



Digitized Automation for a Changing World

Delta PMA Synchronous Reluctance Motor MSI Series



Delta PMA Synchronous Reluctance Motor

Efficient, Energy-saving, High Integration

Committed to a greener world, Delta has long been dedicated to empowering its customers with green and high-efficiency products. The PMA Synchronous Reluctance Motor MSI Series is designed for excellence in energy-saving and motion accuracy with high efficiency and power density. It generates low noise, low vibration, and saves installation space. When operating with Delta's control drives, the MSI motors achieve optimal performance with a high degree of integration.





Table of Contents	Pages
Features	3
Applications	4
Model Names	5
Standard Motor Specifications	7
High SF Motor Specifications	10
Dimensions	12
Standard Motor Ordering Information	17
High SF Motor Ordering Information	18

PMa Synchronous Reluctance Motor MSI Series

High Efficiency

- Motor efficiency exceeds the IE4 standard and variance < 0.1% (minimum) under different loads
- Suitable for long-time operation with low loads to save energy

Lightweight & High Power Density

- Allows downsizing by 1-2 standard IM motor frame sizes compared with products of the same power
- Flexible and space-saving

Easy Installation

- Motor frame sizes consistent with standard IM motors for easy replacement and installation

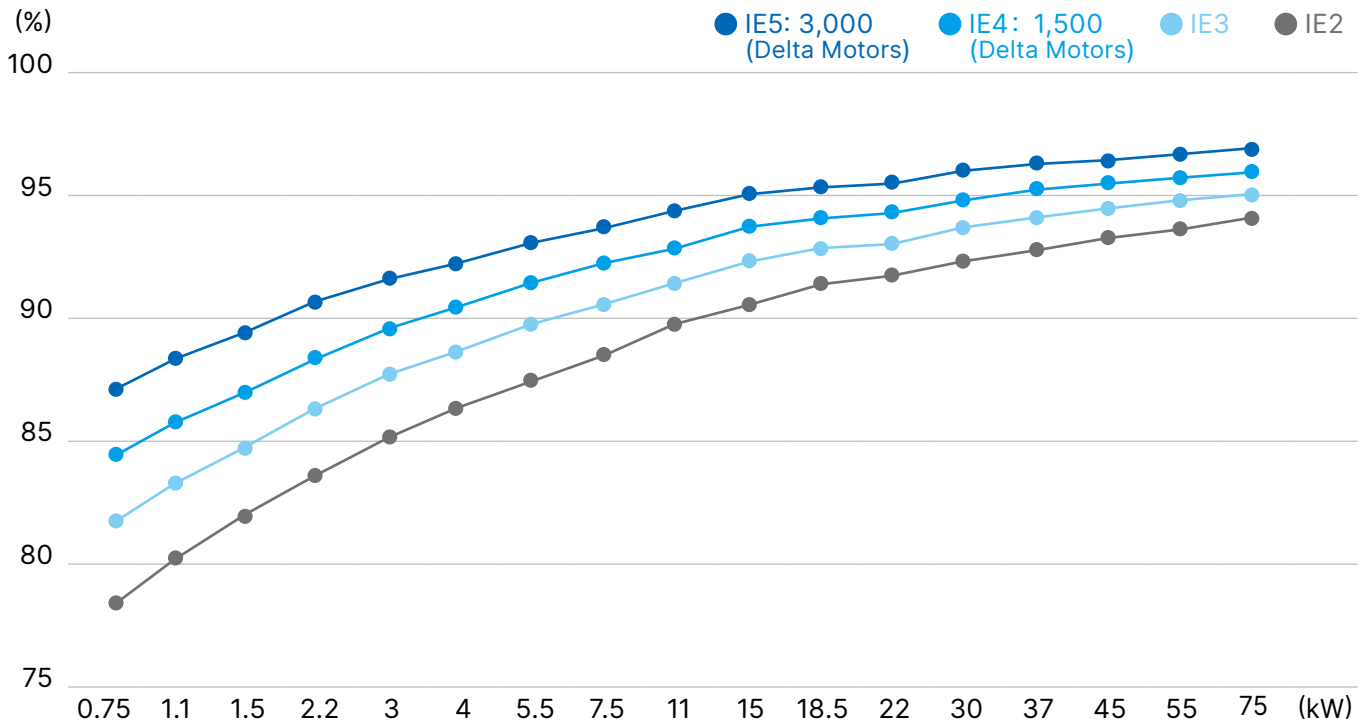
Low Noise & Vibration

- Noise reduced by 5~10 dB for a comfortable working environment
- Low vibration improves accuracy

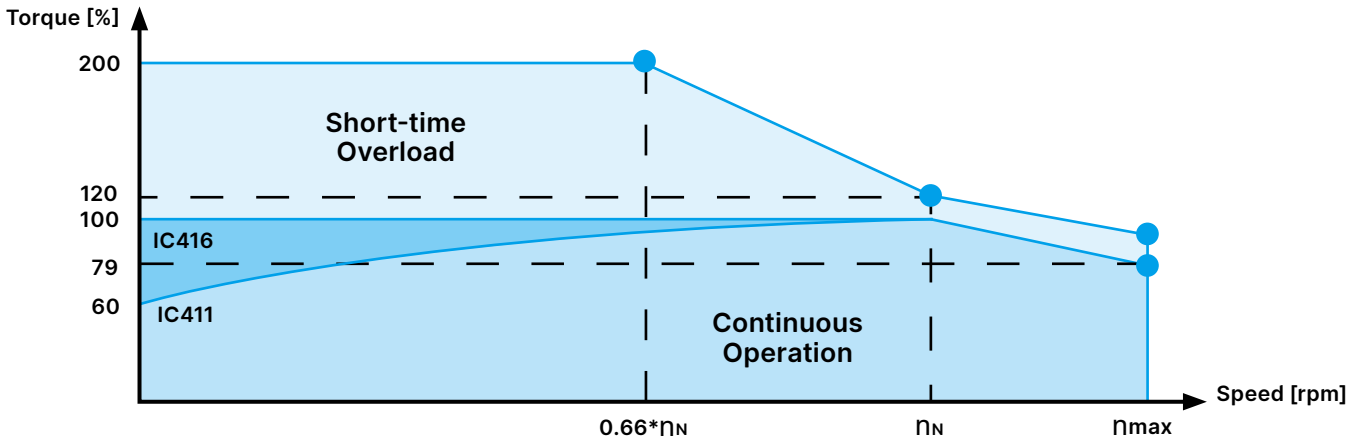
Complete Energy-saving System

- Achieves optimal performance when operating with Delta's standard or fan/pump vector control drives

Efficiency Comparison



Torque Speed



0.66*πN	πN	πmax
2,000rpm	3,000rpm	3,800rpm
1,000rpm	1,500rpm	1,900rpm

πN = Rated speed ; πmax = Max. speed

Applications



Conveyance Equipment



Air Exchanging and Filtering

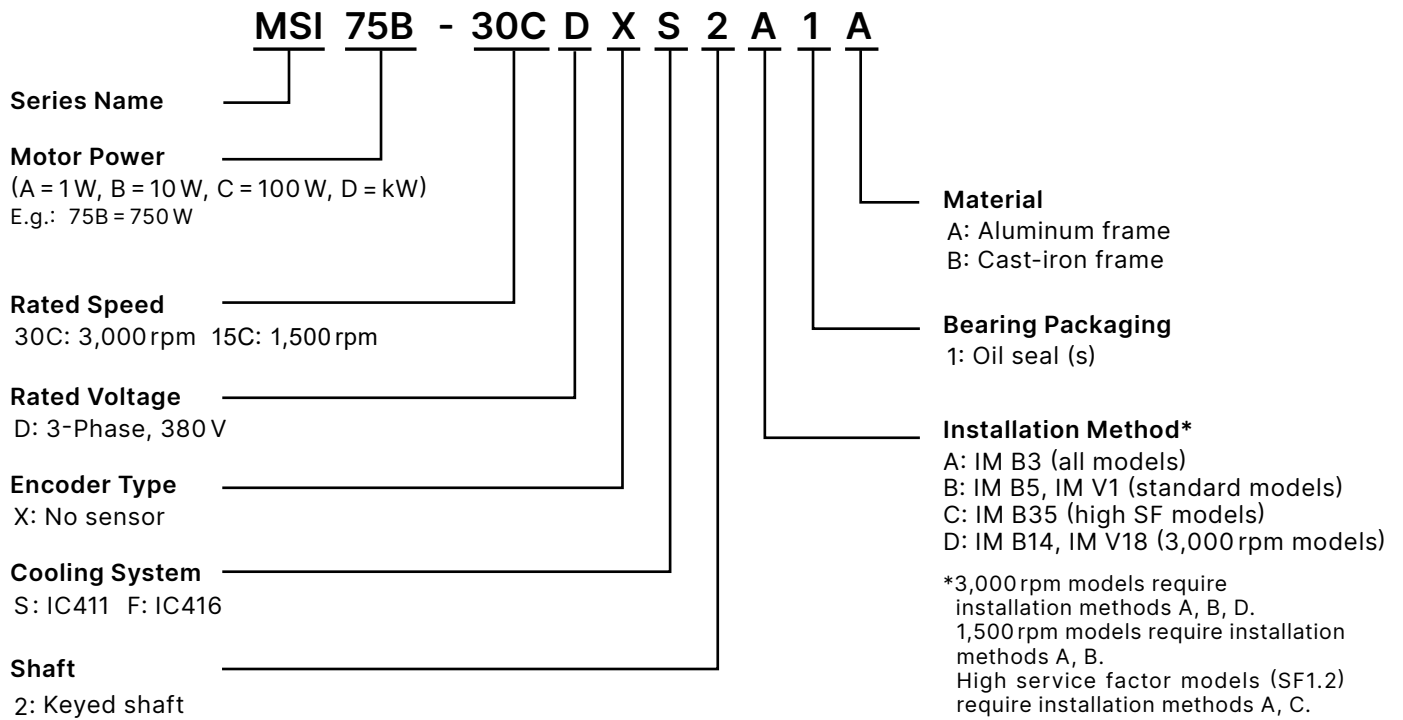


Water Treatment Pumps



Liquid Stirring

Model Name



Energy-saving Systems with Vector Control Drives

Standard Compact Drives MS300 Series

- High starting torque
- Small size for seamless parallel installation
- Built-in PID feedback control
- Deceleration energy control method
- Built-in PLC controller
- Restarts immediately after a power outage



Fan/Pump Vector Control Drives CP2000 Series

- Restarts immediately after a power outage
- Multi-pump control function
- Built-in BACnet (MS/TP)
- Flying start function
- Maximum torque minimum current control
- Over-torque testing



Motor & Vector Control Drive Selection

Standard Models

Model	Rated Power (kW)	3,000rpm Rated Current (A)	1,500rpm Rated Current (A)	Compact Drive MS300 Series	Fan/Pump Vector Control Drive CP2000 Series
MSI75B-__CDXS2_1A	0.75	1.5	NA	VFD1A5MS43ANSAA	VFD007CP43-_-_-
MSI75B-__CDXS2_1A	0.75	NA	1.7	VFD2A7MS43ANSAA	VFD007CP43-_-_-
MSI11C-__CDXS2_1A	1.1	2.3	2.4	VFD2A7MS43ANSAA	VFD007CP43-_-_-
MSI15C-__CDXS2_1A	1.5	3.1	3.4	VFD4A2MS43ANSAA	VFD015CP43-_-_-
MSI22C-__CDXS2_1A	2.2	4.4	4.8	VFD5A5MS43ANSAA	VFD022CP43-_-_-
MSI30C-__CDXS2_1A	3	5.8	6.4	VFD9A0MS43ANSAA	VFD037CP43-_-_-
MSI40C-__CDXS2_1A	4	8	8.5	VFD9A0MS43ANSAA	VFD040CP43-_-_-
MSI55C-__CDXS2_1-	5.5	11	11.9	VFD13AMS43ANSAA	VFD055CP43-_-_-
MSI75C-__CDXS2_1-	7.5	14.7	15.6	VFD17AMS43ANSAA	VFD075CP43-_-_-
MSI11D-__CDXS2_1-	11	23	20.8	VFD25AMS43ANSAA	VFD110CP43-_-_-
MSI15D-__CDXS2_1-	15	30	25.8	VFD32AMS43ANSAA	VFD150CP43-_-_-
MSI18D-__CDXS2_1-	18.5	37	35	VFD38AMS43ANSAA	VFD185CP43-_-_-
MSI22D-__CDXS2_1-	22	43	43	VFD45AMS43ANSAA	VFD220CP43-_-_-
MSI30D-__CDXS2A1B	30	56	55.5	NA	VFD300CP43-_-_-
MSI37D-__CDXS2A1B	37	70	66	NA	VFD370CP43-_-_-
MSI45D-__CDXS2A1B	45	85	78.5	NA	VFD450CP43-_-_-
MSI55D-__CDXS2A1B	55	101	NA	NA	VFD550CP43-_-_-
MSI75D-__CDXS2A1B	75	134	NA	NA	VFD750CP43-_-_-

High Service Factor Models

Model	Rated Power (kW)	Rated Current (A)	Compact Drive MS300 Series	Fan/Pump Vector Control Drive CP2000 Series
MSI75C-30CDXF2_1BC	7.5	16.5	VFD25AMS43ANSAA	VFD110CP43-_-_-
MSI11D-30CDXF2_1BC	11	23	VFD32AMS43ANSAA	VFD150CP43-_-_-
MSI15D-30CDXF2_1BC	15	31	VFD38AMS43ANSAA	VFD185CP43-_-_-
MSI18D-30CDXF2_1BC	18.5	38	VFD45AMS43ANSAA	VFD220CP43-_-_-
MSI22D-30CDXF2_1BC	22	45	NA	VFD300CP43-_-_-
MSI30D-30CDXF2_1BC	30	57	NA	VFD370CP43-_-_-
MSI37D-30CDXF2_1BC	37	69	NA	VFD450CP43-_-_-

Specifications of Standard Models



General Specifications

Items	Specifications
Power Supply	Matches with a 3-phase 380 V inverter: - Inverter input voltage > 380V and under the max. rated input voltage - Rated output current higher than motor rated current - Carrier frequency > 4 kHz
Rotation Direction	Clockwise when viewed from the drive end
Operating Environment	Operating Temperature: -15 °C ~ 40 °C, Operating Altitude: up to 1,000 m
Electrical Operating Conditions	During motor operation, the deviation between the power supply voltage/frequency and the rated values is in accordance with the standard GB755
Duty Type Rating	Continuous duty type S1
Protection Rating	IP55
Cooling Method	IC411
Thermistor	PTC - 130/KTY84 - 130
Material	Aluminum frame, cast-iron frame
Bearing Type	Grease-lubricated and double-sealed ball bearing
Stator Insulation	Class F
Temperature Rise	Class B
Coating	Anti-rust and phenolic resin primer, and black painting
Environment	Indoor operation
Driving Method	Direct-coupled (flexible connector) or belt connected
Installation Method	IM B3, IM B5, IM V1, IM B14, IM V18
Service Factor	SF 1.0
Overload Capacity	120 % / 60 secs.

Installations

IM B3	IM B5	IM V1
IM B14	IM V18	

Electrical Specifications

Standard Motors 380 V (Service Factor 1.0) Applicable for Water Pump Industry										IE5
Model	Rated Power (kW)	Frame Size (mm)	Rated Current (A)	Rated Torque (Nm)	Power Factor (%)	4/4 Rated Efficiency (%)	3/4 Rated Efficiency (%)	2/4 Rated Efficiency (%)	Noise (dB)	Vibration (mm/s)
3,000 rpm Rated Frequency: 150 Hz										
MSI75B-30CDXS2-1A	0.75	80	1.5	2.3	0.85	86.3	84.6	83.5	58	1.6
MSI11C-30CDXS2-1A	1.1	80	2.3	3.5	0.85	87.8	84.8	84.1	58	1.6
MSI15C-30CDXS2-1A	1.5	80	3.1	4.7	0.85	88.9	88	85.4	61	1.6
MSI22C-30CDXS2-1A	2.2	80	4.4	7	0.85	90.2	91.4	89.6	61	1.6
MSI30C-30CDXS2-1A	3	90	5.8	9.5	0.85	91.1	92.2	90.6	63	1.6
MSI40C-30CDXS2-1A	4	90	8	12.7	0.86	91.8	92.7	91.2	63	1.6
MSI55C-30CDXS2-1A	5.5	100	11	17.5	0.87	92.6	93.2	92	65	1.6
MSI75C-30CDXS2-1A	7.5	100	14.7	23.8	0.87	93.3	93.9	93.2	65	1.6
MSI11D-30CDXS2-1A	11	112	23	35	0.89	94	93.9	93.6	68	1.6
MSI15D-30CDXS2-1A	15	112	30	47.8	0.9	94.5	94.4	94.1	68	1.6
3,000 rpm Rated Frequency: 200 Hz										
MSI18D-30CDXS2-1A	18.5	132	37	58.7	0.91	94.9	94.7	93.4	70	1.6
MSI22D-30CDXS2-1A	22	132	43	70	0.91	95.1	94.9	94.3	70	1.6
MSI30D-30CDXS2A1B	30	160	56	95.5	0.85	95.5	95.3	95.1	84	1.6
MSI37D-30CDXS2A1B	37	160	70	118	0.85	95.8	95.5	95.3	84	1.6
MSI45D-30CDXS2A1B	45	180	85	143	0.85	96	95.8	95.5	88	2.2
MSI55D-30CDXS2A1B	55	200	101	175	0.85	96.2	96	95.7	90	2.2
MSI75D-30CDXS2A1B	75	225	134	239	0.85	96.5	96.3	95.6	92	2.2

When _ is D (IM B14/IM V18), there are only models of 7.5kW or lower.

Electrical Specifications

Standard Motors 380 V (Service Factor 1.0) Applicable for Fan Drives										IE4
Model	Rated Power (kW)	Frame Size (mm)	Rated Current (A)	Rated Torque (Nm)	Power Factor (%)	4/4 Rated Efficiency (%)	3/4 Rated Efficiency (%)	2/4 Rated Efficiency (%)	Noise (dB)	Vibration (mm/s)
1,500rpm Rated Frequency: 75Hz										
MSI75B-15CDXS2-1A	0.75	80	1.7	4.6	0.85	85.7	83.9	80.8	56	1.6
MSI11C-15CDXS2-1A	1.1	80	2.4	7	0.85	87.2	87	86.6	56	1.6
MSI15C-15CDXS2-1A	1.5	80	3.4	9.4	0.85	88.2	87.2	85.9	56	1.6
MSI22C-15CDXS2-1A	2.2	90	4.8	14	0.85	89.5	89.1	88.7	59	1.6
MSI30C-15CDXS2-1A	3	90	6.4	19	0.84	90.4	90.5	89.7	59	1.6
MSI40C-15CDXS2-1A	4	100	8.5	25.4	0.84	91.1	91.4	90.6	64	1.6
MSI55C-15CDXS2-1B	5.5	112	11.9	35	0.84	91.9	91.1	90.8	65	1.6
MSI75C-15CDXS2-1B	7.5	112	15.6	47.8	0.87	92.6	92.5	92.1	65	1.6
1,500rpm Rated Frequency: 100Hz										
MSI11D-15CDXS2-1B	11	132	20.8	70	0.89	93.3	93.1	93	71	1.6
MSI15D-15CDXS2-1B	15	132	25.8	95.5	0.9	93.9	93.7	93.6	71	1.6
MSI18D-15CDXS2-1B	18.5	160	35	117.8	0.91	94.2	94.1	93.9	73	2.2
MSI22D-15CDXS2-1B	22	160	43	140	0.91	94.5	94.1	93.9	73	2.2
MSI30D-15CDXS2A1B	30	180	55.5	191	0.85	94.9	94.7	94.4	83	2.2
MSI37D-15CDXS2A1B	37	180	66	235.5	0.85	95.2	95.3	95	83	2.2
MSI45D-15CDXS2A1B	45	200	78.5	286.5	0.85	95.4	95.3	94.9	84	2.2

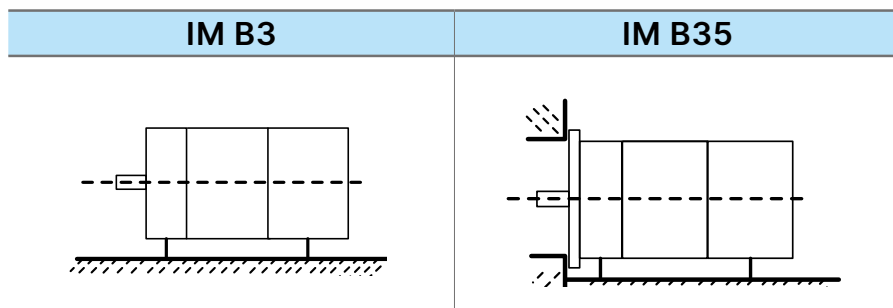
Specifications for High Service Factor Models



General Specifications

Items	Specifications
Power Supply	Matches with a 3-phase 380V inverter : - Inverter input voltage > 380V and under the max. rated input voltage - Rated output current higher than motor rated current - Carrier frequency > 4 kHz
Rotation Direction	Clockwise when viewed from the drive end
Operating Environment	Operating Temperature: -15°C ~ 40°C Operating Altitude: up to 1,000 m
Electrical Operating Conditions	The deviation of the power supply voltage and frequency from the rated values is in accordance with the standard GB755 during the motor's running.
Duty Type Rating	Continuous duty type S1
Protection Rating	IP54
Cooling Method	IC416
Thermistor	PTC-130/KTY84-130
Material	Cast-iron frame
Bearing Type	Grease-lubricated and double-sealed ball bearing
Stator Insulation	Class F
Temperature Rise	Class B
Coating	Anti-rust and phenolic resin primer, and black painting
Environment	Indoor operation
Driving Method	Direct-coupled (flexible connector) or belt connected
Installation Method	IM B3, IM B35
Service Factor	SF1.2
Overload Capacity	120 %

Installations



Electrical Specifications

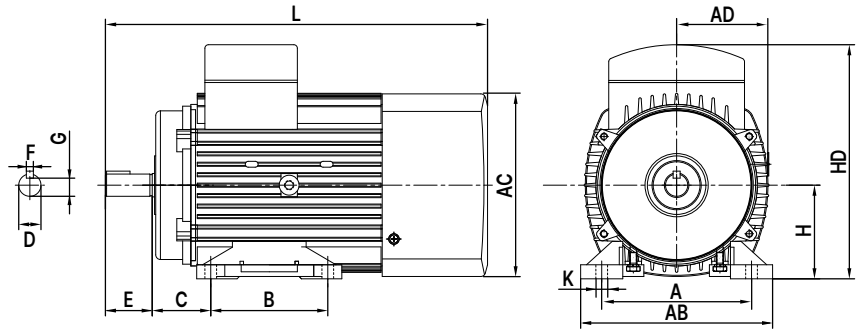
**High Service Factor Motors 380 V (Service Factor 1.2) |
Applicable for Air Compressor Industry and Overload Operations up to SF 1.2**

Model	Rated Power (kW)	Frame Size (mm)	Rated Current (A)	Rated Torque (Nm)	Power Factor (%)	4/4 Rated Efficiency (%)	3/4 Rated Efficiency (%)	2/4 Rated Efficiency (%)	Noise (dB)	Vibration (mm/s)
3,000rpm Rated Frequency: 150Hz										
MSI75C-30CDXF2-1BC	7.5	112	16.5	24	0.82	91.7	91	90.3	79	1.6
MSI11D-30CDXF2-1BC	11	112	23	35	0.85	92.6	91.9	91.2	81	1.6
MSI15D-30CDXF2-1BC	15	112	31	47.7	0.85	93.3	92.5	91.7	81	1.6
MSI18D-30CDXF2-1BC	18.5	112	38	58.9	0.85	93.7	93	92.4	81	1.6
3,000rpm Rated Frequency: 200Hz										
MSI22D-30CDXF2-1BC	22	132	45	70.1	0.9	94	93.1	92.6	83	1.6
MSI30D-30CDXF2-1BC	30	160	57	95.5	0.92	94.5	93.7	93	84	1.6
MSI37D-30CDXF2-1BC	37	160	69	117.8	0.93	94.8	94	93.3	84	1.6
3,600rpm Rated Frequency: 180Hz										
MSI75C-36CDXF2-1BC	7.5	112	16.5	19.8	0.82	91.7	91	90.3	79	1.6



Dimensions

Standard Models: IM B3



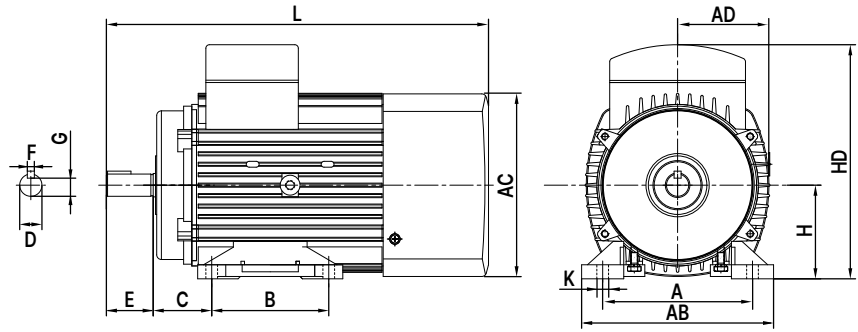
Rotational Speed 3,000rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)								
		A	B	C	D	E	F	G	H	K
0.75-2.2	80	125	100	50 ± 1.5	19 ^{+0.009} _{-0.004}	40 ± 0.31	6 ⁰ _{-0.03}	15.5 ⁰ _{-0.1}	80 ⁰ _{-0.5}	10
3-4	90	140	125	56 ± 1.5	24 ^{+0.009} _{-0.004}	50 ± 0.31	8 ⁰ _{-0.036}	20 ⁰ _{-0.2}	90 ⁰ _{-0.5}	10
5.5-7.5	100	160	140	63 ± 2	28 ^{+0.009} _{-0.004}	60 ± 0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	100 ⁰ _{-0.5}	12
11-15	112	190	140	70 ± 2	28 ^{+0.009} _{-0.004}	60 ± 0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	112 ⁰ _{-0.5}	12
18.5-22	132	216	178	89 ± 2	38 ^{+0.018} _{+0.002}	80 ± 0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	132 ⁰ _{-0.5}	13
30-37	160	254	254	108 ± 3	42 ^{+0.18} _{+0.002}	110 ± 0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	160 ⁰ _{-0.5}	14.5
45	180	279	241	122 ± 3	48 ^{+0.18} _{+0.002}	110 ± 0.43	14 ^{-0.009} _{-0.043}	42.5 ⁰ _{-0.2}	180 ^{0.5} ₀	14.5
55	200	318	305	133 ± 3	55 ^{+0.03} _{+0.011}	110 ± 0.43	16 ^{-0.043} _{-0.09}	49 ⁰ _{-0.2}	200 ⁰ _{-0.5}	18.5
75	225	356	286	149 ± 3	60 ^{+0.03} _{+0.011}	140 ± 0.5	18 ^{-0.027} _{-0.043}	53 ⁰ _{-0.2}	225 ⁰ _{-0.5}	18.5

Power Range (kW)	Frame Size (mm)	Motor Dimensions (mm)						
		AB	AC	AD	HD	L	Front Bearing	Rear Bearing
0.75-2.2	80	158	159	79	195 ± 3	325 ± 5	6204 ZZ/C3	6204 ZZ/C3
3-4	90	175	180	90	220 ± 3	369 ± 5	6205 ZZ/C3	6205 ZZ/C3
5.5-7.5	100	200	196.5	96.5	240 ± 3	385 ± 5	6206 ZZ/C3	6206 ZZ/C3
11-15	112	225	220	108	270 ± 3	406.5 ± 5	6206 ZZ/C3	6206 ZZ/C3
18.5-22	132	255	258.5	126.5	308 ± 3	497.5 ± 5	6208 ZZ/C3	6208 ZZ/C3
30-37	160	314	311	157	416 ± 5	682 ± 10	6309 2Z/C3	6209 2Z/C3
45	180	349	355	178	453 ± 5	717 ± 10	6311/C3	6211/C3
55	200	388	397	199	500 ± 5	776 ± 10	6312/C3	6212/C3
75	225	431	446	223	548 ± 5	817 ± 10	6313/C3	6213/C3

Dimensions

Standard Models: IM B3



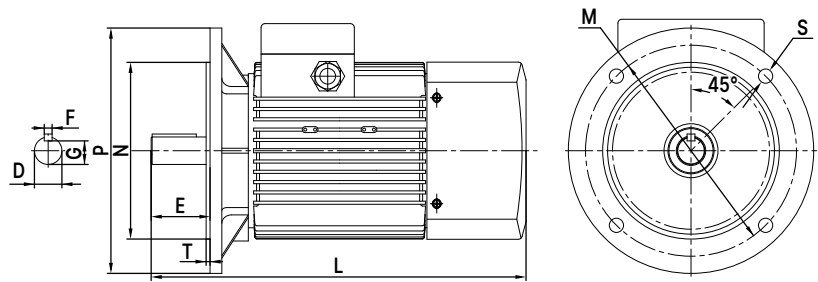
Rotational Speed 1,500rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)								
		A	B	C	D	E	F	G	H	K
0.75-1.5	80	125	100	50 ± 1.5	19 ^{+0.009} _{-0.004}	40 ± 0.31	6 ⁰ _{-0.03}	15 ⁰ _{-0.1}	80 ⁰ _{-0.5}	10
2.2-3	90	140	125	56 ± 1.5	24 ^{+0.009} _{-0.004}	50 ± 0.31	8 ⁰ _{-0.036}	20 ⁰ _{-0.2}	90 ⁰ _{-0.5}	10
4	100	160	140	63 ± 2	28 ^{+0.009} _{-0.004}	60 ± 0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	100 ⁰ _{-0.5}	12
5.5-7.5	112	190	140	70 ± 2	28 ^{+0.009} _{-0.004}	60 ± 0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	112 ⁰ _{-0.5}	12
11-15	132	216	178	89 ± 2	38 ^{+0.018} _{+0.002}	80 ± 0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	132 ⁰ _{-0.5}	12
18.5-22	160	254	254	108 ± 3	42 ^{+0.018} _{+0.002}	110 ± 0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	160 ⁰ _{-0.5}	14.5
30-37	180	279	241	122 ± 3	48 ^{+0.98} _{+0.002}	110 ± 0.43	14 ^{-0.009} _{-0.043}	42.5 ⁰ _{-0.2}	180 ^{+0.5} ₀	14.5
45	200	318	305	133 ± 3	55 ^{+0.03} _{-0.011}	110 ± 0.43	16 ^{-0.043} _{-0.09}	49 ⁰ _{-0.2}	200 ⁰ _{-0.5}	18.5

Power Range (kW)	Frame Size (mm)	Motor Dimensions (mm)						
		AB	AC	AD	HD	L	Front Bearing	Rear Bearing
0.75-1.5	80	158	159	79	195 ± 3	325 ± 5	6204 ZZ/C3	6204 ZZ/C3
2.2-3	90	175	180	90	220 ± 3	369 ± 5	6205 ZZ/C3	6205 ZZ/C3
4	100	200	196.5	96.5	240 ± 3	385 ± 5	6206 ZZ/C3	6206 ZZ/C3
5.5-7.5	112	226	217	110	293 ± 3	473 ± 10	6206 ZZ/C3	6206 ZZ/C3
11-15	132	262	258.5	130	333 ± 3	539 ± 10	6208 ZZ/C3	6208 ZZ/C3
18.5-22	160	314	314	157	416 ± 3	682 ± 10	6309 ZZ/C3	6309 ZZ/C3
30-37	180	349	355	178	453 ± 5	717 ± 10	6311/C3	6211/C3
45	200	388	355	199	500 ± 5	776 ± 10	6312/C3	6212/C3

Standard Models: IM B5, V1

- Reduced frame sizes
- Installation dimensions are consistent with standard motors for easy replacement



Rotational Speed 3,000 rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)											
		D	E	F	G	M	N	P	S	T	L	Front Bearing	Rear Bearing
0.75-1.1	80-1	19 ^{+0.009} _{-0.004}	40±0.31	6 ⁰ _{-0.03}	15.5 ⁰ _{-0.1}	165	130±0.012	200	12 ^{+0.43} ₀	3.5 ⁰ _{-0.12}	331±5	6305 ZZ/C3	6204 ZZ/C3
1.5-2.2	80-2	24 ^{+0.009} _{-0.004}	50±0.31	8 ⁰ _{-0.036}	20 ⁰ _{-0.2}	165	130±0.012	200	12 ^{+0.43} ₀	3.5 ⁰ _{-0.12}	341±5	6305 ZZ/C3	6204 ZZ/C3
3-4	90	28 ^{+0.009} _{-0.004}	60±0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	215	180±0.013	250	14.5 ^{+0.43} ₀	4 ⁰ _{-0.12}	382±5	6306 ZZ/C3	6205 ZZ/C3
5.5-7.5	100	38 ^{+0.018} _{+0.002}	80±0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	265	230±0.015	300	14.5 ^{+0.43} ₀	4 ⁰ _{-0.12}	420±5	6308 ZZ/C3	6206 ZZ/C3
11-15	112	42 ^{+0.018} _{+0.002}	110±0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	300	250±0.015	350	18.5 ^{+0.52} ₀	5 ⁰ _{-0.12}	473±5	6309 ZZ/C3	6306 ZZ/C3
18.5	132-1	42 ^{+0.018} _{+0.002}	110±0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	300	250±0.015	350	18.5 ^{+0.52} ₀	5 ⁰ _{-0.12}	547±5	6310 ZZ/C3	6308 ZZ/C3
22	132-2	48 ^{+0.018} _{+0.002}	110±0.43	14 ⁰ _{-0.043}	42.5 ⁰ _{-0.2}	300	250±0.015	350	18.5 ^{+0.52} ₀	5 ⁰ _{-0.12}	547±5	6310 ZZ/C3	6308 ZZ/C3

Note: 80-1 is for 0.75/1.1kW models. 80-2 is for 1.5/2.2kW models.
132-1 is for 18.5kW models. 132-2 is for 22kW models.

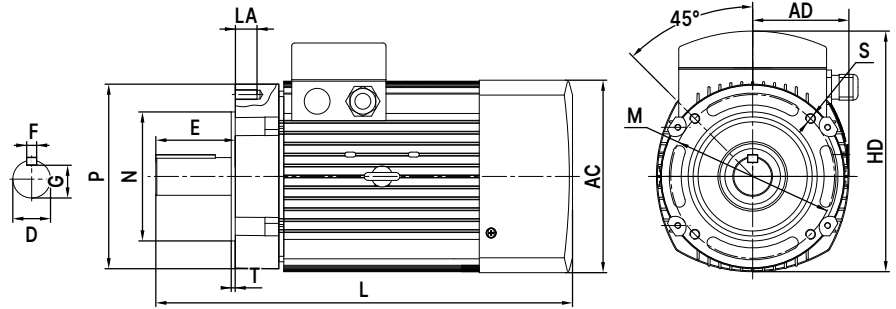
Rotational Speed 1,500 rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)											
		D	E	F	G	M	N	P	S	T	L	Front Bearing	Rear Bearing
0.75	80-1	19 ^{+0.009} _{-0.004}	40±0.31	6 ⁰ _{-0.03}	15.5 ⁰ _{-0.1}	165	130 ^{+0.014} _{-0.011}	200	12	3.5	331±5	6305 ZZ/C3	6204 ZZ/C3
1.1-1.5	80-2	24 ^{+0.009} _{-0.004}	50±0.31	8 ⁰ _{-0.036}	20 ⁰ _{-0.2}	165	130 ^{+0.014} _{-0.011}	200	12	3.5	341±5	6305 ZZ/C3	6204 ZZ/C3
2.2-3	90	28 ^{+0.009} _{-0.004}	60±0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	215	180 ^{+0.014} _{-0.011}	250	14.5	4	382±5	6306 ZZ/C3	6205 ZZ/C3
4	100	28 ^{+0.009} _{-0.004}	60±0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	215	180 ^{+0.014} _{-0.011}	250	14.5	4	400±5	6306 ZZ/C3	6206 ZZ/C3
5.5-7.5	112	38 ^{+0.018} _{+0.002}	80±0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	265	230 ^{+0.016} _{-0.013}	300	14.5	4	436±5	6309 ZZ/C3	6206 ZZ/C3
11-15	132	42 ^{+0.018} _{+0.002}	110±0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	300	250 ^{+0.016} _{-0.013}	350	18.5	5	539±5	6310 ZZ/C3	6208 ZZ/C3
18.5-22	160	48 ^{+0.018} _{+0.002}	110±0.43	14 ⁰ _{-0.043}	42.5 ⁰ _{-0.2}	300	250 ^{+0.016} _{-0.013}	350	18.5	5	682±5	6310 ZZ/C3	6209 ZZ/C3

Note: 80-1 is for 0.75kW models. 80-2 is for 1.1/1.5kW models.

Dimensions

Standard Models: IM B14, V18



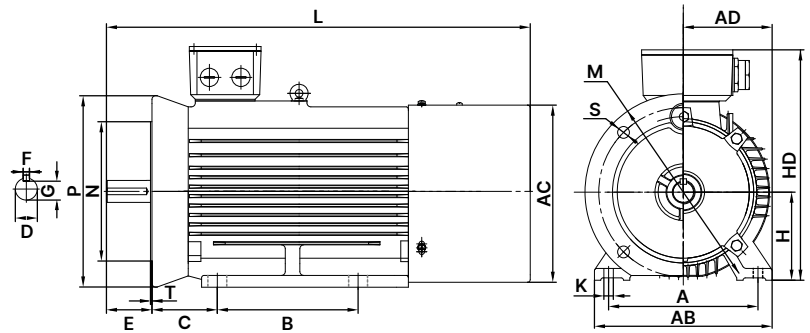
Rotational Speed 3,000 rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)									
		D	E	F	G	LA	M	N	P	S	T
0.75-1.1	80-1	19 ^{+0.009} _{-0.004}	40±0.31	6 ⁰ _{-0.036}	15.5 ⁰ _{-0.1}	10	100	80 ^{+0.012} _{+0.007}	129±0.5	M6	3 ⁰ _{-0.1}
1.5-2.2	80-2	24 ^{+0.009} _{-0.004}	50±0.31	8 ⁰ _{-0.036}	20 ⁰ _{-0.2}	13	115	95 ^{+0.013} _{+0.009}	134±0.5	M8	3 ⁰ _{-0.1}
3-4	90	28 ^{+0.009} _{-0.004}	60±0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	13	130	110 ^{+0.013} _{+0.009}	148±0.5	M8	3.5 ⁰ _{-0.12}
5.5-7.5	100	38 ^{+0.018} _{+0.002}	80±0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	20	165	130 ^{+0.014} _{+0.011}	184±0.5	M10	4 ⁰ _{-0.12}

Power Range (kW)	Frame Size (mm)	Motor Dimensions (mm)					
		AC	AD	HD	L	Front Bearing	Rear Bearing
0.75-1.1	80-1	159	79	190±3	331±5	6204 ZZ/C3	6204 ZZ/C3
1.5-2.2	80-2	159	79	190±3	341±5	6305 ZZ/C3	6204 ZZ/C3
3-4	90	180	90	215±3	382±5	6306 ZZ/C3	6205 ZZ/C3
5.5-7.5	100	196.5	96.5	240±3	420±5	6308 ZZ/C3	6206 ZZ/C3

Note: 80-1 is for 0.75 / 1.1kW models. 80-2 is for 1.5 / 2.2kW models.

High Service Factor Models: IM B35

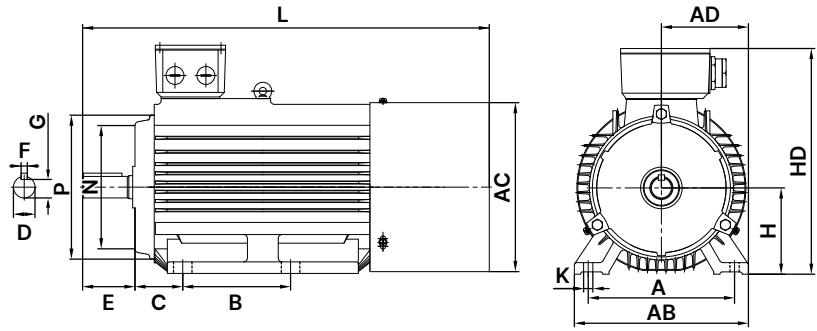


Rotational Speed 3,000 rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)								
		A	B	C	D	E	F	G	H	L
7.5-18.5	112	190	140	70±2	28 ^{+0.009} _{-0.004}	60±0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	112 ⁰ _{-0.5}	521±10
22	132	216	178	89±2	38 ^{+0.018} _{+0.002}	80±0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	132 ⁰ _{-0.5}	601±10
30-37	160	254	254	108±3	42 ^{+0.018} _{+0.002}	110±0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	160 ⁰ _{-0.5}	759.5±10

Power Range (kW)	Frame Size (mm)	Motor Dimensions (mm)										
		M	N	P	S	T	AB	AC	AD	HD	Front Bearing	Rear Bearing
7.5-18.5	112	215	180 ^{+0.014} _{-0.011}	250	14.5 ^{+0.43} ₀	4 ⁰ _{-0.12}	226	219.5	110	293±5	6206 2RS/C3	6206 2RS/C3
22	132	265	230 ^{+0.016} _{-0.013}	300	14.5 ^{+0.43} ₀	4 ⁰ _{-0.12}	262	256	129	336±5	6208 2RS/C3	6208 2RS/C3
30-37	160	300	250 ^{+0.016} _{-0.013}	350	18.5 ^{+0.43} ₀	5 ⁰ _{-0.12}	314	311	157	417±5	6309 2RS/C3	6209 2RS/C3

High Service Factor Models: IM B3 (footstand)



Rotational Speed 3,000 rpm

Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)									
		A	B	C	D	E	F	G	H	K	
7.5 - 18.5	112	190	140	70 ± 2	28 ^{+0.009} _{-0.004}	60 ± 0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	112 ⁰ _{-0.5}	12 ^{+0.43} ₀	
22	132	216	178	89 ± 2	38 ^{+0.018} _{+0.002}	80 ± 0.37	10 ⁰ _{-0.036}	33 ⁰ _{-0.2}	132 ⁰ _{-0.5}	12 ^{+0.43} ₀	
30 - 37	160	254	254	108 ± 3	42 ^{+0.018} _{+0.002}	110 ± 0.43	12 ⁰ _{-0.043}	37 ⁰ _{-0.2}	160 ⁰ _{-0.5}	14.5 ^{+0.43} ₀	

Power Range (kW)	Frame Size (mm)	Motor Dimensions (mm)							
		AB	AC	AD	HD	L	Front Bearing	Rear Bearing	
7.5 - 18.5	112	226	219.5	110	293 ± 5	521 ± 10	6206 2RS/C3	6206 2RS/C3	
22	132	262	256	129	336 ± 5	601 ± 10	6208 2RS/C3	6208 2RS/C3	
30 - 37	160	314	311	157	417 ± 5	759.5 ± 10	6309 2RS/C3	6209 2RS/C3	

Rotational Speed 3,600 rpm

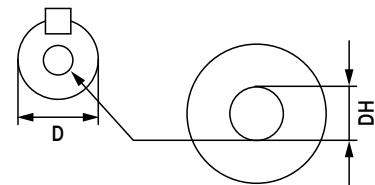
Power Range (kW)	Frame Size (mm)	Installation Dimensions & Tolerances (mm)									
		A	B	C	D	E	F	G	H	K	
7.5	112	190	140	70 ± 2	28 ^{+0.009} _{-0.004}	60 ± 0.37	8 ⁰ _{-0.036}	24 ⁰ _{-0.2}	112 ⁰ _{-0.5}	12 ^{+0.43} ₀	

Power Range (kW)	Frame Size (mm)	Motor Dimensions (mm)							
		AB	AC	AD	HD	L	Front Bearing	Rear Bearing	
7.5	112	226	219.5	110	293 ± 5	521 ± 10	6206 2RS/C3	6206 2RS/C3	

MSI Common Tapped Hole

Unit: mm

Diameter (D)	Tapped Hole Model x Length	Diameter (D)	Tapped Hole Model x Length
	HD		HD
Ø19	M6×12	Ø42	M16×32
Ø24	M8×16	Ø48	M16×32
Ø28	M10×20	Ø55	M20×40
Ø38	M12×24	Ø60	M20×40



Note: The tapped hole information applies to the models produced after April 2022.

Ordering Information: Standard Models

Installation Method B3

Power (kW)	3,000 rpm available models	Weight (kg)	1,500 rpm available models	Weight (kg)
0.75	MSI75B-30CDXS2A1A	9	MSI75B-15CDXS2A1A	11
1.1	MSI11C-30CDXS2A1A	9	MSI11C-15CDXS2A1A	12
1.5	MSI15C-30CDXS2A1A	10.5	MSI15C-15CDXS2A1A	13
2.2	MSI22C-30CDXS2A1A	11	MSI22C-15CDXS2A1A	17
3	MSI30C-30CDXS2A1A	15	MSI30C-15CDXS2A1A	18
4	MSI40C-30CDXS2A1A	15.5	MSI40C-15CDXS2A1A	23
5.5	MSI55C-30CDXS2A1A	20	MSI55C-15CDXS2A1B	44
7.5	MSI75C-30CDXS2A1A	23.5	MSI75C-15CDXS2A1B	52
11	MSI11D-30CDXS2A1A	29	MSI11D-15CDXS2A1B	65.5
15	MSI15D-30CDXS2A1A	35	MSI15D-15CDXS2A1B	73.5
18.5	MSI18D-30CDXS2A1A	43	MSI18D-15CDXS2A1B	109
22	MSI22D-30CDXS2A1A	46	MSI22D-15CDXS2A1B	116
30	MSI30D-30CDXS2A1B	125	MSI30D-15CDXS2A1B	142
37	MSI37D-30CDXS2A1B	135	MSI37D-15CDXS2A1B	153
45	MSI45D-30CDXS2A1B	141	MSI45D-15CDXS2A1B	221
55	MSI55D-30CDXS2A1B	177		
75	MSI75D-30CDXS2A1B	225		

Installation Method V1/B5

Power (kW)	3,000 rpm available models	Weight (kg)	1,500 rpm available models	Weight (kg)
0.75	MSI75B-30CDXS2B1A	12	MSI75B-15CDXS2B1A	14.5
1.1	MSI11C-30CDXS2B1A	12	MSI11C-15CDXS2B1A	15
1.5	MSI15C-30CDXS2B1A	13.5	MSI15C-15CDXS2B1A	16
2.2	MSI22C-30CDXS2B1A	14.5	MSI22C-15CDXS2B1A	22
3	MSI30C-30CDXS2B1A	19.5	MSI30C-15CDXS2B1A	23.5
4	MSI40C-30CDXS2B1A	21	MSI40C-15CDXS2B1A	28.5
5.5	MSI55C-30CDXS2B1A	28	MSI55C-15CDXS2B1B	52.5
7.5	MSI75C-30CDXS2B1A	32	MSI75C-15CDXS2B1B	60.5
11	MSI11D-30CDXS2B1A	38	MSI11D-15CDXS2B1B	73
15	MSI15D-30CDXS2B1A	47	MSI15D-15CDXS2B1B	83
18.5	MSI18D-30CDXS2B1A	55.5	MSI18D-15CDXS2B1B	111
22	MSI22D-30CDXS2B1A	59	MSI22D-15CDXS2B1B	119

Installation Method V18/B14

Power (kW)	3,000rpm available models	Weight (kg)
0.75	MSI75B-30CDXS2D1A	10
1.1	MSI11C-30CDXS2D1A	10
1.5	MSI15C-30CDXS2D1A	12.5
2.2	MSI22C-30CDXS2D1A	13
3	MSI30C-30CDXS2D1A	17
4	MSI40C-30CDXS2D1A	18.5
5.5	MSI55C-30CDXS2D1A	25
7.5	MSI75C-30CDXS2D1A	29

Ordering Information: High Service Factor (SF1.2) Models

Rotational Speed: 3,000rpm

Power (kW)	Models of installation method B3	Weight (kg)	Models of installation method B35	Weight (kg)
7.5	MSI75C-30CDXF2A1BC	35	MSI75C-30CDXF2C1BC	38
11	MSI11D-30CDXF2A1BC	38	MSI11D-30CDXF2C1BC	41
15	MSI15D-30CDXF2A1BC	42	MSI15D-30CDXF2C1BC	45
18.5	MSI18D-30CDXF2A1BC	54	MSI18D-30CDXF2C1BC	57
22	MSI22D-30CDXF2A1BC	69	MSI22D-30CDXF2C1BC	73
30	MSI30D-30CDXF2A1BC	80	MSI30D-30CDXF2C1BC	86
37	MSI37D-30CDXF2A1BC	112	MSI37D-30CDXF2C1BC	118

Note: cooling method IC416

Rotational Speed: 3,600rpm

Power (kW)	Models of installation method B3	Weight (kg)	Models of installation method B35	Weight (kg)
7.5	MSI75C-36CDXF2A1BC	35	MSI75C-36CDXF2C1BC	38

Note: cooling method IC416



Smarter. Greener. Together.

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