

# ABB BALDOR RELIANCE III

---

## Customer information packet

ECS101M0K5P5FC4

5.5KW, 1500RPM, 3PH, 50HZ, D132D, 3730B, TEFC

Class - None

Division - Not Applicable

**Specifications**

|                                       |  |
|---------------------------------------|--|
| <b>Enclosure</b>                      | TEFC                                     |
| <b>Frame</b>                          | D132D                                    |
| <b>Frame Material</b>                 | Steel                                    |
| <b>Frequency</b>                      | 50.00 Hz                                 |
| <b>Haz Area Class and Group</b>       | None                                     |
| <b>Haz Area Division</b>              | Not Applicable                           |
| <b>Motor Letter Type</b>              | Three Phase                              |
| <b>Output @ Frequency</b>             | 5.500 KW @ 50 HZ                         |
| <b>Phase</b>                          | 3  |
| <b>Synchronous Speed @ Frequency</b>  | 1500 RPM @ 50 HZ                         |
| <b>Voltage @ Frequency</b>            | 190.0 V @ 50 HZ<br>380.0 V @ 50 HZ       |
| <b>Agency Approvals</b>               | CE<br>CULUS<br>WEEE                      |
| <b>Ambient Temperature</b>            | 40 °C                                    |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                         |
| <b>Auxiliary Box Lead Termination</b> | None                                     |
| <b>Base Indicator</b>                 | No Mounting                              |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                  |
| <b>Blower</b>                         | None                                     |
| <b>Constant Torque Speed Range</b>    | 5  |
| <b>Current @ Voltage</b>              | 10.500 A @ 380.0 V<br>21.000 A @ 190.0 V |
| <b>Design Code</b>                    | B  |
| <b>Drip Cover</b>                     | No Drip Cover                            |
| <b>Duty Rating</b>                    | S1                                       |
| <b>Efficiency @ 100% Load</b>         | 92.7 %                                   |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                |
| <b>Feedback Device</b>                | NO FEEDBACK                              |
| <b>Frame Prefix</b>                   | D  |
| <b>Heater Indicator</b>               | No Heater                                |

**Part Detail**

|                     |              |
|---------------------|--------------|
| <b>Revision</b>     | K            |
| <b>Type</b>         | AC           |
| <b>Mech. spec.</b>  |              |
| <b>Base</b>         |              |
| <b>Status</b>       | PRD/A        |
| <b>Elec. spec.</b>  | 37WGA0016    |
| <b>Layout</b>       | 37LY-000-408 |
| <b>Eff. date</b>    | 02-12-2026   |
| <b>CD Diagram</b>   | CD0005A25    |
| <b>Poles</b>        | 04           |
| <b>Leads</b>        | 9#12         |
| <b>Proprietary</b>  | False        |
| <b>Created date</b> | 10-21-2022   |

|                             |                       |
|-----------------------------|-----------------------|
| High Voltage Full Load Amps | 10.5 a                |
| Insulation Class            | F                     |
| Inverter Code               | Inverter Duty         |
| Lifting Lugs                | Vertical Lifting Lugs |
| Locked Bearing Indicator    | No Locked Bearing     |
| Motor Lead Termination      | Flying Leads          |
| Motor Standards             | IEC                   |
| Motor Type                  | 3730B                 |
| Mounting Arrangement        | B14                   |
| Number of Poles             | 4                     |
| Overall Length              | 17.63 IN              |
| Power Factor                | 90                    |
| Product Family              | General Purpose       |
| Pulley Face Code            | D-Flange              |
| Rodent Screen               | None                  |
| Service Factor              | 1.00                  |
| Shaft Diameter              | 1.497 IN              |
| Shaft Ground Indicator      | Shaft Grounding       |
| Shaft Rotation              | Reversible            |
| Speed                       | 1500 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                  |

**Nameplate**

| <b>NP3968B01A01</b> |                 |                   |           |                |              |                 |    |  |  |
|---------------------|-----------------|-------------------|-----------|----------------|--------------|-----------------|----|--|--|
| <b>CAT.NO.</b>      | ECS101MOK5P5FC4 |                   |           |                |              |                 |    |  |  |
| <b>SPEC.</b>        | 37-0000-0484    |                   |           | <b>YR</b>      |              |                 |    |  |  |
| <b>FRAME</b>        | D132C           |                   | <b>IP</b> | 55             | <b>WT.</b>   | 60              |    |  |  |
| <b>KW</b>           | 5.5             | <b>HZ</b>         | 50        | <b>PH</b>      | 3            | <b>DUTY-IPM</b> | S1 |  |  |
| <b>INS CL</b>       | F               | <b>CLASS RISE</b> |           | B              | <b>AMB-C</b> |                 | 40 |  |  |
| <b>EFF. CL</b>      | IE5             | <b>EFF</b>        | 92.7      | <b>COSφ</b>    |              | 90              |    |  |  |
| <b>VOLTS</b>        | 190/380         | <b>FLA</b>        |           | 21.42/10.71    |              |                 |    |  |  |
| <b>1/MIN</b>        | 1500            | <b>1/MIN MAX</b>  |           |                | 3000         |                 |    |  |  |
| <b>BEMF (V)</b>     | 94/188          | <b>RS (OHMS)</b>  |           |                | 0.35/1.71    |                 |    |  |  |
| <b>LD (MH)</b>      | 6.99/28.09      |                   |           | <b>LQ (MH)</b> |              | 20.19/80.59     |    |  |  |
| <b>VPWM</b>         | <b>CP =</b>     | 50                | <b>TO</b> | 100            |              |                 |    |  |  |
| <b>CT</b>           | 5               | <b>TO</b>         | 50        | <b>VT</b>      | 1            | <b>TO</b>       | 50 |  |  |
| <b>MATCHED INV</b>  |                 |                   |           |                |              |                 |    |  |  |
| <b>DE</b>           | 6208            | <b>ODE</b>        |           | 6206           |              |                 |    |  |  |
| <b>SERIAL #</b>     |                 |                   |           |                |              |                 |    |  |  |

|          |             |          |                |            |           |       |                  |
|----------|-------------|----------|----------------|------------|-----------|-------|------------------|
| Volts    | 190/380     | Max RPM  | 3000           | Conn Diag. | CD0005A25 | Leads | 9                |
| Amps     | 21.85/10.92 | Max Amps |                | Cs Diagram | CS0576    | BEMF  | 0                |
| KW       | 5.5         | VFD#     | ACS380-040S-12 |            |           | LD    | 0                |
| RPM      | 1500        | S.F.     | 1.00           |            |           | LQ    | 0                |
| Phase/Hz | 3/50        | Rating   | 40C AMB-S1     |            |           | Rs    | 1.3847 Meas. L-L |

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

|    | RPM  | % Speed | LB-FT | % Torque | KW  | Efficiency | Loss (% FL) | Watts Loss (W) |
|----|------|---------|-------|----------|-----|------------|-------------|----------------|
| P1 | 1350 | 90%     | 25.8  | 100%     | 6.6 | 92.1       | 7.71%       | 424            |
| P2 | 750  | 50%     | 25.8  | 100%     | 3.7 | 88.9       | 6.27%       | 345            |
| P3 | 375  | 25%     | 25.8  | 100%     | 1.8 | 82.5       | 5.33%       | 293            |
| P4 | 1350 | 90%     | 12.9  | 50%      | 3.3 | 92.8       | 3.51%       | 193            |
| P5 | 750  | 50%     | 12.9  | 50%      | 1.8 | 90.6       | 2.60%       | 143            |
| P6 | 750  | 50%     | 6.5   | 25%      | 0.9 | 90.3       | 1.35%       | 74             |
| P7 | 375  | 25%     | 6.5   | 25%      | 0.5 | 86.9       | 0.94%       | 52             |

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

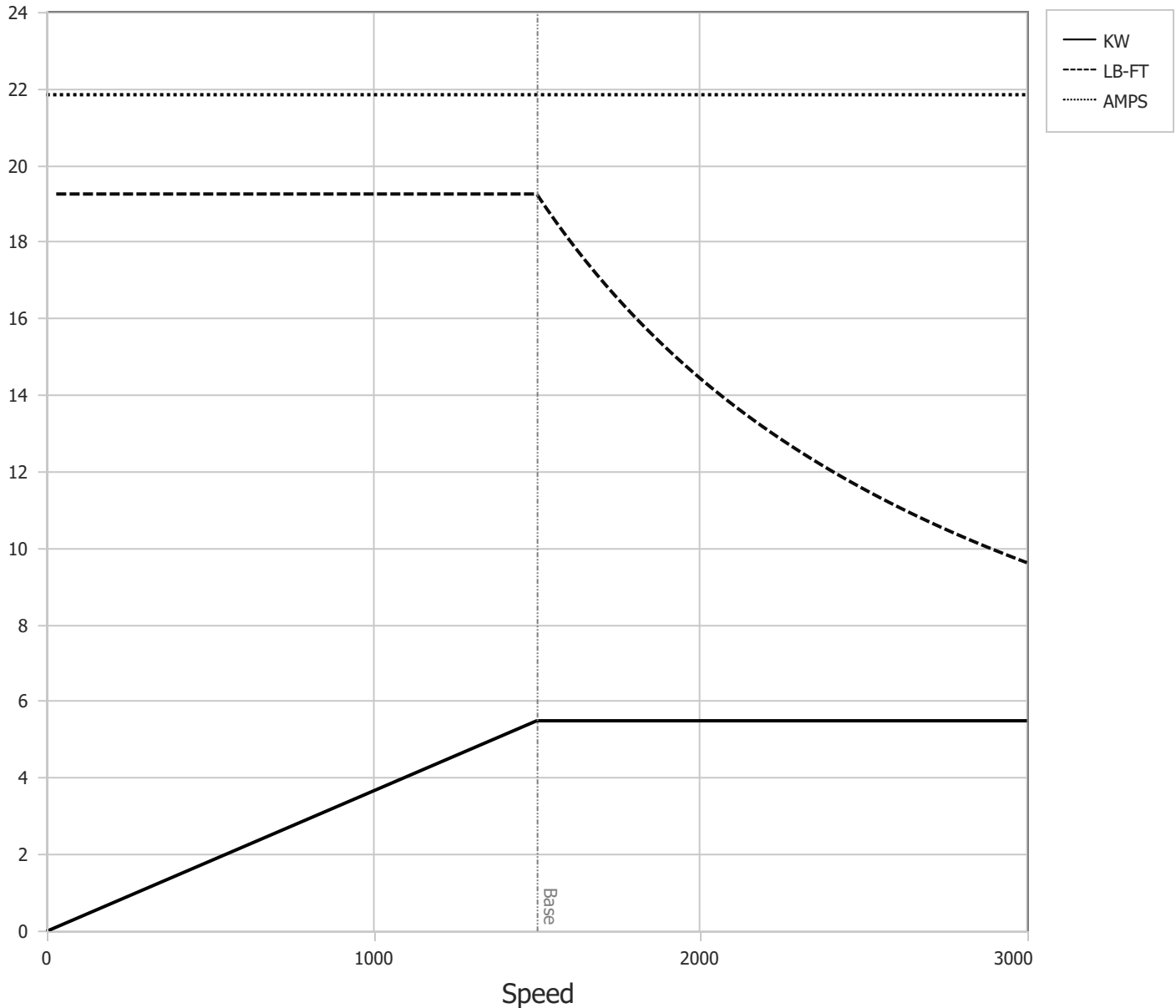
|    | RPM  | % Speed | LB-FT | % Torque | KW  | System Efficiency | Loss (% FL) | Watts Loss (W) |
|----|------|---------|-------|----------|-----|-------------------|-------------|----------------|
| P1 | 1500 | 100%    | 25.8  | 100%     | 7.4 | 91.0              | 9.91%       | 545            |
| P2 | 750  | 50%     | 25.8  | 100%     | 3.7 | 85.9              | 8.19%       | 451            |
| P3 | 255  | 17%     | 25.8  | 100%     | 1.3 | 71.6              | 6.75%       | 371            |
| P4 | 1500 | 100%    | 12.9  | 50%      | 3.7 | 90.8              | 5.05%       | 278            |
| P5 | 750  | 50%     | 12.9  | 50%      | 1.8 | 87.2              | 3.67%       | 202            |
| P6 | 255  | 17%     | 12.9  | 50%      | 0.6 | 74.7              | 2.87%       | 158            |
| P7 | 750  | 50%     | 6.5   | 25%      | 0.9 | 85.8              | 2.06%       | 114            |
| P8 | 255  | 17%     | 6.5   | 25%      | 0.3 | 73.8              | 1.51%       | 83             |

*Points not taken in certified order.*

|                          |         |                   |  |   |
|--------------------------|---------|-------------------|--|---|
| <b>BALDOR • RELIANCE</b> | DR By:  | <u>R &amp; D</u>  | <b>AC MOTOR<br/>PERFORMANCE<br/>CURVES</b> | <b>37WGA0016</b><br>37-0000-0483<br>Test - 111886 |
|                          | CK By:  | <u>USGAHIL</u>    |  |   |
|                          | APP By: | <u>USJAROB1</u>   |  |   |
|                          | Date:   | <u>02/04/2025</u> |  |   |

|          |             |          |                |            |           |       |                 |
|----------|-------------|----------|----------------|------------|-----------|-------|-----------------|
| Volts    | 190/380     | Max RPM  | 3000           | Conn Diag. | CD0005A25 | Leads | 9               |
| Amps     | 21.85/10.92 | Max Amps |                | Cs Diagram | CS0576    | BEMF  | 0               |
| KW       | 5.5         | VFD #    | ACS380-040S-12 |            |           | LD    | 0               |
| RPM      | 1500        | S.F.     | 1.00           |            |           | LQ    | 0               |
| Phase/Hz | 3/50        | Rating   | 40C AMB-S1     |            |           | Rs    | 1.3847 Meas L-L |

Constant Duty Operating Range

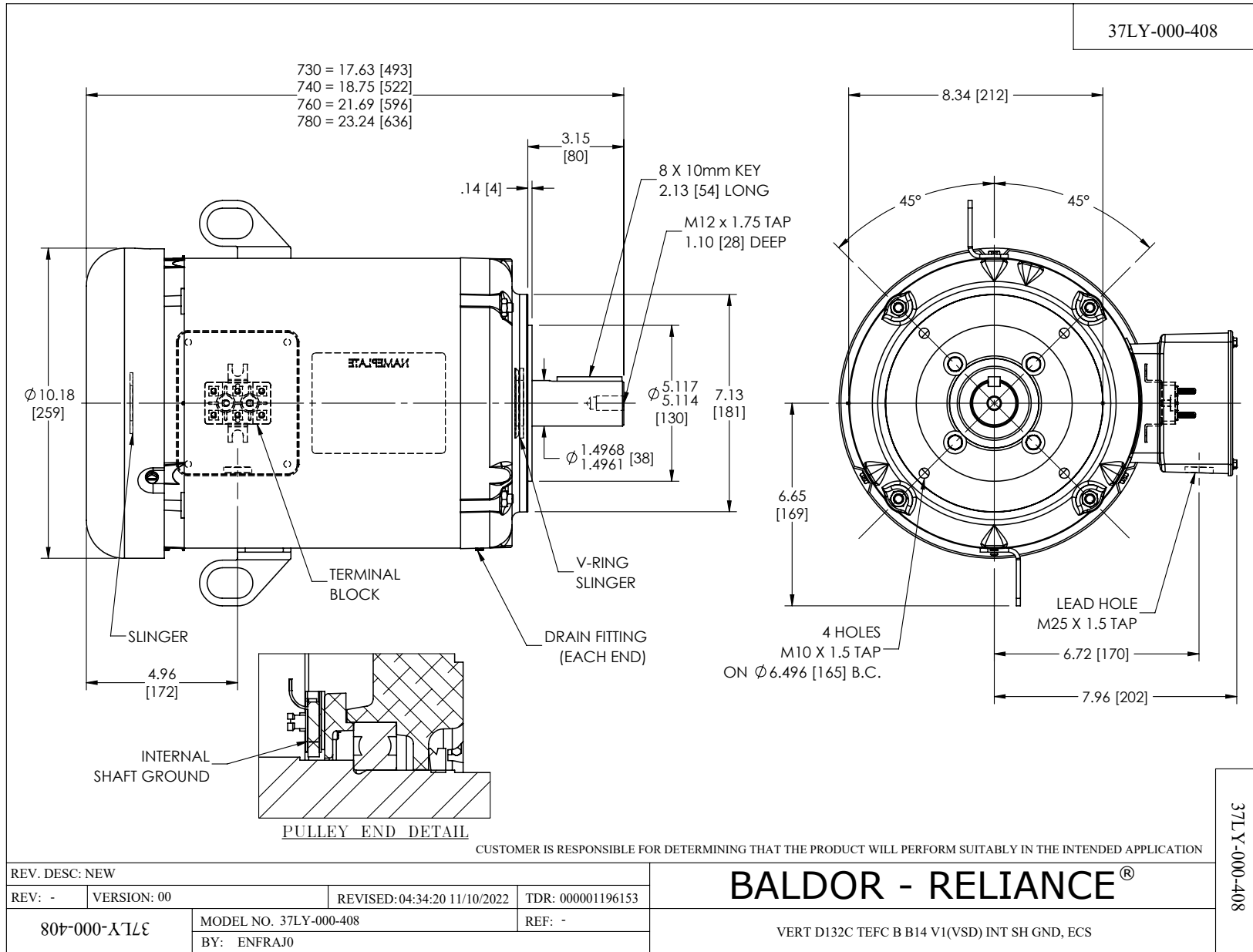


**BALDOR • RELIANCE**

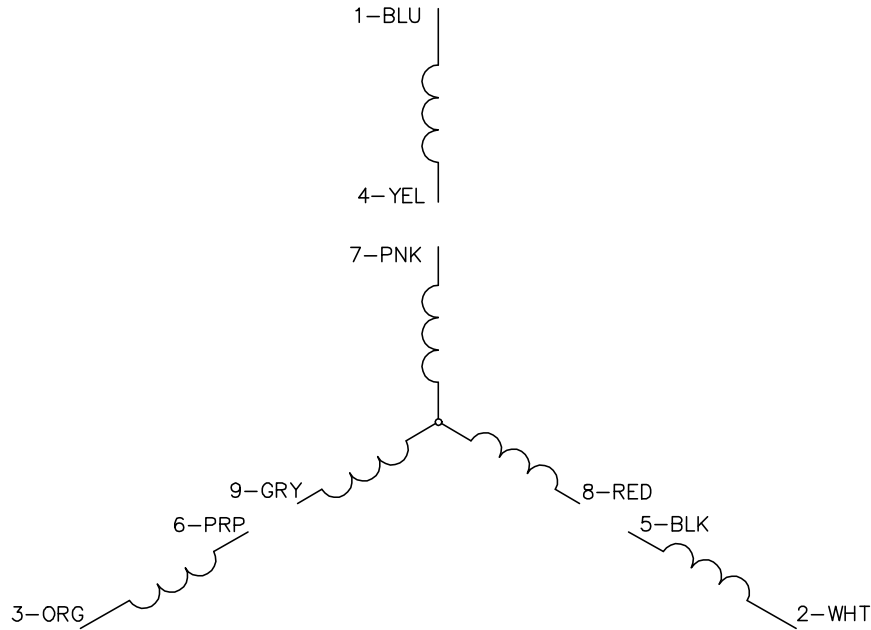
DR By: R & D  
 CK By: USGAHIL  
 APP By: USJAROB1  
 Date: 02/04/2025

**AC MOTOR  
PERFORMANCE  
CURVES**

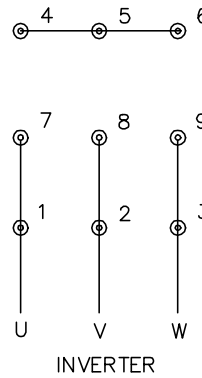
**37WGA0016**  
 37-0000-0483  
 Test - 111886



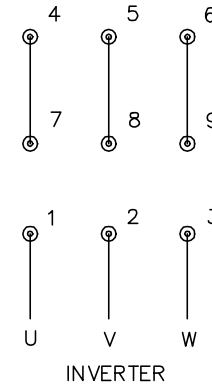
CD0005A25



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.

CD0005A25

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