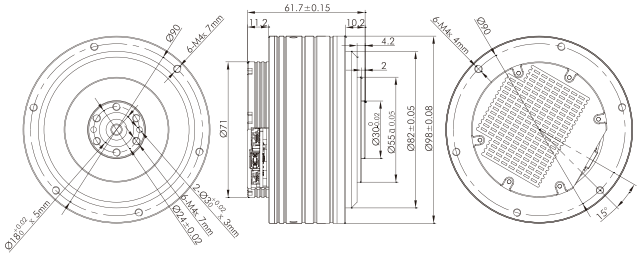
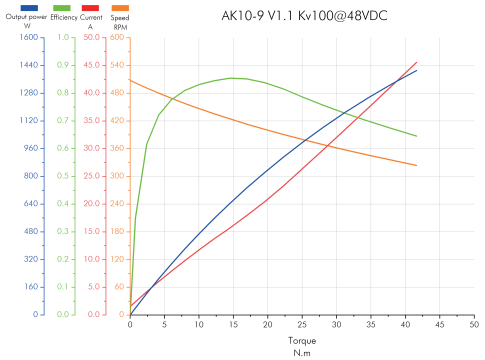
AK10-9 V2.0 KV100, Φ98*61.7mm

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℃~50℃	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	1000V10MΩ	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)	9.9
Rated torque (Nm)	15	Phase to Phase resistance (mΩ)	65.5
Rated speed (rpm)	205/421	Phase to Phase inductance (μH)	60
Rated current (ADC)	16.2	Inertia (gcm^2)	1002
Peak torque (Nm)	38	Km (Nm/√W)	0.45
Peak current (ADC)	41.2	Mechanical time constant (ms)	0.51
Kv (rpm/V)	100	Electrical time constant (ms)	0.92
Kt (Nm/A)	0.114	Weight (g)	960
		Maximum torque weight ratio (Nm/kg)	39.6

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