ABB BALDOR RELIANCE

# Customer information packet

## ECS101M0H7FB4

7.5HP, 1800RPM, 3PH, 60HZ, 213TC, TEFC, N
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 213TC |
| **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** | 7.500 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 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** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Constant Torque Speed Range** | 6 |
| **Current @ Voltage** | 17.400 A @ 230.0 V |
| | 8.700 A @ 460.0 V |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 94.0 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 8.7 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |

## Part Detail

| | |
|---|---|
| **Revision** | F |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 37WGA0016 |
| **Layout** | 37LYQ466 |
| **Eff. date** | 02-12-2026 |
| **CD Diagram** | CD0005A25 |
| **Poles** | 04 |
| **Leads** | 9#12 |
| **Proprietary** | False |
| **Created date** | 09-18-2020 |

| | |
|---|---|
| **IP Rating** | NONE |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3730B |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 18.63 IN |
| **Power Factor** | 92 |
| **Product Family** | General Purpose |
| **Pulley Face Code** | C-Face |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS COMPLIANT |
| **Service Factor** | 1.50 |
| **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 |

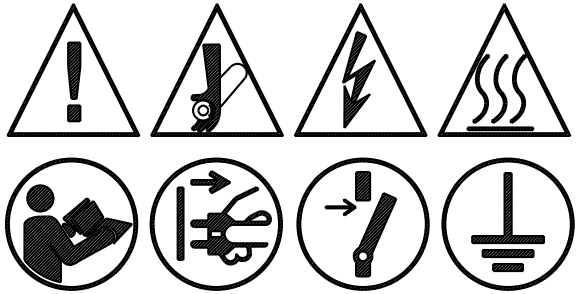
# BALDOR·RELIANCE

## EC-Titanium™

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CAT. NO. | ECS101M0H7FB4 | | | | | | | |
| SPEC. | 37-0000-0293 | | | | YR | *** | | |
| FRAME | 213TC | | ENCL. | TEFC | IP | 54 | | |
| HP | 7.5 | RATING | 40C AMB-CONT | | | | | |
| NOM. EFF. | 94.0 | PF | 92 | SF | 1.5 | | | |
| VOLTS | 230/460 | | FLA | 17.74/8.87 | | | | |
| RPM | 1800 | | RPM MAX | 4000 | | | | |
| HZ | 60 | | PH. | 3 | CLASS | F | | |
| BEMF (V) | 113/225 | | Rs (Ω) | 0.35/1.39 | | | | |
| Ld (mH) | 6.97/28.09 | | Lq (mH) | 20.19/80.586 | | | | |
| INV TYP | VPWM | CHP | 60 TO 133 HZ | | | | | |
| | CT | 6 TO 60 HZ | VT | 1 TO 133 HZ | | | | |
| MATCHED INV | ACS380-04XX-[N/A]/12A6-4 | | | | | | | |
| BEARING | DE | 6307 | ODE | 6206 | | | | |
| SERIAL# | *** | | | | | | | |

ELECTRIC 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.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Volts | 460 | Max RPM | 3000 | Conn Diag. | CD0006B03 | Leads | 3 |
| Amps | 8.7 | Max Amps | | Cs Diagram | CS1126 | BEMF | 216 |
| HP | 7.5 | VFD# | ECI4A9P5 | | | LD | 28.09 |
| RPM | 1800 | S.F. | 1.00 | | | LQ | 80.586 |
| Phase/Hz | 3/60 | Rating | 40C AMB-CONT | | | Rs | 1.4115 Meas. L-L |

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

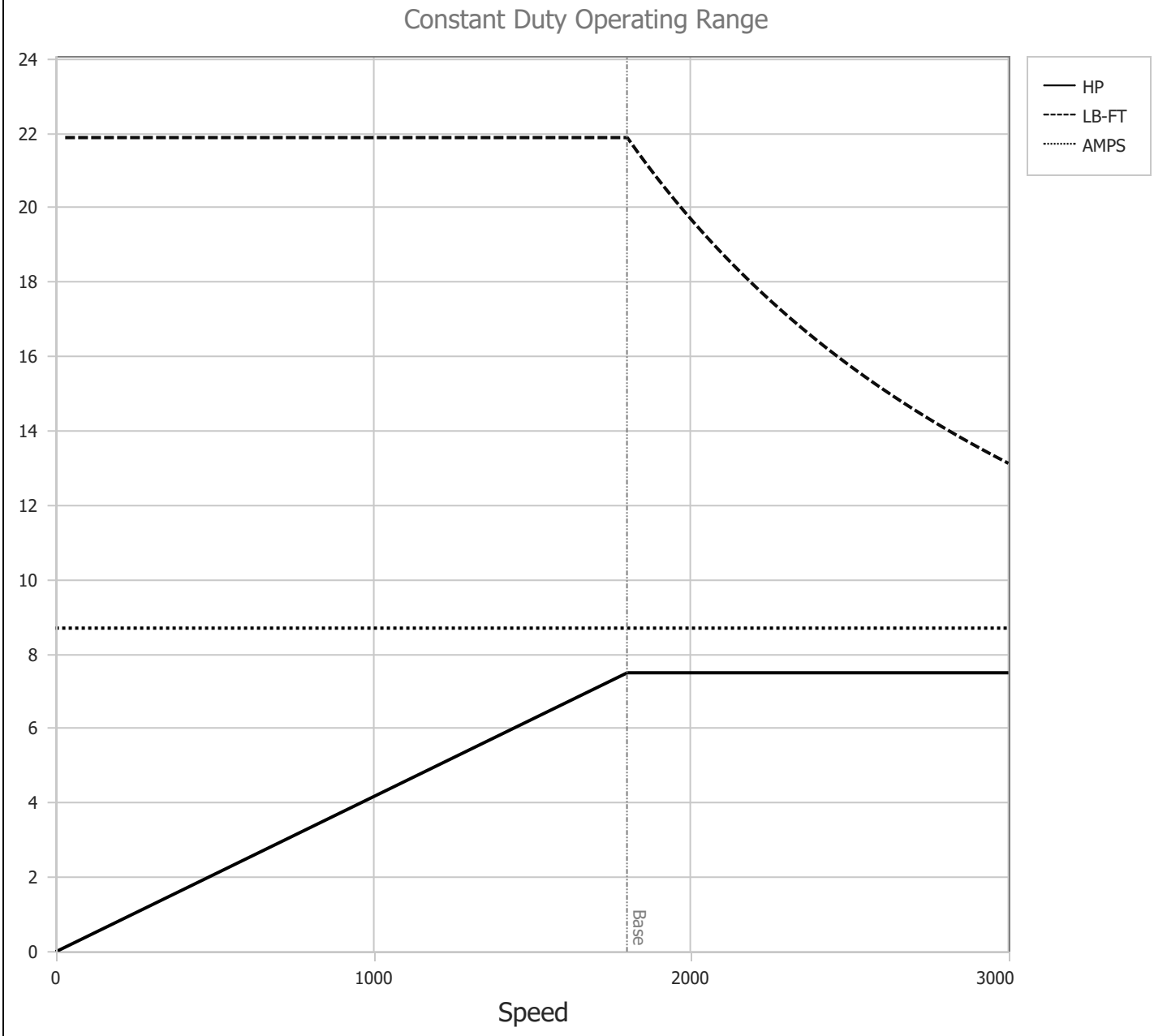
| | RPM | % Speed | LB-FT | % Torque | HP | Efficiency | Loss (% FL) | Watts Loss (W) |
|---|---|---|---|---|---|---|---|---|
| P1 | 1622 | 90% | 21.9 | 100% | 6.8 | 92.4 | 7.32% | 414 |
| P2 | 901 | 50% | 21.9 | 100% | 3.8 | 90.4 | 5.26% | 298 |
| P3 | 449 | 25% | 21.9 | 100% | 1.9 | 85.0 | 4.35% | 246 |
| P4 | 1624 | 90% | 10.9 | 50% | 3.4 | 94.0 | 2.87% | 163 |
| P5 | 902 | 50% | 10.9 | 50% | 1.9 | 92.2 | 2.11% | 119 |
| P6 | 900 | 50% | 5.5 | 25% | 0.9 | 91.1 | 1.21% | 69 |
| P7 | 447 | 25% | 5.5 | 25% | 0.5 | 87.4 | 0.89% | 50 |

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

| | RPM | % Speed | LB-FT | % Torque | HP | System Efficiency | Loss (% FL) | Watts Loss (W) |
|---|---|---|---|---|---|---|---|---|
| P1 | 1804 | 100% | 21.9 | 100% | 7.5 | 91.8 | 8.85% | 501 |
| P2 | 901 | 50% | 21.9 | 100% | 3.8 | 87.4 | 7.16% | 405 |
| P3 | 297 | 17% | 21.9 | 100% | 1.2 | 74.2 | 5.67% | 321 |
| P4 | 1803 | 100% | 10.9 | 50% | 3.8 | 92.2 | 4.16% | 236 |
| P5 | 902 | 50% | 10.9 | 50% | 1.9 | 88.6 | 3.18% | 180 |
| P6 | 296 | 17% | 10.9 | 50% | 0.6 | 76.0 | 2.56% | 145 |
| P7 | 900 | 50% | 5.5 | 25% | 0.9 | 86.4 | 1.94% | 110 |
| P8 | 295 | 17% | 5.5 | 25% | 0.3 | 73.5 | 1.46% | 83 |

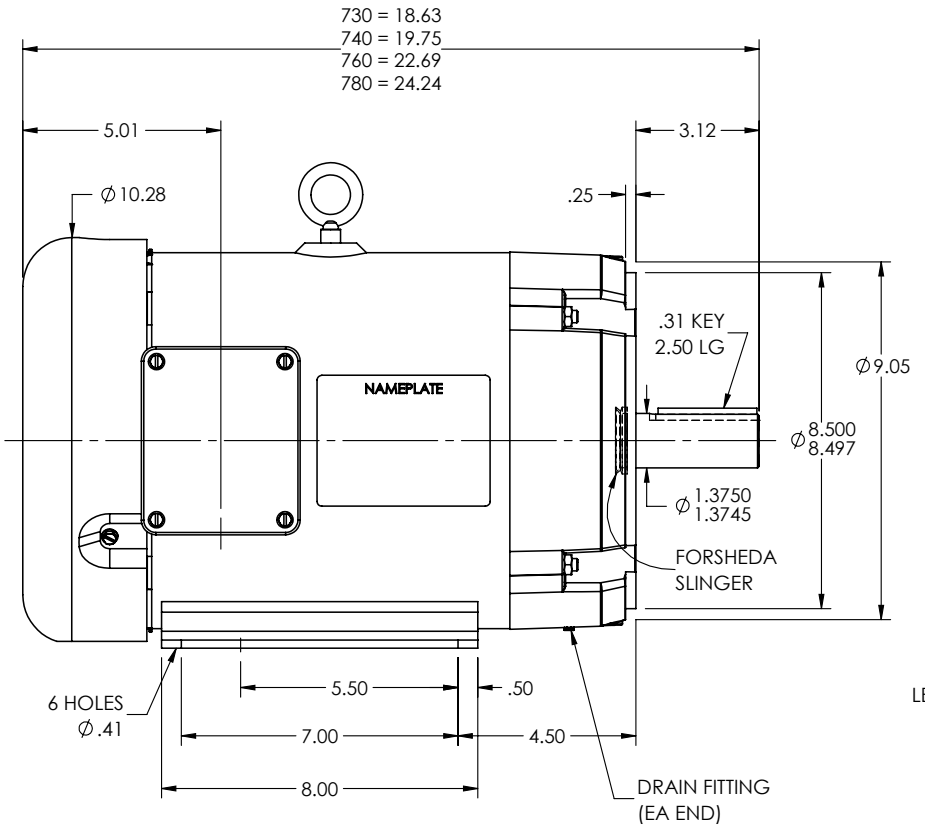
*Points not taken in certified order.*

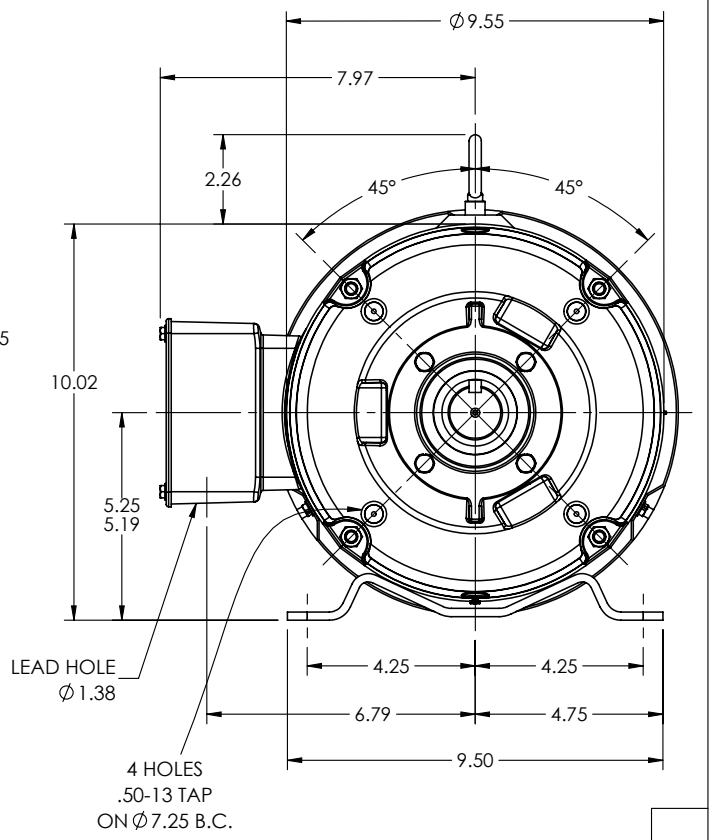
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Volts | 460 | Max RPM | 3000 | Conn Diag. | CD0006B03 | Leads | 3 |
| Amps | 8.7 | Max Amps | | Cs Diagram | CS1126 | BEMF | 216 |
| HP | 7.5 | VFD # | ECI4A9P5 | | | LD | 28.09 |
| RPM | 1800 | S.F. | 1.00 | | | LQ | 80.586 |
| Phase/Hz | 3/60 | Rating | 40C AMB-CONT | | | Rs | 1.4115 Meas L-L |




| | | | |
|---|---|---|---|
| BALDOR • RELIANCE | DR By: R & D<br>CK By: USJORAD2<br>APP By: USJAROB1<br>Date: 05/09/2024 | **AC MOTOR PERFORMANCE CURVES** | **37WGA0020**<br>37-0001565<br>*Test - 110616* |

37LYQ466



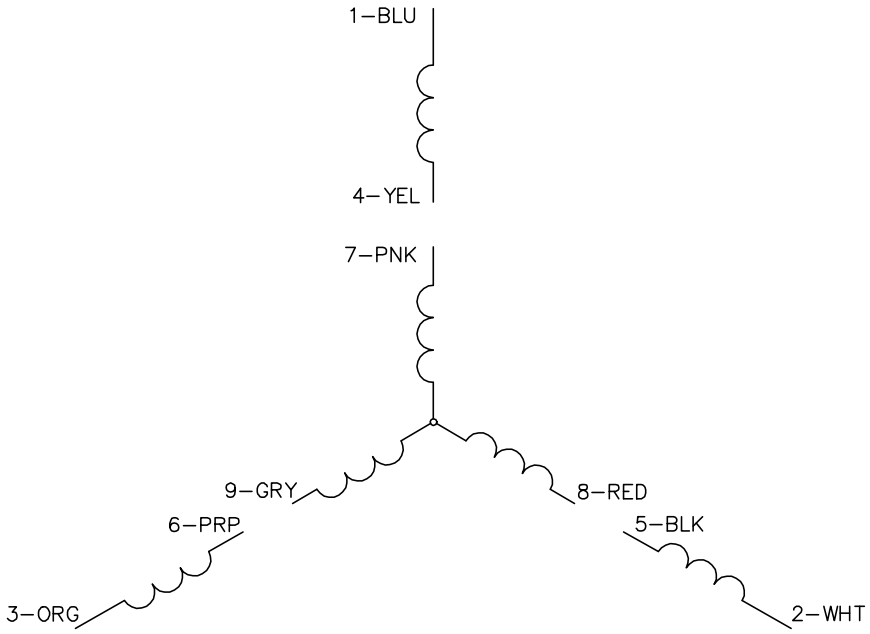

37LYQ466

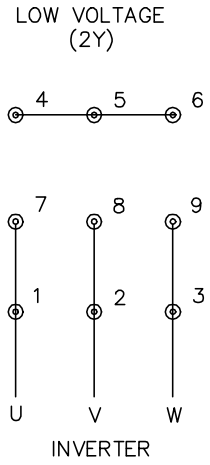
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| 37LYQ466 | MODEL NO. 37LYQ466 | | REF: - |
| | BY: ENJEFD0 | | |

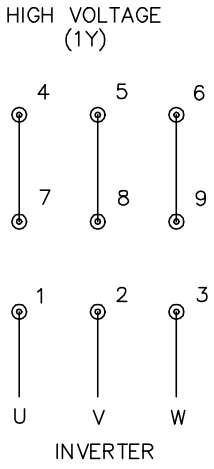
BALDOR - RELIANCE®

HOR 213-5TC TEFC B INT SH GND ECS

CD0005A25




NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005A25

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|---|---|---|
| REV. DESC: NEW | | |
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| FILE: \AAA\00253\082 | REVISED: 01:10:57 03/30/2020 | BY: ENMARSO |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, ECS

SH 1 of 1