W NEMA motors

Frames 56 to 587

2209E

BROOK CROMPTON

W NEMA motors
Introduction

Canadian Standards Association

CSA Energy Efficiency Verification Mark

UL registration mark

Brook Crompton

Brook Crompton is made up of many well-known names including Brook Motors, Crompton Parkinson, Electrodrives, Newman, Bull Electric and Hawker Siddeley Electric Motors. With its pioneering 'W' range of energy efficient products, Brook Crompton offers motor solutions which benefit a wide range of customers.

Quality assurance

Stringent quality procedures are observed from first design to finished product in accordance with the ISO9001 documented quality systems. Our factories have been assessed to meet these requirements, a further assurance that only the highest possible standards of quality are accepted.

Brook Crompton's full range of W NEMA (56-587) safe area motors are listed as component recognised under file E212054, using UL approved class F insulation system.

Underwriters Laboratories Inc (UL), is an independent product safety, testing and certification organisation, based in USA. It is an internationally recognised organisation and in some countries its approval is a contractual requirement.

W NEMA motors

The Brook Crompton W NEMA range of electric motors comply with NEMA (National Electrical Manufacturers Association), standards and North American legislation for energy efficiency including Canada's Energy Efficiency Act.

As a multi-national organisation, Brook Crompton has an extensive world-wide service network including manufacturing, warehousing, sales, service and distribution within North America. Equipment manufacturers exporting into this market can supply Brook Crompton motors in the knowledge that full manufacturing backup exists.

Brook Crompton NEMA motors can be wound to satisfy most voltage requirements. Standard NEMA motors are wound :-

- Up to and including 20hp
  series Parallel/Star 9 wires , 230/460V.
  alternative 3 wire star, 575 volts.
- 25hp and above.
  series Parallel/Star Delta 12 wire 230/460V
  alternative part winding 6 wires, 575 volts.

Terminal boxes can be rotated to give four conduit entry positions at 90° intervals. The standard position when viewed from drive end is terminal box left. Motors are supplied with loose leads as standard. A terminal board can be provided on request.

Benefits include:

- high efficiency for low running costs
- high reliability for long life
- low noise levels
- cool running for long insulation life
- high power factors
- high torque with smooth acceleration and low current
- ease of maintenance
- 4-position cable entry
- TEFC washdown enclosure

Efficiency Legislation

The Federal Efficiency Legislation, namely Canada's Energy Efficiency Act, and United States Energy Policy (EPAct), began to affect the performance of motors supplied in the North American market from January 1996. These efficiency acts legislate minimum qualifying efficiency levels on motors in the range 1 - 200Hp, to the standard C390-93. Only motors with the CSA Energy Efficiency Verification (EEV) mark and product nominal efficiency marking will qualify for entry into the Canadian market.

All Brook Crompton standard W NEMA products for export to North America carry the CSA EEV mark, and will meet the efficiency levels which have been mandated in the above act.

Standards and directives

Standards

Motors are manufactured to the standards listed below.

Standards

Standard	NEMA	EEMAC
Outputs	MG1 Part 10	MG1 Part 10
Performance	MG1 Part 12	MG1 Part 12
Dimensions	MG1 Part 4	MG1 Part 4
Mounting	MG1 Part 4	MG1 Part 4
Degrees of Protection	MG1 - 1.26B	MG1 - 1.26B

Motors to NEMA standards have CSA approval and generally comply with Canadian (EEMAC) standards. Standard motors also meet CSA standard C390 (energy efficient) legislation (effective October 1997).

Motors are listed by Underwriters Laboratories Inc (UL).
The UL registration mark and certification number will be on each rating plate to show product compliance and certification.

Metric motors for use in North America

Brook Crompton can also supply metric (IEC 34-1) motors for use in North America, meeting local legislation and voltage requirements. Please refer to Brook Crompton.

Motor cooling

Motors are cooled in accordance with BS EN 60034-6. The normal arrangement is IC411 (Totally Enclosed Fan Ventilated) via a fan mounted at the non-drive end. Alternative methods of cooling available on request.

NEMA motors for use in Europe

Three European directives apply in varying degrees to ac induction motors. Brook Crompton comply in the following manner:

Compliance with European directives applying to AC induction motors

Directives	Low voltage (LV)	Machinery (MD)	Electromagnetic compatibility (EMC)
Reference numbers	73/23/EEC 93/68/EEC	89/392/EEC 91/368/EEC 93/44/EEC 93/68/EEC	89/336/EEC 92/31/EEC 93/68/EEC
Motor CE marked	Yes	No	No
Standards	EN 60034	Not applicable	EN 60034-1
Documentation for customers' technical file	Declaration of conformity	Certificate of incorporation	Statement[1]
Safety instructions with every motor	Yes	Yes	Yes
Comment	Relevant electrical equipment operating between 50 to 1000 volts AC	Statement[2]	Component

[1] Motors operating from a correctly applied, sinusoidal (AC) supply meet the requirements of the EMC directive and are within the limits specified in standard EN 60034-1

[2] When installed in accordance with our customer safety and installation and maintenance instructions, they can be put into service only when the machinery into which they are being incorporated, has been declared to be in conformity with the machinery directive in accordance with Article 4(2) and Annex IIB of that Directive (98/37/EEC)

Performance data

3600 min^{-1} (2 pole) aluminium

P_N	n	Type	I_N		η	Cos Ø	LRT	LRC	LRC	BDT	PUT	NEMA	NEMA	Inertia	Inertia	L_{PA}
					1.0 P_N	1.0 P_N		460V	575V			Design	Code			
hp (kW)	min^{-1}		460 V A	575 V A	*0.75 P_N* *0.5 P_N*	*0.75 P_N* *0.5 P_N*	%	A	A	%	%			kgm^2	lbft^2	dB(A)
0.33 *(0.25)*	3440	**W-DA56-B**	0.5	0.4	**74.0** *73.0* *60.0*	**0.84** *0.80* *0.70*	240	3.3	2.7	290	210	B	J	0.0011	0.026	64
0.5 *(0.37)*	3430	**W-DA56-B**	0.73	0.58	**74.0** *72.0* *66.0*	**0.87** *0.85* *0.75*	220	4.2	3.4	290	190	B	H	0.0011	0.026	64
0.75 *(0.55)*	3430	**W-DA56-B**	1.13	0.9	**74.0** *74.0* *70.0*	**0.84** *0.78* *0.68*	200	6.6	5.3	250	170	B	H	0.0011	0.026	64
1 *(0.75)*	3430	**W-DA56-E**	1.42	1.14	**78.5** *77.0* *72.0*	**0.84** *0.78* *0.68*	240	8.8	7.1	300	210	B	H	0.0014	0.033	64
1.5 *(1.1)*	3440	**W-DA143T-F**	2	1.6	**82.5** *82.5* *81.5*	**0.85** *0.82* *0.75*	260	14.5	11.6	300	230	B	J	0.0023	0.055	72
2 *(1.5)*	3460	**W-DA145T-M**	2.6	2.1	**84.0** *85.0* *84.0*	**0.85** *0.82* *0.75*	300	24	19.6	350	270	B	L	0.0028	0.066	72
3 *(2.2)*	3480	**W-DA182T-M**	3.5	2.8	**85.5** *85.5* *85.0*	**0.92** *0.90* *0.85*	300	32	25.6	320	270	B	K	0.008	0.19	64
5 *(3)*	3460	**W-DA184T-S**	5.7	4.6	**87.5** *87.5* *87.0*	**0.93** *0.91* *0.88*	300	46	37	320	270	B	J	0.01	0.24	64
7.5 *(5.5)*	3480	**W-DA213T-J**	8.5	6.8	**88.5** *88.5* *88.0*	**0.93** *0.91* *0.87*	220	63	51	250	190	B	H	0.02	0.47	60
10 *(7.5)*	3480	**W-DA215T-M**	11.2	9.0	**89.5** *89.5* *89.0*	**0.93** *0.91* *0.87*	220	81	65	240	190	B	H	0.023	0.55	60
15 *(11)*	3500	**W-DA254T-L**	16.8	13.4	**90.2** *90.2* *89.5*	**0.93** *0.91* *0.88*	220	115	92	240	190	B	G	0.052	1.23	65
20 *(15)*	3500	**W-DA256T-T**	22.3	17.9	**90.2** *90.2* *89.5*	**0.93** *0.91* *0.88*	220	144	115	240	190	B	G	0.68	1.61	65
25 *(18.5)*	3520	**W-DA284TS-F**	27.6	22.1	**91.0** *91.0* *90.5*	**0.93** *0.92* *0.89*	200	180	144	240	170	B	G	0.107	2.54	65
30 *(22*	3520	**W-DA286TS-L**	33	26	**91.0** *91.0* *90.5*	**0.93** *0.92* *0.89*	200	215	172	240	170	B	G	0.127	3.01	65

For performance curves - see page 24

Performance data

1800 min-1 (4 pole) aluminium

P_N	n	Type	I_N		η	Cos Ø	LRT	LRC	LRC	BDT	PUT	NEMA	NEMA	Inertia	Inertia	L_{PA}
					1.0 P_N	**1.0 P_N**		460V	575V			Design	Code			
hp (kW)	min^{-1}		460 V A	575 V A	*0.75 P_N*	*0.75 P_N*	%	A	A	%	%			kgm^2	$lbft^2$	dB(A)
					0.5 P_N	*0.5 P_N*										
0.25	1710	**W-DA56-B**	0.51	0.41	**66.0**	**0.70**	250	2.5	2.0	300	220	B	J	0.0012	0.028	51
(0.2)					*66.0*	*0.61*										
					62.0	*0.48*										
0.33	1710	**W-DA56-B**	0.65	0.52	**68.0**	**0.70**	200	3.1	2.5	285	170	B	J	0.0012	0.028	51
(0.25)					*68.0*	*0.61*										
					62.0	*0.48*										
0.5	1710	**W-DA56-B**	0.98	0.78	**68.0**	**0.70**	225	4.7	3.8	340	195	B	J	0.0012	0.028	51
(0.37)					*68.0*	*0.61*										
					64.0	*0.48*										
0.75	1710	**W-DA56-E**	1.29	1.03	**75.5**	**0.72**	240	6.8	5.5	270	210	B	J	0.0015	0.036	51
(0.55)					*75.5*	*0.63*										
					72.0	*0.49*										
1	1720	**W-DA143T-E**	1.6	1.28	**82.5**	**0.71**	300	11.5	9.2	320	270	B	L	0.0028	0.066	57
(0.75)					*80.0*	*0.60*										
					76.0	*0.48*										
1.5	1720	**W-DA145T-K**	2.25	1.8	**84.0**	**0.74**	250	17	13.6	280	220	B	L	0.0035	0.083	57
(1.1)					*84.0*	*0.65*										
					82.5	*0.52*										
2	1720	**W-DA145T-T**	2.9	2.3	**84.0**	**0.77**	250	23	18	280	220	B	L	0.0047	0.11	57
(1.5)					*84.0*	*0.70*										
					82.5	*0.58*										
3	1740	**W-DA182T-S**	4	3.2	**87.5**	**0.83**	250	32	25.6	300	220	B	K	0.015	0.36	58
(2.2)					*87.5*	*0.76*										
					86.5	*0.64*										
5	1740	**W-DA184T-S**	6.25	5.0	**87.5**	**0.85**	240	46	37	290	210	B	J	0.015	0.36	58
(3)					*87.5*	*0.78*										
					87.0	*0.67*										
7.5	1740	**W-DA213T-L**	9.3	7.5	**89.5**	**0.84**	200	62	50	240	170	B	H	0.025	0.59	58
(5.5)					*89.5*	*0.81*										
					89.0	*0.74*										
10	1750	**W-DA215T-R**	12.5	10	**89.5**	**0.84**	200	81	65	240	170	B	H	0.029	0.69	58
(7.5)					*89.5*	*0.81*										
					89.0	*0.74*										
15	1750	**W-DA254T-R**	17.6	14.1	**91.0**	**0.88**	200	112	90	240	170	B	G	0.084	2.0	56
(11)					*91.0*	*0.85*										
					90.0	*0.80*										
20	1760	**W-DA256T-X**	23	18.5	**91.0**	**0.89**	200	140	112	240	170	B	F	0.112	2.66	56
(15)					*91.0*	*0.86*										
					90.0	*0.82*										
25	1760	**W-DA284T-M**	29	23	**92.4**	**0.89**	200	182	146	240	170	B	G	0.22	5.22	60
(18.5)					*92.4*	*0.86*										
					91.5	*0.82*										
30	1760	**W-DA286T-R**	34	27.2	**92.4**	**0.89**	200	215	172	240	170	B	G	0.23	5.46	60
(22)					*92.4*	*0.86*										
					91.5	*0.82*										

For performance curves - see page 24

Performance data

1200 min^{-1} (6 pole) aluminium

P_N *hp* (*kW*)	n min^{-1}	Type	I_N 460 V A	I_N 575 V A	η 1.0 P_N / 0.75 P_N / 0.5 P_N	Cos Ø 1.0 P_N / 0.75 P_N / 0.5 P_N	LRT %	LRC 460V A	LRC 575V A	BDT %	PUT %	NEMA Design	NEMA Code	Inertia kgm^2	Inertia lbft^2	L_{PA} dB(A)
0.166 *(0.12)*	1140	**W-DA56-B**	0.44	0.35	**64.0** / *59.5* / *50.5*	**0.55** / *0.47* / *0.36*	220	1.7	1.3	270	190	B	K	0.0012	0.029	55
0.25 *(0.2)*	1140	**W-DA56-B**	0.63	0.5	**66.0** / *63.0* / *56.0*	**0.57** / *0.48* / *0.38*	210	2.4	1.9	270	180	B	J	0.0012	0.029	55
0.33 *(0.25)*	1140	**W-DA56-B**	0.87	0.7	**66.0** / *62.0* / *52.5*	**0.54** / *0.46* / *0.34*	220	3.3	2.6	270	190	B	J	0.0012	0.029	55
0.5 *(0.37)*	1140	**W-DA56-G**	1.13	0.91	**70.0** / *70.0* / *64.0*	**0.59** / *0.50* / *0.39*	230	4.5	3.6	270	200	B	J	0.0019	0.045	55
0.75 *(0.55)*	1140	**W-DA143T-G**	1.6	1.28	**75.0** / *74.0* / *70.0*	**0.58** / *0.49* / *0.38*	300	7.6	6.1	300	210	B	K	0.0028	0.066	59
1 *(0.75)*	1150	**W-DA145T-T**	1.88	1.5	**80.0** / *78.0* / *75.0*	**0.62** / *0.54* / *0.40*	270	11	8.8	270	240	B	K	0.0039	0.093	59
1.5 *(1.1)*	1130	**W-DA182T-M**	2.35	1.9	**85.5** / *85.5* / *85.0*	**0.70** / *0.62* / *0.50*	220	19	15	250	190	B	L	0.012	0.28	56
2 *(1.5)*	1130	**W-DA184T-S**	3.1	2.5	**86.5** / *86.5* / *86.0*	**0.75** / *0.67* / *0.55*	220	24	19	250	190	B	L	0.014	0.33	56
3 *(2.2)*	1140	**W-DA213T-F**	4.3	3.4	**87.5** / *87.5* / *87.0*	**0.75** / *0.67* / *0.55*	160	30	24	230	140	B	J	0.023	0.55	56
5 *(3)*	1150	**W-DA215T-R**	7.1	5.7	**87.5** / *87.5* / *87.0*	**0.75** / *0.67* / *0.55*	160	45	36	260	140	B	J	0.033	0.78	56
7.5 *(5.5)*	1150	**W-DA254T-M**	10.1	8.1	**89.5** / *89.5* / *88.5*	**0.78** / *0.70* / *0.60*	200	60	48	240	170	B	H	0.1	2.37	56
10 *(7.5)*	1160	**W-DA256T-T**	13.1	10.5	**89.5** / *89.5* / *88.5*	**0.80** / *0.72* / *0.63*	200	80	64	240	170	B	H	0.122	2.9	56
15 *(11)*	1165	**W-DA284T-L**	18.6	14.9	**90.2** / *90.2* / *89.5*	**0.84** / *0.77* / *0.68*	220	118	94	250	190	B	G	0.21	4.98	58
20 *(15)*	1165	**W-DA286T-M**	24	19.2	**90.2** / *90.2* / *89.5*	**0.86** / *0.80* / *0.70*	180	144	115	240	160	B	G	0.23	5.46	58

For performance curves - see page 24

Performance data

900 min-1 (8 pole) aluminium

P_N hp (kW)	n min^{-1}	Type	I_N 460 V A	I_N 575 V A	η 1.0 P_N 0.75 P_N 0.5 P_N	Cos Ø 1.0 P_N 0.75 P_N 0.5 P_N	LRT %	LRC 460V A	LRC 575V A	BDT %	PUT %	NEMA Design	NEMA Code	Inertia kgm^2	Inertia lbft^2	L_{PA} dB(A)
0.25 *(0.2)*	820	**W-DA56-G**	0.87	0.7	**59.5** *55.0* *46.0*	**0.45** *0.39* *0.33*	230	2.6	2.1	270	200	B	K	0.0019	0.045	51
0.33 *(0.25)*	820	**W-DA56-M**	1.06	0.84	**62.0** *59.5* *52.5*	**0.47** *0.40* *0.33*	230	3.3	2.6	270	200	B	J	0.0024	0.057	51
0.5 *(0.37)*	820	**W-DA143T-G**	1.12	0.9	**66.0** *64.0* *59.0*	**0.63** *0.53* *0.42*	180	3.3	2.7	220	160	B	F	0.0028	0.066	56
0.75 *(0.55)*	820	**W-DA145T-M**	1.97	1.57	**70.0** *68.0* *62.0*	**0.51** *0.42* *0.34*	260	7.1	5.7	300	230	B	J	0.0037	0.088	56
1 *(0.75)*	850	**W-DA182T-M**	2.1	1.7	**74.0** *74.0* *71.0*	**0.60** *0.55* *0.42*	170	10.1	8.1	220	150	B	K	0.012	0.285	54
1.5 *(1.1)*	850	**W-DA184T-S**	3.05	2.45	**77.0** *77.0* *73.0*	**0.60** *0.55* *0.42*	170	12	9.6	220	150	B	H	0.015	0.356	54
2 *(1.5)*	860	**W-DA213T-J**	3.3	2.7	**82.5** *82.5* *80.0*	**0.68** *0.59* *0.45*	150	16.8	13.4	230	130	B	H	0.025	0.593	54
3 *(2.2)*	860	**W-DA215T-R**	4.9	3.9	**84.0** *84.0* *81.0*	**0.68** *0.59* *0.45*	190	25	20	230	170	B	H	0.031	0.736	54
5 *(3)*	870	**W-DA254T-E**	7.4	5.9	**85.5** *85.5* *83.0*	**0.74** *0.67* *0.55*	180	41	33	230	160	B	H	0.09	2.13	54
7.5 *(5.5)*	870	**W-DA256T-M**	11.1	8.9	**85.5** *85.5* *83.0*	**0.74** *0.67* *0.55*	170	58	46	230	150	B	G	0.11	2.61	54
10 *(7.5)*	870	**W-DA284T-F**	13.9	11.1	**85.5** *85.5* *83.0*	**0.76** *0.69* *0.59*	180	75	60	220	160	B	G	0.19	4.51	56
15 *(11)*	870	**W-DA286T-M**	21	16.7	**85.5** *85.5* *83.0*	**0.76** *0.69* *0.59*	180	110	88	220	160	B	G	0.24	5.7	56

For performance curves - see page 24

Performance data

3600 min^{-1} (2 pole) cast iron

P_N hp (kW)	n min^{-1}	Type	I_N 460 V A	I_N 575 V A	η 1.0 P_N 0.75 P_N 0.5 P_N	Cos Ø 1.0 P_N 0.75 P_N 0.5 P_N	LRT %	LRC 460V A	LRC 575V A	BDT %	PUT %	NEMA Design	NEMA Code	Inertia kgm^2	Inertia lbft^2	L_{PA} dB(A)
1.5 *(1.1)*	3440	**W-DF143T-F**	2.0	1.6	**82.5** *82.5* *81.5*	**0.85** *0.82* *0.75*	260	14.5	11.6	300	230	B	J	0.0023	0.055	72
2 *(1.5)*	3460	**W-DF145T-M**	2.62	2.1	**84.0** *85.0* *84.0*	**0.85** *0.82* *0.75*	300	24	19.2	350	270	B	L	0.0028	0.066	72
3 *(2.2)*	3480	**W-DF182T-M**	3.6	2.86	**85.5** *85.5* *85.0*	**0.92** *0.90* *0.85*	300	32	25.6	320	270	B	K	0.008	0.19	64
5 *(3.7)*	3460	**W-DF184T-S**	5.8	4.6	**87.5** *87.5* *87.0*	**0.93** *0.91* *0.88*	300	46	37	320	270	B	J	0.01	0.24	64
7.5 *5.5)*	3480	**W-DF213T-J**	8.5	6.8	**88.5** *88.5* *88.0*	**0.93** *0.91* *0.87*	220	63	51	250	190	B	H	0.02	0.47	60
10 *(7.5)*	3480	**W-DF215T-M**	11.2	9.0	**89.5** *89.5* *89.0*	**0.93** *0.91* *0.87*	220	81	65	240	190	B	H	0.023	0.55	60
15 *(11)*	3500	**W-DF254T-L**	16.7	13.4	**90.2** *90.2* *89.5*	**0.93** *0.91* *0.88*	220	115	92	240	190	B	G	0.052	1.23	65
20 *(15)*	3500	**W-DF256T-T**	22.3	17.9	**90.2** *90.2* *89.5*	**0.93** *0.91* *0.88*	220	144	115	240	190	B	G	0.068	1.61	65
25 *(18.5)*	3520	**W-DF284TS-F**	27.7	22.1	**91.0** *91.0* *90.5*	**0.93** *0.92* *0.89*	200	180	144	240	170	B	G	0.107	2.54	65
30 *(22)*	3520	**W-DF286TS-L**	33	26.6	**91.0** *91.0* *90.5*	**0.93** *0.92* *089*	200	215	173	240	170	B	G	0.127	3.01	65
40 *(30)*	3530	**W-DF324TS-GX**	45	36	**91.7** *91.2* *89.0*	**0.91** *0.90* *0.87*	180	288	230	240	150	B	G	0.15	3.6	77
50 *(37)*	3530	**W-DF326TS-NX**	56	45	**92.4** *91.9* *90.2*	**0.91** *0.90* *0.87*	180	355	288	240	150	B	G	0.18	4.3	77
60 *(45)*	3540	**W-DF364TS-N**	66	53	**93.0** *92.7* *91.5*	**0.91** *0.90* *0.87*	180	425	340	220	150	B	G	0.47	11.2	79
75 *(55)*	3540	**W-DF365TS-N**	83	66	**93.0** *92.8* *91.6*	**0.91** *0.90* *0.87*	180	535	425	220	150	B	G	0.56	13.3	79
100 *(75)*	3550	**W-DF405TS-NE**	110	88	**93.6** *93.2* *91.8*	**0.91** *0.90* *0.87*	170	715	570	220	150	B	G	0.7	16.7	81
125 *(90)*	3560	**W-DF444TS-NE**	136	109	**94.5** *94.0* *92.5*	**0.91** *0.90* *0.87*	150	895	715	210	125	B	G	0.8	19	81
150 *(110)*	3560	**W-DF445TS-NE**	163	131	**94.5** *94.3* *93.0*	**0.91** *0.90* *0.87*	150	1075	860	210	125	B	G	1.4	33.3	82
200 *(150)*	3560	**W-DF445TS-N**	217	173	**95.0** *94.5* *92.5*	**0.91** *0.90* *0.87*	150	1430	1140	210	125	B	G	1.7	40.5	82
250 *(185)*	3570	**W-DF447TS-N**	270	216	**95.4** *94.8* *93.0*	**0.91** *0.90* *0.87*	150	1780	1425	200	125	B	G	1.8	42.9	82
300 *(225)*	3580	**W-DF505SZ-R**	324	259	**95.4** *94.9* *93.3*	**0.91** *0.90* *0.87*	150	2135	1705	200	125	B	G	3.1	73.8	84
350 *(250)*	3580	**W-DF585SZ-J**	377	302	**95.4** *95.0* *93.5*	**0.91** *0.90* *0.87*	160	2525	2020	210	130	B	G	5.3	126	86
400 *(300)*	3580	**W-DF585SZ-N**	429	343	**95.8** *95.4* *94.0*	**0.91** *0.90* *0.87*	160	2870	2295	210	130	B	G	5.9	140	86
450 *(335)*	3580	**W-DF586SZ-J**	483	387	**95.8** *95.4* *94.0*	**0.91** *0.90* *0.87*	160	3235	2590	210	130	B	G	6.3	150	86
500 *(375)*	3580	**W-DF586SZ-N**	535	428	**96.2** *96.0* *94.4*	**0.91** *0.90* *0.87*	160	3580	2865	210	130	B	G	7	167	86

For performance curves - see page 24

Performance data

1800 min-1 (4 pole) cast iron

P_N hp (kW)	n min^{-1}	Type	I_N 460 V A	I_N 575 V A	η 1.0 P_N / 0.75 P_N / 0.5 P_N	Cos Ø 1.0 P_N / 0.75 P_N / 0.5 P_N	LRT %	LRC 460V A	LRC 575V A	BDT %	PUT %	NEMA Design	NEMA Code	Inertia kgm^2	Inertia lbft^2	L_{PA} dB(A)
1 *(0.75)*	1720	**W-DF143T-E**	1.6	1.28	**82.5** / *80.0* / *76.0*	**0.71** / *0.60* / *0.48*	300	11.5	9.2	320	270	B	L	0.0028	0.066	57
1.5 *(1.1)*	1720	**W-DF145T-K**	2.26	1.81	**84.0** / *84.0* / *82.5*	**0.74** / *0.65* / *0.52*	250	17	13.6	280	220	B	L	0.0035	0.083	57
2 *(1.5)*	1720	**W-DF145T-T**	2.9	2.32	**84.0** / *84.0* / *82.5*	**0.77** / *0.70* / *0.58*	250	22.9	18.3	280	220	B	L	0.0047	0.11	57
3 *(2.2)*	1740	**W-DF182T-S**	3.9	3.1	**87.5** / *87.5* / *86.5*	**0.83** / *0.76* / *0.64*	250	32	25.6	300	220	B	K	0.015	0.36	58
5 *(3.7)*	1740	**W-DF184T-S**	6.3	5.0	**87.5** / *87.5* / *87.0*	**0.85** / *0.78* / *0.67*	240	46	37	290	210	B	J	0.015	0.36	58
7.5 *(5.5)*	1740	**W-DF213T-L**	9.3	7.5	**89.5** / *89.5* / *89.0*	**0.84** / *0.81* / *0.74*	200	62	50	240	170	B	H	0.025	0.59	58
10 *(7.5)*	1750	**W-DF215T-R**	12.5	10	**89.5** / *89.5* / *89.0*	**0.84** / *0.81* / *0.74*	200	81	65	240	170	B	H	0.029	0.69	58
15 *(11)*	1750	**W-DF254T-R**	17.5	14	**91.0** / *91.0* / *90.0*	**0.88** / *0.85* / *0.80*	200	112	90	240	170	B	G	0.084	2.0	56
20 *(15)*	1760	**W-DF256T-X**	23.1	18.5	**91.0** / *91.0* / *90.5*	**0.89** / *0.86* / *0.82*	200	140	112	240	170	B	F	0.112	2.66	56
25 *(18.5)*	1760	**W-DF284T-M**	28.5	22.8	**92.4** / *92.4* / *91.5*	**0.89** / *0.86* / *0.82*	200	182	146	240	170	B	G	0.22	5.22	60
30 *(22)*	1760	**W-DF286T-R**	34	27.3	**92.4** / *92.4* / *91.5*	**0.89** / *0.86* / *0.82*	200	214	172	240	170	B	G	0.23	5.46	60
40 *(30)*	1765	**W-DF324T-NX**	47	38	**93.0** / *92.7* / *91.3*	**0.85** / *0.82* / *0.75*	200	288	230	280	165	B	G	0.35	8.3	70
50 *(37)*	1765	**W-DF326T-N**	59	47	**93.0** / *92.8* / *91.3*	**0.85** / *0.82* / *0.75*	200	355	288	280	165	B	G	0.45	10.7	71
60 *(45)*	1770	**W-DF364T-N**	71	56	**93.6** / *93.4* / *92.2*	**0.85** / *0.83* / *0.76*	200	430	340	240	165	B	G	0.65	15.5	72
75 *(55)*	1770	**W-DF365T-N**	88	70	**94.1** / *93.9* / *92.7*	**0.85** / *0.83* / *0.76*	200	540	430	240	165	B	G	0.75	17.9	72
100 *(75)*	1775	**W-DF405T-NE**	117	93	**94.5** / *94.3* / *93.2*	**0.85** / *0.83* / *0.76*	220	715	570	250	175	B	G	1.4	33.3	74
125 *(90)*	1775	**W-DF444T-NE**	142	114	**94.5** / *94.4* / *93.5*	**0.87** / *0.85* / *0.78*	220	890	715	250	175	B	G	1.6	38.1	74
150 *(110)*	1775	**W-DF445T-NE**	170	136	**95.0** / *94.5* / *93.6*	**0.87** / *0.85* / *0.78*	200	1070	855	220	170	B	G	2.5	59.5	76
200 *(150)*	1775	**W-DF445T-N**	224	179	**95.0** / *94.8* / *93.8*	**0.88** / *0.86* / *0.78*	200	1430	1145	220	170	B	G	3	71.4	76
250 *(185)*	1775	**W-DF447T-N**	277	221	**95.0** / *95..0* / *94.0*	**0.89** / *0.87* / *0.80*	190	1800	1435	220	170	B	G	3.2	76.2	76
300 *(225)*	1780	**W-DF505Z-R**	331	265	**95.4** / *95.4* / *94.5*	**0.89** / *0.86* / *0.80*	190	2150	1720	220	170	B	G	6.4	152	78
350 *(250)*	1785	**W-DF585Z-J**	386	309	**95.4** / *95.4* / *94.8*	**0.89** / *0.88* / *0.82*	180	2505	2005	210	160	B	G	9.5	226	80
400 *(300)*	1785	**W-DF585Z-N**	439	351	**95.8** / *95.5* / *95.0*	**0.89** / *0.88* / *0.83*	180	2850	2280	210	160	B	G	10.6	252	80
450 *(335)*	1785	**W-DF586Z-J**	489	391	**95.8** / *95.7* / *95.2*	**0.90** / *0.89* / *0.84*	180	3175	2540	210	160	B	G	11.9	283	80
500 *(375)*	1787	**W-DF586Z-N**	541	433	**96.2** / *96.0* / *95.4*	**0.90** / *0.89* / *0.84*	180	3515	2810	210	160	B	G	13.2	314	80

For performance curves - see page 24

Performance data

1200 min^{-1} (6 pole) cast iron

P_N hp (kW)	n min^{-1}	Type	I_N 460 V A	I_N 575 V A	η 1.0 P_N 0.75 P_N 0.5 P_N	Cos Ø 1.0 P_N 0.75 P_N 0.5 P_N	LRT %	LRC 460V A	LRC 575V A	BDT %	PUT %	NEMA Design	NEMA Code	Inertia kgm^2	Inertia lbft^2	L_{PA} dB(A)
0.75 *(0.55)*	1140	**W-DF143T-G**	1.61	1.29	**75.0** *74.0* *70.0*	**0.58** *0.49* *0.38*	300	7.6	6.1	300	210	B	K	0.0028	0.066	59
1 *(0.75)*	1150	**W-DF145T-T**	1.89	1.51	**80.0** *78.0* *75.0*	**0.62** *0.54* *0.40*	270	11	8.8	270	240	B	K	0.0039	0.093	59
1.5 *(1.1)*	1130	**W-DF182T-M**	2.35	1.88	**85.5** *85.5* *85.0*	**0.70** *0.62* *0.50*	220	18.8	15	250	190	B	L	0.012	0.28	56
2 *(1.5)*	1130	**W-DF184T-S**	2.89	2.31	**86.5** *86.5* *86.0*	**0.75** *0.67* *0.55*	220	24	19.2	250	190	B	L	0.014	0.33	56
3 *(2.2)*	1140	**W-DF213T-F**	4.3	3.4	**87.5** *87.5* *87.0*	**0.75** *0.67* *0.55*	160	30	23.8	230	140	B	J	0.023	0.55	56
5 *(3.7)*	1150	**W-DF215T-R**	7.1	5.7	**87.5** *87.5* *87.0*	**0.75** *0.67* *0.55*	160	45	36	260	140	B	J	0.033	0.78	56
7.5 *(5.5)*	1150	**W-DF254T-M**	10.1	8.0	**89.5** *89.5* *88.5*	**0.78** *0.70* *0.60*	200	60	48	240	170	B	H	0.1	0.37	56
10 *(7.5)*	1160	**W-DF256T-T**	13.1	10.5	**89.5** *89.5* *88.5*	**0.80** *0.72* *0.63*	200	80	64	240	170	B	H	0.122	2.9	56
15 *(11)*	1165	**W-DF284T-L**	18.5	14.8	**90.2** *90.2* *89.5*	**0.84** *0.77* *0.68*	220	118	95	250	190	B	G	0.21	4.98	58
20 *(15)*	1165	**W-DF286T-M**	24.1	19.3	**90.2** *90.2* *89.5*	**0.86** *0.80* *0.70*	180	144	115	240	160	B	G	0.23	5.46	58
25 *(18.5)*	1170	**W-DF324T-NX**	32	25.2	**91.7** *91.4* *90.0*	**0.81** *0.78* *0.67*	180	179	140	200	170	B	G	0.48	11.4	67
30 *(22)*	1170	**W-DF326T-N**	38	30	**91.7** *91.6* *90.4*	**0.81** *0.78* *0.67*	180	216	171	200	170	B	G	0.75	17.8	67
40 *(30)*	1180	**W-DF364T-N**	50	40	**93.0** *92.5* *91.0*	**0.80** *0.76* *0.66*	180	290	232	200	170	B	G	1.1	26.2	68
50 *(37)*	1180	**W-DF365T-N**	63	50	**93.0** *92.8* *91.5*	**0.80** *0.76* *0.66*	180	355	285	200	170	B	G	1.3	31	68
60 *(45)*	1180	**W-DF404T-N**	74	59	**93.6** *93.2* *91.8*	**0.81** *0.78* *0.69*	180	425	340	200	170	B	G	2.55	60.7	70
75 *(55)*	1180	**W-DF405T-N**	93	74	**93.6** *93.3* *92.0*	**0.81** *0.78* *0.69*	180	535	425	200	170	B	G	2.9	69	70
100 *(75)*	1185	**W-DF444T-N**	120	96	**94.1** *93.7* *92.4*	**0.83** *0.80* *0.72*	180	720	575	200	170	B	G	5	119	73
125 *(90)*	1185	**W-DF445T-N**	150	120	**94.1** *93.8* *92.8*	**0.83** *0.81* *0.72*	180	900	720	200	170	B	G	6	143	73
150 *(110)*	1185	**W-DF504Z-N**	178	142	**95.0** *94.5* *93.2*	**0.83** *0.81* *0.72*	170	1065	850	200	160	B	G	6.1	145	75
200 *(150)*	1185	**W-DF505Z-N**	237	190	**95.0** *94.7* *93.4*	**0.83** *0.81* *0.72*	170	1420	1140	200	160	B	G	7.3	174	75
250 *(185)*	1185	**W-DF585Z-J**	290	232	**95.0** *94.9* *93.6*	**0.85** *0.83* *0.76*	160	1765	1415	200	140	B	G	11.1	264	77
300 *(225)*	1185	**W-DF586Z-J**	348	278	**95.0** *94.9* *93.6*	**0.85** *0.83* *0.76*	160	2155	1720	200	140	B	G	13.6	324	77
350 *(250)*	1190	**W-DF586Z-N**	406	325	**95.0** *95.0* *93.8*	**0.85** *0.83* *0.76*	160	2515	2015	200	140	B	G	15.2	362	77
400 *(300)*	1190	**W-DF587Z-J**	464	371	**95.0** *95.0* *93.8*	**0.85** *0.83* *0.76*	160	2875	2300	200	140	B	G	16.9	402	77
450 *(335)*	1190	**W-DF587Z-N**	520	416	**95.4** *95.2* *94.2*	**0.85** *0.83* *0.76*	160	3220	2575	200	140	B	G	18.6	443	77

For performance curves - see page 24

Performance data

900 min-1 (8 pole) cast iron

P_N hp (kW)	n min^{-1}	Type	I_N 460 V A	I_N 575 V A	η 1.0 P_N 0.75 P_N 0.5 P_N	Cos Ø 1.0 P_N 0.75 P_N 0.5 P_N	LRT %	LRC 460V A	LRC 575V A	BDT %	PUT %	NEMA Design	NEMA Code	Inertia kgm^2	Inertia lbft^2	L_{PA} dB(A)
0.5 *(0.37)*	820	**W-DF143T-G**	1.13	0.9	**66.0** *64.0* *59.0*	**0.63** *0.53* *0.42*	180	3.3	2.66	220	160	B	F	0.0028	0.066	56
0.75 *(0.55)*	820	**W-DF145T-M**	1.97	1.57	**70.0** *68.0* *62.0*	**0.51** *0.42* *0.34*	260	7.1	5.7	300	230	B	J	0.0037	0.088	56
1 *(0.75)*	850	**W-DF182T-M**	2.1	1.69	**74.0** *74.0* *71.0*	**0.60** *0.55* *0.42*	170	10.1	8.1	220	150	B	K	0.012	0.285	54
1.5 *(1.1)*	850	**W-DF184T-S**	3.0	2.43	**77.0** *77.0* *73.0*	**0.60** *0.55* *0.42*	170	11.9	9.6	220	150	B	H	0.015	0.356	54
2 *(1.5)*	860	**W-DF213T-J**	3.3	2.67	**82.5** *82.5* *80.0*	**0.68** *0.59* *0.45*	150	16.8	13.6	230	130	B	H	0.025	0.593	54
3 *(2.2)*	860	**W-DF215T-R**	4.9	3.9	**84.0** *84.0* *81.0*	**0.68** *0.59* *0.45*	190	25	19.9	230	170	B	H	0.031	0.736	54
5 *(3.7)*	870	**W-DF254T-E**	7.4	5.9	**85.5** *85.5* *83.0*	**0.74** *0.67* *0.55*	180	41	33	230	160	B	H	0.09	2.13	54
7.5 *(5.5)*	870	**W-DF256T-M**	11.1	8.9	**85.5** *85.5* *83.0*	**0.74** *0.67* *0.55*	170	58	46	230	150	B	G	0.11	2.61	54
10 *(7.5)*	870	**W-DF284T-F**	14.4	11.5	**85.5** *85.5* *83.0*	**0.76** *0.69* *0.59*	180	75	60	220	160	B	H	0.19	4.51	56
15 *(11)*	870	**W-DF286T-M**	21.6	17.3	**85.5** *85.5* *83.0*	**0.76** *0.69* *0.59*	180	110	88	220	160	B	G	0.24	5.7	56
20 *(15)*	880	**W-DF324T-NX**	28.7	22.9	**89.5** *89.5* *88.3*	**0.73** *0.67* *0.54*	150	144	115	200	130	B	G	0.48	11.4	65
25 *(18.5)*	880	**W-DF326T-N**	36	29	**89.5** *89.5* *88.3*	**0.73** *0.67* *0.54*	150	180	144	200	130	B	G	0.75	17.9	65
30 *(22)*	880	**W-DF364T-N**	42	34	**91.0** *90..7* *89.0*	**0.73** *0.67* *0.54*	150	214	173	200	130	B	G	1.23	29.3	67
40 *(30)*	880	**W-DF365T-N**	56	44	**91.0** *90.8* *89.5*	**0.74** *0.67* *0.54*	150	285	224	200	130	B	G	1.47	35	67
50 *(37)*	885	**W-DF404T-N**	68	55	**92.4** *92.0* *90.5*	**0.74** *0.68* *0.57*	150	350	286	200	130	B	G	2.55	60.7	68
60 *(45)*	885	**W-DF405T-N**	82	66	**92.4** *92.2* *91.0*	**0.74** *0.68* *0.57*	150	430	345	200	130	B	G	2.9	69	68
75 *(55)*	885	**W-DF444T-N**	101	81	**93.0** *92.8* *91.5*	**0.75** *0.69* *0.58*	140	535	425	200	120	B	G	5	119	69
100 *(75)*	885	**W-DF445T-N**	134	107	**93.0** *92.9* *91.6*	**0.75** *0.69* *0.58*	140	720	575	200	120	B	G	6	143	69
125 *(90)*	885	**W-DF504Z-N**	165	132	**93.6** *93.4* *92.0*	**0.76** *0.70* *0.60*	140	890	710	200	120	B	G	6.1	145	70
150 *(110)*	885	**W-DF505Z-N**	197	158	**93.6** *93.5* *92.2*	**0.76** *0.70* *0.60*	140	1080	865	200	120	B	G	7.3	174	70
200 *(150)*	890	**W-DF585Z-J**	258	207	**94.1** *93.8* *92.2*	**0.77** *0.73* *0.64*	140	1440	1155	200	120	B	G	12.2	290	75
250 *(185)*	890	**W-DF586Z-J**	322	257	**94.5** *94.1* *94.0*	**0.77** *0.73* *0.64*	140	1800	1435	200	120	B	G	15.2	362	77
300 *(225)*	890	**W-DF587Z-N**	384	307	**95.0** *94.5* *93.0*	**0.77** *0.73* *0.64*	140	2150	1715	200	120	B	G	18.6	443	77

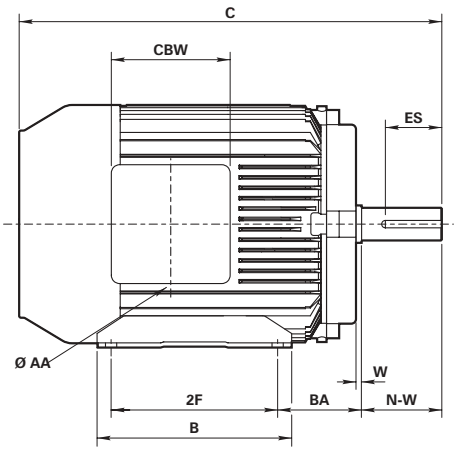
For performance curves - see page 24

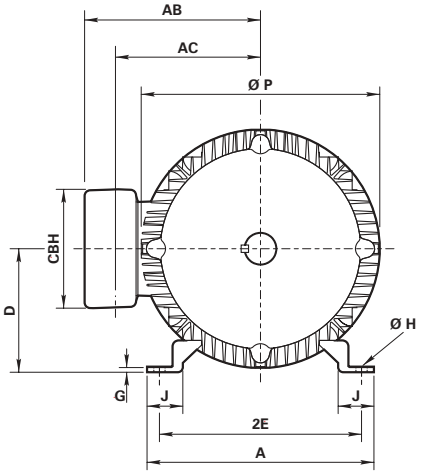
Dimensions

Foot, flange and face mounting frames 56 to 286 - aluminium

IM B3
IM 1001

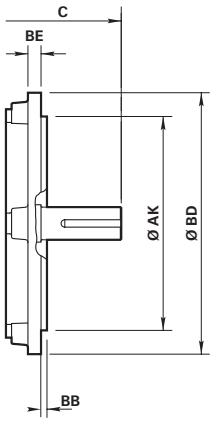
Mounting options

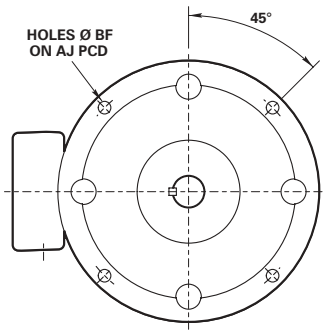




IM B5/IM B35
IM 3001/IM 2001

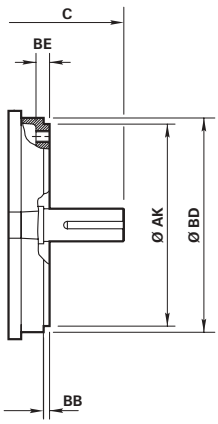
Mounting options

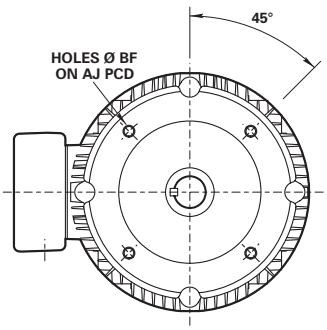




IM B14/IM B34
IM 3601/IM2101

Mounting options





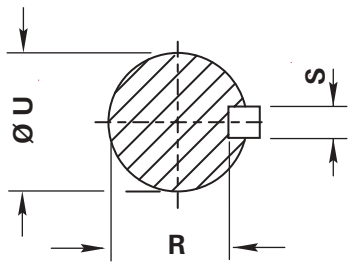
Foot, flange and face mounting frame sizes 56 to 286 - aluminium

Type	General													Terminal box	
	A	B	C	D	2E	2F	G	H	J	P	AA	AB	AC	BA	CBH	CBW
W-DA56	6 3/16	3 23/32	11 17/32	3 1/2	4 7/8	3	1/2	11/32	1 1/2	6 5/16	1/2	5 5/16	4 1/8	2 3/4	4 1/16	4 1/16
W-DA143T	6 7/8	6	13 1/16	3 1/2	5 1/2	4	5/32	11/32	1 1/8	7	3/4	5 9/16	4 3/8	2 1/4	4 1/16	4 1/16
W-DA145T	6 7/8	6	13 1/16	3 1/2	5 1/2	5	5/32	11/32	1 1/8	7	3/4	5 9/16	4 3/8	2 1/4	4 1/16	4 1/16
W-DA182T	8 19/32	6 45/64	15 25/64	4 1/2	7 1/2	4 1/2	5/32	1/2	1 3/8	8 15/32	3/4	6 37/64	5 15/64	2 3/4	5	5
W-DA184T	8 19/32	6 45/64	15 25/64	4 1/2	7 1/2	5 1/2	5/32	1/2	1 3/8	8 15/32	3/4	6 37/64	5 15/64	2 3/4	5	5
W-DA213T	9 17/32	8 3/16	17 25/32	5 1/4	8 1/2	5 1/2	13/64	1/2	1 1/2	10 3/64	1	7 13/32	6 7/64	3 1/2	5	5
W-DA215T	9 17/32	8 3/16	17 25/32	5 1/4	8 1/2	7	13/64	1/2	1 1/2	10 3/64	1	7 13/32	6 7/64	3 1/2	5	5
W-DA254T	11 31/32	11 31/32	23 31/64	6 1/4	10	8 1/4	13/64	19/32	1 59/64	12 23/64	1 1/4	9 29/64	7 23/32	4 1/4	5 33/64	5 33/64
W-DA256T	11 31/32	11 31/32	23 31/64	6 1/4	10	10	13/64	19/32	1 59/64	12 23/64	1 1/4	9 29/64	7 23/32	4 1/4	5 33/64	5 33/64
W-DA284T	12 61/64	12 31/32	26 17/32	7	11	9 1/2	15/64	19/32	1 31/32	14 3/32	1 1/4	10 15/64	8 1/2	4 3/4	5 33/64	5 33/64
W-DA284TS	12 61/64	12 31/32	25 5/32	7	11	9 1/2	15/64	19/32	1 31/32	14 3/32	1 1/4	10 15/64	8 1/2	4 3/4	5 33/64	5 33/64
W-DA286T	12 61/64	12 31/32	26 17/32	7	11	11	15/64	19/32	1 31/32	14 3/32	1 1/4	10 15/64	8 1/2	4 3/4	5 33/64	5 33/64
W-DA286TS	12 61/64	12 31/32	25 5/32	7	11	11	15/64	19/32	1 31/32	14 3/32	1 1/4	10 15/64	8 1/2	4 3/4	5 33/64	5 33/64

Type	IM B5 Mounting						IM B14 Mounting					
	AJ	AK	BB	BD	BE	BF	AJ	AK	BB	BD	BE[2]	BF
W-DA56	–	–	–	–	–	–	5 7/8	4 1/2	1/8	6 1/2	12.7	UNC 3/8
W-DA143T	10	9	1/4	11	9/16	17/32	5 7/8	4 1/2	1/8	6 1/2	12.7	UNC 3/8
W-DA145T	10	9	1/4	11	9/16	17/32	5 7/8	4 1/2	1/8	6 1/2	12.7	UNC 3/8
W-DA182T[1]	-	-	-	-	-	-	5 7/8	4 1/2	5/32	6 1/2	16	UNC 3/8
W-DA182T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	16	UNC 1/2
W-DA184T[1]	-	-	-	-	-	-	5 7/8	4 1/2	5/32	6 1/2	16	UNC 3/8
W-DA184T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	16	UNC 1/2
W-DA213T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	19	UNC 1/2
W-DA215T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	19	UNC 1/2
W-DA254T	12 1/2	11	1/4	14	19/32	13/16	7 1/4	8 1/2	1/4	9 27/32	21	UNC 1/2
W-DA256T	12 1/2	11	1/4	14	19/32	13/16	7 1/4	8 1/2	1/4	9 27/32	21	UNC 1/2
W-DA284T	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2
W-DA284TS	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2
W-DA286T	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2
W-DA286TS	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2

(1) Alternative C-face available on request
(2) Blind hole tapped BE deep in mm

Type	Shaft					
	ES	W	N-W	R	S	U
W-DA56	1 3/8	3/8	1 7/8	0.517	3/16	0.625
W-DA143T	1 5/16	3/16	2 1/4	0.771	3/16	0.875
W-DA145T	1 5/16	3/16	2 1/4	0.771	3/16	0.875
W-DA182T	1 3/4	15/64	2 3/4	0.986	1/4	1.125
W-DA184T	1 3/4	15/64	2 3/4	0.986	1/4	1.125
W-DA213T	2 3/8	1/4	3 3/8	1.201	5/16	1.375
W-DA215T	2 3/8	1/4	3 3/8	1.201	5/16	1.375
W-DA254T	2 7/8	1/4	4	1.416	3/8	1.625
W-DA256T	2 7/8	1/4	4	1.416	3/8	1.625
W-DA284T	3 1/4	9/32	4 5/8	1.591	1/2	1.875
W-DA284TS	1 7/8	9/32	3 1/4	1.416	3/8	1.625
W-DA286T	3 1/4	9/32	4 5/8	1.591	1/2	1.875
W-DA286TS	1 7/8	9/32	3 1/4	1.416	3/8	1.625



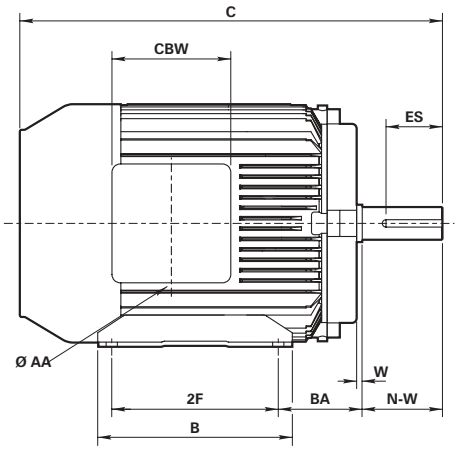
For tolerance details and notes - see page 25

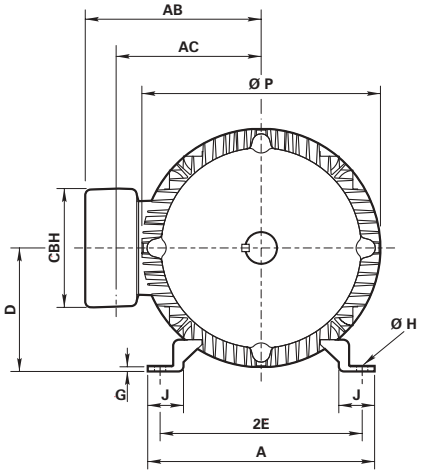
Dimensions

Foot, flange and face mounting frames 143 to 286 - cast iron

IM B3
IM 1001

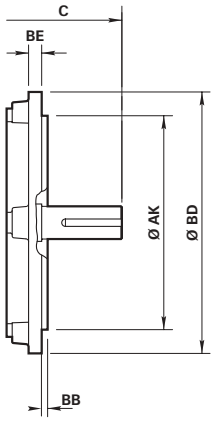
Mounting options

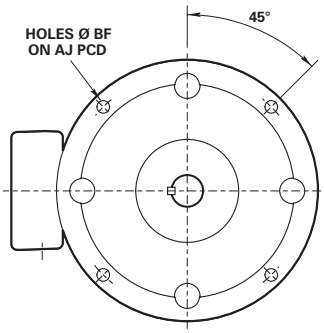




IM B5/IM B35
IM 3001/IM 2001

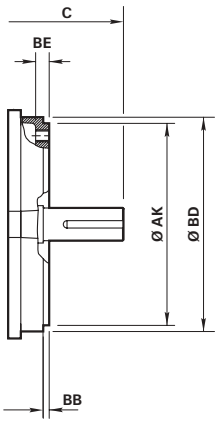
Mounting options

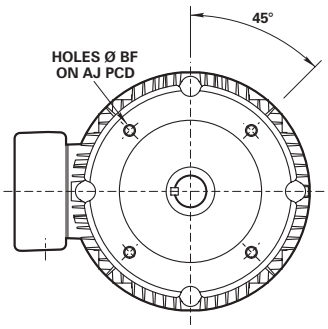




IM B14/IM B34
IM 3601/IM2101

Mounting options





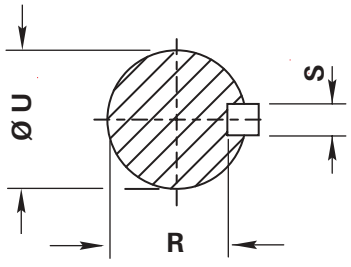
Foot, flange and face mounting frames 143 to 286 - cast iron

Type	General													Terminal box	
	A	B	C	D	2E	2F	G	H	J	P	AA	AB	AC	BA	CBH	CBW
W-DF143T	6 7/8	6	13 3/64	3 1/2	5 1/2	4	15/32	11/32	1 1/2	7	3/4	6 7/16	4 53/64	2 1/4	4 37/64	4 37/64
W-DF145T	6 7/8	6	13 3/64	3 1/2	5 1/2	5	15/32	11/32	1 1/2	7	3/4	6 7/16	4 53/64	2 1/4	4 37/64	4 37/64
W-DF182T	9 1/16	7 11/64	15 27/64	4 1/2	7 1/2	4 1/2	23/32	15/32	1 37/64	8 43/64	3/4	7 39/64	5 23/32	2 3/4	5 5/16	5 5/16
W-DF184T	9 1/16	7 11/64	15 27/64	4 1/2	7 1/2	5 1/2	23/32	15/32	1 37/64	8 43/64	3/4	7 39/64	5 23/32	2 3/4	5 5/16	5 5/16
W-DF213T	10 3/64	8 43/64	17 13/16	5 1/4	8 1/2	5 1/2	43/64	15/32	1 55/64	10 15/64	1	8 1/2	6 5/8	3 1/2	5 5/16	5 5/16
W-DF215T	10 3/64	8 43/64	17 13/16	5 1/4	8 1/2	7	43/64	15/32	1 55/64	10 15/64	1	8 1/2	6 5/8	3 1/2	5 5/16	5 5/16
W-DF254T	11 13/16	11 13/16	23 29/64	6 1/4	10	8 1/4	53/64	19/32	2 11/64	12 13/32	1 1/4	10 9/16	8 13/64	4 1/4	6 55/64	6 55/64
W-DF256T	11 13/16	11 13/16	23 29/64	6 1/4	10	10	53/64	19/32	2 11/64	12 13/32	1 1/4	10 9/16	8 13/64	4 1/4	6 55/64	6 55/64
W-DF284T	13 35/64	12 27/32	26 3/8	7	11	9 1/2	51/64	19/32	2 17/32	13 63/64	1 1/4	11 3/8	9 1/32	4 3/4	6 55/64	6 55/64
W-DF284TS	13 35/64	12 27/32	24 63/64	7	11	9 1/2	51/64	19/32	2 17/32	13 63/64	1 1/4	11 3/8	9 1/32	4 3/4	6 55/64	6 55/64
W-DF286T	13 35/64	12 27/32	26 3/8	7	11	11	51/64	19/32	2 17/32	13 63/64	1 1/4	11 3/8	9 1/32	4 3/4	6 55/64	6 55/64
W-DF286TS	13 35/64	12 27/32	24 63/64	7	11	11	51/64	19/32	2 17/32	13 63/64	1 1/4	11 3/8	9 1/32	4 3/4	6 55/64	6 55/64

Type	IM B5 Mounting						IM B14 Mounting					
	AJ	AK	BB	BD	BE	BF	AJ	AK	BB	BD	BE[2]	BF
W-DF143T	10	9	1/4	11	9/16	17/32	5 7/8	4 1/2	1/8	6 1/2	12.7	UNC 3/8
W-DF145T	10	9	1/4	11	9/16	17/32	5 7/8	4 1/2	1/8	6 1/2	12.7	UNC 3/8
W-DF182T[1]	-	-	-	-	-	-	5 7/8	4 1/2	5/32	6 1/2	16	UNC 3/8
W-DF182T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	16	UNC 1/2
W-DF184T[1]	-	-	-	-	-	-	5 7/8	4 1/2	5/32	6 1/2	16	UNC 3/8
W-DF184T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	16	UNC 1/2
W-DF213T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	19	UNC 1/2
W-DF215T	10	9	1/4	11	15/32	17/32	7 1/4	8 1/2	1/4	9	19	UNC 1/2
W-DF254T	12 1/2	11	1/4	14	19/32	13/16	7 1/4	8 1/2	1/4	9 27/32	21	UNC 1/2
W-DF256T	12 1/2	11	1/4	14	19/32	13/16	7 1/4	8 1/2	1/4	9 27/32	21	UNC 1/2
W-DF284T	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2
W-DF284TS	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2
W-DF286T	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2
W-DF286TS	12 1/2	11	1/4	14	19/32	13/16	9	10 1/2	1/4	11 1/4	20	UNC 1/2

[1] Alternative C-face available on request
[2] Blind hole tapped BE deep in mm

Type	Shaft					
	ES	W	N-W	R	S	U
W-DF143T	1 23/64	5/16	2 1/4	0.771	3/16	0.875
W-DF145T	1 23/64	5/16	2 1/4	0.771	3/16	0.875
W-DF182T	1 3/4	1/4	2 3/4	0.986	1/4	1.125
W-DF184T	1 3/4	1/4	2 3/4	0.986	1/4	1.125
W-DF184T	1 3/4	1/4	2 3/4	0.986	1/4	1.125
W-DF213T	2 3/8	1/4	3 3/8	1.201	5/16	1.375
W-DF215T	2 3/8	1/4	3 3/8	1.201	5/16	1.375
W-DF254T	2 7/8	15/64	4	1.416	3/8	1.625
W-DF256T	2 7/8	15/64	4	1.416	3/8	1.625
W-DF284T	3 1/4	9/32	4 5/8	1.591	1/2	1.875
W-DF284TS	1 7/8	9/32	3 1/4	1.416	3/8	1.625
W-DF286T	3 1/4	9/32	4 5/8	1.591	1/2	1.875
W-DF286TS	1 7/8	9/32	3 1/4	1.416	3/8	1.625



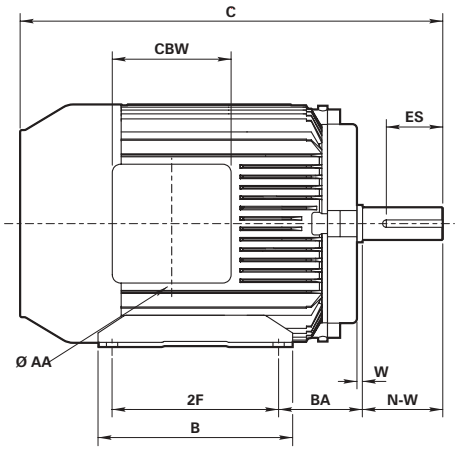
For tolerance details and notes - see page 25

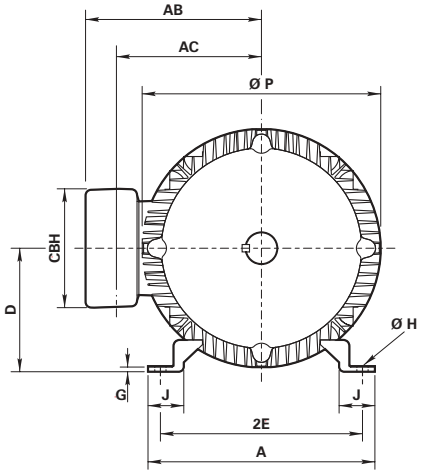
Dimensions

Foot, flange and face mounting frames 324 to 444 - cast iron

IM B3
IM 1001

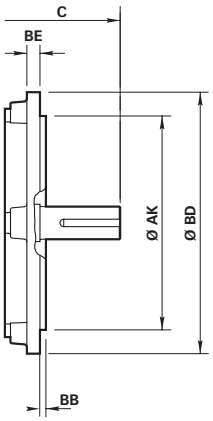
Mounting options

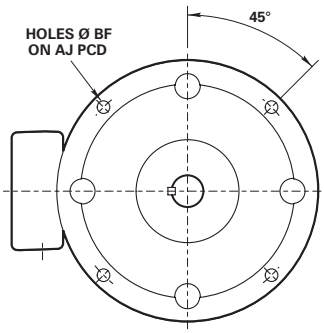




IM B5/IM B35
IM 3001/IM 2001

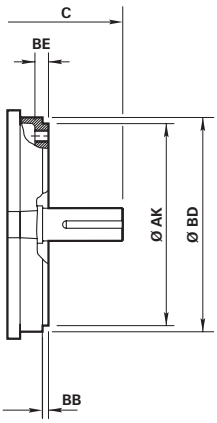
Mounting options

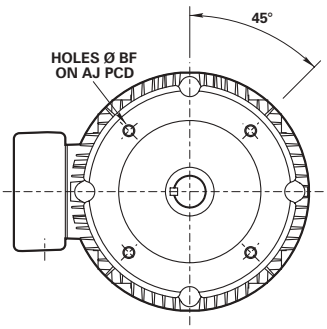




IM B14/IM B34
IM 3601/IM2101

Mounting options



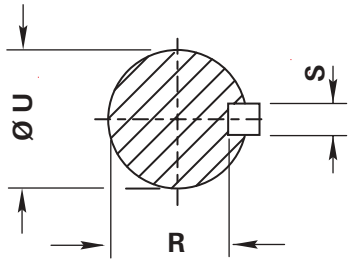


(1) 4 holes ØAJ for frame sizes 324 to 365
8 holes ØAJ for frame sizes 404 to 587
(2) 4 holes ØAJ for frame sizes 324 to 326
8 holes ØAJ for frame sizes 364 to 505

Foot, flange and face mounting frame sizes 324 to 444

	General													Terminal box	
Type	A	B	C	D	2E	2F	G	H	J	P	AA	AB	AC	BA	CBH	CBW
W-DF324TS-NX	15 1/16	12 5/8	30 1/2	8	12 1/2	10 1/2	1 1/8	5/8	2 7/8	15	2	12 1/8	9 3/8	5 1/4	6 3/4	6 3/4
W-DF324T-NX	15 1/16	12 5/8	32	8	12 1/2	10 1/2	1 1/8	5/8	2 7/8	15	2	12 1/8	9 3/8	5 1/4	6 3/4	6 3/4
W-DF326TS-NX	15	14 1/8	29	8	12 1/2	12	1 1/8	5/8	2 7/8	15	2	12 1/8	9 3/8	5 1/4	6 3/4	6 3/4
W-DF326T-NX	15	14 1/8	32	8	12 1/2	12	1 1/8	5/8	2 7/8	15	2	12 1/8	9 3/8	5 1/4	6 3/4	6 3/4
W-DF326T	15 1/4	14 1/2	34 1/4	8	12 1/2	12	1 1/8	5/8	2 1/2	16 1/8	2	12 7/8	10 5/8	5 1/4	8 3/4	11 3/8
W-DF364TS	16 3/4	14	34 1/4	9	14	11 1/4	1 1/8	5/8	2 3/4	17 5/8	3	14 1/4	12	5 7/8	8 3/4	15
W-DF364T	16 3/4	14	36 3/8	9	14	11 1/4	1 1/8	5/8	2 3/4	17 5/8	3	14 1/4	12	5 7/8	8 3/4	15
W-DF365TS	16 3/4	14 3/4	36 3/8	9	14	12 1/4	1 1/8	5/8	2 3/4	17 5/8	3	14 1/4	12	5 7/8	8 3/4	15
W-DF365T	16 3/4	14 3/4	38 1/2	9	14	12 1/4	1 1/8	5/8	2 3/4	17 5/8	3	14 1/4	12	5 7/8	8 3/4	15
W-DF404TS	19	15	39 1/4	10	16	12 1/4	1 1/8	3/4	3 1/4	20	3	15 1/2	13 1/4	6 5/8	8 3/4	15
W-DF404T	19	15	42 1/4	10	16	12 1/4	1 1/8	3/4	3 1/4	20	3	15 1/2	13 1/4	6 5/8	8 3/4	15
W-DF405TS-NE	19	16 1/2	39 1/8	10	16	13 3/4	1 1/8	3/4	3 3/8	20	3	15 1/2	13 1/4	6 5/8	8 3/4	15
W-DF405TS	19	16 1/2	41	10	16	13 3/4	1 1/8	3/4	3 3/8	20	3	15 1/2	13 1/4	6 5/8	8 3/4	15
W-DF405T-NE	19	16 1/2	42 1/8	10	16	13 3/4	1 1/8	3/4	3 3/8	20	3	15 1/2	13 1/4	6 5/8	8 3/4	15
W-DF405T	19	16 1/2	44	10	16	13 3/4	1 1/8	3/4	3 3/8	20	3	15 1/2	13 1/4	6 5/8	8 3/4	15
W-DF444TS-NE	21 1/4	17 1/4	41 1/4	11	18	14 1/2	1 3/2	3/4	3 1/4	20	3	15 1/2	13 1/4	7 1/2	8 3/4	15
W-DF444TS	21 1/4	17 1/8	43 1/4	11	18	14 1/2	1 1/8	3/4	3 1/4	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF444T-NE	21 1/4	17 1/4	45	11	18	14 1/2	1 1/2	3/4	3 1/4	20	3	15 1/2	13 1/4	7 1/2	8 3/4	15
W-DF444T	21 1/4	17 1/8	47	11	18	14 1/2	1 1/8	3/4	3 1/4	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4

Type	IM B5 Mounting						IM B14 Mounting						Shaft Drive End					
	AJ	AK	BB	BD	BE	BF	AJ	AK	BB	BD	BE	BF	ES	W	N-W	R	S	U
W-DF324TS-NX	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13	1 1/8	UNC 5/8	3 1/4	1/4	3 3/4	1.591	1/2	1.875
W-DF324T-NX	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13	1 1/8	UNC 5/8	4 3/4	1/4	5 1/4	1.845	1/2	2.125
W-DF326TS-NX	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13	1 1/8	UNC 5/8	3 1/4	1/4	3 3/4	1.591	1/2	1.875
W-DF326T-NX	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13	1 1/8	UNC 5/8	4 3/4	1/4	5 1/4	1.845	1/2	2.125
W-DF326T	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13	1 1/8	UNC 5/8	4 3/4	1/4	5 1/4	1.845	1/2	2.125
W-DF364TS	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13 3/4	7/8	UNC 5/8	3 1/4	1/4	3 3/4	1.591	1/2	1.875
W-DF364T	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13 3/4	7/8	UNC 5/8	5	1/4	5 7/8	2.021	5/8	2.375
W-DF365TS	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13 3/4	7/8	UNC 5/8	3 1/4	1	3 3/4	1.591	1/2	1.875
W-DF365T	16	14	1/4	17 3/4	3/4	13/16	11	12 1/2	1/4	13 3/4	7/8	UNC 5/8	5	1	5 7/8	2.021	5/8	2.375
W-DF404TS	20	18	1/4	21 5/8	1	13/16	11	12 1/2	1/4	14 1/2	1 1/2	UNC 5/8	3 1/4	1	4 1/4	1.845	1/2	2.125
W-DF404T	20	18	1/4	21 5/8	1	13/16	11	12 1/2	1/4	14 1/2	1 1/2	UNC 5/8	6 1/2	1	7 1/4	2.450	3/4	2.875
W-DF405TS-NE	20	18	1/4	21 5/8	1	13/16	11	12 1/2	1/4	14 1/2	1 1/2	UNC 5/8	3 1/4	1	4 1/4	1.845	1/2	2.125
W-DF405TS	20	18	1/4	21 5/8	1	13/16	11	12 1/2	1/4	14 1/2	1 1/2	UNC 5/8	3 1/4	1	4 1/4	1.845	1/2	2.125
W-DF405T-NE	20	18	1/4	21 5/8	1	13/16	11	12 1/2	1/4	14 1/2	1 1/2	UNC 5/8	6 1/2	3/4	7 1/4	2.450	1/2	2.125
W-DF405T	20	18	1/4	21 5/8	1	13/16	11	12 1/2	1/4	14 1/2	1 1/2	UNC 5/8	6 1/2	3/4	7 1/4	2.450	3/4	2.875
W-DF444TS-NE	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	4 1/8	1	4 3/4	2.021	5/8	2.375
W-DF444TS	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	4 1/8	1/4	4 3/4	2.021	5/8	2.375
W-DF444T-NE	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	7	3/4	8 1/2	2.880	7/8	2.375
W-DF444T	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	7	1/4	8 1/2	2.880	7/8	3.375



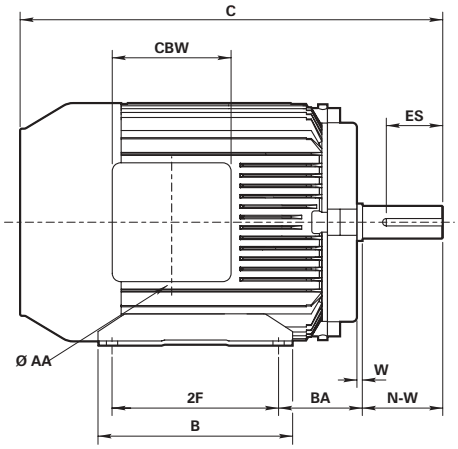
For tolerance details and notes - see page 25

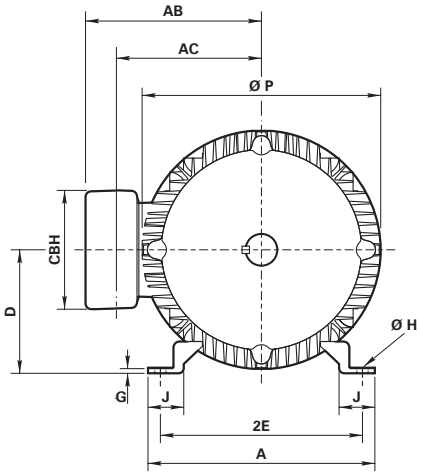
Dimensions

Foot, flange and face mounting frames 445 to 587 - cast iron

IM B3
IM 1001

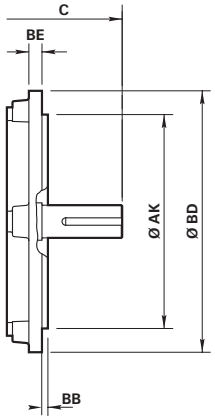
Mounting options

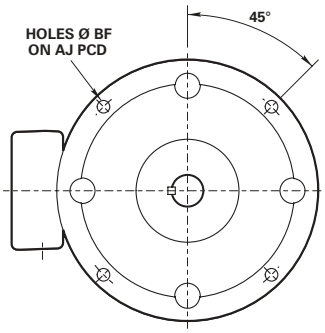




IM B5/IM B35
IM 3001/IM 2001

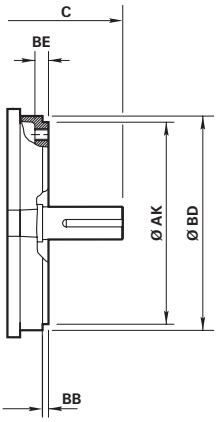
Mounting options

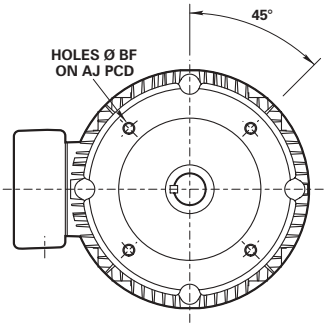




IM B14/IM B34
IM 3601/IM2101

Mounting options



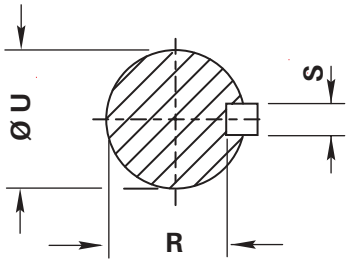


(1) 4 holes ØAJ for frame sizes 324 to 365
8 holes ØAJ for frame sizes 404 to 587
(2) 4 holes ØAJ for frame sizes 324 to 326
8 holes ØAJ for frame sizes 364 to 505

Foot, flange and face mounting

	General													Terminal box	
Type	A	B	C	D	2E	2F	G	H	J	P	AA	AB	AC	BA	CBH	CBW
W-DF445TS-NE	21 1/4	19 1/4	43 1/4	11	18	16 1/2	1 3/8	3/4	3 1/4	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF445TS	21 1/4	19 1/4	45 7/8	11	18	16 1/2	1 3/8	3/4	3 1/4	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF445T-NE	21 1/4	19 1/4	47	11	18	16 1/2	1 3/8	3/4	3 1/4	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF445T	21 1/4	19 1/4	49 5/8	11	18	16 1/2	1 3/8	3/4	3 1/4	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF447TS	20 3/8	22 5/8	45 7/8	11	18	20	1 1/2	3/4	3 3/8	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF447T	20 3/8	22 5/8	49 5/8	11	18	20	1 1/2	3/4	3 3/8	22 1/8	3	20 3/4	16	7 1/2	13	20 1/4
W-DF504SZ	23 3/4	19	47 7/8	12 1/2	20	16	1 3/8	1	4 1/8	25	3	22	17 1/4	8 1/2	13	20 1/4
W-DF504Z	23 3/4	19	51 5/8	12 1/2	20	16	1 3/8	1	4 1/8	25	3	22	17 1/4	8 1/2	13	20 1/4
W-DF505SZ	23 3/4	21	50 1/2	12 1/2	20	18	1 3/8	1	4 1/8	25	3	22	17 1/4	8 1/2	13	20 1/4
W-DF505Z	23 3/4	21	54 1/2	12 1/2	20	18	1 3/8	1	4 1/8	25	3	22	17 1/4	8 1/2	13	20 1/4
W-DF585SZ	28	25 1/2	58	14 1/2	24	20	1	1	4	28 7/8	3	24 1/4	19 5/8	10	13	20 1/4
W-DF585Z	28	25 1/2	60 1/4	14 1/2	24	20	1	1	4	28 7/8	3	24 1/4	19 5/8	10	13	20 1/4
W-DF586SZ	28	27 3/4	62 3/4	14 1/2	24	22	1	1	4	28 7/8	3	24 1/4	19 5/8	10	13	20 1/4
W-DF586Z	28	27 3/4	65	14 1/2	24	22	1	1	4	28 7/8	3	24 1/4	19 5/8	10	13	20 1/4
W-DF587SZ	28	30 1/2	64 3/4	14 1/2	24	25	1	1	4	28 7/8	3	24 1/4	19 5/8	10	13	20 1/4
W-DF587Z	28	30 1/2	67	14 1/2	24	25	1	1	4	28 7/8	3	24 1/4	19 5/8	10	13	20 1/4

Type	IM B5 Mounting						IM B14 Mounting						Shaft Drive End					
	AJ	AK	BB	BD	BE	BF	AJ	AK	BB	BD	BE[2]	BF	ES	W	N-W	R	S	U
W-DF445TS-NE	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	4 1/8	1/4	4 3/4	2.021	5/8	2.375
W-DF445TS	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	4 1/8	1/4	4 3/4	2.021	5/8	2.375
W-DF445T-NE	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	7	1/4	8 1/2	2.880	7/8	3.375
W-DF445T	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	7	1/4	8 1/2	2.880	7/8	3.375
W-DF447TS	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	4 1/8	1/4	4 3/4	2.021	5/8	2.375
W-DF447T	20	18	1/4	21 5/8	1	13/16	14	16	1/4	17 1/2	1 1/2	UNC 5/8	7	1/4	8 1/2	2.880	7/8	3.375
W-DF504SZ	22	18	1/4	25	1	13/16	14 1/2	16 1/2	1/4	17 1/2	-	UNC 5/8	4 7/8	1/4	5 1/2	2.402	5/8	2.75
W-DF504Z	22	18	1/4	25	1	13/16	14 1/2	16 1/2	1/4	17 1/2	-	UNC 5/8	8 1/2	1/4	9 1/4	3.134	7/8	3.625
W-DF505SZ	22	18	1/4	25	1	13/16	14 1/2	16 1/2	1/4	17 1/2	-	UNC 5/8	4 7/8	1/4	5 1/2	2.402	5/8	2.75
W-DF505Z	22	18	1/4	25	1	13/16	14 1/2	16 1/2	1/4	17 1/2	-	UNC 5/8	8 1/2	1/4	9 1/4	3.134	7/8	3.625
W-DF585SZ	29 1/8	26 3/4	1/4	31 1/2	1 1/8	15/16							7 1/2	1	7 3/4	2.577	3/4	3.0
W-DF585Z	29 1/8	26 3/4	1/4	31 1/2	1 1/8	15/16							9 3/4	5/16	10	3.309	1	3.875
W-DF586SZ	29 1/8	26 3/4	1/4	31 1/2	1 1/8	15/16							7 1/2	1	7 3/4	2.577	3/4	3.0
W-DF586Z	29 1/8	26 3/4	1/4	31 1/2	1 1/8	15/16							9 3/4	5/16	10	3.309	1	3.875
W-DF587SZ	29 1/8	26 3/4	1/4	31 1/2	1 1/8	15/16							7 1/2	1	7 3/4	2.577	3/4	3.0
W-DF587Z	29 1/8	26 3/4	1/4	31 1/2	1 1/8	15/16							9 3/4	5/16	10	3.309	1	3.875



For tolerance details and notes - see page 25

Approximate shipping specifications

Aluminium frame

Type	Net Weight		Gross Weight		Cubage	
	Kg	lb	Kg	lb	m^3	ft^3
W-DA56	9.5	21	10	23	0.02	0.71
W-DA143T	12.5	28	13.5	30	0.03	1.05
W-DA145T	14.5	32	15.5	34	0.03	1.05
W-DA182T	24.3	54	27	59	0.05	1.77
W-DA184T	29.4	65	33	73	0.05	1.77
W-DA213T	45	99	50	110	0.08	2.83
W-DA215T	50	110	56	123	0.08	2.83
W-DA254T	84	185	100	220	0.12	4.24
W-DA256T	95	209	106	233	0.12	4.24
W-DA284T	118	260	132	290	0.25	8.83
W-DA286T	126	277	141	310	0.25	8.83

Cast iron frame

Type	Net Weight		Gross Weight		Cubage	
	Kg	lb	Kg	lb	m^3	ft^3
W-DF143T	19	42	20.5	45	0.03	1.05
W-DF145T	22	49	23.5	52	0.03	1.05
W-DF182T	45	99	48	105	0.05	1.77
W-DF184T	47	104	51	112	0.05	1.77
W-DF213T	68	150	71	156	0.08	2.83
W-DF215T	72.5	160	78.5	173	0.08	2.83
W-DF254T	121	267	133	293	0.15	5.3
W-DF256T	133	293	145	320	0.15	5.3
W-DF284T	162	357	178	392	0.21	7.42
W-DF286T	177.5	391	193.5	427	0.21	7.42
W-DF324T-NX	285	628	301	662	0.30	10.6
W-DF326T	321	708	336	741	0.37	13.07
W-DF326T-NX	321	708	336	741	0.37	13.07
W-DF364T	376	829	391	862	0.37	13.07
W-DF365T	421	928	461	1017	0.63	22.25
W-DF404T	571	1259	611	1347	0.70	24.72
W-DF405T-NE	571	1259	611	1347	0.70	24.72
W-DF405T	661	1457	723	1594	1.2	42.38
W-DF444T-NE	661	1457	723	1594	1.2	42.38
W-DF444T	802	1768	873	1925	1.2	42.38
W-DF445T-NE	802	1768	873	1925	1.2	42.38
W-DF445T	1002	2209	1097	2419	1.8	63.58
W-DF447T	1030	2270	1125	2475	1.8	63.58
W-DF504Z	1103	2432	1198	2642	1.8	63.58
W-DF505Z	1303	2873	1398	3083	1.8	63.58
W-DF585Z	1898	4185	2003	4417	2.49	87.92
W-DF586Z	2210	4873	2315	5105	2.49	87.92
W-DF587Z	2328	5133	2433	5365	2.49	87.92

Technical information: Mechanical

Bearing references and oil seals for horizontally-mounted motors only

Type	Polarity	Bearings[1]		Oil seals[2]	
		Drive end	Non-drive end	Drive end	Non-drive end
56	All	62042Z	60032Z	20 x 30 x 7[3]	15 x 24 x 5[3]
143T/145T	All	62052Z	62032Z	25 x 35 x 7[3]	17 x 28 x 6[3]
182T/184T	All	62062Z	62052Z	30 x 42 x 7[3]	25 x 37 x 7[3]
213T/215T	All	62082Z	63052Z	40 x 52 x 7[3]	25 x 37 x 7[3]
254T/256T	All	63092Z	63072Z	45 x 60 x 8[3]	35 x 47 x 7[3]
284T/286T	All	63102Z	63082Z	50 x 65 x 8[3]	40 x 52 x 7[3]
324T-NX	All	6312	6312	60 x 80 x 8[3]	60 x 80 x 8[3]
326T-NX	All	6312	6312	60 x 80 x 8[3]	60 x 80 x 8[3]
326T	All	6313	6313	65 x 90 x 10[4]	65 x 90 x 10[4]
364T	All	6314	6314	70 x 90 x 10[4]	70 x 90 x 10[4]
365T	2	6314	6314	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6316	6316	80 x 110 x 10[3]	80 x 110 x 10[3]
404T	2	6314	6314	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6318	6318	90 x 120 x 12[3]	90 x 120 x 12[3]
405T/444T-NE	2	6314	6314	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6318	6318	90 x 120 x 12[3]	90 x 120 x 12[3]
444T/445T-NE	2	6316	6316	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6319	6319	90 x 120 x 12[3]	90 x 120 x 12[3]
445T	2	6316	6316	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6319	6319	90 x 120 x 12[3]	90 x 120 x 12[3]
447T	2	6316	6316	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6319	6319	90 x 120 x 12[3]	90 x 120 x 12[3]
504Z	2	6316	6316	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6319	6319	90 x 120 x 12[3]	90 x 120 x 12[3]
505Z	2	6316	6316	70 x 90 x 10[4]	70 x 90 x 10[4]
	4 up	6319	6319	90 x 120 x 12[3]	90 x 120 x 12[3]
585Z/586Z/587Z	2	N316	6316	75 x 100 x 10[4]	75 x 100 x 10[4]
	4 up	N324	6324	115 x 145 x 14[3]	115 x 145 x 14[3]

[1] Frame sizes 56, 143 and 145T have bearings with CN clearances, frame sizes 182T - 587Z have bearings with C3 clearance 'medium' series
[2] Sizes given are in mm, and represent bore x outside diameter x width
Material: [3] Nitrile rubber [4] Silicon rubber

Grease life expected at 80°C bearing temperature x 10^3 hours (L1 regreasing interval)

Type	3600 min^{-1}		1800 min^{-1}		1200 min^{-1}		900 min^{-1}	
	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
56-145T	22.0	22.0	32.0	32.0	35.0	35.0	35.0	35.0
182T-286T	26.0	26.0	35.0	35.0	35.0	35.0	35.0	35.0
324T-NX	7.7	5.0	22.6	14.7	27.9	17.9	30.0	20.6
326T-NX	6.4	5.0	23.6	14.7	27.6	17.9	30.0	20.6
326T	6.4	3.3	20.4	13.2	26.9	17.5	30.0	20.6
364T	5.2	3.3	18.9	12.3	25.8	16.8	30.0	20.0
365T	5.2	3.3	17.5	11.4	24.6	16.0	29.4	19.1
404T	5.2	3.3	16.8	10.9	24.2	15.7	29.0	18.8
405T/444T-NE	5.2	3.3	16.8	10.9	24.2	15.7	29.0	18.8
444T/445T-NE	3.0	1.9	16.4	10.6	24.1	15.6	28.8	18.7
445T	3.0	1.9	16.4	10.6	24.1	15.6	28.8	18.7
447T	3.0	1.9	16.4	10.6	24.1	15.6	28.8	18.7
504Z	3.0	1.9	16.4	10.6	24.1	15.6	28.8	18.7
505Z	3.0	1.9	16.4	10.6	24.1	15.6	28.8	18.7
585Z-587Z	3.0	1.9	11.1	7.2	20.3	13.2	25.6	16.6

Technical information: Mechanical

Axial and radial loads

Maximum permissible external axial thrust and radial loads in pounds force (lbf)

Type			Horizontal shaft		Vertical shaft				Maximum permissible radial load at end of shaft
					Shaft up		Shaft down		
Cast iron	Aluminium	Poles	Load towards motor	Load away from motor	Load towards motor	Load away from motor	Load towards motor	Load away from motor	(standard mounting)
-	W-DA56	2	78	123	75	128	83	120	177
		4	71	116	67	121	76	112	168
		6	62	107	57	112	67	102	161
		8	65	110	60	117	72	105	147
W-DF143T	W-DA143T	2	101	155	96	163	109	150	208
		4	91	145	82	156	102	136	193
		6	75	129	66	140	86	120	185
		8	82	136	75	146	92	129	168
W-DF145T	W-DA145T	2	101	155	96	163	109	150	208
		4	91	145	82	156	102	136	193
		6	75	129	66	140	86	120	185
		8	82	136	75	146	92	129	168
W-DF182T	W-DA182T	2	174	246	161	266	194	233	285
		4	160	232	143	258	186	215	275
		6	150	222	132	247	175	204	265
		8	124	196	106	220	148	178	223
W-DF184T	W-DA184T	2	174	246	161	266	194	233	285
		4	160	232	143	258	186	215	275
		6	150	222	132	247	175	204	265
		8	124	196	106	220	148	178	223
W-DF213T	W-DA213T	2	300	379	277	414	334	356	460
		4	286	365	258	407	328	337	470
		6	272	351	241	393	314	320	452
		8	219	298	187	342	263	267	425
W-DF215T	W-DA215T	2	300	379	277	414	334	356	460
		4	286	365	258	407	328	337	470
		6	272	351	241	393	314	320	452
		8	219	298	187	342	263	267	425
W-DF254T	W-DA254T	2	464	576	416	646	534	527	787
		4	472	583	408	674	563	519	828
		6	453	565	388	658	547	499	807
		8	425	536	367	617	506	479	777
W-DF256T	W-DA256T	2	464	576	416	646	534	527	787
		4	472	583	408	674	563	519	828
		6	453	565	388	658	547	499	807
		8	425	536	367	617	506	479	777
W-DF284T	W-DA284T	2	585	712	520	807	681	647	948
		4	614	741	529	871	744	656	1013
		6	587	714	494	654	728	620	981
		8	544	671	450	803	677	577	931
W-DF286T	W-DA286T	2	585	712	520	807	681	647	948
		4	614	741	529	871	744	656	1013
		6	587	714	494	654	728	620	981
		8	544	671	450	803	677	577	931

All figures are based on L10aah life of 20,000 hours

Technical information: Mechanical

Maximum permissible external axial thrust and radial loads in pounds force (lbf)

Type	Poles	Horizontal shaft		Vertical shaft				Maximum permissible radial load at end of shaft	
				Shaft up		Shaft down			
		Load towards motor	Load away from motor	Load towards motor	Load away from motor	Load towards motor	Load away from motor	Standard ball bearing	Roller bearing
324T	2	1191	1043	1095	1175	1323	946	1120	1421
	4	1333	1185	1215	1347	1496	1066	1226	1459
	6	1363	1214	1228	1399	1547	1080	1246	1459
	8	1337	1188	1202	1373	1521	1054	1219	1459
326T	2	1191	1043	1095	1175	1323	946	1120	1421
	4	1468	1339	1299	1576	1705	1170	1303	1539
	6	1519	1391	1332	1655	1783	1204	1342	1539
	8	1491	1363	1303	1626	1754	1175	1313	1539
364T	2	1476	1356	1331	1555	1675	1352	1444	1476
	4	1649	1529	1472	1776	1896	1352	1500	1884
	6	1713	1594	1496	1898	2018	1376	1537	1884
	8	1685	1565	1467	1870	1989	1348	1508	1884
365T	2	1457	1338	1277	1585	1705	1157	1370	1421
	4	1931	1797	1709	2106	2239	1576	1780	1884
	6	2091	1958	1849	2298	2432	1715	1886	1884
	8	2075	1941	1832	2282	2415	1699	1869	1884
404T	6	2370	2221	2050	2665	2814	1901	2216	2748
	8	2394	2245	2074	2689	2838	1925	2242	2748
405T/444T-NE	2	1396	1263	1163	1586	1719	1030	1285	1895
	4	2234	2085	1942	2489	2638	1793	2091	2748
	6	2311	2162	1888	2747	2896	1740	2039	2748
	8	2337	2188	1915	2774	2923	1766	2066	2748
444T	2	1373	1253	1111	1617	1737	991	1262	2340
	4	2130	1982	1735	2526	2675	1586	1916	3658
	6	2443	2367	1962	3032	3109	1886	2182	3696
	8	2492	2415	2010	3081	3157	1934	2232	3696
445T-NE	2	1628	1494	1285	1968	2102	1152	1479	2340
	4	2251	2174	1800	2793	2870	1723	2052	2696
445T	2	1605	1471	1226	1997	2131	1093	1451	2340
	4	2199	2122	1658	2866	2942	1581	1977	3696
	6	2389	2312	1818	3102	3179	1742	2108	3696
	8	2436	2360	1865	3149	3226	1789	2159	3696
504Z	6	2414	2338	1887	3069	3145	1811	2185	3575
	8	2462	2386	1935	3117	3193	1859	2237	3575
505Z	2	1541	1407	1090	2015	2149	957	1431	2719
	4	2184	2108	1620	2884	2961	1544	1995	3575
	6	2372	2295	1773	3127	3203	1696	2124	3575
	8	2420	2344	1821	3175	3251	1744	2177	3575
585Z	2	1331	1197	660	2134	2268	527	-	2682
	4	2831	2485	1888	3819	4165	1542	-	4817
	6	2986	2640	1935	4128	4474	1588	-	4817
	8	3202	2856	2156	4349	4696	1810	-	4817
586Z	2	1255	1121	478	2215	2348	345	-	2682
	4	2726	2380	1599	3969	4315	1252	-	4817
	6	2865	2519	1600	4300	4647	1254	-	4817
	8	3000	2654	1736	4436	4782	1390	-	4817
587Z	6	2817	2471	1478	4359	4705	1132	-	4817
	8	2953	2607	1614	4494	4841	1268	-	4817

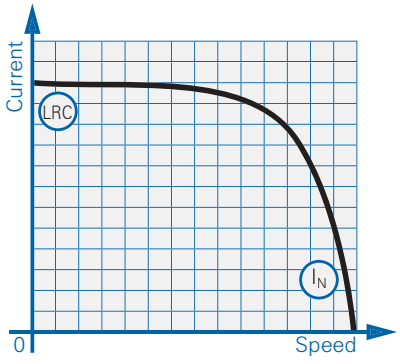
All figures are based on L10aah life of 20,000 hours

Performance data - page notes

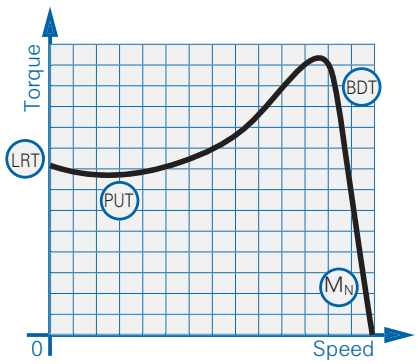
Key				
Symbol	**Comments**		**Additional Info**	**Unit**
P_N	Rated power			hp kW
n	Rotational speed in revolutions per minute			min^{-1}
Type	Frame reference and size			A
I_N	Full load current at rated voltage		230V 460V 575V	
η	Efficiency	Full load ¾ load ½ load	1.0 P_N 0.75 P_N 0.5 P_N	%
CosØ	Power factor	Full load ¾ load ½ load	1.0 P_N 0.75 P_N 0.5 P_N	
LRT	Locked rotor torque			% Full load torque
LRC	Locked rotor current		460V 575V	% Full load current
BDT	Break down torque			% Full load torque
PUT	Pull up torque			% Full load torque
L_{PA}	Mean sound pressure level @ 3 feet on no lead			

DOL starting
(BS EN 60034-12 Design N)

Typical Speed/Current Curve



Typical Speed/Torque Curve



(LRC) Starting Current or Locked Rotor Current
(I_N) Full Load Current
(LRT) Starting Torque or Locked Rotor Torque
(PUT) Pull Up Torque or Run Up Torque
(BDT) Pull Out Torque or Breakdown Torque
(M_N) Full Load Torque

Torque/Speed curves for specific motors can be supplied on request.

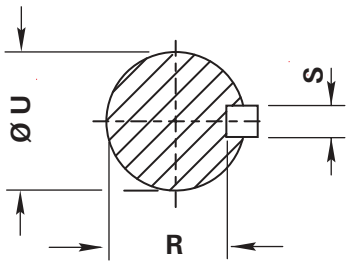
Performance figures are subject to NEMA/CSA tolerances.
Performance figures are based on a 460 volt winding.

To calculate I_N on special voltages, multiply the I_N at 460 volts by the following factors.

Voltage	400	420	440	480	500	525
Factor	1.15	1.1	1.05	0.98	0.9	0.88

Dimensions

Shaft	
Dim U	**Limits**
0.625″ to 1.375″	+0.000″ –0.0005″
1.625″ to 3.875″	+0.000″ –0.001″



Flange	
Dim AK	**Limits**
4½″ to 11″	+0.000″ –0.003″
14″ to 18″	+0.000″ –0.005″

Face	
Dim AK	**Limits**
4½″ to 10½″	+0.000″ –0.003″
14½″ to 16½″	+0.000″ –0.005″

All dimensions in inches.

Cable entry may be arranged in any one of four positions at 90° intervals. Suffix 'S' in the frame indicates a short shaft, fitted on direct coupled 2 pole motors. If required, this could be fitted on 4 pole motors. It is important to state which shaft is required. Include suffix 'S' for a short shaft and request a certified print. Dimensions should not be used for installation purposes unless specially certified. A fully certified print will be forwarded on receipt of official order, if requested.

On frame sizes 143 to 256 the BA dimension may not comply for B35 mounting, please refer to Brook Crompton.

Notes

Notes

Worldwide sales and service network

Every care has been taken to ensure the accuracy of the information contained in this publication, but, due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication

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Printed in England
gh097/08/02 2209E issue 1.1e