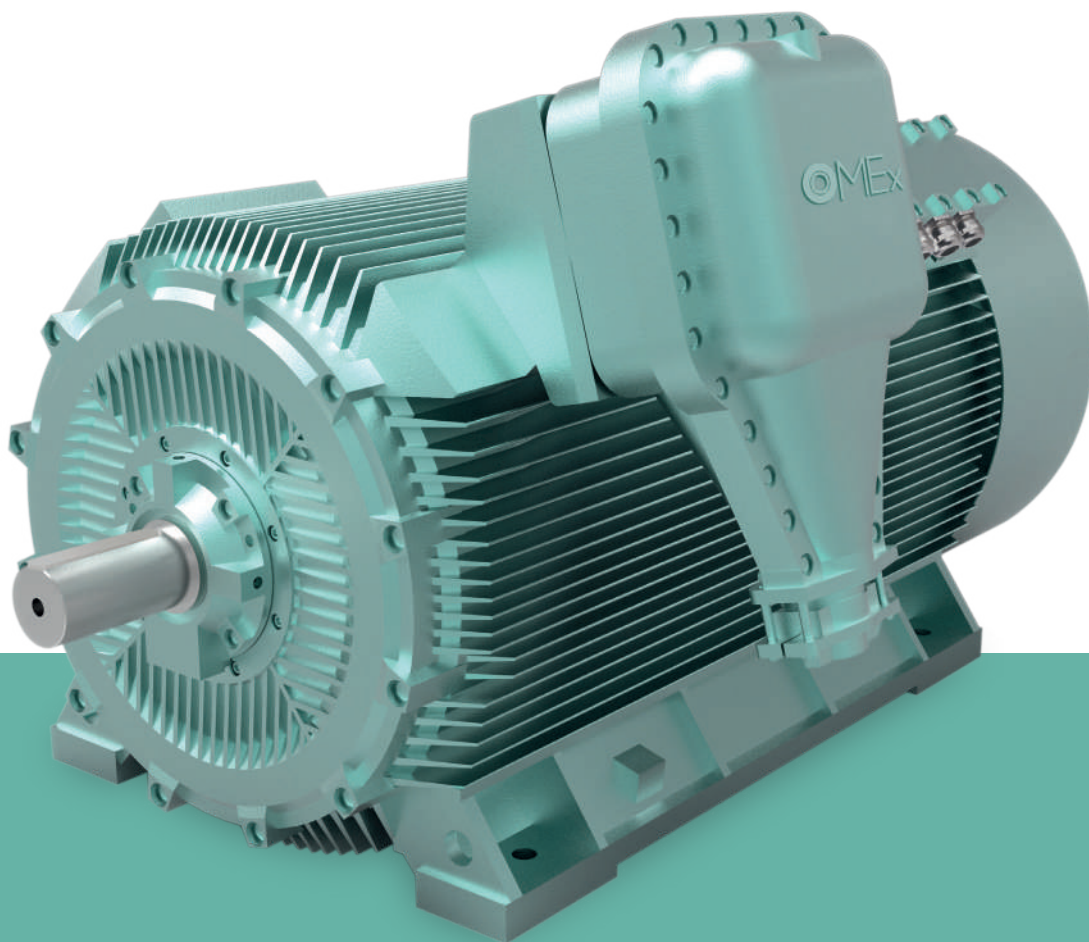




FLAME-PROOF SERIES
HIGH VOLTAGE THREE PHASE ELECTRIC MOTOR

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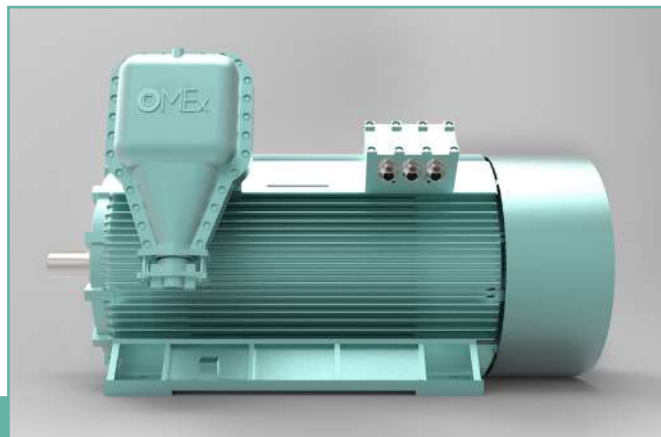
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1. General Description

Based on the manufacturing technology of high voltage motors introduced by Siemens, Germany; OM High Voltage Flameproof Three Phase Induction Motors are our newest products. Combining the many years of design and manufacturing experience of steadily producing high-voltage flameproof three-phase induction motors, adopting new techniques, material and technology with excellent workmanship, these series motors have remarkable features such as compact construction, light weight, great power, high efficiency, low noise, small vibration, safe operation and easy maintenance amongs others.

The motors are also available in different protection types, cooling forms and mounting arrangements according to customer requirements.

These series motors are manufactured with flameproof structure in accordance with IEC60034:1-2004 “Rotating electrical machines-Rating and Performance”, GB3836.1 “Electrical apparatus for explosive-Part 1; General requirements” and GB3836.2” Electrical apparatus for explosive gasat mospheres-Part 2;



Flameproof enclosure “d”, the flameproof groups are marked by ExdbI, ExdbIIAT4, ExdbII BT4, Exd IICT4, suitable for zone 1 and zone 2 hazardous areas where explosive gas and air mixtures exist. These series motors can be used to drive different kinds of general-purpose machines, petrochemical industries and power plants etc. They can be used as drivers.

“ExdI” is suitable for the areas where the explosive mixtures containing methane of coal dust exist, but not for the coal mining surface.

“ExdbIIAT4” is suitable for plant areas where the explosive mixtures of Group II A, temperature class T1, T2, T3 and T4 exist.

“ExdbII BT4” is suitable for plant areas where the explosive mixtures of Group II B, temperature class T1, T2 and T4 exist.

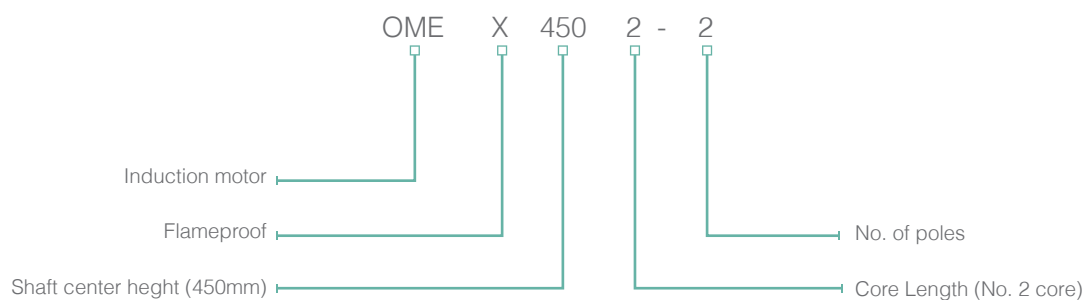
“ExdbIICT4” is suitable for plant areas where the explosive mixtures of Group II B, temperature class T1, T2 and T4 exist.

For the enclosure and the terminal box of this series motors, the protection degree is IP54, IP55 can also be met.

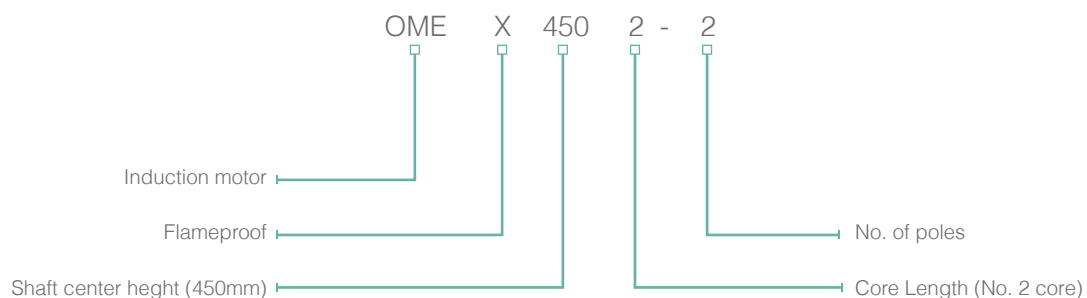
The motors can also be manufactured for special environments, such as outdoor locations, indoor tropical humidity, outdoor tropical humidity, indoor tropical, outdoor tropical, indoor tropical, outdoor tropical and outdoor middle-chemical corrosion locations, which main installation dimensions are same as the dimension of the basic series motors.

2. Model Instruction

The indication meaning of motor model:



The meaning of EX mark:



3. Construction Features

This series of motors have a compact structure popular worldwide. It has a compact structure and an attractive appearance. The cooling ribs are distributed in the inner and outer surface of the frame and end shield.

The stators have external pressure assembly constructions and are of Class F insulation. The Stator coils are wound with insulating flat copper wire. All the winding are vacuum-pressure-impregnated to make them possess the highest electrical performance, mechanical strength, insulation property, moisture resistance and thermo-stability.

The rotors are of squirrel cage structure. After high precision balancing verification, the motors can run smoothly with small vibration.

High-voltage terminal boxes are seal structure with a large terminal compartment within which position of cable heads are left. The terminal boxes are generally located on the right side of the motors.

The bearing structure shall be selected according to different output and speed. For frame size H355~560 and 4,6,8p motors, rolling bearing shall be provided. For frame H500~560 and 2p motors, sleeve bearing shall be provided. For rolling bearing, attachments having the use to replenish the lubricating grease without stopping the motor are set up at both ends of the bearing, attachments having the use to replenish grease periodically. Sleeve bearing.

Which is end shield sphere sleeve bearing, is pressure fed lubrication form, oil ring self-lubrication and combined type lubrication (The lubrication form shall be selected by user. Pressure feed lubrication form shall be provided if the user has no special requirement) The measures to prevent shaft current from generating are taken at the same time.

Motors can be equipped with a bearing temperature detector to detect bearing temperature and also with a stator temperature detector and an anti-condensation heating device on customer's request.

The flameproof structures are adopted with the barrel configuration, plain and axial labyrinth etc.

4. Service conditions

Ambient temperature subject to seasonal variation with the highest and the lower temperatures do not separately exceed 40°C and -15°C.

Altitude up to 1000m above sea level

Rated Voltage: 6kV, 10kV.

Rated Frequency: 50Hz

Duty type: continuous S1

5. Technical Data

5.1 Electrical performance of 6kV and 10kV motors shall conform to the requirement separately shown in Table 5 or Table 6.

5.2 The virtual value of the mean vibration velocity should not exceed 2.8mm/s.

6. Mounting Arrangement

The mounting and overall dimensions are given in the table.

Table 1 2 Poles (6 kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 3000 (r/min)												
OMEX-3551-2	185	22,6	2985	93,9	0,84	0,7	2	7	2,8	109	8	2035
OMEX-3552-2	200	24,4	2985	94	0,84	0,7	2	7	2,8	109	8,5	2075
OMEX-3553-2	220	26,8	2985	94,2	0,84	0,7	2	7	2,8	109	9,5	2160
OMEX-3554-2	250	30,3	2985	94,4	0,84	0,7	2	7	2,8	111	10	2215
OMEX-3555-2	280	33,1	2985	94,6	0,86	0,7	2	7	2,8	111	11	2280
OMEX-4001-2	315	37,2	2985	94,8	0,86	0,7	2	7	2,8	111	17	2630
OMEX-4002-2	355	41,9	2985	94,9	0,86	0,7	2	7	2,8	111	18	2700
OMEX-4003-2	400	47,1	2985	95,1	0,86	0,7	2	7	2,8	111	19,5	2830
OMEX-4004-2	450	52,9	2985	95,2	0,86	0,7	2	7	2,8	111	21	2920
OMEX-4501-2	500	58,0	2985	95,3	0,87	0,7	2	7	2,8	111	22	3200
OMEX-4502-2	560	64,9	2985	95,4	0,87	0,7	2	7	2,8	112	24	3300
OMEX-4503-2	630	73,0	2985	95,5	0,87	0,7	2	7	2,8	112	27	3500
OMEX-4504-2	710	82,1	2985	95,7	0,87	0,7	2	7	2,8	112	30	3600
OMEX-5001-2	800	91,5	2985	95,6	0,88	0,7	2	7	2,8	112	61	5360
OMEX-5002-2	900	102,8	2985	95,7	0,88	0,7	2	7	2,8	112	65	5500
OMEX-5003-2	1000	114,0	2985	95,9	0,88	0,7	2	7	2,8	112	69	5640
OMEX-5004-2	1120	127,5	2985	96	0,88	0,7	2	7	2,8	113	75	5900
OMEX-5601-2	1250	140,6	2985	96,1	0,89	0,7	2	7	2,8	113	111	5800
OMEX-5602-2	1400	157,2	2985	96,3	0,89	0,7	2	7	2,8	113	119	5860
OMEX-5603-2	1600	179,3	2985	96,5	0,89	0,7	2	7	2,8	113	127	5930

Table 2
4 Poles (6 kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 1500 (r/min)												
OMEX-3551-4	185	22,6	1488	93,7	0,84	0,8	2	6,5	2,8	106	19	2120
OMEX-3552-4	200	24,4	1488	93,9	0,84	0,8	2	6,5	2,8	106	21,5	2220
OMEX-3553-4	220	26,8	1488	94,1	0,84	0,8	2	6,5	2,8	106	23	2290
OMEX-3554-4	250	30,4	1488	94,3	0,84	0,8	2	6,5	2,8	108	24,5	2340
OMEX-3555-4	280	33,9	1488	94,5	0,84	0,8	2	6,5	2,8	108	25,5	2400
OMEX-4001-4	315	37,7	1488	94,6	0,85	0,8	2	6,5	2,8	108	32	2970
OMEX-4002-4	355	42,4	1488	94,8	0,85	0,8	2	6,5	2,8	108	34	3080
OMEX-4003-4	400	47,7	1488	95	0,85	0,8	2	6,5	2,8	108	37	3170
OMEX-4004-4	450	53,5	1488	95,2	0,85	0,8	2	6,5	2,8	108	39	3250
OMEX-4501-4	500	58,7	1488	95,3	0,86	0,8	2	6,5	2,8	108	52	3500
OMEX-4502-4	560	65,7	1488	95,4	0,86	0,8	2	6,5	2,8	111	58	3700
OMEX-4503-4	630	73,8	1488	95,5	0,86	0,8	2	6,5	2,8	111	65	3950
OMEX-4504-4	710	83,1	1488	95,6	0,86	0,8	2	6,5	2,8	111	73	4200
OMEX-5001-4	800	93,5	1488	95,7	0,86	0,8	2	6,5	2,8	111	130	5350
OMEX-5002-4	900	105,1	1488	95,8	0,86	0,8	2	6,5	2,8	111	141	5540
OMEX-5003-4	1000	116,7	1488	95,9	0,86	0,8	2	6,5	2,8	111	148	5700
OMEX-5004-4	1120	130,5	1488	96	0,86	0,8	2	6,5	2,8	113	156	5800
OMEX-5601-4	1250	143,9	1488	96,1	0,87	0,7	2	6,5	2,8	113	252	5900
OMEX-5602-4	1400	161,0	1488	96,2	0,87	0,7	2	6,5	2,8	113	272	5950
OMEX-5603-4	1600	183,6	1488	96,4	0,87	0,7	2	6,5	2,8	113	305	6020

Table 3
6 Poles (6 kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 1000 (r/min)												
OMEX-3553-6	160	20,6	987	93,4	0,80	0,8	2	6	2,8	102	26	2255
OMEX-3554-6	185	23,8	987	93,5	0,80	0,8	2	6	2,8	102	28	2345
OMEX-3555-6	200	25,7	987	93,6	0,80	0,8	2	6	2,8	102	31	2440
OMEX-4001-6	220	27,5	987	93,8	0,82	0,8	2	6	2,8	102	47	3010
OMEX-4002-6	250	31,2	987	93,9	0,82	0,8	2	6	2,8	105	50	3110
OMEX-4003-6	280	34,9	987	94,1	0,82	0,8	2	6	2,8	105	53	3200
OMEX-4004-6	315	49,2	987	94,3	0,82	0,8	2	6	2,8	105	57	3250
OMEX-4501-6	355	43,6	987	94,5	0,83	0,8	2	6	2,8	105	64	3600
OMEX-4502-6	400	49,0	987	94,6	0,83	0,8	2	6	2,8	105	73	3800
OMEX-4503-6	450	55,1	987	94,7	0,83	0,8	2	6	2,8	105	81	4000
OMEX-4504-6	500	61,1	987	94,9	0,83	0,8	2	6	2,8	105	90	4200
OMEX-5001-6	560	68,3	987	95,1	0,83	0,8	2	6	2,8	108	177	5370
OMEX-5002-6	630	76,7	987	95,2	0,83	0,8	2	6	2,8	108	184	5500
OMEX-5003-6	710	86,4	987	95,3	0,83	0,8	2	6	2,8	108	191	5630
OMEX-5004-6	800	97,2	987	95,4	0,83	0,8	2	6	2,8	108	202	5830
OMEX-5601-6	900	107,8	987	95,6	0,84	0,7	2	6	2,8	108	388	5930
OMEX-5602-6	1000	119,7	987	95,7	0,84	0,7	2	6	2,8	108	402	6020
OMEX-5603-6	1120	134,0	987	95,8	0,84	0,7	2	6	2,8	110	423	6100
OMEX-5604-6	1250	149,3	987	95,9	0,84	0,7	2	6	2,8	110	450	6150

Table 4

8 Poles (6 kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 750 (r/min)												
OMEX-4001-8	160	21,7	742	93,2	0,76	0,8	2	5,5	2,8	99	50	3020
OMEX-4002-8	185	25,1	742	93,3	0,76	0,8	2	5,5	2,8	99	52	3090
OMEX-4003-8	200	26,7	742	93,5	0,77	0,8	2	5,5	2,8	99	56	3150
OMEX-4004-8	220	29,3	742	93,7	0,77	0,8	2	5,5	2,8	99	61	3260
OMEX-4501-8	250	32,8	742	93,9	0,78	0,8	2	5,5	2,8	102	65	3600
OMEX-4502-8	280	32,9	742	94,1	0,78	0,8	2	5,5	2,8	102	73	3800
OMEX-4503-8	315	40,0	742	94,2	0,78	0,8	2	5,5	2,8	102	82	4000
OMEX-4504-8	355	46,4	742	94,4	0,78	0,8	2	5,5	2,8	102	91	4200
OMEX-5001-8	400	51,6	742	94,5	0,79	0,8	2	5,5	2,8	102	177	5380
OMEX-5002-8	450	57,9	742	94,6	0,79	0,8	2	5,5	2,8	102	184	5510
OMEX-5003-8	500	63,4	742	94,8	0,80	0,8	2	5,5	2,8	102	191	5640
OMEX-5004-8	560	71,0	742	94,9	0,80	0,8	2	5,5	2,8	105	202	5850
OMEX-5601-8	630	78,7	742	95,1	0,81	0,7	2	5,5	2,8	105	480	6200
OMEX-5602-8	710	88,6	742	95,3	0,81	0,7	2	5,5	2,8	105	510	6240
OMEX-5603-8	800	99,7	742	95,4	0,81	0,7	2	5,5	2,8	105	535	6320
OMEX-5604-8	900	111,9	742	95,6	0,81	0,7	2	5,5	2,8	105	560	6400

Table 5 2 Poles (10kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 3000 (r/min)												
OMEX-4501-2	220	16,3	2985	92,8	0,84	0,7	2	7	2,8	111	17	2730
OMEX-4502-2	250	18,5	2985	93	0,84	0,7	2	7	2,8	111	18	2800
OMEX-4503-2	280	20,2	2985	93,1	0,86	0,7	2	7	2,8	111	19,5	2930
OMEX-4504-2	315	22,7	2985	93,3	0,86	0,7	2	7	2,8	111	21	3120
OMEX-4505-2	355	25,5	2985	93,5	0,86	0,7	2	7	2,8	111	22	3200
OMEX-4506-2	400	28,7	2985	93,8	0,86	0,7	2	7	2,8	111	24	3300
OMEX-4507-2	450	32,2	2985	93,9	0,86	0,7	2	7	2,8	111	27	3500
OMEX-4508-2	500	35,3	2985	94	0,87	0,7	2	7	2,8	111	30	3600
OMEX-5001-2	560	39,5	2985	94,2	0,87	0,7	2	7	2,8	112	48	5050
OMEX-5002-2	630	44,3	2985	94,4	0,87	0,7	2	7	2,8	112	54	5200
OMEX-5003-2	710	49,8	2985	94,6	0,87	0,7	2	7	2,8	112	61	5360
OMEX-5004-2	800	55,4	2985	94,8	0,88	0,7	2	7	2,8	112	65	5500
OMEX-5005-2	900	62,2	2985	95	0,88	0,7	2	7	2,8	112	69	5640
OMEX-5601-2	1000	69,0	2985	95,1	0,88	0,7	2	7	2,8	112	75	5700
OMEX-5602-2	1120	76,2	2985	95,3	0,89	0,7	2	7	2,8	112	111	5800
OMEX-5603-2	1250	84,9	2985	95,5	0,89	0,7	2	7	2,8	112	119	5860
OMEX-5604-2	1400	94,9	2985	95,7	0,89	0,7	2	7	2,8	112	127	5930

Table 6

4 Poles (10kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 1500 (r/min)												
OMEX-4501-4	220	16,3	1488	92,7	0,84	0,8	2	6,5	2,8	106	21	2810
OMEX-4502-4	250	18,5	1488	92,9	0,84	0,8	2	6,5	2,8	108	34	3000
OMEX-4503-4	280	20,7	1488	93,0	0,84	0,8	2	6,5	2,8	108	38.	3160
OMEX-4504-4	315	22,9	1488	93,3	0,85	0,8	2	6,5	2,8	108	43	3350
OMEX-4505-4	355	25,8	1488	93,4	0,85	0,8	2	6,5	2,8	108	52	3500
OMEX-4506-4	400	29,0	1488	93,6	0,85	0,8	2	6,5	2,8	108	58	3700
OMEX-4507-4	450	32,6	1488	93,8	0,85	0,8	2	6,5	2,8	108	65	3950
OMEX-4508-4	500	35,7	1488	94,0	0,86	0,8	2	6,5	2,8	108	73	4200
OMEX-5001-4	560	39,9	1488	94,1	0,86	0,8	2	6,5	2,8	111	122	5130
OMEX-5002-4	630	44,9	1488	94,3	0,86	0,8	2	6,5	2,8	111	130	5350
OMEX-5003-4	710	50,4	1488	94,5	0,86	0,8	2	6,5	2,8	111	141	5540
OMEX-5004-4	800	56,0	1488	94,8	0,87	0,8	2	6,5	2,8	111	148	5700
OMEX-5005-4	900	62,9	1488	95,0	0,87	0,8	2	6,5	2,8	111	156	5800
OMEX-5601-4	1000	69,8	1488	95,1	0,87	0,8	2	6,5	2,8	111	230	5850
OMEX-5602-4	1120	77,2	1488	95,2	0,88	0,8	2	6,5	2,8	111	252	5900
OMEX-5603-4	1250	85,0	1488	95,4	0,88	0,8	2	6,5	2,8	113	272	5950
OMEX-5604-4	1400	96,1	1488	95,6	0,88	0,8	2	6,5	2,8	113	305	6020

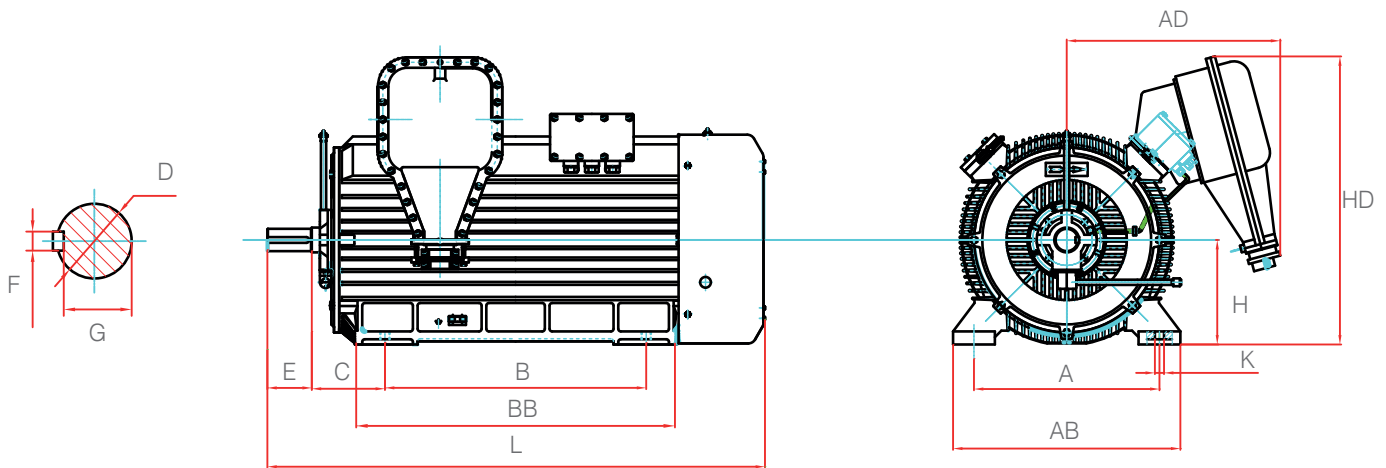
Table 7
6 Poles (10kV)

Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 750 (r/min)												
OMEX-4504-6	220	16,7	987	92,5	0,82	0,8	2	6,5	2,8	105	56	3400
OMEX-4505-6	250	18,9	987	92,7	0,82	0,8	2	6,5	2,8	105	64	3600
OMEX-4506-6	180	21,2	987	92,9	0,82	0,8	2	6,5	2,8	105	73	3800
OMEX-4507-6	315	23,8	987	93,1	0,82	0,8	2	6,5	2,8	105	81	4000
OMEX-4508-6	355	26,8	987	93,3	0,82	0,8	2	6,5	2,8	105	90	4200
OMEX-5001-6	400	30,1	987	93,5	0,82	0,8	2	6,5	2,8	105	170	5250
OMEX-5002-6	450	33,4	987	93,7	0,83	0,8	2	6	2,8	105	177	5370
OMEX-5003-6	500	37	987	93,9	0,83	0,8	2	6	2,8	105	184	5500
OMEX-5004-6	560	41,4	987	94,1	0,83	0,8	2	6	2,8	108	191	5630
OMEX-5005-6	630	46,5	987	94,3	0,83	0,8	2	6	2,8	108	202	5830
OMEX-5601-6	710	52,3	987	94,3	0,83	0,8	2	6	2,8	108	370	5840
OMEX-5602-6	800	58,8	987	94,7	0,83	0,8	2	6	2,8	108	388	5930
OMEX-5603-6	900	65,2	987	94,9	0,84	0,7	2	6	2,8	108	402	6020
OMEX-5604-6	1000	72,2	987	95,1	0,84	0,7	2	6	2,8	108	423	6100
OMEX-5605-6	1120	80,8	987	95,3	0,84	0,7	2	6	2,8	108	450	6150

Table 8

8 Poles (10kV)

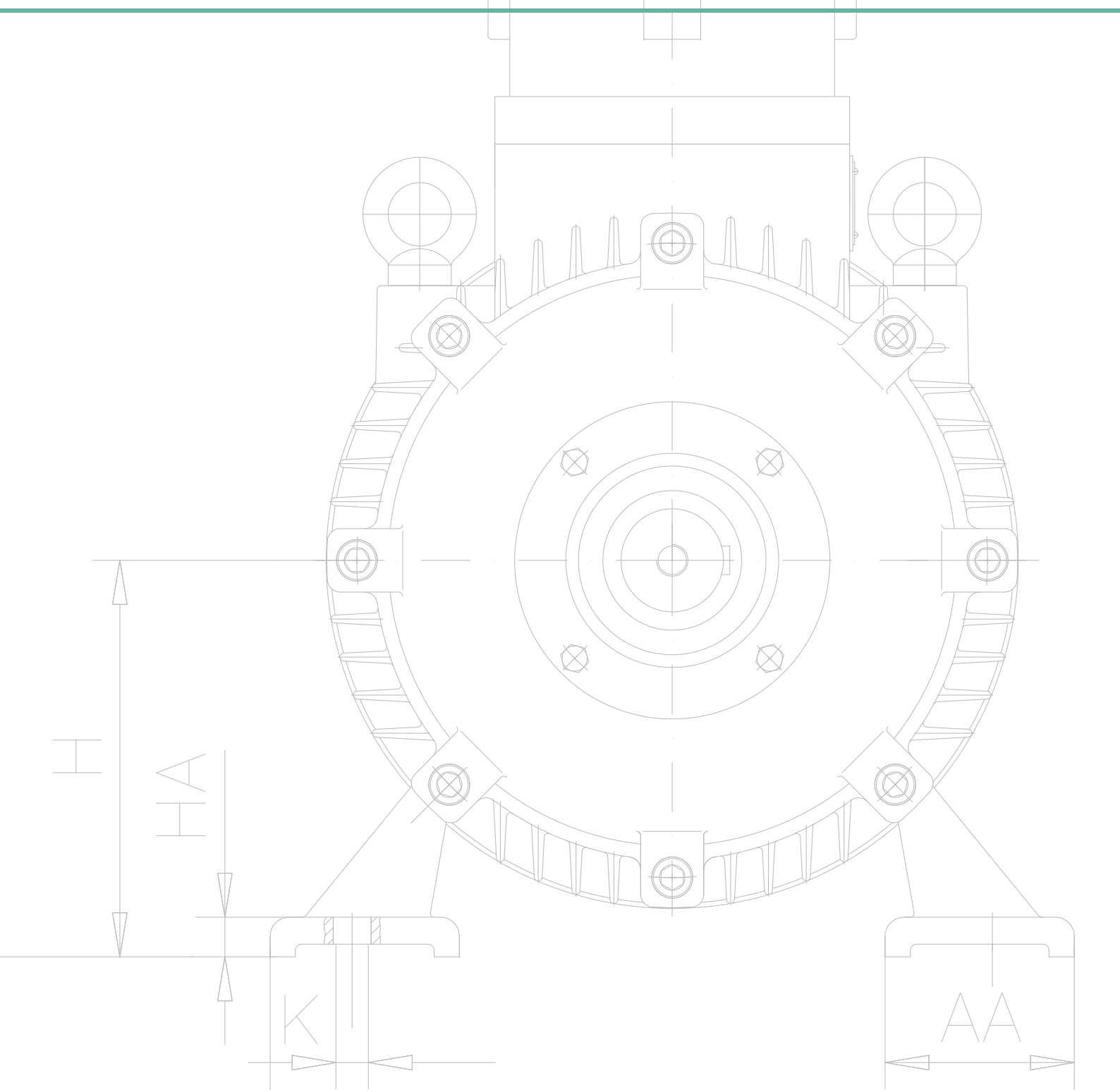
Type	Rated Output (Kw)	Current (A)	Rated Speed (rpm)	Eff iciency %	Power Factor cos (l)	Locked torque Rated torque	Pull out torque Rated torque	Locked current Rated current	Vibration (mm/s)	Noise dB (A)	GD2 Moment of inertia	Weight (Kg)
Synchronous speed 1000 (r/min)												
OMEX-4506-8	220	18,3	742	92,4	0,75	0,8	2	5,5	2,8	102	73	3800
OMEX-4507-8	250	20,8	742	92,6	0,75	0,8	2	5,5	2,8	102	82	4000
OMEX-4508-8	280	22,6	742	92,8	0,77	0,8	2	5,5	2,8	102	91	4200
OMEX-5002-8	315	25,4	742	93	0,77	0,8	2	5,5	2,8	102	170	5250
OMEX-5003-8	355	28,6	742	93,2	0,77	0,8	2	5,5	2,8	102	177	5380
OMEX-5004-8	400	31,3	742	93,4	0,79	0,8	2	5,5	2,8	102	184	5510
OMEX-5005-8	450	35,2	742	93,5	0,79	0,8	2	5,5	2,8	102	191	5640
OMEX-5601-8	500	38,9	742	93,7	0,79	0,8	2	5,5	2,8	105	450	6100
OMEX-5602-8	560	43,6	742	93,9	0,79	0,8	2	5,5	2,8	105	480	6200
OMEX-5603-8	630	48,3	742	94,1	0,8	0,7	2	5,5	2,8	105	510	6240
OMEX-5604-8	710	54,3	742	94,3	0,8	0,7	2	5,5	2,8	105	535	6320
OMEX-5605-8	800	61,1	742	94,5	0,8	0,7	2	5,5	2,8	105	560	6400



Frame size	Poles	A	B	C	D	E	F	G	H	K	AB	AD	BB	HB	HD	L
355	2	630 ± 1.4	900 ± 1.4	245 ± 4.0	75	140 ± 0.50	20	67.5	355	28	790	7860	1110	210	1110	2000
	4, 6				100											
400	2	710 ± 1.75	1000 ± 1.75	280 ± 4.0	85	170 ± 0.50	22	76	400	35	870	860	1200	290	1140	2200
	4, 6, 8				110											
450	2	800 ± 1.75	1120 ± 1.75	280 ± 4.0	95	170 ± 0.50	25	86	40	35	950	930	1340	390	1250	2310
	4				120											
500	2	900 ± 2.1	1250 ± 2.1	425* ± 4.0	110	210 ± 0.57	28	100	500	42	1080	970	1490	470	1420	2600
	4				130											
560	2	1000 ± 2.1	1400 ± 2.1	530 ± 4.0	130	250 ± 0.57	32	128	560	42	1180	1030	1680	590	1480	2900
	4				150											
	6, 8				160	300 ± 0.65	40	147								

*C-dimension if motor with rolling bearing. The shaft deviation in axial direction can be agree upon request.

The shaft deviation excluded in the limitation deviation.



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