

IEC FRAME MOTORS

Stock and Custom Horizontal AC Motors
Fully Compliant with IEC Standards



Specifications

Power: 0.75 - 1500 kW

Speed Range: 2 - 10 Pole

Design Voltages: 190 - 7000 V

Agency: UL, CSA, CE

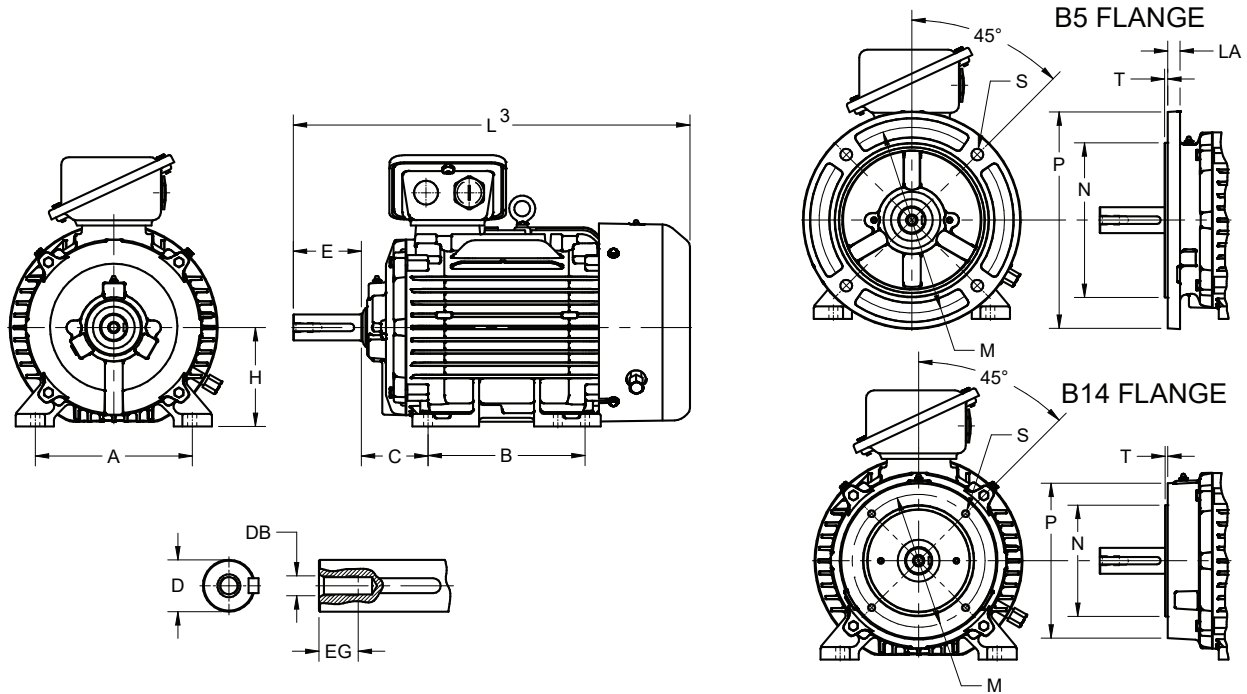
Efficiency Level: IE3

Product Overview

U.S. MOTORS® brand true IEC (International Electrotechnical Commission) motors are built to withstand a variety of severe duty applications. These motors are designed to fully meet IEC standards. Our IEC product lines are assembled in the United States or Mexico. With the U.S. MOTORS brand pedigree dating back over 100 years, we're well-versed in producing motors that are efficient, reliable and compliant.

Product Line	Application	Frames	Enclosures
IEC World Motor® HOSTILE DUTY®	Constant speed severe industrial	90-280	IC411 (TEFC)
IEC World Motor® INVERTER DUTY™	Variable speed severe industrial	90-280	IC411 (TEFC)
IEC World Motor® 841 PLUS®	Variable speed user-specified	90-280	IC411 (TEFC)
IEC TITAN®	High power industrial	315 ^{A, B} , 450 ^A	A: IC411 (TEFC); B: IC01 (ODP, WPI, WP11)

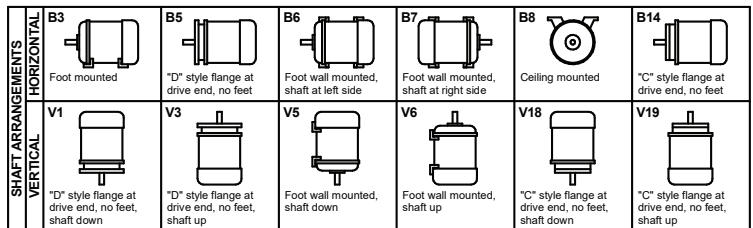
Electromechanical Features:	Reliability Features:	Available Custom Design Options:
<ul style="list-style-type: none"> Rated Class B rise at 1.0 service factor with full Class F or better insulating materials Wye Delta Connection Inverter spike resistant wire (ISR) 2 mm/s peak vibration maximum, 1.5 mm/s for 841 PLUS® Zone 2 rating (Group IIA, IIB, IIC) IEC 60079-15 EX-nA (Non-Sparking) Ingress Protection rating IM B3 Mounting (top mount outlet box, rotatable in 90-degree increments) <ul style="list-style-type: none"> IP55 on TEFC models IP23 on WPI models (TITAN) IP26 on WP11 models (TITAN) IM B3 Mounting (top mount outlet box, rotatable in 90-degree increments) Suitable for shaft up or shaft down mounting (90-280) Stainless steel nameplate and hardware to allow for use in hostile and severe environments mounting (90-280) 	<ul style="list-style-type: none"> Rated Class B rise at 1.0 service factor with full Class F or better insulating materials 100% solid polyester varnish on wound stator External corrosion-resistant mill and chemical duty paint Oxide primer coating on bracket and frame surfaces Non-braided, no wicking leads with a compression type ground lug in the conduit box Terminal Block in the conduit box with metric hardware included These motors fully comply with IEC 60034, 60038, 60072 standards in IE2 and IE3 classes. 	<ul style="list-style-type: none"> Special voltages Winding thermal protection Vacuum Pressure Impregnation (VPI) available on TITAN® motors Shaft grounding High altitude or ambient Horizontal or vertical mounting Roller bearings Bearing thermal protection (200 frame and above) B5 and B14 flanges Special shafts Oil mist lubrication B3, B3L or B3R More options available in the Nidec Motor Corporation catalogs



FOOT MOUNTING					SHAFT				B5 FLANGE						B14 FLANGE					BRG NO.
FRAME	A	B	C	H	D	E	DB	EG	LA	M	N	P	S	T	M	N	P	S	T	
90S	140	100	56	90	24	50	M8	17.5	13	165	130	200	12	3.5	115	95	140	M8	3	6205/6203
90L	140	125	56	90	24	50	M8	17.5	13	165	130	200	12	3.5	115	95	140	M8	3	6205/6203
112S	190	114	70	112	28	60	M10	20.6	13.2	215	180	250	14	4	130	110	160	M8	3.5	6206/6205
112M	190	140	70	112	28	60	M10	20.6	13.2	215	180	250	14	4	130	110	160	M8	3.5	6208/6206
132S	216	140	89	132	38	80	M12	25.4	13.2	265	230	300	14	4	165	130	200	M10	3.5	6208/6206
132M	216	178	89	132	38	80	M12	25.4	13.2	265	230	300	14	4	165	130	200	M10	3.5	6205/6203
160M	254	210	108	160	42	110	M16	31.8	20	300	250	350	19	5	215	180	250	M12	4	6309/6209
160L	254	254	108	160	42	110	M16	31.8	20	300	250	350	19	5	215	180	250	M12	4	6309/6209
180M	279	241	121	180	48	110	M16	31.8	20	300	250	350	19	5						6310/6210
180L	279	279	121	180	48	110	M16	31.8	20	300	250	350	19	5						6310/6210
200M	318	267	133	200	55	110	M20	44.5	20	350	300	400	19	5						6311/6211
200L	318	305	133	200	55	110	M20	44.5	20	350	300	400	19	5						6311/6211
225S (2 pole)	356	286	149	225	55	110	M20	44.5	20	400	350	450	19	5						6313/6213
225M (2 pole)	356	311	149	225	55	110	M20	44.5	20	400	350	450	19	5						6313/6213
225S	356	286	149	225	60	140	M20	44.5	20	400	350	450	19	5						6313/6213
225M	356	311	149	225	60	140	M20	44.5	20	400	350	450	19	5						6313/6213
250S (2 pole)	406	311	168	250	60	140	M20	44.5	25	500	450	550	19	5						6316/6216
250M (2 pole)	406	349	168	250	60	140	M20	44.5	25	500	450	550	19	5						6316/6216
250S	406	311	168	250	65	140	M20	44.5	25	500	450	550	19	5						6316/6216
250M	406	349	168	250	65	140	M20	44.5	25	500	450	550	19	5						6316/6216
280S (2 pole)	457	368	190	280	65	140	M20	44.5	25	500	450	550	19	5						6313/6313
280M (2 pole)	457	419	190	280	65	140	M20	44.5	25	500	450	550	19	5						6313/6313
280S	457	368	190	280	75	140	M20	44.5	25	500	450	550	19	5						6318/6313
280M	457	419	190	280	75	140	M20	44.5	25	500	450	550	19	5						6318/6313

DIMENSIONS (mm)

- STANDARD B3 ASSEMBLY POSITION IS SHOWN.
- FRAME SIZE 225, 250 AND 280 B5 FLANGE HAS QUANTITY 8 "S" MOUNTING HOLES STARTING AT 22.5° ANGLE.
- CONTACT YOUR LOCAL NIDEC OFFICE FOR "L" DIMENSION.



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NIDEC MOTOR CORPORATION