

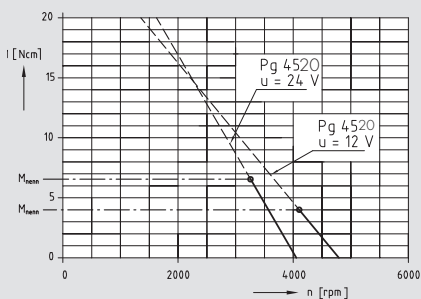
DC motor with permanent magnet

Properties:	Connection:	Connection to the power supply, battery, PWM controller or control amplifier, residual ripple of the operating voltage max. 5% Cable connection
	Commutation:	Mechanical commutation using a 12-part commutator
	Magnetic system:	2-pole Samarium-Cobalt permanent magnet
	Service life:	2,000 h, S1 duty
	Insulation mat. class:	B
	System of protection:	IP 41
	Special model:	Design for short-time operation with high performance, additional voltages and speeds upon request
	Options:	Special shafts



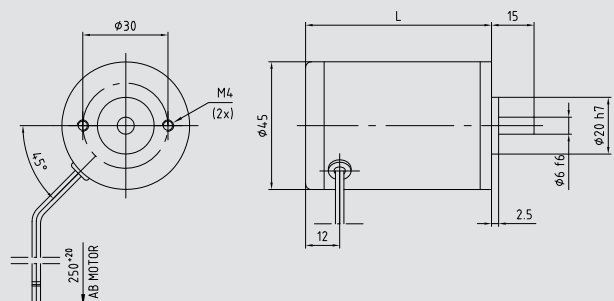
Type	Name	U	DC voltage	Pg 4520	Pg 4520	Pg 4525	Pg 4525
	Nominal voltage			12	24	12	24
Rate	Nominal power	P ₂	W	17.5	22.5	30,5	32
	Nominal speed	n _{nom}	rpm	4200	3250	4750	3400
	Nominal torque	T _{nom}	Ncm	4.0	6.6	6,2	9,0
	Nominal current	I _{nom}	A	2.5	1.5	3,9	2,0
	Starting torque	T _S	Ncm	35	38	38	54
	Idling speed	n _{idle}	rpm	4800	4050	5350	4150
	No-load current	I ₀	A	0.6	0.2	0,8	0,3
	Characteristics	Gradient speed torque curve	1 / k	mNm / rpm	0.08	0.10	0,07
Speed constant		c _n	rpm / V	348	136	394	142
Torque constant		c _T	Ncm / A	1.63	4.34	1,57	4,5
Nominal efficiency		η		0.59	0.62	0.65	0.67
Connection		Terminal resistance	R	Ohm	1.2	3.8	1,2
	Rated input power	P ₁	W	29.5	36.5	47,5	48
Dynamics	Weight	m	kg	0.4	0.4	0,5	0,5
	Moment of inertia	J	gcm ²	120	120	135	135
	Mech. time constant	τ _M	ms	14	14	11	11
Thermal	Adm. ambient temperature	T	°C	-20 to +40	-20 to +40	-20 to +40	-20 to +40
	Max. adm. rotor temperature	T _{max}	°C	+120	+120	+120	+120
Coupling	Shaft diameter	d	mm	6	6	6	6
	Max. axial force	F _a	N	8	8	8	8
	Max. radial force	F _r	N	100	100	100	100

Dimensions - Characteristics



Type L / mm

Pg 4520	65,5
Pg 4525	75,5



System technology

Recommended combinations other gears and extensions upon request	Worm gear	S 345
	Spur gear	
	Planetary gear	PM 40
	Rotary encoder	
	Brake	
	Electronics	UCE 24

Last modified: 10/2016