



MGM IEC General Purpose 3-phase Motors

SMX Series: TEFC Motors 1/4HP to 5HP

Features

- 230/460 Voltage
- Rated Output: 1/4 - 5 HP (0.18 - 3.7kW)
- Frame Sizes: IEC 63 to 112
- 1800 or 3600 RPM
- Continuous Duty (S1)
- Premium Efficiency (IE3) Frames 80-112, High efficiency (IE2) Frame 63/71
- IP55
- Class F insulation
- Inverter speed ratings: Constant torque 5:1, Variable torque 1000:1
- Mounting options: Footless B5 & B14, Rigid base B3 & B34 (with removable base)
- Enclosure: TEFC
- Aluminum construction
- F3(top) Junction Box Orientation
- Ring Lug Terminal connections
- Agency approvals: CE and CSA
- Mounting orientation:
 - C-face – horizontal or vertical
 - Rigid base – horizontal or vertical

The IEC and MGM advantage:

- Motors built to the IEC standard provide the same power output as NEMA, but in a smaller footprint and robust design
- Top mount junction box design, with threaded entries, provides great terminal access
- Ring Lug Terminals makes wiring easy
- Aluminum construction: 25% weight savings
- MGM quality: produced in Italy with state of the art, high quality manufacturing processes

Applications

Typical uses in many commercial and industrial environments such as:

- Pumps
- Fans
- Packaging Machinery
- Conveyors
- Machine tools
- Gear reducers



18J9
C-face/
removable
rigid base
(B34)

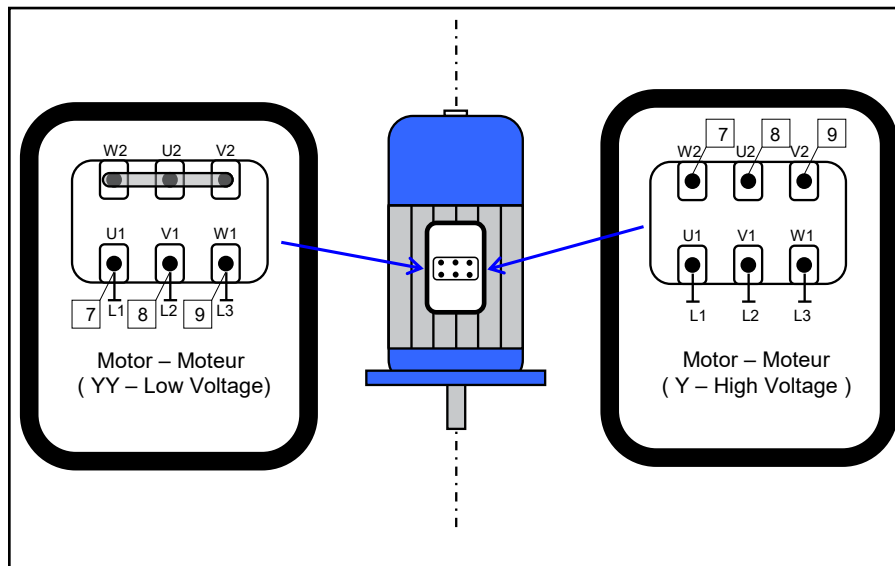


18OR
D-flange (B5)



ONUL
Rigid Base
(B3)

Wiring Diagram



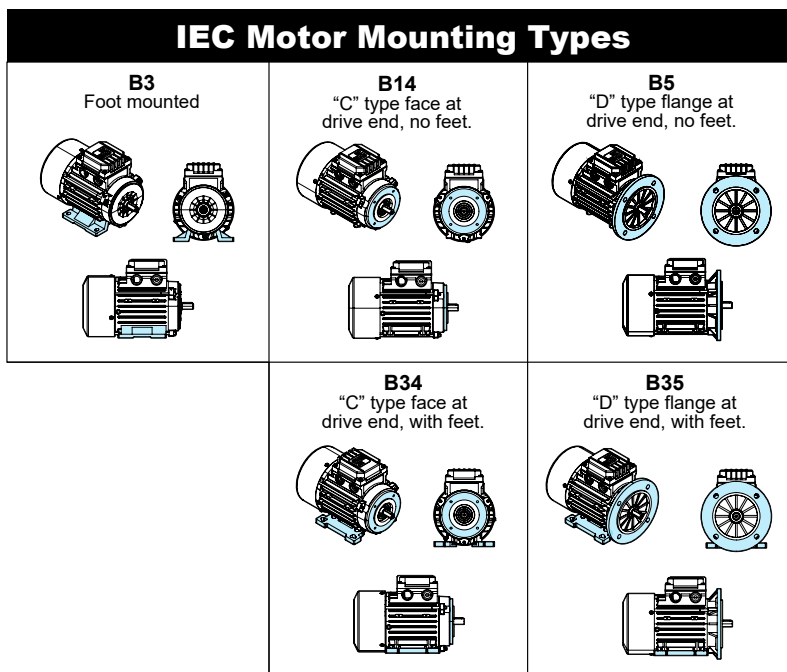
NOTE: Interchange any 2 line wires to reverse rotation



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Motor Specifications – 3-phase													
Part Number	Price	Rated Power (Pn)		Base RPM	Volts	Encl.	Frame	Service Factor*	Mounting	Efficiency Group	Weight (lb)	Drawing Links	
		HP	kW										
Footless													
0NX7	\$148.00	1/4	.018	1800	230/460 VAC	TEFC	IEC 63	1.15	D-flange (B5)	IE2 high efficiency	12	PDF	
0NXA	\$148.00												C-face (B14)
0NUN	\$200.00	1/2	0.37				IEC 71		D-flange (B5)				
0NUP	\$200.00								C-face (B14)				
0YGA	\$299.00	1	0.75				IEC 80		D-flange (B5)	IE3 premium efficiency	28	PDF	
0YGB	\$299.00								C-face (B14)		27	PDF	
18PU	\$408.00	2	1.5				IEC 90		D-flange (B5)		43	PDF	
18OR	\$497.00	3	2.2								IEC 100	64	PDF
18PL	\$678.00	5	3.7							IEC 112	84	PDF	
0VNF	\$156.00	1/4	.018				3600		230/460 VAC	TEFC	IEC 63	D-flange (B5)	IE2 high efficiency
0RC2	\$208.00	1/2	0.37	IEC 71	15	PDF							
0ZYZ	\$283.00	1	0.75	IEC 80	IE3 premium efficiency	21		PDF					
With Rigid Base													
0NX5	\$144.00	1/4	.018	1800	230/460 VAC	TEFC	IEC 63	1.15	rigid base (B3)	IE2 high efficiency	12	PDF	
0NUL	\$194.00	1/2	0.37										IEC 71
131C	\$290.00	1	0.75				IEC 80		C-face/removable rigid base (B34)	IE3 premium efficiency	27	PDF	
18J8	\$424.00	2	1.5								IEC 90	43	PDF
18J9	\$516.00	3	2.2								IEC 100	61	PDF
18OT	\$705.00	5	3.7								IEC 112	82	PDF
0UQR	\$162.00	1/4	.018	3600	230/460 VAC	TEFC	IEC 63	C-face/removable rigid base (B34)	IE2 high efficiency	10	PDF		
16SV	\$216.00	1/2	0.37									IEC 71	15
18J7	\$294.00	1	0.75				IEC 80		IE3 premium efficiency	21	PDF		

*Note: 1.15 SF (1.0 SF with VFD)





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Performance Data – 3-phase																					
Part Number	Rated Power		Service Factor	Duty Service	Full Load Speed (RPM)	Full Load Current (In)		Starting Current Ratio (Is/In)	Full Load Torque (Tn)		Starting Torque Ratio (Ts/Tn)	Power Factor	Efficiency (%)	Torque Speed Rating		Moment of Inertia (joules)					
	HP	kW				230V	460V		Nm	Lb-in				Constant	Variable						
Footless																					
<u>0NX7</u>	1/4	.018	1.15	S1	1670	1.24	0.62	3.71	1.03	9.12	3.88	0.56	68.0	5:1	1000:1	3.4					
<u>0NXA</u>						1.82	0.91		2.09	18.50	2.58						0.71	72.0	6.42		
<u>0NUN</u>	1/2	0.37			1730	3.2	1.6	6.6	4.14	36.64	3.6	0.70	85.5			15					
<u>0NUP</u>						1739	6.2	3.1	7.1	8.2	72.58						4.1	86.5	29		
<u>0YGA</u>	1	0.75			1750	8.6	4.3	7.4	12	106.21	4	0.73	89.5			50					
<u>0YGB</u>						1757	14	7	8.8	20.1							177.90	130			
<u>18PU</u>	2	1.5			1.15	S1	3400	1.04	0.52	4.8	0.51	4.51	3.75			0.68	64.0	5:1	1000:1	1.78	
<u>18OR</u>	3	2.2					3440	1.92	0.96	5	1.03	9.12	3.3							72.0	3.2
<u>18PL</u>	5	3.7					3465	3.3	1.65	5.8	2.08	18.41	3.6							0.77	77.0
<u>0VNF</u>	1/4	.018	1.15	S1	1670	1.24	0.62	3.71	1.03	9.12	3.88	0.56	68.0	5:1	1000:1	3.4					
<u>0VNF</u>	1/2	0.37				1690	1.82		0.91	4.4	2.09						18.50	2.58	0.71	72.0	6.42
<u>131C</u>	1	0.75			1730	3.2	1.6	6.6	4.14	36.64	3.6	0.70	85.5			15					
<u>18J8</u>	2	1.5				1739	6.2	3.1	7.1	8.2	72.58						4.1	86.5	29		
<u>18J9</u>	3	2.2			1750	8.6	4.3	7.4	12	106.21	4	0.73	89.5			50					
<u>18OT</u>	5	3.7				1757	14	7	8.8	20.1							177.90	130			
<u>0UQR</u>	1/4	.018			1.15	S1	3400	1.04	0.52	4.8	0.51	4.51	3.75			0.68	64.0	5:1	1000:1	1.78	
<u>16SV</u>	1/2	0.37					3440	1.92	0.96	5	1.03	9.12	3.3							72.0	3.2
<u>18J7</u>	1	0.75					3465	3.3	1.65	5.8	2.08	18.41	3.6							0.77	77.0
With Rigid Base																					



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Alternate Performance Data (50Hz) – 3-phase								
Part Number	Rated Power		F.L. RPM (380-415)	Volts	Current		Efficiency (%)	F.L. Power Factor
	HP	kW			No Load Current	Full Load Amps		
Footless								
<u>ONX7</u>	1/4	.018	1361	200/400 VAC	1.3/0.65	1.42/0.71	64.7	0.55
<u>ONXA</u>						1.42/0.71		
<u>ONUN</u>	1/2	0.37	1415		2.0/1.0	2.1/1.05	72.7	0.70
<u>ONUP</u>						2.1/1.05		
<u>OYGA</u>	1	0.75	1420		3.0/1.5	3.94/1.97	82.5	0.67
<u>OYGB</u>						3.94/1.97		
<u>18PU</u>	2	1.5	1428		5.0/2.5	7.0/3.5	85.3	0.74
<u>18OR</u>	3	2.2	1440		6.0/3.0	9.6/4.8	86.7	0.76
<u>18PL</u>	5	3.7	1448		10.0/5.0	16.2/8.1	88.4	0.75
<u>OVNF</u>	1/4	.018	2820		200/400 VAC	1.1/0.55	1.2/0.6	60.44
<u>ORC2</u>	1/2	0.37	2790	0.8		2.1/1.05	69.5	0.73
<u>OZYZ</u>	1	0.75	2849	2.6/1.3		3.48/1.74	80.7	0.77
With Rigid Base								
<u>ONX5</u>	1/4	.018	1361	200/400 VAC	1.3/0.65	1.42/0.71	64.7	0.55
<u>ONUL</u>	1/2	0.37	1415		2.0/1.0	2.1/1.05	72.7	0.70
<u>131C</u>	1	0.75	1420		3.0/1.5	3.94/1.97	82.5	0.67
<u>18J8</u>	2	1.5	1428		5.0/2.5	7.0/3.5	85.3	0.74
<u>18J9</u>	3	2.2	1440		6.0/3.0	9.6/4.8	86.7	0.76
<u>18OT</u>	5	3.7	1448		10.0/5.0	16.2/8.1	88.4	0.75
<u>OUQR</u>	1/4	.018	2820	200/400 VAC	1.1/0.55	1.2/0.6	60.44	0.64
<u>16SV</u>	1/2	0.37	2790		0.8	2.1/1.05	69.5	0.73
<u>18J7</u>	1	0.75	2849		2.6/1.3	3.48/1.74	80.7	0.77