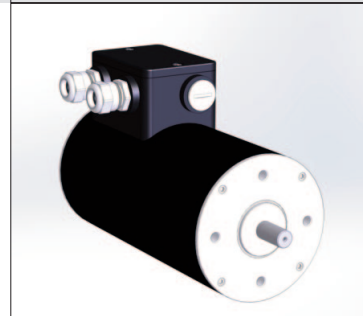


# Brushless DC drive

with integrated commutation

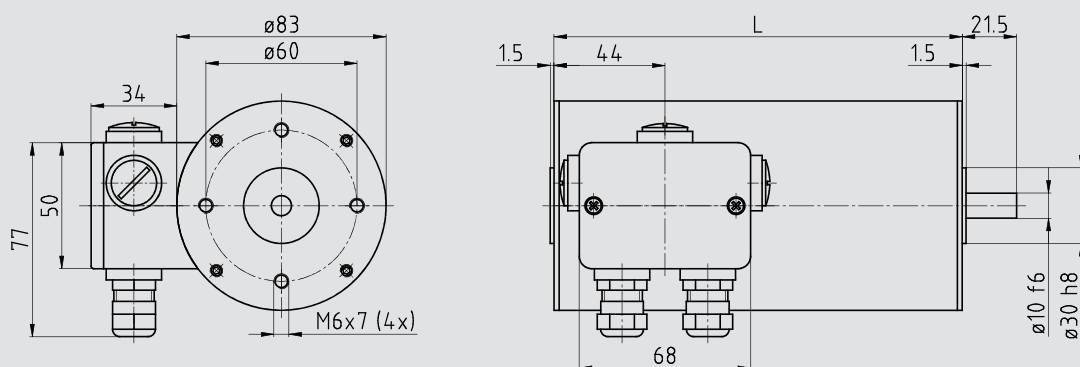
**Properties:** Drive: Brushless DC motor with integrated commutation electronic  
 Rotor position sensing using 3 hall sensors  
 K4 terminal box for power supply and sensors  
 Controlling: by CAN-Bus (CANopen, Drive Profile DSP-402) or digital/analogue I/O  
 Rotor: 8-pole neodymium magnet  
 Service life: 20,000 h, S1 duty  
 Insulation mat. class: F (155°C)  
 System of protection: IP 44, optional up to IP 65 (IP 69)  
 Special model: additional voltages and speeds upon request  
 Options: Special shafts, special flanges, custom design, stainless steel



Type	Name	U	Volt DC	MQC 847	MQC 867	MQC 887
	Nominal voltage	U	Volt DC	48	48	48
<b>Rate</b>	Nominal power	P <sub>2</sub>	W	235	274	326
	Nominal speed	n <sub>nenn</sub>	rpm	3200	3490	3660
	Nominal torque	M <sub>nenn</sub>	Nm	0.7	0.75	0.85
	Nominal current	I <sub>nennDC</sub>	A	5.5	6.4	7.7
	Nominal efficiency	η		0.89	0.89	0.88
	Input power	P <sub>1</sub>	W	265	307	369
	Torque constant	k <sub>M</sub>	Ncm/A	12.3	11.2	10.8
	Max. current (2sec)	I <sub>max</sub>	A	20	20	20
	Max. torque	M <sub>max</sub>	Nm	2.5	2.6	2.6
	Cogging torque		mNm	max. 40	max. 44	max. 70
<b>Idling</b>	Idling speed	n <sub>0</sub>	rpm	3600	3800	3950
	Idling current	I <sub>0</sub>	A	0.4	0.7	0.85
<b>Short-time duty (S2 5min)</b>	Speed	n <sub>nenn</sub>	rpm	2750	3000	3220
	Torque	M <sub>nenn</sub>	Nm	1.6	1.9	1.8
	Current	I <sub>nennDC</sub>	A	12.6	14.7	14.5
<b>Connection</b>	Terminal resistance	R	mOhm	295	194	147
	Terminal inductance	L	μH	863	617	367
<b>Dynamics</b>	Weight	m	kg			
	Moment of inertia	J	gcm <sup>2</sup>	1291.5	1873.3	2512.9
<b>Thermal</b>	Adm. ambient temperature	T <sub>U</sub>	°C	-20 to +40	-20 to +40	-20 to +40
	Max. adm. stator temperature	T <sub>max</sub>	°C	+155 „ISO F“	+155 „ISO F“	+155 „ISO F“
<b>Coupling</b>	Shaft diameter	d	mm	10	10	10
	Max. axial force	F <sub>a</sub>	N	40	40	40
	Max. radial force	F <sub>r</sub>	N	400	400	400

**Dimensions**

Type	L / mm
MQC 847	122
MQC 867	142
MQC 887	162



**System technology**

**Recommended combinations**  
 other gears and extensions upon request

Worm gear	S 769
Spur gear	M 10
Planetary gear	PM 80
Rotary encoder	RV 30 Ri 30
Brake	B 77
Electronics	integrated