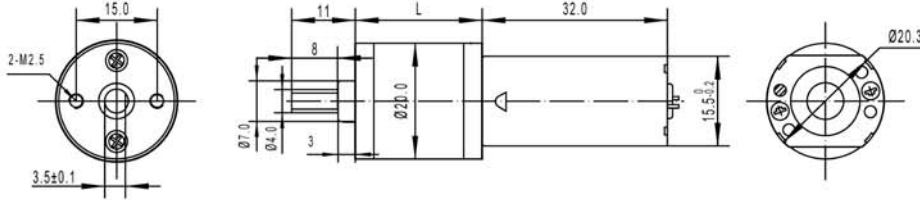


KLS23-GM20-180SH 20mm gearbox plus 180 & 130 permanent magnet DC motor

- Small size dc gear motor with low speed and big torque
- 20mm gear motor provide 0.3Nm torque and more reliable
- Suitable to small diameter, low noise and big torque application
- Dc Gear motors can match encoder,3ppr
- Reduction Ratio: 29、31、56、73、107、140、182、205、268、349、456、488



Gear Motor Dimensions (mm)



Motor Technical Data

Motor model No.	Rated voltage	No-load speed	No-load current	Rated speed	Rated torque	Rated current	Output power	Stall torque	Stall current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
TFF-180SH-09450	12	4400	25	3500	13	90	0.5	60	0.35
TFK-180SH-18140	6	7000	90	5300	20	450	1.1	85	1.90
TFK-180SH-10400	24	10200	30	8700	20	140	1.8	155	0.85

Gear motor Technical Data

	Gearbox with motor: GM20-180SH-09450-XXX									
Reduction ratio	29	31	56	73	107	182	268	349	456	488
Length mm	15.9	15.9	17.4	17.4	18.9	18.9	20.4	20.4	20.4	20.4
No-load speed rpm	145	135	75	57	39	23	16	12	9	9
Rated speed rpm	120	113	62	48	33	19	13	10	8	8
Rated torque kg.cm	0.23	0.24	0.44	0.6	0.8	1.4	1.9	2.3	3	3
Max.momentary tolerance torque kg.cm	1.0	1.1	2	2.6	3.8	5	5	5	5	5

Gearbox with motor

	GM20-180SH-18140-XXX									
Reduction ratio	29	31	56	73	107	182	268	349	456	488
Length mm	15.9	15.9	17.4	17.4	18.9	18.9	20.4	20.4	20.4	20.4
No-load speed rpm	230	215	120	90	62	37	25	19	15	14
Rated speed rpm	180	170	95	73	50	29	20	16	13	13
Rated torque kg.cm	0.4	0.4	0.7	0.9	1.3	2.2	3	3	3	3
Max.momentary tolerance torque kg.cm	1.5	1.6	2.8	3.7	5	5	5	5	5	5

Gearbox with motor

	GM20-180SH-10400-XXX									
Reduction ratio	29	31	56	73	107	182	268	349	456	488
Length mm	15.9	15.9	17.4	17.4	18.9	18.9	20.4	20.4	20.4	20.4
No-load speed rpm	340	310	175	135	95	55	38	29	22	21
Rated speed rpm	300	280	155	120	81	48	32	26	20	20
Rated torque kg.cm	0.4	0.4	0.7	0.9	1.3	2.2	3	3	3	3
Max.momentary tolerance torque kg.cm	3.1	3.4	5.2	5	5	5	5	5	5	5