

# ABB BALDOR RELIANCE III

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## Customer information packet

### CWDM3538-H

0.5HP, 1770RPM, 3PH, 60HZ, 56HC, 3512M, TENV, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| <b>Enclosure</b>                      | TENV                                                       |
| <b>Frame</b>                          | 56HC                                                       |
| <b>Frame Material</b>                 | 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>             | .500 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                          |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                           |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>208.0 V @ 60 HZ<br>230.0 V @ 60 HZ      |
| <b>Agency Approvals</b>               | CSA<br>UR                                                  |
| <b>Ambient Temperature</b>            | 40 °C                                                      |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                           |
| <b>Auxiliary Box Lead Termination</b> | None                                                       |
| <b>Base Indicator</b>                 | Rigid                                                      |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                    |
| <b>Blower</b>                         | None                                                       |
| <b>Current @ Voltage</b>              | .900 A @ 460.0 V<br>1.800 A @ 230.0 V<br>1.900 A @ 208.0 V |
| <b>Design Code</b>                    | B                                                          |
| <b>Drip Cover</b>                     | No Drip Cover                                              |
| <b>Duty Rating</b>                    | CONT                                                       |
| <b>Efficiency @ 100% Load</b>         | 80.0 %                                                     |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                  |
| <b>Feedback Device</b>                | NO FEEDBACK                                                |
| <b>Heater Indicator</b>               | No Heater                                                  |
| <b>High Voltage Full Load Amps</b>    | 0.9 a                                                      |

**Part Detail**

|                     |              |
|---------------------|--------------|
| <b>Revision</b>     | C            |
| <b>Type</b>         | AC           |
| <b>Mech. spec.</b>  |              |
| <b>Base</b>         |              |
| <b>Status</b>       | PRD/A        |
| <b>Elec. spec.</b>  | 35WGG155     |
| <b>Layout</b>       | 35LY-000-259 |
| <b>Eff. date</b>    | 03-12-2024   |
| <b>CD Diagram</b>   | CD0005       |
| <b>Poles</b>        | 04           |
| <b>Leads</b>        | 9#18         |
| <b>Proprietary</b>  | False        |
| <b>Created date</b> | 10-28-2021   |

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>Insulation Class</b>           | <b>F</b>                   |
| <b>Inverter Code</b>              | <b>Inverter Ready</b>      |
| <b>KVA Code</b>                   | <b>M</b>                   |
| <b>Lifting Lugs</b>               | <b>No Lifting Lugs</b>     |
| <b>Locked Bearing Indicator</b>   | <b>No Locked Bearing</b>   |
| <b>Motor Lead Termination</b>     | <b>Flying Leads</b>        |
| <b>Motor Standards</b>            | <b>NEMA</b>                |
| <b>Motor Type</b>                 | <b>3512M</b>               |
| <b>Mounting Arrangement</b>       | <b>F1</b>                  |
| <b>Number of Poles</b>            | <b>4</b>                   |
| <b>Overall Length</b>             | <b>11.91 IN</b>            |
| <b>Power Factor</b>               | <b>62</b>                  |
| <b>Product Family</b>             | <b>Wash Down</b>           |
| <b>Pulley Face Code</b>           | <b>C-Face</b>              |
| <b>Rodent Screen</b>              | <b>None</b>                |
| <b>Service Factor</b>             | <b>1.00</b>                |
| <b>Shaft Diameter</b>             | <b>0.625 IN</b>            |
| <b>Shaft Ground Indicator</b>     | <b>No Shaft Grounding</b>  |
| <b>Shaft Rotation</b>             | <b>Reversible</b>          |
| <b>Speed</b>                      | <b>1770 rpm</b>            |
| <b>Speed Code</b>                 | <b>Single Speed</b>        |
| <b>Starting Method</b>            | <b>Direct on line</b>      |
| <b>Thermal Device - Bearing</b>   | <b>None</b>                |
| <b>Thermal Device - Winding</b>   | <b>None</b>                |
| <b>Vibration Sensor Indicator</b> | <b>No Vibration Sensor</b> |
| <b>Winding Thermal 1</b>          | <b>None</b>                |
| <b>Winding Thermal 2</b>          | <b>None</b>                |

**Nameplate**

| NP1496L      |              |      |     |      |   |  |       |   |  |  |  |
|--------------|--------------|------|-----|------|---|--|-------|---|--|--|--|
| CAT.NO.      | CWDM3538-H   |      |     |      |   |  |       |   |  |  |  |
| SPEC.        | 35-0000-1382 |      |     |      |   |  |       |   |  |  |  |
| HP           | .5           |      |     |      |   |  |       |   |  |  |  |
| VOLTS        | 208-230/460  |      |     |      |   |  |       |   |  |  |  |
| AMP          | 1.9-1.8/0.9  |      |     |      |   |  |       |   |  |  |  |
| RPM          | 1770         |      |     |      |   |  |       |   |  |  |  |
| FRAME        | 56HC         |      | HZ  | 60   |   |  | PH    | 3 |  |  |  |
| SER.F.       | 1.00         | CODE | M   | DES  | B |  | CLASS | H |  |  |  |
| NEMA-NOM-EFF | 80           | PF   | 62  |      |   |  |       |   |  |  |  |
| RATING       | 40C AMB-CONT |      |     |      |   |  |       |   |  |  |  |
| CC           |              |      |     |      |   |  |       |   |  |  |  |
| DE           | 6205         |      | ODE | 6203 |   |  |       |   |  |  |  |
| ENCL         | TENV         | SN   |     |      |   |  |       |   |  |  |  |

**AC Induction Motor Performance Data**

Record # 36575

Typical performance - not guaranteed values

| Winding: 35WGP863-R016 |    |              | Type: 3512M                              |                           | Enclosure: TENV       |               |        |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|---------------|--------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |               |        |
| Rated Output (HP)      |    | .5           | Full Load Torque                         |                           | 1.49 LB-FT            |               |        |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |               |        |
| Full Load Amps         |    | 1.6/.8       | Breakdown Torque                         |                           | 6.71 LB-FT            |               |        |
| R.P.M.                 |    | 1740         | Pull-up Torque                           |                           | 4.67 LB-FT            |               |        |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 5.31 LB-FT    |        |
| NEMA Design Code       |    | B            | KVA Code                                 | M                         | Starting Current      |               | 6.34 A |
| Service Factor (S.F.)  |    | 1.25         |                                          | No-load Current           |                       | 0.608 A       |        |
| NEMA Nom. Eff.         |    | 80           | Power Factor                             | 69                        | Line-line Res. @ 25°C |               | 34 Ω   |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 54°C          |        |
| S.F. Amps              |    | 1.9/0.95     |                                          | Temp. Rise @ S.F. Load    |                       | 65°C          |        |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 74            |        |
|                        |    |              |                                          | Rotor inertia             |                       | 0.0709 LB-FT2 |        |

**Load Characteristics 460 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150  | S.F.  |
|-----------------|-------|-------|-------|-------|-------|------|-------|
| Power Factor    | 28    | 45    | 59    | 69    | 75    | 80   | 75    |
| Efficiency      | 59.5  | 73.1  | 78.5  | 80    | 80.1  | 78.9 | 80.1  |
| Speed           | 1788  | 1774  | 1759  | 1741  | 1722  | 1702 | 1722  |
| Line amperes    | 0.624 | 0.669 | 0.744 | 0.844 | 0.957 | 1.1  | 0.957 |

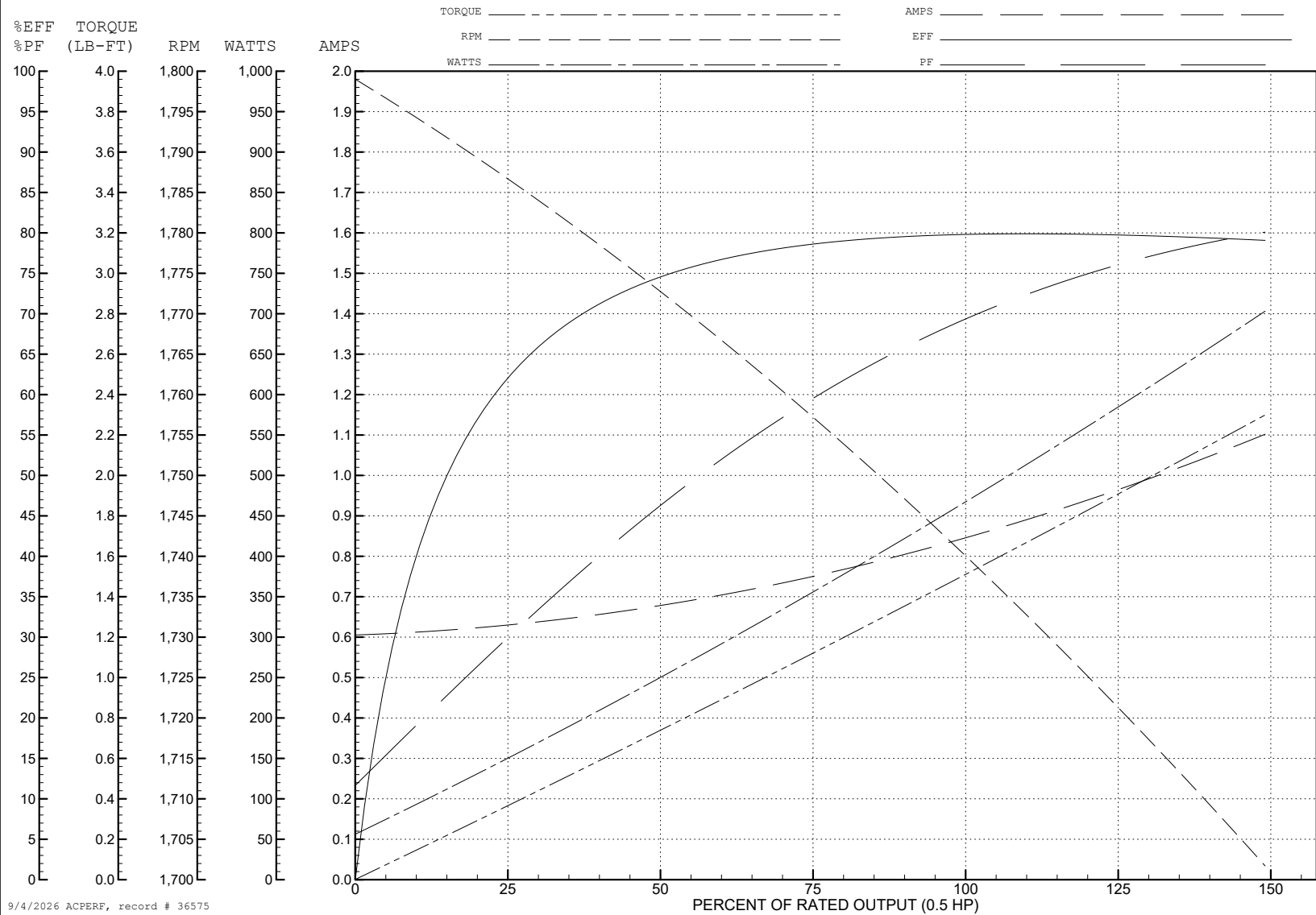
ABB Motors and Mechanical Inc.

WINDING # 35WGP863

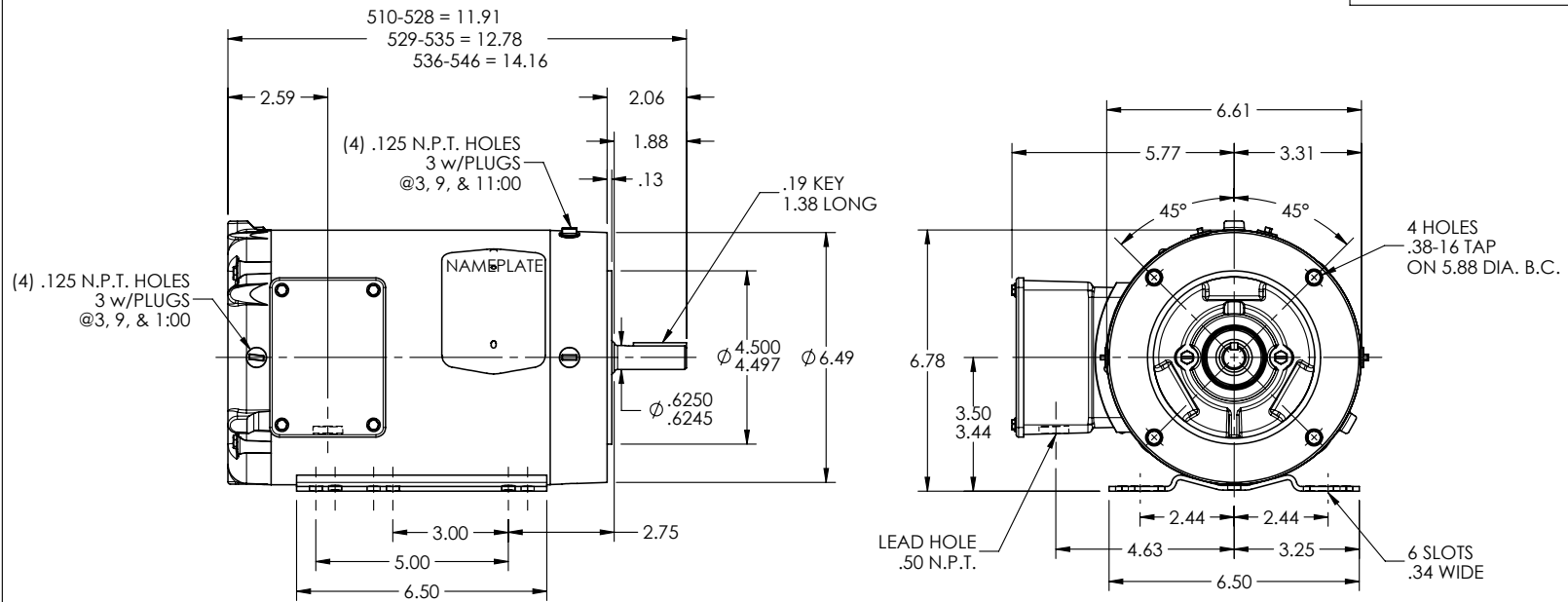
Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1740 RPM 460 V 3512M

TORQUES (LB-FT) : PO=6.71 PU=4.67 LR=5.31 LRA=6.34



35LY-000-259



PULLEY END DETAIL

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: UPDATE MATE ERRORS IN 3D MODEL

|        |             |                              |                   |
|--------|-------------|------------------------------|-------------------|
| REV: A | VERSION: 01 | REVISED: 08:47:50 04/21/2022 | TDR: 000001188385 |
|--------|-------------|------------------------------|-------------------|

657-000-1759

MODEL NO. 35LY-000-259

BY: USBUFRA

REF: -

**BALDOR - RELIANCE®**

STD HORZ 56HC TENV 35M WD

35LY-000-259

