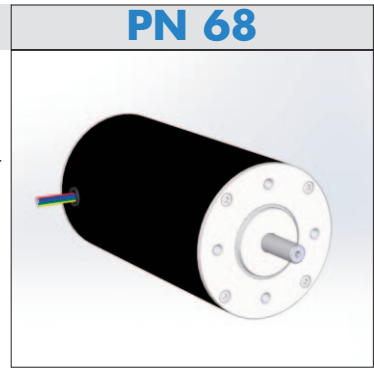


DC motor with permanent magnet

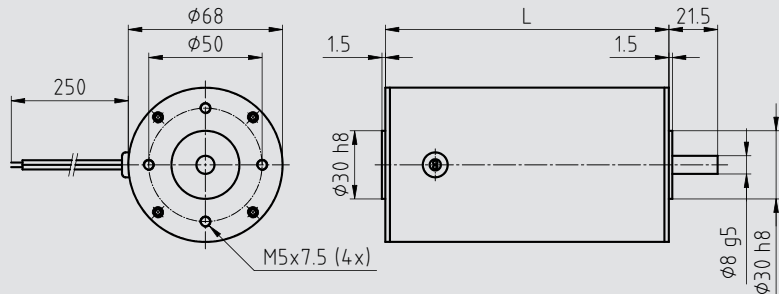
Properties:	Connection:	Connection to the power supply, battery, PWM controller or control amplifier, residual ripple of the operating voltage max. 5% Cable connection, optional plug-in connector
	Commutation:	Mechanical commutation using a 12-part commutator
	Magnetic system:	2-pole permanent ferrite magnet
	Service life:	3,000 h, S1 duty
	Insulation mat. class:	F
	System of protection:	IP 40, optional IP 54
	Special model:	Design for short-time duty with high performance, additional voltages and speeds upon request
	Options:	Special shafts, custom designed



Type	Name			PN6830	PN6860	PN6890
	Nominal voltage	U	Volt DC	24	24	24
Rate	Nominal power	P ₂	W	68	104	130
	Nominal speed	n _{nom}	rpm	3250	3300	3100
	Nominal torque	T _{nom}	Ncm	20	30	40
	Nominal current	I _{nom}	A	4.0	5.6	6.9
	Starting torque	T _S	Ncm			
	Idling speed	n _{idle}	rpm	3750	3700	3400
	No-load current	I ₀	A	0.35	0.4	0.5
	Characteristics	Gradient speed torque curve	1 / k	mNm / rpm		
Speed constant		c _n	rpm / V			
Torque constant		c _T	Ncm / A			
Nominal efficiency		η		0.72	0.78	0.79
Connection	Terminal resistance	R	Ohm			
	Rated input power	P ₁	W			
Dynamics	Weight	m	kg			
	Moment of inertia	J	gcm ²			
	Mech. time constant	τ _M	ms			
Thermal	Adm. ambient temperature	T _u	°C	-20 to +40	-20 to +40	-20 to +40
	Max. adm. rotor temperature	T _{max}	°C	+155	+155	+155
Coupling	Shaft diameter	d	mm			
	Max. axial force	F _a	N			
	Max. radial force	F _r	N			

Dimensions

Type	L / mm
PN 6830	95
PN 6860	125
PN 6890	155



System technology

Recommended combinations other gears and extensions upon request	Worm gear	S 668	GS 3
	Spur gear	M 7	
	Planetary gear	PM 50	
	Rotary encoder	RV 30	
	Brake	B 77	
	Electronics	UCE 24	