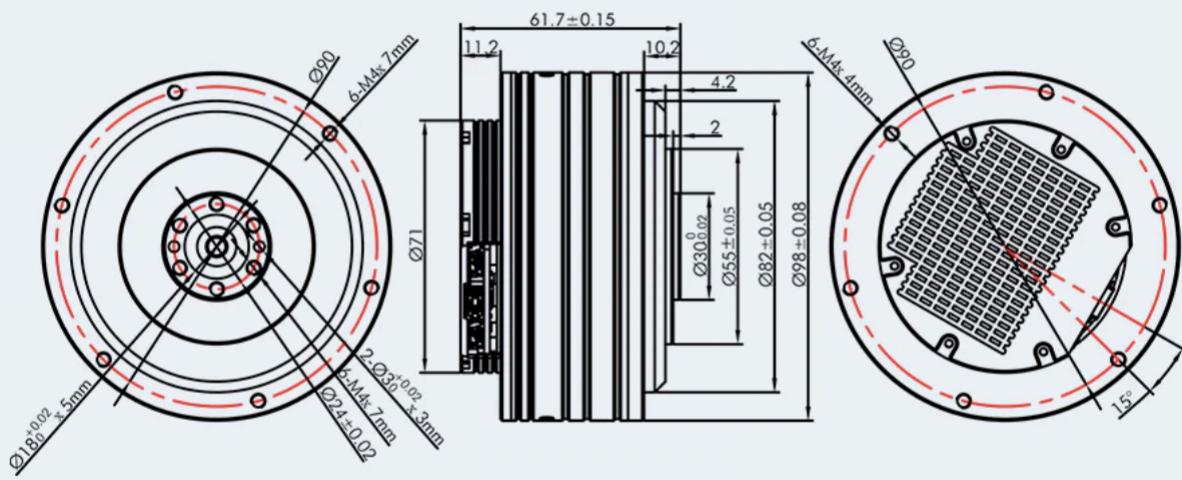
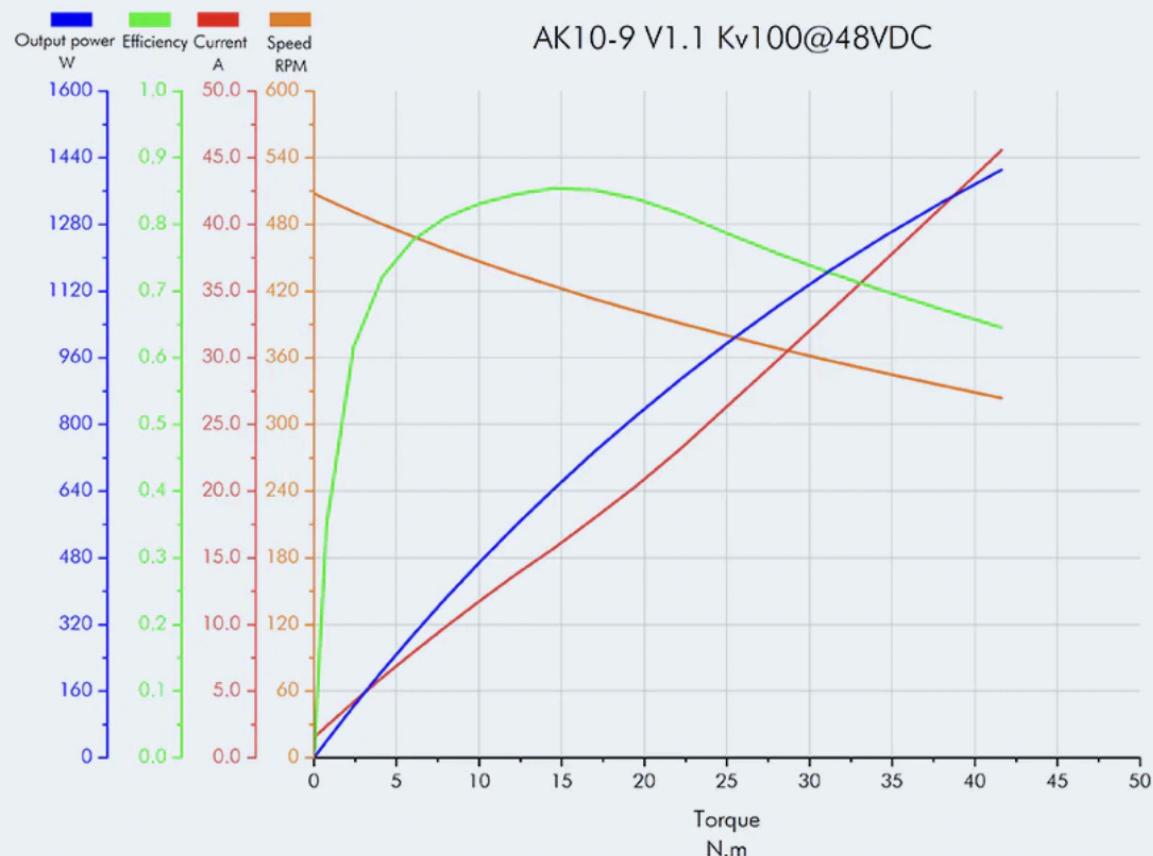


Product Drawing-AK10-9/V2.0



Analytical Graph of Motor Operation-AK10-9/V2.0

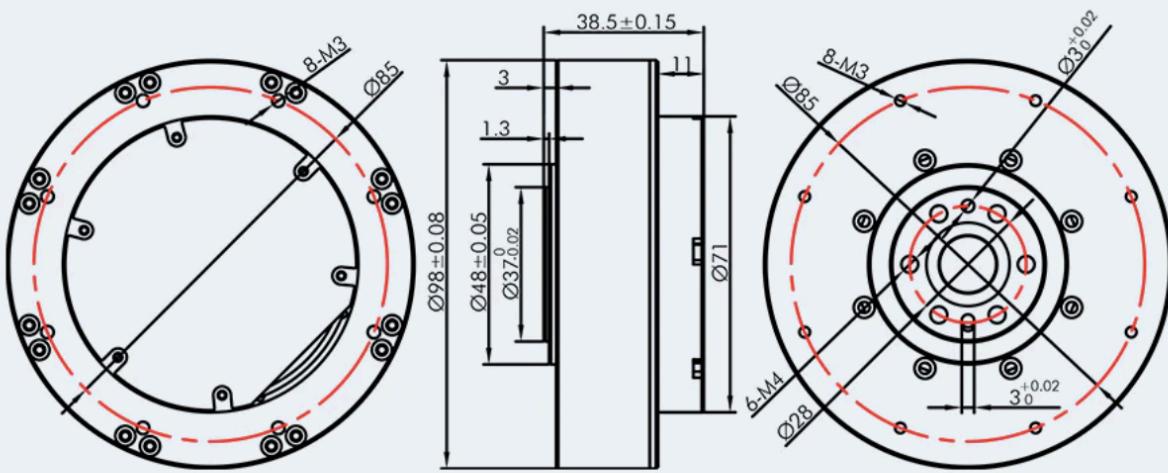




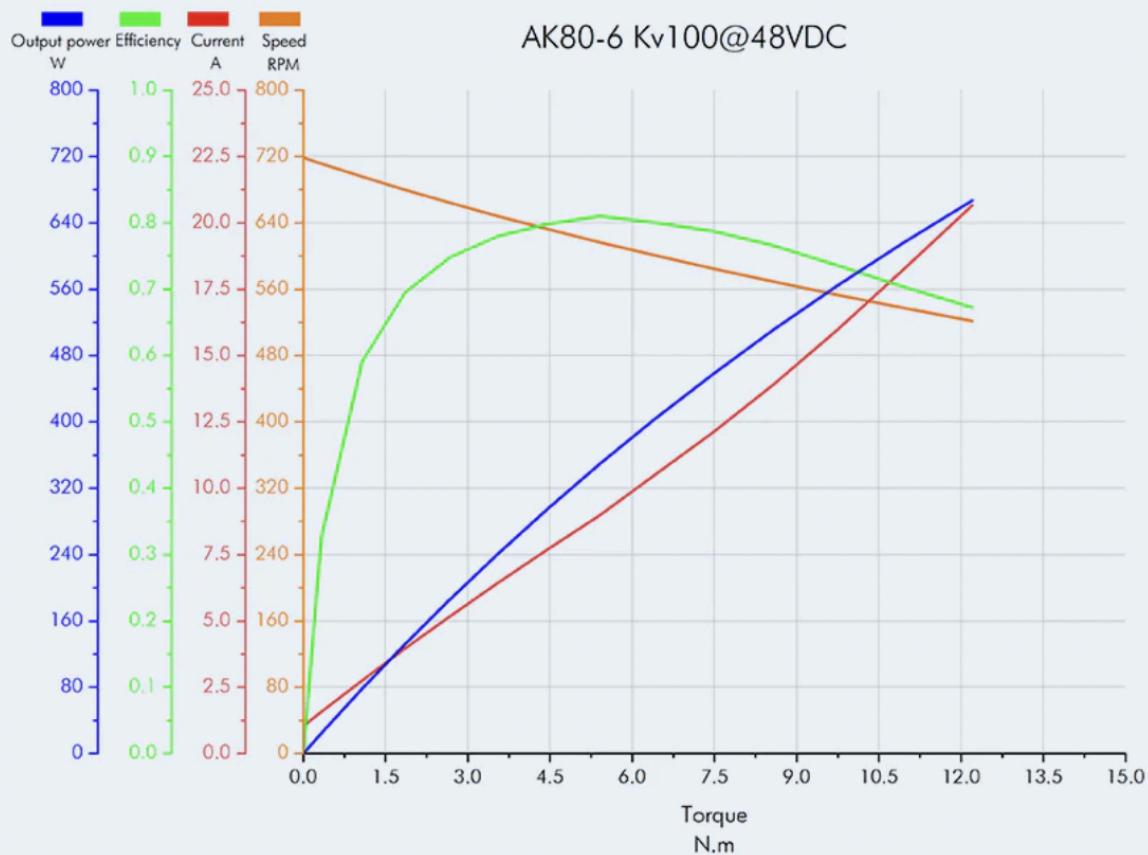
Specifications-AK10-9/V2.0

Application	Legged Robot,Exoskeleton,AGV	Peak torque (Nm)	38
Driving way	FOC	Peak current (ADC)	41.2
Operation ambient temperature	-20°C~50°C	Kv (rpm/V)	100
Winding type	Delta	Kt (Nm/A)	0.114
Insulation class	C	Ke (V/kgpm)	9.9
Insulation High-voltage	1000V 5mA/2s	Phase to Phase resistance (mΩ)	65.5
Insulation resistance	1000V10MΩ	Phase to Phase inductance (μH)	60
Phase	3	Inertia (gcm²)	1002
Pole pairs	21	Km (Nm/√W)	0.45
Reduction ratio	9:1	Mechanical time constant (ms)	0.51
Back drive(Nm)	0.8	Electrical time constant (ms)	0.92
Backlash (°)	0.33	Weight (g)	960
Temperature sensor	NTC MF51B 103F3950	Maximum torque weight ratio (Nm/kg)	39.6
Noise dB 65CM away the motor	70	CAN connector	A1257WR-S-4P
Basic load ratings (dyn. C) N	2000	UART connector	A1257WR-S-3P
Basic load ratings (stat.C₀) N	2520	Power connector	XT30PW-M
Rated voltage (V)	24/48	Inner loop encoder type	Magnetic encoder
Rated torque (Nm)	15	Inner ring encoder resolution	14bit
Rated speed (rpm)	205/421	Outer ring encoder type	Magnetic encoder
Rated current (ADC)	16.2	Outer ring encoder resolution	15bit
		Number of encoder	2

Product Drawing-AK80-6



Analytical Graph of Motor Operation-AK80-6

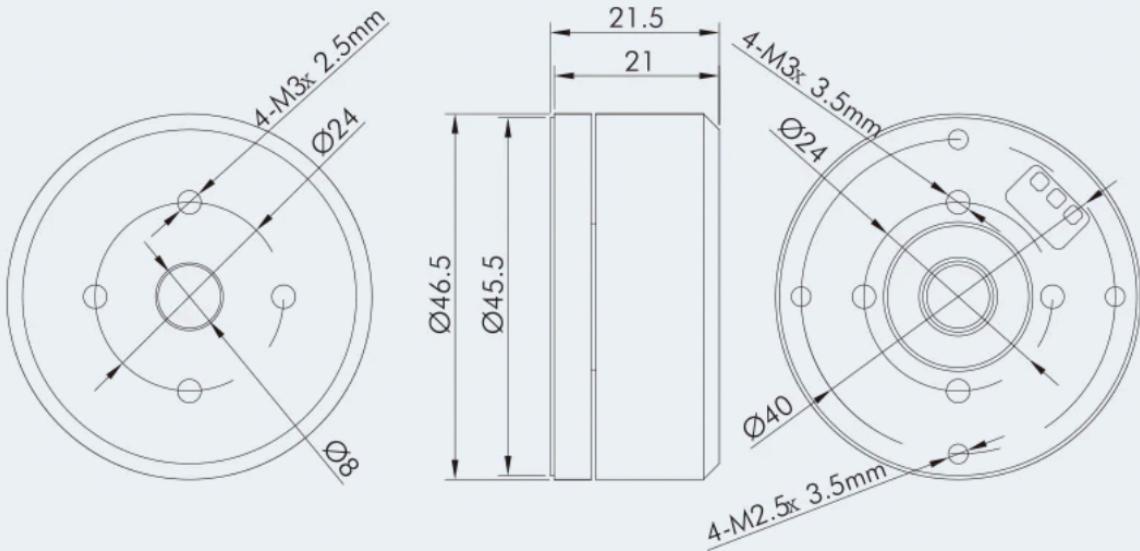




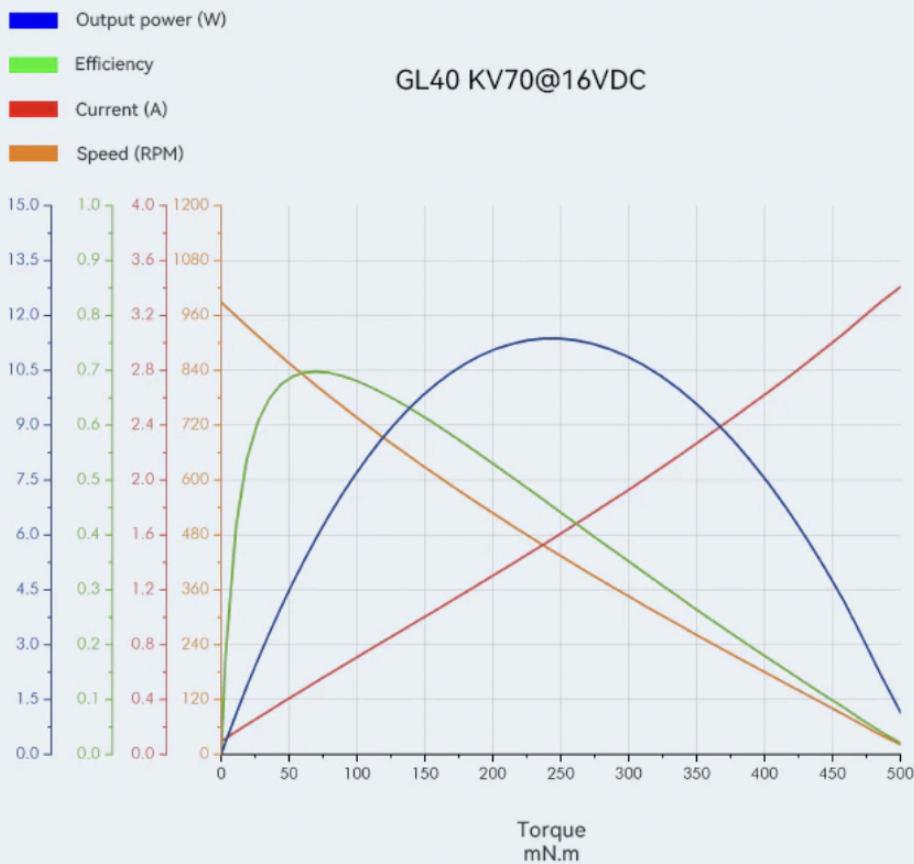
Specifications-AK80-6

Application	Legged Robot,Exoskeleton,AGV	Peak torque (Nm)	12
Driving way	FOC	Peak current (ADC)	20
Operation ambient temperature	-20°C~50°C	Kv (rpm/V)	100
Winding type	Delta	Kt (Nm/A)	0.105
Insulation class	H	Ke (V/krpm)	10.5
Insulation High-voltage	1000V 5mA/2s	Phase to Phase resistance (mΩ)	170
Insulation resistance	1000V10MΩ	Phase to Phase inductance (μH)	57
Phase	Three Phase	Inertia (gcm²)	607
Pole pairs	21	Km (Nm/√W)	0.25
Reduction ratio	6:1	Mechanical time constant (ms)	0.94
Back drive(Nm)	0.36	Electrical time constant (ms)	0.34
Backlash (°)	0.22	Weight (g)	485
Temperature sensor	None	Maximum torque weight ratio (Nm/kg)	24
Noise dB 65CM away the motor	55	CAN connector	A1257WR-S-4P
Basic load ratings (dyn. C) N	2760	UART connector	A1257WR-S-3P
Basic load ratings (stat.C₀) N	2810	Power connector	XT30PW-M
Rated voltage (V)	48	Inner loop encoder type	Magnetic encoder
Rated torque (Nm)	6	Inner ring encoder resolution	14bit
Rated speed (rpm)	603	Outer ring encoder type	-
Rated current (ADC)	9.7	Outer ring encoder resolution	-
		Number of encoder	1

Product Drawing



Analytical Graph of Motor Operation





Specifications

Application	Gimbal, Radar	Insulation Class	H
Driving Way	FOC	Insulation High-Voltage	500V 5mA/2s
Operation Ambient Temperature	-20°C~50°C	Insulation Resistance	500V 10MΩ
Winding Type	star	Phase	3
		Pole Pairs	14

Electric Parameters

Rated Voltage (V)	16	Ke (V/krpm)	15.00
No-Load Speed (rpm)	1015	Phase To Phase Resistance (mΩ)	4500
Rated Torque (Nm)	0.25	Phase To Phase Inductance (μH)	1800
Rated Speed (rpm)	430	Inertia (gcm²)	74
Rated Current (ADC)	1.62	Km (Nm/√W)	0.0707
Peak Torque (Nm)	0.5	Mechanical Time Constant (ms)	1.48
Peak Current (ADC)	3.3	Electrical Time Constant (ms)	0.40
Kv (rpm/V)	70	Weight (g)	107
Kt (Nm/A)	0.150	Maximum Torque Weight Ratio (Nm/kg)	4.67

Rated Voltage (V)	16	Ke (V/krpm)	4.88
No-Load Speed (rpm)	3120	Phase To Phase Resistance (mΩ)	500
Rated Torque (Nm)	0.25	Phase To Phase Inductance (μH)	180
Rated Speed (rpm)	2100	Inertia (gcm²)	74
Rated Current (ADC)	4.9	Km (Nm/√W)	0.0707
Peak Torque (Nm)	0.75	Mechanical Time Constant (ms)	1.48
Peak Current (ADC)	14.9	Electrical Time Constant (ms)	0.36
Kv (rpm/V)	210	Weight (g)	107
Kt (Nm/A)	0.050	Maximum Torque Weight Ratio (Nm/kg)	7.01