

# DC Motor with Encoder · 1639N5M-EN-

**Applications:** Precision control fields like medical instrument, industrial robot and so on.

**Operating Environment:** -10 ~ +60; 15 ~ 90% RH

Motor Characteristics		78-12.0-EN520256-001
Voltage	V	12
Terminal resistance	Ω	13
No load speed	rpm	7800
No load current	mA	10
Stall torque	mNm	13.3
Stall current	mA	920
Load torque	mNm	3
Load speed	rpm	5800
Load current	mA	220
Max output power	W	2.8
Max. efficiency	%	80
Back-EMF constant	mV/rpm	1.52
Torque constant	mNm/A	14.54
Rotor inertia	gcm <sup>2</sup>	1.2
Weight	g	29
Length	L [mm]	39.3
Encoder Characteristics		
Number of channels		2
Counts per turn	cpt	256
Supply voltage	V	5
Max operating frequency	kHz	60
High level output voltage	V	2.4 Min
Low level output voltage	V	0.4 Max
Phase shift	°e	90
Z index pulse width	°e	—

**Options:**

Lead wires length, shaft length, special coils, gearheads, encoder channels, encoder counts per turn

**Dimension (mm) · 1639N5M-78-12.0-EN520256-001:**

