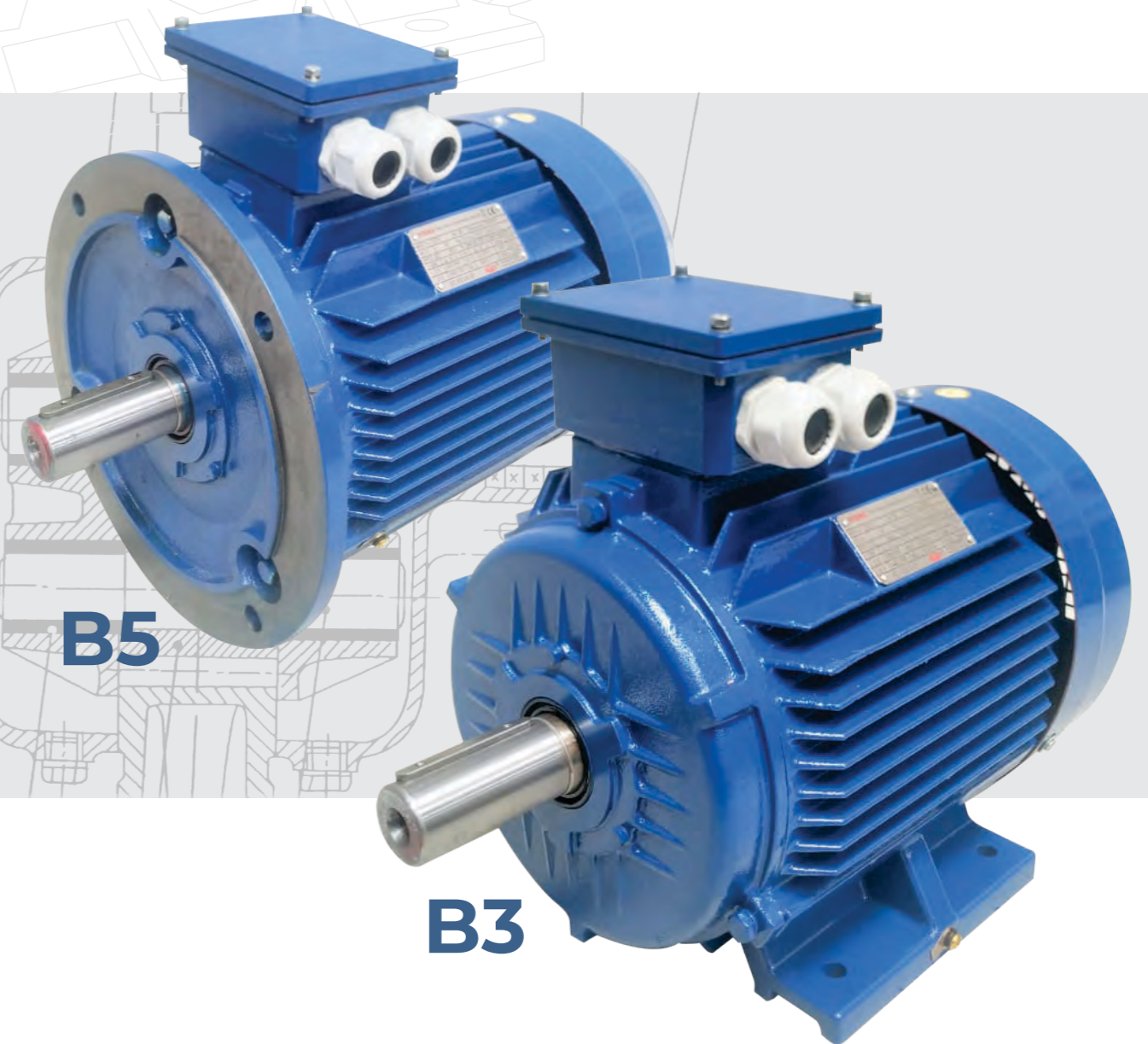


**YUEMA**

# IE3/IE4 SERIES

Super Ultra High Efficiency  
3-PHASE ASYNCHRONOUS MOTOR  
with BEARING NSK/NTN/SKF

**YUEMA**



# IE3/IE4 SERIES

Super Ultra High Efficiency  
3-PHASE ASYNCHRONOUS MOTOR  
with BEARING NSK/NTN/SKF



## SUMMARY

IE3/IE4 -series motor is totally enclosed squirrel-cage rotor ultra high efficiency, super ultra high efficiency three-phase asynchronous motor, it is widely used in the general use of all kinds of commonly use machinery and equipment, such as metal cutting machine tools, blowers, pumps, pressure molding machine and other mechanical drive, it is a Ideal products for Energy saving and emission reduction.

The power rating and assembling dimension of IE3/IE4 -series motor is in according with IEC international standard, same with the Germany DIN2673 standard, the protection grade of motor is IP55, cooling mode IC411, duty continuously (S1). Testing mode of the losses and efficiency for the motors according to IEC 60034-2-1-2016, efficiency targets according to IEC60034-30-1-2014.

The rated voltage of this Motor is 380 V, rated frequency 50 Hz.

The attitude of the motor should not exceed 1000 m; Ambient air temperature changes with the seasons, but no more than 40°C, the lowest air temperature should not lower than -15°C.

The Motor can be derived according to the user's requirements.

1. The different voltage, different frequency. Biaxial stretching. Dry (wet) special requirements such as tropical type motor.
2. The machine can according to user requirements to provide winding temperature measuring device, temperature of the stator winding temperature switch, bearing temperature measuring device, winding heating zone, etc.

## STRUCTURE AND ASSEMBLING MODE

BASIC	DERIVED STRUCTURE					BASIC	DERIVED STRUCTURE	
B3	B6	B7	B8	V5	V6	B5	V1	V3
132-450	132-160					132-280	132-450	132-160

BASIC	DERIVED STRUCTURE		BASIC		DERIVED STRUCTURE	
B35	V15	V37	B34	B14	V18	V19
132-450	132-160		132-160			

## ANALYSIS OF ENERGY SAVING

TYPE	RATED POWER	RATED VOLTAGE	RATED FREQUENCY	(%) EFF	POWER FACTOR	RATED CURRENT
IE3-280M-4	90	380	50	95.2	0.88	163.22
IE4-280M-4	90	380	50	96.1	0.88	161.70
<b>SAVED ENERGY : 90* (1/0.952 - 1/0.961) *1 = 0.885kwh</b>						
Running time per year (hours)			3000	5000	7000	
Saved energy (KWh)			2656.11	4426.85	6197.59	
Electricity saved per year (0.72RMB/KWh) (RMB)			1912.40	3183.33	4462.26	

**TECHNICAL DATA**

**IE3 ASYNCHRONOUS SPEED - 3000R/MIN - 380V - 50HZ**

TYPE	Output kW	Electric Current A	Speed r/min	Eff %	Power Factor	Locked Torque/ Rated Torque	Max. Torque/ Rated Torque	Locked Current/ Rated Current	Noise dB (A)	Vibration mm/s	Weight kg
IE3-80M1-2	0.75	1.7	2830	80.7	0.82	2.3	2.3	6.8	62	1.3	19
IE3-80M2-2	1.1	2.4	2830	82.7	0.83	2.3	2.3	7.3	62	1.3	21
IE3-90S-2	1.5	3.2	2840	84.2	0.84	2.3	2.3	7.6	67	1.3	23
IE3-90L-2	2.2	4.6	2840	85.9	0.85	2.3	2.3	7.8	67	1.3	28
IE3-100L-2	3	6.0	2870	87.1	0.87	2.3	2.3	8.1	74	1.3	37
IE3-112M-2	4	7.8	2890	88.1	0.88	2.3	2.3	8.3	77	1.3	43
IE3-132S1-2	5.5	10.6	2900	89.2	0.88	2.2	2.3	8.0	79	1.3	69
IE3-132S2-2	7.5	14.2	2900	90.1	0.88	2.2	2.3	7.8	79	1.3	74
IE3-160M1-2	11	20.6	2900	91.2	0.89	2.2	2.3	7.9	81	1.8	125
IE3-160M2-2	15	27.9	2900	91.9	0.89	2.2	2.3	8.0	81	1.8	135
IE3-160L-2	18.5	34.2	2900	92.4	0.89	2.2	2.3	8.1	81	1.8	153
IE3-180M-2	22	40.5	2940	92.7	0.89	2.2	2.3	8.2	83	1.8	183
IE3-200L1-2	30	54.9	2950	93.3	0.89	2.2	2.3	7.5	84	1.8	245
IE3-200L2-2	37	67.4	2950	93.7	0.89	2.2	2.3	7.5	84	1.8	259
IE3-225M-2	45	81.7	2970	94.0	0.90	2.2	2.3	7.6	86	1.8	323
IE3-250M-2	55	99.6	2970	94.3	0.90	2.2	2.3	7.6	89	1.8	367
IE3-280S-2	75	135.2	2970	94.7	0.90	2.0	2.2	6.9	91	1.8	559
IE3-280M-2	90	161.7	2970	95.0	0.90	2.0	2.2	7.0	91	1.8	602
IE3-315S-2	110	195.1	2980	95.2	0.90	2.0	2.2	7.1	92	2.3	873
IE3-315M-2	132	233.6	2980	95.4	0.90	2.0	2.2	7.1	92	2.3	992
IE3-315L1-2	160	279.4	2980	95.6	0.91	2.0	2.2	7.1	92	2.3	1122
IE3-315L2-2	200	348.6	2980	95.8	0.91	2.0	2.2	7.1	92	2.3	1203
IE3-355M1-2	220	383.4	2985	95.8	0.91	2.0	2.2	7.1	100	2.3	1804
IE3-355M2-2	250	435.7	2985	95.8	0.91	2.0	2.2	7.1	100	2.3	1905
IE3-355L1-2	280	488.0	2985	95.8	0.91	2.0	2.2	7.1	100	2.3	2008
IE3-355L2-2	315	537.0	2985	95.8	0.91	2.0	2.2	7.1	100	2.3	2203

**MAIN TECHNICAL DATA**

**IE3 ASYNCHRONOUS SPEED - 1500R/MIN - 380V - 50HZ**

TYPE	Output kW	Electric Current A	Speed r/min	Eff %	Power Factor	Locked Torque/ Rated Torque	Max. Torque/ Rated Torque	Locked Current/ Rated Current	Noise dB (A)	Vibration mm/s	Weight kg
IE3-80M2-4	0.75	1.8	1390	82.5	0.75	2.3	2.3	6.5	56	1.3	19
IE3-90S-4	1.1	2.6	1400	84.1	0.76	2.3	2.3	6.6	59	1.3	25
IE3-90L-4	1.5	3.6	1400	85.3	0.77	2.3	2.3	6.9	59	1.3	27
IE3-100L1-4	2.2	4.8	1420	86.7	0.81	2.3	2.3	7.5	64	1.3	35
IE3-100L2-4	3	6.3	1420	87.7	0.82	2.3	2.3	7.6	64	1.3	38
IE3-112M-4	4	8.4	1440	88.6	0.82	2.3	2.3	7.7	65	1.3	45
IE3-132S-4	5.5	11.4	1440	89.6	0.83	2.0	2.3	7.5	71	1.3	69
IE3-132M-4	7.5	15.2	1440	90.4	0.84	2.0	2.3	7.4	71	1.3	84
IE3-160M-4	11	21.5	1460	91.4	0.85	2.2	2.3	7.5	73	1.8	123
IE3-160L-4	15	28.8	1460	92.1	0.86	2.2	2.3	7.5	73	1.8	145
IE3-180M-4	18.5	35.3	1470	92.6	0.86	2.2	2.3	7.7	76	1.8	178
IE3-180L-4	22	41.8	1470	93.0	0.86	2.2	2.3	7.8	76	1.8	199
IE3-200L-4	30	56.6	1470	93.6	0.86	2.2	2.3	7.2	76	1.8	259
IE3-225S-4	37	69.6	1480	93.9	0.86	2.2	2.3	7.3	78	1.8	309
IE3-225M-4	45	84.4	1480	94.2	0.86	2.2	2.3	7.4	78	1.8	379
IE3-250M-4	55	102.7	1480	94.6	0.86	2.2	2.3	7.4	79	1.8	396
IE3-280S-4	75	136.3	1480	95.0	0.88	2.2	2.3	6.7	80	1.8	532
IE3-280M-4	90	163.2	1480	95.2	0.88	2.2	2.3	6.9	80	1.8	607
IE3-315S-4	110	199.1	1480	95.4	0.89	2.2	2.2	6.9	88	2.3	909
IE3-315M-4	132	238.4	1490	95.6	0.89	2.2	2.2	6.9	88	2.3	1064
IE3-315L1-4	160	285.1	1490	95.8	0.89	2.2	2.2	6.9	88	2.3	1087
IE3-315L2-4	200	355.7	1490	96.0	0.90	2.2	2.2	6.9	88	2.3	1193
IE3-355M1-4	220	386.9	1480	96.0	0.90	2.2	2.2	6.9	95	2.3	1582
IE3-355M2-4	250	439.6	1480	96.0	0.90	2.2	2.2	6.9	95	2.3	1564
IE3-355L1-4	280	492.4	1480	96.0	0.90	2.2	2.2	6.9	95	2.3	1735
IE3-355L2-4	315	553.9	1480	96.0	0.90	2.2	2.2	6.9	95	2.3	1736
IE3-400M1-4	355	638.5	1491	96.0	0.88	1.6	2.2	6.8	108	2.8	2700
IE3-400M2-4	400	719.4	1491	96.0	0.88	1.6	2.2	6.8	108	2.8	2750
IE3-400M3-4	450	809.3	1491	96.0	0.88	1.6	2.2	6.8	108	2.8	3030
IE3-400L1-4	500	899.3	1491	96.0	0.88	1.6	2.2	6.8	108	2.8	3110
IE3-400L2-4	560	1007.2	1491	96.0	0.88	1.6	2.2	6.8	108	2.8	3200
(IE3-400L3-4)	(630)	1183.1	1491	96.0	0.88	1.6	2.2	6.8	108	2.8	3280
IE3-4501-4	630	1146.1	1494	96.0	0.87	1.6	2.2	6.9	98	2.8	4280
IE3-4502-4	710	1291.6	1494	96.0	0.87	1.6	2.2	6.9	98	2.8	4490
IE3-4503-4	800	1455.4	1494	96.0	0.87	1.6	2.2	6.9	98	2.8	4730
IE3-4504-4	900	1637.3	1494	96.0	0.87	1.6	2.2	6.9	98	2.8	4980



**MAIN TECHNICAL DATA**

**IE4 ASYNCHRONOUS SPEED - 3000R/MIN - 380V - 50HZ**

TYPE	Output kW	Electric Current A	Speed r/min	Eff %	Power Factor	Locked Torque/ Rated Torque	Max. Torque/ Rated Torque	Locked Current/ Rated Current	Noise dB (A)	Vibration mm/s	Weight kg
IE4-132S1-2	5.5	10.4	2902	90.9	0.88	2.0	2.3	9.5	79	1.3	75
IE4-132S2-2	7.5	14.0	2902	91.7	0.89	2.0	2.3	9.5	79	1.3	81
IE4-160M1-2	11	20.3	2902	92.6	0.89	2.0	2.3	9.5	81	1.8	137
IE4-160M2-2	15	27.4	2902	93.3	0.89	2.0	2.3	9.5	81	1.8	148
IE4-160L-2	18.5	33.7	2902	93.7	0.89	2.0	2.3	9.5	81	1.8	168
IE4-180M-2	22	40.0	2942	94.0	0.89	2.0	2.3	9.5	83	1.8	201
IE4-200L1-2	30	54.2	2952	94.5	0.89	2.0	2.3	9.0	84	1.8	269
IE4-200L2-2	37	66.6	2952	94.8	0.89	2.0	2.3	9.0	84	1.8	284
IE4-225M-2	45	80.9	2972	95.0	0.89	2.0	2.3	9.0	86	1.8	348
IE4-250M-2	55	98.5	2972	95.3	0.89	2.0	2.3	9.0	89	1.8	396
IE4-280S-2	75	133.9	2972	95.6	0.89	1.8	2.3	8.5	91	1.8	603
IE4-280M-2	90	160.4	2972	95.8	0.89	1.8	2.3	8.5	91	1.8	650
IE4-315S-2	110	193.4	2982	96.0	0.90	1.8	2.3	8.5	92	2.3	942
IE4-315M-2	132	231.6	2982	96.2	0.90	1.8	2.3	8.5	92	2.3	1071
IE4-315L1-2	160	277.4	2982	96.3	0.91	1.8	2.2	8.5	92	2.3	1211
IE4-315L2-2	200	346.0	2982	96.5	0.91	1.8	2.2	8.5	92	2.3	1299
IE4-355M2-2	250	432.5	2987	96.5	0.91	1.6	2.2	8.5	100	2.3	1948
IE4-355L2-2	315	545.0	2987	96.5	0.91	1.6	2.2	8.5	100	2.3	2168
IE4-355L3-2	355	621.0	2987	96.5	0.90	0.9	1.8	8.6	97	2.3	2684
IE4-400M2-2	400	699.8	2987	96.5	0.90	0.9	1.8	8.6	97	2.3	3005
IE4-400M3-2	450	787.2	2987	96.5	0.90	0.8	1.8	8.6	97	2.3	3100
IE4-400L1-2	500	874.7	2992	96.5	0.90	0.8	1.8	8.6	97	2.3	3200
IE4-400L2-2	560	968.9	2992	96.5	0.91	0.8	1.8	8.7	97	2.3	3300
IE4-4501-2	630	1090	2992	96.5	0.91	0.8	1.8	8.7	97	2.3	3400
IE4-4502-2	710	1228.4	2997	96.5	0.91	0.6	1.8	8.0	97	2.3	3500
IE4-4503-2	800	1384.1	2997	96.5	0.91	0.6	1.8	8.0	97	2.3	3600
IE4-4504-2	900	1557.1	2997	96.5	0.91	0.6	1.8	8.0	97	2.3	3700

**MAIN TECHNICAL DATA**

**IE4 ASYNCHRONOUS SPEED - 1500R/MIN - 380V - 50HZ**

TYPE	Output kW	Electric Current A	Speed r/min	Eff %	Power Factor	Locked Torque/ Rated Torque	Max. Torque/ Rated Torque	Locked Current/ Rated Current	Noise dB (A)	Vibration mm/s	Weight kg
IE4-132S-4	5.5	11.4	1442	91.9	0.80	2.0	2.3	9.5	71	1.3	75
IE4-132M-4	7.5	15.2	1442	92.6	0.81	2.0	2.3	9.5	71	1.3	92
IE4-160M-4	11	21.6	1462	93.3	0.83	2.0	2.3	9.5	73	1.8	135
IE4-160L-4	15	28.9	1462	93.9	0.84	2.0	2.3	9.5	73	1.8	159
IE4-180M-4	18.5	35.1	1472	94.2	0.85	2.0	2.3	9.5	76	1.8	195
IE4-180L-4	22	41.6	1472	94.5	0.85	2.0	2.3	9.5	76	1.8	218
IE4-200L-4	30	56.5	1472	94.9	0.85	2.0	2.3	9.0	76	1.8	284
IE4-225S-4	37	68.7	1482	95.2	0.86	2.0	2.3	9.0	78	1.8	333
IE4-225M-4	45	83.3	1482	95.4	0.86	2.0	2.3	9.0	78	1.8	409
IE4-250M-4	55	101.5	1482	95.7	0.86	2.0	2.3	9.0	79	1.8	427
IE4-280S-4	75	136.4	1482	96.0	0.87	2.0	2.3	8.5	80	1.8	574
IE4-280M-4	90	161.7	1482	96.1	0.88	2.0	2.3	8.5	80	1.8	655
IE4-315S-4	110	195.0	1492	96.3	0.89	1.8	2.2	8.5	88	2.3	981
IE4-315M-4	132	233.8	1492	96.4	0.89	1.8	2.2	8.5	88	2.3	1149
IE4-315L1-4	160	279.6	1492	96.6	0.90	1.8	2.2	8.5	88	2.3	1173
IE4-315L2-4	200	349.2	1492	96.7	0.90	1.8	2.2	8.5	88	2.3	1288
IE4-355M2-4	250	436.4	1497	96.7	0.90	1.8	2.2	8.5	95	2.3	1692
IE4-355L2-4	315	549.9	1497	96.7	0.90	1.8	2.2	8.5	95	2.3	1856
IE4-355L3-4	355	633.8	1497	96.7	0.88	0.9	1.8	8.5	92	2.3	2143
IE4-400M2-4	400	714.2	1497	96.7	0.88	0.9	1.8	8.5	92	2.3	2467
IE4-400M3-4	450	803.5	1497	96.7	0.88	0.8	1.8	8.5	92	2.3	2600
IE4-400L1-4	500	892.7	1502	96.7	0.88	0.8	1.8	8.5	93	2.3	2700
IE4-400L2-4	560	988.6	1502	96.7	0.89	0.8	1.8	8.6	93	2.3	2800
IE4-4501-4	630	1112.2	1502	96.7	0.89	0.8	1.8	8.6	93	2.3	2900
IE4-4502-4	710	1253.4	1507	96.7	0.89	0.6	1.8	7.8	95	2.3	3000
IE4-4503-4	800	1396.6	1507	96.7	0.90	0.6	1.8	7.9	95	2.3	3100
IE4-4504-4	900	1571.2	1507	96.7	0.90	0.6	1.8	7.9	95	2.3	3200

**MAIN TECHNICAL DATA**

**IE4 ASYNCHRONOUS SPEED - 1000R/MIN - 380V - 50HZ**

TYPE	Output kW	Electric Current A	Speed r/min	Eff %	Power Factor	Locked Torque/ Rated Torque	Max. Torque/ Rated Torque	Locked Current/ Rated Current	Noise dB (A)	Vibration mm/s	Weight kg
IE4-132-6	3	7.1	962	88.6	0.72	2.0	2.1	7.5	69	1.3	74
IE4-132M1-6	4	9.3	962	89.5	0.73	2.0	2.1	8.0	69	1.3	84
IE4-132M2-6	5.5	12.6	962	90.5	0.73	2.0	2.1	8.0	69	1.3	97
IE4-160M-6	7.5	16.0	972	91.3	0.78	2.0	2.1	8.0	73	1.8	134
IE4-160L-6	11	22.9	972	92.3	0.79	2.0	2.1	8.5	73	1.8	159
IE4-180L-6	15	30.7	972	92.9	0.80	2.0	2.1	8.5	73	1.8	212
IE4-200L1-6	18.5	37.6	972	93.4	0.80	2.0	2.1	8.5	73	1.8	256
IE4-200L2-6	22	44.0	972	93.7	0.81	2.0	2.1	8.5	73	1.8	270
IE4-225M-6	30	59.0	992	94.2	0.82	2.0	2.1	8.3	74	1.8	352
IE4-250M-6	37	71.7	992	94.5	0.83	2.0	2.1	8.3	76	1.8	405
IE4-280S-6	45	84.8	992	94.8	0.85	2.0	2.0	8.5	78	1.8	522
IE4-280M-6	55	102.2	992	95.1	0.86	2.0	2.0	8.5	78	1.8	578
IE4-315S-6	75	142.2	992	95.4	0.84	1.6	2.0	8.0	83	2.3	960
IE4-315M-6	90	168.3	992	95.6	0.85	1.6	2.0	8.0	83	2.3	1098
IE4-315L1-6	110	205.2	992	95.8	0.85	1.6	2.0	8.0	83	2.3	1126
IE4-315L2-6	132	242.9	992	96.0	0.86	1.6	2.0	8.0	83	2.3	1228
IE4-355M1-6	160	293.8	994	96.2	0.86	1.6	2.0	8.0	85	2.3	1561
IE4-355M3-6	200	366.9	994	96.3	0.86	1.6	2.0	8.0	85	2.3	1665
IE4-355L2-6	250	457.7	994	96.5	0.86	1.6	2.0	8.0	85	2.3	1771
IE4-355L4-6	315	604.2	994	96.6	0.82	0.9	1.8	7.9	91	2.3	1763
IE4-400M3-6	355	680.9	994	96.6	0.82	0.9	1.8	7.9	91	2.3	1900
IE4-400L1-6	400	758.0	996	96.6	0.83	0.9	1.8	8.0	91	2.3	2000
IE4-400L2-6	450	852.7	996	96.6	0.83	0.8	1.8	8.0	92	2.3	2100
IE4-4501-6	500	947.5	996	96.6	0.83	0.8	1.8	8.0	92	2.3	2200
IE4-4502-6	560	1048.5	998	96.6	0.84	0.8	1.8	8.1	95	2.3	2300
IE4-4503-6	630	1179.6	998	96.6	0.84	0.8	1.8	8.1	95	2.3	2400
IE4-4504-6	710	1329.4	998	96.6	0.84	0.6	1.8	7.4	95	2.3	2500

**MAIN TECHNICAL DATA**

**IE4 ASYNCHRONOUS SPEED - 750R/MIN - 380V - 50HZ**

TYPE	Output kW	Electric Current A	Speed r/min	Eff %	Power Factor	Locked Torque/ Rated Torque	Max. Torque/ Rated Torque	Locked Current/ Rated Current	Noise dB (A)	Vibration mm/s	Weight kg
IE4-132S-8	2.2	5.7	712	84.5	0.70	1.8	2.0	7.5	64	1.3	78
IE4-132M-8	3	7.6	712	85.9	0.70	1.8	2.0	7.8	64	1.3	95
IE4-160M1-8	4	9.6	722	87.1	0.73	1.8	2.0	7.9	68	1.8	127
IE4-160M2-8	5.5	12.8	722	88.3	0.74	1.8	2.0	8.1	68	1.8	139
IE4-160L-8	7.5	17.2	732	89.3	0.74	1.8	2.0	7.8	68	1.8	175
IE4-180L-8	11	25.0	732	90.4	0.74	1.8	2.0	7.9	70	1.8	193
IE4-200L-8	15	33.3	732	91.2	0.75	1.8	2.0	8.0	73	1.8	275
IE4-225S-8	18.5	40.9	732	91.7	0.75	1.8	2.0	8.1	73	1.8	292
IE4-225M-8	22	47.8	732	92.1	0.76	1.8	2.0	8.3	73	1.8	320
IE4-250M-8	30	63.9	732	92.7	0.77	1.8	2.0	7.9	75	1.8	445
IE4-280S-8	37	77.4	732	93.1	0.78	1.8	2.0	7.9	76	1.8	571
IE4-280M-8	45	93.9	732	93.4	0.78	1.8	2.0	7.9	76	1.8	650
IE4-315S-8	55	111.5	742	93.7	0.80	1.6	2.0	8.2	82	2.3	1089
IE4-315M-8	75	151.2	742	94.2	0.80	1.6	2.0	7.6	82	2.3	1210
IE4-315L1-8	90	178.8	742	94.4	0.81	1.6	2.0	7.7	82	2.3	1276
IE4-315L2-8	110	217.9	742	94.7	0.81	1.6	2.0	7.7	82	2.3	1352
IE4-355M1-8	132	260.9	747	94.9	0.81	1.6	2.0	7.7	89	2.3	2420
IE4-355M2-8	160	311.7	747	95.1	0.82	1.6	2.0	7.7	89	2.3	2601
IE4-355L-8	200	388.4	747	95.4	0.82	1.6	2.0	7.8	89	2.3	2722
IE4-400M2-8	250	497.7	747	95.4	0.80	1.1	1.8	7.6	89	2.3	2800
IE4-400L1-8	315	627.1	747	95.4	0.80	0.9	1.8	7.6	89	2.3	2900
IE4-400L2-8	355	706.7	752	95.4	0.80	0.9	1.8	7.7	91	2.3	3000
IE4-4501-8	400	796.3	752	95.4	0.80	0.9	1.8	7.6	91	2.3	3100
IE4-4502-8	450	874.0	752	95.4	0.82	0.8	1.8	7.8	93	2.3	3200
IE4-4503-8	500	971.1	757	95.4	0.82	0.8	1.8	7.8	93	2.3	3300
IE4-4504-8	560	1087.6	757	95.4	0.82	0.8	1.8	7.8	93	2.3	3400



