

LEESON® 50 HERTZ MOTORS SINGLE PHASE

50 HZ • SINGLE PHASE

General Specifications:

50 Hz single phase designs produce full rated HP on 50 Hz power supply. Designed for general purpose application.

Electrical Features:

High efficiency energy saving designs. Centrifugal switch specifically designed for 50 Hz service. Conduit box with leads. Torque at rated HP on 50 Hz power supply is 20% greater than the running torque of a 60 Hz motor. All 180 and 210 frame Rolled Steel motors have Class F Insulation.



SINGLE PHASE • DRIP-PROOF • RIGID BASE • IP22

HP	RPM 50 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Over- load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
1/3	2850	...	...	...	...	...	...	...	...
	1425	56	110394	\$368	A	22	110/220	None	3.2 9.88
	1425	...	...	...	...	...	...	...	...
1/2	2850	56	113901	329	A	25	110/220	None	3.8 10.34
	1425	56	110395	466	A	25	110/220	None	4.1 10.38
	1425	...	...	...	...	...	...	...	...
3/4	2850	56	113902	412	A	27	110/220	None	5.6 10.34
	1425	56	110396	559	A	30	110/220	None	5.9 10.88
	1425	...	...	...	...	...	...	...	...
1	2850	56	113903	457	A	31	110/220	None	6.6 10.84
	1425	56H	110397 □	616	A	35	110/220	None	6.4 11.88
	1425	...	...	...	...	...	...	...	...
1½	2850	56H	113904	587	A	37	110/220	None	8.6 11.84
	1425	56H	110398 ☆□	694	A	43	110/220	None	8.4 12.35
	1425	...	...	...	...	...	...	...	...
2	2850	56H	113905	719	A	42	110/220	None	10.7 12.34
	1440	182T	131553	835	B	70	220	None	11.8 13.69
	1440	...	...	...	...	...	...	...	...
3	2850	56H	113937 †	852	A	47	220	None	12.4 12.84
	2850	...	...	...	...	...	...	...	...
	1440	184T	131554	954	B	80	220	None	16.8 14.69
5	2850	...	...	...	...	...	...	...	...
	1440	184T	131555 ☆	1952	B	95	220	None	23.2 15.69
	1440	...	...	...	...	...	...	...	...

SINGLE PHASE • TEFC • RIGID BASE • IP54

NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Over- load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
56	113916	\$339	A	25	110/220	None	3.2 10.81
56	110423	429	A	24	110/220	None	3.2 10.81
56	113908	433	A	26	110/220	Man.	3.2 10.81
56	113917	362	A	27	110/220	None	3.8 11.31
56	110064	492	A	25	110/220	None	4.1 11.31
56	113909	492	A	29	110/220	Man.	4.1 11.31
56	113918	412	A	29	110/220	None	5.6 11.31
56	110065 †	563	A	32	110/220	None	5.9 11.81
56	113910	584	A	32	110/220	Man.	5.9 11.81
56	113919	478	A	32	110/220	None	6.6 11.81
56H	110066 □	677	A	38	110/220	None	6.4 12.81
56	113911 †	677	A	34	110/220	Man.	6.4 12.31
56H	113920	629	A	44	110/220	None	8.0 13.31
56H	110424 †☆□	767	A	47	110/220	None	8.6 13.31
56H	113929 †☆	700	A	49	110/220	Man.	8.6 13.31
56HZ	113928 †■	761	A	44	110/220	None	10.7 13.76
182T	131556	1151	B	95	220	None	11.2 15.96
182T	131600	1136	B	71	220	Man.	12.0 14.96
145T	121070 †☆	936	B	50	220	None	12.4 12.84
56H	113936 †☆	936	A	48	220	None	12.4 13.81
184T	131557	1644	B	98	220	None	15.9 16.96
184T	131601	1618	B	98	220	Man.	15.9 16.96
184T	131638 ☆	1083	B	98	220	None	20.5 17.46
184T	131578 ☆	2085	B	103	220	None	21.0 17.46
213TZ	140475 ☆	2095	B	163	220	Man.	24.5 18.71

SINGLE PHASE • DRIP-PROOF • RESILIENT BASE • IP22

HP	RPM 50 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Over- load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
1/3	2850	56	114222	\$287	A	24	110/220	None	3.2 10.82
	1425	56	114223	376	A	24	110/220	None	3.2 10.81
	1425	...	...	...	...	...	...	...	...
1/2	2850	56	114224	335	A	26	110/220	None	3.8 11.32
	1425	56	114225	469	A	27	110/220	None	4.1 11.31
	1425	...	...	...	...	...	...	...	...
3/4	2850	56	114226	408	A	28	110/220	None	5.6 11.32
	1425	56	114227	560	A	31	110/220	None	5.9 11.81
	1425	...	...	...	...	...	...	...	...
1	2850	56	114228	464	A	31	110/220	None	6.6 11.82
	1425	56	114229	617	A	35	110/220	None	6.4 12.31
	1425	...	...	...	...	...	...	...	...
1½	2850	...	...	...	...	...	...	...	...
	1425	56H	114231 ☆	693	A	42	110/220	None	8.4 13.32
	1425	...	...	...	...	...	...	...	...
2	2850	...	...	...	...	...	...	...	...
	1440	56H	114233 †	845	A	49	220	None	9.6 13.82
	1440	...	...	...	...	...	...	...	...

SINGLE PHASE • TEFC • C FACE LESS BASE • IP54

NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Over- load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
...
56C	113921	\$442	A	22	110/220	Man.	3.2 10.81
56C	113912	380	A	25	110/220	None	3.8 11.31
56C	113922	505	A	29	110/220	Man.	4.1 11.31
56C	113913	422	A	28	110/220	None	5.6 11.31
56C	113923	578	A	31	110/220	Man.	5.9 11.81
56C	113914	520	A	32	110/220	None	6.6 11.81
56C	113924 †	609	A	34	110/220	Man.	6.4 12.31
56C	113915	676	A	43	110/220	None	8.0 13.31
56C	113925 †☆	738	A	42	110/220	Man.	8.6 13.31
145TC	120990 †☆	780	B	47	110/220	None	8.6 13.75
182TC	131599	1164	B	70	220	Man.	12.0 14.97

■ Combination 56HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8" diameter.
 □ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
 ☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
 † Class F insulated.

50 HZ • THREE PHASE

General Specifications:

Totally enclosed fan cooled, 12-lead motors designed specifically for 50 Hz service. These motors are intended for equipment built in North America and destined for use in 50 Hz service areas of the world.



Features:

These NEMA frame motors are designed to North American performance standards, but for 50 Hz service. Suitable for 220/380 volt, 50 Hz, or 440 volt, 50 Hz, three phase power. Torques exceed NEMA performance standards for Design B motors and produce the full rated horsepower at 50 Hz speeds.

Construction meets IEC, IP54 degree of protection standards and utilizes external fan cooling (IEC cooling method IC41). Gasketed conduit box is in the North American standardized F1 location, with leads.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.



THREE PHASE • TEFC • RIGID BASE • IP54

KW/HP	RPM 50 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	F.L. Amps 380 V.	% F.L. Eff.	"C" Dim. (Inches)
0.18/1/4	1425	48	102685	\$357	A	19	220/380/440	1.00	56.0	9.06
0.25/1/3	2850	48	102686	356	A	19	220/380/440	0.80	60.0	9.93
	1425	48	102688	429	A	19	220/380/440	1.10	65.0	9.31
	1425	S56	102183	401	A	19	220/380/440	1.10	65.0	9.69
0.37/1/2	2850	48	102690	412	A	20	220/380/440	1.00	69.0	10.43
	1425	48	102692	485	A	20	220/380/440	1.40	72.0	9.81
	1425	S56	102693	448	A	20	220/380/440	1.40	72.0	10.19
	1425	56	114304	482	A	25	220/380/440	1.02	78.0	10.38
0.55/3/4	2850	56	114306	436	A	24	220/380/440	1.75	72.0	10.81
	1425	56	114307	514	A	27	220/380/440	1.85	74.0	11.31
0.75/1	2850	56	114308	523	A	26	220/380/440	2.40	71.0	11.31
	1425	56	114888	519	A	28	220/380/440	2.00	77.0	11.31
	1425	143T	121096	519	B	35	220/380/440	2.00	77.0	12.75
1.1/1 1/2	2850	145T	121097	538	B	34	220/380/440	2.90	80.0	12.76
	1425	145T	121093	538	B	40	220/380/440	3.30	75.5	12.75
1.5/2	2850	145T	121094	582	B	42	220/380/440	3.60	80.0	12.76
	1425	145T	121095	609	B	40	220/380/440	3.65	81.5	13.25
2.2/3	2850	182T	131480	751	B	58	220/380/440	4.80	82.5	13.46
	1425	182T	131459	718	B	64	220/380/440	4.70	84.0	13.46
3.7/5	2850	184T	131481	886	B	76	220/380/440	7.40	84.0	14.46
	1425	184T	131454	819	B	82	220/380/440	8.10	85.0	15.46

● These motors are totally enclosed, non-ventilated, IEC cooling method IC40.



THREE PHASE • TEFC • C FACE LESS BASE • IP54

KW/HP	RPM 50 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	F.L. Amps 380 V.	% F.L. Eff.	"C" Dim. (Inches)
0.18/1/4	1425	S56C	102184	\$380	A	18	220/380/440	1.00	56.0	9.44
0.25/1/3	2850	S56C	102687	374	A	19	220/380/440	0.80	60.0	10.31
	1425	S56C	102689	410	A	19	220/380/440	1.10	65.0	9.69
	1425	56C	114889	439	A	18	220/380/440	1.10	68.0	10.31
0.37/1/2	2850	S56C	102691	434	A	20	220/380/440	1.00	69.0	10.81
	1425	S56C	102694	482	A	20	220/380/440	1.40	72.0	10.19
	1425	56C	114891	486	A	20	220/380/440	1.15	73.0	10.81
	950	56C	114892	538	A	28	220/380/440	1.50	68.0	11.31
0.55/3/4	2850	56C	114893	436	A	24	220/380/440	1.75	72.0	10.81
	1425	56C	114894	520	A	27	220/380/440	1.85	74.0	11.31
0.75/1	2850	56C	114895	526	A	26	220/380/440	2.40	71.0	11.31
	1425	56C	114896	542	A	28	220/380/440	2.00	77.0	11.31
	1425	143TC	121272	542	B	31	220/380/440	2.00	77.0	11.75
	950	145TC	121273	623	B	39	220/380/440	2.65	73.0	13.25
1.1/1 1/2	2850	143TC	121274	559	B	33	220/380/440	2.90	80.0	12.25
	1440	145TC	121275	567	B	37	220/380/440	3.30	75.5	12.75
1.5/2	2850	145TC	121276	560	B	41	220/380/440	3.60	80.0	12.75
	1440	145TC	121277	610	B	40	220/380/440	3.65	81.5	13.75
2.2/3	2850	182TC	131505	765	B	59	220/380/440	4.80	82.5	13.97
	1440	182TC	131506	710	B	63	220/380/440	4.70	84.0	13.97
3.7/5	2850	184TC	131507	905	B	75	220/380/440	7.40	84.0	14.47
	1440	184TC	131508	810	B	82	220/380/440	8.10	85.0	15.47