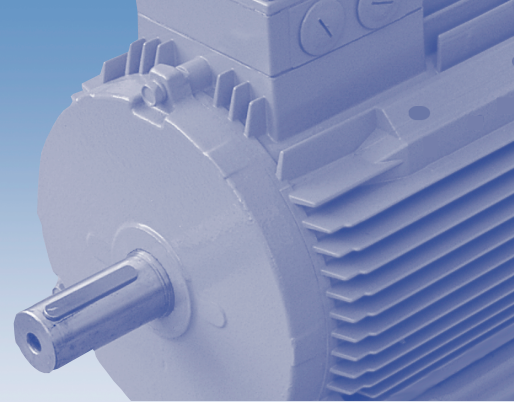


T range motors



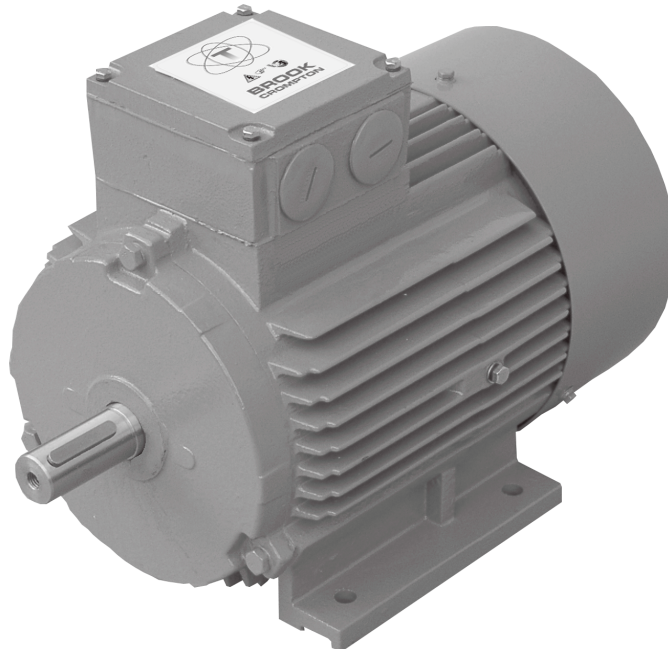
Single and multispeed IEC motors
Frames 63 to 355



BROOK
CROMPTON

T range motors

63 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.

T range motors

A high quality standard range of electric motors with a specification suitable for most industrial applications. It covers products from as little as 0.18kW up to 315kW in frame sizes 63 to 355L.

Benefits include:

- full output range to meet your requirements
- where applicable, efficiencies are within the **EFF2** band and meet MEPS standard efficiency levels.
- robust construction for long life
- mountings: foot, flange, face or combination
- bolt on feet/pads - aluminium range
- eurovoltage: up to 3kW 230/400V; 4kW and above 400/690V
- frequency 50 or 60Hz
- single or multispeed options
- IP55
- metric entries
- metal fan cover
- thermistors fitted as standard on 160 frame and above

Standards and environment

Standards

Standards	
Three phase IEC motors are manufactured to the international standards listed below:	
Performance	IEC 60034-1
Dimensions	IEC 60072-1
Mounting	IEC 60034-7
Enclosure protection	IEC 60034-5
Vibration	IEC 60034-14 (grade N)
Noise	IEC 60034-9

Specification

Specification		
	Standard product	Option
Frame material	63 - 71 aluminium	–
	80 - 200 aluminium	cast iron
	225- 355 cast iron	–
Fan cover	steel, cast iron on 355 frame	cast iron
Enclosure	IP55	–
Voltage	3 kW and below 220 - 240/380 - 415	spot voltage in the range 110 to 500V
	4 kW and above 380 - 415/660 - 720	
	355 frame spot voltage 380V, 400V, 415V	
Frequency	50 Hz	60 Hz
Lubrication	63-132 double-shielded bearings	–
	160- 355 through greasing	–
Insulation	class F	–
Temperature rise	class B (class F on multispeed motors)	class F
Paint colour	water blue (RAL 5021)	–
Drain holes	63 - 71 – none	–
	80- 355 – provided	–
Bearing location	63-280 drive end	drive end or non-drive end
	315-355 non-drive end	on all sizes.
Thermistor protection	160-355	63-132

Environment

Enclosure

All motors are constructed to IP55 enclosure as defined in IEC EN 60034-5.

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 IEC 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.

Inverter duty

Motors are suitable for use on inverter supplies per the requirement of IEC 60034-17. Dependent upon application, some de-rating may be required, contact Brook Crompton with the full details.

Directives

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) aluminium and cast iron



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	Rotor inertia Wk ²
P _N				I _N													
kW	hp	n min ⁻¹	Type	380 V A	400 V A	415 V A	η 1.0 P _N	η 0.75 P _N	η 0.5 P _N	Cos Ø 1.0 P _N	Cos Ø 0.75 P _N	Cos Ø 0.5 P _N	M _N Nm	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	J kgm ²
0.18	0.25	2760	T-DA63MA	0.53	0.51	0.51	63.0	62.0	57.7	0.81	0.76	0.67	0.6	2.5	4.6	3.1	0.0003
0.25	0.33	2750	T-DA63MB	0.70	0.66	0.66	65.5	64.2	60.6	0.83	0.76	0.67	0.9	2.5	4.8	3.1	
0.37	0.5	2825	T-DA71MA	1.0	0.95	0.95	71.2	71.0	66.9	0.79	0.74	0.62	1.3	2.4	4.9	2.9	0.0006
0.55	0.75	2825	T-DA71MB	1.34	1.27	1.27	75.1	73.1	69.0	0.83	0.72	0.60	1.9	3.0	5.6	3.4	0.0007
0.75	1.0	2860	T-DA(DF)80MA	1.81	1.73	1.73	76.4	75.5	70.3	0.82	0.76	0.61	2.5	2.5	5.8	2.8	0.0008
1.1	1.5	2855	T-DA(DF)80MB	2.67	2.54	2.54	77.1	77.4	74.5	0.81	0.78	0.67	3.7	2.2	5.8	2.6	0.0009
1.5	2.0	2855	T-DA(DF)90SA	3.4	3.2	3.2	80.5	80.8	78.0	0.84	0.79	0.67	5.0	2.9	6.4	3.2	0.0012
2.2	3.0	2845	T-DA(DF)90LA	4.8	4.6	4.6	81.2	81.3	79.0	0.85	0.79	0.71	7.4	2.7	6.5	3.1	0.0014
3.0	4.0	2855	T-DA(DF)100LA	6.1	5.8	5.8	82.9	83.0	80.5	0.90	0.85	0.76	10	3.0	6.6	3.5	0.0039
4.0	5.5	2880	T-DA(DF)112MA	8.1	7.7	7.7	84.2	84.7	83.3	0.89	0.86	0.80	13.3	2.4	6.9	3.2	0.0055
5.5	7.5	2885	T-DA(DF)112MB	10.5	10.0	10.0	87.0	87.9	84.1	0.91	0.85	0.79	18.2	2.6	7.2	3.2	0.007
5.5	7.5	2885	T-DA(DF)132SA	10.8	10.3	10.3	85.9	86.0	84.7	0.90	0.86	0.79	18.2	2.8	7.7	3.7	0.0109
7.5	10	2900	T-DA(DF)132SB	15.2	14.5	14.5	87.0	87.6	86.4	0.86	0.83	0.79	24.7	2.4	7.3	3.3	0.013
11	15	2910	T-DA(DF)132M	21.3	20.2	20.2	89.1	89.5	88.7	0.88	0.86	0.80	36.1	2.3	7.5	3.2	0.028
11	15	2926	T-DA(DF)160MA	20.8	19.8	19.8	89.2	89.0	87.0	0.90	0.87	0.81	35.9	2.2	7.4	3.1	0.038
15	20	2930	T-DA(DF)160MB	28.8	27.4	27.4	89.8	90.0	88.7	0.88	0.87	0.81	48.9	2.3	7.1	3.2	0.045
18.5	25	2930	T-DA(DF)160LA	36	34	34	90.3	90.3	89.1	0.87	0.84	0.81	60.3	2.4	7.2	3.2	0.055
22	30	2954	T-DA(DF)180MA	40	38	38	90.5	89.7	87.3	0.93	0.87	0.80	71.1	2.5	7.3	3.3	0.075
30	40	2955	T-DA(DF)200LA	56	53	51	91.4	91.1	89.8	0.89	0.87	0.82	96.9	2.3	6.5	2.7	0.124
37	50	2940	T-DA(DF)200LB	68	64	62	92.0	92.0	90.9	0.90	0.87	0.81	120	2.5	7.0	2.9	0.139
45	60	2953	TU-DF225M	81	77	74	92.5	92.6	91.7	0.91	0.89	0.86	146	2.5	7.0	3.4	0.233
55	75	2965	TU-DF250M	100	95	91	93.0	92.7	91.4	0.90	0.89	0.84	177	2.6	7.6	3.6	0.312
75	100	2970	TU-DF250MB	138	131	126	93.9	93.6	92.2	0.88	0.86	0.80	241	2.1	7.0	3.5	0.412
75	100	2968	TU-DF280S	133	127	122	93.6	93.4	92.3	0.91	0.89	0.85	241	2.2	7.0	3.3	0.597
90	125	2972	TU-DF280MA	159	152	146	94.1	93.8	92.6	0.91	0.91	0.85	289	2.1	6.8	3.3	0.675
110	150	2968	TU-DF280MB	192	183	176	94.4	94.3	93.3	0.92	0.92	0.90	354	2.8	7.1	3.2	0.86
110	150	2974	TU-DF315SA	196	187	179	94.4	94.0	92.5	0.90	0.89	0.82	353	2.4	6.5	2.9	1.18
132	175	2979	TU-DF315MA	232	221	212	94.8	94.3	92.8	0.91	0.89	0.84	423	2.3	6.9	3.1	1.55
160	215	2975	TU-DF315LA	277	264	254	95.0	94.7	93.5	0.92	0.92	0.91	514	2.7	7.6	3.0	1.76
200	270	2975	TU-DF315LB	346	330	317	95.1	94.8	93.4	0.92	0.91	0.88	642	2.7	7.5	3.1	2.02
250	335	2985	TU-DF355M	481	458	440	94.9	94.1	92.1	0.83	0.80	0.72	800	1.8	6.7	2.5	3.56
315	420	2985	TU-DF355L	595	567	544	95.5	95.1	93.6	0.84	0.81	0.73	1008	1.8	6.2	2.7	4.16

Performance data

1500 min⁻¹ (4 pole) aluminium and cast iron



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	Rotor inertia WK ²
				I _N			η			Cos Ø							
P _N		n	Type	380 V A	400 V A	415 V A	1.0 P _N	0.75 P _N	0.5 P _N	Cos Ø 1.0 P _N	Cos Ø 0.75 P _N	Cos Ø 0.5 P _N	M _N Nm	M _A M _N	I _A I _N	M _K M _N	J kgm ²
0.18	0.25	1370	T-DA63MB	0.61	0.58	0.58	62.9	60.1	52.9	0.71	0.61	0.48	1.25	2.2	3.5	2.5	0.0006
0.25	0.33	1375	T-DA71MA	0.8	0.76	0.76	67.5	65.5	60.9	0.70	0.63	0.54	1.74	2.3	4.0	2.5	0.0012
0.37	0.5	1375	T-DA71MB	1.11	1.06	1.06	71.2	69.5	65.2	0.71	0.63	0.53	2.57	2.3	4.0	2.5	0.0016
0.55	0.75	1410	T-DA(DF)80MA	1.5	1.5	1.5	72.6	72.6	69.2	0.73	0.67	0.54	3.7	2.1	4.6	2.5	0.002
0.75	1.0	1400	T-DA(DF)80B	1.98	1.89	1.89	74.3	74.3	69.7	0.77	0.64	0.48	5.1	2.1	4.4	2.5	0.002
1.1	1.5	1390	T-DA(DF)90SA	2.98	2.84	2.84	76.6	79.1	75.4	0.73	0.68	0.50	7.6	2.2	4.8	2.6	0.0021
1.5	2.0	1390	T-DA(DF)90LA	3.6	3.5	3.5	78.9	79.8	77.7	0.79	0.70	0.56	10.3	2.4	4.8	2.6	0.003
2.2	3.0	1415	T-DA(DF)100LA	5.1	4.8	4.8	81.0	82.0	80.8	0.81	0.74	0.61	14.8	2.3	5.5	2.8	0.007
3.0	4.0	1415	T-DA(DF)100LB	6.7	6.4	6.4	82.6	84.2	84.2	0.82	0.75	0.64	20.3	2.4	5.3	3.0	0.007
4.0	5.5	1420	T-DA(DF)112MA	9.0	8.6	8.6	84.2	86.1	85.9	0.80	0.76	0.65	26.9	2.5	6.0	3.1	0.0095
5.5	7.5	1440	T-DA(DF)132SA	11.8	11.3	11.3	85.8	86.8	85.5	0.82	0.77	0.65	36.5	2.4	6.6	3.2	0.0214
7.5	10	1445	T-DA(DF)132MA	14.6	14.6	14.6	87.1	87.4	86.8	0.85	0.79	0.74	49.6	2.4	7.1	3.0	0.0296
11	15	1445	T-DA(DF)132MB	22.7	21.6	21.6	88.4	88.4	86.5	0.83	0.80	0.71	72.7	2.4	7.1	3.1	0.062
11	15	1450	T-DA(DF)160MA	21.1	21.1	21.1	88.4	88.9	87.9	0.85	0.81	0.72	72.4	2.4	6.4	3.1	0.062
15	20	1455	T-DA(DF)160LA	29.6	28.2	28.2	89.4	90.1	88.4	0.86	0.82	0.73	98.4	2.3	7.4	3.0	0.092
18.5	25	1465	T-DA(DF)180MA	37	35	35	90.0	90.0	88.6	0.85	0.80	0.70	121	2.3	7.0	3.1	0.139
22	30	1460	T-DA(DF)180LA	43	41	41	90.5	90.6	89.8	0.86	0.80	0.71	144	2.2	6.8	3.3	0.158
30	40	1470	T-DA(DF)200L	57	54	54	91.4	91.3	90.3	0.88	0.85	0.78	195	2.2	6.5	2.8	0.262
37	50	1477	TU-DF225S	71	67	65	92.0	92.2	91.1	0.86	0.86	0.83	239	2.1	6.5	2.7	0.406
45	60	1477	TU-DF225M	86	82	78	92.5	92.6	91.6	0.86	0.86	0.78	291	2.2	6.8	3.1	0.469
55	75	1470	TU-DF250MA	102	97	93	93.0	93.2	92.7	0.88	0.84	0.78	357	2.3	6.7	3.0	0.66
75	100	1481	TU-DF250MB	141	134	129	93.6	93.4	92.4	0.86	0.83	0.76	484	2.4	6.5	3.1	0.88
75	100	1481	TU-DF280S	136	130	125	93.6	93.7	92.9	0.89	0.87	0.81	484	2.2	6.2	3.0	1.12
90	125	1475	TU-DF280MA	165	157	151	93.9	94.0	93.6	0.88	0.86	0.82	583	2.4	6.5	3.1	1.46
110	150	1485	TU-DF280MB	201	191	183	94.4	94.3	93.7	0.88	0.86	0.84	707	2.4	6.6	2.8	2.68
110	150	1483	TU-DF315S	196	187	179	94.4	94.2	93.0	0.90	0.90	0.88	708	2.0	6.0	3.0	3.11
132	175	1480	TU-DF315M	240	229	219	94.7	94.8	94.1	0.88	0.88	0.84	852	2.1	6.0	3.0	3.29
160	215	1485	TU-DF315LA	282	269	258	95.4	95.4	94.7	0.90	0.89	0.83	1029	2.1	5.8	3.0	3.79
200	270	1487	TU-DF315LB	361	343	330	95.5	95.4	94.5	0.88	0.87	0.79	1285	2.1	6.0	2.7	4.49
250	335	1489	TU-DF355M	443	422	405	95.1	94.7	93.4	0.90	0.89	0.85	1603	2.1	6.5	3.2	5.67
315	420	1485	TU-DF355L	549	523	502	95.5	95.3	94.3	0.91	0.90	0.89	2026	2.0	6.1	3.1	6.66

Performance data

1000 min⁻¹ (6 pole) aluminium and cast iron

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	Rotor inertia WK ²
P _N		n min ⁻¹	Type		I _N			η 1.0 P _N	η 0.75 P _N	η 0.5 P _N	Cos Ø 1.0 P _N	Cos Ø 0.75 P _N	Cos Ø 0.5 P _N					
kW	hp			380 V A	400 V A	415 V A												
0.37	0.5	920	T-DA(DF)80MA	1.23	1.17	1.17	63.4	63.0	54.7	0.72	0.61	0.50	3.8	1.6	3.1	1.9	0.0023	
0.55	0.75	920	T-DA(DF)80MB	1.68	1.6	1.6	69.1	70.1	63.1	0.72	0.62	0.49	5.7	1.8	3.3	2.0	0.0030	
0.75	1.0	925	T-DA(DF)90SA	2.15	2.05	2.05	72.5	72.1	67.8	0.73	0.62	0.49	7.7	2.0	3.8	2.3	0.0029	
1.1	1.5	925	T-DA(DF)90LA	3.2	3.0	3.0	75.3	75.8	74.7	0.70	0.62	0.51	11.4	2.1	3.6	2.5	0.0035	
1.5	2.0	935	T-DA(DF)100LA	4.2	4.0	4.0	77.3	76.9	76.1	0.70	0.60	0.50	15.3	2.3	4.3	2.8	0.0069	
2.2	3.0	935	T-DA(DF)112MA	5.5	5.2	5.2	79.6	81.7	81.6	0.76	0.72	0.62	22.5	2.0	4.5	2.5	0.0138	
3.0	4.0	963	T-DA(DF)132SA	7.3	7.0	7.0	81.4	80.5	77.4	0.76	0.66	0.53	29.7	1.9	5.5	2.9	0.0286	
4.0	5.5	950	T-DA(DF)132MA	9.3	8.9	8.9	83.2	83.7	83.7	0.78	0.71	0.67	40.2	2.2	5.9	3.1	0.036	
5.5	7.5	955	T-DA(DF)132MB	12.6	12.0	12.0	84.6	85.2	84.0	0.78	0.75	0.67	55.0	2.2	6.4	2.8	0.045	
7.5	10	962	T-DA(DF)160MA	17.2	16.3	16.3	86.0	86.4	85.1	0.77	0.72	0.62	74.4	1.9	5.4	2.5	0.088	
11	15	965	T-DA(DF)160LA	24.7	23.5	23.5	87.6	88.5	87.9	0.77	0.73	0.64	109	2.0	5.8	2.3	0.116	
15	20	971	T-DA(DF)180LA	32	30	30	88.8	89.5	88.8	0.81	0.78	0.68	148	2.2	6.1	2.7	0.207	
18.5	25	977	T-DA(DF)200LA	37	35	34	89.6	89.7	88.2	0.84	0.80	0.69	181	2.1	6.2	3.1	0.315	
22	30	975	T-DA(DF)200LB	44	41	40	90.1	90.5	90.2	0.85	0.82	0.76	215	2.1	6.1	2.8	0.36	
30	40	981	TU-DF225M	59	57	54	91.1	91.2	89.8	0.84	0.83	0.77	292	2.0	6.0	2.5	0.547	
37	50	980	TU-DF250M	69	65	63	91.7	91.8	90.8	0.89	0.87	0.82	361	2.1	6.5	2.8	0.834	
45	60	947	TU-DF280S	86	82	79	92.3	92.4	91.6	0.86	0.84	0.80	435	2.4	6.6	3.2	1.39	
55	75	984	TU-DF280MA	102	97	93	92.8	93.3	92.9	0.88	0.87	0.84	534	2.2	6.3	3.0	1.65	
75	100	986	TU-DF280MB	135	129	123	93.5	93.5	92.7	0.90	0.86	0.80	726	2.3	7.0	3.2	3.21	
75	100	984	TU-DF315S	152	145	139	93.5	93.7	92.6	0.80	0.79	0.76	728	2.2	6.1	3.2	4.11	
90	125	989	TU-DF315M	175	167	160	93.9	93.9	92.7	0.83	0.82	0.79	869	2.2	6.1	3.1	4.28	
110	150	987	TU-DF315LA	205	196	188	94.4	94.5	93.5	0.86	0.84	0.78	1064	2.2	6.2	3.1	5.45	
132	175	990	TU-DF315LB	248	236	227	94.9	94.7	94.0	0.85	0.84	0.82	1273	2.2	6.5	3.0	6.12	
160	215	991	TU-DF355MA	290	277	265	94.9	94.7	93.9	0.88	0.84	0.85	1542	1.8	6.5	2.5	8.85	
200	270	990	TU-DF355MB	361	344	330	95.4	95.4	94.4	0.88	0.87	0.81	1929	2.0	6.2	2.4	9.55	
250	335	990	TU-DF355L	439	418	401	96.0	96.0	94.7	0.90	0.87	0.83	2411	1.8	5.8	2.4	10.63	

Performance data

750 min⁻¹ (8 pole) aluminium and cast iron

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	Rotor inertia Wkz
P _N		n min ⁻¹	Type		I _N			η 1.0 P _N	η 0.75 P _N	η 0.5 P _N	Cos Ø 1.0 P _N	Cos Ø 0.75 P _N	Cos Ø 0.5 P _N		M _N Nm	M _A M _N	I _A I _N	M _K M _N		
kW	hp			380 V A	400 V A	415 V A														
0.18	0.25	680	T-DA(DF)80MA	0.75	0.72	0.72	58.6	53.8	44.0	0.62	0.55	0.45	2.53	2.0	3.0	2.3	0.002			
0.25	0.33	695	T-DA(DF)80MB	1.04	0.99	0.99	60.5	54.8	44.3	0.60	0.53	0.45	3.4	2.0	3.1	2.4	0.003			
0.37	0.5	705	T-DA(DF)90SA	1.42	1.35	1.35	64.9	64.7	55.8	0.61	0.52	0.42	5.0	1.9	3.4	2.5	0.004			
0.55	0.75	700	T-DA(DF)90LA	2.08	1.98	1.98	68.0	66.9	59.1	0.59	0.50	0.40	7.5	1.9	3.4	2.4	0.004			
0.75	1.0	690	T-DA(DF)100LA	2.43	2.32	2.32	68.7	67.8	61.9	0.68	0.58	0.45	10.4	1.9	3.5	2.3	0.008			
1.1	1.5	690	T-DA(DF)100LB	3.4	3.2	3.2	70.6	70.6	64.7	0.70	0.63	0.47	15.2	2.0	3.7	2.4	0.010			
1.5	2.0	690	T-DA(DF)112MA	4.4	4.2	4.2	74.7	76.0	73.5	0.69	0.62	0.50	20.8	2.3	4.0	2.6	0.017			
2.2	3.0	695	T-DA(DF)112MB	6.2	5.9	5.7	78.1	80.0	77.0	0.71	0.61	0.49	30	2.1	4.2	2.5	0.017			
2.2	3.0	705	T-DA(DF)132SA	5.8	5.5	5.5	79.6	79.8	77.4	0.72	0.63	0.50	29.8	2.1	4.7	2.6	0.031			
3.0	4.0	710	T-DA(DF)132MA	7.7	7.3	7.3	80.1	81.0	79.1	0.74	0.66	0.52	40.3	2.2	4.6	2.6	0.04			
4.0	5.5	710	T-DA(DF)132MB	9.8	9.3	9.3	82.6	83.8	82.0	0.75	0.67	0.54	53.8	1.8	5.0	2.3	0.04			
4.0	5.5	710	T-DA(DF)160MA	10.0	9.5	9.5	81.7	83.4	83.1	0.74	0.69	0.59	53.8	1.8	4.5	2.3	0.075			
5.5	7.5	715	T-DA(DF)160MB	13.5	12.8	12.8	83.7	84.6	82.9	0.74	0.66	0.54	73.5	2.2	4.9	2.9	0.093			
7.5	10	715	T-DA(DF)160LA	17.7	16.9	16.9	85.5	87.0	86.4	0.75	0.69	0.57	100	2.3	6.0	2.8	0.126			
11	15	716	T-DA(DF)180LA	25.2	24	24	86.9	88.0	87.3	0.76	0.71	0.59	147	2.3	5.6	2.8	0.203			
15	20	727	T-DA(DF)200LA	33	31	30	88.8	89.5	88.6	0.78	0.74	0.64	197	2.2	5.6	2.6	0.339			
18.5	25	729	TU-DF225S	41	39	38	89.2	89.4	88.2	0.76	0.71	0.62	242	2.0	6.1	3.0	0.491			
22	30	727	TU-DF225M	47	45	43	89.7	90.3	89.4	0.79	0.75	0.65	289	2.1	5.8	2.8	0.547			
30	40	735	TU-DF250M	61	58	56	90.8	90.8	89.5	0.82	0.78	0.67	390	2.2	5.7	2.7	0.83			
37	50	736	TU-DF280S	74	70	68	91.5	91.7	91.1	0.83	0.80	0.72	480	2.2	5.6	2.8	1.39			
45	60	734	TU-DF280MA	89	85	82	92.0	92.6	92.4	0.83	0.82	0.73	585	2.1	5.6	2.8	1.65			
55	75	737	TU-DF315S	107	102	98	92.9	92.8	91.8	0.84	0.80	0.73	713	2.0	6.0	3.0	4.79			
75	100	739	TU-DF315M	147	140	134	93.4	93.4	92.4	0.83	0.80	0.74	969	2.1	6.1	2.6	5.58			
90	125	738	TU-DF315LA	173	165	158	93.9	93.8	93.0	0.84	0.79	0.72	1165	2.4	6.4	2.7	6.37			
110	150	738	TU-DF315LB	211	201	193	94.1	94.2	93.6	0.84	0.82	0.75	1423	2.3	6.2	2.8	7.23			
132	175	742	TU-DF355MA	251	239	230	94.8	94.8	93.8	0.84	0.83	0.75	1699	1.7	5.9	2.2	10.55			
160	215	742	TU-DF355MB	299	285	273	95.4	95.6	95.1	0.85	0.84	0.77	2059	1.5	5.3	2.4	11.73			
200	270	745	TU-DF355L	374	356	342	95.4	95.4	94.8	0.85	0.84	0.75	2563	1.4	5.3	3.0	12.86			

Performance data

Multispeed - variable torque

3000/1500 min⁻¹ (2/4 pole) - tapped winding

P _N kW	n min ⁻¹	Type		I _N		Cos Ø 1.0 P _N	M _N Nm	M _A M _N	I _A I _N	M _K M _N	J kgm ²
		Aluminium	Cast Iron	400 V A	η 1.0 P _N						
0.75/0.19	2765/1405	T-DA80MB	T-DF80MB	1.82/0.55	69/66	0.86/0.75	2.6/1.3	1.7/1.2	5.0/5.0	2.0/2.0	0.002
1.1/0.23	2730/1410	T-DA80MC	T-DF80MC	2.6/0.64	69/69	0.88/0.75	3.8/1.6	1.7/1.2	5.0/5.0	2.0/2.2	0.002
1.32/0.3	2760/1415	T-DA90SA	T-DF90SA	3.0/1.21	72/55	0.89/0.65	4.6/2.0	1.7/1.2	5.5/5.5	2.0/2.2	0.002
1.5/0.3	2845/1430	T-DA90LA	T-DF90LA	3.31/0.78	76/75	0.86/0.74	5.0/2.0	2.2/1.7	6.5/6.0	2.7/2.8	0.003
2.2/0.5	2835/1455	T-DA100LA	T-DF100LA	4.57/1.39	78/74	0.89/0.70	7.4/3.3	2.0/1.0	6.0/5.0	2.5/2.5	0.007
3/0.85	2850/1450	T-DA100LB	T-DF100LB	6.24/2.24	78/75	0.89/0.73	10.1/5.6	2.2/1.0	6.5/5.5	2.5/2.0	0.007
4/1	2875/1455	T-DA112MA	T-DF112MA	8.02/2.37	80/79	0.90/0.77	13.3/6.6	1.8/1.0	6.5/5.5	2.6/2.5	0.0095
5.5/1.37	2875/1465	T-DA132SA	T-DF132SA	11.1/3.21	80/80	0.89/0.77	18.3/8.9	1.8/1.0	6.5/5.5	2.6/2.5	0.0214
7.5/1.88	2900/1470	T-DA132MA	T-DF132MA	14.7/4.3	82/82	0.90/0.77	24.7/12.2	2.0/1.0	7.5/5.5	2.8/2.5	0.0296
11/1.5	2910/1480	T-DA160MA	T-DF160MA	21/3.76	84/81	0.90/0.71	36.1/9.7	1.8/1.8	6.5/7.5	2.8/3.0	0.075
16/3.2	2910/1475	T-DA160LA	T-DF160LA	30.5/7.2	83/84	0.91/0.76	52.5/20.7	2.0/1.0	7.5/5.5	2.8/2.5	0.092
19.5/4	2930/1480	T-DA180MA	T-DF180MA	36/8.6	85/84	0.92/0.80	63.5/25.8	1.6/1.2	7.5/6.5	2.8/3.0	0.139
21.8/4.5	2935/1480	T-DA180LA	T-DF180LA	40/9.6	86/85	0.92/0.80	70.9/29	1.6/1.2	7.5/6.5	2.8/3.0	0.158

1500/1000 min⁻¹ (4/6 pole) - Dual wound

0.37/0.11	1400/915	T-DA80MA	T-DF80MA	1.37/0.76	58/38	0.67/0.55	2.5/1.2	1.8/2.2	4.0/3.5	2.6/3.0	0.0023
0.6/0.18	1370/900	T-DA80MB	T-DF80MB	1.75/1.05	63.5/42	0.77/0.59	4.1/2.1	2.0/2.2	4.5/3.5	2.6/3.0	0.0030
0.9/0.27	1410/940	T-DA90SA	T-DF90SA	2.45/1.50	67/45.5	0.79/0.56	6.1/2.7	1.7/1.7	5.0/3.5	2.8/2.8	0.0029
1.23/0.37	1425/935	T-DA90LB	T-DF90LB	3.9/2.05	70/50	0.65/0.52	8.2/3.8	2.0/1.8	5.0/3.5	2.8/2.8	0.004
2/0.6	1425/940	T-DA100LA	T-DF100LA	4.72/2.14	76.5/59.5	0.80/0.68	13.4/6.1	1.5/1.2	5.0/3.5	2.0/2.0	0.007
2.2/0.75	1430/940	T-DA100LB	T-DF100LB	5.43/2.73	76/60	0.77/0.66	14.7/7.6	1.8/1.4	5.5/4.0	2.6/2.3	0.007
2.8/0.9	1450/965	T-DA112MA	T-DF112MA	6.7/3.1	79/66	0.76/0.63	18.4/8.9	1.7/1.5	6.0/4.0	2.8/2.7	0.0095
3.6/1.1	1450/980	T-DA132SA	T-DF132SA	8.22/3.84	81/70	0.78/0.59	23.7/10.7	1.9/1.6	6.5/6.0	2.6/3.0	0.0286
5.2/1.6	1450/980	T-DA132MA	T-DF132MA	11/5.9	82/68	0.83/0.58	34.2/15.6	1.9/1.6	6.5/6.0	2.6/3.0	0.0296
7.2/2.2	1460/975	T-DA160MA	T-DF160MA	16.4/5.57	78/73	0.81/0.77	47.1/21.5	2.0/1.2	7.5/6.0	2.6/2.3	0.088
10/3	1460/975	T-DA160LA	T-DF160LA	20.5/7.1	85/80	0.83/0.76	65.4/29.4	1.6/1.2	6.5/5.5	2.4/1.6	0.116
13/3.9	1470/980	T-DA180MA	T-DF180MA	25.7/10.3	87/79	0.84/0.69	84.5/38.0	1.6/1.2	6.5/6.0	2.4/2.6	0.139
15/4.4	1470/980	T-DA180LA	T-DF180LA	29.5/11.6	87.5/79.5	0.84/0.69	97.4/42.9	1.6/1.2	7.0/6.0	2.4/2.6	0.158
18.5/5.5	1480/985	T-DA200LA	T-DF200LA	37.9/14.2	88/81	0.80/0.69	119/53.3	2.0/1.8	7.5/6.0	3.0/3.0	0.262
27/8	1480/980	-	TU-DF225M	51.5/17.8	89/83	0.85/0.78	174/78	1.8/1.7	6.5/5.5	2.3/2.3	0.469
45/15	1480/985	-	TU-DF250MA	82.5/32	90.5/85.5	0.87/0.79	290/145	1.8/1.8	6.0/6.0	2.3/2.3	0.88
60/18	1485/990	-	TU-DF280MA	109.4/38.2	91/86	0.87/0.79	386/174	2.0/2.2	6.8/6.0	2.3/2.3	1.46
66/20	1485/990	-	TU-DF280MB	118/40.4	91.5/86	0.88/0.83	424/193	1.7/1.7	5.5/5.0	2.0/1.9	2.68
82/25	1490/995	-	TU-DF315S	143/52.1	93/90	0.89/0.77	526/240	2.8/3.0	8.0/8.5	3.0/3.5	3.11
95/29	1490/995	-	TU-DF315M	167.5/65	92/87	0.89/0.74	609/278	1.7/2.5	7.0/6.5	2.5/3.0	3.29
110/33	1490/995	-	TU-DF315LA	193/73.6	92.4/87.5	0.89/0.74	705/317	1.8/3.0	6.5/8.0	2.5/3.0	3.79

Performance data

Multispeed - variable torque

1500/750 min⁻¹ (4/8 pole) - tapped winding

P _N kW	n min ⁻¹	Type		I _N		Cos Ø 1.0 P _N	M _N Nm	M _A M _N	I _A I _N	M _K M _N	J kgm ²
		Aluminium	Cast Iron	400 V A	η 1.0 P _N						
0.55/0.13	1390/630	T-DA80MA	T-DF80MA	1.58/0.73	67/42	0.75/0.61	3.8/2.0	1.8/1.4	5.0/3.5	2.0/2.0	0.002
0.75/0.18	1385/625	T-DA80MC	T-DF80MC	2.0/0.79	68.5/52	0.79/0.63	5.2/2.7	2.0/1.5	5.0/3.5	2.0/1.8	0.003
1.1/0.18	1400/700	T-DA90SA	T-DF90S	2.75/1.34	74/41	0.78/0.47	7.5/2.5	2.0/1.5	5.0/3.5	2.2/2.5	0.004
1.5/0.37	1395/680	T-DA90LA	T-DF90LA	3.87/1.95	70/49	0.80/0.56	10.3/5.2	2.0/1.3	5.5/3.5	2.0/2.0	0.004
2.1/0.4	1420/700	T-DA100LA	T-DF100LA	5.0/2.8	77/46	0.79/0.45	14.1/5.5	2.3/1.8	6.5/4.5	2.7/3.0	0.007
2.2/0.55	1440/700	T-DA100LB	T-DF100LB	5.36/2.37	78/61	0.76/0.55	14.7/7.5	2.2/1.5	6.5/4.5	2.7/2.5	0.007
4/1	1435/715	T-DA112MA	T-DF112MA	8.69/4.45	81/60	0.82/0.54	26.6/13.4	2.2/1.3	6.0/4.0	2.5/2.0	0.015
5.5/1.1	1455/735	T-DA132MA	T-DF132MA	11.3/5.51	84.5/67	0.83/0.43	36.1/14.3	2.0/1.6	7.5/4.5	2.7/3.0	0.062
7.5/1.87	1450/730	T-DA132MA	T-DF132MB	15.5/7.76	84/71	0.83/0.49	49.4/24.5	2.2/1.1	7.5/4.5	2.5/2.5	0.062
10/2.2	1465/740	T-DA160MA	T-DF160MA	20.5/10.3	86/73.5	0.82/0.42	65.2/28.4	2.2/1.3	7.5/4.5	2.5/2.5	0.075
15/3.8	1460/735	T-DA160LA	T-DF160LA	29.4/13.4	86.5/76	0.85/0.54	98.1/49.4	2.2/1.1	6.5/4.0	2.5/2.5	0.116
17/3.7	1470/740	T-DA180MA	T-DF180MA	33.6/19.3	89/69	0.82/0.40	110/47.8	2.0/1.8	7.5/4.5	2.8/2.5	0.139
20/5	1470/740	T-DA180LA	T-DF180LA	39.1/20.1	89/78	0.83/0.46	130/64.5	2.0/1.6	7.5/4.5	2.8/2.5	0.158
27/6	1475/740	T-DA200LA	T-DF200LA	54.8/27.8	90/78	0.79/0.40	175/77.4	2.2/2.0	7.5/5.0	2.8/2.5	0.262
35/7.5	1480/745	-	TU-DF225S	67.3/32.4	90.5/81.5	0.83/0.41	226/96.1	2.2/2.0	7.5/5.0	2.8/2.5	0.406
40/10	1480/745	-	TU-DF225M	75.5/37	91/83	0.84/0.47	258/128	2.5/2.0	8.0/5.5	2.8/2.5	0.469
50/12	1480/745	-	TU-DF250M	94.4/44.1	91/83.5	0.84/0.47	323/154	2.1/1.7	7.0/5.0	2.4/2.4	0.66
60/15	1485/745	-	TU-DF280S	110/50.4	91.5/86	0.86/0.50	386/192	2.1/1.7	6.8/5.0	2.4/2.4	1.12
80/20	1485/745	-	TU-DF280M	144/63.8	92/87	0.87/0.52	514/256	2.1/1.7	6.8/5.0	2.4/2.4	1.46
95/22	1490/745	-	TU-DF315S	171/64.4	92/88	0.87/0.56	609/282	2.0/1.5	7.5/5.5	2.4/2.4	3.11
110/27	1490/745	-	TU-DF315M	203/82	92/88	0.85/0.54	705/346	2.2/1.8	8.5/5.5	2.5/2.5	3.29
125/30	1490/745	-	TU-DF315LA	227/86.3	92.5/88	0.86/0.57	801/385	1.8/1.8	8.0/5.5	2.5/2.5	3.79
140/35	1490/745	-	TU-DF315LB	247/94.6	93/89	0.88/0.60	897/449	2.2/1.8	8.5/5.5	2.5/2.5	4.49

1000/500 min⁻¹ (6/12 pole) - tapped winding

0.55/0.11	935/380	T-DA90SA	T-DF90SA	1.97/0.88	64/36	0.63/0.50	5.6/2.8	1.5/1.2	5.0/2.5	2.5/1.8	0.004
0.75/0.18	935/335	T-DA90LA	T-DF90LA	2.73/1.41	64/33	0.62/0.56	7.7/5.1	1.6/1.0	5.0/2.5	2.5/1.5	0.004
1.1/0.23	955/445	T-DA100LA	T-DF100LA	3.6/1.47	69/46	0.64/0.49	11.0/4.9	1.8/1.2	5.0/2.5	2.5/2.0	0.0069
2.2/0.45	940/460	T-DA112MB	T-DF112MB	5.56/1.59	78/42	0.73/0.37	22.4/6.6	2.0/1.5	5.5/2.5	2.5/2.5	0.0138
2.2/0.55	975/470	T-DA132MA	T-DF132MA	6.36/2.72	78/62	0.64/0.47	21.5/11.2	2.0/1.1	6.5/3.5	2.5/2.0	0.036
4/0.8	950/480	T-DA132MB	T-DF132MB	9.0/4.7	82/50	0.78/0.43	40.2/13.9	1.2/1.1	5.5/3.5	1.8/2.5	0.045
5.5/1.1	905/450	T-DA132MC	T-DF132MC	12.9/6.33	77/57	0.80/0.44	58/23.3	1.6/1.1	5.5/3.0	2.0/2.0	0.05
6.2/1.2	970/490	T-DA160MA	T-DF160MA	13.8/5.9	83/70	0.76/0.42	61/23.4	1.8/1.0	6.5/3.5	2.0/2.0	0.088
8.8/1.5	970/485	T-DA160LA	T-DF160LA	19.67/7.62	84/71	0.77/0.40	86.6/29.5	2.0/1.0	6.5/3.5	2.2/2.0	0.116
12.2/2.1	980/490	T-DA180MA	T-DF180MA	25/10.7	87/71	0.81/0.40	119/41	1.9/1.6	7.0/4.0	2.5/2.5	0.207
15/2.6	985/490	T-DA180LA	T-DF180LA	30.4/12.9	88/73	0.81/0.40	145/51	2.2/2.0	8.0/5.0	3.0/3.0	0.22
18.5/3.7	985/490	T-DA200LA	T-DF200LA	38.9/17.1	88/78	0.78/0.40	179/72	2.5/2.0	8.0/5.0	3.0/3.0	0.315
23/5	985/490	-	TU-DF225S	43.9/14.1	89/84	0.85/0.61	223/97	2.0/1.5	7.0/4.5	2.5/2.0	0.59
27/6	985/490	-	TU-DF225M	51.5/16.9	89/84	0.85/0.61	262/117	2.0/1.5	7.0/4.5	2.5/2.0	0.62
33/7	990/495	-	TU-DF250S	60.2/19.4	91/87	0.87/0.60	318/135	2.2/1.5	8.0/5.5	2.5/2.5	0.95
39/8	990/495	-	TU-DF250M	71.1/22.9	91/87	0.87/0.58	376/154	2.2/1.5	8.0/5.5	2.5/2.5	1.1
48/10	990/500	-	TU-DF280S	87.5/39.5	91/87	0.87/0.42	463/191	2.0/1.5	7.0/5.5	2.0/2.5	1.39
62/12.5	990/500	-	TU-DF280M	112/51.8	92/87	0.87/0.40	598/239	2.2/1.5	7.5/5.5	2.2/2.5	1.7
70/14	990/500	-	TU-DF315S	134/56.6	91/85	0.83/0.42	675/267	1.8/1.2	7.5/5.5	2.2/2.5	5.58
90/18	990/500	-	TU-DF315M	164/65.7	92/86	0.86/0.46	868/344	1.8/1.2	7.5/5.5	2.2/2.5	6.37
110/22	990/500	-	TU-DF315L	201/79.3	92/87	0.86/0.46	1061/420	1.8/1.2	7.5/5.5	2.2/2.5	7.23

Performance data

Multispeed - constant torque

3000/1500 min⁻¹ (2/4 pole) - tapped winding

P _N kW	n min ⁻¹	Type		I _N		Cos Ø 1.0 P _N	M _N Nm	$\frac{M_A}{M_N}$	$\frac{I_A}{I_N}$	$\frac{M_K}{M_N}$	J kgm ²
		Aluminium	Cast Iron	400 V A	η 1.0 P _N						
0.55/0.28	2765/1420	T-DA80MA	T-DF80MA	1.34/0.89	69/64	0.86/0.71	1.9/1.9	1.7/1.5	5.5/5.5	2.1/1.9	0.002
0.75/0.37	2765/1420	T-DA80MB	T-DF80MB	1.75/1.14	71/65	0.87/0.72	2.6/2.5	1.7/1.5	5.5/5.5	2.1/1.9	0.002
1.1/0.55	2845/1430	T-DA90S	T-DF90S	2.49/1.64	74/68	0.86/0.71	3.7/3.7	1.9/1.8	6.0/6.0	2.3/2.2	0.002
1.8/0.9	2845/1430	T-DA90L	T-DF90L	3.98/2.61	75/69	0.87/0.72	6.0/6.0	1.9/1.8	6.0/6.0	2.3/2.2	0.003
2.2/1.1	2850/1450	T-DA100LA	T-DF100LA	4.57/3.07	78/74	0.89/0.70	7.4/7.2	1.8/1.7	6.5/5.5	2.2/2.1	0.007
3/1.5	2850/1450	T-DA100LB	T-DF100LB	6.24/3.95	78/75	0.89/0.73	10.1/9.9	1.8/1.7	6.5/5.5	2.2/2.1	0.007
4/3.3	2880/1450	T-DA112M	T-DF112M	8.02/7.83	80/79	0.90/0.77	13.3/21.7	1.9/1.8	6.5/5.5	2.3/2.2	0.0095
5.5/4.5	2880/1450	T-DA132S	T-DF132S	11.1/10.5	80/80	0.89/0.77	18.2/29.6	1.8/1.7	7.0/6.0	2.2/2.1	0.0214
7.5/6	2880/1450	T-DA132M	T-DF132M	14.7/13.7	82/82	0.90/0.77	24.9/39.5	1.8/1.7	7.0/6.0	2.2/2.1	0.0296
9/7.5	2920/1470	T-DA160MA	T-DF160MA	17.4/16.7	83/82	0.90/0.79	29.4/48.7	1.8/1.8	7.5/6.0	2.2/2.2	0.075
11/9	2920/1470	T-DA160MB	T-DF160MB	21.0/19.6	84/83	0.90/0.80	36/58.5	1.8/1.8	7.5/6.0	2.2/2.2	0.075
15/12	2920/1470	T-DA160L	T-DF160L	28.3/25.5	84/84	0.91/0.81	49.1/77.9	1.8/1.2	7.5/6.5	2.3/2.5	0.092
18.5/15	2935/1480	T-DA180M	T-DF180M	34.1/31.4	85/84	0.92/0.82	60.2/96.8	1.9/1.8	7.5/6.5	2.3/2.2	0.139
22/18.5	2935/1480	T-DA180L	T-DF180L	40.1/38.3	86/85	0.92/0.82	71.6/119	1.9/1.8	7.5/6.5	2.3/2.2	0.158
30/16	2950/1480	T-DA200L	T-DF200L	53.5/32.4	87/86	0.93/0.83	97/103	1.6/1.6	7.5/6.5	2.0/2.0	0.262
37/22	2960/1480	-	TU-DF225S	69.8/45.1	86/87	0.89/0.81	119/187	1.7/1.7	7.5/6.5	2.1/2.1	0.406
45/29	2960/1480	-	TU-DF225M	83.9/58.7	87/87	0.89/0.82	145/187	1.7/1.7	7.5/6.5	2.1/2.1	0.469
50/25	2965/1480	-	TU-DF250S	94.3/51.8	87/86	0.88/0.81	161/161	1.7/1.7	7.5/6.5	2.1/2.1	0.66
55/28	2965/1480	-	TU-DF250M	101/56.7	88/87	0.89/0.82	177/181	1.7/1.7	7.5/6.5	2.1/2.1	0.88
60/30	2975/1480	-	TU-DF280S	108/57.9	89/88	0.90/0.85	193/194	1.6/1.8	7.5/6.5	2.0/2.2	1.12
75/38	2975/1480	-	TU-DF280M	132/72.5	90/89	0.91/0.85	241/245	1.6/1.8	7.5/6.5	2.0/2.2	1.46
90/48	2975/1490	-	TU-DF315S	159/88.5	91/91	0.90/0.86	289/310	1.8/2.0	7.5/6.5	2.2/2.5	3.11
110/55	2975/1490	-	TU-DF315M	194/99.2	91/92	0.90/0.87	353/355	1.8/2.0	7.5/6.5	2.2/2.5	3.29
132/66	2975/1490	-	TU-DF315LA	228/116	92/93	0.91/0.88	424/426	1.8/2.0	7.5/6.5	2.2/2.5	3.79

1500/1000 min⁻¹ (4/6 pole) - Dual wound

0.37/0.25	1420/915	T-DA80MA	T-DF80MA	1.34/1.63	56/41	0.71/0.54	2.5/2.6	1.6/1.8	4.5/3.5	2.0/2.2	0.0023
0.5/0.33	1420/915	T-DA80MB	T-DF80MB	1.55/1.96	62/45	0.75/0.54	3.4/3.4	1.6/1.8	4.5/3.5	2.0/2.2	0.003
0.6/0.4	1430/935	T-DA90S	T-DF90S	1.67/1.7	65/53	0.80/0.64	4.0/4.1	1.6/1.8	5.0/4.0	2.0/2.2	0.0029
0.75/0.5	1430/935	T-DA90L	T-DF90L	1.99/2.13	68/53	0.80/0.64	5.0/5.1	1.6/1.8	5.0/4.0	2.0/2.2	0.0035
1.1/0.75	1435/960	T-DA100LA	T-DF100LA	2.58/2.7	76/59	0.81/0.68	7.3/7.5	1.5/1.6	5.0/4.0	1.8/2.0	0.007
1.5/1	1435/960	T-DA100LB	T-DF100LB	3.34/3.23	78/62	0.83/0.72	10.0/9.9	1.5/1.6	5.0/4.0	1.8/2.0	0.007
2.2/1.5	1450/965	T-DA112M	T-DF112M	5.15/5.05	79/64	0.78/0.67	14.5/14.8	1.5/1.8	6.5/5.0	1.8/2.2	0.0095
3/2	1460/980	T-DA132S	T-DF132S	6.85/7.3	81/67	0.78/0.59	19.6/19.5	1.6/1.8	7.0/6.0	2.0/2.2	0.036
4/2.7	1460/980	T-DA132M	T-DF132M	8.80/9.57	82/69	0.80/0.59	26.2/26.3	1.6/1.8	7.0/6.0	2.0/2.2	0.045
5.5/4	1465/975	T-DA160M	T-DF160M	11.8/10.4	84/75	0.80/0.74	35.9/39.2	1.6/1.8	7.0/6.0	2.0/2.2	0.088
9/6	1465/975	T-DA160L	T-DF160L	18.4/14.2	85/80	0.83/0.76	58.7/58.8	1.6/1.8	7.0/6.0	2.0/2.2	0.116
11/7	1470/980	T-DA180M	T-DF180M	21.7/17.7	87/78	0.84/0.73	71.5/68.2	1.7/1.9	7.0/6.0	2.1/2.3	0.139
13.5/9	1470/980	T-DA180L	T-DF180L	26.7/22.2	87/79	0.84/0.74	87.7/87.7	1.7/1.9	7.0/6.0	2.1/2.3	0.158
17/12	1480/985	T-DA200L	T-DF200L	34/30.1	88/81	0.82/0.71	110/116	1.8/2.0	7.0/6.5	2.2/2.4	0.262
21/14	1485/985	-	TU-DF225S	40.1/32	89/83	0.85/0.76	135/136	1.8/1.8	7.0/6.0	2.2/2.3	0.406
25/17	1485/985	-	TU-DF225M	47.1/37.9	89/83	0.86/0.78	161/165	1.8/1.8	7.0/6.0	2.2/2.3	0.469
30/20	1480/985	-	TU-DF250S	55.3/43	90/86	0.87/0.78	194/194	1.8/1.8	7.0/6.0	2.1/2.1	0.66
40/27	1480/985	-	TU-DF250M	72.9/57.4	91/87	0.87/0.78	258/262	1.8/2.0	7.0/6.0	2.2/2.3	0.88
50/33	1485/990	-	TU-DF280S	89.1/67.7	92/88	0.88/0.80	322/318	1.8/2.0	7.0/6.0	2.2/2.4	1.46
60/40	1485/990	-	TU-DF280M	106/79	92/88	0.89/0.83	386/386	1.8/1.8	7.0/6.0	2.1/2.1	2.68
70/47	1490/995	-	TU-DF315S	122/96.6	93/90	0.89/0.78	449/451	1.8/2.0	7.0/6.5	2.2/2.5	3.11
82/55	1490/995	-	TU-DF315M	143/116	93/90	0.89/0.76	526/528	1.8/2.0	7.0/6.5	2.2/2.5	3.29
105/70	1490/995	-	TU-DF315L	183/148	93/90	0.89/0.76	673/672	1.8/2.0	7.0/6.5	2.2/2.5	3.79

Performance data

Multispeed - constant torque

1500/750 min⁻¹ (4/8 pole) - tapped winding

P _N kW	n min ⁻¹	Type		I _N		Cos Ø 1.0 P _N	M _N Nm	M _A M _N	I _A I _N	M _K M _N	J kgm ²
		Aluminium	Cast Iron	400 V A	η 1.0 P _N						
0.35/0.18	1430/710	T-DA80MA	T-DF80MA	1.08/0.99	65/46	0.72/0.57	2.3/2.4	1.5/1.6	5.0/3.5	1.8/2.0	0.002
0.45/0.22	1430/710	T-DA80MB	T-DF80MB	1.31/1.19	66/47	0.75/0.57	3.0/3.0	1.5/1.6	5.0/3.5	1.8/2.0	0.003
0.55/0.28	1420/720	T-DA90S	T-DF90S	1.45/1.80	70/45	0.78/0.50	3.7/3.7	1.5/1.6	5.0/3.5	1.8/2.0	0.004
0.75/0.37	1420/720	T-DA90L	T-DF90L	1.93/2.37	71/45	0.79/0.50	5.0/4.9	1.5/1.6	5.0/3.5	1.8/2.0	0.004
1.1/0.55	1430/720	T-DA100LA	T-DF100LA	2.58/3.53	79/50	0.78/0.45	7.3/7.3	1.6/1.8	6.0/4.0	2.0/2.2	0.007
1.5/0.75	1430/720	T-DA100LB	T-DF100LB	3.43/4.81	80/50	0.79/0.45	10.0/9.9	1.6/1.8	6.0/4.0	2.0/2.2	0.007
2.2/1.2	1445/730	T-DA112M	T-DF112M	4.67/6.75	83/57	0.82/0.45	14.5/15.7	1.6/1.8	6.5/4.5	2.0/2.2	0.017
3.7/2	1445/735	T-DA132S	T-DF132S	7.66/10.3	84/61	0.83/0.46	24.5/26.0	1.8/1.6	6.5/4.5	2.0/1.9	0.0214
5/2.7	1450/730	T-DA132M	T-DF132M	10.4/13.2	84/64	0.83/0.46	32.9/35.3	1.8/1.6	6.5/4.5	2.0/1.9	0.0296
8/5	1470/740	T-DA160M	T-DF160M	16.2/21.7	87/74	0.82/0.45	52.0/64.5	1.8/1.6	6.5/4.5	2.0/1.9	0.075
11/6.5	1470/740	T-DA160L	T-DF160L	21.2/26.3	88/76	0.85/0.47	71.5/83.9	1.8/1.6	6.5/4.5	2.0/1.9	0.092
13/8	1470/740	T-DA180M	T-DF180M	25.7/37.3	89/72	0.82/0.43	84.4/103	2.0/1.9	7.0/5.0	2.5/2.2	0.139
16/10	1470/740	T-DA180L	T-DF180L	31.3/41.8	89/75	0.83/0.46	104/129	2.0/1.9	7.0/5.0	2.5/2.2	0.158
20/13	1475/740	T-DA200L	T-DF200L	39.1/57.4	90/76	0.82/0.43	129/168	2.2/2.0	7.0/5.0	2.5/2.2	0.262
25/17	1480/745	-	T-UDF225S	48.3/73.2	90/78	0.83/0.43	161/218	2.2/2.0	7.0/5.0	2.5/2.2	0.406
30/20	1480/745	-	T-UDF225M	56.6/76.8	91/80	0.84/0.47	194/256	2.2/2.0	7.5/5.5	2.5/2.2	0.469
37/18.5	1480/745	-	T-UDF250S	69.1/68.5	92/83	0.84/0.47	239/237	2.0/1.9	7.5/5.5	2.5/2.2	0.66
45/22.5	1480/745	-	T-UDF250M	83.1/83.3	92/83	0.85/0.47	290/288	2.0/1.9	7.5/5.5	2.5/2.2	0.88
55/27.5	1485/745	-	T-UDF280S	99.2/92.3	92/86	0.87/0.50	354/352	2.0/1.9	7.0/5.0	2.5/2.2	1.65
75/37.5	1485/745	-	T-UDF280M	132/120	93/87	0.88/0.52	482/481	2.0/1.9	7.0/5.0	2.5/2.2	3.21
90/45	1490/745	-	T-UDF315S	161/130	93/89	0.87/0.56	577/577	2.0/1.8	7.5/6.0	2.4/2.1	4.28
110/55	1490/745	-	T-UDF315M	199/165	93/89	0.86/0.54	705/705	2.0/1.8	7.5/6.0	2.4/2.1	5.45
132/66	1490/745	-	T-UDF315L	233/186	94/90	0.87/0.57	846/846	2.0/1.8	7.5/6.0	2.4/2.1	6.12

1000/500 min⁻¹ (6/12 pole) - tapped winding

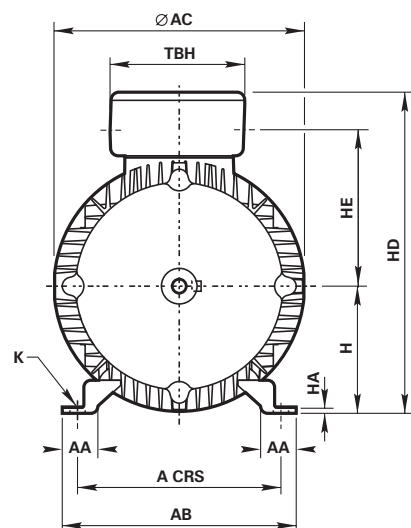
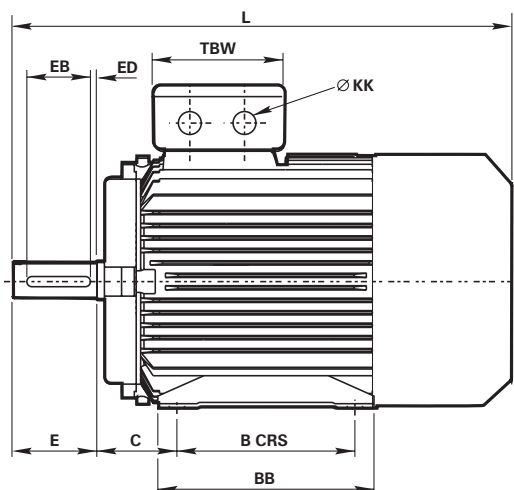
0.45/0.23	950/440	T-DA100LA	T-DF100LA	1.47/1.47	69/46	0.64/0.49	4.5/5.0	1.8/1.2	6.0/3.5	2.2/1.8	0.0069
0.55/0.28	950/440	T-DA100LB	T-DF100LB	1.80/1.79	69/46	0.64/0.49	5.5/6.1	1.8/1.2	6.0/3.5	2.2/1.8	0.010
0.9/0.45	955/460	T-DA112M	T-DF112M	2.87/2.47	73/56	0.62/0.47	9.0/9.3	1.8/1.2	6.0/3.5	2.2/1.8	0.0138
1.8/0.9	965/475	T-DA132S	T-DF132S	5.20/4.46	78/62	0.64/0.47	17.8/18.1	1.8/1.2	6.5/4.0	2.2/1.8	0.0286
2.2/1.1	965/475	T-DA132M	T-DF132M	6.36/5.45	78/62	0.64/0.47	21.8/22.1	1.8/1.2	6.5/4.0	2.2/1.8	0.036
3.7/1.85	970/485	T-DA160M	T-DF160M	8.47/9.08	83/70	0.76/0.42	36.4/36.4	1.8/1.2	7.0/4.0	2.2/1.8	0.088
5/2.5	970/485	T-DA160L	T-DF160L	11.3/11.8	84/71	0.76/0.43	49.2/49.2	1.8/1.2	7.0/4.0	2.2/1.8	0.116
6/3	980/485	T-DA180M	T-DF180M	12.9/12.4	85/76	0.79/0.46	58.5/59.1	1.9/1.6	7.0/4.5	2.3/2.0	0.182
7/3.7	980/485	T-DA180L	T-DF180L	15.0/15.3	85/76	0.79/0.46	68.2/72.9	1.9/1.6	7.0/4.5	2.3/2.0	0.207
10/5.5	985/490	T-DA200L	T-DF200L	20.0/18.6	86/79	0.84/0.54	96.9/107	2.0/1.6	7.0/4.5	2.5/2.2	0.360
15/7.5	985/490	-	T-UDF225S	29.3/21.4	87/83	0.85/0.61	145/146	2.0/1.5	7.0/4.5	2.5/2.0	0.491
18.5/10	985/490	-	T-UDF225M	36.1/28.5	87/83	0.85/0.61	179/195	2.0/1.5	7.0/4.5	2.5/2.0	0.547
22/11	990/495	-	T-UDF250S	41.0/30.3	89/86	0.87/0.61	212/212	2.2/1.5	7.5/5.0	2.5/2.0	0.790
30/15	990/495	-	T-UDF250M	55.9/41.3	89/86	0.87/0.61	289/289	2.2/1.5	7.5/5.0	2.5/2.0	0.834
37/18.5	990/495	-	T-UDF280S	69.0/49.5	89/87	0.87/0.62	356/356	2.0/1.5	7.5/5.5	2.5/2.0	1.39
45/22.5	990/495	-	T-UDF280M	83.0/60.2	90/87	0.87/0.62	434/434	2.0/1.5	7.5/5.5	2.5/2.0	1.65
55/27.5	990/495	-	T-UDF315S	101/75.3	91/85	0.86/0.62	531/531	1.8/1.5	7.5/5.5	2.2/2.0	4.11
70/35	990/495	-	T-UDF315M	128/93.2	92/86	0.86/0.63	675/675	1.8/1.5	7.5/5.5	2.2/2.0	4.28
84/42	990/495	-	T-UDF315L	153/111	92/87	0.86/0.63	810/810	1.8/1.5	7.5/5.5	2.2/2.0	5.45

Dimensions

Foot, flange and face mounting frame sizes 63 to 200 - aluminium

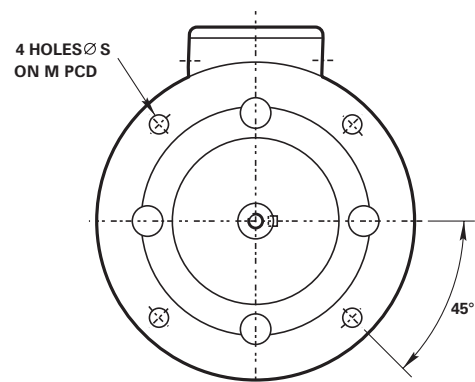
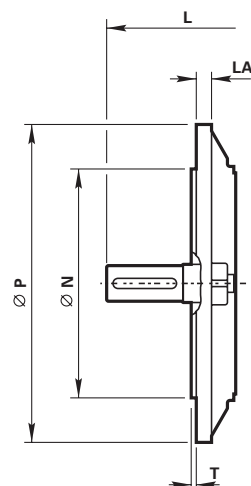
IM B3
IM 1001

Mounting options



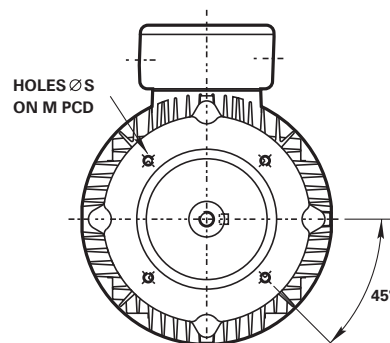
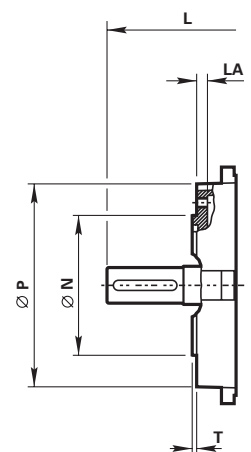
IM B5/IM B35
IM 3001/IM 2001

Mounting options



IM B14/IM B34
IM 3601/IM 2101

Mounting options

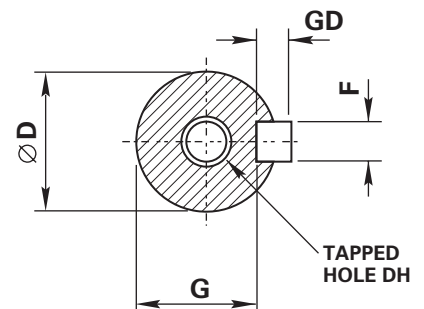


Foot, flange and face mounting frame sizes 63 to 200 - aluminium

Type	General													Terminal box		
	A	B	C	H	K	L	AA	AB	AC	BB	HA	HD	HE	TBH	TBW	KK
T-DA63	100	80	40	63	10 x7.3	230	23	130	145	110	6	173	54.5	74	74	1 x M25 + 1 x M16
T-DA71	112	90	45	71	10 x7.3	260	26	140	150	108	8	190	63.5	74	74	1 x M25 + 1 x M16
T-DA80	125	100	50	80	13 x10	293	35	160	175	130	10	213	97	100	105	2 x M25
T-DA90S	140	100	56	90	13 x 10	348	32.5	180	190	165	11	230	105	105	105	2 x M25
T-DA90L	140	125	56	90	13 x10	348	32.5	180	190	165	11	230	105	105	105	2 x M25
T-DA100L	160	140	63	100	15 x12	385	40	200	210	180	12	270	125	122	122	2 x M32
T-DA112M	190	140	70	112	15 x12	410	42	230	236	180	13	292	140	122	122	2 x M32
T-DA132S	216	140	89	132	15 x12	515	50	260	275	230	15	327	157	122	122	2 x M32
T-DA132M	216	178	89	132	15 x12	515	50	260	275	230	15	327	157	122	122	2 x M32
T-DA160M	254	210	108	160	18 x15	655	54	308	335	260	20	410	199	205	170	2 x M40
T-DA160L	254	254	108	160	18 x15	655	54	308	335	304	20	410	199	205	170	2 x M40
T-DA180M	279	241	121	180	18 x15	710	61	340	380	301	25	455	222	205	170	2 x M40
T-DA180L	279	279	121	180	18 x15	710	61	340	380	339	25	455	222	205	170	2 x M40
T-DA200L	318	305	133	200	25 x19	783	75	380	415	385	28	500	250	205	170	2 x M40

Type	IM B5 mounting						IM B14 mounting					
	M	N	P	S	T	LA	Type	M	N	P	S	T
T-DA63	115	95	140	10	3	9.5	B14A	75	60	90	M5	2.5
							B14B	100	80	118	M6	2.5
T-DA71	130	110	160	10	3.5	10	B14A	85	70	105	M6	2.5
							B14B	115	95	140	M8	3.0
T-DA80	165	130	200	12	3.5	10	B14A	100	80	120	M6	3.0
							B14B	130	110	160	M8	3.5
T-DA90	165	130	200	12	3.5	12	B14A	115	95	140	M8	3.0
							B14B	130	110	160	M8	3.5
T-DA100L	215	180	250	15	4.0	12	B14A	130	110	160	M8	3.5
							B14B	165	130	200	M10	3.5
T-DA112	215	180	250	15	4.0	13	B14A	130	110	160	M8	3.5
							B14B	165	130	200	M10	3.5
T-DA132	265	230	300	15	4.0	13	B14A	165	130	200	M10	3.5
T-DA160	300	250	350	18.5	5.0	15	B14A	215	180	250	M12	4
T-DA180	300	250	350	18.5	5.0	18	—	—	—	—	—	—
T-DA200L	350	300	400	18.5	5.0	20	—	—	—	—	—	—

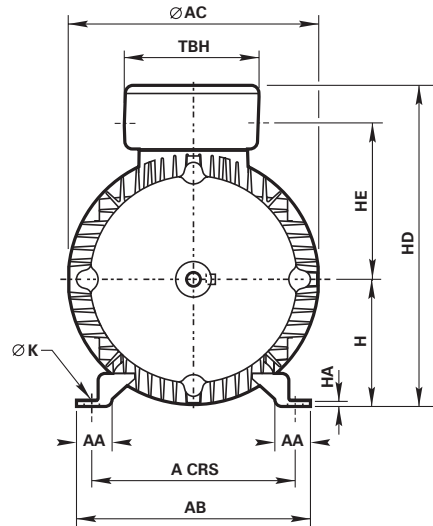
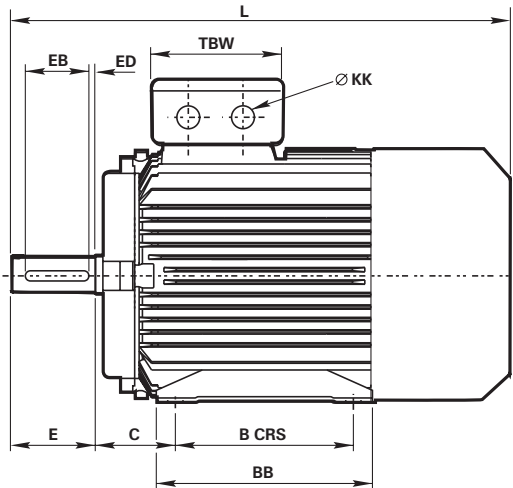
Type	Shaft							
	D	E	F	G	GD	EB	ED	DH
T-DA63	11	23	4	8.5	4	12	6	M3
T-DA71	14	30	5	11	5	20	5	M4
T-DA80	19	40	6	15.5	6	25	10	M6
T-DA90	24	50	8	20	7	40	5	M8
T-DA100	28	60	8	24	7	45	10	M10
T-DA112	28	60	8	24	7	45	10	M10
T-DA132	38	80	10	33	8	63	12	M12
T-DA160	42	110	12	37	8	90	15	M16
T-DA180	48	110	14	42.5	9	90	15	M16
T-DA200L	55	110	16	49	10	90	15	M16



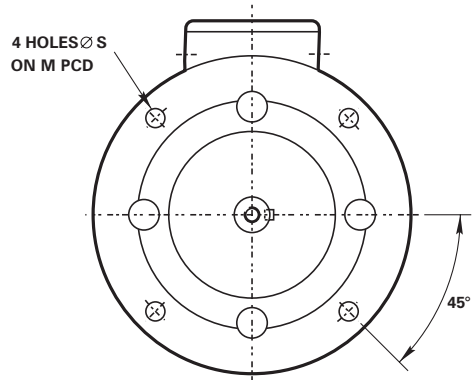
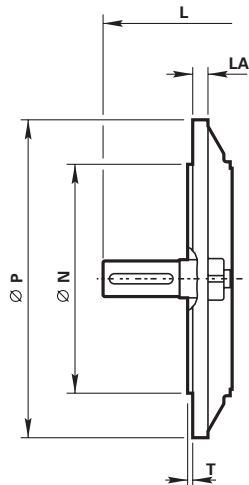
Dimensions

Foot, flange and face mounting frame sizes 80 to 180 - cast iron

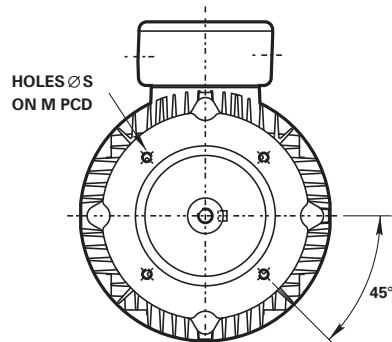
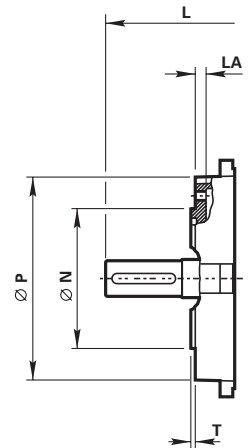
IM B3
IM 1001
Mounting options



IM B5/IM B35
IM 3001/IM 2001
Mounting options



IM B14/IM B34
IM 3601/IM 2101
Mounting options

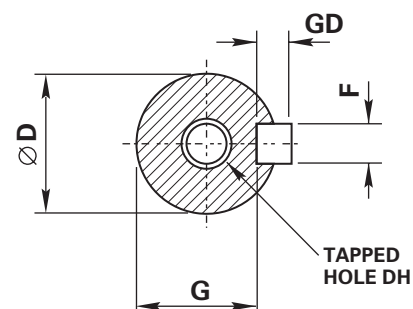


Foot, flange and face mounting frame sizes 80 to 180 - cast iron

Type	General													Terminal box		
	A	AA	AB	AC	B	BB	C	H	HA	HD	HE	K	L	TBW	TBH	KK
T-DF80	125	37	160	175	100	130	50	80	10	213	100	10	293	118	118	2 x M25
T-DF90S	140	39	180	190	100	162	56	90	12.5	233	110	10	345	118	118	2 x M25
T-DF90L	140	39	180	190	125	162	56	90	12.5	233	110	10	345	118	118	2 x M25
T-DF100L	160	45	205	210	140	188	63	100	14	258	125	12	385	118	118	2 x M32
T-DF112M	190	45	230	236	140	195	70	112	14	280	137	12	405	118	118	2 x M32
T-DF132S	216	50	260	275	140	245	89	132	16	320	157	12	515	118	118	2 x M32
T-DF132M	216	50	260	275	178	245	89	132	16	320	157	12	515	118	118	2 x M32
T-DF160M	254	67	320	330	210	270	108	160	17	410	199	15	630	164	200	2 x M40
T-DF160L	254	67	320	330	254	314	108	160	17	410	199	15	675	164	200	2 x M40
T-DF180M	279	74	350	380	241	295	121	180	22	445	216	15	700	164	200	2 x M40
T-DF180L	279	74	350	380	279	335	121	180	22	445	216	15	740	164	200	2 x M40

Type	IM B5 mounting						IM B14 mounting					
	M	N	P	S	T	LA	Type	M	N	P	S	T
T-DF80	165	130	200	12	3.5	10	B14A	100	80	120	M6	3.0
							B14B	130	110	160	M8	3.5
T-DF90	165	130	200	12	3.5	12	B14A	115	95	140	M8	3.0
							B14B	130	110	160	M8	3.5
T-DF100L	215	180	250	15	4.0	12	B14A	130	110	160	M8	3.5
							B14B	165	130	200	M10	3.5
T-DF112	215	180	250	15	4.0	13	B14A	130	110	160	M8	3.5
							B14B	165	130	200	M10	3.5
T-DF132	265	230	300	15	4.0	13	B14A	165	130	200	M10	3.5
T-DF160	300	250	350	19	5.0	15	B14A	215	180	250	M12	4
T-DF180	300	250	350	19	5.0	18	—	—	—	—	—	—

Type	Shaft							
	D	E	F	G	GD	EB	ED	DH
T-DF80	19	40	6	15.5	6	25	10	M6
T-DF90	24	50	8	20	7	40	5	M8
T-DF100	28	60	8	24	7	45	10	M10
T-DF112	28	60	8	24	7	45	10	M10
T-DF132	38	80	10	33	8	63	12	M12
T-DF160	42	110	12	37	8	90	15	M16
T-DF180	48	110	14	42.5	9	90	15	M16

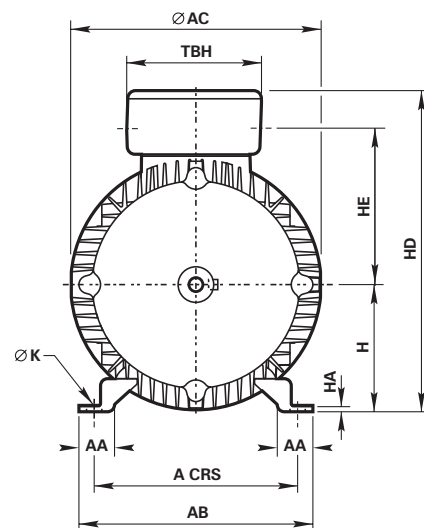
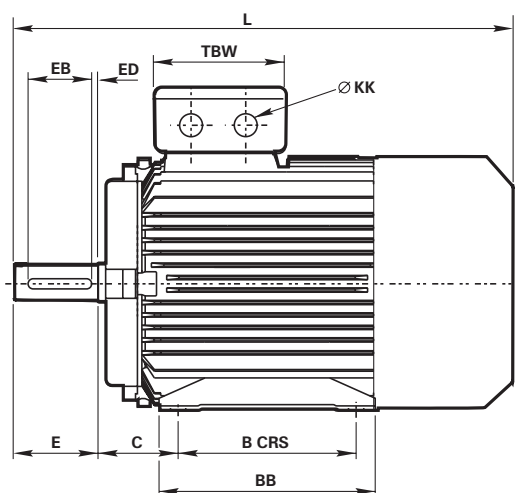


Dimensions

Foot and flange mounting frame sizes 200 to 315 - cast iron

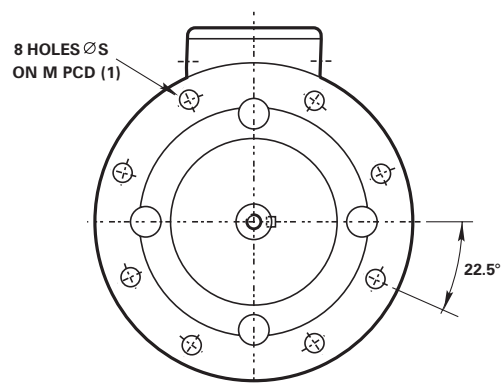
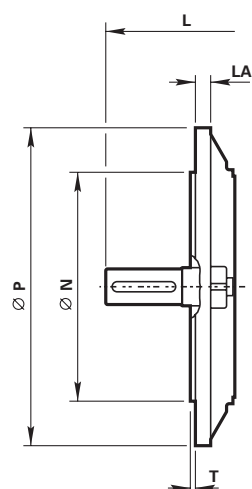
IM B3
IM 1001

Mounting options



IM B5/IM B35
IM 3001/IM 2001

Mounting options

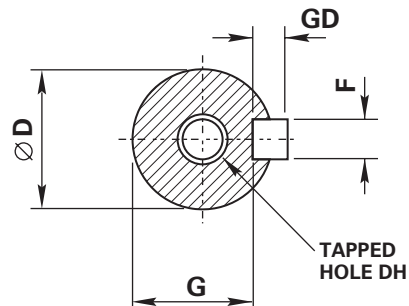


Foot and flange mounting frame sizes 200 to 315 - cast iron

Type	General													Terminal box		
	A	B	C	H	K	L	AA	AB	AC	BB	HA	HD	HE	TBW	TBH	KK
T-DF200L	318	305	133	200	19	780	85	388	415	377	25	520	265	221	290	2 x M50
TU-DF225S	356	286	149	225	19	865	85	441	460	433	28	570	288	221	290	2 x M50
TU-DF225M	356	311	149	225	19	865	85	441	460	433	28	570	288	221	290	2 x M50
TU-DF250M	406	349	168	250	24	945	100	486	512	500	33	625	312	221	290	2 x M63
TU-DF280S	457	368	190	280	24	970	115	550	570	480	35	690	338	221	290	2 x M63
TU-DF280MA	457	419	190	280	24	1020	115	550	570	530	35	690	338	221	290	2 x M63
TU-DF280MB	457	419	190	280	24	1050	115	550	570	530	35	690	338	221	290	2 x M63
TU-DF315S	508	406	216	315	28	1375	120	635	645	670	45	875	555	332	522	2 x M63
TU-DF315M	508	457	216	315	28	1375	120	635	645	670	45	875	555	332	522	2 x M63
TU-DF315L	508	508	216	315	28	1375	120	635	645	670	45	875	555	332	522	2 x M63

Type	IM B5, IM B35 mounting					
	M	N	P	S	T	LA
T-DF200L	350	300	400	19	5	20
TU-DF225S	400	350	450	19	5	20
TU-DF225M	400	350	450	19	5	20
TU-DF250M	500	450	550	19	5	22
TU-DF280S	500	450	550	19	5	23
TU-DF280M	500	450	550	19	5	23
TU-DF315S	600	550	660	24	6	24
TU-DF315M	600	550	660	24	6	24
TU-DF315L ⁽¹⁾	600	550	660	24	6	24

⁽¹⁾ IMB35 or IMV1 only, for IMB5 refer to Brook Crompton



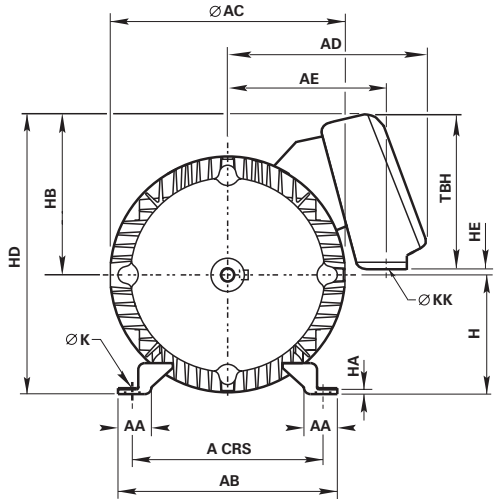
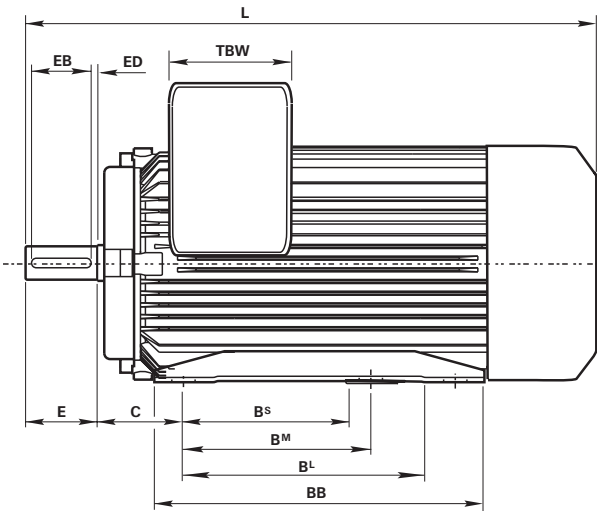
Shaft	4 pole +								2 pole							
	D	E	F	G	GD	EB	ED	DH	D	E	F	G	GD	EB	ED	DH
T-DF200L	55	110	16	49	10	90	15	M20 x 42	55	110	16	49	10	90	15	M20 x 42
TU-DF225S	60	140	18	53	11	110	25	M20 x 42	-	-	-	-	-	-	-	-
TU-DF225M	60	140	18	53	11	110	25	M20 x 42	55	110	16	49	10	90	15	M20 x 42
TU-DF250MA	65	140	18	58	11	110	25	M20 x 42	60	140	18	53	11	110	25	M20 x 42
TU-DF250MB	70	140	20	62.5	12	110	25	M20 x 42	-	-	-	-	-	-	-	-
TU-DF280S	75	140	20	67.5	12	110	25	M20 x 42	65	140	18	58	11	110	25	M20 x 42
TU-DF280MA	75	140	20	67.5	12	110	25	M20 x 42	65	140	18	58	11	110	25	M20 x 42
TU-DF280MB	80	170	22	71	14	140	25	M20 x 42	-	-	-	-	-	-	-	-
TU-DF315S	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
TU-DF315M	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
TU-DF315L	80 ⁽¹⁾	170	22 ⁽²⁾	71 ⁽³⁾	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42

(1) 4pole = 90, (2) 4pole = 25, (3) 4pole = 81

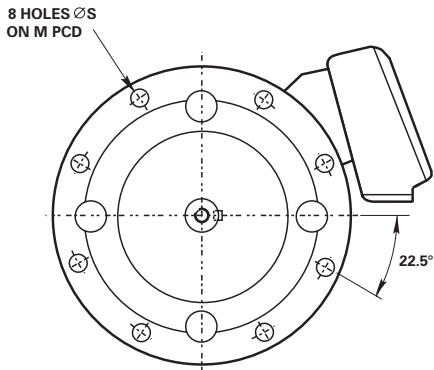
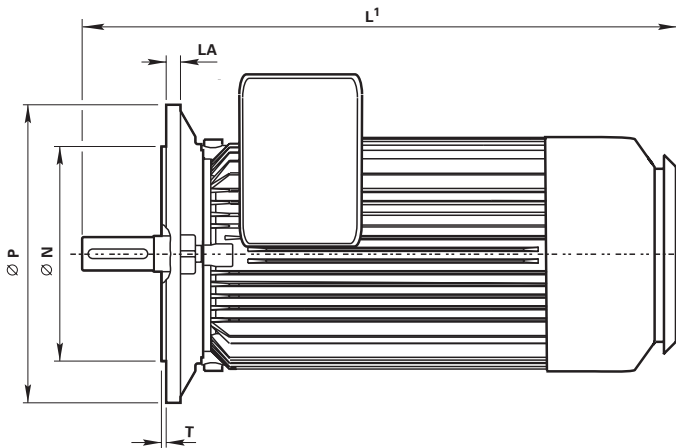
Dimensions

Foot and flange mounting frame size 355 - cast iron

IM B3
IM 1001
Mounting options



IM V1
IM 3011
Mounting options



Foot and flange mounting frame size 355 - cast iron

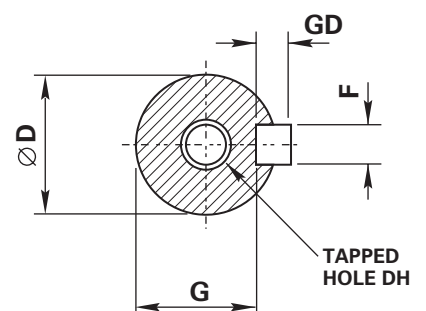
Type	General																		Terminal box		
	A	AA	AB	AC	AD	AE	B ^S	B ^M	B ^L	BB	C	H	HA	HB	HD	HE	K	L	TBW	TBH	KK
TU-DF355M⁽¹⁾	610	140	750	770	670	526	560	630	875	1045	254	355	49	565	920	10	28	1790	535	386	2 up to 110
TU-DF355M⁽²⁾	610	140	750	770	670	526	560	630	875	1045	254	355	49	565	920	10	28	1860	535	386	2 up to 110
TU-DF355L⁽¹⁾	610	140	750	770	670	526	560	630	875	1045	254	355	49	565	920	10	28	1790	535	386	2 up to 110
TU-DF355L⁽²⁾	610	140	750	770	670	526	560	630	875	1045	254	355	49	565	920	10	28	1860	535	386	2 up to 110

⁽¹⁾ 2 pole ⁽²⁾ 4 pole +

Type	IM V1, IM 3011 mounting						
	L ¹	M	N	P	S	T	LA
TU-DF355M⁽¹⁾	1890	740	680	800	24	6	25
TU-DF355M⁽²⁾	1960	740	680	800	24	6	25
TU-DF355L⁽¹⁾	1890	740	680	800	24	6	25
TU-DF355L⁽²⁾	1960	740	680	800	24	6	25

⁽¹⁾ - 2 pole ⁽²⁾ - 4 pole +
IMB5 refer to Brook Crompton

Type	Shaft							
	D	DH	E	EB	ED	F	G	GD
TU-DF355M⁽¹⁾	75	M20 X 42	140	110	15	20	67.5	12
TU-DF355M⁽²⁾	100	M24 X 50	210	160	35	28	90	16
TU-DF355L⁽¹⁾	75	M20 X 42	140	110	15	20	67.5	12
TU-DF355L⁽²⁾	100	M24 X 50	210	160	35	28	90	16

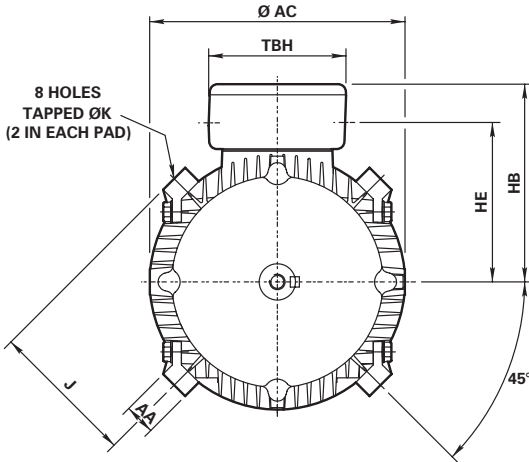
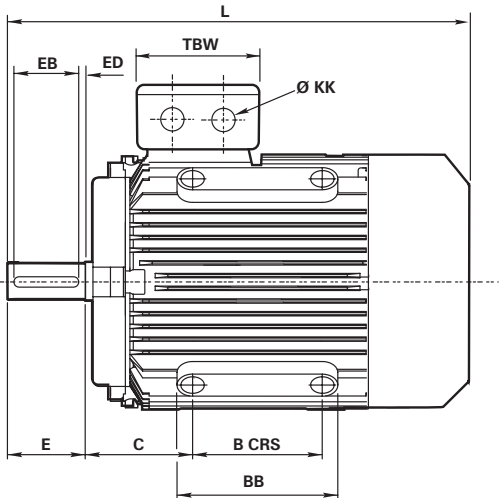
⁽¹⁾ - 2 pole ⁽²⁾ - 4 pole +

Dimensions

Pad/rod mounting frame sizes 80 to 132 - aluminium

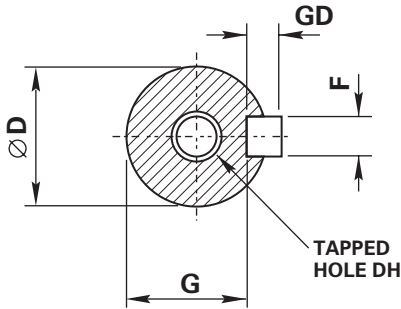
IM B30, IM V30, IM V31
IM 9201 IM 9211,
IM 9231

Mounting options



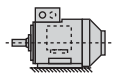
Type	General													Terminal box		
	B	C	J	K	L	AA	AC	BB	HB	HE	TBW	TBH	KK			
T-DA80	90	55	90	12	293	28.7	175	114	133	97	100	100	2 x M25			
T-DA90S	90	73.5	100	12	348	28.7	190	122	140	105	105	105	2 x M25			
T-DA90L	90	73.5	100	12	348	28.7	190	122	140	105	105	105	2 x M25			
T-DA100L	100	83	112	12	385	24	210	124	170	125	122	122	2 x M32			
T-DA112M	100	90	135	12	410	42	236	132	180	140	122	122	2 x M32			
T-DA132S	140	108	150	16	515	35	275	176	195	157	122	122	2 x M32			
T-DA132M	140	108	150	16	515	35	275	176	195	157	122	122	2 x M32			

Type	Shaft							
	D	E	F	G	GD	EB	ED	DH
T-DA80	19	40	6	15.5	6	25	10	M6
T-DA90S	24	50	8	20	7	40	5	M8
T-DA90L	24	50	8	20	7	40	5	M8
T-DA100L	28	60	8	24	7	45	10	M10
T-DA112M	28	60	8	24	7	45	10	M10
T-DA132S	38	80	10	33	8	63	12	M12
T-DA132M	38	80	10	33	8	63	12	M12

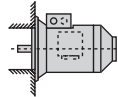


Mounting options

Horizontal shaft:



**IM B3
IM 1001**
foot mounted



**IM B5
IM 3001**
flange at DE
no feet



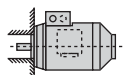
**IM B6
IM 1051**
foot wall mounted with
feet on left-hand side
when viewed from DE



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

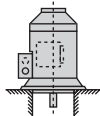


**IM B8
IM 1071**
ceiling mounted
with feet
above motor

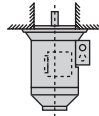


**IM B14
IM 3601**
face at DE
no feet

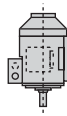
Vertical shaft:



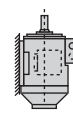
**IM V1
IM 3011**
flange at DE
shaft down
no feet



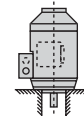
**IM V3
IM 3031**
flange at DE
shaft up
no feet



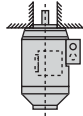
**IM V5
IM 1011**
vertical foot
wall mounted
shaft down



**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 up
no feet

Approximate shipping specifications

Frame		Net weight kg		Gross weight kg		Cubage m ³
		Cast iron	Aluminium	Cast iron	Aluminium	
	T-DA63	–	7	–	8	0.01
	T-DA71	–	10	–	11	0.01
T-DF80	T-DA80	19	14	20	15	0.02
T-DF90S	T-DA90S	30	18	31	19	0.03
T-DF90L	T-DA90L	33	19	34	20	0.03
T-DF100L	T-DA100L	42	28	43	29	0.04
T-DF112M	T-DA112M	54	36	56	38	0.05
T-DF132S	T-DA132S	72	51	79	58	0.09
T-DF132M	T-DA132M	89	67	96	74	0.09
T-DF160M	T-DA160M	134	107	141	114	0.17
T-DF160L	T-DA160L	152	122	159	129	0.17
T-DF180M	T-DA180M	174	145	184	155	0.23
T-DF180L	T-DA180L	184	145	194	155	0.23
T-DF200L	T-DA200L	286	240	306	260	0.33
TU-DF225S		338	–	358	–	0.45
TU-DF225M		358	–	378	–	0.45
TU-DF250M		535	–	585	–	0.6
TU-DF280S		563	–	723	–	0.8
TU-DF280M		720	–	790	–	0.8
TU-DF315S		1125	–	1225	–	1.5
TU-DF315M		1175	–	1275	–	1.5
TU-DF315L		1340	–	1440	–	1.5
TU-DF355M		2040	–	2150	–	2.5
TU-DF355L		2220	–	2330	–	2.5

Technical information:

Mechanical

Bearing and greasing arrangements

Bearing references and oilseals for horizontally mounted motors only						
Type			Bearings ⁽¹⁾		Oilseals ⁽²⁾	
Cast iron	Aluminium	Poles	Drive end	Non-drive end	Drive end	Non-drive end
-	T-DA63	All	6201ZZ	6201ZZ	12 x 24 x 5	12 x 24 x 5
-	T-DA71	All	6202ZZ	6202ZZ	15 x 30 x 5	15 x 30 x 5
T-DF80	T-DA80	All	6204ZZ	6204ZZ	20 x 35 x 5	20 x 35 x 5
T-DF90S	T-DA90S	All	6205ZZ	6205ZZ	25 x 40 x 5	25 x 40 x 5
T-DF90L	T-DA90L	All	6205ZZ	6205ZZ	25 x 40 x 5	25 x 40 x 5
T-DF100L	T-DA100L	All	6206ZZ	6206ZZ	30 x 52 x 7	30 x 52 x 7
T-DF112M	T-DA112M	All	6306ZZ	6306ZZ	30 x 52 x 7	30 x 52 x 7
T-DF132S	T-DA132S	All	6308ZZ	6308ZZ	40 x 62 x 5	40 x 62 x 5
T-DF132M	T-DA132M	All	6308ZZ	6308ZZ	40 x 62 x 5	40 x 62 x 5
T-DF160M	T-DA160M	All	6309	6309	45 x 65 x 8	45 x 65 x 8
T-DF160L	T-DA160L	All	6309	6309	45 x 65 x 8	45 x 65 x 8
T-DF180M	T-DA180M	All	6311	6311	55 x 75 x 8	55 x 75 x 8
T-DF180L	T-DA180L	All	6311	6311	55 x 75 x 8	55 x 75 x 8
T-DF200L	T-DA200L	All	6312	6312	60 x 80 x 8	60 x 80 x 8
TU-DF225S		All	6313	6313	65 x 90 x 10	65 x 90 x 10
TU-DF225M		All	6313	6313	65 x 90 x 10	65 x 90 x 10
TU-DF250M		All	6314	6314	70 x 95 x 10	70 x 95 x 10
TU-DF280S		All	6316	6316	80 x 100 x 10	80 x 100 x 10
TU-DF280M		All	6316	6316	80 x 100 x 10	80 x 100 x 10
TU-DF315S/M/L		2	6217*	6217	100 x 130 x 12	100 x 130 x 12
		4 up	NU319	6319	115 x 140 x 12	115 x 140 x 12
TU-DF355M/L		2	6217*	6217	100 x 130 x 12	100 x 130 x 12
		4 up	NU324	6324	140 x 170 x 12	140 x 170 x 12

(1) In general the bearings have C3 clearances (* C4) and are preloaded with a wave washer on the drive end.
 (2) Sizes given are in mm and represent bore x outside diameter x width.

Relubrication intervals for operating temperature up to 70°C x 10 ³ hours								
Type	3000 min ⁻¹		1500 min ⁻¹		1000 min ⁻¹		750 min ⁻¹	
European	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
T-DA63	30	15	30	15	30	15	30	15
T-DA71	30	15	30	15	30	15	30	15
T-DA(DF)80	30	15	30	15	30	15	30	15
T-DA(DF)90S/L	28	14	30	15	30	15	30	15
T-DA(DF)100L	25	12.5	30	15	30	15	30	15
T-DA(DF)112M	20	10	20	10	30	15	30	15
T-DA(DF)132S/M	15	7.5	20	10	30	15	30	15
T-DA(DF)160M/L	5.7	2.85	9.5	4.75	13	6.5	13	6.5
T-DA(DF)180M/L	4.0	2.0	9.0	4.5	13.5	6.75	13.5	6.7
T-DA(DF)200L	3.5	1.75	8.5	4.25	12	6.0	12	6.0
TU-DF225S/M	3	1.5	8	4.0	11	5.5	11	5.5
TU-DF250M	2	1	7.5	3.75	10.5	5.25	10.5	5.25
TU-DF280S/M	1.5	0.75	7	3.5	10	5.0	10	5.0
TU-DF315S/M/L	1	0.5	3.8	1.9	7.5	3.75	7.5	3.75
TU-DF355M/L	1	0.5	2.5	1.25	2.0	1	2.0	1

Sealed for life bearings are fitted with a premium quality grease to ensure exceptional reliability under a wide range of operating conditions., frames 63-132 SKF LGMT2 and frames 160-355 LS3 or Shell Alvania R3.
 The regreasing time should be reduced if the bearing operating temperature is in excess of 70°C.

Technical information:

Mechanical

Axial and radial loads

Maximum permissible external axial thrust and radial loads in Newtons (N)			
Type	Poles	Vertical shaft down	Horizontal
		Load away from motor	Maximum permissible radial load 10mm from end of shaft
T-DA63	2	245	290
	4	353	370
T-DA71	2	275	320
	4	353	400
T-DA80	2	451	500
	4	635	640
T-DF80	6	726	720
	8	804	800
T-DA90	2	471	540
	4	598	690
T-DF90	6	677	790
	8	785	880
T-DA100L	2	657	730
	4	814	900
T-DF100L	6	971	1070
	8	1216	1180
T-DA112M	2	647	740
	4	795	900
T-DF112M	6	1069	1070
	8	1187	1190
T-DA132	2	101	1180
	4	1216	1440
T-DF132	6	1373	1650
	8	1619	1890
T-DA160M	2	1619	1920
	4	2060	2440
T-DF160M	6	2403	2840
	8	2698	3160
T-DA180	2	2237	2740
	4	2796	3430
T-DF180	6	3277	3990
	8	3679	4450

All figures are based on L10h bearing life of 25,000 hours

Technical information:

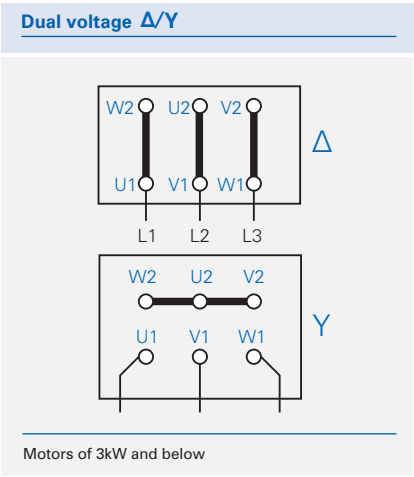
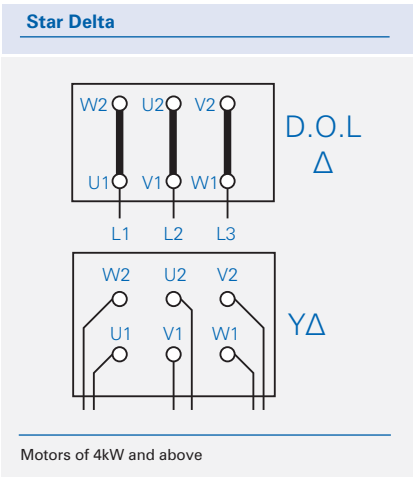
Mechanical

Maximum permissible external axial thrust and radial loads in Newtons (N)			
Type	Poles	Vertical shaft down	Horizontal
		Load away from motor	Maximum permissible radial load 10mm from end of shaft
T-DF200L	2	2570	3180
	4	3555	4090
	6	3796	4640
	8	4297	5200
TU-DF225	2	2747	3530
	4	3414	4360
	6	4002	5150
	8	4464	5700
TU-DF250	2	3384	4330
	4	4248	5450
	6	4925	6310
	8	5513	7000
TU-DF280	2	2943	4560
	4	3846	5580
	6	4856	6700
	8	5415	7400
TU-DF315	2	3450	1890
	4	8323	16500
	6	9187	16500
	8	7398	16500

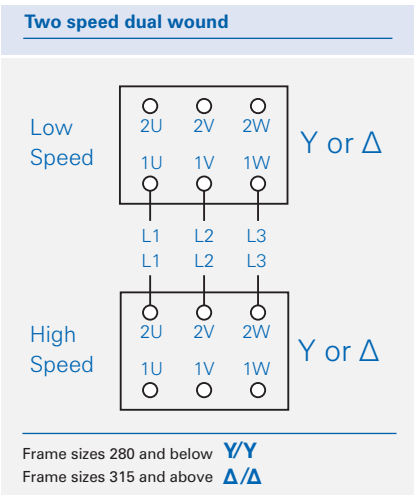
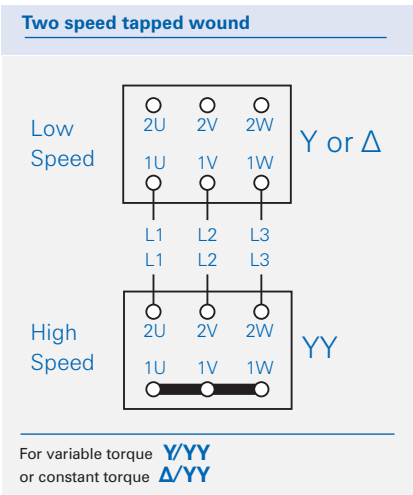
All figures are based on L10h bearing life of 25,000 hours
For 355 frame - please refer to Brook Crompton

Connection diagrams

Single speed motors



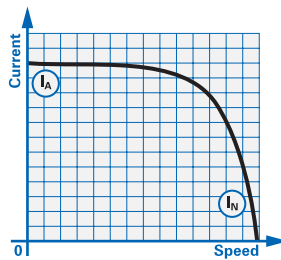
Multispeed motors



Performance data – page notes

DOL starting

Typical speed/current curve



- (I_A) Starting current
 (I_N) Full load current
 (M_A) Starting torque or locked rotor torque
 (M_S) Pull up torque or run up torque
 (M_K) Pull out torque or breakdown torque
 (M_N) Full load torque

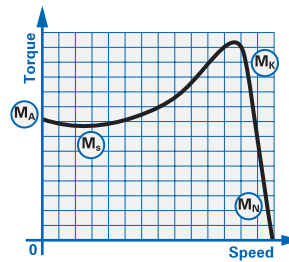
Pages 8 to 11 define the standard range of multispeed motors. Please refer to Brook Crompton for any other specific requirements.

60Hz voltage supply

Motors wound for 50Hz supply can be operated on a 60Hz supply. Performance data listed on pages 4 to 7 will be unaffected with the exception of: -

- Output (kW) - will increase by 15%
- Speed (min^{-1}) - will increase by approximately 20%
- Noise (dB(A)) will increase by approximately: -
- 2 pole will increase by 5 dB(A)
 - 4 pole will increase by 3 dB(A)
 - 6 pole will increase by 2 dB(A)
 - 8 pole will increase by 1 dB(A)

Typical speed/torque curve



Star/delta starting: 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.

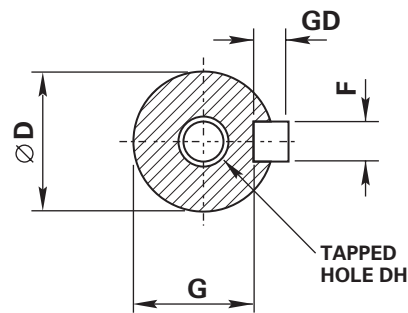
Performance figures are subject to IEC tolerances. Performance figures are based on a 400 volt winding.

$$J \text{ (WK}^2 \text{ OR WR}^2) = \frac{GD^2}{4}$$

$$J \text{ in lb ft}^2 = \frac{\text{kgm}^2}{0.042}$$

Dimensions – page notes

Shaft		
Dim D	Tol	Limits
11 to 14	j6	+0.008 -0.003
19 to 28	j6	+0.009 -0.004
38 to 48	k6	+0.018 +0.002
55 to 80	m6	+0.030 +0.011
85 to 110	m6	+0.035 +0.013



Flange		
Dim N	IEC 60072	
	Tol	Limits
110	j6	+0.013 -0.009
130	j6	+0.014 -0.011
230 to 250	j6	+0.016 -0.013
300	j6	+0.016 -0.016
350	j6	+0.018 -0.018
450	j6	+0.020 -0.020
550	j6	+0.022 -0.022
680	js6	+0.025 -0.025

Face		
Dim N	IEC 60072	
	Tol	Limits
70 and 80	j6	+0.012 -0.007
95 and 110	j6	+0.013 -0.009
130	j6	+0.014 -0.011
230	j6	+0.016 -0.013

All dimensions in millimetres

T-DA motors have removable aluminium feet which can be repositioned to allow top or side mounting terminal box.

T-DA pad mounted motors are fitted with bolt on pads.

Dimensions should not be used for installation purposes unless specially endorsed

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