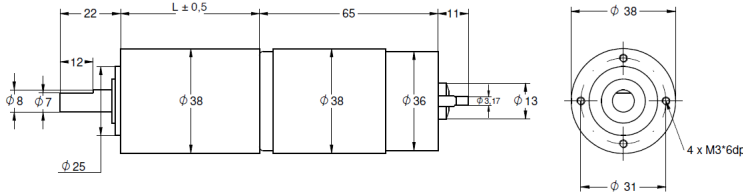


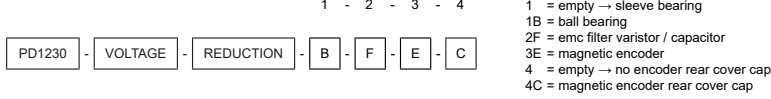
**DRAWING (mm)**



**PHOTO**



**MODEL NO. DESIGNATION EXAMPLE**



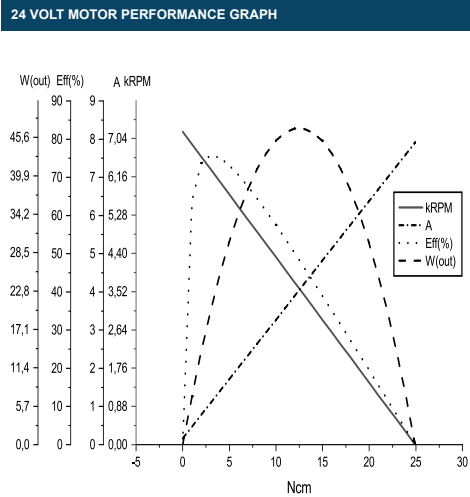
**OPTIONS ENCODERS AND POWER SUPPLIES**



● 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	362.8	509.9	833.6	1177	1569	1961	2452^	2452^	2942^	2942^
Nominal speed	rpm	1050	390	280	200	105	76.0	55.0	41.0	29.0	22.5	11.6	8.4
Peak torque   ^ gear box limit	mNm	883	2354	2354^	2942	5296	5296^	5884	5884^	7355	7355^	8826	8826^
Mechanical power	W	9.51	7.59	7.47	7.50	5.51	5.63	5.44	5.07	3.73	2.90	1.79	1.30
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	415	463	463	463	511	511	511	511	559	559	559	559

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	●					



MOTOR SPECIFIC DATA		C	
Nominal voltage	V 24 (12 V separate data sheet)	●	
No load speed	rpm 6400		
Nominal speed	rpm 5500		
Nominal torque	Ncm 2.84		
Nominal current	A ≤ 0.9		
Nominal mechanical power	W 15.81		
Stall torque	Ncm 24.93		
Starting current	A 7.92		
Motor commutation	Carbon brush	●	
Motor rotor   stator	Iron rotor   Ferrit magnet		
Varistor emc	V 27-45V	●	
Capacitor emc	V 24		
Resistance	ohm 2.98		
Inductance	mH 2.5		
Insulation class	F	●	

GEAR MOTOR RANGE STANDARD AVAILABILITY		C	
Nominal voltage	V 2.4 - 24	separate data sheet	
Nominal mechanical power	W 0.023 - 25	separate data sheet	
Diameter	mm 12 - 42	separate data sheet	
Feedback encoder	Hall   Optical	see below	

ACCESSORIES		C	
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		D19+4.5 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	