ABB BALDOR RELIANCE

# Customer information packet

## ECS101M0H3EC4

3HP, 1800RPM, 3PH, 60HZ, 182TC, 3624B, TEFC, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 182TC |
| **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** | 3.000 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** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Constant Torque Speed Range** | 6 |
| **Current @ Voltage** | 3.700 A @ 460.0 V |
| | 7.300 A @ 230.0 V |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 92.8 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 3.7 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |

## Part Detail

| | |
|---|---|
| **Revision** | L |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 36WGA0019 |
| **Layout** | 36LYT291 |
| **Eff. date** | 06-16-2025 |
| **CD Diagram** | CD0005A25 |
| **Poles** | 04 |
| **Leads** | 9#14 |
| **Proprietary** | False |
| **Created date** | 09-28-2020 |

| | |
|---|---|
| **IP Rating** | NONE |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3624B |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 16.54 IN |
| **Power Factor** | 97 |
| **Product Family** | General Purpose |
| **Pulley Face Code** | C-Face |
| **Rodent Screen** | None |
| **Service Factor** | 1.50 |
| **Shaft Diameter** | 1.125 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 |

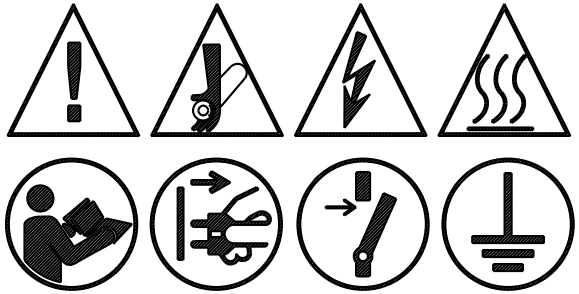
# BALDOR·RELIANCE

## EC-Titanium™

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CAT. NO. | ECS101M0H3EC4 | | | | | | | |
| SPEC. | 36-0001740 | | | | YR | *** | | |
| FRAME | 182TC | | ENCL. | TEFC | IP | 54 | | |
| HP | 3 | RATING | 40C AMB-CONT | | | | | |
| NOM. EFF. | 92.8 | PF | 97 | SF | 1.5 | | | |
| VOLTS | 230/460 | | FLA | 7.3/3.7 | | | | |
| RPM | 1800 | RPM MAX | 4000 | | | | | |
| HZ | 60 | PH. | 3 | CLASS | F | | | |
| BEMF (V) | 106/212 | | Rs (Ω) | 0.91/3.65 | | | | |
| Ld (mH) | 14.4/57.7 | | Lq (mH) | 54.4/217.7 | | | | |
| INV TYP | VPWM | CHP | 60 TO 133 HZ | | | | | |
| | CT | 6 TO 60 HZ | VT | 1 TO 133 HZ | | | | |
| MATCHED INV | ACS380-04XX-07A8-1/04A0-4 | | | | | | | |
| BEARING | DE | 6206 | ODE | 6205 | | | | |
| 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 | 3.7 | Max Amps | | Cs Diagram | CS1126 | BEMF | 172 |
| HP | 3 | VFD# | ECI4A4P1 | | | LD | 51 |
| RPM | 1800 | S.F. | 1.00 | | | LQ | 177 |
| Phase/Hz | 3/60 | Rating | 40C AMB CONT | | | Rs | 3.8460 Meas. L-L |

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

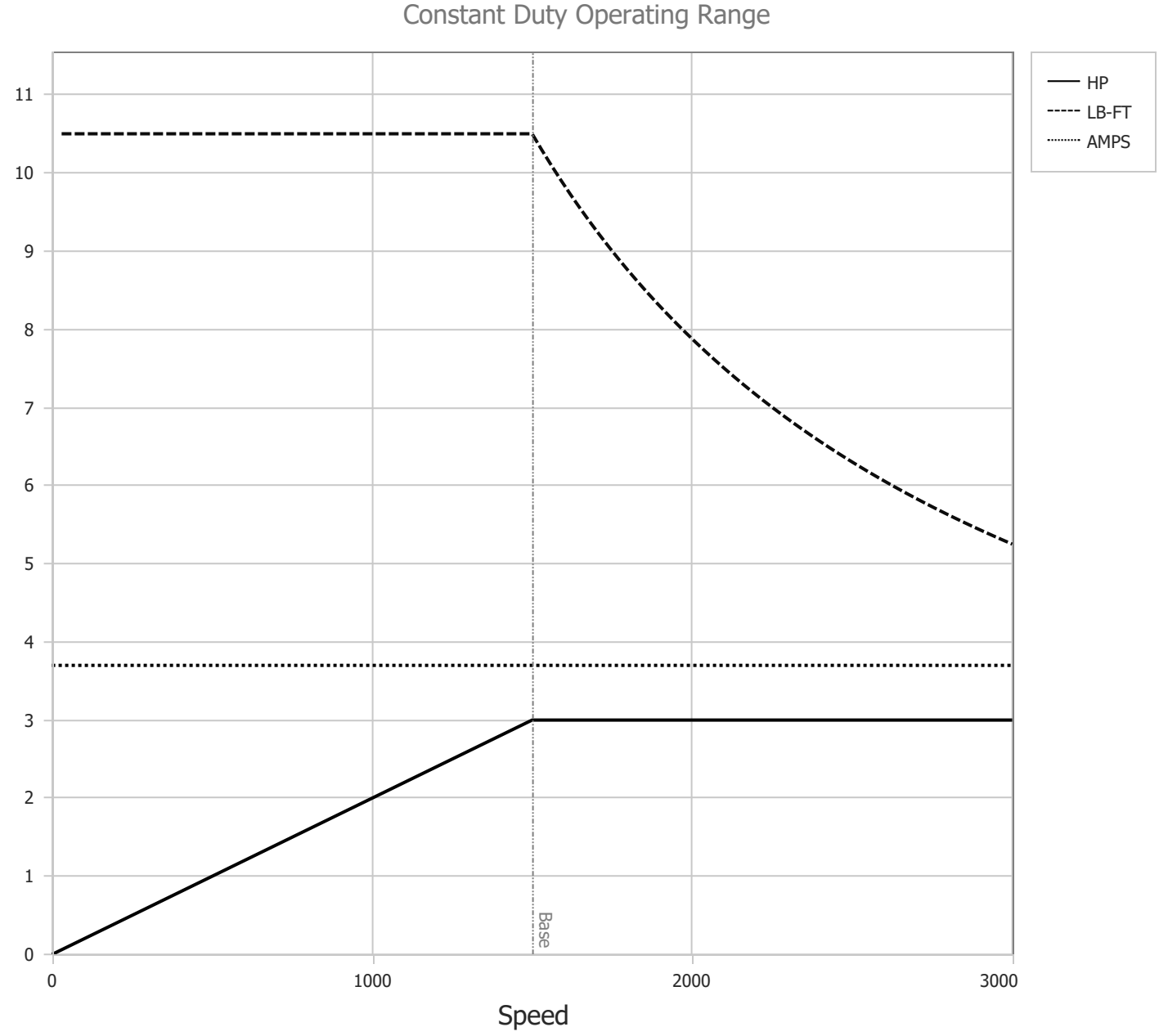
| | RPM | % Speed | LB-FT | % Torque | HP | Efficiency | Loss (% FL) | Watts Loss (W) |
|---|---|---|---|---|---|---|---|---|
| P1 | 1627 | 90% | 8.8 | 100% | 2.7 | 91.3 | 8.59% | 194 |
| P2 | 904 | 50% | 8.8 | 100% | 1.5 | 89.3 | 6.00% | 136 |
| P3 | 452 | 25% | 8.8 | 100% | 0.8 | 83.4 | 4.94% | 112 |
| P4 | 1628 | 90% | 4.4 | 50% | 1.4 | 91.8 | 3.99% | 90 |
| P5 | 904 | 50% | 4.4 | 50% | 0.8 | 89.9 | 2.80% | 63 |
| P6 | 904 | 50% | 2.2 | 25% | 0.4 | 87.9 | 1.70% | 39 |
| P7 | 452 | 25% | 2.2 | 25% | 0.2 | 83.7 | 1.21% | 27 |

## 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% | 8.8 | 100% | 3.0 | 89.8 | 11.23% | 254 |
| P2 | 904 | 50% | 8.8 | 100% | 1.5 | 84.8 | 8.87% | 201 |
| P3 | 301 | 17% | 8.8 | 100% | 0.5 | 69.2 | 7.37% | 167 |
| P4 | 1809 | 100% | 4.4 | 50% | 1.5 | 88.5 | 6.44% | 146 |
| P5 | 904 | 50% | 4.4 | 50% | 0.8 | 84.1 | 4.70% | 106 |
| P6 | 301 | 17% | 4.4 | 50% | 0.3 | 68.2 | 3.86% | 87 |
| P7 | 904 | 50% | 2.2 | 25% | 0.4 | 80.2 | 3.06% | 69 |
| P8 | 301 | 17% | 2.2 | 25% | 0.1 | 62.6 | 2.46% | 56 |

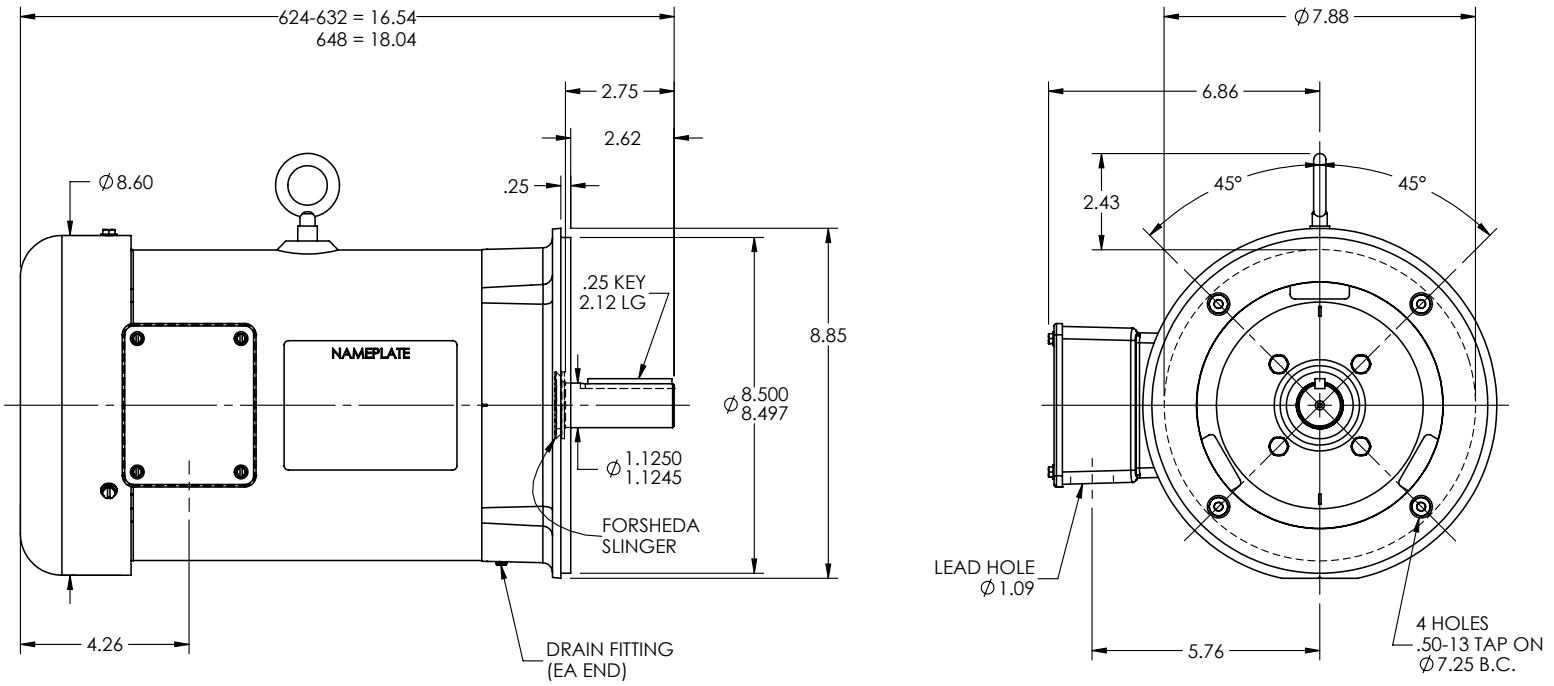
*Points not taken in certified order.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Volts | 460 | Max RPM | 3000 | Conn Diag. | CD0006B03 | Leads | 3 |
| Amps | 3.7 | Max Amps | | Cs Diagram | CS1126 | BEMF | 172 |
| HP | 3 | VFD # | ECI4A4P1 | | | LD | 51 |
| RPM | 1800 | S.F. | 1.00 | | | LQ | 177 |
| Phase/Hz | 3/60 | Rating | 40C AMB CONT | | | Rs | 3.8460 Meas L-L |




| | | | |
|---|---|---|---|
| BALDOR • RELIANCE | DR By: R & D<br>CK By: USBIBAK<br>APP By: USJAROB1<br>Date: 01/09/2025 | **AC MOTOR PERFORMANCE CURVES** | **36WGA0025**<br>36-0000-3655<br>*Test - 111781* |

36LYT291




CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT ABB'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

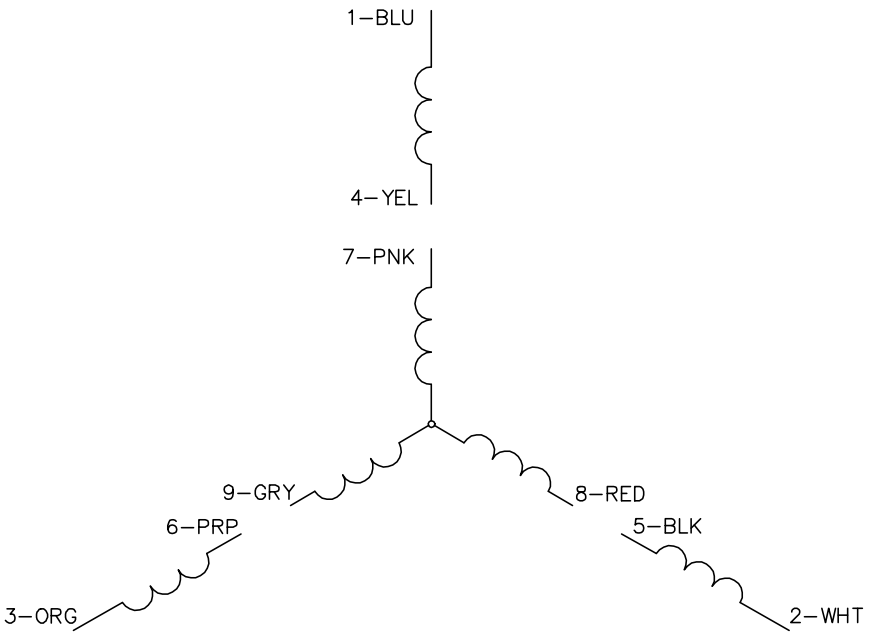
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| MODEL NO. 36LYT291 | | | REF: - |
| BY: ENJEFD0 | Material: - | | |

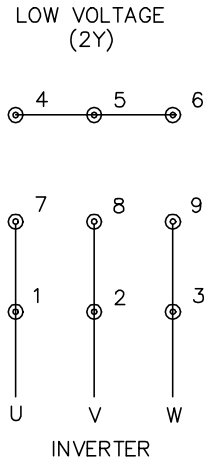
BALDOR

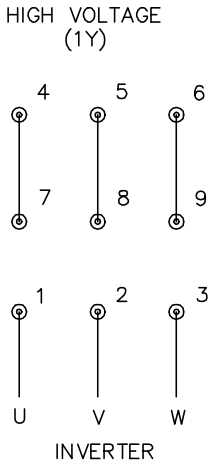
VER 182-4TC TEFC B EYEBOLT INT SH GND ECS

36LYT291

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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| 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