

# ABB BALDOR RELIANCE III

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## Customer information packet

### VESSWDM3558T-5

2HP, 1765RPM, 3PH, 60HZ, 145TC, 3528M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                               |
|---------------------------------------|-----------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                          |
| <b>Frame</b>                          | 145TC                                         |
| <b>Frame Material</b>                 | Stainless Steel                               |
| <b>Frequency</b>                      | 60.00 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>             | 2.000 HP @ 60 HZ                              |
| <b>Phase</b>                          | 3                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                              |
| <b>Voltage @ Frequency</b>            | 575.0 V @ 60 HZ                               |
| <b>Agency Approvals</b>               | NEMA PREMIUM<br>NEMA_PREMIUM<br>UR<br>CSA EEV |
| <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>Current @ Voltage</b>              | 2.150 A @ 575.0 V                             |
| <b>Design Code</b>                    | B                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                 |
| <b>Duty Rating</b>                    | CONT                                          |
| <b>Efficiency @ 100% Load</b>         | 86.5 %                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                   |
| <b>Front Shaft Indicator</b>          | None                                          |
| <b>Heater Indicator</b>               | No Heater                                     |
| <b>High Voltage Full Load Amps</b>    | 2.2 a                                         |
| <b>Insulation Class</b>               | H                                             |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | A          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35VV821    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ823   |
| <b>Layout</b>       | 35LYVV821  |
| <b>Eff. date</b>    | 08-14-2023 |
| <b>CD Diagram</b>   | CD0006     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 3#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 02-23-2023 |

|                                      |                               |
|--------------------------------------|-------------------------------|
| <b>Inverter Code</b>                 | Not Inverter                  |
| <b>KVA Code</b>                      | L                             |
| <b>Lifting Lugs</b>                  | No Lifting Lugs               |
| <b>Locked Bearing Indicator</b>      | Locked Bearing                |
| <b>Motor Finish</b>                  | UNPAINTED                     |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 18 AWG                    |
| <b>Motor Lead Termination</b>        | Flying Leads                  |
| <b>Motor Standards</b>               | NEMA                          |
| <b>Motor Type</b>                    | 3528M                         |
| <b>Mounting Arrangement</b>          | F1                            |
| <b>Number of Poles</b>               | 4                             |
| <b>Overall Length</b>                | 13.41 IN                      |
| <b>Power Factor</b>                  | 81                            |
| <b>Product Family</b>                | Wash Down All Stainless Steel |
| <b>Pulley End Bearing Type</b>       | Ball                          |
| <b>Pulley Face Code</b>              | C-Face                        |
| <b>Pulley Shaft Indicator</b>        | Standard                      |
| <b>Rodent Screen</b>                 | None                          |
| <b>Service Factor</b>                | 1.15                          |
| <b>Shaft Diameter</b>                | 0.875 IN                      |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding            |
| <b>Shaft Rotation</b>                | Reversible                    |
| <b>Speed</b>                         | 1765 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                          |

**Nameplate**

| NP1953A05    |                |  |      |     |                |   |  |       |     |   |  |
|--------------|----------------|--|------|-----|----------------|---|--|-------|-----|---|--|
| CAT.NO.      | VESSWDM3558T-5 |  |      |     |                |   |  |       |     |   |  |
| SPEC.        | 35VV821Z823    |  |      |     |                |   |  |       |     |   |  |
| HP           | 2              |  |      |     |                |   |  |       |     |   |  |
| VOLTS        | 575            |  |      |     |                |   |  |       |     |   |  |
| AMP          | 2.15           |  |      |     |                |   |  |       |     |   |  |
| RPM          | 1765           |  |      |     |                |   |  |       |     |   |  |
| FRAME        | 145TC          |  |      | HZ  | 60             |   |  | PH    |     | 3 |  |
| SER.F.       | 1.15           |  | CODE | L   | DES            | B |  | CLASS |     | H |  |
| NEMA-NOM-EFF | 86.5           |  |      | PF  | 81             |   |  |       |     |   |  |
| RATING       | 40C AMB-CONT   |  |      |     |                |   |  |       |     |   |  |
| CC           | 010A           |  |      |     | USABLE AT 208V |   |  |       | N/A |   |  |
| DE           | 6205           |  |      | ODE | 6203           |   |  |       |     |   |  |
| ENCL         | TEFC           |  | SN   |     |                |   |  |       |     |   |  |
|              | SFA 2.45       |  |      |     |                |   |  |       |     |   |  |

**AC Induction Motor Performance Data**

Record # 35976

Typical performance - not guaranteed values

| Winding: 35WGP956-R008 |    |            | Type: 3538M                           |                     | Enclosure: TEAO           |            |              |
|------------------------|----|------------|---------------------------------------|---------------------|---------------------------|------------|--------------|
| Nameplate Data         |    |            | 575 V, 60 Hz:<br>Single Voltage Motor |                     |                           |            |              |
| Rated Output (HP)      |    | 2 AIR OVER | Full Load Torque                      |                     | 5.99 LB-FT                |            |              |
| Volts                  |    | 575        | Start Configuration                   |                     | direct on line            |            |              |
| Full Load Amps         |    | 2.2        | Breakdown Torque                      |                     | 25.2 LB-FT                |            |              |
| R.P.M.                 |    | 1755       | Pull-up Torque                        |                     | 14.9 LB-FT                |            |              |
| Hz                     | 60 | Phase      | 3                                     | Locked-rotor Torque |                           | 17.9 LB-FT |              |
| NEMA Design Code       |    | B          | KVA Code                              | L                   | Starting Current          |            | 19.3 A       |
| Service Factor (S.F.)  |    | 1          | No-load Current                       |                     | 1.24 A                    |            |              |
| NEMA Nom. Eff.         |    | 88.5       | Power Factor                          | 78                  | Line-line Res. @ 25°C     |            | 10.2 Ω       |
| Rating - Duty          |    | 40C        | AMB-CONT                              |                     | Temp. Rise @ Rated Load   |            | 53°C         |
|                        |    |            |                                       |                     | Locked-rotor Power Factor |            | 45.9         |
|                        |    |            |                                       |                     | Rotor inertia             |            | 0.225 LB-FT2 |

**Load Characteristics 575 V, 60 Hz, 2 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 35   | 55   | 69   | 77   | 82   | 84   |
| Efficiency      | 80.6 | 87.1 | 88.6 | 88.7 | 88.1 | 87.1 |
| Speed           | 1791 | 1783 | 1773 | 1762 | 1751 | 1740 |
| Line amperes    | 1.33 | 1.54 | 1.85 | 2.21 | 2.61 | 3.05 |

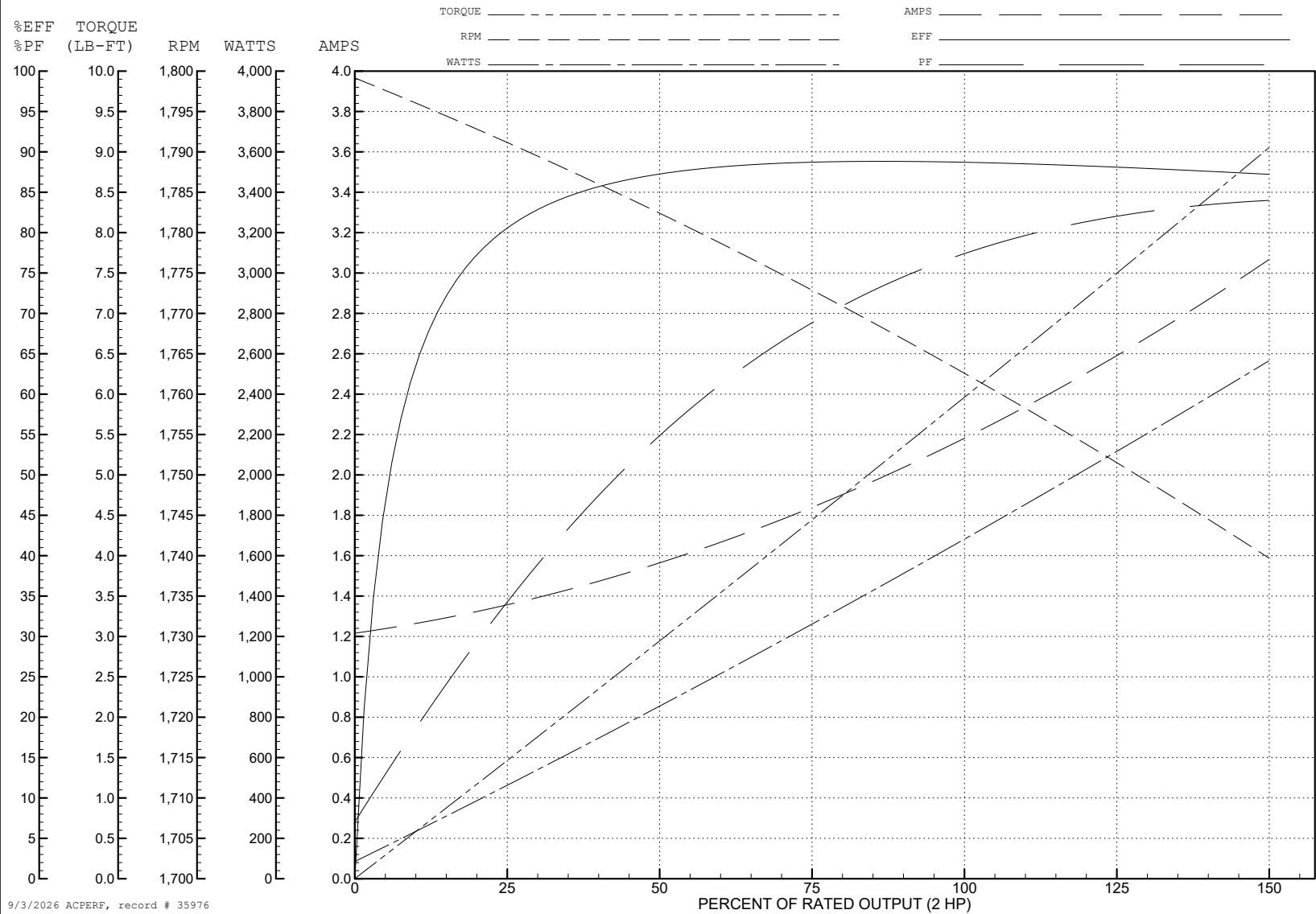
ABB Motors and Mechanical Inc.

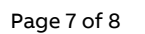
WINDING # 35WGP956

Typical performance - not guaranteed values.

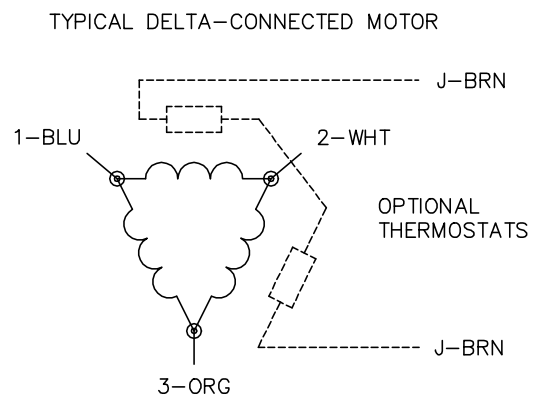
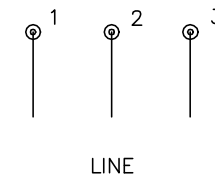
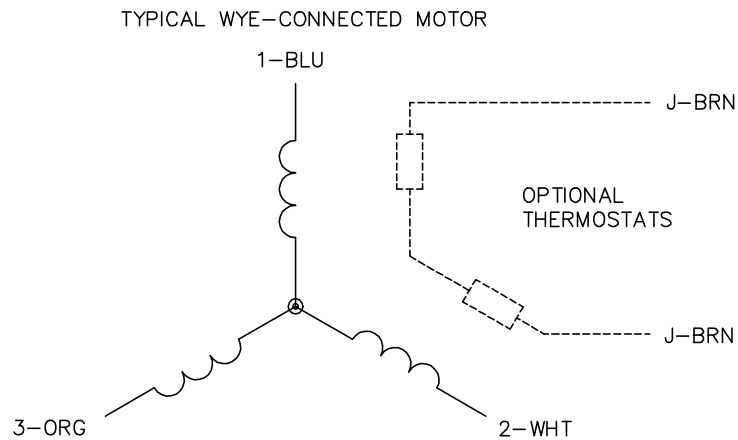
2 HP 3 PH 60 HZ 1755 RPM 575 V 3538M

TORQUES (LB-FT): PO=25.2 PU=14.9 LR=17.9 LRA=19.3





CD0006


**NOTES:**

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: —


**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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