

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEWDM3545

1HP, 3450RPM, 3PH, 60HZ, 56C, 3516M, TEFC, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 56C                                                         |
| <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>             | 1.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 3600 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | UR<br>CSA                                                   |
| <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>              | 1.400 A @ 460.0 V<br>2.800 A @ 230.0 V<br>3.000 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>         | 77.0 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Front Face Code</b>                | Standard                                                    |
| <b>Front Shaft Indicator</b>          | None                                                        |
| <b>Heater Indicator</b>               | No Heater                                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AH         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35T986     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGY474   |
| <b>Layout</b>       | 35LYT986   |
| <b>Eff. date</b>    | 08-28-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-27-2010 |

|                               |                     |
|-------------------------------|---------------------|
| High Voltage Full Load Amps   | 1.4 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Exit               | Ko Box              |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3516M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 12.24 IN            |
| Power Factor                  | 87                  |
| Product Family                | Wash Down           |
| Pulley End Bearing Type       | Sealed Bearing      |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| RoHS Status                   | ROHS COMPLIANT      |
| Service Factor                | 1.25                |
| Shaft Diameter                | 0.625 IN            |
| Shaft Extension Location      | Pulley End          |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | Shaft Slinger       |
| Speed                         | 3450 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

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**Nameplate**

| NP1669L      |              |      |     |      |   |       |    |   |  |
|--------------|--------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | CEWDM3545    |      |     |      |   |       |    |   |  |
| SPEC.        | 35T986Y474G1 |      |     |      |   |       |    |   |  |
| HP           | 1            |      |     |      |   |       |    |   |  |
| VOLTS        | 230/460      |      |     |      |   |       |    |   |  |
| AMP          | 2.8/1.4      |      |     |      |   |       |    |   |  |
| RPM          | 3450         |      |     |      |   |       |    |   |  |
| FRAME        | 56C          |      | HZ  | 60   |   |       | PH | 3 |  |
| SER.F.       | 1.25         | CODE | K   | DES  | B | CLASS | F  |   |  |
| NEMA-NOM-EFF | 77           | PF   | 87  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT |      |     |      |   |       |    |   |  |
| CC           | 010A         |      |     |      |   |       |    |   |  |
| DE           | 6205         |      | ODE | 6203 |   |       |    |   |  |
| ENCL         | TEFC         | SN   |     |      |   |       |    |   |  |
| BLANK        | SFA 3.4/1.7  |      |     |      |   |       |    |   |  |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA194359      | SA 35T986Y474G1                          | 1.000 ea |
| RA181949      | RA 35T986Y474G1                          | 1.000 ea |
| 34FN3002A01SP | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 ea |
| NS2512A01     | INSULATOR, CONDUIT BOX X                 | 1.000 ea |
| 35GS1039      | 05 MOLDED GASKET W/LIP, 1.12 LEAD HOLE,  | 1.000 ea |
| 51XB1016A08   | 10-16X 1/2HXWSSLD SERTYB                 | 2.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW4072A01     | BLACK DRAIN PLUG FOR .125 NPT            | 3.000 ea |
| HW5100A03     | WAVY WASHER (W1543-017)                  | 1.000 ea |
| HW4072A01     | BLACK DRAIN PLUG FOR .125 NPT            | 3.000 ea |
| HW4600B49     | SEAL 0.938 X 1.624 X 0.250 SINGLE LIP DB | 1.000 ea |
| 12XN1032S20   | 10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL | 2.000 ea |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| 35FH4005A32   | IEC FH NO GRSR W/3 HOLES - PRIMED        | 1.000 ea |
| 11XW1032S06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 3.000 ea |
| 35GS1030A02   | 35 GS FOR CB LID - WHITE NEOPRENE        | 1.000 ea |
| 59XW0832S07   | TAPTITE II,HEX WSHR UNSLTD SER,410 S.S., | 4.000 ea |
| HW4600B39SP   | V-RING SLINGER 0.550 X 0.790 X .18 VITON | 1.000 ea |
| HW4600B46     | V-RING SLINGER 0.875 X 1.420 X .24 VITON | 1.000 ea |
| HW2502D13     | SS KEY, 3/16 SQ X 1.375                  | 1.000 ea |
| HA7000A04     | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 ea |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| LB1164        | LABEL,WARNING AND DRAIN                  | 1.000 ea |
| HA5027A02     | HA4054 T-DRAIN X2 BAGGED WITH LABEL      | 1.000 ea |
| 35CB3008A01G  | SPL CONDUIT BOX, MACHINED GRAY           | 1.000 ea |
| 35EP3122B00W  | MASTER ODE,203 BRG,.683SH,.125NPT DRNS,F | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1025Z02     | ACTIVATOR WILKOFASST 060.02HF            | 0.010 ga |
| 35EP3307E00W  | MASTER DE,205 BRG,1.623SH,.125NPT DRNS,C | 1.000 ea |
| 35CB4510W     | 35 CB LID W/WHITE EPOXY                  | 1.000 ea |
| MJ5001A27     | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt |

|            |                                         |          |
|------------|-----------------------------------------|----------|
| MG1025W01  | WILKOFAST, 781.01, SIGNAL WHITE #9003   | 0.017 ga |
| HA3100S08  | THRUBOLT 7.375LG SS                     | 4.000 ea |
| LC0005     | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING | 1.000 ea |
| NP1669L    | SS WD SUPER-E UL PREM REV MTG           | 1.000 ea |
| 35PA1066   | PKG GRP, PRINT PK1008A07                | 1.000 ea |
| MN416A01   | TAG-INSTAL-MAINT no wire (2500 bx)11/25 | 1.000 ea |
| PE-0000002 | ZRTG PE ASSEMBLY                        | 1.000 ea |
| FE-0000001 | ZRTG FE ASSEMBLY                        | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 67481

Typical performance - not guaranteed values

| Winding: 35WGY474-R032 |    |              | Type: 3516M                              |                       | Enclosure: TEFC |  |
|------------------------|----|--------------|------------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |  |
| Rated Output (HP)      |    | 1            | Full Load Torque                         |                       | 1.47 LB-FT      |  |
| Volts                  |    | 230/460      | Start Configuration                      |                       | direct on line  |  |
| Full Load Amps         |    | 2.8/1.4      | Breakdown Torque                         |                       | 5.6 LB-FT       |  |
| R.P.M.                 |    | 3450         | Pull-up Torque                           |                       | 2.56 LB-FT      |  |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque   | 4.62 LB-FT      |  |
| NEMA Design Code       | B  | KVA Code     | K                                        | Starting Current      | 10.5 A          |  |
| Service Factor (S.F.)  |    | 1.25         | No-load Current                          |                       | 0.585 A         |  |
| NEMA Nom. Eff.         | 77 | Power Factor | 87                                       | Line-line Res. @ 25°C | 20.016 Ω        |  |
| Rating - Duty          |    | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 41°C            |  |
| S.F. Amps              |    | 3.4/1.7      | Temp. Rise @ S.F. Load                   |                       | 52°C            |  |
|                        |    |              | Locked-rotor Power Factor                |                       | 64.1            |  |
|                        |    |              | Rotor inertia                            |                       | 0.0443 LB-FT2   |  |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 55     | 72     | 82     | 86     | 89     | 91     | 89   |
| Efficiency      | 58.7   | 71.7   | 76.4   | 77.6   | 77.4   | 75.9   | 77.4 |
| Speed           | 3563.9 | 3532.9 | 3499.6 | 3459.6 | 3418.2 | 3365.9 | 3418 |
| Line amperes    | 0.68   | 0.851  | 1.08   | 1.37   | 1.65   | 2.01   | 1.65 |



ABB Motors and Mechanical Inc.

WINDING # 35WGY474

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 460 V 3516M

TORQUES (LB-FT): PO=5.6 PU=2.56 LR=4.62 LRA=10.5





