WP premium efficiency motors

Frames 80 to 355L

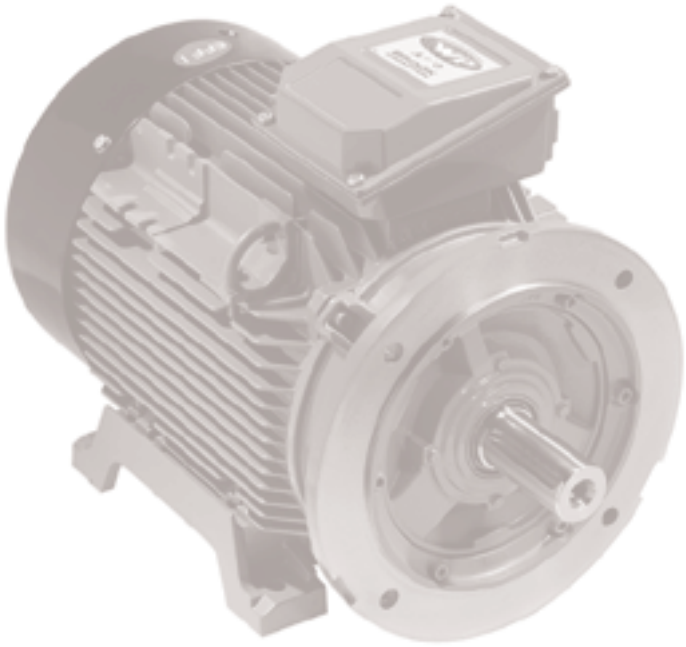
PREMIUM EFFICIENCY

WP

2104E

BROOK CROMPTON

WP premium efficiency motors 80 to 355L



Brook Crompton

Brook Crompton is a leading manufacturer of electric motors for the global industrial market, with motor solutions which benefit a wide range of customers.

Our products are used in almost every industrial activity including water treatment, building services, chemical/petrochemicals, general processing and manufacturing where they drive fans, pumps, compressors and conveyors, amongst other things.

Brook Crompton incorporates many well known names including Brook Motors, Crompton Parkinson, Electrodrives, Newman, Bull Electric and Hawker Siddeley Electric Motors.

We have extensive stocks of motors around the world, backed-up by a network of distributors, ensuring excellent local support wherever needed.

Quality assurance

Stringent quality procedures are observed from first design to finished product in accordance with the ISO9001 documented quality systems.

All of our factories have been assessed to meet these requirements, a further assurance that only the highest possible standards of quality are accepted.

WP premium efficiency motors

The Brook Crompton WP motor range covers products with outputs from as little as 0.75kW to 400kW in frame sizes 80 to 355L. They are suitable for use within a diverse range of applications from food and drink to china clay production. From roller table drives to refrigeration. Many applications often have adverse operating conditions including repeated starting and occasional overloading; the 'WP' range is well suited to these situations. A virtual 'go anywhere' motor, this cast iron range has a full 2-year guarantee.

Benefits include:

- high efficiency for low running costs
- high reliability for long life
- low noise levels
- cool running for long insulation life
- all applicable motors fall within the **EFF**1 band of the European efficiency labelling scheme
- Eurovoltage: 400V ±10%
- dual frequency: 50Hz and 60Hz
- high power factors
- high torque with smooth acceleration and low current
- ease of maintenance
- IP55 protection
- 4-position cable entry
- 2-year warranty

Efficiency

Brook Crompton are an approved manufacturer of ac electric motors within the UK Government's Enhanced Capital Allowance (ECA) scheme.

A wide range of single and multi-speed motors are included on the UK Energy Technology List. Please check the ECA scheme website: www.eca.gov.uk at time of purchase for current listing.

Standards and environment

Standards

Standards

Motors of cast iron construction can be manufactured to the international standards listed below:

Range	International	National standard				North American*
Standard	IEC	BS	VDE	DIN	NF	NEMA
Outputs	–	BS 5000 part 10	–	DIN 42673, DIN 42677	NF C51-110	MG1 part 10
Performance	IEC 60034-1	BS EN 60034-1	VDE 0530 part 1	–	NF C51-111	MG1 part 12
Dimensions	IEC 60072-1	BS 4999 part 141	–	DIN 42673, DIN 42677	NF C51-105, NF C51-120	MG1 part 4
Mounting	IEC 60034-7	BS EN 60034-7	–	DIN 42950	NF C51-117	MG1 part 4
Degrees of protection	IEC 60034-5	BS EN 60034-5	–	DIN 40050	NF C51-115	MG1-1.26B

standard BS and European specification motor complies

optional

BS specification motor complies except flange tolerances to IEC 60072-1 Annex C.1.7 Option 1

European specification motors

Motors complying with IEC 60034-1 also comply with many of the national standards of other European countries, eg CEI 203 (Italy), NBN7 (Belgium), NEN 3173 (Netherlands), SEN 2601 01 (Sweden)

* Motors to NEMA standards have CSA approval and generally comply with Canadian (EEMAC) standards
Motors can be supplied to CSA standard C390 (energy efficient) and USA 'EPAct' legislation

Motors certified by Underwriters Laboratories Inc (UL) can be supplied on request. The UL mark and certification number will be on each rating plate to show product compliance and certification.

Environment

Enclosure

All motors have degrees of IP protection as defined in IEC 60034-5 (BS EN 60034 part 5).

European directives

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

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.

Compliance with European directives applying to AC induction motors

Directives	Low voltage (LV)	Machinery (MD)	Electromagnetic compatibility (EMC)
Reference numbers	73/23/EEC	89/392/EEC	89/336/EEC
	93/68/EEC	91/368/EEC	92/31/EEC
		93/44/EEC	93/68/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

3000 min^{-1} (2 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size		Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio [1]	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N	n	Type		I_N			η	Cos Ø	M_N	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_S}{M_N}$	J	L_{PA}
kW (hp)	min^{-1}			380 V A	400 V A	415 V A	1.0 P_N 0.75 P_N 0.5 P_N	1.0 P_N 0.75 P_N 0.5 P_N	Nm					Y	Y	Y	kgm²	dB(A)
0.75 (1)	2850	**WP-DF80ME**[1]		1.77	1.69	1.69	**77.0** *77.0* *73.0*	**0.83** *0.77* *0.65*	2.5	2.2	5.5	2.5	2.0	–	–	–	0.0014	64
1.1 (1.5)	2875	**WP-DF80MM**[1]		2.41	2.28	2.28	**82.8** *83.7* *81.3*	**0.84** *0.78* *0.64*	3.7	2.7	7.3	2.7	2.4	–	–	–	0.0012	64
1.5 (2)	2850	**WP-DF90LMX**[1]		3.0	2.86	2.86	**84.1** *85.8* *85.7*	**0.90** *0.87* *0.79*	5.0	2.7	7.0	3.1	2.4	–	–	–	0.0014	64
2.2 (3)	2860	**WP-DF90LSX**[1]		4.5	4.3	4.3	**85.6** *86.4* *86.2*	**0.87** *0.83* *0.74*	7.3	2.7	7.1	3.0	2.5	–	–	–	0.0016	64
3 (4)	2880	**WP-DF100LMF**[1]		5.8	5.5	5.5	**86.7** *87.6* *87.4*	**0.90** *0.88* *0.84*	9.9	3.0	8.2	3.3	2.6	–	–	–	0.0055	60
4 (5.5)	2870	**WP-DF112MMX**[1]		7.6	7.2	7.2	**87.6** *88.6* *88.5*	**0.91** *0.89* *0.85*	13.3	3.0	8.0	3.1	2.8	0.85	2.8	0.80	0.0055	60
5.5 (7.5	2910	**WP-DF132SEX**[1]		10.6	10.1	10.1	**88.6** *88.7* *87.4*	**0.89** *0.86* *0.73*	18.0	2.7	8.3	3.1	2.4	0.80	2.4	0.75	0.012	66
7.5 (10)	2900	**WP-DF132SJX**[1]		14.0	13.3	13.3	**89.5** *90.6* *90.7*	**0.91** *0.89* *0.82*	24.7	2.5	8.3	3.0	2.3	0.75	2.5	0.70	0.015	66
11 (15)	2935	**WP-DF160MB**[1]		20.7	19.7	19.7	**90.5** *90.8* *89.7*	**0.89** *0.86* *0.79*	35.8	2.2	7.8	3.0	1.8	0.65	2.5	0.60	0.039	68
15 (20)	2935	**WP-DF160MJ**[1]		27.7	26.3	26.3	**91.3** *91.5* *91.2*	**0.90** *0.88* *0.80*	48.8	2.2	8.0	3.1	1.9	0.65	2.6	0.60	0.045	68
18.5 (25	2940	**WP-DF160LR**[1]		34	32	32	**91.8** *92.1* *91.3*	**0.91** *0.89* *0.81*	60.2	2.4	8.7	3.2	1.9	0.78	2.7	0.65	0.056	68
22 (30)	2950	**WP-DF180ME**[1]		39	37	37	**92.2** *92.2* *91.0*	**0.92** *0.90* *0.84*	71.4	2.2	9.0	3.1	1.9	0.65	2.8	0.60	0.094	68
30 (40)	2940	**WP-UDF200LGX**[2] **WP-DF200LGX**[3]		55	52	51	**92.9** *93.0* *92.0*	**0.89** *0.86* *0.80*	97	2.7	7.8	2.9	2.3	0.75	2.5	0.60	0.15	73
37 (50)	2940	**WP-UDF200LNX**[2] **WP-DF200LNX**[3]		67	64	62	**93.3** *93.4* *92.5*	**0.89** *0.86* *0.80*	120	2.7	7.8	2.9	2.3	0.75	2.5	0.60	0.18	73
45 (60)	2955	**WP-UDF225MN**[2] **WP-DF225MN**[3]		81	77	74	**93.7** *93.7* *92.5*	**0.90** *0.88* *0.83*	145	2.3	7.8	2.8	1.9	0.65	2.5	0.50	0.47	75
55 (75)	2955	**WP-UDF250MNE**[2] **WP-DF250SN**[3]		99	94	90	**94.0** *94.2* *93.0*	**0.90** *0.88* *0.83*	178	2.3	7.8	2.8	1.9	0.65	2.5	0.50	0.56	75

[1] European and BS frame reference
[2] European frame reference
[3] BS frame reference

For tolerance details and notes - see page 22

Performance data

3000 min^{-1} (2 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size	Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio [1]	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N	n	Type	I_N			η	Cos Ø	M_N	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$ Y	$\frac{I_A}{I_N}$ Y	$\frac{M_S}{M_N}$ Y	J	L_{PA}
kW (hp)	min^{-1}		380 V A	400 V A	415 V A	1.0 P_N 0.75 P_N 0.5 P_N	1.0 P_N 0.75 P_N 0.5 P_N	Nm								kgm²	dB(A)
75 (100)	2960	**WP-UDF280SNE[2]** **WP-DF250MN[3]**	134	127	123	**94.6** *94.9* *93.4*	**0.90** *0.88* *0.83*	242	2.2	7.8	3.0	2.0	0.65	2.5	0.50	0.7	77
90 (125)	2960	**WP-UDF280MNE[2]** **WP-DF280SN[3]**	160	152	146	**95.0** *95.0* *93.5*	**0.90** *0.88* *0.83*	290	2.2	7.8	3.0	2.0	0.65	2.5	0.50	0.8	77
110 (150)	2978	**WP-UDF315SNE[2]** **WP-DF280MN[3]**	194	184	177	**95.8** *95.4* *94.0*	**0.90** *0.88* *0.83*	353	2.2	7.8	2.9	1.8	0.65	2.5	0.45	1.4	78
132 (175)	2978	**WP-UDF315MNE[2]** **WP-DF315SN[3]**	233	221	213	**95.8** *95.4* *94.0*	**0.90** *0.88* *0.83*	423	2.2	7.8	2.9	1.8	0.65	2.5	0.45	1.7	78
150 (200)	2980	**WP-UDF315MN[2]** **WP-DF315MN[3]**	260	247	238	**96.2** *95.8* *94.3*	**0.91** *0.89* *0.85*	481	2.0	7.8	2.75	1.7	0.60	2.5	0.45	2.4	80
160 (215)	2980	**WP-UDF315MP[2]** **WP-DF315MP[3]**	277	264	254	**96.3** *95.9* *94.4*	**0.91** *0.89* *0.85*	513	2.0	7.8	2.75	1.7	0.60	2.5	0.45	2.6	80
185 (250)	2980	**WP-UDF315LN[2]** **WP-DF315LN[3]**	320	304	294	**96.4** *96.2* *94.8*	**0.91** *0.89* *0.85*	593	2.0	7.8	2.75	1.7	0.60	2.5	0.45	2.8	80
200 (270)	2978	**WP-UDF315LN[2]** **WP-DF315LN[3]**	346	329	317	**96.4** *96.2* *94.8*	**0.91** *0.89* *0.85*	641	1.85	7.2	2.5	1.6	0.55	2.3	0.42	2.8	80
225 (300)	2982	**WP-UDF355SG[2]** **WP-DF355SG[3]**	398	379	364	**96.4** *95.9* *94.6*	**0.89** *0.87* *0.85*	721	2.0	7.5	2.7	1.6	0.65	2.3	0.45	5.0	80
250 (335)	2982	**WP-UDF355SJ[2]** **WP-DF355SJ[3]**	445	421	405	**96.4** *96.0* *94.8*	**0.89** *0.87* *0.85*	801	2.0	7.5	2.7	1.6	0.65	2.3	0.45	5.3	80
280 (375)	2982	**WP-UDF355SN[1]** **WP-DF355SN[3]**	496	471	454	**96.4** *96.1* *94.9*	**0.89** *0.87* *0.85*	897	2.0	7.5	2.7	1.6	0.65	2.3	0.45	5.9	80
315 (420)	2982	**WP-UDF355MJ[2]** **WP-DF355MJ[3]**	551	524	505	**96.5** *96.2* *95.2*	**0.90** *0.89* *0.86*	1009	2.0	7.5	2.7	1.6	0.65	2.3	0.45	6.3	80
355 (475)	2982	**WP-UDF355MN[2]** **WP-DF355MN[3]**	621	590	569	**96.5** *96.3* *95.4*	**0.90** *0.89* *0.86*	1137	2.0	7.5	2.7	1.6	0.65	2.3	0.45	7.0	80
400 (535)	2985	**WP-UDF355LN[2]** **WP-DF355LN[3]**	691	657	633	**96.6** *96.4* *95.6*	**0.91** *0.90* *0.87*	1280	2.0	7.5	2.7	1.6	0.65	2.3	0.45	8.0	80

[1] European and BS frame reference
[2] European frame reference
[3] BS frame reference

For tolerance details and notes - see page 22

Performance data

1500 min^{-1} (4 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size		Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio [1]	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N kW (hp)	n min^{-1}	Type		I_N 380 V A	I_N 400 V A	I_N 415 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	M_N Nm	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$ Y	$\frac{I_A}{I_N}$ Y	$\frac{M_S}{M_N}$ Y	J kgm^2	L_{PA} dB(A)
0.55 (0.75)	1410	**WP-DF80ME**[1]		1.66	1.58	1.58	**75.0** / *75.0* / *70.0*	**0.67** / *0.57* / *0.45*	3.7	2.0	4.2	2.4	1.8	–	–	–	0.0015	47
0.75 (1)	1410	**WP-DF80MG**[1]		1.97	1.88	1.88	**78.0** / *79.0* / *77.0*	**0.74** / *0.65* / *0.50*	5.1	1.8	4.4	2.2	1.6	–	–	–	0.0019	47
1.1 (1.5)	1435	**WP-DF90LRX**[1]		2.55	2.43	2.43	**83.8** / *84.7* / *83.9*	**0.78** / *0.71* / *0.60*	7.3	2.6	6.4	2.9	2.3	–	–	–	0.0034	48
1.5 (2)	1435	**WP-DF90LWX**[1]		3.5	3.3	3.3	**85.0** / *85.6* / *84.7*	**0.77** / *0.69* / *0.57*	10	2.9	7.0	3.1	2.4	–	–	–	0.0042	48
2.2 (3)	1440	**WP-DF100LRF**[1]		4.8	4.5	4.5	**86.4** / *87.1* / *86.2*	**0.81** / *0.75* / *0.64*	14.6	2.8	7.6	3.1	2.6	–	–	–	0.0103	54
3 (4)	1445	**WP-DF100LTF**[1]		6.3	6.0	6.0	**87.4** / *87.8* / *87.8*	**0.82** / *0.77* / *0.68*	19.8	3.1	7.5	3.2	2.8	–	–	–	0.0118	54
4 (5.5)	1445	**WP-DF112MWX**[1]		8.3	7.9	7.9	**88.3** / *89.3* / *90.5*	**0.83** / *0.78* / *0.71*	26.4	2.6	7.3	3.0	2.2	0.70	2.2	0.60	0.015	56
5.5 (7.5)	1450	**WP-DF132STX**[1]		11.1	10.6	10.6	**89.2** / *89.6* / *89.3*	**0.84** / *0.79* / *0.70*	36.2	2.7	7.8	3.0	2.3	0.70	2.2	0.60	0.030	59
7.5 (10)	1460	**WP-DF132MVX**[1]		15.2	14.5	14.5	**90.1** / *90.3* / *89.5*	**0.83** / *0.77* / *0.65*	49.1	2.9	8.1	3.2	2.5	0.70	2.2	0.60	0.033	59
11 (15)	1470	**WP-DF160MJ**[1]		22	21	21	**91.0** / *91.2* / *90.5*	**0.83** / *0.79* / *0.67*	71.5	2.5	7.7	2.9	2.0	0.65	2.3	0.50	0.068	63
15 (20)	1470	**WP-DF160LR**[1]		29.5	28.1	28.1	**91.8** / *92.3* / *91.7*	**0.84** / *0.79* / *0.68*	97.5	2.5	7.7	2.9	2.0	0.65	2.3	0.50	0.084	63
18.5 (25)	1470	**WP-DF180ME**[1]		36	34	34	**92.2** / *92.3* / *91.3*	**0.84** / *0.79* / *0.64*	120	2.8	8.4	3.2	2.2	0.80	2.6	0.65	0.16	62
22 (30)	1470	**WP-DF180LJ**[1]		43	41	41	**92.6** / *92.9* / *92.5*	**0.84** / *0.80* / *0.69*	143	2.5	7.5	2.9	2.0	0.75	2.2	0.60	0.19	62
30 (40)	1470	**WP-UDF200LNX**[2] **WP-DF200LNX**[3]		57	54	52	**93.2** / *93.2* / *92.3*	**0.86** / *0.84* / *0.75*	195	2.3	7.5	3.2	1.9	0.7	2.4	0.55	0.31	65
37 (50)	1470	**WP-UDF225SN**[2] **WP-DF225SN**[3]		70	66	64	**93.6** / *93.6* / *92.5*	**0.86** / *0.84* / *0.75*	240	2.3	7.3	3.2	1.9	0.7	2.3	0.55	0.45	66
45 (60)	1475	**WP-UDF225MN**[2] **WP-DF225MN**[3]		84	80	77	**93.9** / *94.2* / *93.0*	**0.86** / *0.84* / *0.75*	292	2.7	7.7	3.2	1.9	0.75	2.5	0.55	0.65	67
55 (75)	1475	**WP-UDF250MNE**[2] **WP-DF250SN**[3]		103	98	94	**94.2** / *94.6* / *93.5*	**0.86** / *0.84* / *0.75*	357	2.7	7.7	3.2	1.9	0.75	2.5	0.55	0.75	67

[1] European and BS frame reference
[2] European frame reference
[3] BS frame reference

For tolerance details and notes - see page 22

Performance data

1500 min^{-1} (4 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size	Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio (1)	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N kW (hp)	n min^{-1}	Type	I_N 380 V A	I_N 400 V A	I_N 415 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	M_N Nm	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$ Y	$\frac{I_A}{I_N}$ Y	$\frac{M_S}{M_N}$ Y	J kgm^2	L_{PA} dB(A)
75 (100)	1475	**WP-UDF280SNE(2)** **WP-DF250MN(3)**	138	131	126	**94.7** / *94.8* / *93.5*	**0.87** / *0.85* / *0.75*	486	2.4	7.4	2.7	1.9	0.72	2.3	0.54	1.4	69
90 (125)	1475	**WP-UDF280MNE(2)** **WP-DF280SN(3)**	165	157	151	**95.0** / *95.1* / *93.8*	**0.87** / *0.85* / *0.75*	583	2.5	7.4	2.8	2.0	0.75	2.4	0.55	1.6	69
110 (150)	1480	**WP-UDF315SNE(2)** **WP-DF280MN(3)**	201	191	184	**95.6** / *95.5* / *94.0*	**0.87** / *0.85* / *0.77*	710	2.4	7.7	2.6	2.0	0.70	2.5	0.5	3.2	71
132 (175)	1482	**WP-UDF315MNE(2)** **WP-DF315SN(3)**	241	229	220	**95.8** / *95.6* / *94.2*	**0.87** / *0.85* / *0.77*	852	2.4	7.7	2.6	2.0	0.70	2.5	0.5	3.7	71
150 (200)	1485	**WP-UDF315MN(2)** **WP-DF315MN(3)**	270	257	247	**95.9** / *95.7* / *94.7*	**0.88** / *0.86* / *0.78*	965	2.4	7.8	2.7	2.0	0.70	2.5	0.5	4.4	73
160 (215)	1487	**WP-UDF315MP(2)** **WP-DF315MP(3)**	288	274	264	**95.9** / *95.7* / *94.7*	**0.88** / *0.86* / *0.78*	1029	2.4	7.8	2.7	2.0	0.70	2.5	0.5	4.7	73
185 (250)	1487	**WP-UDF315LN(2)** **WP-DF315LN(3)**	333	316	305	**96.0** / *95.8* / *95.0*	**0.88** / *0.86* / *0.78*	1190	2.4	7.8	2.7	2.0	0.70	2.5	0.5	5.5	73
200 (270)	1485	**WP-UDF315LN(2)** **WP-DF315LN(3)**	360	342	329	**96.0** / *95.8* / *95.0*	**0.88** / *0.86* / *0.78*	1286	2.3	7.6	2.6	1.9	0.65	2.4	0.45	5.5	73
225 (300)	1487	**WP-UDF355SG(2)** **WP-DF355SG(3)**	398	379	365	**96.4** / *96.2* / *95.4*	**0.89** / *0.86* / *0.80*	1445	2.1	7.2	2.5	1.7	0.65	2.2	0.5	8.2	76
250 (335)	1487	**WP-UDF355SJ(2)** **WP-DF355SJ(3)**	442	420	405	**96.6** / *96.4* / *95.6*	**0.89** / *0.86* / *0.80*	1605	2.1	7.2	2.5	1.7	0.65	2.2	0.5	9.5	76
280 (375)	1487	**WP-UDF355SN(2)** **WP-DF355SN(3)**	494	470	453	**96.7** / *96.5* / *95.8*	**0.89** / *0.87* / *0.81*	1798	2.1	7.2	2.5	1.7	0.65	2.2	0.5	10.6	76
315 (420)	1487	**WP-UDF355MJ(2)** **WP-DF355MJ(3)**	556	528	509	**96.8** / *96.7* / *96.0*	**0.89** / *0.88* / *0.83*	2023	2.1	7.2	2.5	1.7	0.65	2.2	0.5	11.9	79
355 (475)	1487	**WP-UDF355MN(2)** **WP-DF355MN(3)**	619	588	567	**96.8** / *96.7* / *96.3*	**0.90** / *0.89* / *0.84*	2280	2.1	7.2	2.5	1.7	0.65	2.2	0.5	13.2	79
400 (535)	1487	**WP-UDF355LN(2)** **WP-DF355LN(3)**	697	662	638	**96.9** / *96.8* / *96.5*	**0.90** / *0.89* / *0.84*	2569	2.1	7.2	2.5	1.7	0.65	2.2	0.5	14.6	79

(1) European and BS frame reference
(2) European frame reference
(3) BS frame reference

For tolerance details and notes - see page 22

Performance data

1000 min^{-1} (6 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size	Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio [1]	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N	n	Type	I_N			η	Cos Ø	M_N	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_S}{M_N}$	J	L_{PA}
kW (hp)	min^{-1}		380 V A	400 V A	415 V A	1.0 P_N 0.75 P_N 0.5 P_N	1.0 P_N 0.75 P_N 0.5 P_N	Nm					Y	Y	Y	kgm^2	dB(A)
0.37 (0.5)	920	**WP-DF80MG**[1]	1.33	1.27	1.27	**69.0** / *68.0* / *64.0*	**0.61** / *0.51* / *0.40*	3.8	2.0	3.7	2.2	1.8	-	–	–	0.0015	49
0.55 (0.75)	920	**WP-DF80MM**[1]	1.86	1.77	1.77	**71.0** / *71.0* / *68.0*	**0.63** / *0.54* / *0.41*	5.7	2.0	3.7	2.3	1.8	-	–	–	0.0021	49
0.75 (1)	920	**WP-DF90SG**[1]	2.23	2.12	2.12	**74.0** / *74.0* / *72.0*	**0.69** / *0.59* / *0.45*	7.8	2.2	4.1	2.4	2.0	-	–	–	0.0028	65
1.1 (1.5)	940	**WP-DF90LT**[1]	3.4	3.2	3.2	**78.0** / *77.0* / *75.0*	**0.63** / *0.52* / *0.41*	11.2	2.8	4.5	3.0	2.5	-	–	–	0.0039	65
1.5 (2)	930	**WP-DF100LR**[1]	4.5	4.3	4.3	**79.0** / *79.0* / *77.0*	**0.64** / *0.54* / *0.42*	15.4	2.0	4.2	2.3	2.0	-	–	–	0.009	58
2.2 (3)	950	**WP-DF112MS**[1]	5.8	5.5	5.5	**82.5** / *82.5* / *80.5*	**0.70** / *0.60* / *0.47*	22.1	2.8	5.8	2.8	2.3	-	–	–	0.014	54
3 (4)	965	**WP-DF132SG**[1]	7.5	7.1	7.1	**86.0** / *86.0* / *84.0*	**0.71** / *0.64* / *0.52*	29.8	2.2	6.5	2.7	1.7	0.65	2.1	0.55	0.023	58
4 (5.5)	960	**WP-DF132ML**[1]	9.5	9	9	**86.5** / *86.5* / *86.0*	**0.74** / *0.67* / *0.55*	39.8	2.1	6.2	2.6	1.6	0.60	2.0	0.50	0.027	58
5.5 (7.5)	960	**WP-DF132MM**[1]	12.9	12.3	12.3	**87.0** / *87.0* / *86.5*	**0.74** / *0.67* / *0.54*	54.7	2.0	5.5	2.5	1.6	0.60	2.0	0.50	0.029	58
7.5 (10)	975	**WP-DF160MM**[1]	16.8	16	16	**90.0** / *90.5* / *89.0*	**0.75** / *0.70* / *0.60*	73.4	1.8	6.5	2.8	1.7	0.55	2.1	0.5	0.10	59
11 (15)	975	**WP-DF160LV**[1]	23.8	22.7	22.7	**91.0** / *91.0* / *89.5*	**0.77** / *0.72* / *0.60*	108	2.0	7.5	2.8	1.9	0.60	2.5	0.50	0.12	59
15 (20)	975	**WP-DF180LM**[1]	33	31	31	**91.0** / *91.0* / *89.5*	**0.78** / *0.73* / *0.60*	147	2.4	6.5	2.8	2.2	0.65	2.2	0.60	0.23	59
18.5 (25)	975	**WP-UDF200LGX**[2] **WP-DF200LGX**[3]	39	37	35	**91.2** / *91.2* / *90.0*	**0.80** / *0.76* / *0.67*	181	2.3	7.0	2.0	2.8	0.65	2.3	0.50	0.42	62
22 (30)	975	**WP-UDF200LNX**[2] **WP-DF200LNX**[3]	46	43	42	**91.7** / *91.7* / *90.5*	**0.80** / *0.76* / *0.67*	215	2.3	7.0	2.0	2.8	0.65	2.3	0.50	0.48	62
30 (40)	980	**WP-UDF225MN**[2] **WP-DF225MN**[3]	61	58	56	**92.7** / *92.7* / *91.7*	**0.80** / *0.76* / *0.67*	292	2.7	6.0	2.1	1.8	0.80	2.0	0.45	1.23	63
37 (50)	980	**WP-UDF250MNE**[2] **WP-DF250SN**[3]	74	70	67	**93.2** / *93.2* / *92.0*	**0.82** / *0.78* / *0.69*	361	2.7	6.0	2.1	1.8	0.80	2.0	0.45	1.47	63
45 (60)	985	**WP-UDF280SNE**[2] **WP-DF250MN**[3]	88	84	81	**93.4** / *93.3* / *92.3*	**0.83** / *0.79* / *0.71*	436	2.5	6.0	2.0	1.8	0.75	1.9	0.40	2.55	65

[1] European and BS frame reference
[2] European frame reference
[3] BS frame reference

For tolerance details and notes - see page 22

Performance data

1000 min^{-1} (6 pole)

Rated power | Full load speed in revolutions per minute | Frame reference and size | Full load current at rated voltage | Efficiency | Power factor | Full load torque | Direct on line starting torque ratio | Direct on line starting current ratio | Direct on line pull out torque ratio | Direct on line pull up torque | Star delta starting torque ratio [1] | Star delta starting current ratio | Star delta pull up torque | Rotor inertia WK^2 | Mean sound pressure level @ 1m on no load

P_N kW (hp)	n min^{-1}	Type	I_N 380 V A	I_N 400 V A	I_N 415 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*	M_N Nm	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$ Y	$\frac{I_A}{I_N}$ Y	$\frac{M_S}{M_N}$ Y	J kgm^2	L_{PA} dB(A)
55 (75)	985	**WP-UDF280MNE[2]** **WP-DF280SN[3]**	107	102	98	**93.8** *93.6* *92.6*	**0.83** *0.79* *0.71*	533	2.5	6.1	2.0	1.9	0.75	1.85	0.40	2.9	65
75 (100)	985	**WP-UDF315SNE[2]** **WP-DF280MN[3]**	144	137	132	**94.3** *94.1* *93.0*	**0.84** *0.80* *0.72*	727	3.0	7.0	2.6	2.1	0.90	2.1	0.60	5.0	68
90 (125)	985	**WP-UDF315MNE[2]** **WP-DF315SN[3]**	172	164	158	**94.5** *94.3* *93.4*	**0.84** *0.80* *0.72*	872	3.0	7.0	2.6	2.1	0.90	2.1	0.60	6.0	68
110 (150)	985	**WP-UDF315MN[2]** **WP-DF315MN[3]**	207	197	190	**94.8** *94.7* *93.8*	**0.85** *0.81* *0.73*	1066	2.8	6.7	2.0	1.9	0.80	2.1	0.55	6.1	70
132 (175)	985	**WP-UDF315LN[2]** **WP-DF315LN[3]**	248	236	227	**95.0** *94.9* *94.1*	**0.85** *0.81* *0.73*	1280	2.8	6.7	2.0	1.9	0.80	2.1	0.55	7.3	70
150 (200)	985	**WP-UDF355SG[2]** **WP-DF355SG[3]**	281	267	257	**95.5** *95.4* *94.5*	**0.85** *0.83* *0.76*	1454	1.7	7.0	2.1	1.4	0.50	2.2	0.35	10	74
160 (215)	985	**WP-UDF355SG[2]** **WP-DF355SG[3]**	298	283	273	**95.9** *95.7* *94.9*	**0.85** *0.83* *0.76*	1551	1.7	6.7	2.1	1.4	0.50	2.0	0.35	10	74
185 (250)	985	**WP-UDF355SJ[2]** **WP-DF355SJ[3]**	345	328	316	**95.9** *95.8* *95.1*	**0.85** *0.83* *0.76*	1793	1.7	6.7	2.1	1.4	0.45	2.1	0.35	11.1	74
200 (270)	985	**WP-UDF355SN[2]** **WP-DF355SN[3]**	372	354	341	**96.0** *95.9* *95.2*	**0.85** *0.83* *0.76*	1939	1.7	6.7	2.1	1.4	0.45	2.1	0.35	12.2	74
225 (300)	985	**WP-UDF355MJ[2]** **WP-DF355MJ[3]**	419	398	384	**96.0** *96.0* *95.4*	**0.85** *0.83* *0.76*	2181	1.7	6.7	2.1	1.4	0.45	2.1	0.35	13.6	77
250 (335)	985	**WP-UDF355MN[2]** **WP-DF355MN[3]**	465	442	426	**96.1** *96.1* *95.6*	**0.85** *0.83* *0.76*	2424	1.8	7.0	2.2	1.5	0.48	2.2	0.40	15.2	77
280 (375)	990	**WP-UDF355LJ[2]** **WP-DF355LJ[3]**	520	494	476	**96.2** *96.2* *95.7*	**0.85** *0.83* *0.76*	2701	1.8	7.0	2.2	1.5	0.48	2.2	0.40	16.9	77
315 (420)	990	**WP-UDF355LN[2]** **WP-DF355LN[3]**	585	555	535	**96.3** *96.3* *95.9*	**0.85** *0.83* *0.76*	3038	1.8	7.0	2.1	1.5	0.48	2.1	0.40	18.6	77

[1] European and BS frame reference
[2] European frame reference
[3] BS frame reference

For tolerance details and notes - see page 22

Performance data

750 min^{-1} (8 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size	Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio (1)	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N	n	Type	I_N			η	Cos Ø	M_N	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_S}{M_N}$	J	L_{PA}
kW (hp)	min^{-1}		380 V A	400 V A	415 V A	**1.0 P_N** *0.75 P_N* *0.5 P_N*	**1.0 P_N** *0.75 P_N* *0.5 P_N*	Nm					Y	Y	Y	kgm^2	dB(A)
0.18 (0.25)	695	**WP-DF80MG**(1)	1.01	0.96	0.96	**55.0** *52.0* *44.0*	**0.49** *0.42* *0.34*	2.5	2.2	2.7	2.5	2.0	-	–	–	0.0017	46
0.25 (0.33)	695	**WP-DF80MM**(1)	1.26	1.2	1.2	**59.0** *56.5* *49.0*	**0.51** *0.43* *0.34*	3.5	2.2	2.9	2.5	2.0	-	–	–	0.0021	46
0.37 (0.5)	700	**WP-DF90SG**(1)	1.71	1.63	1.63	**62.0** *59.0* *51.0*	**0.53** *0.44* *0.34*	5.1	2.3	3.0	2.5	2.1	-	–	–	0.0028	50
0.55 (0.75)	680	**WP-DF90LM**(1)	2.4	2.3	2.3	**64.0** *62.0* *55.0*	**0.54** *0.44* *0.33*	7.6	2.3	3.3	2.7	2.1	-	–	–	0.0035	50
0.75 (1)	690	**WP-DF100LR**(1)	2.77	2.64	2.64	**69.5** *68.0* *61.0*	**0.59** *0.49* *0.40*	10.4	1.8	3.2	2.1	1.7	-	–	–	0.009	53
1.1 (1.5)	690	**WP-DF100LS**(1)	3.9	3.7	3.7	**71.5** *70.5* *68.0*	**0.60** *0.51* *0.39*	15.2	1.8	3.2	2.1	1.7	-	–	-	0.0095	53
1.5 (2)	690	**WP-DF112MS**(1)	4.6	4.4	4.4	**74.5** *74.0* *71.0*	***0.66*** *0.56* *0.44*	20.7	1.9	4.0	2.0	1.7	-	-	-	0.015	57
2.2 (3)	720	**WP-DF132SM**(1)	6.2	5.9	5.9	**82.5** *83.0* *80.0*	**0.65** *0.57* *0.45*	29.2	1.6	5.0	2.4	1.5	-	-	-	0.029	57
3 (4)	720	**WP-DF132MR**(1)	8.2	7.8	7.8	**84.0** *84.0* *82.0*	**0.66** *0.58* *0.45*	39.8	1.6	5.0	2.4	1.4	-	-	-	0.031	57
4 (5.5	725	**WP-DF160ME**(1)	10.4	9.9	9.9	**86.0** *86.0* *84.0*	**0.68** *0.64* *0.51*	52.7	1.6	5.5	2.5	1.4	0.5	1.7	0.45	0.09	53
5.5 (7.5)	725	**WP-DF160MM**(1)	13.9	13.2	13.2	**87.0** *87.0* *85.5*	**0.69** *0.65* *0.52*	72.4	1.6	5.7	2.5	1.4	0.5	1.7	0.45	0.11	53
7.5 (10)	725	**WP-DF160LV**(1)	18.2	17.3	17.3	**88.0** *88.0* *86.0*	**0.71** *0.65* *0.52*	98.8	1.6	6.0	2.5	1.4	0.5	1.8	0.45	0.14	53
11 (15)	730	**WP-DF180LM**(1)	27.6	26.3	26.3	**90.0** *90.0* *88.0*	**0.67** *0.59* *0.48*	143.9	2.0	4.5	2.5	1.7	0.63	1.4	0.55	0.24	58
15 (20)	730	**WP-UDF200LNX**(2) **WP-DF200LNX**(3)	35	33	32	**90.0** *90.0* *88.5*	**0.73** *0.66* *0.54*	196	1.8	5.8	2.6	1.6	0.45	1.7	0.35	0.48	60
18.5 (25)	730	**WP-UDF225SN**(2) **WP-DF225SN**(3)	43	40	39	**90.5** *90.5* *89.5*	**0.73** *0.66* *0.54*	242	2.0	5.5	2.25	1.6	0.5	1.6	0.35	0.75	60
22 (30)	730	**WP-UDF225MN**(2) **WP-DF225MN**(3)	50	47	45	**91.5** *91.5* *89.0*	**0.74** *0.66* *0.54*	288	2.0	6.0	2.4	1.6	0.45	1.7	0.35	1.23	62
30 (40)	735	**WP-UDF250MNE**(2) **WP-DF250SN**(3)	67	64	61	**92.0** *92.0* *90.0*	**0.74** *0.67* *0.55*	390	1.7	6.0	2.4	1.6	0.4	1.7	0.35	1.47	62

(1) European and BS frame reference
(2) European frame reference
(3) BS frame reference

For tolerance details and notes - see page 22

Performance data

750 min^{-1} (8 pole)

Rated power	Full load speed in revolutions per minute	Frame reference and size	Full load current at rated voltage			Efficiency	Power factor	Full load torque	Direct on line starting torque ratio	Direct on line starting current ratio	Direct on line pull out torque ratio	Direct on line pull up torque	Star delta starting torque ratio [1]	Star delta starting current ratio	Star delta pull up torque	Rotor inertia WK^2	Mean sound pressure level @ 1m on no load
P_N kW (hp)	n min^{-1}	Type	I_N 380 V A	I_N 400 V A	I_N 415 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*	M_N Nm	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	$\frac{M_S}{M_N}$	$\frac{M_A}{M_N}$ Y	$\frac{I_A}{I_N}$ Y	$\frac{M_S}{M_N}$ Y	J kgm²	L_{PA} dB(A)
37 (50)	735	**WP-UDF280SNE[2]** **WP-DF250MN[3]**	81	77	74	**92.5** *92.5* *91.5*	**0.75** *0.68* *0.56*	481	1.7	6.0	2.4	1.6	0.40	1.7	0.35	2.55	63
45 (60)	735	**WP-UDF280MNE[2]** **WP-DF280SN[3]**	98	93	90	**93.0** *92.8* *91.6*	**0.75** *0.69* *0.57*	585	1.7	6.0	2.4	1.4	0.40	1.7	0.3	2.9	63
55 (75)	740	**WP-UDF315SNE[2]** **WP-DF280MN[3]**	119	113	109	**93.5** *93.3* *92.0*	**0.75** *0.70* *0.58*	710	2.5	6.0	2.0	1.5	0.60	1.7	0.35	5.0	64
75 (100)	740	**WP-UDF315MNE[2]** **WP-DF315SN[3]**	159	151	146	**94.1** *93.9* *92.2*	**0.76** *0.72* *0.60*	968	2.5	6.0	2.0	1.5	0.60	1.7	0.35	6.0	64
90 (125)	740	**WP-UDF315MN[2]** **WP-DF315MN[3]**	188	179	172	**94.4** *94.2* *93.4*	**0.77** *0.73* *0.64*	1161	2.4	6.0	2.0	1.8	0.65	1.7	0.45	6.1	65
110 (150)	740	**WP-UDF315LN[2]** **WP-DF315LN[3]**	227	218	210	**94.6** *94.4* *93.6*	**0.77** *0.73* *0.64*	1419	2.4	6.0	2.0	1.8	0.65	1.7	0.45	7.3	65
132 (175)	740	**WP-UDF355SJ[2]** **WP-DF355SJ[3]**	274	260	251	**95.1** *94.8* *93.6*	**0.77** *0.73* *0.64*	1703	1.6	6.1	2.0	1.3	0.40	1.8	0.3	12.2	72
150 (200)	740	**WP-UDF355SN[2]** **WP-DF355SN[3]**	310	295	284	**95.5** *95.3* *94.0*	**0.77** *0.73* *0.64*	1936	1.6	6.1	2.0	1.3	0.40	1.8	0.3	13.6	72
160 (215)	740	**WP-UDF355SN[2]** **WP-DF355SN[3]**	331	315	303	**95.5** *95.3* *94.0*	**0.77** *0.73* *0.64*	2065	1.6	6.1	2.0	1.3	0.40	1.8	0.3	13.6	72
185 (250)	740	**WP-UDF355MJ[2]** **WP-DF355MJ[3]**	383	364	350	**95.6** *95.4* *94.1*	**0.77** *0.73* *0.64*	2387	1.6	6.1	2.0	1.3	0.40	1.8	0.3	15.2	74
200 (270)	740	**WP-UDF355MN[2]** **WP-DF355MN[3]**	413	393	378	**95.6** *95.4* *94.3*	**0.77** *0.73* *0.64*	2581	1.6	6.1	2.0	1.3	0.40	1.8	0.3	16.9	74
225 (300	740	**WP-UDF355LN[2]** **WP-DF355LN[3]**	464	441	425	**95.6** *95.4* *94.7*	**0.77** *0.73* *0.64*	2903	1.6	6.1	2.0	1.3	0.40	1.8	0.3	18.6	74

[1] European and BS frame reference
[2] European frame reference
[3] BS frame reference

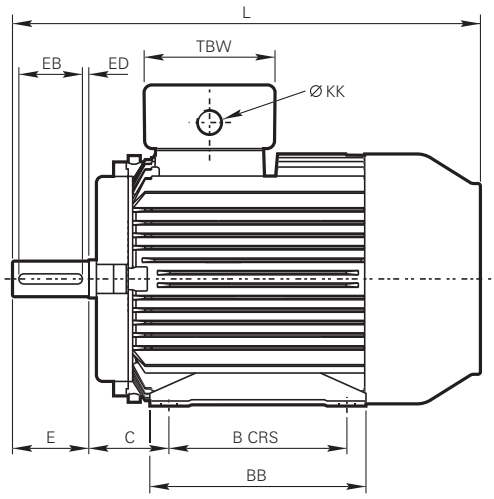
For tolerance details and notes - see page 22

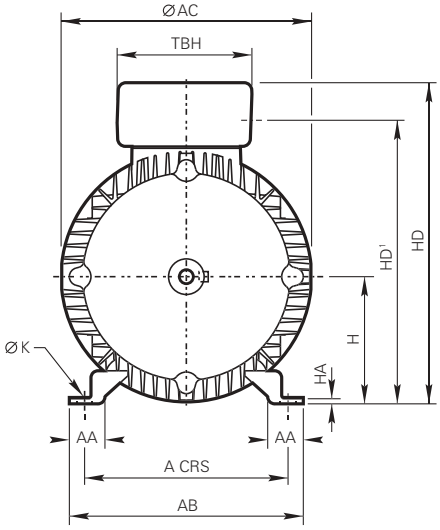
Dimensions- European & BS specifications

Foot, flange and face mounting - frames 80 - 180L

IM B3
IM 1001

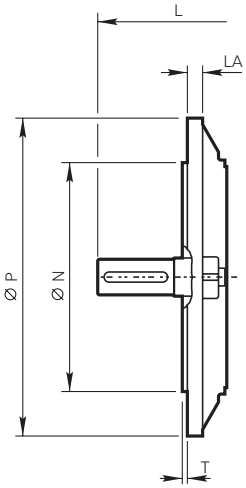
Mounting options

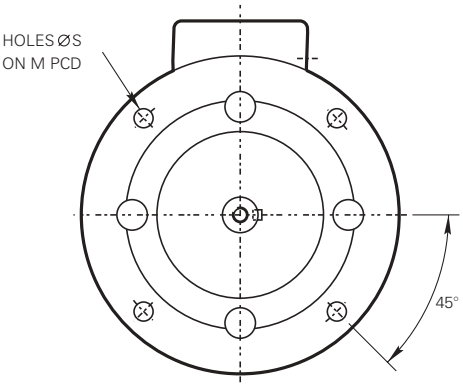




IM B5/IM B35
IM 3001/IM 2001

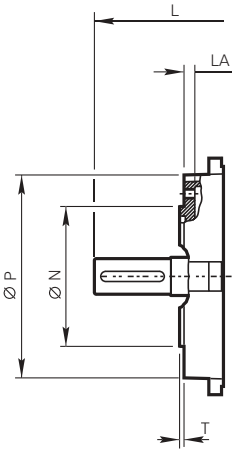
Mounting options

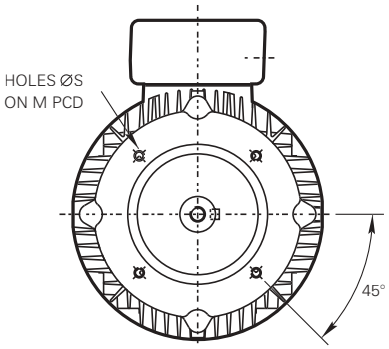




IM B14/IM B34
IM 3601/IM 2101

Mounting options



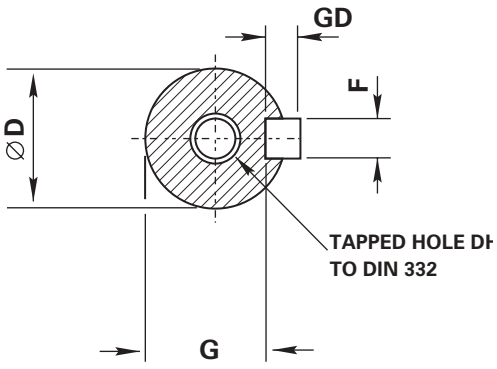


Foot, flange and face mounting - frames 80 - 180L

Type	Poles	General													Terminal box		
		A	B	C	H	K	L	AA	AB	AC	BB	HA	HD	HD1	TBW	TBH	KK
WP-DF80M	All	125	100	50	80	10	278	35	157	158	127	10	236	195	120	120	1 X 20
WP-DF90S	6 up	140	100	56	90	10	322	38	175	175	155	12	-	-	120	120	1 X 20
WP-DF90L	2 & 4	140	125	56	90	10	364	38	175	174	195	12	254	273	120	120	1 X 20
	6 up	140	125	56	90	10	322	38	175	175	155	12	-	-	120	120	1 X 20
WP-DF100L	2 & 4	160	140	63	100	12	409	34	195	214	206	14	283	242	120	120	2 X 20
	6 up	160	140	63	100	12	368	34	195	199	165	14	274	234	120	120	2 X 20
WP-DF112M	2 & 4	190	140	70	112	12	442	45	230	222	242	16	305	257	135	135	2 X 25
	6 up	190	140	70	112	12	382	40	230	220	182	16	305	258.5	135	135	2 X 25
WP-DF132S	2 & 4	216	140	89	132	12	484.5	47	255	256	220	16	348	300	135	135	2 X 25
	6 up	216	140	89	132	12	447	47	255	260	220	17	348	308	135	135	2 X 25
WP-DF132M	2 & 4	216	178	89	132	12	484.5	47	255	256	220	16	348	300	135	135	2 X 25
	6 up	216	178	89	132	12	447	47	255	260	220	17	348	308	135	135	2 X 25
WP-DF160M	All	254	210	108	160	15	604	55	300	315	300	22	428	368	174	174	2 X 32
WP-DF160L	All	254	254	108	160	15	604	55	300	315	300	22	428	368	174	174	2 X 32
WP-DF180M	All	279	241	121	180	15	663	64	344	355	326	22	469	410	174	174	2 X 32
WP-DF180L	All	279	279	121	180	15	663	64	344	355	326	22	469	410	174	174	2 X 32

Type	IM B5 mounting						IM B14 mounting					
	M	N	P	S	T	LA	M	N	P	S	T	LA
WP-DF80M	165	130	200	12	3.5	12	100	80	120	M6	3	9
WP-DF90S/L	165	130	200	12	3.5	12	115	95	140	M8	3	9
WP-DF100L	215	180	250	15	4	12	130	110	160	M8	3.5	12.5
WP-DF112M	215	180	250	15	4	12	130	110	164	M8	3.5	13
WP-DF132S	265	230	300	15	4	12	165	130	200	M10	3.5	14
WP-DF132M	265	230	300	15	4	12	165	130	200	M10	3.5	14
WP-DF160M	300	250	350	19	5	13	215	180	250	M12	4	13
WP-DF160L	300	250	350	19	5	13	215	180	250	M12	4	13
WP-DF180M	300	250	350	19	5	15	-	-	-	-	-	-
WP-DF180L	300	250	350	19	5	15	-	-	-	-	-	-

Type	Shaft							
	D	E	F	G	GD	EB	ED	DH
WP-DF80M	19	40	6	15.5	6	32	4	M6 x 16
WP-DF90S/L	24	50	8	20	7	40	5	M8 x 19
WP-DF100L	28	60	8	24	7	50	5	M10 x 22
WP-DF112M	28	60	8	24	7	50	5	M10 x 22
WP-DF132S	38	80	10	33	8	70	5	M12 x 28
WP-DF132M	38	80	10	33	8	70	5	M12 x 28
WP-DF160M	42	110	12	37	8	100	5	M16 x 36
WP-DF160L	42	110	12	37	8	100	5	M16 x 36
WP-DF180M	48	110	14	42.5	9	100	5	M16 x 36
WP-DF180L	48	110	14	42.5	9	100	5	M16 x 36



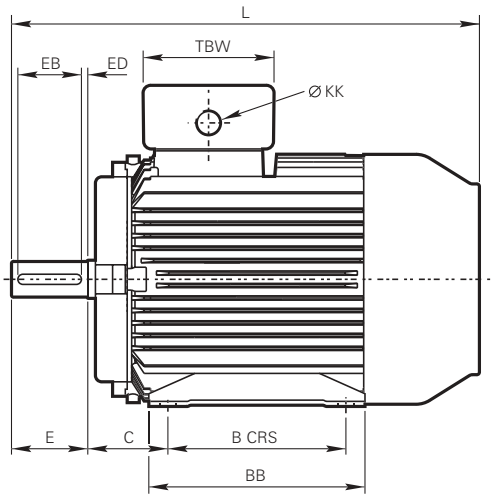
For tolerance details and notes - see page 22

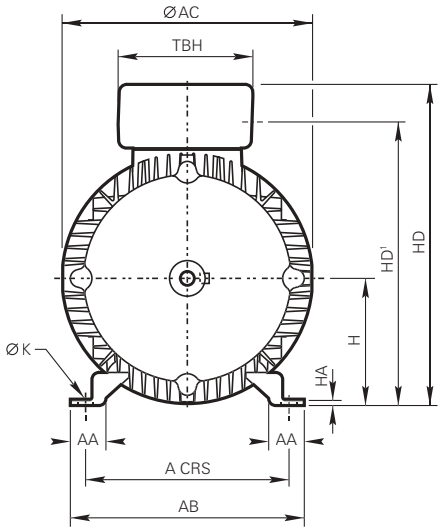
Dimensions - European specification

Foot and flange mounting - frames 200 - 355L

IM B3
IM 1001

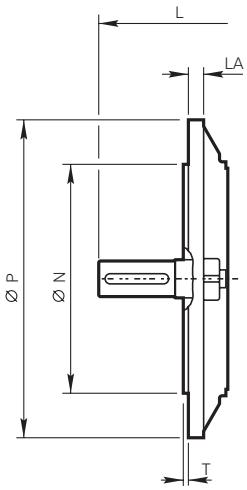
Mounting options

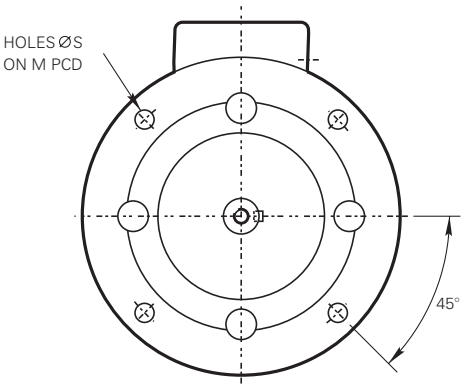




IM B5/IM B35
IM 3001/IM 2001

Mounting options





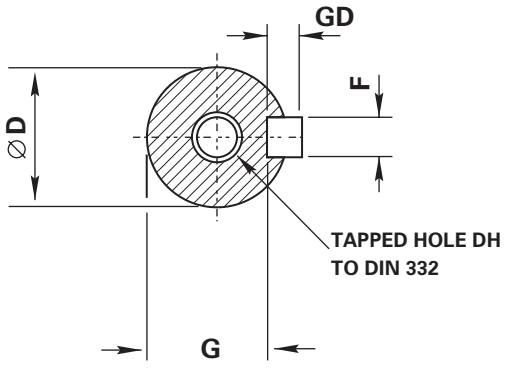
(1) 8 holes at 22.5° for flanges to suit 225 frames and above to European specification
8 holes at 0° for flanges to suit 225 frames and above to British specification

Foot and flange mounting - frames 200 - 355L

Type	General					4 pole +	2 pole								Terminal box	
	A	B	C	H	K	L	L	AA	AB	AC	BB	HA	HD	HD[1]	TBW	TBH	KK
WP-UDF200LX	318	305	133	200	M16	*787*	*787*	74	382	381	359	30	501	444	176	220	2 x M32 + 1 x M20
WP-UDF225S	356	286	149	225	M16	*875*	*845*	70	426	410	349	25	550[1]	488	220	288	2 x M40 + 1 x M20
WP-UDF225M	356	311	149	225	M16	*915*	*885*	70	426	448	374	25	570	510	220	288	2 x M40 + 1 x M20
WP-UDF250ME	406	349	168	250	M20	*985*	*985*	79	482	448	419	28	595[2]	535	220	288	2 x M50 + 1 x M20
WP-UDF280SE	457	368	190	280	M20	*1065*	*1065*	83	540	508	438	35	655[1]	595	220	288	2 x M50 + 1 x M20
WP-UDF280ME	457	419	190	280	M20	*1070*	*1070*	83	540	508	489	35	655[1]	595	220	288	2 x M50 + 1 x M20
WP-UDF315SE	508	406	216	315	M24	*1145*	*1115*	89	597	563	482	38	845	744	330	526	2 x M63 + 1 x M20
WP-UDF315ME	508	457	216	315	M24	*1215*	*1185*	89	597	563	533	38	845	744	330	526	2 x M63 + 1 x M20
WP-UDF315M	508	457	216	315	M24	*1245*	*1215*	89	597	640	533	38	875	776	330	526	2 x M63 + 1 x M20
WP-UDF315L	508	508	216	315	M24	*1315*	*1285*	89	597	640	583	38	875	776	330	526	2 x M63 + 1 x M20
WP-UDF355S	610	500	254	355	M24	*1485*	*1415*	100	710	732	626	27	975	874	330	526	2 x M63 + 1 x M20
WP-UDF355M	610	560	254	355	M24	*1605*	*1535*	100	710	732	686	27	975	874	330	526	2 x M63 + 1 x M20
WP-UDF355L	610	630	254	355	M24	*1655*	*1585*	100	710	732	756	27	975	874	330	526	2 x M63 + 1 x M20

Type	4 pole +								2 pole							
	Shaft D	E	F	G	GD	EB	ED	DH	D	E	F	G	GD	EB	ED	DH
WP-UDF200LX	55	110	16	49	10	100	5	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WP-UDF225S	60	140	18	53	11	125	10	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WP-UDF225M	60	140	18	53	11	125	10	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WP-UDF250ME	65	140	18	58	11	125	10	M20 x 42	60	140	18	53	11	125	10	M20 x 42
WP-UDF280SE	75	140	20	67.5	12	125	10	M20 x 42	65	140	18	53	11	125	10	M20 x 42
WP-UDF280ME	75	140	20	67.5	12	125	10	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-UDF315SE	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-UDF315ME	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-UDF315M	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-UDF315L	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-UDF355S	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50
WP-UDF355M	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50
WP-UDF355L	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50

Type	IM B5, IM B35 mounting					
	M	N	P	S	T	LA
WP-UDF200LX	350	300	400	19	5	19
WP-UDF225S	400	350	450	19	5	19
WP-UDF225M	400	350	450	19	5	19
WP-UDF250ME	500	450	550	19	5	25
WP-UDF280SE	500	450	550	19	5	25
WP-UDF280ME	500	450	550	19	5	25
WP-UDF315SE	600	550	660	24	6	29
WP-UDF315ME	600	550	660	24	6	29
WP-UDF315M	600	550	660	24	6	29
WP-UDF315L	600	550	660	24	6	29
WP-UDF355S	740	680	800	24	6	28
WP-UDF355M	740	680	800	24	6	28
WP-UDF355L	740	680	800	24	6	28



[1] add 25mm when cable entry is facing drive end
[2] add 50mm when cable entry is facing drive end

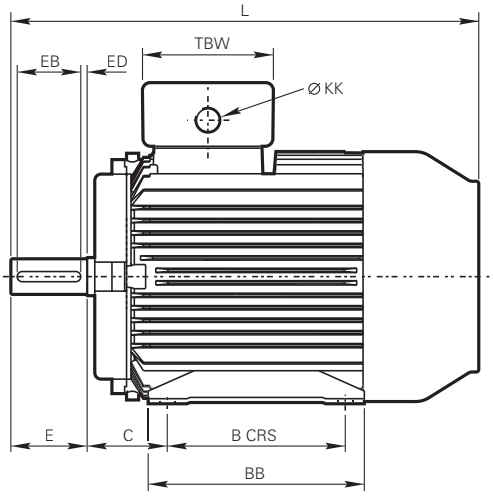
For tolerance details and notes - see page 22

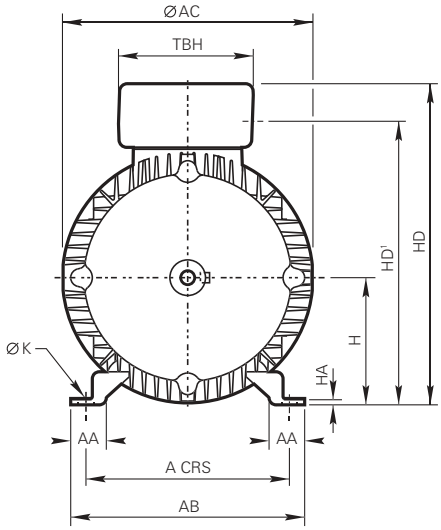
Dimensions - BS specification

Foot and flange mounting - frames 200 - 355L

IM B3
IM 1001

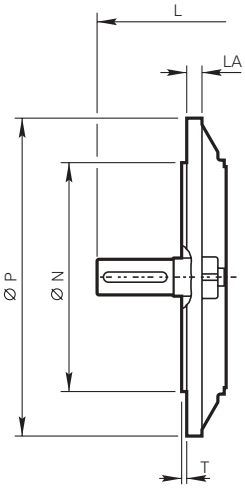
Mounting options

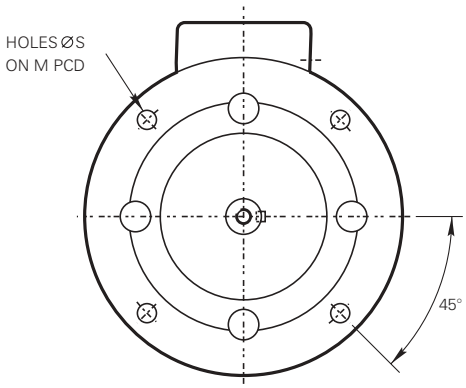




IM B5/IM B35
IM 3001/IM 2001

Mounting options





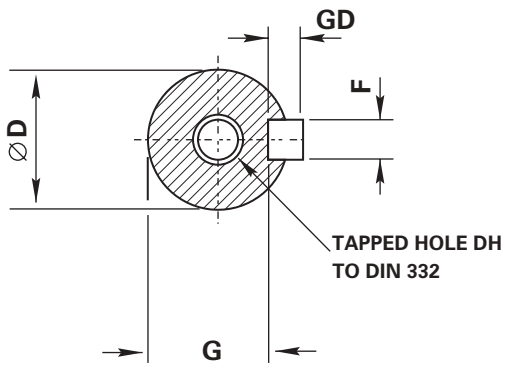
(1) 8 holes at 22.5° for flanges to suit 225 frames and above to European specification
8 holes at 0° for flanges to suit 225 frames and above to British specification

Foot and flange mounting - frames 200 - 355L

Type	General					4 pole +	2 pole						Terminal box	
	A	B	C	H	K	L	L	AA	AB	AC	BB	HA	HD	TBW	TBH
WP-DF200LX	318	305	133	200	M16	*787*	*787*	74	382	381	359	30	501	176	220
WP-DF225S	356	286	149	225	M16	*875*	*845*	70	426	410	349	25	550[1]	220	288
WP-DF225M	356	311	149	225	M16	*915*	*885*	70	426	448	374	25	570	220	288
WP-DF250S	406	311	168	250	M20	*985*	*985*	79	482	448	381	28	595[2]	220	288
WP-DF250M	406	349	168	250	M20	*1030*	*1030*	79	482	508	419	28	625[1]	220	288
WP-DF280S	457	368	190	280	M20	*1100*	*1070*	83	540	508	438	35	655[1]	220	288
WP-DF280M	457	419	190	280	M20	*1145*	*1115*	83	540	563	487	35	810	330	526
WP-DF315S	508	406	216	315	M24	*1215*	*1185*	89	597	563	483	38	845	330	526
WP-DF315M	508	457	216	315	M24	*1245*	*1215*	89	597	640	533	38	875	330	526
WP-DF315L	508	508	216	315	M24	*1315*	*1285*	89	597	640	583	38	875	330	526
WP-DF355S	610	500	254	355	M24	*1485*	*1415*	100	710	732	626	27	970	330	526
WP-DF355M	610	560	254	355	M24	*1605*	*1535*	100	710	732	686	27	970	330	526
WP-DF355L	610	630	254	355	M24	*1655*	*1585*	100	710	732	756	27	970	330	526

Type	4 pole +								2 pole							
	Shaft D	E	F	G	GD	EB	ED	DH	D	E	F	G	GD	EB	ED	DH
WP-DF200LX	55	110	16	49	10	100	5	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WP-DF225S	60	140	18	53	11	125	10	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WP-DF225M	60	140	18	53	11	125	10	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WP-DF250S	70	140	20	62.5	12	125	10	M20 x 42	60	140	18	53	11	125	10	M20 x 42
WP-DF250M	70	140	20	62.5	12	125	10	M20 x 42	60	140	18	53	11	125	10	M20 x 42
WP-DF280S	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-DF280M	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-DF315S	85	170	22	76	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-DF315M	85	170	22	76	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-DF315L	85	170	22	76	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WP-DF355S	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50
WP-DF355M	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50
WP-DF355L	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50

Type	IM B5, IM B35 mounting					
	M	N	P	S	T	LA
WP-DF200LX	350	300	400	19	5	19
WP-DF225S	400	350	450	19	5	19
WP-DF225M	400	350	450	19	5	19
WP-DF250S	500	450	550	19	5	25
WP-DF250M	500	450	550	19	5	25
WP-DF280S	500	450	550	19	5	25
WP-DF280M	500	450	550	19	5	25
WP-DF315S	600	550	660	24	6	29
WP-DF315M	600	550	660	24	6	29
WP-DF315L	600	550	660	24	6	29
WP-DF355S	740	680	800	24	6	28
WP-DF355M	740	680	800	24	6	28
WP-DF355L	740	680	800	24	6	28

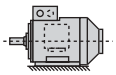


[1] add 25mm when cable entry is facing drive end
[2] add 50mm when cable entry is facing drive end

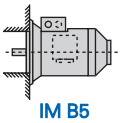
For tolerance details and notes - see page 22

Mounting options

Horizontal shaft:



IM B3
IM 1001
foot mounted

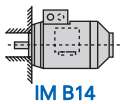


IM B5
IM 3001
flange at DE
no feet

IM B6
IM 1051
foot wall mounted with feet on left-hand side when viewed from DE

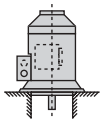
IM B7
IM 1061
foot wall mounted with feet on right-hand side when viewed from DE

IM B8
IM 1071
ceiling mounted with feet above motor

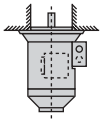


IM B14
IM 3601
face at DE
no feet

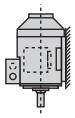
Vertical shaft:



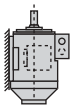
IM V1
IM 3011
flange at DE
shaft down
no feet



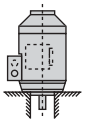
IM V3
IM 3031
flange at DE
shaft up
no feet



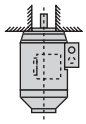
IM V5
IM 1011
vertical foot
wall mounted
shaft down



IM V6
IM 1031
vertical foot
wall mounted
shaft up



IM V18
IM 3611
face at DE
shaft down
no feet



IM V19
IM 3631
face at DE
shaft down
no feet

Approximate shipping specifications

Type		Net weight (kg)	Gross weight (kg)	Cubage (m³)
European	BS			
WP-DF80M	**WP-DF80M**	15	16.5	0.02
WP-DF90S/L	**WP-DF90L**	30.5	31.5	0.02
WP-DF100L	**WP-DF100L**	41.8	44.3	0.04
WP-DF112M	**WP-DF112M**	55.2	58.2	0.06
WP-DF132S	**WP-DF132S**	78.1	81.1*	0.08
WP-DF132M	**WP-DF132M**	82.6	88.6	0.08
WP-DF160M	**WP-DF160M**	121	133	0.15
WP-DF160L	**WP-DF160L**	133	145	0.15
WP-DF180M	**WP-DF180M**	162	178	0.21
WP-DF180L	**WP-DF180L**	177.5	193.5	0.21
WP-UDF200LX	**WP-DF200LX**	255	270	0.30
WP-UDF225S	**WP-DF225S**	320	335	0.37
WP-UDF225M	**WP-DF225M**	375	390	0.37
WP-UDF250ME	**WP-DF250S**	420	460	0.63
WP-UDF280SE	**WP-DF250M**	570	610	0.70
WP-UDF280ME	**WP-DF280S**	660	721	1.2
WP-UDF315SE	**WP-DF280M**	800	871	1.2
WP-UDF315ME	**WP-DF315S**	1000	1095	1.8
WP-UDF315M	**WP-DF315M**	1100	1195	1.8
WP-UDF315L	**WP-DF315L**	1300	1395	1.8
WP-UDF355S	**WP-DF355S**	2000	2120	2.3
WP-UDF355M	**WP-DF355M**	2300	2420	2.3
WP-UDF355L	**WP-DF355L**	2500	2620	2.3

Technical information: Mechanical

Bearings and greasing arrangements

Bearings are pre-packed with a grease type dependant on frame size and re-greasing facility as detailed in table opposite:

Standard and re-greasing facilities

Type	Standard grease	Re-greasing facility
80 - 180	EA6 Polyurea	Available
200 - 355	Esso Unirex N3	Standard

Bearing references and oil seals for horizontally-mounted motors only

Type			Bearings[1]		Oil seals[2]	
European	BS	Polarity	Drive end	Non-drive end	Drive end	Non-drive end
WP-DF80M	**WP-DF80M**	All	62042Z	60032Z	20 x 30 x 7[3]	15 x 24 x 5[3]
WP-DF90S/L	**WP-DF90S/L**	All	62052Z	62032Z	25 x 35 x 7[3]	17 x 28 x 6[3]
WP-DF100L	**WP-DF100L**	All	62062Z	62052Z	30 x 42 x 7[3]	25 x 37 x 7[3]
WP-DF112M	**WP-DF112M**	All	62062Z	62052Z	30 x 42 x 7[3]	25 x 37 x 7[3]
WP-DF132S/M	**WP-DF132S/M**	All	62082Z	63052Z	40 x 52 x 7[3]	25 x 37 x 7[3]
WP-DF160M/L	**WP-DF160M/L**	All	63092Z	63072Z	45 x 60 x 8[3]	35 x 47 x 7[3]
WP-DF180M/L	**WP-DF180M/L**	All	63102Z	63082Z	50 x 65 x 8[3]	40 x 52 x 7[3]
WP-UDF200LX	**WP-DF200LX**	All	6312	6312	60 x 80 x 8[3]	60 x 80 x 8[3]
WP-UDF225S	**WP-DF225S**	All	6313	6313	65 x 90 x 10[4]	65 x 90 x 10[4]
WP-UDF225M	**WP-DF225M**	All	6314	6314	70 x 90 x 10[4]	70 x 90 x 10[4]
WP-UDF250ME	**WP-DF250S**	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]
WP-UDF280SE	**WP-DF250M**	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]
WP-UDF280ME	**WP-DF280S**	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]
WP-UDF315SE	**WP-DF280M**	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]
WP-UDF315ME	**WP-DF315S**	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]
WP-UDF315M	**WP-DF315M**	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]
WP-UDF315L	**WP-DF315L**	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]
WP-UDF355S/M/L	**WP-DF355S/M/L**	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 80 and 90 have bearings with CN clearances, frame sizes 100 to 355 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

Type		3000 min^{-1}		1500 min^{-1}		1000 min^{-1}		750 min^{-1}	
European	BS	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
WP-DF80-112	**WP-DF80-112**	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
WP-DF132	**WP-DF132**	30.0	25.0	30.0	30.0	30.0	30.0	30.0	30.0
WP-DF160	**WP-DF160**	29.0	19.0	30.0	30.0	30.0	30.0	30.0	30.0
WP-DF180	**WP-DF180**	24.0	16.0	30.0	30.0	30.0	30.0	30.0	30.0
WP-UDF200LX	**WP-DF200LX**	12.6	8.2	30.0	20.3	30.0	27.8	30.0	30.0
WP-UDF225S	**WP-DF225S**	12.6	8.2	30.0	20.3	30.0	27.8	30.0	30.0
WP-UDF225M	**WP-DF225M**	11.3	7.4	29.5	19.2	30.0	26.0	30.0	30.0
WP-UDF250ME	**WP-DF250S**	11.3	7.4	26.3	17.1	30.0	23.6	30.0	29.3
WP-UDF280SE	**WP-DF250M**	11.3	7.4	23.4	15.2	30.0	21.3	30.0	27.8
WP-UDF280ME	**WP-DF280S**	11.3	7.4	23.4	15.2	30.0	21.3	30.0	27.8
WP-UDF315SE	**WP-DF280M**	9.4	6.1	21.3	13.8	30.0	20.3	30.0	26.0
WP-UDF315ME	**WP-DF315S**	9.4	6.1	21.3	13.8	30.0	20.3	30.0	26.0
WP-UDF315M	**WP-DF315M**	9.4	6.1	21.3	13.8	30.0	20.3	30.0	26.0
WP-UDF315L	**WP-DF315L**	9.4	6.1	21.3	13.8	30.0	20.3	30.0	26.0
WP-UDF355S/M/L[1]	**WP-DF355S/M/L[1]**	5.0	3.3	8.2	5.3	16.2	10.5	24.5	15.9
WP-UDF355S/M/L[2]	**WP-DF355S/M/L[2]**	9.4	6.1	13.5	8.8	22.5	14.6	30.0	19.5

[1] DE = Drive End
[2] NDE = Non-Drive End

Technical information: Mechanical

Axial and radial loads

Maximum permissible external axial thrust and radial loads in Newtons (N)

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 mounting)
WP-DF80M	2	912	712	746	897	946	697	775
	4	868	668	701	852	901	652	742
	6	754	554	594	734	794	534	648
	8	773	573	613	753	813	553	664
WP-DF90S	6	854	614	660	828	900	588	741
	8	874	634	680	848	920	608	757
WP-DF90L	2	1070	830	870	1041	1110	801	957
	4	1005	765	832	957	1072	717	893
	6	843	603	667	807	907	567	722
	8	870	630	686	839	926	599	749
WP-DF100L	2	1563	1243	1311	1522	1631	1202	1290
	4	1466	1146	1273	1387	1593	1067	1248
	6	1412	1092	1176	1359	1496	1039	1171
	8	1225	905	994	1167	1314	847	1022
WP-DF112M	2	1551	1231	1320	1497	1640	1177	1370
	4	1452	1132	1286	1356	1606	1036	1259
	6	1403	1083	1203	1327	1523	1007	1236
	8	1210	890	1009	1133	1329	813	1072
WP-DF132S	2	2481	2129	2283	2386	2635	2034	2184
	4	2459	2107	2330	2321	2682	1969	2133
	6	2393	2041	2217	2284	2569	1932	2032
	8	1878	1526	1728	1745	2080	1393	1614
WP-DF132M	4	2449	2097	2339	2301	2691	1949	2117
	6	2372	2020	2227	2244	2579	1892	2002
	8	1874	1522	1733	1734	2085	1382	1605
WP-DF160M	2	2168	2663	2932	2002	2437	2202	3650
	4	2153	2648	2959	1960	2464	2160	3785
	6	2022	2517	2905	1777	2410	1977	3626
	8	1509	2004	2389	1250	1894	1450	3316
WP-DF160L	2	2144	2639	2950	1951	2455	2151	3613
	4	2123	2618	2982	1895	2487	2095	3738
	6	1973	2468	2946	1669	2451	1869	3544
	8	1464	1959	2435	1144	1940	1344	3233
WP-DF180M	2	2711	3274	3667	2465	3104	2665	4374
	4	2749	3312	3830	2426	3267	2626	4556
WP-DF180L	6	2575	3138	3785	2166	3222	2366	4334
	8	2266	2829	3469	1850	2906	2050	3979

All figures are based on L10aah life of 20,000 hours
As **EFF**! motors typically run somewhat cooler than standard efficiency motors, the above figures are capable of being increased, subject to the application at specific loadings and life. Please refer to Brook Crompton for further details.

Technical information: Mechanical

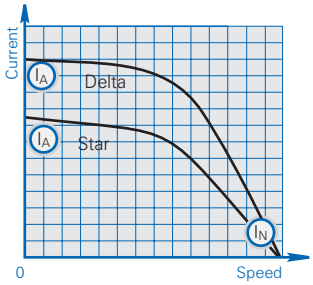
Maximum permissible external axial thrust and radial loads in Newtons (N)

Type			Horizontal shaft		Vertical shaft				Maximum permissible radial load at end of shaft			
					Shaft up		Shaft down		Standard ball bearing		Roller bearing	
European frame	BS frame	Poles	Load towards motor	Load away from motor	Load towards motor	Load away from motor	Load towards motor	Load away from motor	European frame	BS frame	European frame	BS frame
WP-UDF200LX	WP-DF200LX	2	5435	4775	5005	5361	6021	4345	5125	5125	7541	7541
		4	6058	5398	5531	6121	6781	4871	5588	5588	7541	7541
		6	6055	5395	5457	6215	6875	4797	5536	5536	7541	7541
		8	5781	5121	5183	5941	6601	4523	5252	5252	7541	7541
WP-UDF225S	WP-DF225S	4	6692	6122	5941	7177	7747	5371	5963	5963	8202	8202
		6	6770	6200	5935	7371	7941	5365	5982	5982	8202	8202
		8	6441	5871	5606	7042	7612	5036	5648	5648	8202	8202
WP-UDF225M	WP-DF225M	2	6729	6197	6084	7082	7614	6213	6602	6602	8745	8745
		4	7530	6998	6745	8099	8631	6213	6868	6876	8921	8921
		6	7640	7108	6673	8463	8995	6141	6856	6856	8921	8921
		8	7293	6761	6326	8116	8648	5794	6501	6501	8921	8921
WP-UDF250ME	WP-DF250S	2	6640	6108	5837	7209	7741	5305	6262	6262	8921	8921
		4	9012	8418	8030	9794	10388	7436	8163	8163	11342	14166
		6	9391	8797	8311	10311	10905	7717	8477	8477	11342	14166
		8	9007	8413	7927	9927	10521	7333	8087	8087	11342	14166
WP-UDF280SE	WP-DF250M	2	6505	5911	5472	7352	7946	4878	5692	5897	8242	8921
		4	10241	9579	8943	11377	12039	8281	9260	9627	17105	14166
		6	10846	10184	9423	12157	12819	8761	9336	10182	17105	14166
		8	10400	9738	8977	11711	12373	8315	9336	9706	17105	14166
WP-UDF280ME	WP-DF280S	2	6268	5736	5101	7355	7887	4569	5824	5795	9825	9503
		4	9774	9112	8014	11534	12196	7352	9136	8842	17423	17348
		6	10582	9920	8704	12524	13186	8042	9698	9386	17423	17348
		8	10136	9474	8257	12077	12739	7595	9216	8919	17423	17348
WP-UDF315SE	WP-DF280M	2	7443	6849	5921	8957	9551	5327	6804	6804	11342	11342
		4	10305	9965	8299	12719	13059	7959	9443	9443	17414	17414
		6	11190	10850	9050	13810	14150	8710	10042	10042	17414	17414
		8	10797	10457	8657	13417	13757	8317	9630	9630	17414	17414
WP-UDF315ME	WP-DF315S	2	7337	6743	5654	9082	9676	5060	6680	6680	11342	11342
		4	10077	9737	7672	13044	13384	7332	9121	9121	17414	20887
		6	10958	10618	8419	14131	14471	8079	9734	9734	17414	20887
		8	10347	10007	7798	13510	13850	7458	9312	9312	17414	20887
WP-UDF315M	WP-DF315M	2	7398	6804	5664	9154	9748	5070	6885	6885	11342	11342
		4	10192	9852	8006	12862	13202	7666	9482	9482	17414	20748
		6	11060	10720	8715	13971	14311	8375	10066	10066	17414	20748
		8	10667	10327	8322	13578	13918	7982	9640	9640	17414	20748
WP-UDF315L	WP-DF315L	2	7055	6461	5050	9164	9758	4456	6603	6606	11342	11342
		4	10008	9668	7501	13123	13463	7161	9207	9207	17414	20748
		6	10872	10532	8207	14229	14569	7867	9801	9801	17414	20748
		8	10263	9923	7587	13609	13949	7247	9367	9367	17414	20748
WP-UDF355S	WP-DF355S	2	6118	5524	3136	9692	10286	2542	-	-	12627	12627
		4	12994	11454	8799	17389	18929	7259	-	-	27533	27533
		6	14038	12498	9387	19143	20683	7847	-	-	27533	27533
		8	14106	12566	9455	19211	20751	7915	-	-	27533	27533
WP-UDF355M	WP-DF355M	2	5779	5185	2326	10050	10644	1732	-	-	12627	12627
		4	12528	10988	7511	18055	19595	5971	-	-	27533	27533
		6	13148	11608	7523	19533	21073	5983	-	-	27533	27533
		8	13214	11674	7589	19599	21139	6049	-	-	27533	27533
WP-UDF355L	WP-DF355L	2	5595	5001	1734	10396	10990	1140	-	-	12627	12627
		4	12343	10803	7038	18282	19822	5498	-	-	27533	27533
		6	12936	11396	6980	19794	21334	5440	-	-	27533	27533
		8	13002	11462	7046	19860	21400	5506	-	-	27533	27533

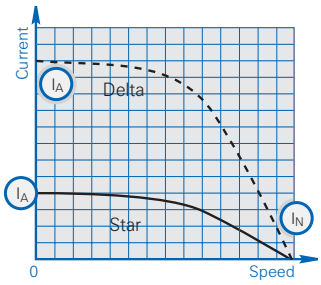
All figures are based on L10aah life of 20,000 hours

Performance data – page notes

Typical speed/current curve

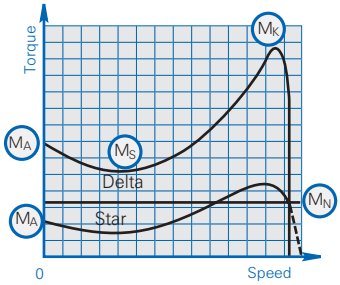


Frames 80-180

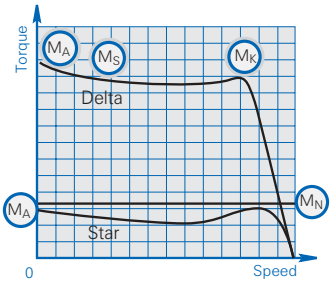


Frames 200-355

Typical speed/torque curve



Frames 80-180



Frames 200-355

(I_A) Starting current
(M_A) Starting torque
(M_S) Pull up torque
(M_K) Pull out torque
Torque/speed curves for specific motors can be supplied on request.

During the run up period in Star, there must be an adequate excess of motor torque over the load torque. The change to Delta must not occur until the motor is near the operating speed. Refer to Brook Crompton for running up against a load in excess of 70% full load during Star Delta starting.

Performance figures are subject to IEC tolerances. Performance figures are based on a 400 volt winding.

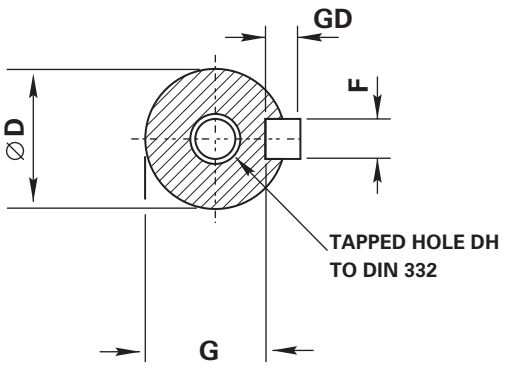
To calculate I_N on special voltages, multiply the I_N at 400 volts by the following factors:

Voltage	220	346	365	420	440	500	550
Factor	1.82	1.16	1.1	0.95	0.91	0.80	0.73

Dimensions – page notes

Flange	**Face**		
		Tolerances to IEC 60072-1 Annex C.I.7 Option 1	
Dim N	**Dim N**	**Tol**	**Limits**
	80	j6	+0.012 –0.007
	95 and 110	j6	+0.013 –0.009
130 and 180	130 and 180	j6	+0.014 –0.011
230 and 250		h6	+0.016 –0.013
300		h6	+0.000 –0.032
350		h6	+0.000 –0.036
450		h6	+0.000 –0.040
550		h6	+0.000 –0.044
680		h6	+0.000 -0.050

Shaft		
	British and European	
Dim D	**Tol**	**Limits**
19 to 28	j6	+0.009 –0.004
32 to 48	k6	+0.018 +0.002
55 to 80	m6	+0.030 +0.011
85 to 110	m6	+0.035 +0.013



All dimensions in millimetres

Drain holes are standard on frames 160-355 and on request for frames 80-132

Please note that 80 frame motors are only available as terminal box right or left.

Cable entry can be arranged in any one of four positions at 90° intervals

No eyebolts on frame sizes 80 (all poles) and 90 (6 and 8 pole)

B5 mounted motors have suffix 'D' in the frame reference, eg WP-DF132MVX-D and B35 mounted motors have suffix 'H' in the frame reference, eg WP-DF132MVX-H

B14 mounted motors have suffix 'C' in the frame reference, eg WP-DF132MVX-C and B3/B14 mounted motors have suffix 'H' in the frame reference, eg WP-DF132MVX-H

Dimensions should not be used for installation purposes unless specially endorsed

Notes

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