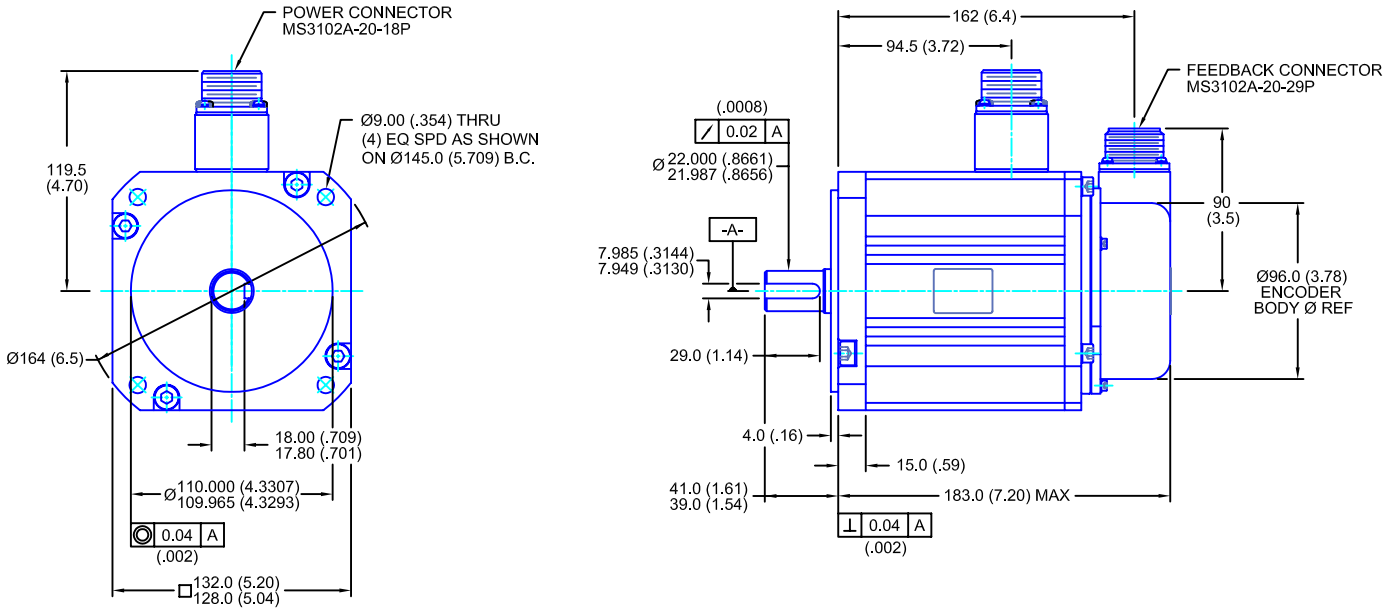
REVISIONS			
REV	DESCRIPTION	DATE	APP'D
1	RELEASE DRAWING	4/8/04	



MOTOR NOTES:

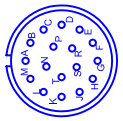
1. MILLIMETERS (INCHES)
2. AXIAL LOAD: 10 KG [22 LBS] MAX
3. RADIAL LOAD: 50 KG [110 LBS] MAX @ 20MM [.79] FROM FACE
4. MOTOR SEALED TO IP65; EXCEPT THE PART WITH CONN & OIL SEAL
5. MOTOR SHAFT: SCM440H STEEL
6. OIL SEAL: Ø24 (.95) PROTRUDES FROM FEC 4.0 (.16)
7. MOTOR FINISH: SEMIGLOSS BLACK
8. MOTOR WEIGHT 7.5 KG [16.5 LBS]

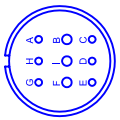
ELECTRICAL DATA			
MOTOR PARAMETERS		UNITS/MEASURE	VALUES
VOLTAGE		VOLTS-AC	460
AMP TYPE		-	SINE
HORSEPOWER		Hp	2.5
KILOWATTS		KW	1.8
MAX OPERATING SPEED		RPM	4500
SPEED @ RATED TORQUE		RPM	3450
*CONTINUOUS RATED TORQUE @ 3450 RPM		IN-LBS[Nm]	45.0[5.09]
*CONTINUOUS STALL TORQUE		IN-LBS[Nm]	49.5[5.59]
CONTINUOUS LINE CURRENT		AMPS(RMS/ϕ)	4.9
PEAK TORQUE		IN-LBS[Nm]	135.1[15.3]
PEAK CURRENT		AMPS(RMS/ϕ)	14.7
MAX THEORETICAL ACCEL.		RAD/SEC^2	17,523
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/ϕ)[Nm/AMP(RMS/ϕ)]	9.2[1.04]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	57.8
D.C. RESISTANCE (P-P)	±10%	OHMS	3.7
INDUCTANCE (P-P)	±10%	MILLIHENRIES	20.1
ROTOR INERTIA	Jm	IN-LBS-SEC^2[Kg-M^2]	.0077[.00087]
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

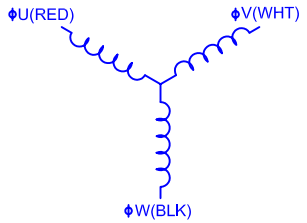
FEEDBACK WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	CH A	BLU
B	CH A\	BLU/BLK
C	CH B	GRN
D	CH B\	GRN/BLK
E	-	-
F	CH Z	YEL
G	CH Z\	YEL/BLK
H	CH U	BRN
J	CH U\	BRN/BLK
K	CH V	GRY
L	CH V\	GRY/BLK
M	CH W	WHT
N	CASE GND	-
P	-	-
R	GND	BLK
S	+5VDC	RED
T	CH W\	WHT/BLK

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	BRK	-
H	BRK	-
I	ϕV	WHT

BRAKE INFO:

INPUT VOLTAGE: 24 VDC
HOLDING FORCE: 7.5 Nm [66 IN-LBS]
CURRENT DRAW: .83 AMPS
RELEASING TIME: 20 ms MAX



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

CUSTOM MOTORS INC

130MM - 1 STK
460V/KE=58/MET/2048/CONN/BRK

PROPRIETARY RIGHTS OF CUSTOM MOTORS ARE INCLUDED IN THE INFORMATION DISCLOSED HEREIN. THIS DRAWING AND/OR DOCUMENT SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR USED OR DISCLOSED TO OTHERS FOR ANY PURPOSE EXCEPT FOR WHICH WAS SPECIFICALLY FURNISHED.

FINISH:
MATERIAL:
CUSTOMER: TS4833N6227E435
DRAWN: DFLA
SHEET: 1 OF 1

SCALE	DATE	DRAWING NO.	REV.
1/2:1	1/27/04	CM1301R58MK2048CTB	1