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# Customer information packet

## ECS101T8K1P5DF4

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            | 230.0 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              | 3.400 A @ 230.0 V              |
| Design Code                    | -                              |
| Drip Cover                     | No Drip Cover                  |
| Duty Rating                    | CONT                           |
| Efficiency @ 100% Load         | 90.6 %                         |
| Electrically Isolated Bearing  | Not Electrically Isolated      |
| Feedback Device                | NO FEEDBACK                    |
| Frame Prefix                   | D                              |
| Heater Indicator               | No Heater                      |
| High Voltage Full Load Amps    | 3.4 a                          |

## Part detail

|              |                       |
|--------------|-----------------------|
| Revision     | E                     |
| Type         | AC                    |
| Mech. spec.  | 35EE436               |
| Base         |                       |
| Status       | PRD/A                 |
| Elec. spec.  | 35WGG964              |
| Layout       | 35LYEE436             |
| Eff. date    | 06-16-2025            |
| CD Diagram   | CD0006B03             |
| Poles        | 04                    |
| Leads        | 3#16 13" LONG LEADS Y |
| Proprietary  | False                 |
| Created date | 04-16-2024            |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Insulation Class</b>              | F                   |
| <b>Inverter Code</b>                 | 03                  |
| <b>KVA Code</b>                      | -                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 16 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | IEC                 |
| <b>Motor Type</b>                    | 3524B               |
| <b>Mounting Arrangement</b>          | B3                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 12.04 IN            |
| <b>Power Factor</b>                  | 93                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley Face Code</b>              | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.00                |
| <b>Shaft Diameter</b>                | 0.945 IN            |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding     |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Speed</b>                         | 1500 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                |

# BALDOR • RELIANCE

## EC-Titanium™

|             |                 |            |      |      |                 |            |      |      |     |
|-------------|-----------------|------------|------|------|-----------------|------------|------|------|-----|
| CAT. NO.    | ECS101T8K1P5DF4 |            |      |      |                 |            |      | IC   | 411 |
| SPEC.       | 35EE436G964     |            |      |      |                 |            |      | YR   | *** |
| FRAME       | D90S            |            |      | IP   | 55              | WT.        | 20   | kg   |     |
| KW          | 1.5             | HZ         | 50   | PH   | 3               | DUTY       | CONT |      |     |
| INSUL CL    | F               | CLASS RISE |      |      | -               | AMB-°C     |      | 40   |     |
| EFF. CL     | IE5             |            | EFF. | 90.6 |                 | COS $\Phi$ | 93   |      |     |
| VOLTS       | 230             |            |      |      | A               | 3          |      |      |     |
| RPM (1/MIN) | 1500            |            |      |      | RPM (1/MIN) MAX |            |      | 3000 |     |
| BEMF (V)    | 123             |            |      |      |                 |            |      |      |     |



ELECTRONICALLY PROTECTED MOTOR  
FOR INDUSTRIAL USE

ABB MOTORS AND MECHANICAL INC.  
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

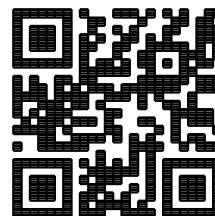
FERRITE ASSISTED  
SYNCHRONOUS RELUCTANCE MOTOR  
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS  
ROTATED, VOLTAGE WILL BE GENERATED AT  
THE MOTOR TERMINALS.

MOTEUR À AIMANT PERMANENT. LORSQUE  
L'ARBRE TOURNE, UNE TENSION SERA  
GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE  
SHAFT GROUNDING BRUSH INSTALLED



# BALDOR • RELIANCE

## EC-Titanium™

PART NO. EC IN8A7P0

U1 240 PH 1 HZ 50

I1 MAX 5.3 W /EXT. CHOKE 5.1

SERIAL # \*\*\*

ABB MOTORS AND MECHANICAL  
INC. FORT SMITH, AR.  
MFG. IN U.S.A.



POWER DOWN FOR  
5 MINUTES BEFORE  
REMOVING COVER

METTRE HORS TENSION  
PENDANT 5 MINUTES  
AVANT DE RETIRER LE  
COUVERCLE

|          |      |          |              |            |           |       |           |
|----------|------|----------|--------------|------------|-----------|-------|-----------|
| Volts    | 230  | Max RPM  | 3000         | Conn Diag. | CD0006B03 | Leads | 3         |
| Amps     | 3.4  | Max Amps |              | Cs Diagram | CS1127    | BEMF  | 123       |
| KW       | 1.5  | VFD#     | ECIN8A7P0    |            |           | LD    | 22.1      |
| RPM      | 1500 | S.F.     | 1.00         |            |           | LQ    | 97.1      |
| Phase/Hz | 3/50 | Rating   | 40C AMB-CONT |            |           | Rs    | 2.9307    |
|          |      |          |              |            |           |       | 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 | 1360 | 90%     | 7.0   | 100%     | 1.8 | 89.6       | 10.41%      | 158            |
| P2 | 751  | 50%     | 7.0   | 100%     | 1.0 | 84.8       | 8.88%       | 135            |
| P3 | 366  | 25%     | 7.0   | 100%     | 0.5 | 76.0       | 7.63%       | 116            |
| P4 | 1353 | 90%     | 3.5   | 50%      | 0.9 | 90.7       | 4.57%       | 69             |
| P5 | 751  | 50%     | 3.5   | 50%      | 0.5 | 88.1       | 3.36%       | 51             |
| P6 | 751  | 50%     | 1.8   | 25%      | 0.3 | 87.9       | 1.70%       | 26             |
| P7 | 366  | 25%     | 1.8   | 25%      | 0.1 | 82.9       | 1.24%       | 19             |

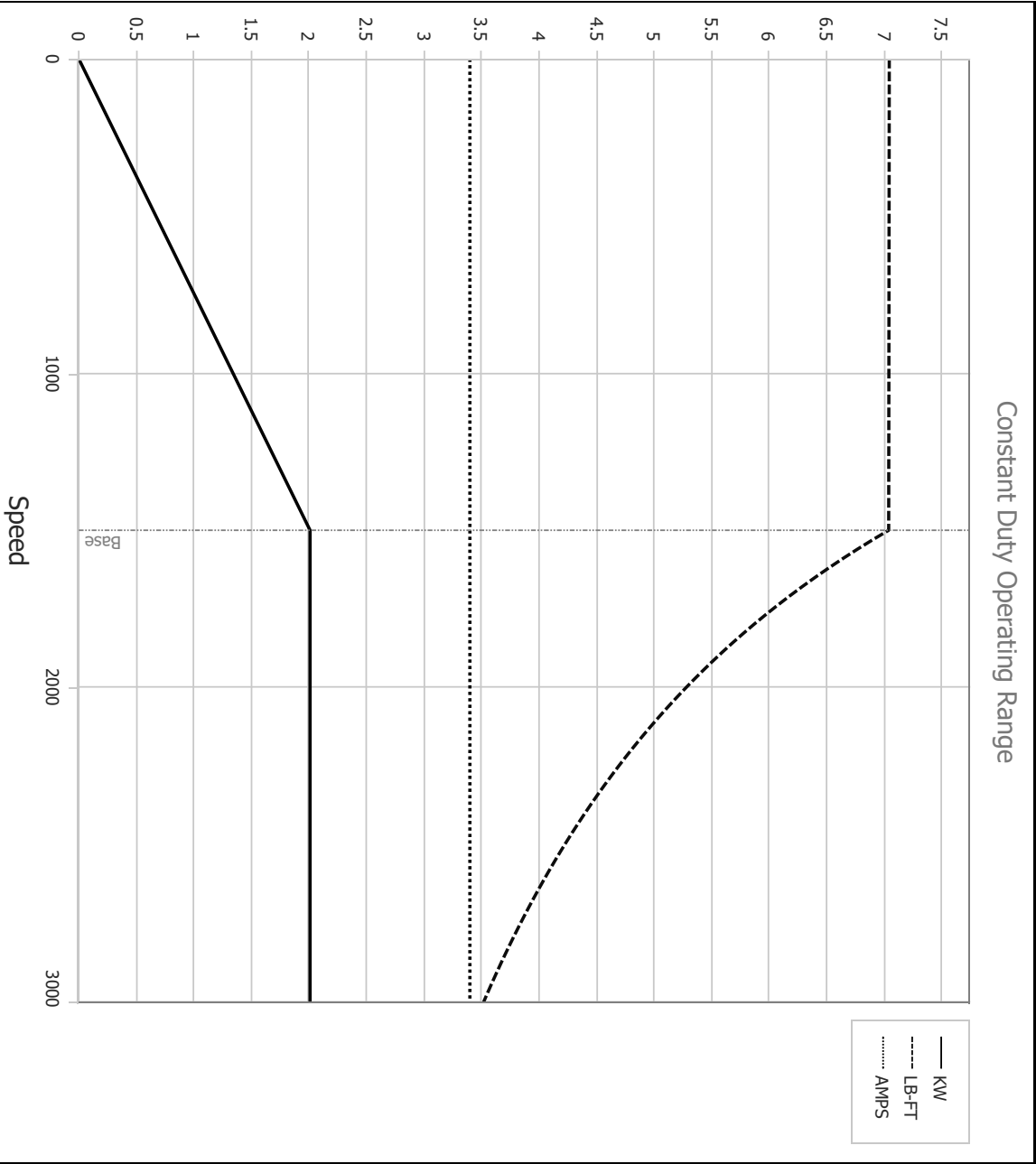
61800-9-2 PDS Performance at Reference Operating Points

|    | RPM  | % Speed | LB-FT | % Torque | KW  | System Efficiency | Loss (% FL) | Watts Loss (W) |
|----|------|---------|-------|----------|-----|-------------------|-------------|----------------|
| P1 | 1508 | 100%    | 7.0   | 100%     | 2.0 | 86.2              | 15.88%      | 241            |
| P2 | 751  | 50%     | 7.0   | 100%     | 1.0 | 80.8              | 11.75%      | 178            |
| P3 | 246  | 17%     | 7.0   | 100%     | 0.3 | 62.3              | 9.83%       | 149            |
| P4 | 1488 | 100%    | 3.5   | 50%      | 1.0 | 87.9              | 6.72%       | 102            |
| P5 | 751  | 50%     | 3.5   | 50%      | 0.5 | 83.4              | 4.91%       | 74             |
| P6 | 246  | 17%     | 3.5   | 50%      | 0.2 | 66.6              | 4.07%       | 62             |
| P7 | 751  | 50%     | 1.8   | 25%      | 0.3 | 82.0              | 2.71%       | 41             |
| P8 | 246  | 17%     | 1.8   | 25%      | 0.1 | 66.5              | 2.04%       | 31             |

Points not taken in certified order.

|                          |                                                                                       |                                    |                                                 |
|--------------------------|---------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|
| <b>BALDOR • RELIANCE</b> | DR By: <u>R &amp; D</u><br>CK By: <u>USGAHL</u><br>App By:<br>Date: <u>04/09/2025</u> | <b>AC MOTOR PERFORMANCE CURVES</b> | <b>35WGG964</b><br>35EE436G964<br>Test - 112228 |
|--------------------------|---------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|

|          |      |          |              |            |           |       |                 |
|----------|------|----------|--------------|------------|-----------|-------|-----------------|
| Volts    | 230  | Max RPM  | 3000         | Conn Diag. | CD0006B03 | Leads | 3               |
| Amps     | 3.4  | Max Amps |              | Cs Diagram | CS1127    | BEMF  | 123             |
| KW       | 1.5  | VFD #    | ECIN8A7P0    |            |           | LD    | 22.1            |
| RPM      | 1500 | S.F.     | 1.00         |            |           | LQ    | 97.1            |
| Phase/Hz | 3/50 | Rating   | 40C AMB-CONT |            |           | Rs    | 2.9307 Meas L-L |



|                          |                                                                                       |                                            |                                                 |
|--------------------------|---------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|
| <b>BALDOR • RELIANCE</b> | DR By: <u>R &amp; D</u><br>CK By: <u>USGAHL</u><br>APP By:<br>Date: <u>04/09/2025</u> | <b>AC MOTOR<br/>PERFORMANCE<br/>CURVES</b> | <b>35WGG964</b><br>35EE436G964<br>Test - 112228 |
|--------------------------|---------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|

