

DC Motor Ø 18

1.16.018.XXX



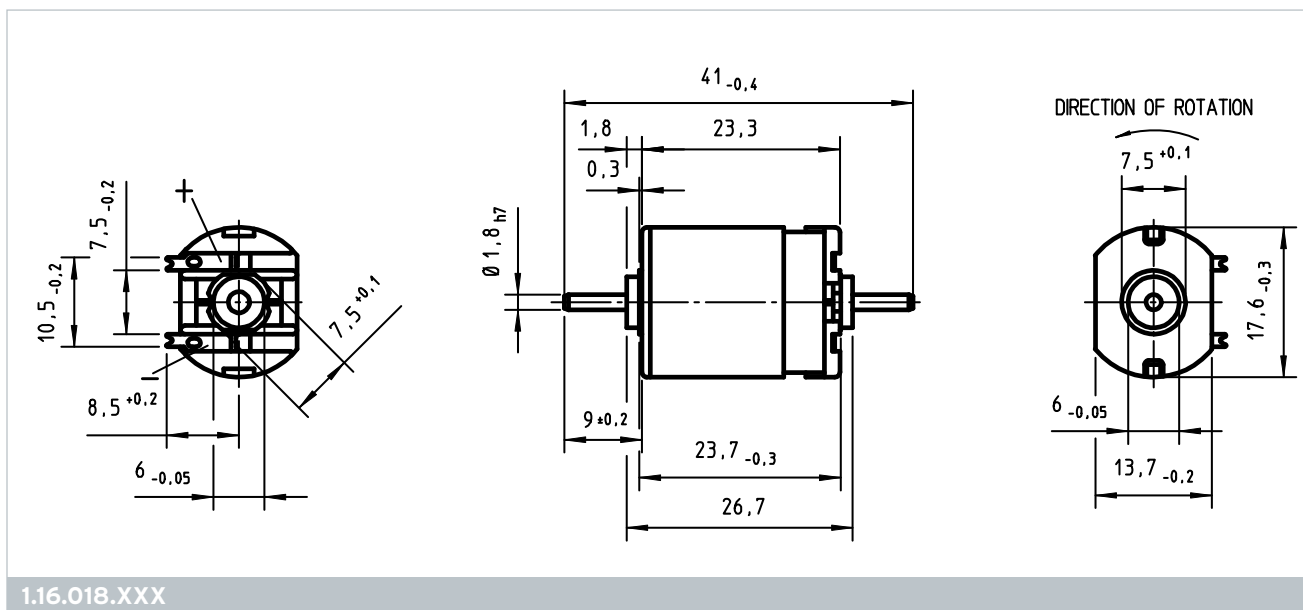
1.16.018.XXX

Design	
Commutator	Copper/3-segments
RFI Protection	VDR
Insulation class	Winding F, otherwise A
Protection class	IP20
Commutation	Graphite/copper-carbon brushes
Magnet system	Permanent magnets, 2-pole
Armature	sintered, straight slot
Bearings	2 sintered bronze bearings
Housing	Steel, corrosion protected
End shields	brush end plastic drive end zinc die-cast

Type 1.16.018.XXX			031
Characteristics*			
Rated voltage	V	V	12
Rated power	P_N	W	1.4
Rated torque	T_N	mNm	2.0
Rated speed	n_N	rpm	6500
Rated current	I_N	A	0.29
No load characteristics*			
No load speed	n_o	rpm	11700
No load current	I_o	A	0.06
Starting characteristics*			
Starting torque	T_s	mNm	4.5
Starting current	I_s	A	0.57
Performance characteristics			
max. Output power	P_{max}	W	1.4
max. Constant torque	T_{max}	mNm	1.0
Motor parameters*			
Weight	G	g	19
Rotor inertia	J	gcm ²	0.9
Terminal resistance	R	Ohm	21
Mech. time constant	τ_m	ms	-
Electr. time constant	τ_e	ms	-
Speed regulation constant	R_m	rpm/mNm	2600
Torque constant	k_t	mNm/A	8.8
Thermal resistance	R_{th1}	K/W	32
Thermal resistance	R_{th2}	K/W	28
Axial play		mm	0.05 - 0.5
Direction of rotation			bidirectional

Operational conditions			
Temperature range	T	°C	-10 - +70
Humidity at room temperature	rel. F.	%	15 - 55
No condensation		g H ₂ O / m ³	2 - 25
Axial force	F _A	N	1.0
Radial force, 5 mm from mounting surface	F _R	N	3.0
Operating mode at P _{max}			S5
Operating mode at T _{max}			S1

* at 25° C



Customized versions

The following modifications are available upon request:

- ▶ Speed adjustment through winding change
- ▶ Lead sets
- ▶ Shaft length on both ends
- ▶ Shaft configuration (flat, grooved, etc.)
- ▶ Drive configuration
- ▶ Adapters and mounting plates