



AC METRIC (IEC) MOTORS

THREE PHASE

AC METRIC MOTORS

These high efficiency motors meet North American performance standards and EPACT energy efficiency mandates, and have 1.15 service factors.

Typically used for replacement on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance of motors designed for use in North America.

Two frame constructions are offered:

Aluminum frame models are designated with a 192000 series catalog number, while **cast iron frame** models are 193000 series.

ALUMINUM FRAME

CSA: File number LR33543

UL: File number E57948 for motors produced January 2004 and later

IP55 weatherproof enclosure allows for use in a wide range of applications.

Drain Hole locations in four quadrants can be drilled-out for multi-position condensate drainage.

D flange (B5) and C face (B14) models available. Field conversion kits also offered.

"Captive Shaft" keyway.

Drilled and tapped shaft.

Oil seals on both the drive end and non drive end.

High efficiency design utilizes low-loss steel laminations for optimum power and performance.

Terminal Boards included.

- 230/460V motors have 9 leads.
- 575V motors have 3 leads.
- All terminal boards have 6 posts.

Conduit box with neoprene gaskets. Reposition metric "PG" tapped lead exit hole by rotating box in 90 degree increments. Move box to F1 or F2 position by relocating motor feet.

Special design steel fan cover and low-noise fan maximize airflow efficiency.

External grounding provision.

Multi-mount repositionable feet allow for three conduit box positions (F2, F1, F3).

Aluminum "full fact" nameplate with information on motor efficiency and power factor. Stamped with 60 Hz and 50 Hz data.

Class F insulation system with Class B temperature rise or lower.

Removable feet.



CONFORMITE EUROPEENE

Both types are built to meet international standards and feature IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460 V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location. Kits are available for field conversion from B3 to B3/B5 or B3/B14.

LEESON's Inverter Rated Insulation System, (IRIS™) provides superior protection against voltage spikes induced by variable frequency drives. Always available on cast iron motors now available on aluminum motors produced January 2004 and later.

CAST IRON FRAME

CSA: File number LR62104

UL: File number E57948 for motors produced June 2003 and later

Terminal Boards included.

- 230/460V motors, 132-frame and larger have 12 leads and 9 post terminal boards.
- 230/460V motors, smaller than 132-frame have 9 leads and 6 post terminal boards.
- 575V motors have 3 leads and 6 post terminal boards.

IP55 weatherproof enclosure allows for use in a wide range of applications.

D flange (B5) and C face (B14) models available. Field conversion kits also offered.

Drilled and tapped shaft.

Oil seals on both the drive end and non drive end.

Cast iron mounting feet are precision machined for accurate alignment.

Conduit box with neoprene gaskets. Reposition metric "PG" threaded lead exit by rotating box in 90 degree increments. Motors 132 frame and larger have second lead exit hole for auxiliary box. Box is fixed at F3 location.

Heavy-duty cast iron construction includes frame, endbells and conduit box.

High efficiency design utilizes low-loss steel laminations for optimum power and performance.

Non-sparking fan. Small size reduces noise and enhances efficiency.

Steel fan cover.

Stainless steel "full fact" nameplate with information on motor efficiency and power factor. Stamped with 60 Hz and 50 Hz data.

Class F insulation system with Class B temperature rise or lower.



AC METRIC (IEC) MOTORS

THREE PHASE • RIGID BASE



B3 FOOT-MOUNTED METRIC MOTORS • 575 VOLT

Metric-dimensioned, AC motors meeting North American performance standards, including 1.15 service factor and EPACT efficiencies. For replacement use on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance characteristics of motors designed for use in North America.

IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location. Kits are available for field conversion from B3 to B3/B5 or B3/B14. See page 61 for details.

Motors are available in one of two frame constructions: aluminum or cast iron. Aluminum frame models are designated with a 192000 series catalogue number; cast iron models are 193000 series.



THREE PHASE • IP55 • 1.15 S.F.

HP-KW	RPM 60 Hz	IEC Frame	Catalogue Number	List Price	Disc. Sym.	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (in.)
1/4-0.18	3425	D63	192088	\$230	A	575	0.3	72.0	8.54
	1700	D63	192089	210	A	575	0.4	68.0	8.54
	1100	D71	192090	299	A	575	0.6	64.0	9.45
1/3-0.25	3425	D63	192097	235	A	575	0.4	74.0	8.54
	1700	D71	192098	218	A	575	0.6	67.0	9.45
	1100	D80	192099	307	A	575	0.6	65.0	11.10
1/2-0.37	3425	D71	192106	248	A	575	0.7	74.0	9.45
	1700	D71	192107	248	A	575	0.7	74.0	9.45
	1100	D80	192108	350	A	575	0.8	68.0	11.10
3/4-0.56	3425	D71	192115	266	A	575	0.9	74.0	9.45
	1700	D80	192116	252	A	575	1.0	73.0	11.10
	1100	D80	192117	364	A	575	1.1	72.0	11.10
1-0.75	3425	D80	192124	325	A	575	1.1	75.5	11.10
	1700	D80	192125	312	A	575	1.4	82.5	11.10
	1100	D90S	192126	440	A	575	1.5	80.0	12.60
1 1/2-1.1	3425	D80	192133	371	A	575	1.6	82.5	11.10
	1700	D90S	192134	401	A	575	1.8	84.0	12.60
	1100	D90L	192135	465	A	575	1.9	85.5	12.60
2-1.5	3425	D90S	192142	430	A	575	2.1	84.0	12.60
	1700	D90L	192143	428	A	575	2.4	84.0	12.60
	1100	DF100L	193190	548	A	575	2.9	86.5	14.96
3-2.2	3425	D90L	192148	480	A	575	2.9	85.8	12.60
	1750	DF100L	193193	495	A	575	3.5	87.5	14.96
	1140	DF112M	193194	680	A	575	3.8	87.5	15.75
4-3	3510	DF100L	193199	550	A	575	4.0	87.5	14.96
	1750	DF100L	193200	550	A	575	4.2	87.5	14.96
	1180	DF132S	193201	855	A	575	5.2	87.5	18.70
5 1/2-4	3510	DF112M	193208	602	A	575	5.0	87.5	15.75
	1750	DF112M	193209	634	A	575	5.4	87.5	15.75
	1180	DF132M	193210	900	A	575	6.9	87.5	20.28
7 1/2-5.5	3510	DF132S	193217	800	A	575	7.2	88.5	18.70
	1760	DF132S	193218	815	A	575	7.9	89.5	18.70
	1180	DF132M	193219	1155	A	575	9.4	89.5	20.28
10-7.5	3510	DF132S	193226	923	A	575	9.6	89.5	18.70
	1760	DF132M	193227	969	A	575	10.5	89.5	20.28
	1180	DF160M	193228	1538	A	575	10.8	89.5	23.62
15-11	3550	DF160M	193235	1388	A	575	13.8	90.2	23.62
	1760	DF160M	193236	1538	A	575	14.6	91.0	23.62
	1180	DF160L	193237	2150	A	575	15.5	90.2	25.39

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	RPM 60 Hz	IEC Frame	Catalogue Number	List Price	Disc. Sym.	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (in.)
20-15	3550	DF160M	193244	\$1758	A	575	18.8	90.2	23.62
	1760	DF160L	193245	1780	A	575	19.0	91.0	25.39
	1180	DF180L	193246	2219	A	575	20.6	90.2	27.95
25-18.5	3550	DF160L	193253	2300	A	575	22.9	91.0	25.39
	1775	DF180M	193254	2212	A	575	23.8	92.4	26.38
	1180	DF200L	193255	3640	A	575	25.2	91.7	30.51
30-22	3550	DF180M	193262	2840	A	575	27.5	91.0	26.38
	1775	DF180L	193263	2366	A	575	28.4	92.4	27.95
	1180	DF200L	193264	4167	A	575	30.4	91.7	30.51
40-30	3550	DF200L	193271	3970	A	575	38.4	91.7	30.51
	1775	DF200L	193272	3988	A	575	37.6	93.0	30.51
	1180	DF225M	193273	5484	A	575	40.0	93.0	33.26
50-37	3550	DF200L	193280	4374	A	575	46.8	92.4	30.51
	1775	DF225S	193281	4910	A	575	47.2	93.0	33.26
	1180	DF250M	193282	6745	A	575	50.0	93.0	36.61

Larger AC Metric motors up to 250 HP are available.

6-lead Delta windings (160MD frame and larger)
for across-the-line or wye-delta starts.

Contact your local LEESON Canada Office or visit
www.leeson.com for further information.

**B5 FLANGE AND B14 FACE KITS ARE AVAILABLE
FOR THE MOTORS ON THIS PAGE.**

See pages 75 for details.

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AC METRIC (IEC) MOTORS

THREE PHASE • RIGID BASE

B3 FOOT-MOUNTED METRIC MOTORS • 230/460 VOLT

Metric-dimensioned, AC motors meeting North American performance standards, including 1.15 service factor and EPACT efficiencies. For replacement use on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance characteristics of motors designed for use in North America.

IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location. Kits are available for field conversion from B3 to B3/B5 or B3/B14. See page 61 for details.

Motors are available in one of two frame constructions: aluminum or cast iron. Aluminum frame models are designated with a 192000 series catalogue number; cast iron models are 193000 series.



THREE PHASE • IP55 • 1.15 S.F.

HP-KW	RPM 60 Hz	IEC Frame	Catalogue Number	List Price	Disc. Sym.	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (in.)
1/4-0.18	3425	D63	192010	\$230	A	230/460	0.8	72.0	8.54
	1700	D63	192011	210	A	230/460	1.0	68.0	8.54
	1100	D71	192012	299	A	230/460	0.8	64.0	9.45
1/3-0.25	3425	D63	192020	235	A	230/460	1.1	74.0	8.54
	1700	D71	192021	218	A	230/460	1.4	67.0	9.45
	1100	D80	192022	307	A	230/460	1.6	65.0	11.10
1/2-0.37	3425	D71	192030	248	A	230/460	1.6	74.0	9.45
	1700	D71	192031	248	A	230/460	1.8	74.0	9.45
	1100	D80	192032	350	A	230/460	2.4	68.0	11.10
3/4-0.56	3425	D71	192040	266	A	230/460	2.4	74.0	9.45
	1700	D71	192172	252	A	230/460	2.8	70.0	9.45
	1700	D80	192041	252	A	230/460	2.5	73.0	11.10
	1100	D80	192042	364	A	230/460	3.0	72.0	11.10
1-0.75	3425	D80	192050	325	A	230/460	2.8	75.5	11.10
	1700	D80	192051	312	A	230/460	3.2	82.5	11.10
	1100	D90S	192052	440	A	230/460	4.0	80.0	12.60
1 1/2-1.1	3425	D80	192060	371	A	230/460	4.0	82.5	11.10
	1700	D90S	192061	401	A	230/460	4.4	84.0	12.60
	1100	D90L	192062	465	A	230/460	5.6	85.5	12.60
2-1.5	3425	D90S	192070	430	A	230/460	5.2	84.0	12.60
	1700	D90L	192071	428	A	230/460	5.8	84.0	12.60
	1100	DF100L	193072	548	A	230/460	7.6	86.5	14.96
3-2.2	3425	D90L	192080	480	A	230/460	7.2	85.8	12.60
	1750	DF100L	193081	495	A	230/460	8.8	87.5	14.96
	1140	DF112M	193082	680	A	230/460	9.6	87.5	15.75
4-3	3510	DF100L	193090	550	A	230/460	10.0	87.5	14.96
	1750	DF100L	193091	550	A	230/460	10.6	87.5	14.96
	1180	DF132S	193092	855	A	230/460	13.0	87.5	18.70
5 1/2-4	3510	DF112M	193100	602	A	230/460	12.6	87.5	15.75
	1750	DF112M	193101	634	A	230/460	15.0	87.5	15.75
	1180	DF132M	193102	900	A	230/460	17.0	87.5	20.28
7 1/2-5.5	3510	DF132S	193110	800	A	230/460	18.0	88.5	18.70
	1760	DF132S	193111	815	A	230/460	19.6	89.5	18.70
	1180	DF132M	193112	1155	A	230/460	23.4	89.5	20.28
10-7.5	3510	DF132S	193120	923	A	230/460	24.0	89.5	18.70
	1760	DF132M	193121	969	A	230/460	26.0	89.5	20.28
	1180	DF160M	193122	1538	A	230/460	28.0	89.5	23.62
15-11	3550	DF160M	193130	1388	A	230/460	34.6	90.2	23.62
	1760	DF160M	193131	1538	A	230/460	36.0	91.0	23.62
	1180	DF160L	193132	2150	A	230/460	38.8	90.2	25.39

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	RPM 60 Hz	IEC Frame	Catalogue Number	List Price	Disc. Sym.	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (in.)
20-15	3550	DF160M	193140	\$1758	A	230/460	46.8	90.2	23.62
	1760	DF160L	193141	1780	A	230/460	47.0	91.0	25.39
	1180	DF180L	193142	2219	A	230/460	54.0	90.2	27.95
25-18.5	3550	DF160L	193150	2300	A	230/460	57.2	91.0	25.39
	1775	DF180M	193151	2212	A	230/460	58.6	92.4	26.38
	1180	DF200L	193152	3640	A	230/460	63.0	91.7	30.51
30-22	3550	DF180M	193160	2840	A	230/460	68.8	91.0	26.38
	1775	DF180L	193161	2366	A	230/460	70.0	92.4	27.95
	1180	DF200L	193162	4167	A	230/460	76.0	91.7	30.51
40-30	3550	DF200L	193170	3970	A	230/460	94.6	91.7	30.51
	1775	DF200L	193171	3988	A	230/460	95.0	93.0	30.51
	1180	DF225M	193172	5484	A	230/460	100.0	93.0	33.26
50-37	3550	DF200L	193180	4374	A	230/460	117.0	92.4	30.51
	1775	DF225S	193181	4910	A	230/460	118.0	93.0	33.26
	1180	DF250M	193182	6745	A	230/460	125.0	93.0	36.61

Larger AC Metric motors up to 250 HP are available.

12-lead Delta windings (160MD frame and larger)
for across-the-line or wye-delta starts.

**B5 FLANGE AND B14 FACE KITS ARE AVAILABLE
FOR THE MOTORS ON THIS PAGE.**

See pages 75 for details.

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METRIC (IEC) B5 FLANGE KITS

Includes parts to convert a B3 rigid mount motor (pages 73 & 74) to B5 flange mounting.

For Aluminum Frame Motors Only (192000 Series)

	63 Frame			71 Frame			80 Frame			90 Frame		
	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)
(B5) Flange	\$38	175850	1	\$48	175852	1	\$62	175854	2	\$72	175856	2

For Cast Iron Frame Motors Only (193000 Series)

	100 Frame			112 Frame			132 Frame			160 Frame			180 Frame			200 Frame			225 Frame			250 Frame		
	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)
(B5) Flange	\$85	175984	13	\$106	175986	16	\$163	175988	20	\$240	175990	36	\$304	175992	43	\$324	163098	50	\$420	163099	60	\$514	163100	89



METRIC (IEC) B14 FACE KITS

Includes parts to convert a B3 rigid mount motor (pages 59 & 60) to B14 face mounting.

For Aluminum Frame Motors Only (192000 Series)

	63 Frame			71 Frame			80 Frame			90 Frame		
	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)
(B14) Face	\$34	175851	1	\$38	175853	1	\$43	175855	1	\$50	175857	1

For Cast Iron Frame Motors Only (193000 Series)

These kits are for use only on IEC cast iron motors built after May, 2000. For information on kits for such motors built prior to May, 2000, contact LEESON.

	100 Frame			112 Frame			132 Frame			160 Frame		
	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)	List Price	Cat. No.	App. Wgt. (lbs.)
(B14) Face	\$78	175985	8	\$99	175987	8	\$148	175989	12	\$219	175991	25

REDUCED DIAMETER METRIC FLANGES

Imported OEM equipment can often have a flange face that is different from its motor's frame size. LEESON stocks metric (IEC) reduced diameter flanges so you can put a 71 frame flange on an 80 frame motor for example. Flanges come pre-fitted with oil seals and have all the necessary hardware for easy field mounting.

Motor Frame	Flange Frame	Catalogue Number	List Price
63	56	175900	\$42
71	63	175901	42
80	71	175902	48
90	80	175903	52

