

Buehler - 1.13.044.XXX DC motor



- 12 or 24V, up to 85W output power
- Up to 3900 rpm
- 52mm diameter
- Reversible

Description

Compact 52mm diameter motor body.

All metal housing

2 pole with carbon brushes

Technical data

		1.13.044.235	1.13.044.236	1.13.044.413	1.13.044.414
Rated voltage	V	12	24	12	24
Rated power	W	47	47	56	56
Rated torque	nMh	150	150	180	180
Rated speed	rpm	3000	3000	3000	3000
Rated current	A	6.2	3.1	7.3	3.5
No load speed	rpm	3900	3900	3900	3800
No load current	A	0.40	0.20	0.40	0.20
Starting torque	mNm	640	640	840	940
Starting current	A	24	12	31	16
Max output power	W	65	65	85	85
Max constant torque	mNm	100	100	120	120
Weight	g	765	765	940	940
Rotor inertia	gcm ²	180	180	250	250
Terminal resistance	Ohm	0.5	2.0	0.40	1.4
Mechanical time constant	ms	13	13	13	13
Electrical time constant	ms	1.0	1.0	1.0	1.0
Speed regulation constant	rpm/mNm	6	6	4.7	4.1
Torque constant	mNm/A	28	56	27	57
Thermal resistance (Rth1)	K/W	5.0	5.0	3.5	3.5
Thermal resistance (Rth2)	K/W	4.5	4.5	4.0	4.0
Axial play	mm	<0.01	<0.01	<0.01	<0.01
Direction of rotation		Bi-directional			
Temperature range				°C	-10 to +70
Axial force				N	30
Radial force (15mm from mounting surface)				N	120

All performance figures are recorded at an ambient temperature of 25°C

Information

Commutator	12 segment copper
RFI Protection	-
Insulation class	winding H, other A
Protection class	IP40
Commutation	carbon brushes
Armature	skewed slot
Magnet	permanent magnet, 2 poles
Bearings	2 pre loaded ball bearings
Housing	corrosion protected steel
Motor end shields	zinc die cast

Dimensions

