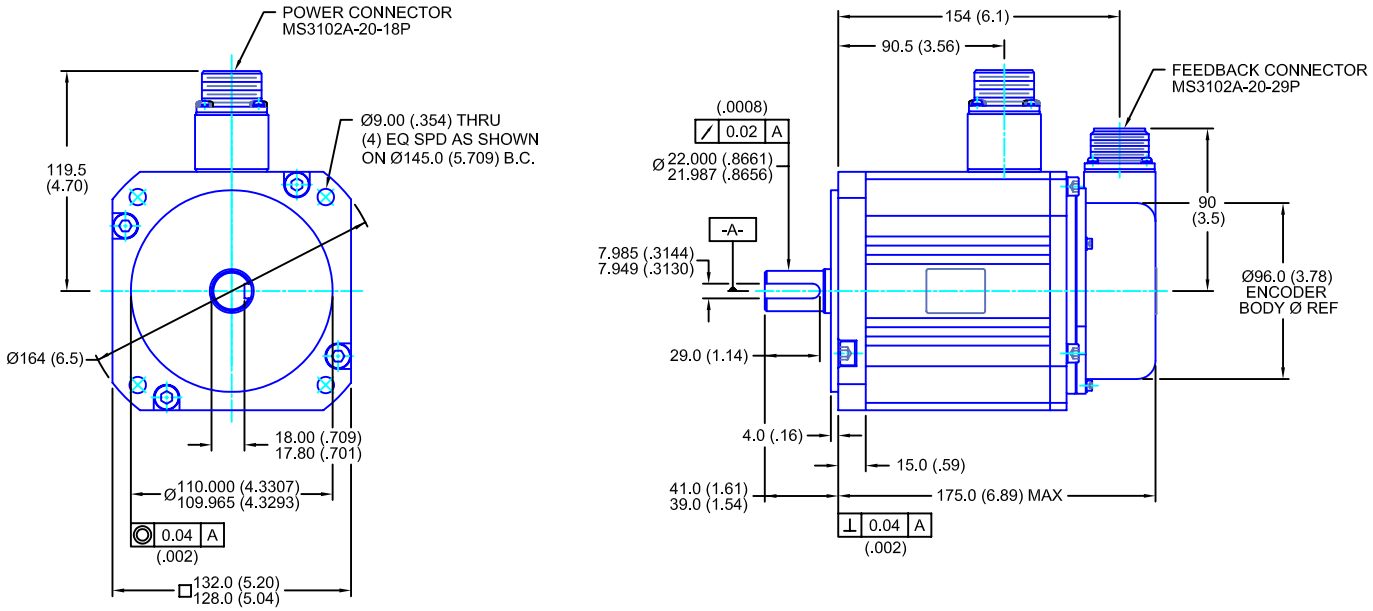
REVISIONS			
REV	DESCRIPTION	DATE	APP'D
1	RELEASE DRAWING	4/8/04	



MOTOR NOTES:

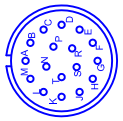
1. MILLIMETERS (INCHES)
2. AXIAL LOAD: 10 KG [22 LBS] MAX
3. RADIAL LOAD: 50 KG [110 LBS] MAX @ 20MM [.79] FROM FACE
4. MOTOR SEALED TO IP65; EXCEPT THE PART WITH CONN & OIL SEAL
5. MOTOR SHAFT: SCM440H STEEL
6. OIL SEAL: Ø24 (.95) PROTRUDES FROM FEC 4.0 (.16)
7. MOTOR FINISH: SEMIGLOSS BLACK
8. MOTOR WEIGHT 8.0 KG [17.6 LBS]

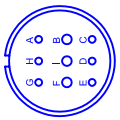
ELECTRICAL DATA			
MOTOR PARAMETERS		UNITS/MEASURE	VALUES
VOLTAGE		VOLTS-AC	460
AMP TYPE		-	SINE
HORSEPOWER		Hp	5.1
KILOWATTS		KW	3.8
MAX OPERATING SPEED		RPM	4500
SPEED @ RATED TORQUE		RPM	3450
*CONTINUOUS RATED TORQUE @ 3450 RPM		IN-LBS[Nm]	93.0[10.5]
*CONTINUOUS STALL TORQUE		IN-LBS[Nm]	102.3[11.6]
CONTINUOUS LINE CURRENT		AMPS(RMS/ϕ)	9.5
PEAK TORQUE		IN-LBS[Nm]	278.8[31.5]
PEAK CURRENT		AMPS(RMS/ϕ)	28.5
MAX THEORETICAL ACCEL.		RAD/SEC^2	27,068
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/ϕ)[Nm/AMP(RMS/ϕ)]	10.0[1.12]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	62.2
D.C. RESISTANCE (P-P)	±10%	OHMS	1.4
INDUCTANCE (P-P)	±10%	MILLIHENRIES	10.5
ROTOR INERTIA	Jm	IN-LBS-SEC^2[Kg-M^2]	.0103[.00116]
STATIC FRICTION	Tf	IN-LBS[Nm] MAX	1.5[.17]

*40°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON THE MOTOR. THERMOSTAT IN STATOR WILL OPEN IF STATOR TEMPERATURE EXCEEDS 135°C. THIS WILL GIVE YOU ~10% HEADROOM IN THE CONTINUOUS TORQUE RATING BEFORE THERMOSTAT OPENS. MOTOR MOUNTED ON A 450 X 450 X 25MM ALUMINUM HEATSINK.

ENCODER INFO:

5V - 2048L COMMUTATING





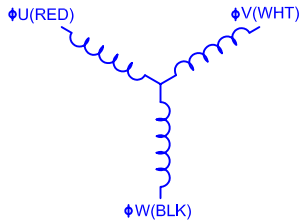
CONNECTION CHART

MS3102A-20-29P

FEEDBACK WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	CH A	BLU
B	CH A\	BLU/BLK
C	CH B	GRN
D	CH B\	GRN/BLK
E	-	-
F	CH Z	YEL
G	CH Z\	YEL/BLK
H	CH U	BRN
J	CH U\	BRN/BLK
K	CH V	GRY
L	CH V\	GRY/BLK
M	CH W	WHT
N	CASE GND	-
P	-	-
R	GND	BLK
S	+5VDC	RED
T	CH W\	WHT/BLK

MS3102A-20-18P

MOTOR WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	THERM	-
B	ϕW	BLK
C	THERM	-
D	-	-
E	PE GND	GRN/YEL
F	ϕU	RED
G	-	-
H	-	-
I	ϕV	WHT



3 PHASE - 8 POLE

TOLERANCES UNLESS SPECIFIED
SURFACE FINISH: = 63 Ra ✓
BORE: = H12
SHAFT: = h12
DECIMAL .XXX ± .13 (.005)
DECIMAL .XX ± .25 (.010)
DECIMAL .X ± .51 (.020)
FRACTION ± .40 (.016)
ANGLES ± 0°30'
MM (INCHES)

REMOVE ALL BURRS. BREAK SHARP EDGES .25MM (.010") OR 45° CHAMFER

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CUSTOM MOTORS INC

130MM - 2 STK
460V/KE=62/MET/2048/CONN

FINISH:	CUSTOMER: TS4836N1227E435	DRAWN: DFLA	SHEET: 1 OF 1
MATERIAL:	SCALE 1/2:1	DATE 1/26/04	DRAWING NO. CM1302R62MK2048CT	REV. 1