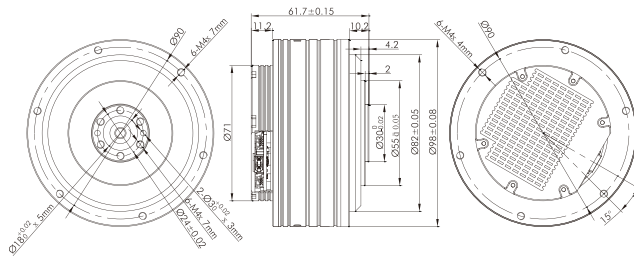
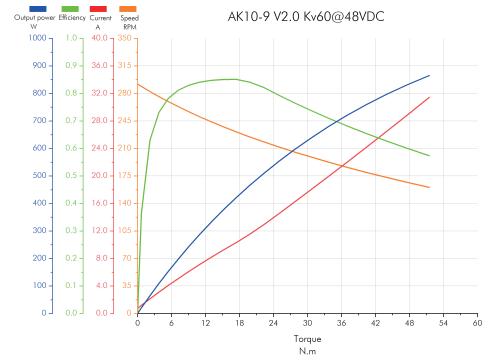


AK10-9 V2.0 KV60, $\Phi 98 \times 61.7$ mm

PRODUCT DRAWING



ANALYTICAL GRAPH OF MOTOR OPERATION



SPECIFICATIONS

Application	Legged Robot, Exoskeleton, AGV	Pole pairs	21
Driving way	FOC	Reduction ratio	9:1
Operation ambient temperature	-20°C~50°C	Back drive(Nm)	0.8
Winding type	Star	Backlash (°)	0.33
Insulation class	C	Temperature sensor	NTC MF51B 103F3950
Insulation High-voltage	1000V 5mA/2s	Noise dB 65CM away the motor (Environment 45dB@1200rpm)	65
Insulation resistance	1000V10M Ω	Basic load rating (dyn. C) N	2000
Phase	3	Basic load ratings (stat. C ₀) N	2520

ELECTRIC PARAMETERS

Rated voltage (V)	24/48	Ke (V/krpm)	17.2
Rated torque (Nm)	18	Phase to Phase resistance (m Ω)	195
Rated speed (rpm)	109/228	Phase to Phase inductance (μ H)	181
Rated current (ADC)	10.6	Inertia (gcm ²)	1002
Peak torque (Nm)	48	Km (Nm/ \sqrt W)	0.45
Peak current (ADC)	29.8	Mechanical time constant (ms)	0.50
Kv (rpm/V)	60	Electrical time constant (ms)	0.93
Kt (Nm/A)	0.198	Weight (g)	960
		Maximum torque weight ratio (Nm/kg)	50

CONNECTOR (WITH DRIVER)

CAN connector	A1257WR-S-4P	Inner ring encoder resolution	14bit
UART connector	A1257WR-S-3P	Outer ring encoder type	Magnetic encoder
Power connector	XT30PW-M	Outer ring encoder resolution	15bit
Inner loop encoder type	Magnetic encoder	Number of encoder	2