

# ABB BALDOR RELIANCE III

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## Customer information packet

ECS101M0H10FC4

10HP, 1800RPM, 3PH, 60HZ, 215TC, 3740B, TEFC, F

Class - None

Division - Not Applicable

**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            | 230.0 V @ 60 HZ<br>460.0 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              | 11.000 A @ 460.0 V<br>22.000 A @ 230.0 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                            |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | L          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 37WGA0017  |
| Layout       | 37LYQ488   |
| Eff. date    | 02-12-2026 |
| CD Diagram   | CD0005A25  |
| Poles        | 04         |
| Leads        | 9#12       |
| Proprietary  | False      |
| Created date | 09-28-2020 |

|                                   |                       |
|-----------------------------------|-----------------------|
| <b>IP Rating</b>                  | NONE                  |
| <b>Lifting Lugs</b>               | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>   | Locked Bearing        |
| <b>Motor Lead Termination</b>     | Flying Leads          |
| <b>Motor Standards</b>            | NEMA                  |
| <b>Motor Type</b>                 | 3740B                 |
| <b>Mounting Arrangement</b>       | F1                    |
| <b>Number of Poles</b>            | 4                     |
| <b>Overall Length</b>             | 19.75 IN              |
| <b>Power Factor</b>               | 94                    |
| <b>Product Family</b>             | General Purpose       |
| <b>Pulley Face Code</b>           | C-Face                |
| <b>Rodent Screen</b>              | None                  |
| <b>Service Factor</b>             | 1.50                  |
| <b>Shaft Diameter</b>             | 1.375 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    | 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<br>(% FL) | Watts Loss<br>(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

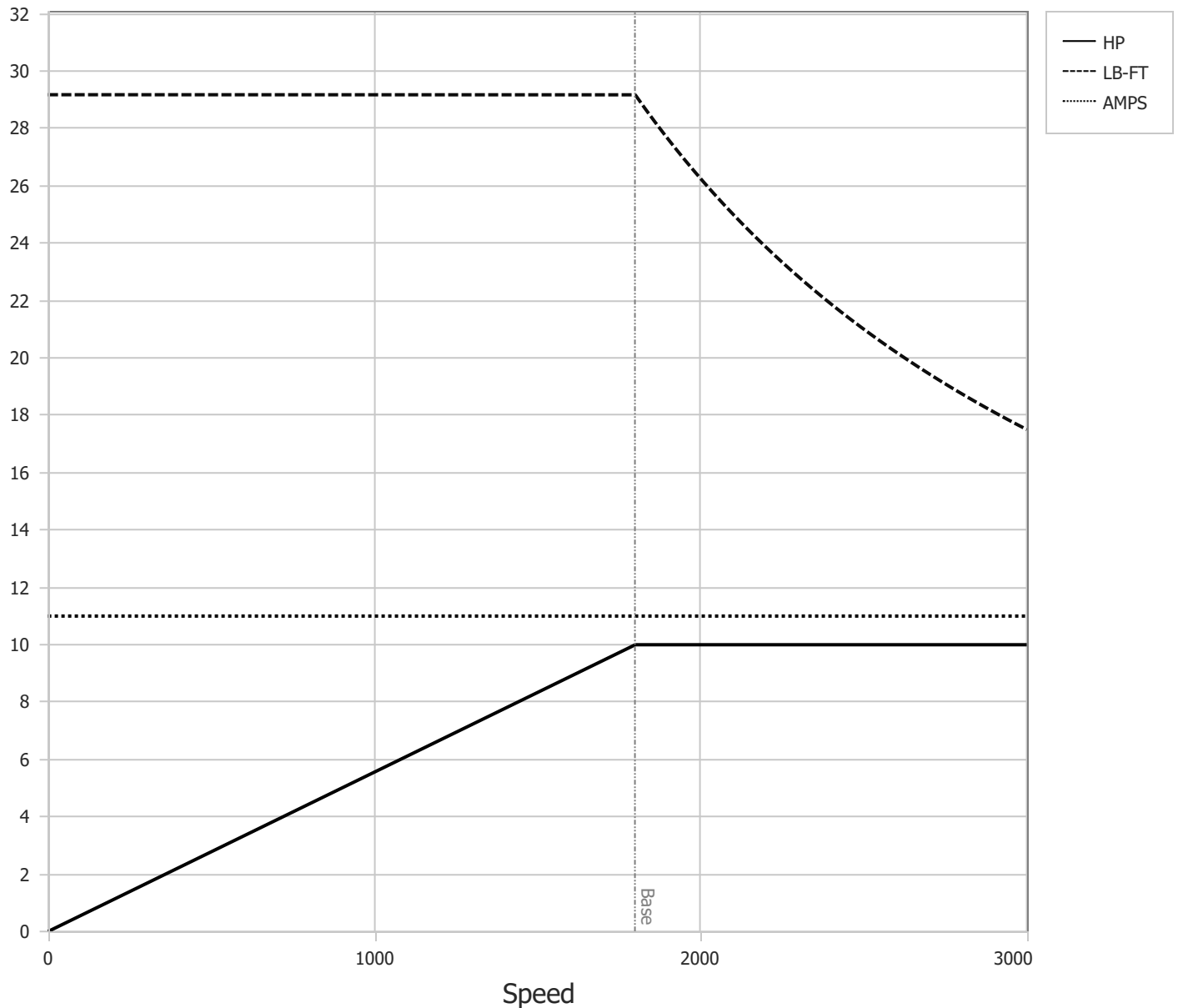
|    | RPM  | % Speed | LB-FT | % Torque | HP   | System<br>Efficiency | Loss<br>(% FL) | Watts Loss<br>(W) |
|----|------|---------|-------|----------|------|----------------------|----------------|-------------------|
| P1 | 1806 | 100%    | 29.2  | 100%     | 10.0 | 92.7                 | 7.79%          | 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.

|                                                                                    |         |                   |                                            |                                                  |
|------------------------------------------------------------------------------------|---------|-------------------|--------------------------------------------|--------------------------------------------------|
|  | DR By:  | <u>R &amp; D</u>  | <b>AC MOTOR<br/>PERFORMANCE<br/>CURVES</b> | <b>37WGL001</b><br>37Q435L001G1<br>Test - 112056 |
|                                                                                    | CK By:  | <u>USGAHIL</u>    |                                            |                                                  |
|                                                                                    | APP By: |                   |                                            |                                                  |
|                                                                                    | Date:   | <u>03/13/2025</u> |                                            |                                                  |

|          |      |          |            |            |        |       |                 |
|----------|------|----------|------------|------------|--------|-------|-----------------|
| 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 |

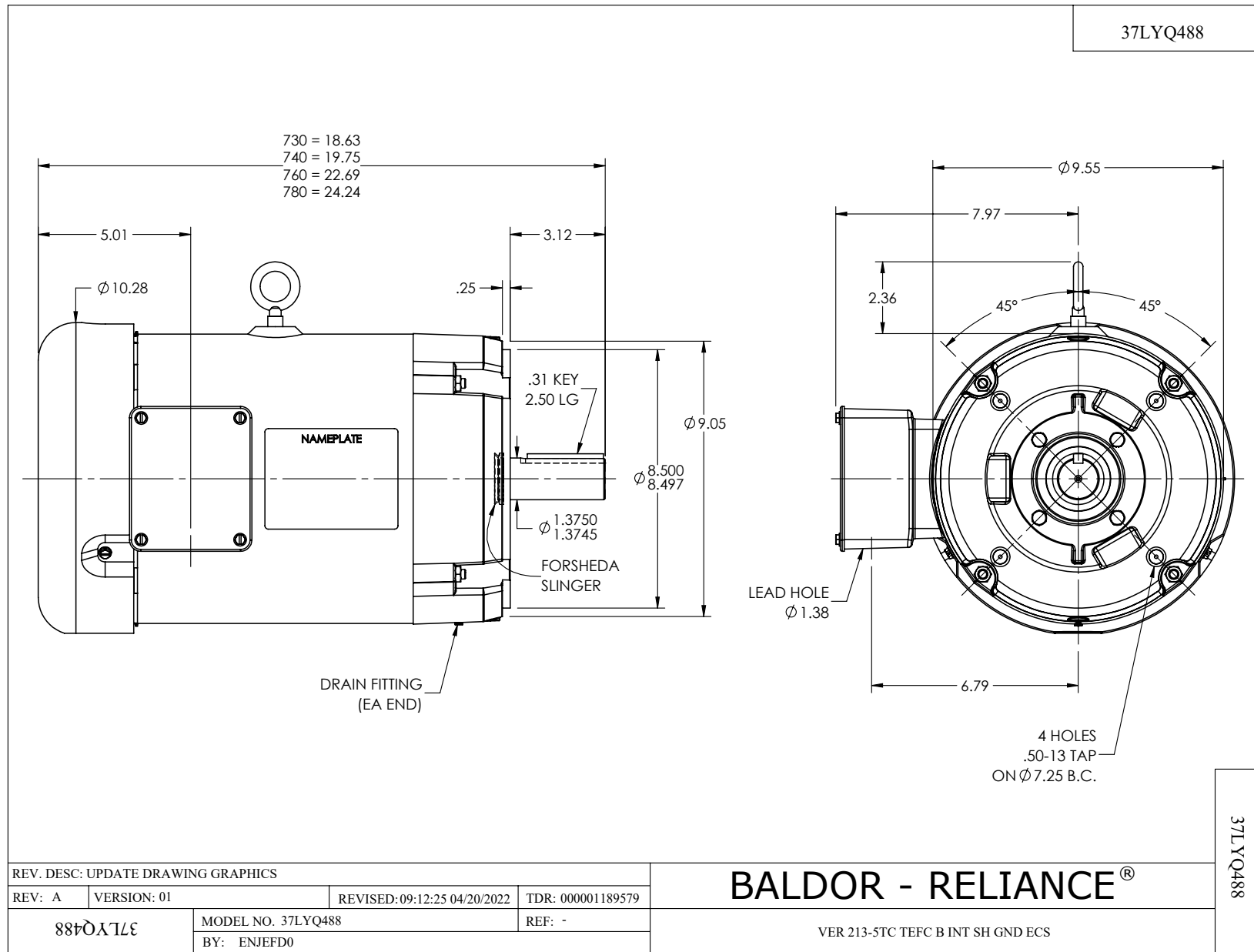
Constant Duty Operating Range


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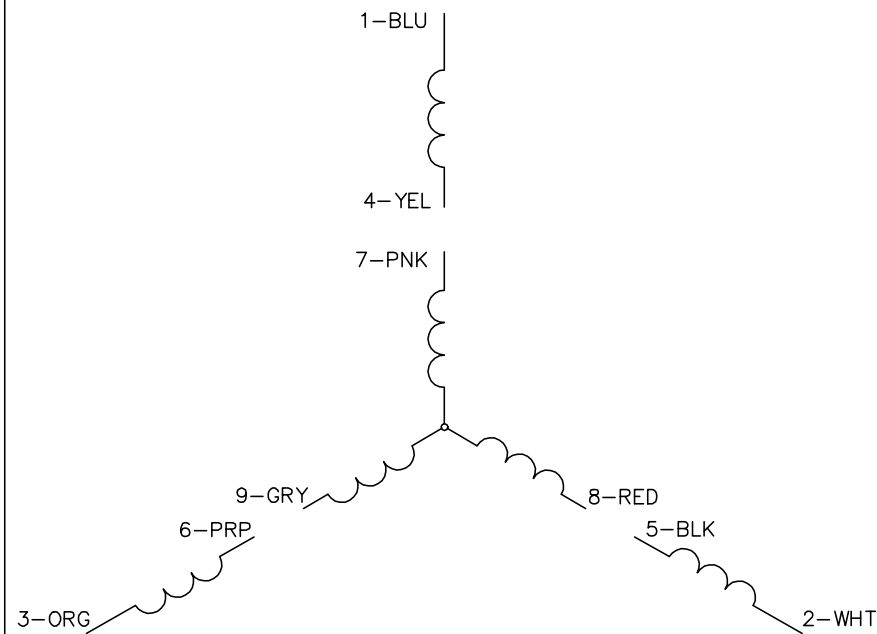
DR By: R & D  
 CK By: USGAHIL  
 APP By:  
 Date: 03/13/2025

**AC MOTOR  
PERFORMANCE  
CURVES**

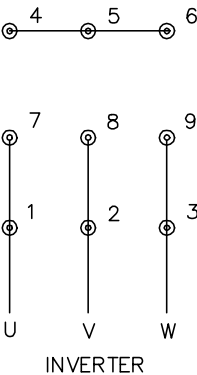
**37WGL001**  
 37Q435L001G1  
 Test - 112056



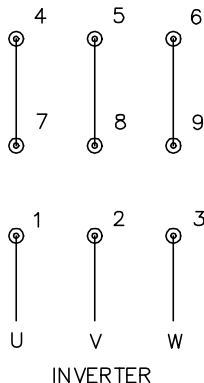
CD0005A25



LOW VOLTAGE  
(2Y)



HIGH VOLTAGE  
(1Y)



- 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.

|                      |                              |                   |
|----------------------|------------------------------|-------------------|
| REV. DESC: NEW       |                              |                   |
| REV. LTR: -          | VERSION: 00                  | TDR: 000001135746 |
| 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

CD0005A25