

SLU22CH048 SERIES

SLU22CH048-24-G546-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	22 mm
Motor Type	Motor + Encoder + Gearhead
Weight	209.5 g
Number of pole	2
Number of Phases	3
Certification	RoHS

MOTOR VALUES (AT NOMINAL SPEED)

Nominal Voltage	24 VDC
No Load Speed	22 RPM
No Load Current	285 mA
Nominal Speed	19 RPM
Nominal Torque (Max Cont. Torque)	2000 mNm
Nominal Current (Max Cont. Current)	2.94 A
Rated Speed	20.7 RPM
Rated Torque	2000 mNm
Rated Current	0.56 A
Stall Torque	75600 mNm
Stall Current	15.96 A

Max. Efficiency	57.7%
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MOTOR CHARACTERISTICS

Terminal Resistance	0.94 ohm
Terminal Inductance	0.104 mH
Speed/Torque Gradient	58 RPM/mNm
Speed Constant	770 RPM/V
Mechanical Time Constant	2.36 ms
Rotor Inertia	3.64 g-cm ²

MOTOR MECHANICAL DATA

Axial play	0 mm - 0.1 mm
Radial play	0.1
Max. Radial Load	60 N
Distance From Flange For Radial Load	10 mm
Max Force For Press Fit	100 N
Max Speed (Mechanical)	30000 RPM

MOTOR THERMAL DATA

Ambient Temperature	-40.00 °C to 100.00 °C
Insulation Class	F
Max winding temperature	155.00 °C
Max winding temperature	155.00 °C
Thermal resistance (Housing-Ambient)	9.00 °C/W
Thermal resistance (Winding-Housing)	1.75 °C/W
Thermal time constant motor	510 s
Thermal time constant winding	1.59 s

GEARHEAD SPECIFICATIONS

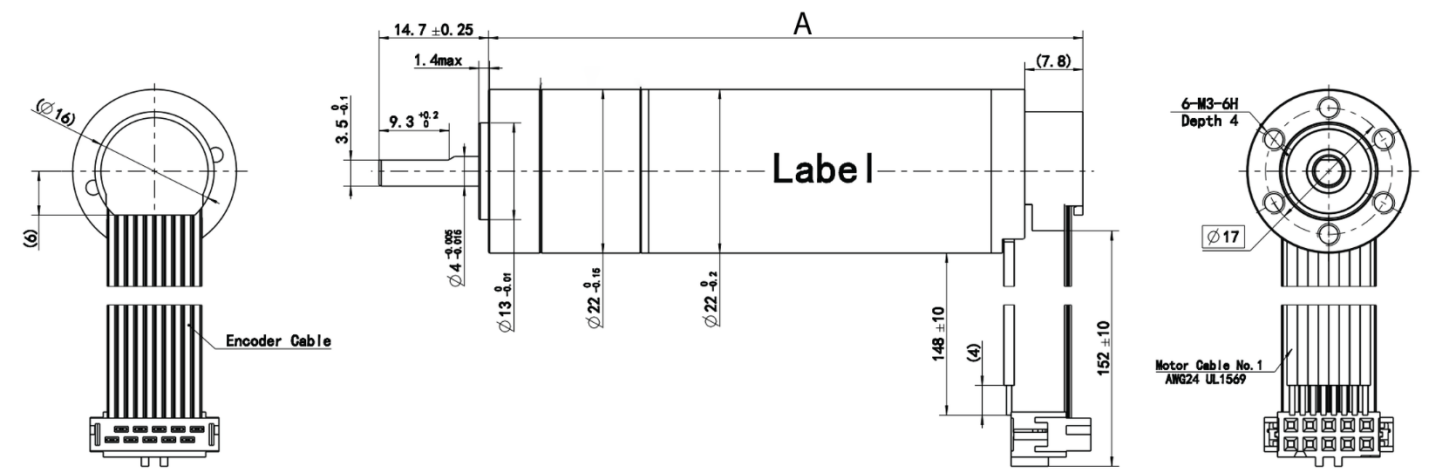
Type Of Gearhead	Planetary Gearhead
Gearhead Reduction Ratio	546
Nominal Reduction Ratio	545.8
Absolute Reduction Ratio	25616250/46930
Number Of Stages	4
Average Backlash (No Load)	1.35

ENCODER SPECIFICATIONS

Counts Per Turn	1024
Number Of Channels	3

DIMENSIONS

Model	SLU22CH048-24-G546-M16-1024
DIM. A (length) mm	98.8 mm



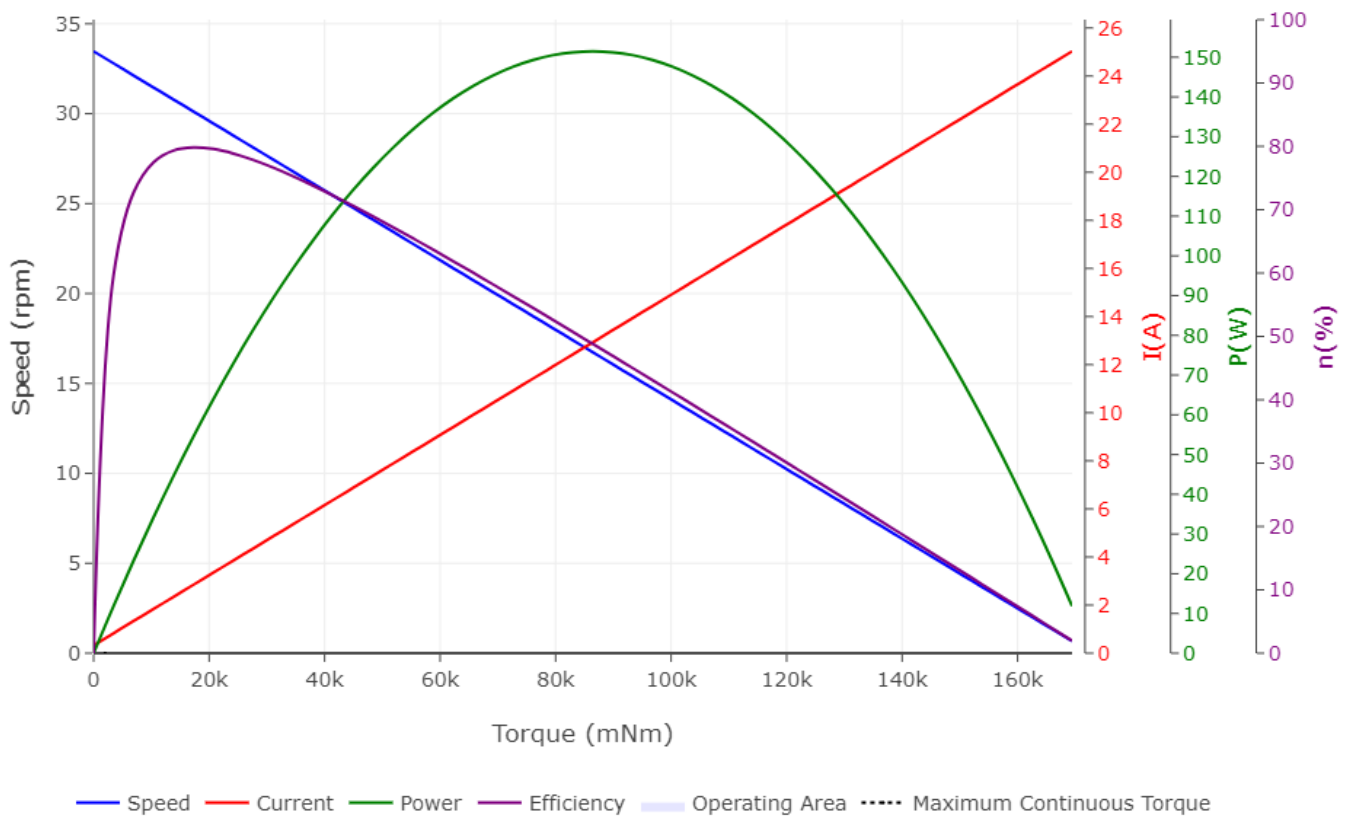
ENCODER PIN OUT

PIN #	SIGNAL	COLOR
1	WINDING 1	BROWN
2	WINDING 2	RED
3	WINDING 3	ORANGE
4	3-24 VDC	YELLOW
5	GND	GREEN
6	HALL IC 1	BLUE
7	HALL IC 2	VIOLET
8	HALL IC 3	GREY

PIN #	SIGNAL
1	N.C
2	VCC 4.5-5.5 V
3	GND
4	N.C
5	CHANNEL A
6	CHANNEL A
7	CHANNEL B
8	CHANNEL B
9	CHANNEL I
10	CHANNEL I

Alignment of cable relative to front mounting holes: $\leq \pm 30^\circ$

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*