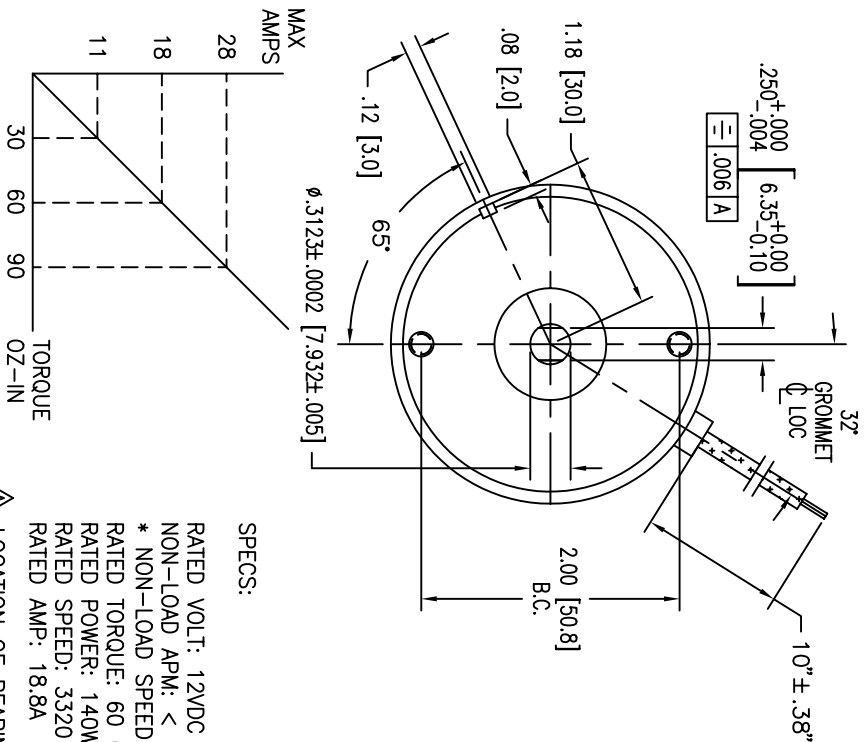


GENERAL MOTOR SPECIFICATIONS:

- 1) 12VDC BRUSH - BI-DIRECTIONAL, (WITH 24, 36 & 48VDC OPTIONS)
- 2) 60 OZ-IN RATED TORQUE (11T/19GA)
- 3) 4200 RATED NO-LOAD RPM*
- 4) DUSTPROOF & WEATHERPROOF ENCLOSURE IP65 MIN
- 5) CURRENT SPEED PER PROFILE BELOW
- 6) 10N ± 1.0" LEAD WIRE LENGTH 14AWG. ONE GREY, ONE BLACK, UL STYLE 1230 WIRE W/PVC INSULATION. BOTH WIRES MUST BE WITHIN 1/8" OTHER. BOTH WIRES STRIPPED .125/.156" BACK
- 7) LEADS EXITING FROM REAR SIDE WITH WEATHER TIGHT THRU. IP65 CAPABLE
- 8) CLASS F 105°C MIN RATING
- 9) BALL BEARINGS BOTH SHAFT ENDS
- 10) SHAFT MATERIAL C1144 OR EQUIVALENT
- 11) 0.030IN MAX SHAFT ENDPLAY
- 12) MOTOR MUST BE CORROSION PROTECTED TO MEET 96 HR SALT SPRAY MIN-PREFER POLYESTER TGIC POWDER PAINT

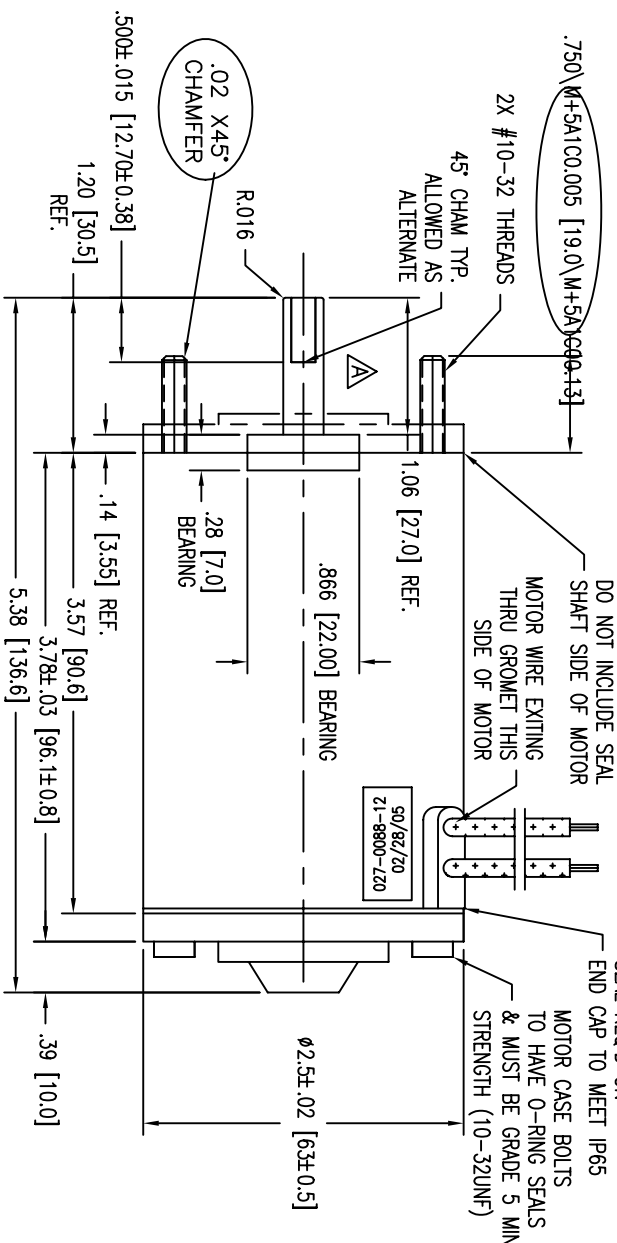


SPECS:

- RATED VOLT: 12VDC
- NON-LOAD APM: < 1.5A
- * NON-LOAD SPEED: 4700 RPM ± 12%
- RATED TORQUE: 60 OZ.IN (0.424 N.M)
- RATED POWER: 140W
- RATED SPEED: 3320 RPM ± 10%
- RATED AMP: 18.8A

▲ LOCATION OF BEARING PRESSED ON SHAFT

- 13) MAIN BODY AND BACK END CAP OF MOTOR TO BE BLACK IN COLOR
- 14) MOTOR TO INCLUDE AUTO RESET THERMAL LIMIT SWITCH. REF. INFO: (200°F THRESHOLD LOAD 80 AMP, TRIP TIME 5.5-11.5 SEC. RESET TIME 1-10 SEC)
- 15) VENDOR I.D. TO BE PLACED AS SHOWN
- 16) MOTOR AND WIRE LEAD INSULATION MUST BE ABLE TO FUNCTION WITHOUT LOSS OF PERFORMANCE AFTER BEING EXPOSED TO EACH OF THE FOLLOWING INDIVIDUAL CONTAMINANTS LISTED BELOW AND ALLOWED TO SOAK FOR A MINIMUM OF 5 MINUTES.
 - PHOSPHATE WASH
 - WINDSHIELD WASHER FLUID
 - JOHN DEERE TORQ GUARD 10W20 MOTOR OIL OR EQUIVALENT
 - JOHN DEERE J14B HYDRAULIC OIL OR EQUIVALENT
 - #2 DIESEL FUEL
 - BATTERY ACID 1.26-1.28 SPECIFIC GRAVITY APPROXIMATELY 35-38% SULFURIC ACID BY WEIGHT
 - SALT SOLUTION OF 5% PURE SALT IN DE-MINERALIZED WATER
 - FERTILIZER CONTAINING 28% NITROGEN
 - ANTIFREEZE SOLUTION OF 50% CONSUMER AVAILABLE 50% ANTIFREEZE AND 50% TAP WATER
 - MUD SPLASH OF 50% FINE GRAINED SOIL AND 50% TAP WATER



UNLESS OTHERWISE SPECIFIED

ALL DIMENSIONS ARE IN INCHES

FINISHES ARE AS PER

ANSI Y14.5M - 1994

DECIMALS FRACTIONAL

XX ±.010 ± 1/32

XXX ±.005 ANGULAR

XXXX ±.0005 ± .30°

BREAK ALL DIMS SURFACE ROUGHNESS: 125µIN BEFORE PLATING

THIRD ANGLE PROJECTION

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HALLMARK INDUSTRIES, INC.

733 BRIMCOMB DR., SHANNON, IL 61954 PHONE: (947)882-8821 FAX: (947)882-5668

TITLE: DC MOTOR, 2.47" DIA

60 OZ.IN, 4700RPM

027-0088

DRAWN: T. ZHILIN

DWG NO. MDO192X

DRAWN DATE: 6/28/04

CHECKED: JIN

CHECK DATE:

SCALE: 1:1

CUST. NO.

SHEET 1 OF 1