

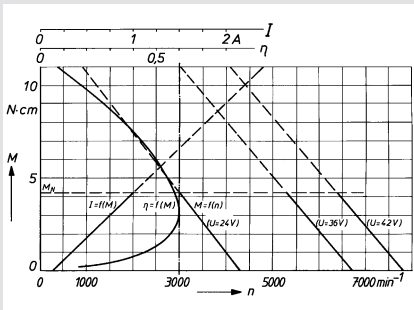
# DC motor with permanent magnet

<b>Properties:</b>	Connection:	Connection to the power supply, battery, PWM controller or control amplifier, residual ripple of the operating voltage max. 5% Cable connection, optional plug-in connector
	Commutation:	Mechanical commutation using a 12-part commutator
	Magnetic system:	2-pole permanent ferrite magnet
	Service life:	5,000 h, S1 duty
	Insulation mat. class:	B, optional F
	System of protection:	IP 40, optional IP 65
	Special model:	Design for short-time operation with high performance, additional voltages and speeds upon request
	Options:	Special shafts, custom designed

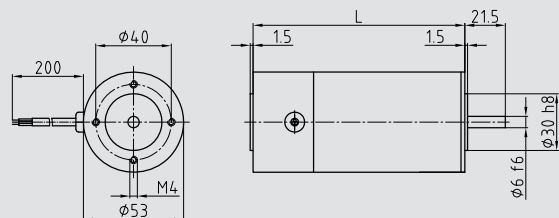


Type	Name	U	DC voltage	G 525	G 545	G 565
	Nominal voltages			24	24	24
<b>Rate</b>	Nominal power	P <sub>2</sub>	W	14	26	29
	Nominal speed	n <sub>nom</sub>	rpm	3000	3000	3000
	Nominal torque	T <sub>nom</sub>	Ncm	4.2	8	9
	Nominal current	I <sub>nom</sub>	A	1.0	1.5	1.6
	Starting torque	T <sub>S</sub>	Ncm	13.5	39	43
	Idling speed	n <sub>idle</sub>	rpm	3800	3650	3750
	No-load current	I <sub>0</sub>	A	0.2	0.2	0.2
	<b>Characteristics</b>	Gradient speed torque curve	1 / k	mNm / rpm		0.12
Speed constant		c <sub>n</sub>	rpm / V		121	141
Torque constant		c <sub>T</sub>	Ncm / A		4.71	4.76
Nominal efficiency		η		0.73	0.60	0.71
<b>Connection</b>		Terminal resistance	R	Ohm		4.0
	Rated input power	P <sub>1</sub>	W	24	36	39
<b>Dynamics</b>	Weight	m	kg	0.47	0.6	0.8
	Moment of inertia	J	gcm <sup>2</sup>	158	205	295
	Mech. time constant	τ <sub>M</sub>	ms		18	22
<b>Thermal</b>	Adm. ambient temperature	T	°C	-20 to +40	-20 to +40	-20 to +40
	Max. adm. rotor temperature	T <sub>max</sub>	°C	+120	+120	+120
<b>Coupling</b>	Shaft diameter	d	mm	6	6	6
	Max. axial force	F <sub>a</sub>	N	8	8	8
	Max. radial force	F <sub>r</sub>	N	100	100	100

### Dimensions - Characteristics



Type	L / mm
G 525	72
G 545	92
G 565	112



### System technology

<b>Recommended combinations</b> other gears and extensions upon request	Worm gear	S 567
	Spur gear	Z 6    Z 5
	Planetary gear	PM 40    PM 50
	Rotary encoder	
	Brake	BFK 457
	Electronics	UCE 24