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# Customer information packet

## ECS101A3K1P5DF4

1.5KW, 1500RPM, 3PH, 50HZ, D90S, 3524B, TEFC, B

Class - None

Division - Not Applicable

## Specifications

|                                |                                |
|--------------------------------|--------------------------------|
| Enclosure                      | TEFC                           |
| Frame                          | D90S                           |
| Frame Material                 | Steel                          |
| Frequency                      | 50.00 Hz                       |
| Haz Area Class and Group       | None                           |
| Haz Area Division              | Not Applicable                 |
| Motor Letter Type              | Brushless Wound Field PM Rotor |
| Output @ Frequency             | 1.500 KW @ 50 HZ               |
| Phase                          | 3                              |
| Synchronous Speed @ Frequency  | 1500 RPM @ 50 HZ               |
| Voltage @ Frequency            | 380.0 V @ 50 HZ                |
| Agency Approvals               | CE<br>CULUS<br>UKCA<br>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    | 5                              |
| Current @ Voltage              | 2.360 A @ 380.0 V              |
| Design Code                    | -                              |
| Drip Cover                     | No Drip Cover                  |
| Duty Rating                    | CONT                           |
| Efficiency @ 100% Load         | 87.7 %                         |
| Electrically Isolated Bearing  | Not Electrically Isolated      |
| Feedback Device                | NO FEEDBACK                    |
| Frame Prefix                   | D                              |
| Heater Indicator               | No Heater                      |
| High Voltage Full Load Amps    | 2.4 a                          |

## Part detail

|              |                       |
|--------------|-----------------------|
| Revision     | C                     |
| Type         | AC                    |
| Mech. spec.  | 35E5479               |
| Base         |                       |
| Status       | PRD/A                 |
| Elec. spec.  | 35WGG963              |
| Layout       | 35LYE5479             |
| Eff. date    | 11-22-2024            |
| CD Diagram   | CD0006B03             |
| Poles        | 04                    |
| Leads        | 3#16 13" LONG LEADS Y |
| Proprietary  | False                 |
| Created date | 04-30-2024            |

|                               |                     |
|-------------------------------|---------------------|
| Insulation Class              | F                   |
| Inverter Code                 | 03                  |
| KVA Code                      | -                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 3 @ 16 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3524B               |
| Mounting Arrangement          | B3                  |
| Number of Poles               | 4                   |
| Overall Length                | 15.38 IN            |
| Power Factor                  | 95                  |
| Product Family                | General Purpose     |
| Pulley Face Code              | Standard            |
| Rodent Screen                 | None                |
| Service Factor                | 1.00                |
| Shaft Diameter                | 0.945 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

| NP3968B01A01 |                 |            |      |           |         |          |       |      |     |  |  |  |
|--------------|-----------------|------------|------|-----------|---------|----------|-------|------|-----|--|--|--|
| CAT.NO.      | ECS101A3K1P5DF4 |            |      |           |         |          |       |      |     |  |  |  |
| SPEC.        | 35E5479G963     |            |      |           |         | YR       |       |      |     |  |  |  |
| FRAME        | D90S            |            |      | IP        | 55      | WT.      | 44    |      |     |  |  |  |
| KW           | 1.5             | HZ         | 50   | PH        | 3       | DUTY-IPM | CONT  |      |     |  |  |  |
| INS CL       | F               | CLASS RISE |      |           |         |          | AMB-C | 40   |     |  |  |  |
| EFF. CL      | IE4             | EFF        | 87.7 |           |         | COSO     | 95    |      |     |  |  |  |
| VOLTS        | 380             |            |      | FLA       | 2.36    |          |       |      |     |  |  |  |
| 1/MIN        | 1500            |            |      | 1/MIN MAX |         |          |       | 3000 |     |  |  |  |
| BEMF (V)     | 247             |            |      | RS (OHMS) |         |          |       | 11.7 |     |  |  |  |
| LD (MH)      | 78.9            |            |      |           | LQ (MH) |          |       |      | 406 |  |  |  |
| VPWM         | CP =            | 50         |      |           | TO      | 133      |       |      |     |  |  |  |
| CT           | 5               | TO         | 50   | VT        | 5       | TO       | 50    |      |     |  |  |  |
| MATCHED INV  | ECIN4A4P1       |            |      |           |         |          |       |      |     |  |  |  |
| DE           | 6205            |            |      | ODE       | 6203    |          |       |      |     |  |  |  |
| SERIAL #     |                 |            |      |           |         |          |       |      |     |  |  |  |

| NP3978A00 |           |              |   |    |     |
|-----------|-----------|--------------|---|----|-----|
| PART NO.  | ECIN4A4P1 |              |   |    |     |
| U1        | 400       | PH           | 3 | HZ | 50  |
| I1        | 2.9       | W/EXT. CHOKE |   |    | 2.7 |
| SERIAL #  |           |              |   |    |     |

|          |      |          |              |            |           |       |                   |
|----------|------|----------|--------------|------------|-----------|-------|-------------------|
| Volts    | 380  | Max RPM  | 4000         | Conn Diag. | CD0006B03 | Leads | 3                 |
| Amps     | 2.2  | Max Amps |              | Cs Diagram | CS1126    | BEMF  | 296               |
| KW       | 1.5  | VFD#     | ECIN4A44P1   |            |           | LD    | 78.9              |
| RPM      | 1500 | S.F.     | 1.00         |            |           | LQ    | 406               |
| Phase/Hz | 3/50 | Rating   | 40C AMB-CONT |            |           | Rs    | 11.7387 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 | 1361 | 90%     | 7.0   | 100%     | 1.4 | 88.8       | 11.51%      | 173            |
| P2 | 755  | 50%     | 7.0   | 100%     | 0.8 | 84.6       | 9.15%       | 137            |
| P3 | 363  | 25%     | 7.0   | 100%     | 0.4 | 74.2       | 8.40%       | 126            |
| P4 | 1358 | 90%     | 3.5   | 50%      | 0.7 | 91.2       | 4.40%       | 66             |
| P5 | 755  | 50%     | 3.5   | 50%      | 0.4 | 87.8       | 3.50%       | 53             |
| P6 | 755  | 50%     | 1.8   | 25%      | 0.2 | 89.4       | 1.51%       | 23             |
| P7 | 363  | 25%     | 1.8   | 25%      | 0.1 | 84.3       | 1.13%       | 17             |

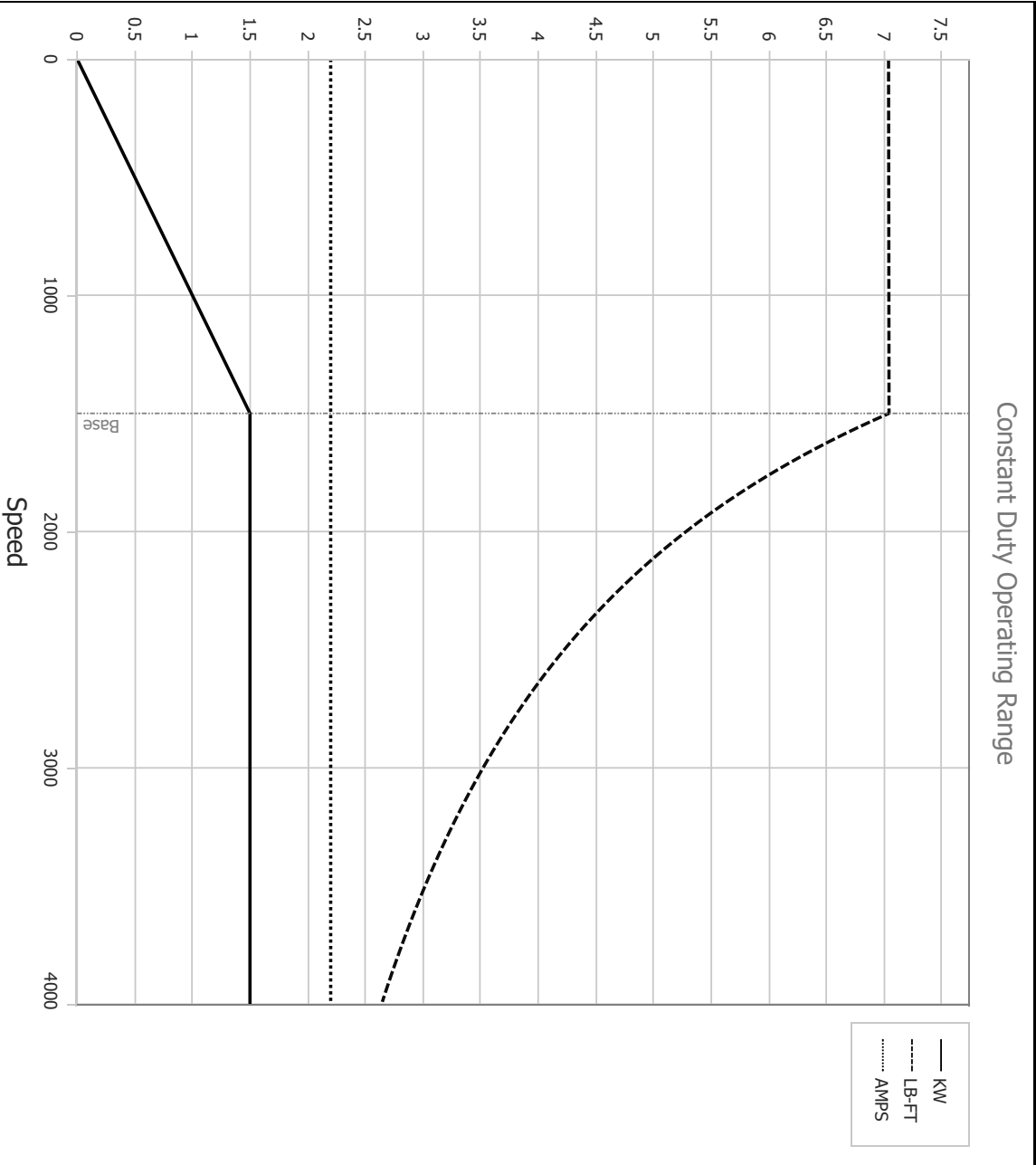
61800-9-2 PDS Performance at Reference Operating Points

|    | RPM  | % Speed | LB-FT | % Torque | KW  | System Efficiency | Loss (% FL) | Watts Loss (W) |
|----|------|---------|-------|----------|-----|-------------------|-------------|----------------|
| P1 | 1511 | 100%    | 7.0   | 100%     | 1.5 | 85.4              | 17.18%      | 258            |
| P2 | 755  | 50%     | 7.0   | 100%     | 0.8 | 81.3              | 11.59%      | 174            |
| P3 | 245  | 17%     | 7.0   | 100%     | 0.2 | 61.1              | 10.37%      | 155            |
| P4 | 1509 | 100%    | 3.5   | 50%      | 0.8 | 88.4              | 6.59%       | 99             |
| P5 | 755  | 50%     | 3.5   | 50%      | 0.4 | 82.9              | 5.18%       | 78             |
| P6 | 245  | 17%     | 3.5   | 50%      | 0.1 | 65.2              | 4.36%       | 65             |
| P7 | 755  | 50%     | 1.8   | 25%      | 0.2 | 81.9              | 2.80%       | 42             |
| P8 | 245  | 17%     | 1.8   | 25%      | 0.1 | 64.1              | 2.29%       | 34             |

Points not taken in certified order.

|                          |                                                                                                        |                                    |                                                 |
|--------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|
| <b>BALDOR • RELIANCE</b> | DR By: <u>R &amp; D</u><br>CK By: <u>USTOSAN</u><br>APP By: <u>USJAROB1</u><br>Date: <u>08/08/2024</u> | <b>AC MOTOR PERFORMANCE CURVES</b> | <b>35WGG963</b><br>35E5209G963<br>Test - 111107 |
|--------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|

|          |      |          |              |            |           |       |                  |
|----------|------|----------|--------------|------------|-----------|-------|------------------|
| Volts    | 380  | Max RPM  | 4000         | Conn Diag. | CD0006B03 | Leads | 3                |
| Amps     | 2.2  | Max Amps |              | Cs Diagram | CS1126    | BEMF  | 296              |
| KW       | 1.5  | VFD #    | ECIN4A44P1   |            |           | LD    | 78.9             |
| RPM      | 1500 | S.F.     | 1.00         |            |           | LQ    | 406              |
| Phase/Hz | 3/50 | Rating   | 40C AMB-CONT |            |           | Rs    | 11.7387 Meas L-L |



|                          |                                                                                                        |                                            |                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------|
| <b>BALDOR • RELIANCE</b> | DR By: <u>R &amp; D</u><br>CK By: <u>USTOSAN</u><br>APP By: <u>USJAROB1</u><br>Date: <u>08/08/2024</u> | <b>AC MOTOR<br/>PERFORMANCE<br/>CURVES</b> | <b>35WGG963</b><br>35E5209G963<br>Test - 1111107 |
|--------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------|

