

Three Phase Modifiable NEMA^{®†} Horizontal Motors Accessories and Modifications

QUICK PICK CHART

Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Altitude (3301 - 6000 Ft.)	57	57	89	118	157	210	276	354	512	726	1150	1960
Altitude (6001 Ft. And Up)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Aluminum Fan Adder	—	—	225	300	375	450	525	600	675	750	825	900
Arctic Duty	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Arctic Duty (with high tensile strength cast iron frame)	—	225%	225%	225%	225%	225%	225%	225%	225%	225%	225%	225%
Ambient (41 - 65°C)	57	57	89	118	157	210	276	354	512	726	1150	1960
Ambient (66 - 90°C)	114	114	178	236	314	450	552	708	1024	1452	2300	3920
Ambient (91°C And Up)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Assembly Position	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Assembly Position, "F0"	75	75	75	150	225	320	459	—	—	—	—	—
Balance, Special	192	192	192	192	221	221	251	251	317	317	606	606
Balance, Precision	384	384	384	384	441	441	501	501	633	765	1212	1212
Bases, Adjustable Motor Base	—	—	—	—	—	210	210	273	437	700	1315	1315
Bases, Slide Rails	—	—	—	—	—	—	345	443	885	1200	1440	1440
Bases, Dowel Pin Holes	—	—	—	—	—	188	188	188	188	188	188	188
Bases, Vertical Jacking Provisions	—	—	—	—	300	300	300	300	300	300	300	300
Bearings, Bearing Caps	225	225	225	225	300	300	375	375	375	375	—	—
Bearings, Double Sealed	150	150	150	150	180	216	260	389	583	612	645	675
Bearings, Roller	—	—	—	473	473	473	473	473	564	1073	1263	1263
Bearings, CARB ^{®†}	—	—	—	—	—	—	550	590	610	1150	1350	1350
Bearings, Insulated (Each)	—	300	375	750	1050	1350	1350	1350	1350	1350	1350	1350
Bearings, SKF ^{®†} Insocoat ^{®†} (Each)	—	—	—	—	—	—	1350	2050	2145	2242	2632	2632
Bearings, Locked Drive End Bearing	—	—	225	225	300	300	375	375	375	375	375	375
Bearings, Locked Opp. Drive End Bearing	—	—	225	225	300	300	375	375	375	375	375	375
Bearings, Same Size	—	225	225	225	300	300	375	375	450	525	525	525
Bearings, Spare Set	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Brake, Standard Enclosure												
1.5 Ft. Lb.	524	524	—	—	—	—	—	—	—	—	—	—
3 Ft. Lb.	557	557	—	—	—	—	—	—	—	—	—	—
6 Ft. Lb.	638	638	725	—	—	—	—	—	—	—	—	—
10 Ft. Lb.	788	788	860	1185	—	—	—	—	—	—	—	—
15 Ft. Lb.	916	916	1040	1249	1275	—	—	—	—	—	—	—
25 Ft. Lb.	—	—	1384	1472	1502	—	—	—	—	—	—	—
35 Ft. Lb.	—	—	1578	1678	1741	—	—	—	—	—	—	—
50 Ft. Lb.	—	—	1845	1969	2041	2150	—	—	—	—	—	—
75 Ft. Lb.	—	—	—	2722	2722	2832	3257	—	—	—	—	—
105 Ft. Lb.	—	—	—	—	3674	3785	4041	—	—	—	—	—
125 Ft. Lb.	—	—	—	—	4206	4757	4757	5286	6195	—	—	—
175 Ft. Lb.	—	—	—	—	—	—	6732	7480	—	—	—	—
230 Ft. Lb.	—	—	—	—	—	—	7451	8279	—	—	—	—
330 Ft. Lb.	—	—	—	—	—	—	11503	11503	10196	10196	10196	—
440 Ft. Lb.	—	—	—	—	—	—	—	—	11372	11372	11372	—
500 Ft. Lb.	—	—	—	—	—	—	—	—	18196	18196	18196	—

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Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Brake, Dust Tight/Waterproof Enclosure												
1.5 Ft. Lb.	780	780	—	—	—	—	—	—	—	—	—	—
3 Ft. Lb.	817	817	—	—	—	—	—	—	—	—	—	—
6 Ft. Lb.	898	898	916	—	—	—	—	—	—	—	—	—
10 Ft. Lb.	1064	1064	1064	1954	—	—	—	—	—	—	—	—
15 Ft. Lb.	1192	1192	1244	2018	2060	—	—	—	—	—	—	—
25 Ft. Lb.	—	—	2175	2175	2360	—	—	—	—	—	—	—
35 Ft. Lb.	—	—	2367	2367	2611	—	—	—	—	—	—	—
50 Ft. Lb.	—	—	2584	2584	2858	3153	—	—	—	—	—	—
75 Ft. Lb.	—	—	—	2584	3538	3824	—	—	—	—	—	—
105 Ft. Lb.	—	—	—	—	4490	4767	—	—	—	—	—	—
125 Ft. Lb.	—	—	—	—	—	4883	6195	6195	—	—	—	—
175 Ft. Lb.	—	—	—	—	—	—	8627	8627	—	—	—	—
230 Ft. Lb.	—	—	—	—	—	—	9347	9347	—	—	—	—
330 Ft. Lb.	—	—	—	—	—	—	11503	11503	11503	11503	11503	—
440 Ft. Lb.	—	—	—	—	—	—	—	—	12680	12680	12680	—
500 Ft. Lb.	—	—	—	—	—	—	—	—	20287	20287	20287	—
Brake, NEMA ^{®†} 4X Washdown Enclosure												
10 Ft. Lb.	—	1911	2281	2281	—	—	—	—	—	—	—	—
25 Ft. Lb.	—	—	2441	2441	2492	—	—	—	—	—	—	—
35 Ft. Lb.	—	—	2709	2880	2940	—	—	—	—	—	—	—
50 Ft. Lb.	—	—	3096	3292	3416	—	—	—	—	—	—	—
105 Ft. Lb.	—	—	—	—	5124	5124	15000	—	—	—	—	—
Brake, Hazardous Location, Class I & II, Grp D, F & G												
1.5 Ft. Lb.	2785	2785	—	—	—	—	—	—	—	—	—	—
3 Ft. Lb.	2929	2929	—	—	—	—	—	—	—	—	—	—
6 Ft. Lb.	3096	3096	—	—	—	—	—	—	—	—	—	—
10 Ft. Lb.	3341	3341	4682	4869	—	—	—	—	—	—	—	—
15 Ft. Lb.	3485	3485	5093	5093	5297	—	—	—	—	—	—	—
25 Ft. Lb.	—	—	4911	5220	5329	—	—	—	—	—	—	—
35 Ft. Lb.	—	—	5259	5592	5802	—	—	—	—	—	—	—
50 Ft. Lb.	—	—	6179	6570	6818	7358	—	—	—	—	—	—
75 Ft. Lb.	—	—	—	7220	7494	7965	—	—	—	—	—	—
105 Ft. Lb.	—	—	—	—	9663	10039	—	—	—	—	—	—
Brakes, Brakeless Brake Motor	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Brakes, Breather Drain	345	345	345	345	345	345	345	345	345	345	345	—
Brakes, Release Options, Interlock Switch	750	750	750	750	750	750	750	750	750	750	750	—
Brakes, Release Options, Electric Release Indicator Switch	450	450	450	450	450	450	450	450	450	450	450	—
Brakes, S.S. Hardware	360	360	360	360	360	360	360	360	360	360	360	—
Brakes, Space Heaters	816	816	816	816	816	816	816	816	816	816	816	—
Brakes, Special Elbow Location	75	75	75	75	75	75	75	75	75	75	75	—
Brakes, Special Insulation	—	225	225	225	225	225	450	450	450	450	—	—
Brakes, Special Lead Length	—	105	105	105	105	105	105	105	105	105	—	—
Brakes, Special Paint	690	690	690	690	690	690	690	690	690	690	690	—

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	56	140	180	210	250	280	320	360	400	444-445	447	449
Brakes, Splined Hub												
1.5-6 Ft. Lb.	525	525	525	525	525	525	525	525	525	525	525	—
10-35 Ft. Lb.	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	—
50-75 Ft. Lb.	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	—
105-330 Ft. Lb.	1403	1403	1403	1403	1403	1403	1403	1403	1403	1403	1403	—
Brakes, Tach Mounting Provisions												
Brakes, Thermostats	540	540	540	540	540	540	540	540	540	540	540	—
Brakes, Through Shaft	50	50	50	50	50	50	50	50	50	50	50	—
1.5-25 Ft. Lb.	75	75	75	75	75	75	75	75	75	75	75	—
35-105 Ft. Lb.	113	113	113	113	113	113	113	113	113	113	113	—
125-330 Ft. Lb.	225	225	225	225	225	225	225	225	225	225	225	—
Brakes, Vertical Mounted												
Above Motor	540	540	540	540	540	540	540	540	540	540	540	—
Below Motor	180	180	180	180	180	180	180	180	180	180	180	—
Brakes, Wear Indicator Switch	375	375	375	375	375	375	375	375	375	375	375	—
Brakes, Wire Brake Leads To Motor C/B	150	150	188	225	263	300	338	375	413	450	450	—
Conduit Box, Accessory	—	—	—	435	435	435	435	435	435	435	435	435
Conduit Box, Accessory with Terminal Board	—	—	—	870	870	870	870	870	870	870	870	870
Conduit Box, Condulet	—	—	375	375	375	375	375	375	375	375	375	375
Conduit Box, Cable Glands, Arrange To Accommodate	—	—	—	—	—	75	75	75	75	75	75	75
Conduit Box, Main Power Terminal Blocks	—	—	305	305	305	375	375	500	575	800	920	1050
Conduit Box, Cast Iron	—	143	150	180	195	218	225	323	323	593	593	593
Conduit Box, Oversized	—	90	90	90	90	90	90	165	165	450	450	450
Conduit Box, Drains/Breathers	—	128	128	128	128	128	128	128	128	128	128	128
Conduit Box, Lead Positioning Gasket	53	53	53	53	53	53	53	53	53	53	53	53
Conduit Box, Pipe Coupling Plate	—	75	75	75	75	75	75	75	75	75	75	75
Conduit Box, Remote Mounted	—	75	75	75	75	75	75	75	75	150	150	150
Conduit Box, Special Connector												
Meltrix 3 Lead Connector	—	—	600	600	600	600	600	900	900	900	900	900
Meltrix 6 Lead Connector	—	—	600	600	600	600	600	900	900	900	900	900
Conduit Box, Oversized, TITAN [®] Size												
Size 1.0 Cast Iron (Haz. Loc. only)	—	—	—	—	—	—	—	600	600	600	600	600
Size 1.5 Cast Iron (Haz. Loc. only)	—	—	—	—	—	—	—	—	1800	1800	1800	1800
Size 2.0 Cast Iron	—	—	—	—	—	—	—	900	900	900	900	900
Size 2.5 Cast Iron	—	—	—	—	—	—	—	—	1649	1649	1649	1649
Size 3.0 Cast Iron	—	—	—	—	—	—	—	—	—	2136	2136	2136
Size 4.5 Fabricated Steel	—	—	—	—	—	—	—	—	—	6480	6480	6480
Coupling, Mount Customer's Half Coupling	—	—	—	—	—	720	720	720	720	720	720	720
Crusher Duty	—	—	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Drains/Breathers (Price Each Bracket)												
Brass T-Type Breather/Drain	75	75	75	75	75	75	75	75	75	75	75	75
Plastic Plug/Drain	38	38	38	38	38	38	38	38	38	38	38	38
Stainless Steel T-Type Breather/Drain	113	113	113	113	113	113	113	113	113	113	113	113
Hazardous Location (UL ^{®†} Listed) Drain	188	188	188	188	188	188	188	188	188	188	188	188

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QUICK PICK CHART

Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Drip Cover (Canopy Cap)	87	87	95	105	119	158	171	255	348	432	459	459
Efficiency Class	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Enclosure, ODP	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Enclosure, TEAO (DEDUCT)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Enclosure, TEFC	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Enclosure, TEFC, STEEL EDGE™ (Available on Price Pages 4 & 5)	—	—	-5%	-5%	—	—	—	—	—	—	—	—
Enclosure, TEFC, CORRO-DUTY® (If No CORRO-DUTY® List)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Enclosure, TEFC, Fan Cover, Cast Iron	—	95	104	159	248	300	314	567	918	1017	1017	1017
Enclosure, TENV	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Enclosure, Washdown Duty	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Enclosure, UL ^{®†} Listed Division 1 & Division 2, Hazardous Location	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Enclosure, UL ^{®†} Listed Div. 1&2 (Class I ONLY), 841 PLUS [®] Modifications	-	935	950	1420	1895	2370	3695	4250	4960	5725	6940	7245
Enclosure, Division 2, Nidec Motor Corp. Self-Certified (NEC 500)												
Class I, Grps. A,B,C&D, T1-T3	25	25	25	25	25	25	25	25	25	25	25	25
Class I, Grps. A,B,C&D, Class II, Grps. F&G, T3	25	25	25	25	25	25	25	25	25	25	25	25
Class I, Grps. A,B,C&D, Class II, Grps. F&G T3A (Eng. Approval Req'd)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Class I, Grps. A,B,C&D, Class II, Grps. F&G T3B (Eng. Approval Req'd)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Class I, Grps. A,B,C&D, Class II, Grps. F&G T3C (Eng. Approval Req'd)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Enclosure, Zone 2, Nidec Motor Corp. Self-Certified (NEC 505)												
Class I, Grps. IIA,IIB,&IIC, T1, T2 & T3	25	25	25	25	25	25	25	25	25	25	25	25
Enclosure, Division 2, CSA ^{®†}	-	-	-	-	-	-	-	-	-	-	-	-
Class I, T1-T3 (Engineering Approval Required)	25	25	25	25	25	25	25	25	25	25	25	25
Class I, T3A (Engineering Approval Required)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Class I, T3B (Engineering Approval Required)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Class I, T3C (Engineering Approval Required)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Enclosure, Zone 2, CSA ^{®†} (Motors Will Include Division Markings)												
Class I, Grps. IIA,IIB&IIC, T1, T2 & T3 (Requires Engineering Approval)	25	25	25	25	25	25	25	25	25	25	25	25
Encoders (* Check Availability Before Quoting)												
Arrange To Accom Size 20 Servo Mt (Nidec Motor Corp. Std)	900	900	900	900	900	900	900	900	900	900	900	900
Avtron ^{®†} AV32	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
Avtron ^{®†} AV56A	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Avtron ^{®†} HS25A	900	900	900	900	900	900	900	900	900	900	900	900
Avtron ^{®†} HS35A	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Avtron ^{®†} HS45	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Avtron ^{®†} AV485	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
Avtron ^{®†} AV685	9700	9700	9700	9700	9700	9700	9700	9700	9700	9700	9700	9700
Avtron ^{®†} AV850	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800
Dynapar ^{®†} HS20	900	900	900	900	900	900	900	900	900	900	900	900
Dynapar ^{®†} HS35R	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Dynapar ^{®†} ST56	2800	2800	2800	2800	2800	2800	2800	2800	2800	2800	2800	2800
Dynapar ^{®†} ST85	-	-	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Encoder Products Company ^{®†} 260	900	900	900	900	900	900	900	900	900	900	900	900
Encoder Products Company ^{®†} 25T	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Encoder Products Company ^{®†} 770	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Encoder Products Company ^{®†} 771	-	-	2550	2550	2550	2550	2550	2550	2550	2550	2550	2550
Encoder Products Company ^{®†} 775	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Encoder Products Company ^{®†} 776	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Hohner ^{®†} Series 14 (Intrinsically Safe)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Encoders, Ground Brush Option	750	750	750	750	750	750	750	750	750	750	750	750
Endshield, C-Face/D-Flange	101	101	149	149	201	320	459	665	992	1088	1145	1145

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Description	Frame Size												
	56	140	180	210	250	280	320	360	400	444-445	447	449	
Export Boxing (6% But Not Less Than \$75 NET)													
Export Box (Per Unit)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Fire Pump Motor	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Foot Flatness, Special	—	—	75	75	75	225	225	225	450	450	450	450	450
Footless (Round Frame)	150	150	150	150	150	225	225	300	375	450	450	450	450
Frequency, 50 Hertz (ODP)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Frequency, 50 Hertz (TEFC, XP)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Grease Fittings (Special)	173	173	173	173	173	173	173	173	173	173	173	173	173
Grounding, Conduit Box, Lug or Servit Post	120	120	120	120	120	120	120	120	120	120	120	120	120
Grounding, Conduit Box, Terminal	53	53	53	53	53	53	53	53	53	53	53	53	53
Grounding, Frame (Double For Q-2)													
Ground Pad	—	—	—	—	—	—	—	—	—	225	225	225	225
Ground Terminal On Frame	98	98	98	98	147	147	147	206	206	206	206	206	206
Tapped Hole On Foot	98	98	98	98	147	147	147	206	206	206	206	206	206
Grounding, Shaft Grounding Rings													
Grounding, Shaft Grounding Ring Aegis ^{®†} SGR ^{®†}	—	325	325	350	365	378	420	450	525	575	575	575	575
Grounding, Shaft Grd. Ring Aegis ^{®†} SGR ^{®†} w/ Colloidal Silver Shaft Coating	—	525	525	550	715	843	885	950	1025	1115	1115	1115	1115
Grounding, Shaft Grounding Ring Inpro/Seal ^{®†} CDR ^{®†}	—	325	325	350	365	378	420	450	525	575	575	575	575
Grounding, Shaft Grounding Ring Inpro/Seal ^{®†} CDR ^{®†} w/ Sleeve (No Terminal)	—	570	570	615	640	665	735	790	920	1010	1010	1010	1010
Grounding, Shaft Seal Inpro/Seal ^{®†} MGS ^{®†}	—	675	780	840	885	930	1050	1095	1170	1395	1675	1675	1675
Grounding, Inpro/Seal ^{®†} XP MGS ^{®†} (Hazardous Location Motor Ground Seal)	—	—	—	—	—	—	—	—	—	4950	5940	5940	5940
Hardware, Stainless Steel	225	225	225	225	225	225	420	420	420	420	420	435	435
High Inertia Load	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Horsepower, Non-Standard	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Insulation, Class F	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Insulation, Class H	114	114	159	192	252	420	552	708	1023	1218	1686	1686	1686
Insulation System, Insulife 1000	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Insulation System, Insulife 2000	50	50	65	102	131	218	278	342	461	597	780	780	780
Insulation System, VPI 1000	—	—	—	—	—	600	750	900	1050	1350	1575	1575	1575
Insulation System, VPI 2000	—	—	—	—	—	750	957	1124	1584	1881	2321	2321	2321
Insulation System, Abrasion Resistant Coating	51	51	51	81	104	173	221	272	365	474	474	474	474
Insulation System, Dolph Treatment	50	50	65	102	131	218	278	342	461	597	780	780	780
Insulation System, Tropical Protection	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Inverter Duty (Automotive Duty)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Kiln Duty	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Leads, Longer Than Std (Q-1 to 5), Per Foot	113	113	113	113	113	113	113	113	113	113	113	113	113
Leads, Longer Than Std (Q-6+), Per Foot	68	68	68	68	68	68	68	68	68	68	68	68	68
Leads, Sealed (Potted)	413	413	413	413	443	450	549	609	620	780	800	800	800
Leads, Special Terminations													
Ring Type Lead Lugs	114	114	114	114	114	114	STD	STD	STD	STD	STD	STD	STD
Two-Hole Lead Lugs	228	228	228	228	228	228	228	228	228	228	228	228	228
Lifting Provisions (Both Horiz. And Vert.)	—	—	90	90	128	128	173	173	218	240	240	240	240
Lubrication, High Temp Grease	150	150	150	150	150	250	320	390	525	685	890	890	890
Lubrication, Low Temp Grease	150	150	150	150	150	250	320	390	525	685	890	890	890
Lubrication, Washdown Duty Grease	75	75	75	75	75	125	160	195	265	340	445	445	445
Lubrication, Oil Mist	—	—	375	375	375	570	570	975	1650	1650	2025	—	—
Marine Duty	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

† All marks shown within this document are properties of their respective owners.



Three Phase Modifiable NEMA^{®†} Horizontal Motors Accessories and Modifications

QUICK PICK CHART

Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Multi-Speed												
1 Winding, Constant HP	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
1 Winding, Constant Torque	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
1 Winding, Variable Torque	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
2 Winding, Constant HP	170%	170%	170%	170%	170%	170%	170%	170%	170%	170%	170%	170%
2 Winding, Constant Torque	160%	160%	160%	160%	160%	160%	160%	160%	160%	160%	160%	160%
2 Winding, Variable Torque	140%	140%	140%	140%	140%	140%	140%	140%	140%	140%	140%	140%
Nameplate, Additional Duplicate	53	53	53	53	53	53	53	53	53	53	53	53
Nameplate, Additional Stamping On Main N/P	53	53	53	53	53	53	75	75	75	75	75	75
Nameplate, Phase Sequence Plate	53	53	53	53	53	53	53	53	53	53	53	53
Nameplate, Rotation Arrow	53	53	53	53	53	53	53	53	53	53	53	53
Nameplate, Shipping Tag (#6 Paper Tag)	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Nameplate, Special I.D.	53	53	53	53	53	53	75	75	75	75	75	75
Nameplate, Starting Duty	53	53	53	53	53	53	53	53	53	53	53	53
Paint, CORRO-DUTY [®] Paint Job	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Paint, Special	150	150	225	300	375	450	525	600	675	750	750	750
Prints And Data (Submittals) (NET ADDERS)												
Standard Submittals (7)	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Current Pulsation Analysis	200	200	200	200	200	200	200	200	200	200	200	200
Complete Rotor And Shaft Detail Drawing	330	330	330	330	330	330	330	330	330	330	330	330
Customer Data Sheet	60	60	60	60	60	60	60	60	60	60	60	60
Sound Power In Watts	60	60	60	60	60	60	60	60	60	60	60	60
Sound Pressure In dB @ 3 Feet	30	30	30	30	30	30	30	30	30	30	30	30
Mass Elastic Data (Includes Shaft Stiffness)	170	170	170	170	170	170	170	170	170	170	170	170
Acceleration Time vs. Amps Curve	170	170	170	170	170	170	170	170	170	170	170	170
Performance Curve (Standard)	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Performance Curve (Non-Standard)	170	170	170	170	170	170	170	170	170	170	170	170
Equivalent Circuit Parameters	170	170	170	170	170	170	170	170	170	170	170	170
Sound Data vs. Center Band	60	60	60	60	60	60	60	60	60	60	60	60
Speed Vs. Torque & Amps Curve (Standard 100% Voltage)	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Speed Vs. Torque & Amps Curve (Non-Standard, Multiple Voltages)	60	60	60	60	60	60	60	60	60	60	60	60
Speed Vs. Torque & Amps Curve (Metric)	60	60	60	60	60	60	60	60	60	60	60	60
Safe Stall Time Curve	170	170	170	170	170	170	170	170	170	170	170	170
Reed Critical Frequency Data	30	30	30	30	30	30	30	30	30	30	30	30
Material Certificate For Shaft	220	220	220	220	220	220	220	220	220	220	220	220
Shaft Print	60	60	60	60	60	60	60	60	60	60	60	60
Special Oil & Gas Market Data Package	550	550	550	550	550	550	550	550	550	550	550	550
UL ^{®†} Certificate	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Purge Ports	375	375	375	375	375	570	570	975	1650	1650	2025	2025
Screens, Standard Material	—	—	—	—	—	255	308	375	555	578	578	578
Screens, Stainless Steel	—	—	—	—	—	275	378	549	828	864	864	864
Sealant, CORRO-DUTY [®] Rotor Assembly Treatment	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Sealant, Internal Sealer For Washdown	50	50	65	102	131	—	—	—	—	—	—	—
Sealant, RTV or Loctite ^{®†}	90	90	90	128	173	173	218	218	240	300	375	450

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Three Phase Modifiable NEMA^{®†} Horizontal Motors Accessories and Modifications

QUICK PICK CHART

Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Seals (Price Each)												
Shaft Slinger	90	90	90	90	128	128	173	173	218	240	240	240
Inpro/Seal ^{®†}	225	225	225	225	375	525	525	675	675	825	990	990
Inpro/Seal ^{®†} with Cap Loc ^{®†}	504	504	567	689	819	941	1071	1193	1445	1697	1697	1697
Stainless Steel Inpro/Seal ^{®†}	—	563	563	563	938	1312	1312	1688	1688	2063	2475	2475
Inpro/Seal ^{®†} MGS (Motor Grounding Seal)	—	675	675	675	1125	1575	1575	2025	2025	2475	2970	2970
Inpro/Seal ^{®†} XP MGS ^{®†} (Hazardous Location Motor Ground Seal)	—	—	—	—	—	—	—	—	—	4950	4950	4950
Taconite Service Seals	225	225	225	225	375	525	525	675	675	825	990	990
Protech ^{®†} Seals	225	225	225	225	375	525	525	675	675	825	990	990
Lip Seals	90	90	90	128	128	128	173	173	218	218	240	240
Lip Seals With Umbrella Seals	115	115	115	165	165	165	225	225	285	285	315	315
Service Factor	57	57	80	96	126	210	276	354	512	726	1574	1574
Shaft, Close Coupled Pump (If No CCP List)	128	128	180	188	245	381	536	758	1104	1227	—	—
Shaft, Special (Base Adder) (Q-1 Motor)	438	438	438	525	567	638	690	813	953	1127	1197	1197
Shaft, Special (Base Adder) (Q-2 to 4 Motors)	200	200	206	210	219	254	288	327	384	464	498	498
Shaft, Special (Base Adder) (Q-5 or More)	53	53	62	75	87	123	153	188	227	279	279	279
Shaft, Special Material, 303 or 304 Stainless	110	110	110	245	345	516	939	1202	1748	1887	1983	1983
Shaft, Special Material, 316 or 416 Stainless	219	219	219	489	690	1032	1878	2403	3495	3774	3966	3966
Shaft, Special Material, Other	219	219	219	489	690	1032	1878	2403	3495	3774	3966	3966
Shaft, Special Shaft Runout	438	438	438	525	567	638	690	813	953	1127	1197	1197
Shaft, STD Double End Extension	54	54	54	87	105	156	246	333	393	480	507	507
Shaft, Tapped Hole	45	45	45	68	68	83	105	113	128	150	158	158
Shaft, Threaded Shaft	45	45	45	68	68	83	105	113	128	150	158	158
Shafts, Locknut On End	38	38	38	38	38	38	38	38	38	38	38	38
Shafts, Rust Preventative (Non-Standard)	38	38	38	38	38	38	38	38	38	38	38	38
Shafts, Tapered	60	60	75	90	105	135	150	165	195	210	210	210
Space Heater (Double For Haz. Location And Div. 2)	219	219	219	219	219	327	327	393	480	569	642	642
Space Heaters, Thermostat Controlled With Pilot Light	—	—	—	—	2441	2441	2441	2441	2441	2441	2441	2441
Starting Current, Lower Than Standard	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Starting Method	—	78	78	78	110	131	158	231	363	603	633	633
Temperature Rise, "B" Rise At 1.0 SF	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Temperature Rise, "B" Rise At 1.15 SF	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Temperature Rise, Class "A" Rise	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Temperature Rise, Less Than Class "A" Rise	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Tests												
Tests, Short Commercial, Un-Witnessed	200	200	200	200	200	200	200	200	200	200	200	200
Tests, Short Commercial, Witnessed	625	625	625	625	625	625	625	625	625	625	625	625
Tests, Complete Initial, Un-Witnessed (8)	1180	1180	1180	1180	1180	1180	1820	2360	2780	3860	3860	3860
Tests, Complete Initial, Witnessed (8)	1805	1805	1805	1805	1805	1805	2785	3540	4170	5790	5790	5790
Tests, Calibration Test, Un-Witnessed (8)	1442	1442	1442	1442	1442	1442	2082	2622	3042	4120	4120	4120
Tests, Calibration Test, Witnessed (8)	2070	2070	2070	2070	2070	2070	3050	3800	4435	6050	6050	6050
Tests, No Load Bearing Heat Run, Un-Witnessed	—	—	—	—	—	—	1690	1935	1935	1960	1960	1960
Tests, No Load IEEE-841™ Plus Un-Witnessed	—	900	900	900	900	900	900	900	900	900	900	900
Tests, No Load IEEE-841™ Plus Witnessed	—	1350	1350	1350	1350	1350	1800	1800	1800	2700	2700	2700
Tests, No Load Saturation, Un-Witnessed	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210
Tests, Polarization Index, Un-Witnessed	1135	1135	1135	1135	1135	1590	1590	1815	1815	1835	1835	1835
Tests, Polarization Index, Witnessed	1700	1700	1700	1700	1700	2380	2380	2720	2720	2755	2755	2755

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Three Phase Modifiable NEMA^{®†} Horizontal Motors Accessories and Modifications

QUICK PICK CHART

Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Tests, Rotor Integrity Test (Growler Test), Un-Witnessed	1170	1170	1170	1170	1170	1640	1640	1875	1875	1900	1900	1900
Tests, Shaft Voltage Test, Un-Witnessed	1250	1250	1250	1250	1250	1750	1750	2000	2000	2025	2025	2025
Tests, Sound Test, Un-Witnessed (8)	1250	1250	1250	1250	1250	1750	1750	2000	2000	2025	2025	2025
Tests, Sound Test, Witnessed (8)	1875	1875	1875	1875	1875	2625	2625	3000	3000	3040	3040	3040
Tests, Vibration, Un-Witnessed	700	700	700	700	700	700	700	700	700	700	700	700
Tests, Vibration, Witnessed	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Tests, Std. Nidec Motor Corp. [®] Surge Test, Un-Witnessed	200	200	200	200	200	200	200	200	200	200	200	200
Tests, Std. Nidec Motor Corp. [®] Bearing Insulation Test, Un-Witnessed	1250	1250	1250	1250	1250	1750	1750	2000	2000	2025	2025	2025
Thermal Protection, Bearings (Adder Each)												
Arrange to Accom BTD's	—	—	—	—	—	—	560	560	560	560	560	560
Thermocouples	—	—	—	—	—	—	370	370	370	370	370	370
RTD, 10 or 120 Ohm	—	—	—	—	—	—	845	845	845	845	845	845
RTD, 100 Ohm	—	—	—	—	—	—	1350	1350	1350	1350	1350	1350
RTD, 100 Ohm Precision	—	—	—	—	—	—	1830	1830	1830	1830	1830	1830
RTD, 100 Ohm Dual Element	—	—	—	—	—	—	2025	2025	2025	2025	2025	2025
RTD, 100 Ohm Precision Dual Element	—	—	—	—	—	—	2750	2750	2750	2750	2750	2750
Thermal Protection, Windings (Double For Hazardous Location And Division)												
Thermal Protection, Windings, Thermostats	80	80	80	95	95	120	170	255	255	255	255	255
Thermal Protection, Windings, Thermostats Hermetically Sealed	435	435	435	435	435	715	1020	1530	1530	1530	1530	1530
Thermal Protection, Windings, Thermistors	390	390	390	390	390	555	555	725	725	725	725	725
Thermal Protection, Windings, Therma-Sentry SMSE	—	—	1045	1045	1045	1045	1045	1045	1045	1045	1045	1045
Thermal Protection, Windings, Therma-Sentry MMSE	—	—	—	—	—	—	—	1825	1825	1825	1825	1825
Thermal Protection, Windings, Thermocouples	—	—	—	2160	2160	2160	2160	2160	2160	2160	2160	2160
Thermal Protection, Windings, RTD's 10 or 120 Ohm	—	—	—	—	—	2160	2160	2160	2160	2160	2160	2160
Thermal Protection, Windings, RTD's (3/Phase) 10 or 120 Ohm	—	—	—	—	—	—	4320	4320	4320	4320	4320	4320
Thermal Protection, Windings, RTD's 100 Ohm	—	—	—	—	—	3245	3245	3245	3245	3245	3245	3245
Thermal Protection, Windings, RTD's (3/Phase) 100 Ohm	—	—	—	—	—	—	5190	5190	5190	5190	5190	5190
Thermal Protection, Windings, RTD's 100 Ohm Precision	—	—	—	—	—	4205	4205	4205	4205	4205	4205	4205
Torque, High	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Vibration Detector												
- Arrange-To-Accommodate Vibration Detectors	—	—	—	—	—	—	870	870	870	870	870	870
- BENTLY-NEVADA ^{®†} 330400 Accelerometer	—	—	—	—	—	—	—	—	—	4210	4210	4210
- BENTLY-NEVADA ^{®†} Velomitor (Prizo-Electric)	—	—	—	—	—	—	—	—	—	4275	4275	4275
- BENTLY-NEVADA ^{®†} 9200 Seismoprobe Transducer	—	—	—	—	—	—	—	—	—	5780	5780	5780
- METRIX [™] 5484E-121 Vibration Transmitter	—	—	—	—	—	—	—	—	—	3835	3835	3835
- METRIX [™] 5484E-123 Vibration Transmitter	—	—	—	—	—	—	3835	—	—	3835	3835	3835
- METRIX [™] 5491E-021 Vibration Transmitter	—	—	—	—	—	—	—	—	—	5174	5174	5174
- METRIX [™] 5550 Vibration Switch (Nidec Motor Corp. [®] Std. HAZ LOC)	—	—	—	—	—	—	—	—	4335	4335	4335	4335
- METRIX [™] 162VTS Vibration Transmitter	—	—	—	—	—	—	5100	5100	5100	5100	5100	5100
- ROBERTSHAW ^{®†} 365A8 Vibration Switch	—	—	—	—	—	—	4330	4330	4330	4330	4330	4330
- ROBERTSHAW ^{®†} 366A8 Vibration Switch (Nidec Motor Corp. [®] Std.)	—	—	—	—	—	—	2500	2500	2500	2500	2500	2500
- ROBERTSHAW ^{®†} 376A Vibration Switch	—	—	—	—	—	—	—	—	—	5435	5435	5435
- ROBERTSHAW ^{®†} 566 Vibration Switch	—	—	—	—	—	—	—	—	—	8235	8235	8235
Voltages, Special (<345 Volts)	39	39	39	87	120	144	347	510	798	1125	1463	1463
Voltages, Special (>345 Volts)	39	39	39	87	120	144	173	255	399	663	698	698

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Three Phase Modifiable NEMA^{®†} Horizontal Motors Accessories and Modifications

QUICK PICK CHART

Description	Frame Size											
	56	140	180	210	250	280	320	360	400	444-445	447	449
Warranty, Special (% ADDITION TO THE NET PRICE OF MOTOR)												
Deferred, 12 Months From Startup	5% NET ADDER											
Extended, 24 Months From Startup	2% NET ADDER											
Extended, 36 Months From Startup	3% NET ADDER											
Extended, 48 Months From Startup	5% NET ADDER											
Extended, 60 Months From Startup	6% NET ADDER											
Special, 12 Months From Startup	7% NET ADDER											
Special, 24 Months From Startup	14% NET ADDER											
Special, 36 Months From Startup	21% NET ADDER											
Special, 48 Months From Startup	28% NET ADDER											
Special, 60 Months From Startup	35% NET ADDER											
Washdown Features	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Zero Speed Switch	-	-	-	-	-	-	-	-	-	4425	4425	4425

- (1) For Altitudes higher than 6000 Feet, use Base List Price of next higher Horsepower of the same speed, PLUS adder for 3301-6000 Feet.
For Altitudes higher than 9900 Feet, Refer To Office.
 - (2) For Ambients above 90°C, use Base List Price of the next higher Horsepower at the same speed, PLUS adder for 66-90°C Ambient.
 - (3) Refer to the Base List Price Section for Pricing. Refer to the Accessories and Modifications Section for descriptions.
 - (4) For Non-Standard Horsepower ratings, price as the next higher standard horsepower rating of the same type and speed.
 - (5) For Tropical Protection, add for Insulife 2000 Insulation System and Screens (ODP Motors).
 - (6) For Washdown Features, start with CORRO-DUTY[®] and add for: Double Sealed Bearings, 303 Stainless Steel Shaft, White Epoxy Paint, Lip Seals-Both Ends, Washdown Duty Grease and Internal Sealant (56-250 Frame).
 - (7) Refer to the Accessories And Modifications Section for description.
 - (8) For Multi-Speed Motors, multiply the adder by 1.5.
- (N/C) No Charge if specified at time of Motor order

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