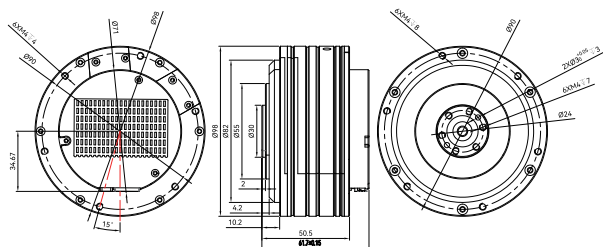
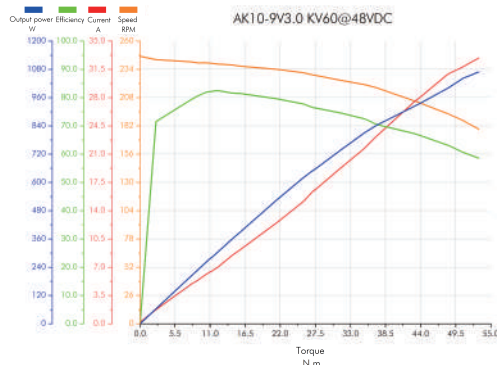


AK10-9 V3.0 KV60, $\Phi 98 \times 61.7 \text{mm}$

PRODUCT DRAWING



ANALYTICAL GRAPH OF MOTOR OPERATION



SPECIFICATIONS

Application	Foot Robots, Exoskeleton Robots, 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	Delta	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)	70
Insulation resistance	1000V 10M Ω	Basic load rating (dyn. C _r) N	2000
Phase	3	Basic load ratings (stat. C ₀) N	2520

ELECTRIC PARAMETERS

Rated voltage (V)	48	Ke (V/krpm)	16.7
Rated torque (Nm)	18	Phase to Phase resistance (m Ω)	248
Rated speed (rpm)	235	Phase to Phase inductance (μH)	213
Rated current (ADC)	10.7	Inertia (gcm ²)	1002
Peak torque (Nm)	53	Km (Nm/ $\sqrt{\text{W}}$)	0.32
Peak current (ADC)	31.9	Mechanical time constant (ms)	0.5
Kv (rpm/V)	60	Electrical time constant (ms)	0.93
Kt (Nm/A)	0.16	Weight (g)	940
		Maximum torque weight ratio (Nm/kg)	86

CONNECTOR (WITH DRIVER)

POWER+CAN connector	XT30PW(2+2)-M	Inner ring encoder resolution	21bit
UART connector	A1257WR-S-3P	Outer ring encoder type	Magnetic encode
Inner loop encoder type	Magnetic encode	Outer ring encoder resolution	15bit
		Number of encoder	2