

motor only	Type code	Mechanical rating ^a (Nm)	Radial load (N)	Axial load (N)	No of ratios	Shaft Orientation	DC brushless (PBL)			DC permanent magnet (PM)			AC induction (SD)			AC/DC series wound (SD)			DC shunt wound (SD)			Standard options					
							Power ^a (Watts) Max	Speed (rpm) Max	Torque ^a (Nm) Min Max	Power ^a (Watts) Min Max	Speed (rpm) Min Max	Torque ^a (Nm) Min Max	Power ^a (Watts) Min Max	Speed (rpm) Min Max	Torque ^a (Nm) Min Max	Power ^a (Watts) Min Max	Speed (rpm) Min Max	Torque ^a (Nm) Min Max	Power ^a (Watts) Min Max	Speed (rpm) Min Max	Torque ^a (Nm) Min Max	fixing base (B)	shaft length (mm)	shaft dia. (mm) single double hollow (H)	shaft output flat keyway custom	flange PCD (mm) standard optional (F) 3-point (3P)	International standard flanges IEC NEMA metric
	-	-	-	-	-	In-line	440	4000	0.06 1.4	7.5 900 1500 8000 0.05 1.1	3.7 250 900 2800 0.025 1.3	10 190 2000 6500 0.04 0.36	10 150 2000 5000 0.05 0.38	-	-	○ ○ -	-	-	-	● - -	-	-	○ ○ ○				
	S	4.5	69	35	27	90°	84	640	0.2 3.5	7.5 90 21 970 0.2 4.0	3.7 120 13 680 0.06 4.5	38 50 43 960 0.2 2.3	38 50 43 960 0.2 2.3	-	29	9 9 -	● ○ ○	41.3 - 42	-	-	-						
	M	11.8	132 ^b	88 ^c	28	90°	220	480	0.7 11.8	23 280 21 970 0.5 11.7	10 190 12 680 0.36 11.8	38 150 42 970 0.2 6.4	38 150 28 970 0.2 6.8	○	52	12 12 8	○ ● ○	47.6 80 50.8	-	-	-						
	L	22	177 ^b	132 ^c	12	90°	346	432	0.7 19.2	33 450 25 780 0.9 18.7	95 250 15 546 1.6 17	50 150 33 780 0.9 11.3	60 150 33 780 1 11.3	○	51	15 15 15	○ ● ○	57.1 100 72	-	-	-						
	LS	22	314	196	12	90°	346	432	0.7 19.2	33 450 25 780 0.9 18.7	95 250 15 546 1.6 17	50 150 33 780 0.9 11.3	60 150 33 780 1 11.3	-	51	25 25 15	○ ● ○	-	-	-	-						
	G	50	491	294	6	90°	440	240	6.6 50	80 450 20 320 4.6 45.1	- - - - - -	- - - - - -	- - - - - -	-	75	25 25 15	○ ● ○	-	-	-	-						
	GB12	40	-	-	6	90°	-	-	-	63 275 20 560 1.4 27.4	- - - - - -	- - - - - -	- - - - - -	-	○	<25 <25 -	○ ○ ○	-	-	-	-						
	GB9	104	-	-	5	90°	-	-	-	200 275 20 560 3.5 56.1	- - - - - -	- - - - - -	- - - - - -	-	○	<25 <25 -	○ ○ ○	-	-	-	-						
	SS	5.9	54	35	19	90°/in-line	-	-	-	7.5 60 0.5 150 0.8 5.9	3.7 120 0.32 40 0.34 5.9	15 50 1 80 1.8 5.9	38 50 1 80 2.8 5.9	-	29	9 9 -	● ○ ○	41.3 - 42	-	-	-						
	MM	11.8	88 ^b	88 ^c	12	90°/in-line	-	-	-	23 60 0.3 59 5 11.8	8 190 0.5 30 1.1 11.8	10 125 1 80 3.4 11.8	10 150 1 80 3.4 11.8	○	52	12 12 8	○ ● ○	47.6 80 50.8	-	-	-						
	SIW	11.3	78	49	17	in-line	136	102	2.5 11.3	7.5 90 1 235 0.6 11.3	8 60 1 164 0.4 11.3	10 38 1.5 176 0.5 11.3	10 38 1.5 176 0.5 11.3	●	29	9 - -	● ○ ○	41.3 - -	-	-	-						
	MIW	28	265	132	17	in-line	184	77	3.2 28	23 120 1 235 1.7 28	8 120 1 164 0.5 28	10 75 1.5 176 0.5 28	10 95 1.5 176 0.5 28	●	52	12 - -	○ ● ○	47.6 - -	-	-	-						
	LIW	45	353	196	15	in-line	available on request			33 200 1 108 4.7 45	35 190 1.1 75 4.3 45	30 95 1.6 81 2 45	50 125 1.6 81 4 45	●	51	15 - -	○ ● ○	57.1 - -	-	-	-						
	SIS	7.9	88	44	9	in-line	-	-	-	7.5 90 5 182 0.9 7.9	8 60 3 127 1.24 7.9	10 38 6.6 136 1 7.9	10 38 6.6 136 1 7.9	●	25.5	10 - -	● ○ ○	41.3 77.2 -	-	-	-						
	MIS	45	216	137	9	in-line	-	-	-	33 200 15 623 1 37	35 190 14 436 1 45	30 95 20 467 0.8 23	50 125 20 467 1.3 30	●	51	14 - -	○ ● ○	48 - -	-	-	-						
	LIS	74	265	177	11	in-line	-	-	-	23 280 4 667 1 86	10 190 2.6 467 1 100	30 95 6 500 1 74	50 125 6 500 1 74	●	51	15 - -	○ ● ○	70 - -	-	-	-						
	SWS	11	177	112	10	90°	52	67	3.6 11	7.5 60 1 101 1.5 11	8 25 1 71 1.9 11	15 38 1.8 76 1.9 11	15 38 1.8 76 1.9 11	●	32	10 10 -	● ○ ○	- - -	-	-	-						
	MWS	45	353	177	17	90°	134	98	3.3 45	7.5 90 1 149 1 45	10 60 0.65 106 1.1 45	25 50 1.4 150 1.8 45	25 50 1.4 150 1.8 45	●	51	14 14 -	○ ● ○	48 - -	-	-	-						
	LWS	100	446	226	21	90°	184	80	3.4 100	23 450 0.4 80 4 100	8 190 0.22 90 1 100	38 125 0.9 80 3.5 100	38 150 0.9 80 3.5 100	●	51	15 ^e 15 ^e -	○ ● ○	70 - -	-	-	-						
	GWS	250	667	353	14	90°	184	44	19.4 250	60 450 0.5 71 16 250	55 250 0.4 50 11 250	- - - - - -	- - - - - -	●	76	25 25 15	○ ● ○	75 - -	-	-	-						
	PG36	3 ^d	39 ^d	15 ^d	13	in-line	-	-	-	3.8 11 3 674 0.05 3	- - - - - -	- - - - - -	- - - - - -	-	20	8 - -	● ○ ○	28 - -	-	-	-						
	PG45	15 ^d	130 ^d	40 ^d	13	in-line	-	-	-	11 14 5 863 0.1 10	- - - - - -	- - - - - -	- - - - - -	-	27	10 - -	○ ● ○	35 - -	-	-	-						
	PG56	30 ^d	260 ^d	80 ^d	14	in-line	-	-	-	3.7 59 3 694 0.1 30	- - - - - -	- - - - - -	- - - - - -	-	28	12 - -	○ ● ○	45 - -	-	-	-						
	HP60	40 ^d	725 ^d	225 ^d	34	in-line	220	1000	0.4 30	23 450 1 1000 0.52 30	- - - - - -	- - - - - -	- - - - - -	-	30	15 - -	○ ● ○	45 - -	○ ○ ○	-							

	DC brushless	DC permanent Magnet	AC induction	AC/DC series wound	DC shunt wound	Optional extras
motor construction	Wound stator, permanent magnet rotor	Permanent magnet stator, wound rotor with commutator	Wound stator, aluminium cage rotor	Low resistance wound stator, wound rotor with commutator	High resistance wound stator, wound rotor with commutator	Tachogenerator; encoder; terminal box; brake; speed reducer; controller
insulation class	F	F	F	F	F	Customisation options
supply voltage	DC up to 48V with controller	DC from 12V to mains voltage	AC 1 or 3 phase mains voltage	AC or DC up to mains voltage	DC up to mains voltage	Shaft; spindle; paint finish; fixing arrangements; non-standard ratios; Ingress Protection (IP) rating; gear material; lubricant; insulation class
ingress protection	IP54	IP22 / IP54 / IP66	IP20 / IP50 / IP54	IP20 / IP23 / IP50 / IP54	IP20 / IP23 / IP50 / IP54	Design options
						Bespoke OEM motor-gearbox design and manufacture service call for details

a: for S1 duty cycle (continuous operation); figures for intermittent operation may be higher, call for details | b: approx. 70% higher when supplied with base | c: approx. 20% higher when supplied with base | d: for 4-stage assembly | e: 17mm diameter shaft available with ratios 115:1 and 56:1 | f: maximum | KEY: ● as standard ○ optional