

# ABB BALDOR RELIANCE III

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## Customer information packet

### EJM3559

3HP, 3450RPM, 3PH, 60HZ, 56J, 3532M, TEFC, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 56J                                                         |
| <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>             | 3.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 3600 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<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>                 | No Mounting                                                 |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 7.200 A @ 230.0 V<br>7.900 A @ 208.0 V<br>3.600 A @ 460.0 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 Face Code</b>                | Standard                                                    |
| <b>Front Shaft Indicator</b>          | None                                                        |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | R          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35F084     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGQ060   |
| <b>Layout</b>       | 35LYF084   |
| <b>Eff. date</b>    | 01-05-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-28-2009 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 3.6 a               |
| <b>Insulation Class</b>              | F                   |
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>KVA Code</b>                      | L                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <b>Motor Lead Exit</b>               | Ko Box              |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3532M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 2                   |
| <b>Overall Length</b>                | 14.62 IN            |
| <b>Power Factor</b>                  | 92                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | C-Face              |
| <b>Pulley Shaft Indicator</b>        | Ext Thread          |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.15                |
| <b>Shaft Diameter</b>                | 0.625 IN            |
| <b>Shaft Extension Location</b>      | Pulley End          |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 3450 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                |

Winding Thermal 2

None

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Nameplate

| NP3441L                   |              |      |     |      |   |    |   |    |   |  |  |
|---------------------------|--------------|------|-----|------|---|----|---|----|---|--|--|
| CAT.NO.                   | EJM3559      |      |     |      |   |    |   |    |   |  |  |
| SPEC.                     | 35F084Q060G1 |      |     |      |   |    |   |    |   |  |  |
| HP                        | 3            |      |     |      |   |    |   |    |   |  |  |
| VOLTS                     | 230/460      |      |     |      |   |    |   |    |   |  |  |
| AMP                       | 7.2/3.6      |      |     |      |   |    |   |    |   |  |  |
| RPM                       | 3450         |      |     |      |   |    |   |    |   |  |  |
| FRAME                     | 56J          |      | HZ  | 60   |   |    |   | PH | 3 |  |  |
| SER.F.                    | 1.15         | CODE | L   | DES  | B | CL | F |    |   |  |  |
| NEMA-NOM-EFF              | 86.5         | PF   | 92  |      |   |    |   |    |   |  |  |
| RATING                    | 40C AMB-CONT |      |     |      |   |    |   |    |   |  |  |
| CC                        | 010A         |      |     |      |   |    |   |    |   |  |  |
| DE                        | 6205         |      | ODE | 6203 |   |    |   |    |   |  |  |
| ENCL                      | TEFC         | SN   |     |      |   |    |   |    |   |  |  |
| VPWM INVERTER READY       |              |      |     |      |   |    |   |    |   |  |  |
| CT6-60H(10:1)VT3-60H(20:1 |              |      |     |      |   |    |   |    |   |  |  |
|                           |              |      |     |      |   |    |   |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 50261

Typical performance - not guaranteed values

| Winding: 35WGQ060-R002 |  |         | Type: 3532M                              |  | Enclosure: TEFC         |                       |          |        |
|------------------------|--|---------|------------------------------------------|--|-------------------------|-----------------------|----------|--------|
| Nameplate Data         |  |         | 460 V, 60 Hz:<br>High Voltage Connection |  |                         |                       |          |        |
| Rated Output (HP)      |  | 3       | Full Load Torque                         |  | 4.5 LB-FT               |                       |          |        |
| Volts                  |  | 230/460 | Start Configuration                      |  | direct on line          |                       |          |        |
| Full Load Amps         |  | 7.2/3.6 | Breakdown Torque                         |  | 18 LB-FT                |                       |          |        |
| R.P.M.                 |  | 3450    | Pull-up Torque                           |  | 11 LB-FT                |                       |          |        |
| Hz                     |  | 60      | Phase                                    |  | 3                       | Locked-rotor Torque   | 16 LB-FT |        |
| NEMA Design Code       |  | B       | KVA Code                                 |  | L                       | Starting Current      |          | 33 A   |
| Service Factor (S.F.)  |  | 1.15    | No-load Current                          |  | 1.2 A                   |                       |          |        |
| NEMA Nom. Eff.         |  | 86.5    | Power Factor                             |  | 92                      | Line-line Res. @ 25°C |          | 4.72 Ω |
| Rating - Duty          |  | 40C     | AMB-CONT                                 |  | Temp. Rise @ Rated Load |                       | 61°C     |        |
| S.F. Amps              |  |         | Temp. Rise @ S.F. Load                   |  | 76°C                    |                       |          |        |

**Load Characteristics 460 V, 60 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 62   | 81   | 88   | 92   | 93   | 94   | 93   |
| Efficiency      | 83.7 | 87.9 | 88.2 | 87.2 | 85.6 | 83.5 | 86.2 |
| Speed           | 3562 | 3531 | 3498 | 3462 | 3421 | 3375 | 3437 |
| Line amperes    | 1.5  | 2.1  | 2.8  | 3.6  | 4.5  | 5.4  | 4.1  |

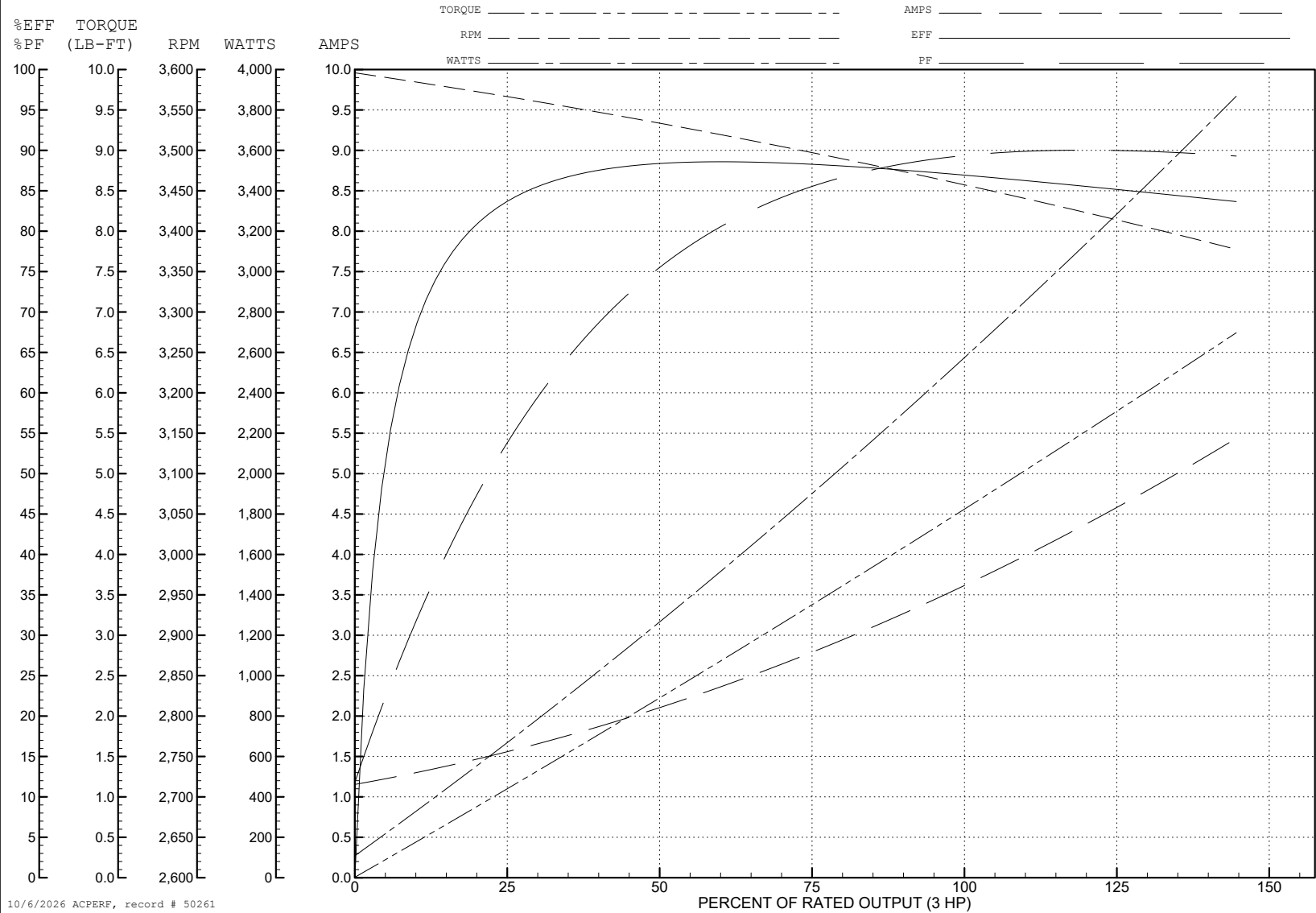
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WINDING # 35WGQ060

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 3450 RPM 460 V 3532M

TORQUES (LB-FT): PO=18 PU=11 LR=16 LRA=33



**AC Induction Motor Performance Data**

Record # 59171

Typical performance - not guaranteed values

| Winding: 35WGQ060-R002 |          |                   | Type: 3532M                             |                       | Enclosure: TEFC |        |
|------------------------|----------|-------------------|-----------------------------------------|-----------------------|-----------------|--------|
| Nameplate Data         |          |                   | 230 V, 60 Hz:<br>Low Voltage Connection |                       |                 |        |
| Rated Output (HP)      |          | 3                 | Full Load Torque                        |                       | 4.5 LB-FT       |        |
| Volts                  |          | 230/460           | Start Configuration                     |                       | direct on line  |        |
| Full Load Amps         |          | 7.2/3.6           | Breakdown Torque                        |                       | 18 LB-FT        |        |
| R.P.M.                 |          | 3450              | Pull-up Torque                          |                       | 11 LB-FT        |        |
| Hz                     | 60 Phase | 3                 | Locked-rotor Torque                     |                       | 16 LB-FT        |        |
| NEMA Design Code       |          | B KVA Code        | L                                       | Starting Current      |                 | 66 A   |
| Service Factor (S.F.)  |          | 1.15              | No-load Current                         |                       | 2.4 A           |        |
| NEMA Nom. Eff.         |          | 86.5 Power Factor | 92                                      | Line-line Res. @ 25°C |                 | 1.17 Ω |
| Rating - Duty          |          | 40C AMB-CONT      | Temp. Rise @ Rated Load                 |                       | 61°C            |        |
| S.F. Amps              |          |                   | Temp. Rise @ S.F. Load                  |                       | 73°C            |        |
|                        |          |                   | Locked-rotor Power Factor               |                       | 47.1            |        |
|                        |          |                   | Rotor inertia                           |                       | 0.0885 LB-FT2   |        |

**Load Characteristics 230 V, 60 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 57   | 77   | 85   | 88   | 89   | 90   | 89   |
| Efficiency      | 84.1 | 87.9 | 88.4 | 87.2 | 85.7 | 83.5 | 86.3 |
| Speed           | 3562 | 3531 | 3498 | 3462 | 3421 | 3375 | 3437 |
| Line amperes    | 3    | 4.2  | 5.6  | 7.2  | 9    | 10.8 | 8.28 |

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WINDING # 35WGQ060

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 3450 RPM 230 V 3532M

TORQUES (LB-FT): PO=18 PU=11 LR=16 LRA=66

