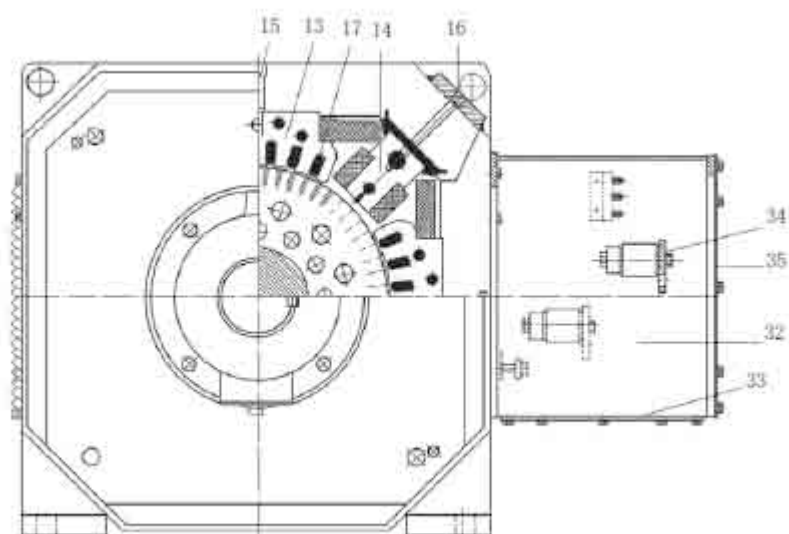
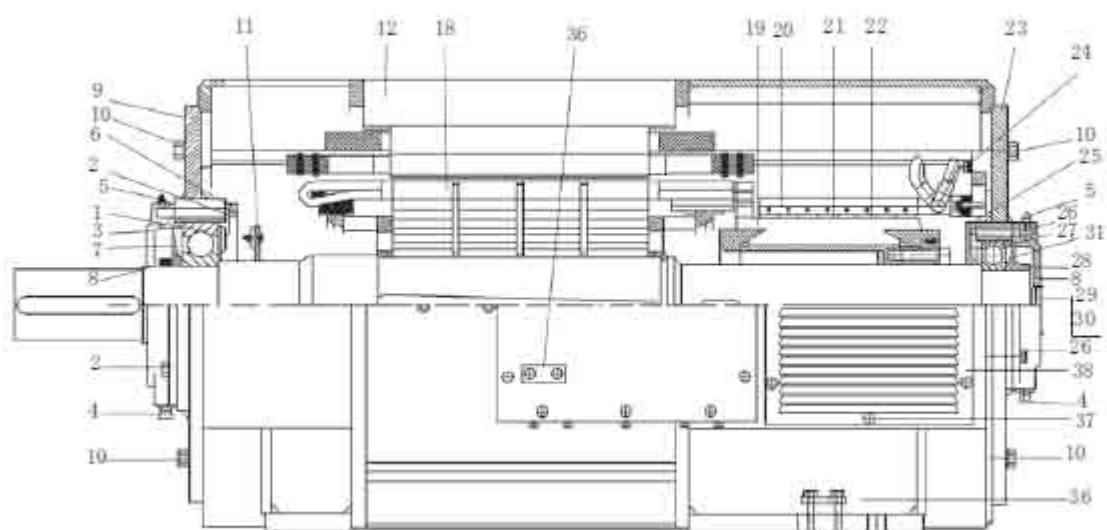
The ratings, output and speed range through field weakening etc. listed below are merely for reference. For purposes of incessantly adopting up-to-date technology, the data listed in the following table are subject to relevant change.

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 with 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 mutual consent.

2. Please write clearly the type, output, voltage, speed, duty, type of construction of 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. End shield AS
10. Fastening screw of end shield 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. End shield 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 Date

Type	Rated Output PN	Rated Speed	Speed with Field Weaking	Arm.		Field Power	Arm. Circuit Resist.	Arm. Circuit Induct.	Field Induct.	Smoothing Induct.	Eff.	Momen t of Inertia GD ²	Wt.
				Curr.									
		160V 400V 440V	nF	IN	PF	R	LA	LF	LR	%	kg. m ²	kg	
	kW	r/min	r/min	A	W	(20°C)	mH	H	mH	%	kg. m ²	kg	
OM-10 0-1	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	58.8			
	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			
OM-11 2/2-1	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			
OM-11 2/2-2	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			
OM-11 2/4-1	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			
OM-11 2/4-2	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 Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct. LA	Field Inductance LF	Eff.	Momen t of Inertia GD²	Wt.
		400V	440V		IN								
	kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg	
OM-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			
OM-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			
OM-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			
OM-160-11	33	2710		3500	93.4	820	0.1835	3.15	10	87.4	0.64	220	
	37	3000								88.5			
	19.5	1350		3000	58.8		0.593	10.4	7.7	80.4			
	22	1500								82.6			
OM-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			
OM-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			
	19.5	900		2000	59.1		0.675	15.2	6.3	79.1			
	22	1000								81.7			
OM-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 Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct. LA	Field Inductance LF	Eff.	Momen t of Inertia GD²	Wt.
		400V	440V		IN								
	kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg	
OM-180-22-21-21	-22	67	2710	3400	185	1400	0.0555	1.16	6.9	89.5	1.72	350	
	75	3000	90.7										
	-21	40.5	1350	2800	115		0.2125	4.65	6.6	85.8			
	45	1500	87										
	-21	27	900	2000	79		0.419	9.3	7.3	82.2			
	30	1000	83.7										
	21	19.5	670	1400	61		0.756	15.7	7.1	77.3			
	22	750	79.7										
	-21	16.5	540	1600	52		1.003	21.9	5	73.8			
	18.5	600	76.8										
OM-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			
OM-180-41	-42	81	2710	3200	221	1700	0.051	1.16	12	91	2.2	410	
		90	3000							91.3			
	-41	50	1350	3000	139		0.1417	3.2	5.7	87.5			
		55	1500							87.7			
	41	27	670	2000	80		0.459	10.4	6.3	80.4			
		30	750							81.1			
OM-200-11	-12	99	2710	3000	271	1400	0.0373	0.83	7.62	90.2	3.68	485	
		110	3000							91.6			
	-11	40.5	900	2000	118		0.2653	8.4	7.01	83.4			
		45	1000							85.5			
	11	33	670	1600	99		0.369	10.6	7.77	80.2			
		37	750							82.9			
	-11	19.5	450	1000	64		0.93	21.9	7.3	72.2			
		22	500							77.4			
OM-200-21		67	1350	3000	188	1500	0.0885	2.8	6.78	88.7	4.2	530	
		75	1500							89.6			
		27	540	1000	82		0.535	14	9.64	78.8			
		30	600							80.4			
OM-200-31	-32	119	2710	3200	322	1750	0.0266	0.79	10.9	91.7	4.8	580	
		132	3000							92.4			
	-31	81	1350	2800	224		0.0771	2.6	5.61	88.7			
		90	1500							90			
	31	49.5	900	2000	141		0.1751	4.8	8.54	85.6			
		55	1000							87.1			
	-31	40.5	670	1400	119		0.283	8.5	8.35	82.5			
		45	750							84.1			

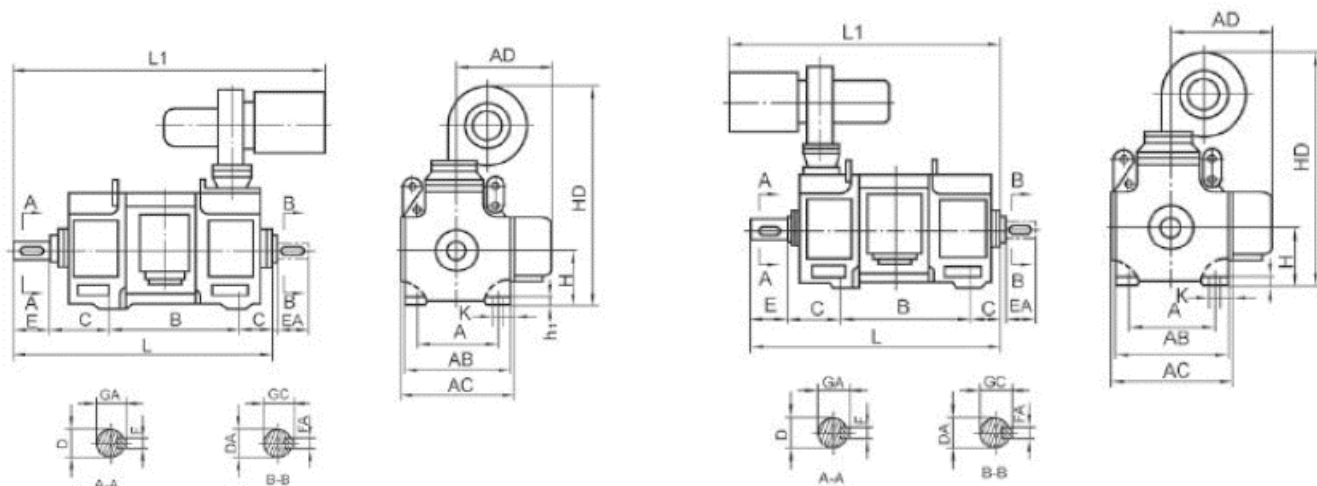
Type	Rated Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct. LA	Field Inductance LF	Eff.	Momen t of Inertia GD²	Wt.
		400V	440V		IN	PF							
		kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg
OM-200-31	33	540		1200	101	1750	0.42	12.2	8.42	79.6	4.8	580	
	37	600								82			
	27	450		750	84		0.598	17.1	8.4	77.5			
	30	500								79.5			
OM-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			
OM-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			
OM-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			
OM-250-11	144	1360		2100	399	2500	0.0444	1.3	4.29	88.8	8.8	890	
	160	1500								89.9			
	99	900		2000	281		0.0911	2.4	4.55	86.2			
	110	1000								88.1			
OM-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			
OM-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 Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct. LA	Field Inductance LF	Eff.	Momen t of Inertia GD²	Wt.
		400V	440V		IN	PF							
	kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg	
OM-250-41	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
		99	680	1900	283		0.0102	2.6	5.3	85.8			
			110							750			87.4
		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
OM-280-11		226	1355	2000	614	3100	0.02134	0.69	4.58	90.9	16.4	1280	
		250	1500							91.6			
OM-280-21	22	253	1355	1800	684	3500	0.01796	0.77	5.3	91.5	18.4	1400	
		280	1500							92.1			
	21	180	900	2000	498		0.0373	1.2	4.46	89.1			
			200							1000			90.1
		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
OM-280-31	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
		144	675	1700	402		0.0532	2	5.47	87.8			
			160							750			89.1
	-32	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
OM-280-41	42	225	900	1800	616	4000	0.02545	0.96	5.29	90.2	24	1700	
			250							1000			91.1
	41	166	675	1900	464		0.0457	1.7	5.19	88.1			
			185							750			89.4
		98	450	1000	282		0.0993	3.7	6.86	85.1			
			110							500			86.9
OM-315-12	321	1360	1800	865	3850	0.015	0.39	8.64	92.2	21.2	1890		
									355			1500	92.8
	280	900	1600	690		0.02355	0.46	5.06	90.4				
									280			1000	91.6

Type	Rated Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct. LA	Field Inductance LF	Eff.	Momen t of Inertia GD²	Wt.	
		400V	440V		IN	PF								LA
		kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg	
OM-315-11	180	680		1900	500	3850	0.04371	0.83	4.97	88.4	21.2	1890		
	200	750								89.4				
	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				
OM-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				
OM-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				
OM-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				
OM-315-31	118	360		1200	344		0.1002	2.1	23.3	83.2				
	132	400								85.3				
OM-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				
OM-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		
OM-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				
OM-355-21	180	360		1200	511	5600	0.05642	1.6	35.5	86.3	46	3170		
	200	400								87.5				

Type	Rated Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct. LA		Field Inductance LF	Eff.	Momen t of Inertia GD²	Wt.
		400V	440V		IN									
		kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg	
OM-355-11	253	540		1500	697	4700	0.02952	0.91	22	89.2	42	2890		
	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				
OM-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				
OM-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				
OM-355-31	197	360		1200	559	0.04957	1.3	34.6	86.6	52	3490			
	220	400							88.4					
OM-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				
OM-400-32	500	680		1400	1340	6400	0.0112	0.3	9.57	91.2	84	4900		
	550	750								92.5				
	400	540		1300	1083		0.0162	0.35	4.51	89.9				
	440	600								91.1				
	344	450		1300	952		0.0248	0.58	6	88.1				
	380	500								89.5				
	270	360		1200	768		0.03821	0.82	6.11	86				
	300	400								87.5				
	208	270		900	611		0.0659	1.5	5.89	82.8				
	230	300								84				
OM-400-21	435	680		1400	1175	5700	0.0139	0.33	7.85	90.8	74	4500		
	480	750								92				
	235	360		1200	675		0.0497	1	7.3	84.8				
	260	400								86.3				

Type	Rated Output PN	Rated Speed		Speed with Field Weaking nF	Arm. Curr.		Field Power PF	Arm. Circuit Resist. R	Arm. Circuit Induct.		Field Inductance LF	Eff.	Momen t of Inertia GD ²	Wt.
		400V	440V		IN				LA					
		kW	r/min		r/min	A	W	(20℃)	mH	H	%	kg. m²	kg	
21	180	270		900	537	5700	0.0804	1.6	7.44	81.8	74	4500		
	200	300								83.1				
OM-400-42	435	540		1300	1175	7100	0.0134	0.32	5.54	90.8	94	5300		
	480	600								92				
	390	450		1400	1070		0.0201	0.47	6.86	88.6				
	430	500								90				
	316	360		1200	880		0.0274	0.73	5.41	87.7				
	350	400								89				
	235	270		900	676		0.0508	1.2	5.38	84				
	260	300								85.4				
OM-450-22	472	540		1200	1286	6500	0.0133	0.29	10.2	90.8	138	5600		
	520	600								92.1				
	408	450		1400	1114		0.0159	0.41	7.99	90				
	450	500								91.3				
	362	360		1200	1010		0.0232	0.61	5.79	88.1				
	400	400								89.4				
	253	270		900	720		0.0415	1	5.82	85.8				
	280	300								87.1				
OM-450-32	500	540		1200	1358	7100	0.0134	0.39	19.6	90.8	156	6000		
	550	600								92				
	453	450		1300	1228		0.0145	0.32	7.36	90				
	500	500								91.4				
	408	360		1200	1130		0.0205	0.53	7.17	88.5				
	450	400								89.7				
	309	270		900	875		0.0342	0.83	4.8	85.9				
	340	300								87.1				
	200	180		600	595		0.0751	1.9	9.09	81.3				
	220	200								82.6				
OM-450-42	545	540		1100	1492	7800	0.0134	0.51	28.2	90.3	174	6700		
	600	600								91.5				
	500	450		1100	1367		0.0145	0.43	18.6	90				
	550	500								91.4				
	453	360		1200	1254		0.0178	0.42	5.85	88.9				
	500	400								90				
	345	270		900	972		0.0275	0.81	5.62	86.8				
	380	300								88.1				
	235	180		600	698		0.0612	1.7	5.73	81.7				
	260	200								83				



OM-100~OM-160

OM-180~OM-450

Fig 1

Horizontal Foot-Mounted

Table 3

Type	Mounting Dimensions in millimeter													Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	DA	EA	F A	GC	H	K	AB	AC	A D	H D	L	L1	h
OM-100-1	160	318	63	24	50	8	27	24	50	8	27	100	12	197	234	179	398	500	580	10
OM-100-2		358																540	620	
OM-112/2-1	190	337	70	28	60	8	31	28	60	8	31	112	12	221	255	202	452	544	612	10
OM-112/2-2		367																574	642	
OM-112/2-3		407																614	682	
OM-112/2-4		477																684	752	
OM-112/4-1	190	347	70	32	80	10	35	32	80	10	35	112	12	221	255	202	452	573	642	10
OM-112/4-2		387																613	682	
OM-112/4-3		437																663	732	
OM-112/4-4		497																723	792	
OM-132-1	216	355	89	38	80	10	41	38	80	10	41	132	12	260	295	240	527	619	814	12
OM-132-2		405																669	864	
OM-132-3		465																729	924	
OM-132-4		545																809	1004	
OM-160-11	254	411	108	48	110	14	51.5	48	110	14	51.5	160	15	316	346	283	625	744	953	14
OM-160-12		476																809	986	
OM-160-21		451																784	993	

OM-160-22		516																849	1026	
OM-160-31		501																834	1043	
OM-160-32		566																899	1076	
OM-160-41		561																894	1103	
OM-160-42		626																959	1136	
OM-160-51		631																964	1173	
OM-160-52		696																1029	1206	

Type	Mounting Dimensions in millimeter													Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	D A	EA	F A	GC	H	K	AB	AC	A D	H D	L	L1	h
OM-180-11	279	436	121	55	110	16	59	55	110	16	59	180	15	356	390	305	731	794	1022	16
OM-180-12		501																859	1087	
OM-180-21		476																834	1062	
OM-180-22		541																899	1127	
OM-180-31		526																884	1112	
OM-180-32		591																949	1177	
OM-180-41		586																944	1172	
OM-180-42		651																1009	1237	
OM-180-51		656																1014	1242	
OM-180-52		721																1079	1307	
OM-200-11	318	566	133	65	140	18	69	65	140	18	69	200	19	396	430	355	799	977	1158	18
OM-200-12		614																1025	1206	
OM-200-21		606																1017	1198	
OM-200-22		654																1065	1246	
OM-200-31		686																1097	1278	
OM-200-32		734																1145	1326	
OM-200-41		756																1167	1348	
OM-200-42		804																1215	1396	
OM-225-11	356	701	149	75	140	20	79.5	75	140	20	79.5	225	19	440	474	398	981	1140	1605	20
OM-225-12		761																1200	1665	
OM-225-21		751																1190	1655	
OM-225-22		811																1250	1715	
OM-225-31		811																1250	1715	
OM-225-32		871																1310	1775	
OM-250-11	406	715	168	85	170	22	90	75	140	20	79.5	250	24	490	524	432	103 1	1225	1657	25
OM-250-12		775																1285	1717	
OM-250-21		765																1275	1707	
OM-250-22		825																1335	1767	
OM-250-31		525																1335	1767	
OM-250-32		885																1395	1827	
OM-250-41		895																1405	1837	
OM-250-42		955																1465	1897	
OM-280-11	457	762	190	95	170	25	100	85	170	22	90	280	24	550	584	462	113 0	1315	1748	25
OM-280-12		852																1405	1838	
OM-280-21		822																1375	1808	

OM-280-22		912																1465	1898	
OM-280-31		892																1445	1878	
OM-280-32		982																1535	1968	
OM-280-41		972																1525	1958	
OM-280-42		1062																1615	2048	
OM-280-51		1062																1615	2048	
OM-280-52		1152																1705	2135	

Type	Mounting Dimensions in millimeter													Outline Dimensions in millimeter						
	A	B	C	D	E	F	GA	D A	EA	F A	GC	H	K	AB	AC	A D	H D	L	L1	h
OM-315-11	50 8	887	216	10 0	210	28	106	95	170	25	100	315	28	620	654	497	122 1	1532	1897	30
OM-315-12		977																1622	1987	
OM-315-21		967																1612	1977	
OM-315-22		1057																1702	2067	
OM-315-31		1057																1702	2067	
OM-315-32		1147																1792	2157	
OM-315-41		1157																1802	2167	
OM-315-42		1247																1892	2257	
OM-355-11	61 0	968	254	11 0	210	28	116	11 0	210	28	116	355	28	700	734	701	130 1	1689	2010	30
OM-355-12		1058																1779	2100	
OM-355-21		1058																1779	2100	
OM-355-22		1148																1869	2190	
OM-355-31		1158																1879	2200	
OM-355-32		1248																1969	2290	
OM-355-41		1268																1989	2310	
OM-355-42		1358																2079	2400	
OM-400-11	68 6	959	280	12 0	210	32	127	12 0	210	32	127	400	35	790	830	750	162 0	1732	1817	35
OM-400-12		1079																1852	1937	
OM-400-21		1039																1812	1897	
OM-400-22		1159																1932	2017	
OM-400-31		1129																1902	1987	
OM-400-32		1249																2022	2107	
OM-400-41		1229																2002	2087	
OM-400-42		1349																2122	2207	
OM-450-11	80 0	1061	315	14 0	250	36	148	14 0	250	36	148	450	35	890	924	800	172 0	1944	2050	40
OM-450-12		1181																2064	2070	
OM-450-21		1151																2034	2140	
OM-450-22		1271																2154	2260	
OM-450-31		1251		16 0	300	40	169											2134	2240	
OM-450-32		1371																2254	2360	
OM-450-41		1361																2294	2350	
OM-450-42		1481																2414	2470	
OM-450-51		1481																2414	2470	
OM-450-52		1601																2534	2590	

All Type can be provided with Type OM-A dc tachogenerator made by our factory. In that case, the dimension L of the motor length with increase 300mm.

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 field weakening for frame size OM-160 and below may consult with the manufacturer.

Appendix 1: Armature Circuit Characteristic Factor

