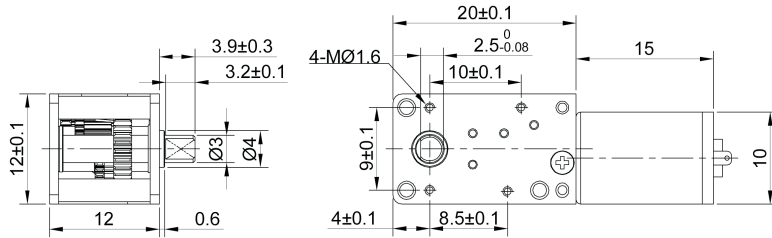
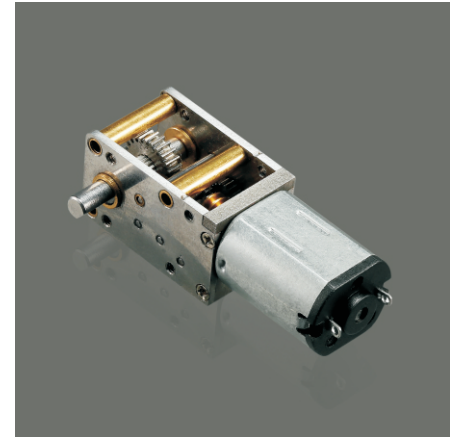


**TWG1220-N20VA** 12x20mm worm gearbox plus N20VA permanent magnet DC motor

- Small size dc gear motor with low speed and big torque
- 12x20mm gear motor provide 0.1Nm torque and more reliable
- Suitable to small diameter. Low noise and big torque application
- Dc gear motors can match encoder,3ppr
- Reduction ratio: 82、190、438、1007



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
<b>TFF-N20VA-13110</b>	2.4	14800	60	12000	2.5	200	0.31	13	1.20
<b>TFF-N20VA-09220</b>	5.0	14800	30	12000	2.5	120	0.31	13	0.52
<b>TFF-N20VA-05430</b>	12.0	16000	15	12500	3.0	60	0.35	13	0.25

**Gear Motor Technical Data**

Gearbox with motor: TWG1220-N20VA-13110-XXX

	82	190	438	1007					
<b>Reduction ratio</b>	82	190	438	1007					
<b>Length mm</b>	20.0	20.0	20.0	20.0					
<b>No-load speed rpm</b>	175	75	33	14					
<b>Rated speed rpm</b>	145	63	27	11					
<b>Rated torque kg.cm</b>	0.12	0.26	0.5	1.0					
<b>Max.momentary tolerance torque kg.cm</b>	0.6	1.3	2.8	3.0					

**Gearbox with motor**

TWG1220-N20VA-09220-XXX

	82	190	438	1007					
<b>Reduction ratio</b>	82	190	438	1007					
<b>Length mm</b>	20.0	20.0	20.0	20.0					
<b>No-load speed rpm</b>	175	75	33	14					
<b>Rated speed rpm</b>	145	63	27	11					
<b>Rated torque kg.cm</b>	0.12	0.26	0.5	1.0					
<b>Max.momentary tolerance torque kg.cm</b>	0.6	1.3	2.8	3.0					

**Gearbox with motor**

TWG1220-N20VA-05430-XXX

	82	190	438	1007					
<b>Reduction ratio</b>	82	190	438	1007					
<b>Length mm</b>	20.0	20.0	20.0	20.0					
<b>No-load speed rpm</b>	190	80	35	15					
<b>Rated speed rpm</b>	150	65	28	12					
<b>Rated torque kg.cm</b>	0.15	0.6	0.7	1.0					
<b>Max.momentary tolerance torque kg.cm</b>	0.6	1.3	2.8	3.0					