



SLU16CH052 SERIES

SLU16CH052-24-G21-M16-1024

SLOTLESS BLDC MOTOR

FEATURES AND BENEFITS

- **Extremely quick response and high acceleration**
- **Quiet Operation**
- **High power density**

MOTOR SPECIFICATIONS

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Frame Size	16 mm
Motor Type	Motor + Encoder + Gearhead
Weight	97 g
Number of pole	2
Number of Phases	3
Certification	RoHS

MOTOR VALUES (AT NOMINAL SPEED)

Nominal Voltage	24 VDC
No Load Speed	759 RPM
No Load Current	150 mA
Nominal Speed	656 RPM
Nominal Torque (Max Cont. Torque)	280 mNm
Nominal Current (Max Cont. Current)	1.19 A
Rated Speed	640 RPM
Rated Torque	189 mNm
Rated Current	0.68 A
Stall Torque	2020 mNm
Stall Current	7.6 A

Max. Efficiency	70.5%
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MOTOR CHARACTERISTICS

Terminal Resistance	3.16 ohm
Terminal Inductance	0.253 mH
Speed/Torque Gradient	137 RPM/mNm
Speed Constant	643 RPM/V
Mechanical Time Constant	1.22 ms
Rotor Inertia	0.85 g-cm ²

MOTOR MECHANICAL DATA

Axial play	0 mm - 0.1 mm
Radial play	0.1
Max. Radial Load	50 N
Distance From Flange For Radial Load	5 mm
Max Force For Press Fit	40 N
Max Speed (Mechanical)	1429 RPM

MOTOR THERMAL DATA

Ambient Temperature	-40.00 °C to 85.00 °C
Insulation Class	F
Max winding temperature	155.00 °C
Max winding temperature	155.00 °C
Thermal resistance (Housing-Ambient)	17.60 °C/W
Thermal resistance (Winding-Housing)	1.80 °C/W
Thermal time constant motor	600 s
Thermal time constant winding	3.12 s

GEARHEAD SPECIFICATIONS

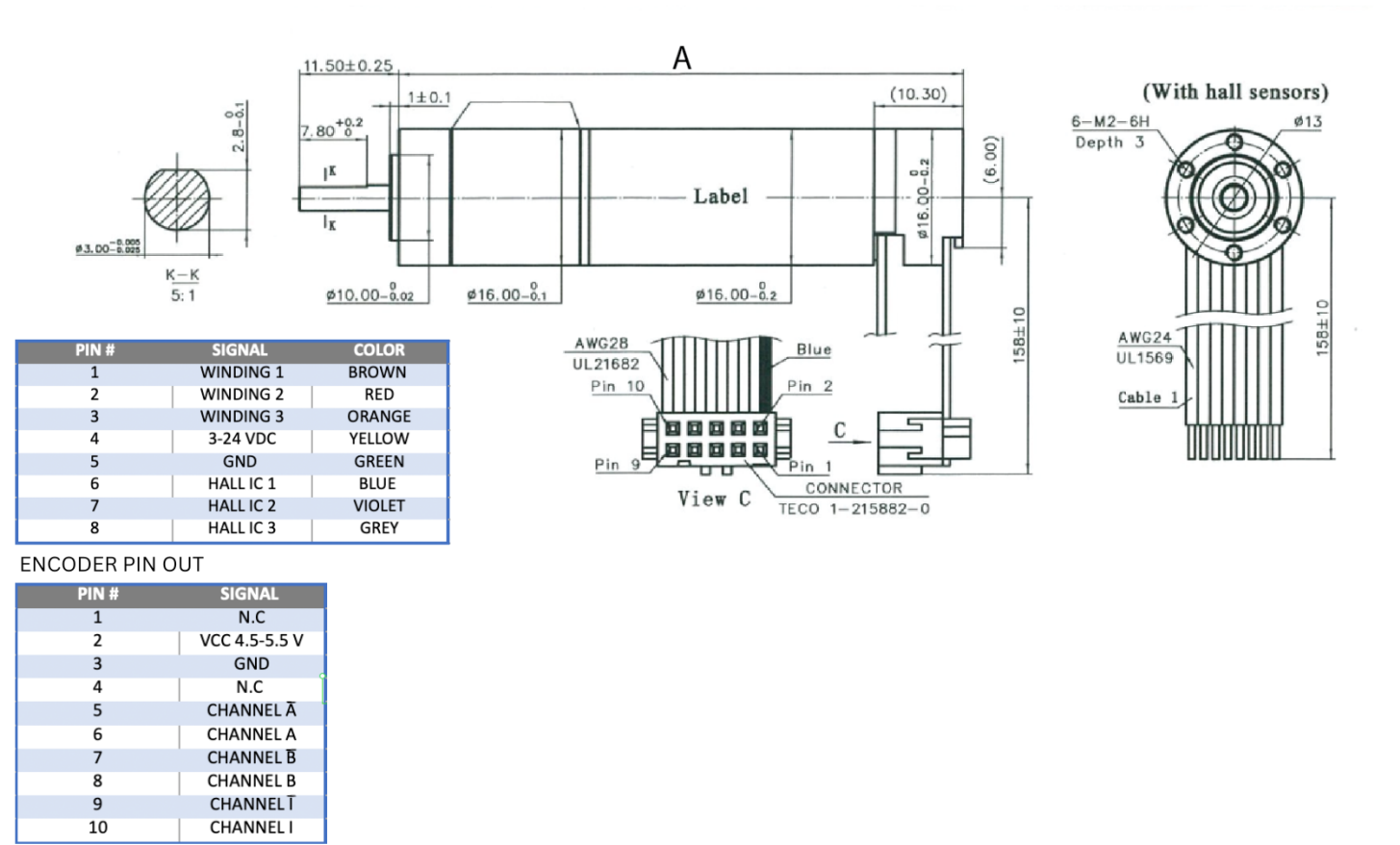
Type Of Gearhead	Planetary Gearhead
Gearhead Reduction Ratio	21
Nominal Reduction Ratio	20.95
Absolute Reduction Ratio	5175/247
Number Of Stages	2
Average Backlash (No Load)	1.5

ENCODER SPECIFICATIONS

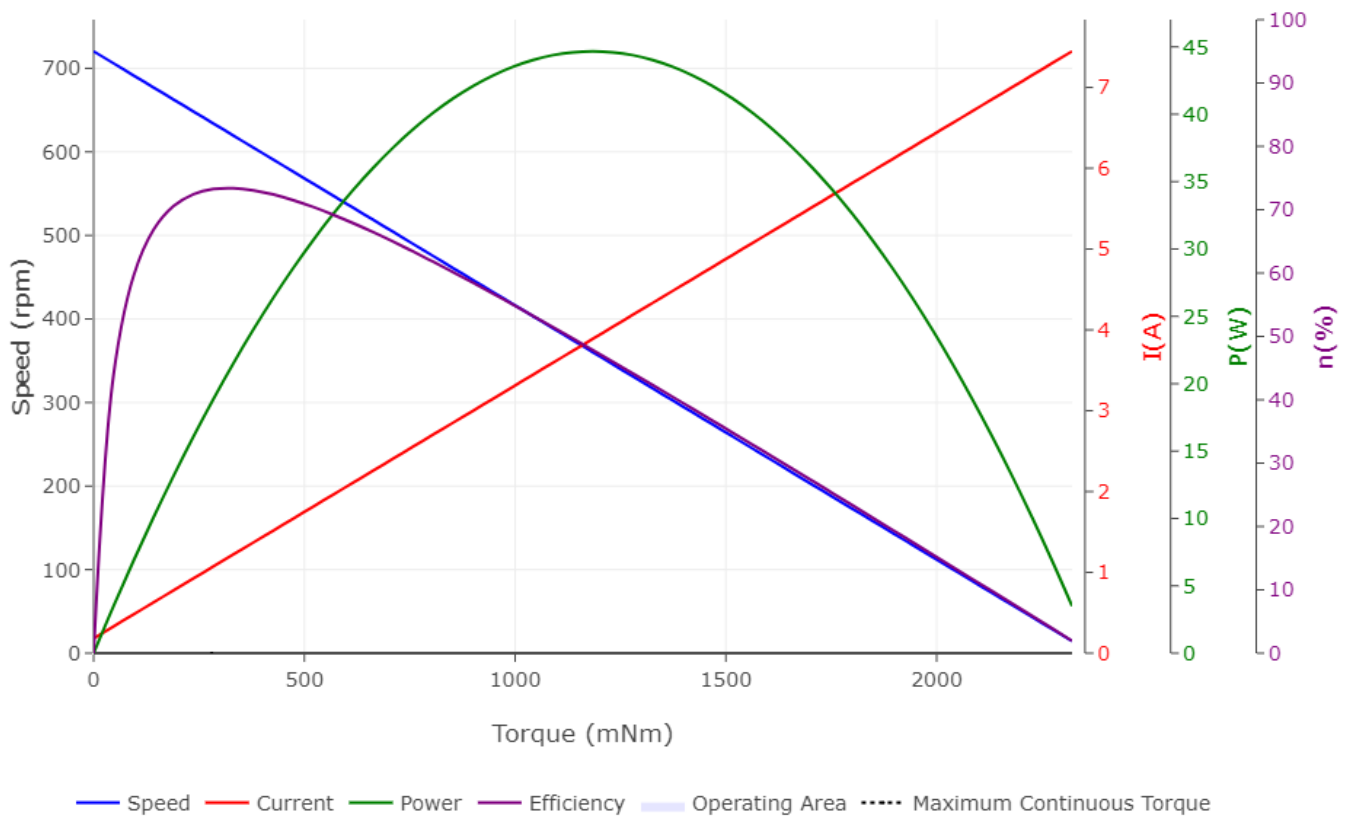
Counts Per Turn	1024
Number Of Channels	3

DIMENSIONS

Model	SLU16CH052-24-G21-M16-1024
DIM. A (length) mm	81.2 mm



PERFORMANCE CURVE



Motion Control, **Solved.**

Motor Engineering and Manufacturing



*Optimized For
Your
Applications*



*Quick Prototype
Turnaround*



*Small Batch to
OEM Volume
Production*



*US Based
Support &
Manufacturing*