



SLU16CH036 SERIES

SLU16CH036-24-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	80 g
Number of pole	2
Number of Phases	3
Certification	RoHS

MOTOR VALUES (AT NOMINAL SPEED)

Nominal Voltage	24 VDC
No Load Speed	726 RPM
No Load Current	130 mA
Nominal Speed	603 RPM
Nominal Torque (Max Cont. Torque)	181 mNm
Nominal Current (Max Cont. Current)	0.76 A
Rated Speed	590 RPM
Rated Torque	135.12 mNm

Rated Current	0.475 A
Stall Torque	1050 mNm
Stall Current	3.81 A
Max. Efficiency	68.8%

MOTOR CHARACTERISTICS

Terminal Resistance	6.3 ohm
Terminal Inductance	0.41 mH
Speed/Torque Gradient	254 RPM/mNm
Speed Constant	620 RPM/V
Mechanical Time Constant	1.49 ms
Rotor Inertia	0.56 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)	20.50 °C/W
Thermal resistance (Winding-Housing)	3.30 °C/W
Thermal time constant motor	525 s
Thermal time constant winding	0.72 s

GEARHEAD SPECIFICATIONS

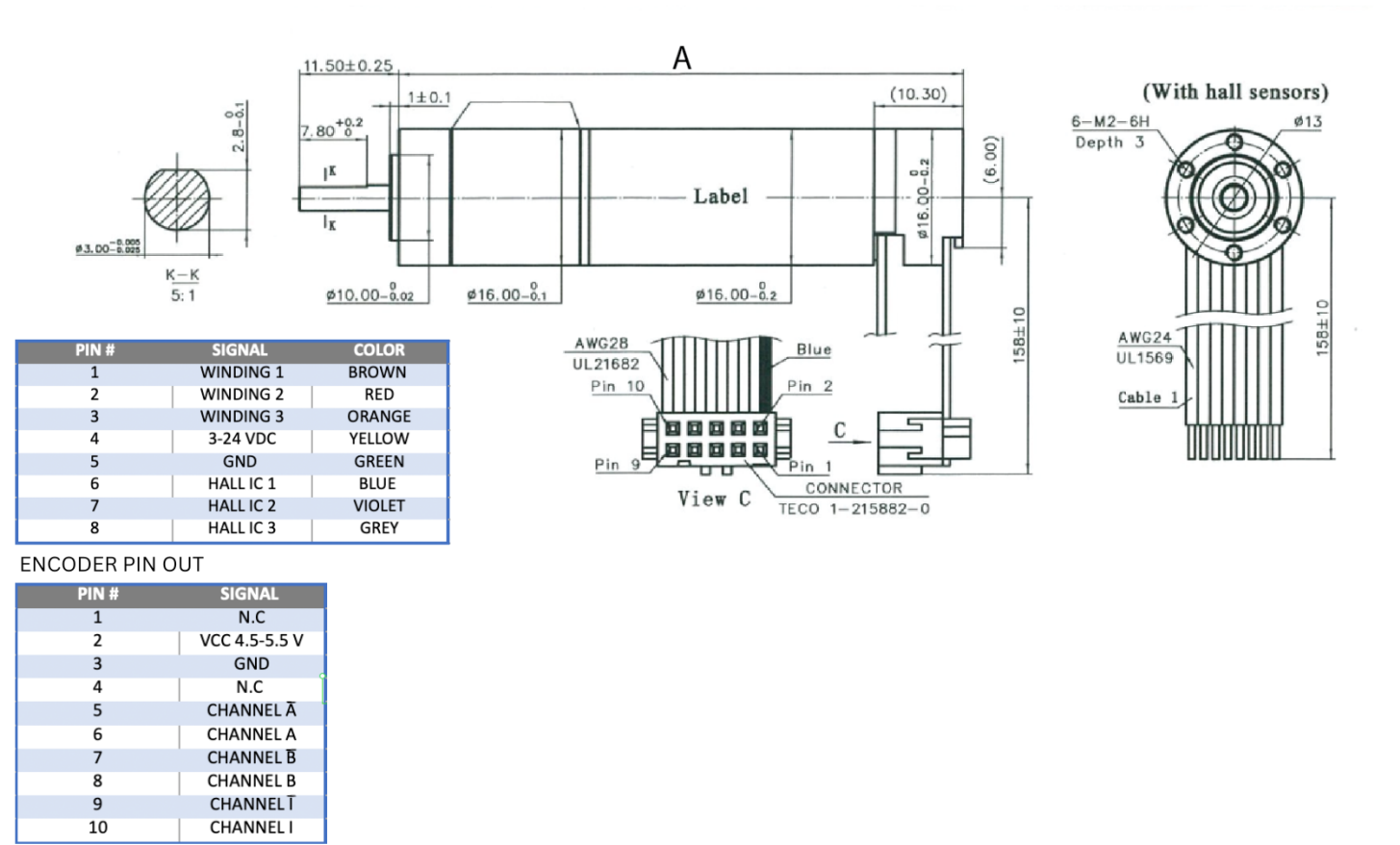
Type Of Gearhead	Planetary Gearhead
Gearhead Reduction Ratio	21
Nominal Reduction Ratio	20.95
Number Of Stages	2
Average Backlash (No Load)	1.5

ENCODER SPECIFICATIONS

Counts Per Turn	1024
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DIMENSIONS

Model	SLU16CH036-24-G21-M16-1024
DIM. A (length) mm	65.8 mm

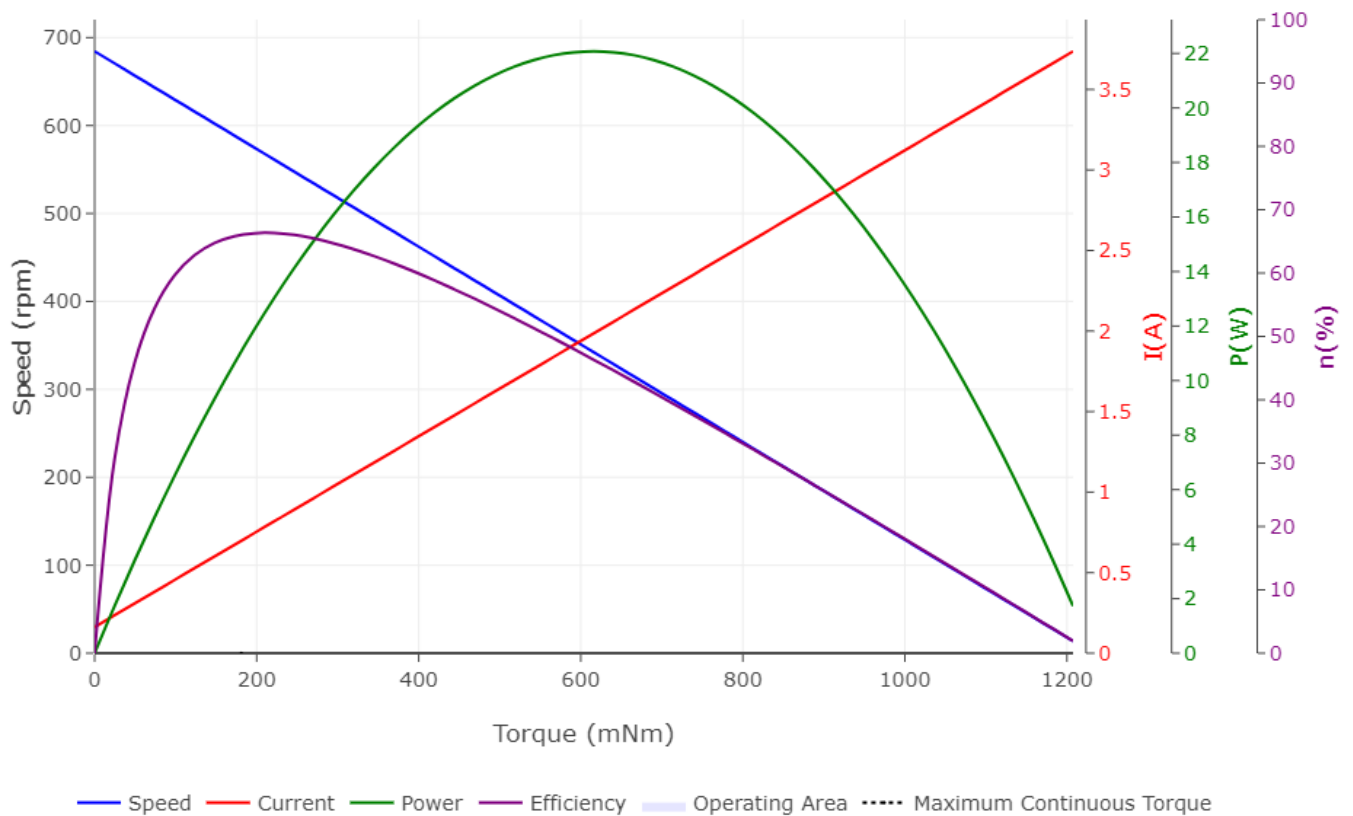


PIN #	SIGNAL	COLOR
1	WINDING 1	BROWN
2	WINDING 2	RED
3	WINDING 3	ORANGE
4	3-24 VDC	YELLOW
5	GND	GREEN
6	HALL IC 1	BLUE
7	HALL IC 2	VIOLET
8	HALL IC 3	GREY

ENCODER PIN OUT

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 T
10	CHANNEL I

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*