



dc motors size 32 & 42mm diameter & gearboxes

Data Sheet

RS stock numbers 224-3530, 224-3546, 224-3580, 224-3552, 224-3568, 225-5410, 224-8636, 225-5173, 225-5397, 225-5404

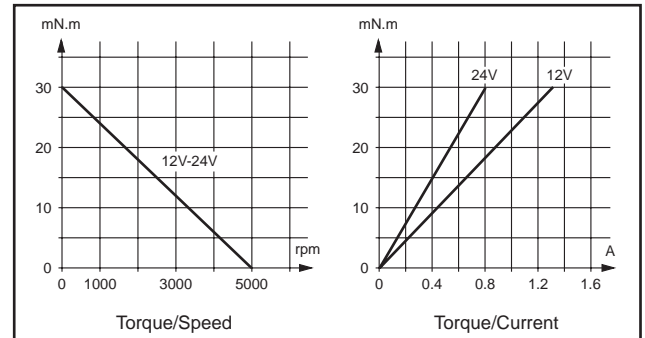
Motors

These motors have been designed and manufactured for incorporation into equipment or machines and are considered to be component parts of a larger system. The design and construction has taken into account the provisions of the appropriate European Legislation for these items.

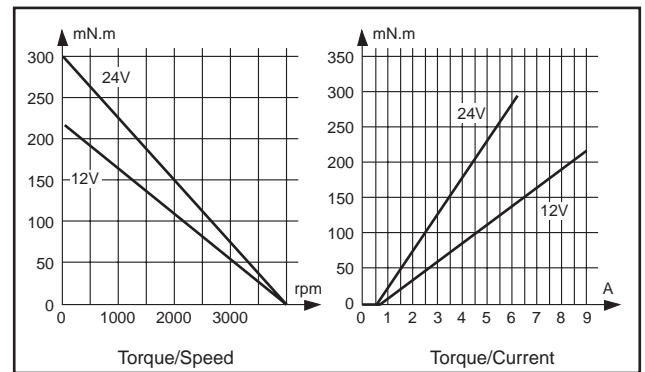
Nominal Voltage	12Vdc		24Vdc	
Body Diameter	32	42	32	42
RS stock no.	224-3530	224-8636	224-3546	225-5410
Nominal speed [RPM]	3700	2670	3700	3070
Torque [mNm]	7.7	70	7.7	70
Output power [W]	3	22	3	22
Input Power, No load[W]	1.2	4.8	1.92	4.3
Input Current, No load[A]	0.1	0.4	0.08	0.18
Protection rating	IP40	IP20	IP40	IP20
Max usable power [W]	3.9	22	3.9	31
Start torque [mNm]	30	219	30	298
Start current [A]	1.5	9	0.76	6.16
Resistance [Ω]	8	1.33	32	3.9
Inductance [mH]	10	2.67	41.6	9.35
Weight [g]	96	400	95	400
Life [h]	2000	2000	2000	2000

Torque

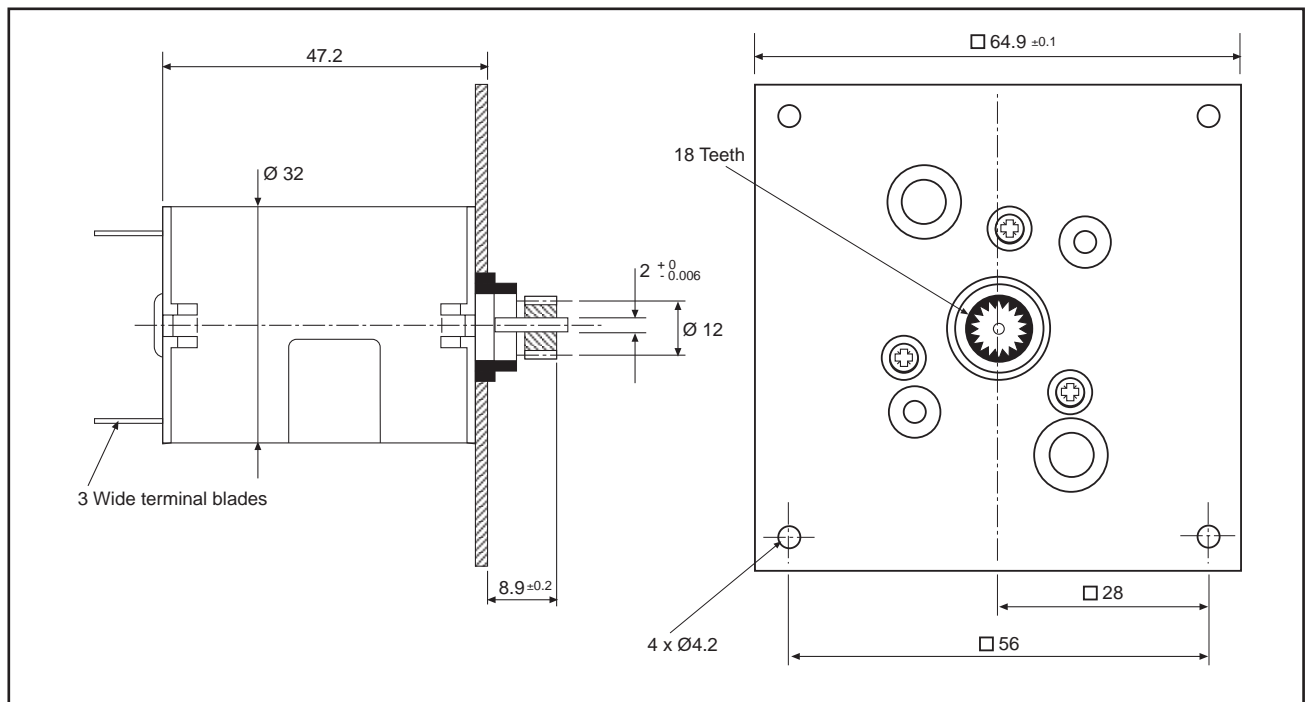
32mm diameter motor



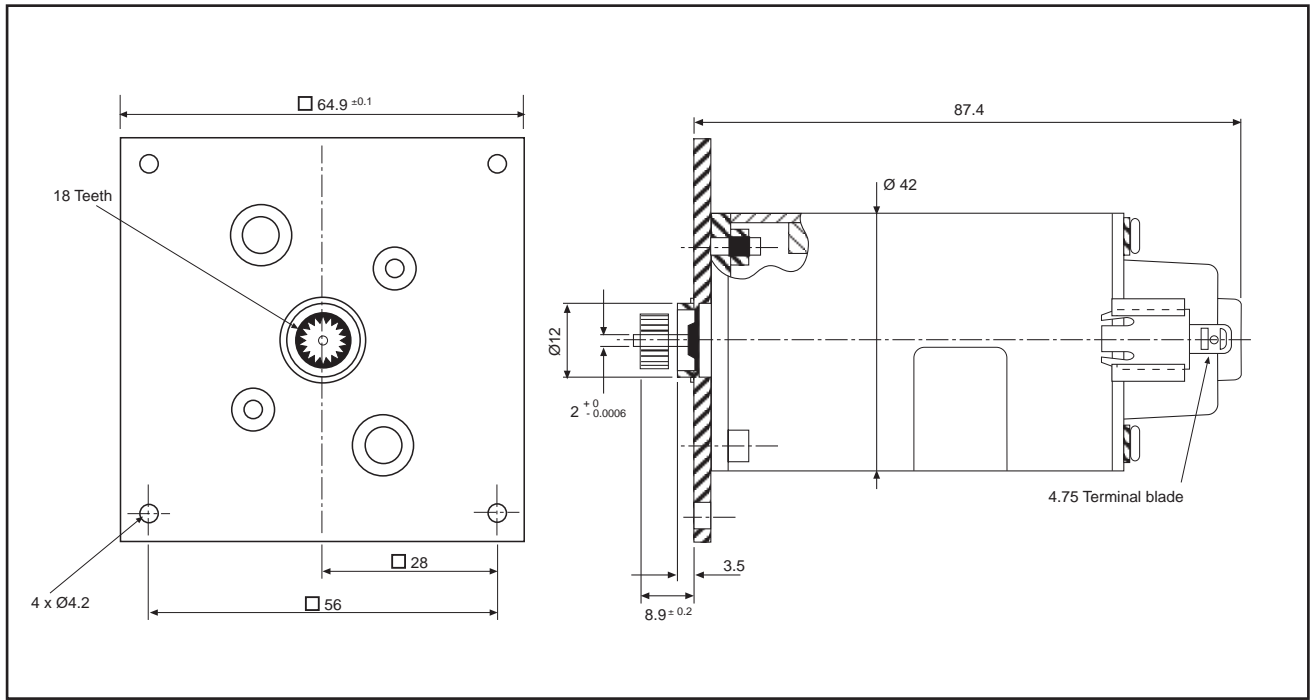
42mm diameter motor



32mm diameter motor



42mm diameter motor



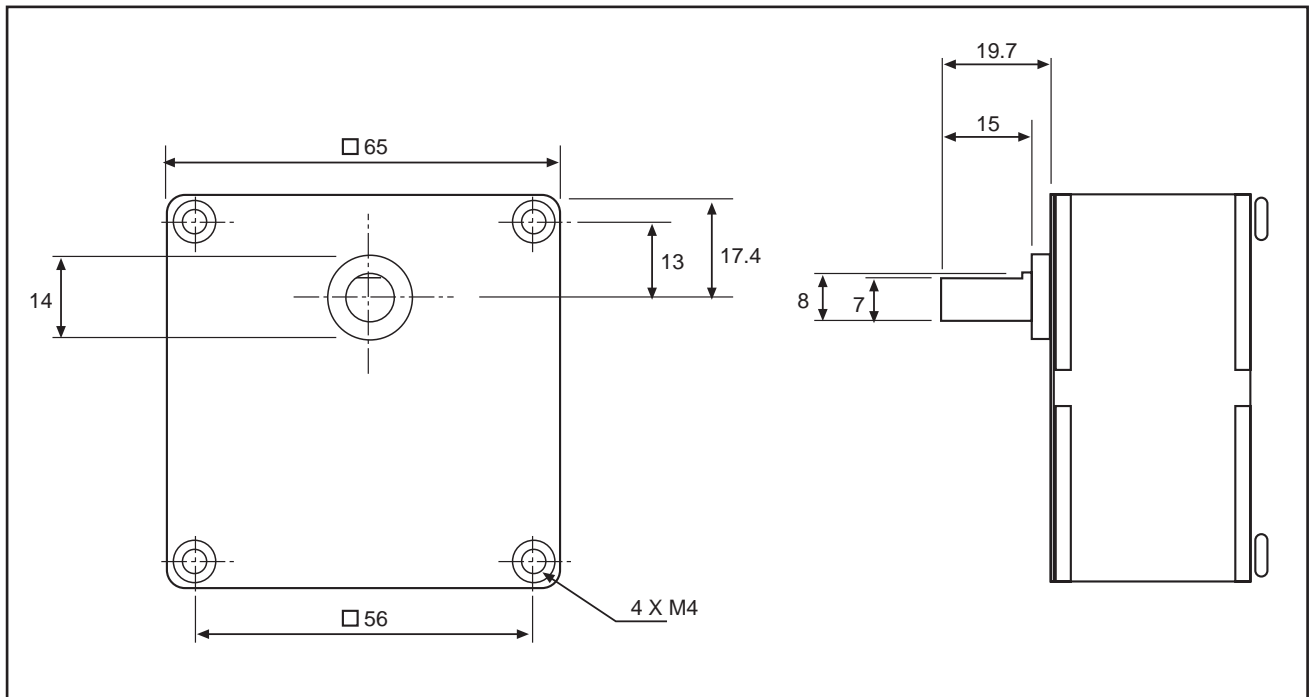
Gearboxes

These gearboxes may be used with either diameter motor and the data given below is the maximum design torque with a continuous duty.

RS stock no.	Ratio
225-5173	25/3:1
224-3552	25:1
225-5397	125/3:1
225-5404	62.5:1
224-3568	125:1
224-3580	500:1

Fitting of gearbox to motor

The fitting method is the same for either size of diameter of the motor body. Remove the four rear plate retaining screws. Introduce the motor shaft with pinion through the entry hole in the rear plate. Once the motor pinion has meshed with the gearbox gears, attach the motor to the gearbox, by using the four retaining screws, which are passed through the motor mounting plate fixing holes and into the tapped gearbox retaining holes.

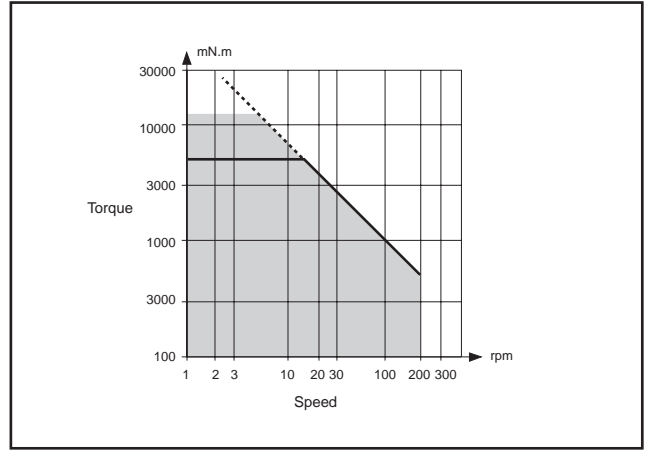


Combined motor and gearbox data

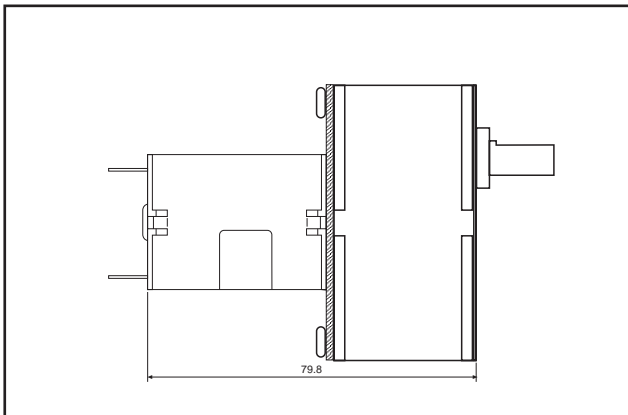
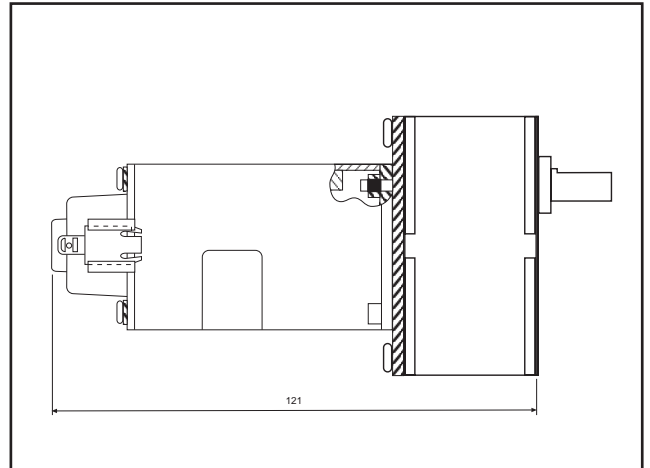
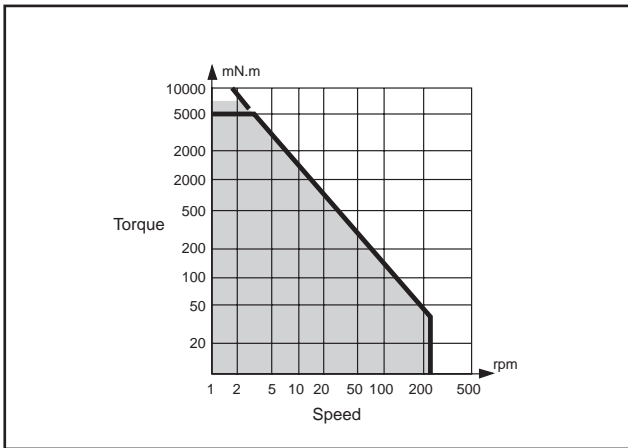
Gearbox ratio	Final speed [RPM]	
	32mm dia. 12 & 24Vdc	42mm dia. 12 & 24Vdc
25/3:1	516	312
25:1	172	104
125/3:1	103	62
62.5:1	69	42
125:1	34	21
500:1	8.6	5.2

Motor body diameter	[mm]	32	42
Max permitted torque (Continuous rating)	[Nm]	5	5
Axial loads	[N]	20	20
Radial loads	[N]	30	30
Gearbox case temperature	[°C]	50	40
Weight	[g]	465	800

42mm motor fitted to gearbox



32mm motor fitted to gearbox



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