

Motor No.: CO-BL23B46-02-02RO


MOTOR FRAME: SIZE 23
BODY LENGTH: 8.53" Max
NUMBER OF ROTOR POLES: 4 Poles
ROTOR INERTIA: 0.95oz-in²
LINE TO LINE RESISTANCE: 0.363Ω ±20%
RATED SUPPLY VOLTAGE: 34VDC
AMBIENT OPERATING TEMPERATURE: -30° C to 85° C
AMBIENT OPERATING HUMIDITY(non condensing): 40-60RH
BEARING TYPE: BALL BEARING, ABEC3
DIELECTRIC STRENGTH: 500VDC FOR 1 SECOND
RATED POWER: (175.824) watts
RATED TORQUE: 54oz-in
RATED CURRENT @ RATED TORQUE: 6.72Amps ±10%
RATED SPEED @ RATED TORQUE: 4400RPM ±10%
BACKEMF CONSTANT: 6.64Vp/kRPM ±10%
TORQUE CONSTANT: 8.964oz-in/Amp ±10%
SENSOR: Hall Sensor

LEAD WIRE CONNECTION COLOR CODE:

VCC RED/WHITE
Hall-A BLUE
Hall-B GREEN
Hall-C WHITE
GND BLACK/WHITE
Phase-A YELLOW
Phase-B RED
Phase-C BLACK

Switching Sequence					
Hall A	Hall B	Hall C	Phase A	Phase B	Phase C
0	1	0	L	X	H
1	1	0	X	L	H
1	0	0	H	L	X
1	0	1	H	X	L
0	0	1	X	H	L
0	1	1	L	H	X

CCW

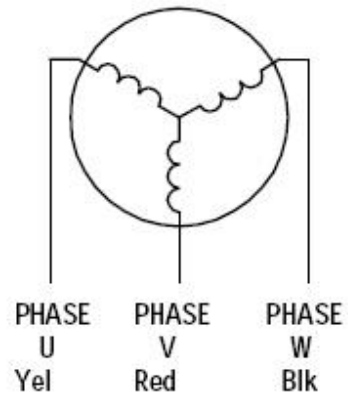


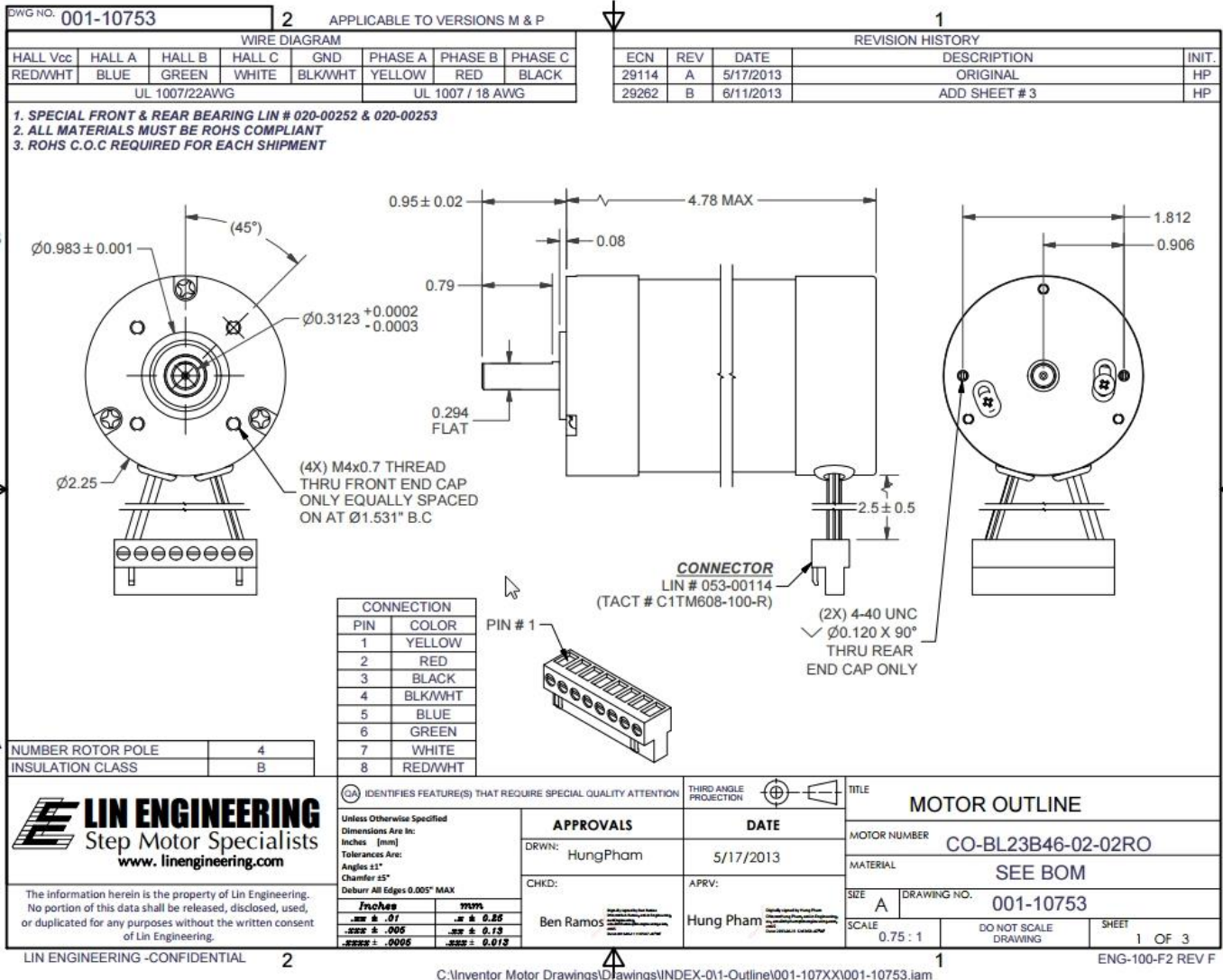
Motor Rotation Viewed from Front Shaft End

WIRING DIAGRAM:

WIRE COLOR	DESCRIPTION
red/white	Hall Supply
blue	Hall A
green	Hall B
white	Hall C
black/white	Hall Ground
yellow	Phase A (U)
red	Phase B (V)
black	Phase C (W)

STAR CONNECTION DIAGRAM:





This motor has a 34V custom driver board and heatsink, Alltronics part # 28M127. This board connects via the 8 pin molex connector and the complete assembly attaches to the backside of the motor. We tested the motors/boards with a 25-40V supply @ 0.7-2A unloaded, the motor takes a few seconds to spin up to speed then it is solid. There are some program pins also on the board but we have no information how these are used.

