

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECS100A2H5EB4

5HP, 1800RPM, 3PH, 60HZ, 184TC, TEFC, AXIAL

Class - None

Division - Not Applicable

**Specifications**

|                                |                           |
|--------------------------------|---------------------------|
| Enclosure                      | TEFC                      |
| Frame                          | 184TC                     |
| 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             | 5.000 HP @ 60 HZ          |
| Phase                          | 3                         |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ          |
| Voltage @ Frequency            | 230.0 V @ 60 HZ           |
| Agency Approvals               | UL<br>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              | 10.500 A @ 230.0 V        |
| Drip Cover                     | No Drip Cover             |
| Duty Rating                    | CONT                      |
| Efficiency @ 100% Load         | 93.7 %                    |
| Electrically Isolated Bearing  | Not Electrically Isolated |
| Feedback Device                | NO FEEDBACK               |
| Heater Indicator               | No Heater                 |
| High Voltage Full Load Amps    | 10.5 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.  | 36WGA0024           |
| Layout       | 36LYT292            |
| Eff. date    | 01-16-2026          |
| CD Diagram   | CD0006B03           |
| Poles        | 04                  |
| Leads        | 3#14 15" LONG LEADS |
| Proprietary  | False               |
| Created date | 08-31-2020          |

|                                   |                     |
|-----------------------------------|---------------------|
| <b>Locked Bearing Indicator</b>   | Locked Bearing      |
| <b>Motor Lead Termination</b>     | Flying Leads        |
| <b>Motor Standards</b>            | NEMA                |
| <b>Motor Type</b>                 | 3632B               |
| <b>Mounting Arrangement</b>       | F1                  |
| <b>Number of Poles</b>            | 4                   |
| <b>Overall Length</b>             | 22.25 IN            |
| <b>Power Factor</b>               | 97                  |
| <b>Product Family</b>             | General Purpose     |
| <b>Pulley Face Code</b>           | C-Face              |
| <b>Rodent Screen</b>              | None                |
| <b>Service Factor</b>             | 1.00                |
| <b>Shaft Diameter</b>             | 1.125 IN            |
| <b>Shaft Ground Indicator</b>     | Shaft Grounding     |
| <b>Shaft Rotation</b>             | Reversible          |
| <b>Speed</b>                      | 1800 rpm            |
| <b>Speed Code</b>                 | Single Speed        |
| <b>Starting Method</b>            | Direct on line      |
| <b>Thermal Device - Bearing</b>   | None                |
| <b>Thermal Device - Winding</b>   | None                |
| <b>Vibration Sensor Indicator</b> | No Vibration Sensor |
| <b>Winding Thermal 1</b>          | None                |
| <b>Winding Thermal 2</b>          | None                |

|          |      |          |              |            |           |       |                  |
|----------|------|----------|--------------|------------|-----------|-------|------------------|
| Volts    | 230  | Max RPM  | 4000         | Conn Diag. | CD0006B03 | Leads | 3                |
| Amps     | 10.5 | Max Amps |              | Cs Diagram | CS1127    | BEMF  | 126              |
| HP       | 5    | VFD#     | ECIN2A10P5   |            |           | LD    | 13.5             |
| RPM      | 1800 | S.F.     | 1.00         |            |           | LQ    | 47.8             |
| Phase/Hz | 3/60 | Rating   | 40C AMB-CONT |            |           | Rs    | 0.8309 Meas. L-L |

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

|    | RPM  | % Speed | LB-FT | % Torque | HP  | Efficiency | Loss<br>(% FL) | Watts Loss<br>(W) |
|----|------|---------|-------|----------|-----|------------|----------------|-------------------|
| P1 | 1630 | 90%     | 14.6  | 100%     | 4.5 | 93.3       | 6.49%          | 245               |
| P2 | 904  | 50%     | 14.6  | 100%     | 2.5 | 90.6       | 5.17%          | 195               |
| P3 | 452  | 25%     | 14.6  | 100%     | 1.3 | 85.0       | 4.39%          | 166               |
| P4 | 1628 | 90%     | 7.3   | 50%      | 2.3 | 93.3       | 3.24%          | 122               |
| P5 | 905  | 50%     | 7.3   | 50%      | 1.3 | 91.7       | 2.26%          | 85                |
| P6 | 905  | 50%     | 3.7   | 25%      | 0.6 | 91.3       | 1.19%          | 45                |
| P7 | 453  | 25%     | 3.6   | 25%      | 0.3 | 88.6       | 0.80%          | 30                |

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

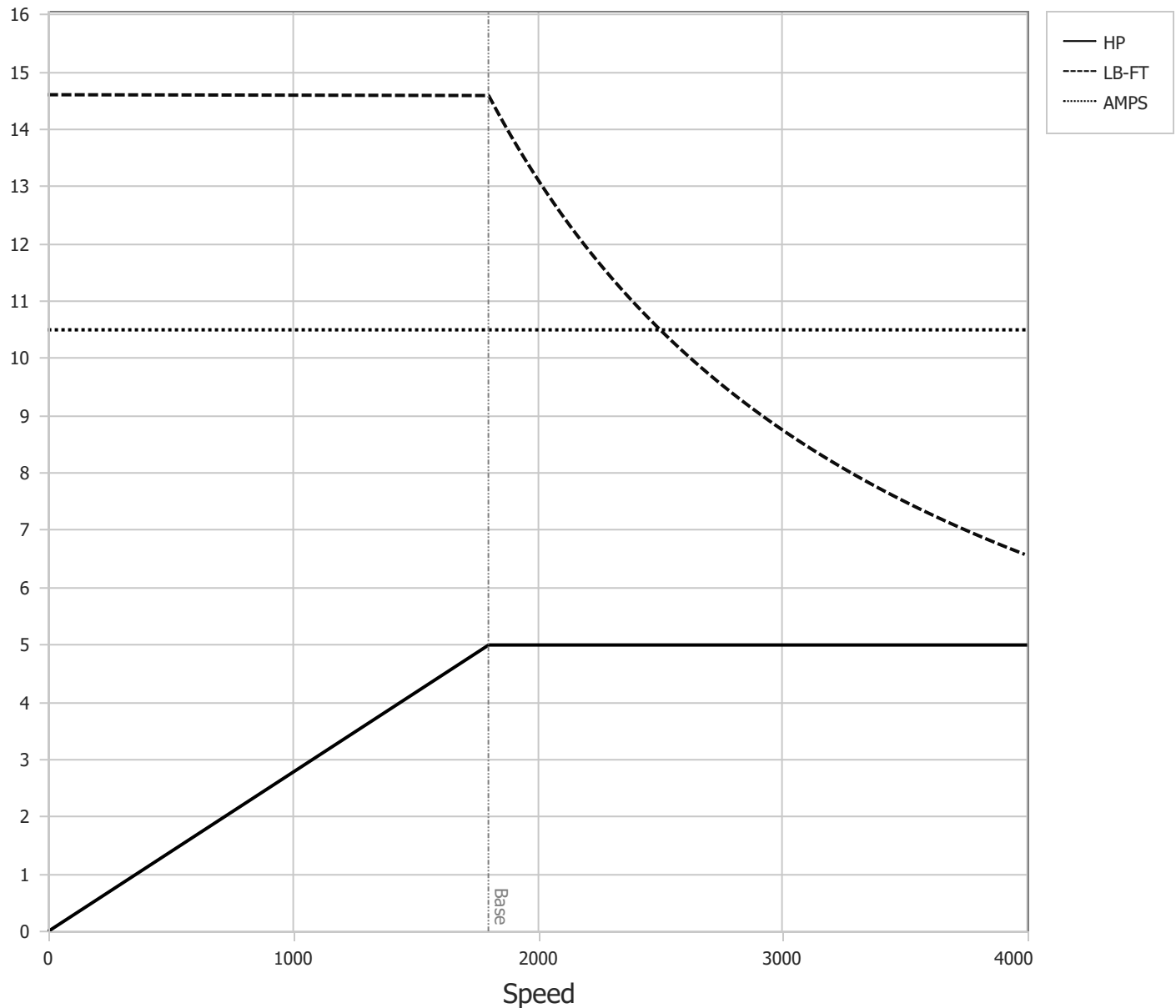
|    | RPM  | % Speed | LB-FT | % Torque | HP  | System<br>Efficiency | Loss<br>(% FL) | Watts Loss<br>(W) |
|----|------|---------|-------|----------|-----|----------------------|----------------|-------------------|
| P1 | 1810 | 100%    | 14.6  | 100%     | 5.0 | 90.8                 | 10.11%         | 382               |
| P2 | 904  | 50%     | 14.6  | 100%     | 2.5 | 86.0                 | 8.09%          | 305               |
| P3 | 301  | 17%     | 14.6  | 100%     | 0.8 | 70.7                 | 6.86%          | 259               |
| P4 | 1811 | 100%    | 7.3   | 50%      | 2.5 | 90.8                 | 5.06%          | 191               |
| P5 | 905  | 50%     | 7.3   | 50%      | 1.3 | 86.6                 | 3.85%          | 145               |
| P6 | 301  | 17%     | 7.3   | 50%      | 0.4 | 73.0                 | 3.06%          | 115               |
| P7 | 905  | 50%     | 3.7   | 25%      | 0.6 | 85.2                 | 2.16%          | 82                |
| P8 | 302  | 17%     | 3.6   | 25%      | 0.2 | 72.2                 | 1.59%          | 60                |

Points not taken in certified order.

|                                                                                    |         |                   |                                            |                                                   |
|------------------------------------------------------------------------------------|---------|-------------------|--------------------------------------------|---------------------------------------------------|
|  | DR By:  | <u>R &amp; D</u>  | <b>AC MOTOR<br/>PERFORMANCE<br/>CURVES</b> | <b>36WGA0024</b><br>36-0000-0618<br>Test - 111814 |
|                                                                                    | CK By:  | <u>USTOSAN</u>    |                                            |                                                   |
|                                                                                    | APP By: | <u>USWEQUA1</u>   |                                            |                                                   |
|                                                                                    | Date:   | <u>01/17/2025</u> |                                            |                                                   |

|          |      |          |              |            |           |       |                 |
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| HP       | 5    | VFD #    | ECIN2A10P5   |            |           | LD    | 13.5            |
| RPM      | 1800 | S.F.     | 1.00         |            |           | LQ    | 47.8            |
| Phase/Hz | 3/60 | Rating   | 40C AMB-CONT |            |           | Rs    | 0.8309 Meas L-L |

Constant Duty Operating Range


**BALDOR • RELIANCE**

DR By: R & D

CK By: USTOSAN

APP By: USWEQUA1

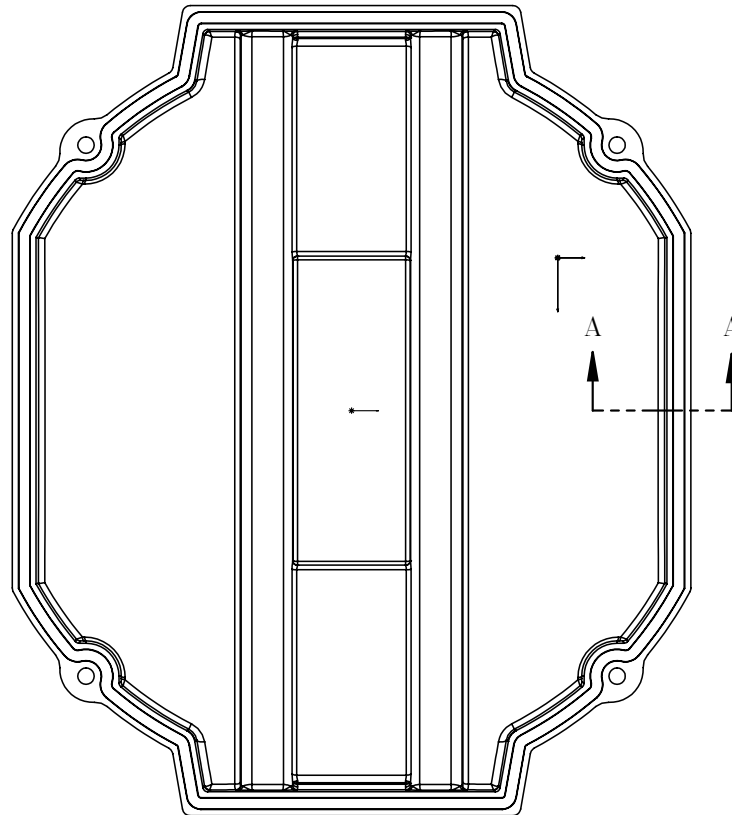
Date: 01/17/2025
**AC MOTOR  
PERFORMANCE  
CURVES**
**36WGA0024**

36-0000-0618

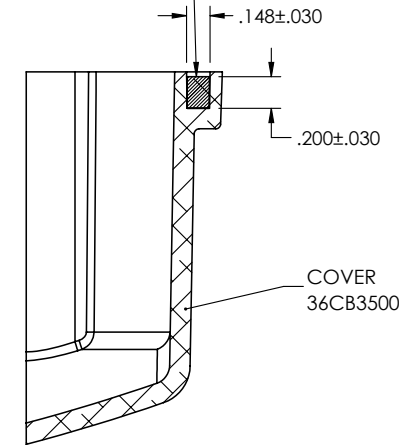
Test - 111814



36CB3500A00



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



SECTION A-A

REV. DESC: UPDATE MATERIAL

|        |             |                              |                   |
|--------|-------------|------------------------------|-------------------|
| REV: A | VERSION: 01 | REVISED: 10:45:08 03/29/2019 | TDR: 000001101646 |
|--------|-------------|------------------------------|-------------------|



MODEL NO. 36CB3500A00

REF: -

BY: ENMARS0

Material: -

**BALDOR - RELIANCE®**

36 FRAME ODE ECM COVER WITH FOAM SEAL

36CB3500A00

