ABB BALDOR RELIANCE

# Customer information packet

## ECS100T4H10FC4

10HP, 1800RPM, 3PH, 60HZ, 215TC, 3740B, TEFC, F
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/5/2026 10:08:35 AM

## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 215TC |
| **Frame Material** | Steel |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 10.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| **Agency Approvals** | UL |
| | WEEE |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Constant Torque Speed Range** | 6 |
| **Current @ Voltage** | 11.000 A @ 460.0 V |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 94.8 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 11.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |
| **IP Rating** | NONE |
| **Lifting Lugs** | Standard Lifting Lugs |

## Part Detail

| | |
|---|---|
| **Revision** | H |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 37WGA0021 |
| **Layout** | 37LYQ489 |
| **Eff. date** | 05-14-2026 |
| **CD Diagram** | CD0006B03 |
| **Poles** | 04 |
| **Leads** | 3#12 19" LONG LEADS |
| **Proprietary** | False |
| **Created date** | 09-28-2020 |

| | |
|---|---|
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3740B |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 19.23 IN |
| **Power Factor** | 94 |
| **Product Family** | General Purpose |
| **Pulley Face Code** | C-Face |
| **Rodent Screen** | None |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 1.375 IN |
| **Shaft Ground Indicator** | Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Speed** | 1800 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Direct on line |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | None |
| **Vibration Sensor Indicator** | No Vibration Sensor |
| **Winding Thermal 1** | None |
| **Winding Thermal 2** | None |

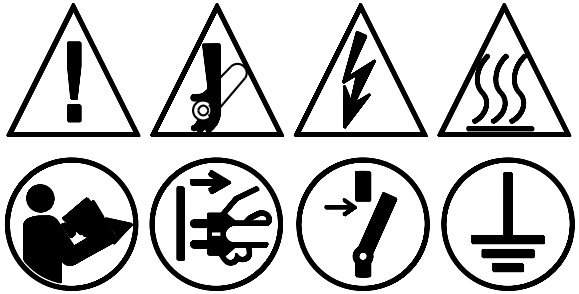
# BALDOR·RELIANCE

## EC-Titanium™

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CAT. NO. | ECS100T4H10FC4 | | | | | | |
| SPEC. | 37-0001718 | | | | YR | *** | |
| FRAME | 215TC | | ENCL. | TEFC | IP | 54 | |
| HP | 10 | RATING | 40C AMB-CONT | | | | |
| NOM. EFF. | 94.8 | PF | 94 | SF | 1.0 | | |
| VOLTS | 460 | | FLA | 11.22 | | | |
| RPM | 1800 | | RPM MAX | 3000 | | | |
| HZ | 60 | | PH. | 3 | CLASS | F | |
| BEMF (V) | 231.36 | | Rs (Ω) | 0.93 | | | |
| Ld (mH) | 23.214 | | Lq (mH) | 75.933 | | | |
| INV TYP | VPWM | CHP | 60 TO 120 HZ | | | | |
| | CT | 6 TO 60 HZ | VT | 1 TO 120 HZ | | | |
| MATCHED INV | EC14A12P0 | | | | | | |
| BEARING | DE | 6307 | ODE | 6206 | | | |
| SERIAL# | *** | | | | | | |

ELECTRONICALLY PROTECTED MOTOR
FOR INDUSTRIAL USE

FERRITE ASSISTED
SYNCHRONOUS RELUCTANCE MOTOR
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS ROTATED, VOLTAGE WILL BE GENERATED AT THE MOTOR TERMINALS.
MOTEUR Á AIMANT PERMANENT. LORSQUE L'ARBRE TOURNE, UNE TENSION SERA GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE
SHAFT GROUNDING BRUSH INSTALLED

c UL us LISTED
E46145

ABB MOTORS AND MECHANICAL INC.
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

BALDOR • RELIANCE

# EC-Titanium™

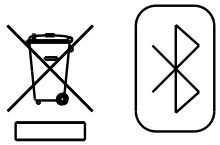
| | | | | | |
|---|---|---|---|---|---|
| PART NO. | EC14A12P0 | | | | |
| U1 | 480 | PH | 3 | HZ | 60 |
| I1 MAX | 10.1 | W/EXT. CHOKE | | 9.0 | |
| SERIAL # | *** | | | | |



POWER DOWN FOR
5 MINUTES BEFORE
REMOVING COVER

METTRE HORS TENSION
PENDANT 5 MINUTES
AVANT DE RETIRER LE
COUVERCLE

ABB MOTORS AND MECHANICAL
INC. FORT SMITH, AR.
MFG. IN U.S.A.



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Volts | 460 | Max RPM | 3000 | Conn Diag. | CD0005 | Leads | 9 |
| Amps | 11 | Max Amps | | Cs Diagram | CS0576 | BEMF | 116/231 |
| HP | 10 | VFD# | ECIN4A12P0 | | | LD | 5.8/23.2 |
| RPM | 1800 | S.F. | 1.50 | | | LQ | 19/75.9 |
| Phase/Hz | 3/60 | Rating | 40 C AMB | | | Rs | 0.9625 Meas. L-L |

## 60034-2-3 Motor Performance at Standardized Operating Points

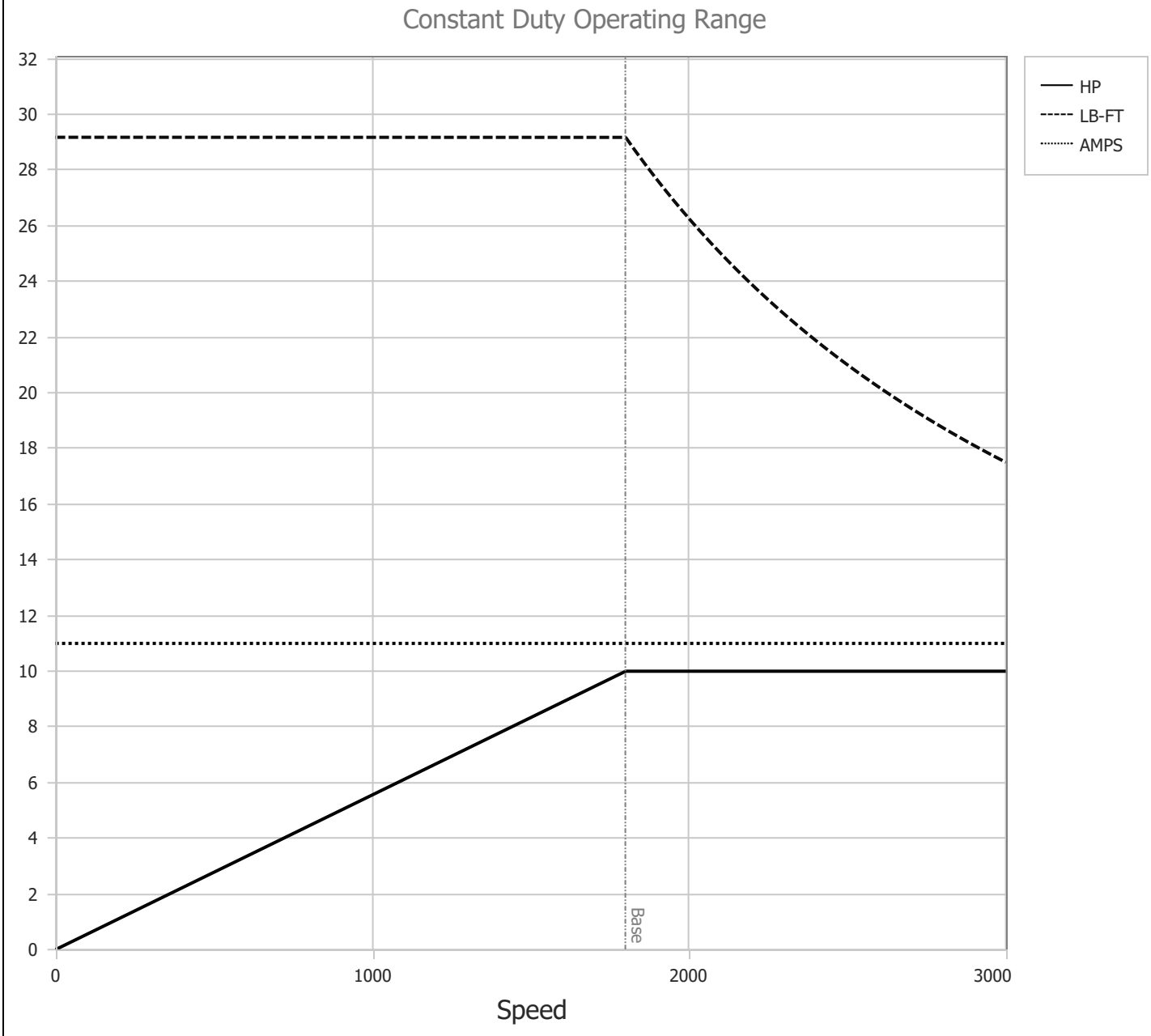
| | RPM | % Speed | LB-FT | % Torque | HP | Efficiency | Loss (% FL) | Watts Loss (W) |
|---|---|---|---|---|---|---|---|---|
| P1 | 1622 | 90% | 29.2 | 100% | 9.0 | 93.1 | 6.65% | 502 |
| P2 | 902 | 50% | 29.2 | 100% | 5.0 | 90.9 | 5.01% | 378 |
| P3 | 451 | 25% | 29.2 | 100% | 2.5 | 85.5 | 4.22% | 318 |
| P4 | 1624 | 90% | 14.6 | 50% | 4.5 | 91.8 | 3.98% | 300 |
| P5 | 903 | 50% | 14.6 | 50% | 2.5 | 90.3 | 2.68% | 202 |
| P6 | 903 | 50% | 7.3 | 25% | 1.3 | 86.9 | 1.88% | 142 |
| P7 | 451 | 25% | 7.3 | 25% | 0.6 | 81.6 | 1.40% | 106 |

## 61800-9-2 PDS Performance at Reference Operating Points

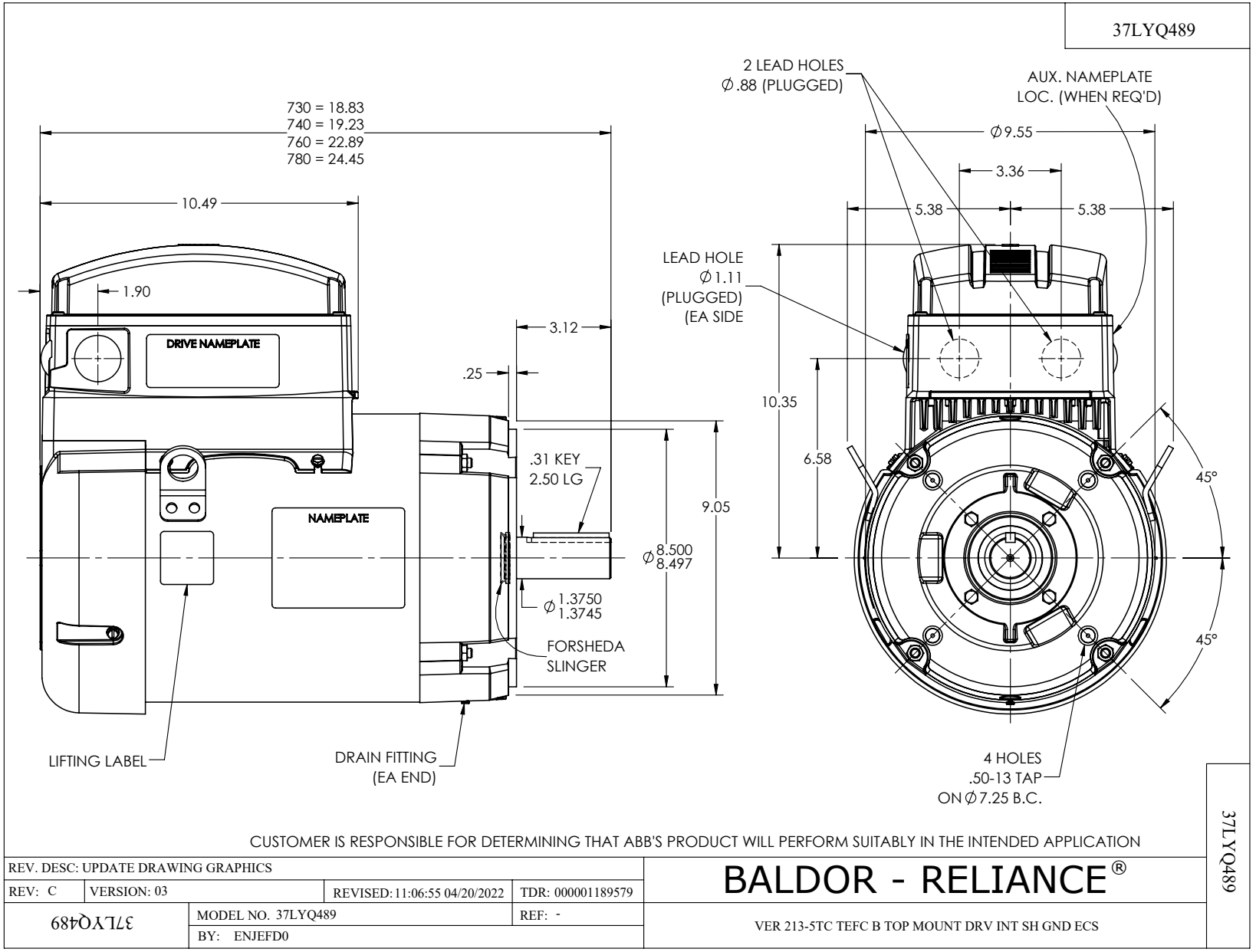
| | RPM | % Speed | LB-FT | % Torque | HP | System Efficiency | Loss (% FL) | Watts Loss (W) |
|---|---|---|---|---|---|---|---|---|
| P1 | 1806 | 100% | 29.2 | 100% | 10.0 | 92.7 | 7.79% | 588 |
| P2 | 902 | 50% | 29.2 | 100% | 5.0 | 89.0 | 6.13% | 463 |
| P3 | 300 | 17% | 29.2 | 100% | 1.7 | 77.0 | 4.93% | 372 |
| P4 | 1802 | 100% | 14.6 | 50% | 5.0 | 91.5 | 4.58% | 346 |
| P5 | 903 | 50% | 14.6 | 50% | 2.5 | 89.3 | 2.97% | 224 |
| P6 | 300 | 17% | 14.6 | 50% | 0.8 | 78.6 | 2.25% | 170 |
| P7 | 903 | 50% | 7.3 | 25% | 1.3 | 87.3 | 1.80% | 136 |
| P8 | 301 | 17% | 7.3 | 25% | 0.4 | 76.4 | 1.27% | 96 |

*Points not taken in certified order.*

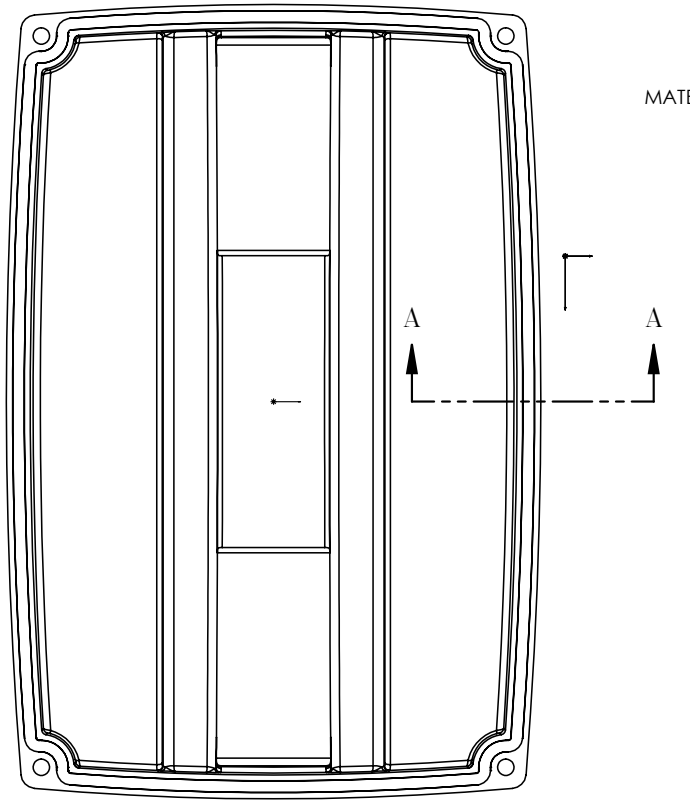
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Volts | 460 | Max RPM | 3000 | Conn Diag. | CD0005 | Leads | 9 |
| Amps | 11 | Max Amps | | Cs Diagram | CS0576 | BEMF | 116/231 |
| HP | 10 | VFD # | ECIN4A12P0 | | | LD | 5.8/23.2 |
| RPM | 1800 | S.F. | 1.50 | | | LQ | 19/75.9 |
| Phase/Hz | 3/60 | Rating | 40 C AMB | | | Rs | 0.9625 Meas L-L |



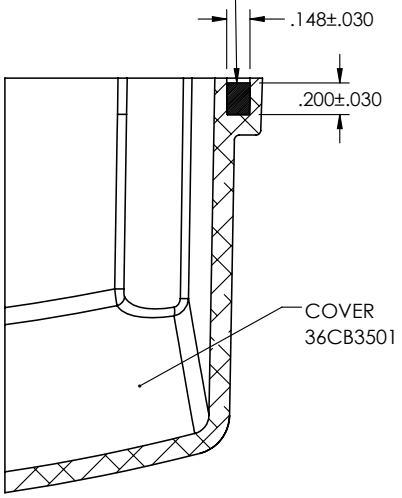

| | | | |
|---|---|---|---|
| BALDOR • RELIANCE | DR By: R & D<br>CK By: USGAHIL<br>APP By:<br>Date: 03/13/2025 | **AC MOTOR PERFORMANCE CURVES** | **37WGL001**<br>37Q435L001G1<br>*Test - 112056* |


37LYQ489
2 LEAD HOLES
Ø.88 (PLUGGED)
AUX. NAMEPLATE
LOC. (WHEN REQ'D)
730 = 18.83
740 = 19.23
760 = 22.89
780 = 24.45
10.49
1.90
DRIVE NAMEPLATE
NAMEPLATE
3.12
.25
.31 KEY
2.50 LG
9.05
Ø8.500
8.497
Ø1.3750
1.3745
FORSHEDA
SLINGER
LIFTING LABEL
DRAIN FITTING
(EA END)
Ø9.55
3.36
5.38
5.38
LEAD HOLE
Ø1.11
(PLUGGED)
(EA SIDE
10.35
6.58
45°
45°
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT ABB'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE DRAWING GRAPHICS
REV: C
VERSION: 03
REVISED: 11:06:55 04/20/2022
TDR: 000001189579
BALDOR - RELIANCE®
MODEL NO. 37LYQ489
REF: -
BY: ENJEFD0
VER 213-5TC TEFC B TOP MOUNT DRV INT SH GND ECS
37LYQ489

36CB3501A00




MATERIAL: RAMPF, RAKU-PUR 32-3280-51L



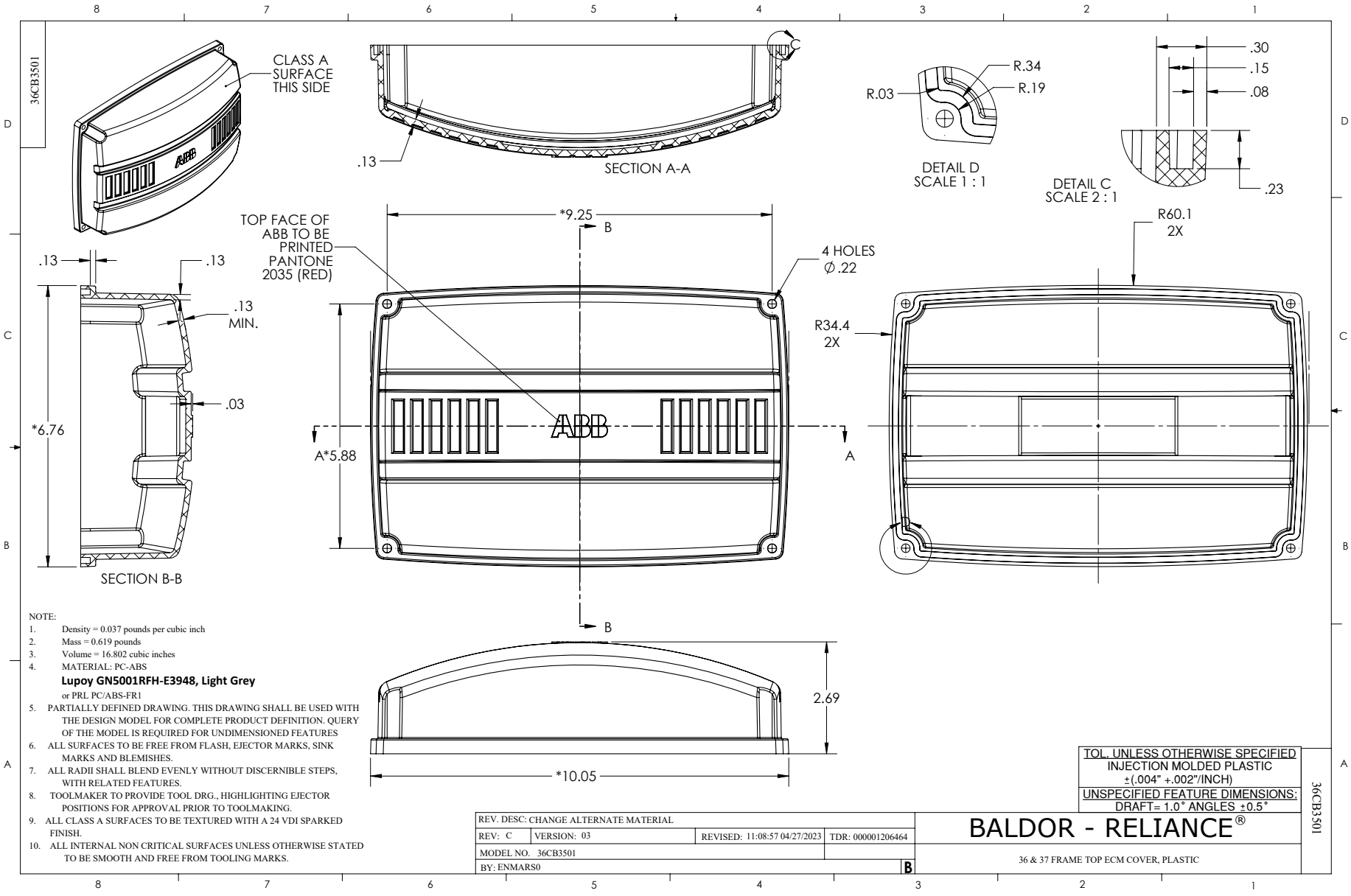

SECTION A–A

36CB3501A00

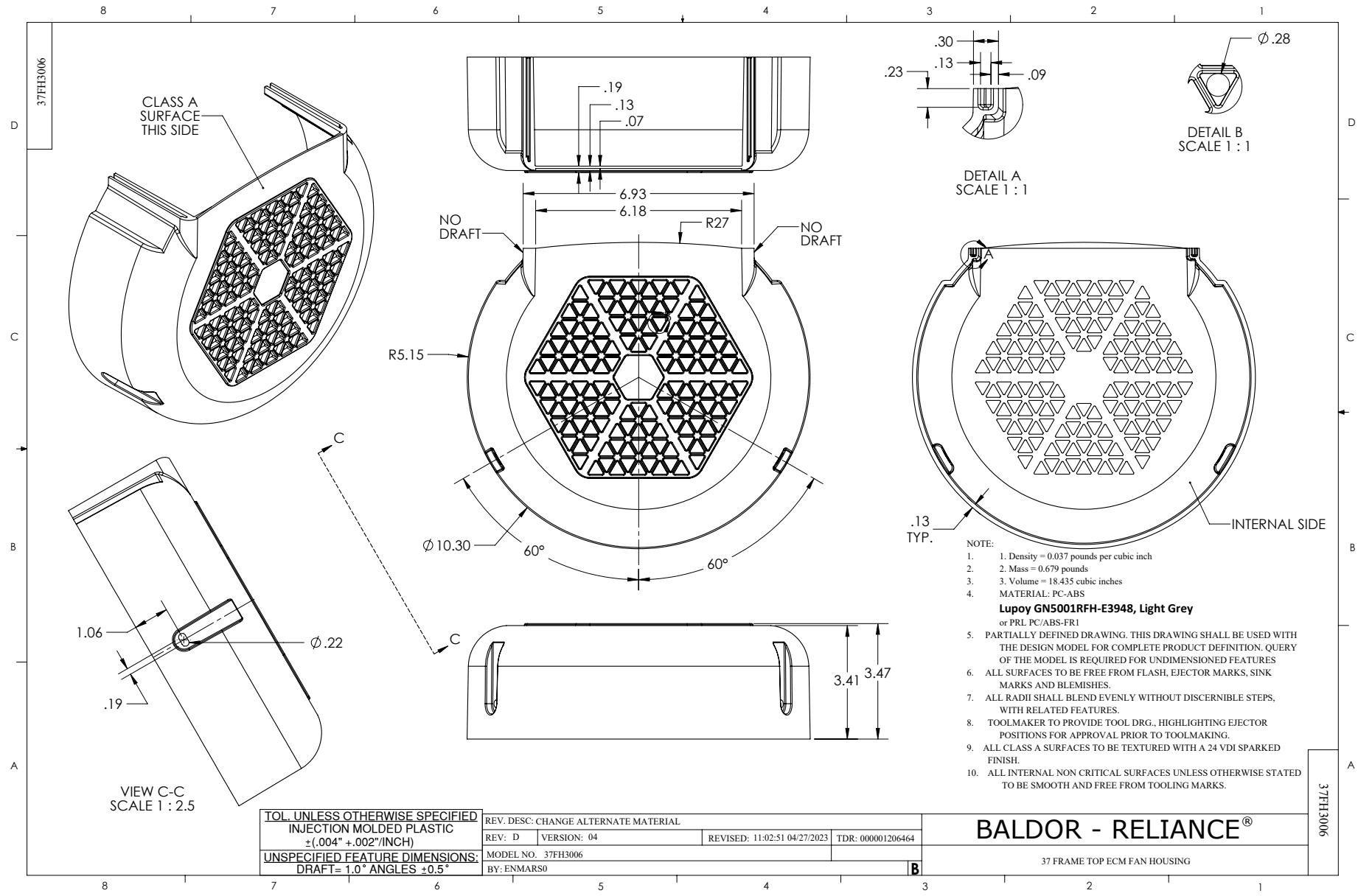
| | | | |
|---|---|---|---|
| REV. DESC: UPDATE MATERIAL | | | |
| REV: A | VERSION: 01 | REVISED: 10:46:37 03/29/2019 | TDR: 000001101646 |
| | MODEL NO. 36CB3501A00 | | REF: - |
| | BY: ENMARS0 | Material: - | |

BALDOR - RELIANCE®

36 & 37 FRAME TOP ECM COVER WITH FOAM SEAL



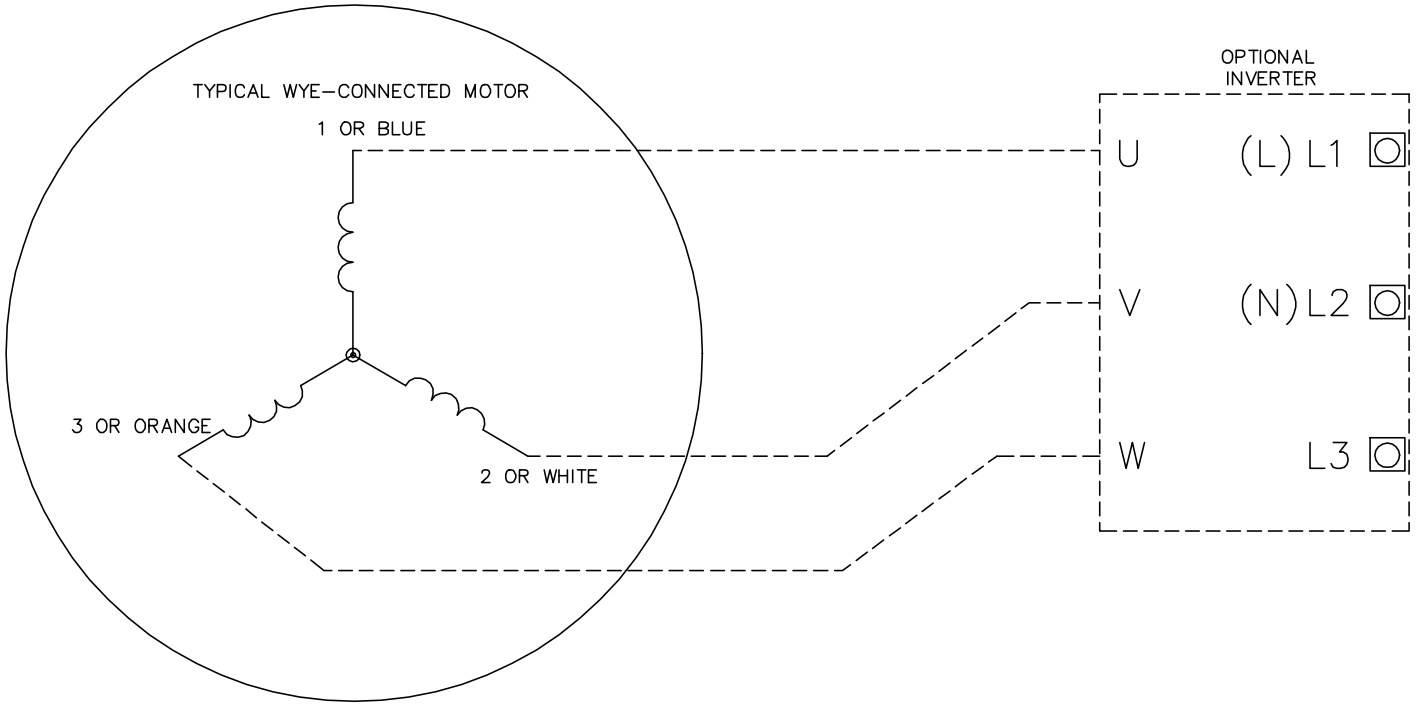

NOTE:
1. Density = 0.037 pounds per cubic inch
2. Mass = 0.619 pounds
3. Volume = 16.802 cubic inches
4. MATERIAL: PC-ABS
   **Lupoy GN5001RFH-E3948, Light Grey**
   or PRL PC/ABS-FR1
5. PARTIALLY DEFINED DRAWING. THIS DRAWING SHALL BE USED WITH THE DESIGN MODEL FOR COMPLETE PRODUCT DEFINITION. QUERY OF THE MODEL IS REQUIRED FOR UNDIMENSIONED FEATURES
6. ALL SURFACES TO BE FREE FROM FLASH, EJECTOR MARKS, SINK MARKS AND BLEMISHES.
7. ALL RADII SHALL BLEND EVENLY WITHOUT DISCERNIBLE STEPS, WITH RELATED FEATURES.
8. TOOLMAKER TO PROVIDE TOOL DRG., HIGHLIGHTING EJECTOR POSITIONS FOR APPROVAL PRIOR TO TOOLMAKING.
9. ALL CLASS A SURFACES TO BE TEXTURED WITH A 24 VDI SPARKED FINISH.
10. ALL INTERNAL NON CRITICAL SURFACES UNLESS OTHERWISE STATED TO BE SMOOTH AND FREE FROM TOOLING MARKS.




NOTE:
1. 1. Density = 0.037 pounds per cubic inch
2. 2. Mass = 0.679 pounds
3. 3. Volume = 18.435 cubic inches
4. MATERIAL: PC-ABS
   **Lupoy GN5001RFH-E3948, Light Grey**
   or PRL PC/ABS-FR1
5. PARTIALLY DEFINED DRAWING. THIS DRAWING SHALL BE USED WITH THE DESIGN MODEL FOR COMPLETE PRODUCT DEFINITION. QUERY OF THE MODEL IS REQUIRED FOR UNDIMENSIONED FEATURES
6. ALL SURFACES TO BE FREE FROM FLASH, EJECTOR MARKS, SINK MARKS AND BLEMISHES.
7. ALL RADII SHALL BLEND EVENLY WITHOUT DISCERNIBLE STEPS, WITH RELATED FEATURES.
8. TOOLMAKER TO PROVIDE TOOL DRG., HIGHLIGHTING EJECTOR POSITIONS FOR APPROVAL PRIOR TO TOOLMAKING.
9. ALL CLASS A SURFACES TO BE TEXTURED WITH A 24 VDI SPARKED FINISH.
10. ALL INTERNAL NON CRITICAL SURFACES UNLESS OTHERWISE STATED TO BE SMOOTH AND FREE FROM TOOLING MARKS.

| | | | |
|---|---|---|---|
| TOL. UNLESS OTHERWISE SPECIFIED INJECTION MOLDED PLASTIC ±(.004" +.002"/INCH) | REV. DESC: CHANGE ALTERNATE MATERIAL | | BALDOR - RELIANCE® |
| | REV: D VERSION: 04 | REVISED: 11:02:51 04/27/2023 TDR: 000001206464 | |
| UNSPECIFIED FEATURE DIMENSIONS: DRAFT= 1.0° ANGLES ±0.5° | MODEL NO. 37FH3006 | | 37 FRAME TOP ECM FAN HOUSING |
| | BY: ENMARS0 | B | 37FH3006 |

CD0006B03




NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.

CD0006B03

| | | |
|---|---|---|
| REV. DESC: CHANGE LEAD COLORS TO BLUE WHITE ORANGE | | |
| REV. LTR: A | VERSION: 01 | TDR: 000001158598 |
| FILE: \AAA\00252\917 | REVISED: 11:01:03 01/19/2021 | BY: ENMARSO |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE CONNECTED, ECS

SH 1 of 1