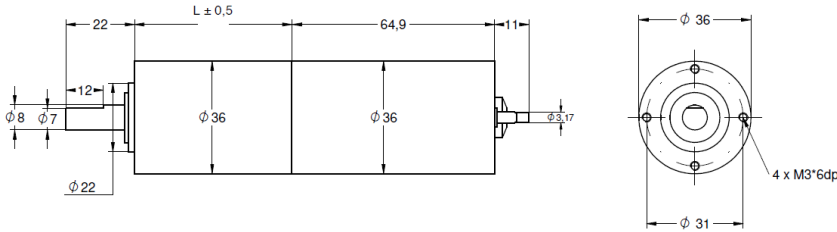


DRAWING (mm)



PHOTO



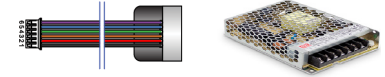
MODEL NO. DESIGNATION EXAMPLE



1 - 2 - 3 - 4

- 1 = empty → sleeve bearing
- 1B = ball bearing
- 2F = emc filter varistor / capacitor
- 3E = magnetic encoder
- 4 = empty → no encoder rear cover cap
- 4C = magnetic encoder rear cover cap

OPTIONS ENCODERS AND POWER SUPPLIES

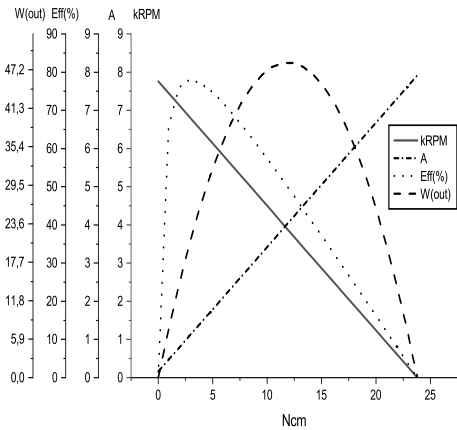


● C = customizations are offered on demand even for smaller quantities. Typical customizations indicated with green dot at column end. Please contact us for any customization request

GEAR MOTOR DATA		C											
Gear reduction		1:5	1:14	1:19	1:27	1:51	1:71	1:100	1:139	1:189	1:264	1:516	1:721
Nominal torque   ^ gear box limit	mNm	107.9	264.8	372.7	519.7	853.2	1177	1667	1961	2452^	2452^	2942^	2942^
Nominal speed	rpm	1240	470	335	240	127	91.0	65.0	46.5	34.3	24.8	13.0	9.4
Peak torque   ^ gear box limit	mNm	883	2354	2354^	2942	5296	5296^	5884	5884^	7355	7355^	8826	8826^
Mechanical power	W	11.24	9.15	9.18	9.17	6.83	6.75	6.83	5.75	4.41	3.19	2.01	1.45
Efficiency gear head	%	80	70	70	70	60	60	60	60	50	50	50	50
Length gear box = L	mm	33.1	41.8	41.8	41.8	50.5	50.5	50.5	50.5	59.2	59.2	59.2	59.2
Weight	g	356	396	396	396	436	436	436	436	476	476	476	476

GEAR MOTOR COMBINED DATA		C		GEAR BOX SHAFT DATA		C		GEAR BOX SPECIFIC DATA		C	
Service life brush wear	500 h continuous operation	●		Radial play   thrust play	mm ≤ 0.05   ≤ 0.3			Material gear stage	Ratio 1:5 sintered steel	●	
Performance tolerances	% ± 15			Shaft axial load	N 29.4			Material > 1:5 ratio / stage	POM first + sintered steel	●	
Operating temperature	-10...+60 °C	●		Radial load	N 78.5			Direction of rotation	CCW or CW by reversed V polarity		
IP code	40			Press fit force max.	N 147.1			Assembly front bell	mm Maximum screw depth 5.5		
Manufacturing standard	ISO9001   ISO 14001   TS16949			Backlash no load	° ≤ 3.0						
Compliance	RoHS and REACH			Bearing type   shaft material	Ball bearing   SCM435						
Label CE   UL	CE no   UL no			Motor pinion material   shape	Steel   straight	●					

24 VOLT MOTOR PERFORMANCE GRAPH



MOTOR SPECIFIC DATA		C		GEAR MOTOR RANGE STANDARD AVAILABILITY		C	
Nominal voltage	V 24 (12 V separate data sheet)	●		Nominal voltage	V 2.4 - 24	separate data sheet	
No load speed	rpm 7500			Nominal mechanical power	W 0.023 - 25	separate data sheet	
Nominal speed	rpm 6480			Diameter	mm 12 - 42	separate data sheet	
Nominal torque	Ncm 2.79			Feedback encoder	Hall   Optical	see below	
Nominal current	A ≤ 1.05						
Nominal mechanical power	W 18.96						
Stall torque	Ncm 24.93						
Starting current	A 7.92						
Motor commutation	Carbon brush	●					
Motor rotor   stator	Iron rotor   Ferrit magnet						
Varistor emc	V 27-45	●					
Capacitor emc	V 24						
Resistance	ohm 3.08						
Inductance	mH 2.5						
Insulation class	F	●					

ACCESSORIES

Power supplies LRS V 3.3 - 48 separate data sheet

ENCODER OPTIONS		MAGNETIC HALL SENSOR		OPTICAL SENSOR		C	
Pulses per revolution		7 x 2		(100   200   256   360   400   500) x 2		●	
Channels   phase shift			2   90° ±(1/6)T				
Encoder rear cover		Cover cap in ABS plastic		Zink alloy			
Sensor technical data		Refer externally to brand and part UTC-SK1816					
Size		Ø 36 x 13.5		D19x4.5 x W30 x H40 mm			
Harness connector		JST PHR-6 P=2-6P		JST SMR-05V		●	
Harness cable		UL1007 AWG24 100 mm		UL2464 AWG24x4C 195 mm		●	
Connection		BLK M-   RED M+   BRN Vcc   GRN GND   BLU A   VIO B		RED Vcc   GRN GND   BLK A   WHT B			
Supply voltage Vcc		min.3.5 ref - max. 20 V		5 ±10% V			
Supply Current Ice		Vcc 20V open output   min. - ref. 5 max. 10 mA					
Open collector output		Requires external output resistors					
Output current / channel				± 20 mA			