

# ABB BALDOR RELIANCE III

---

## Customer information packet

JMFSWDM3546T-E

1HP, 1770RPM, 3PH, 60HZ, 143JM, 3522M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TENV                                                        |
| <b>Frame</b>                          | 143JM                                                       |
| <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>             | 1.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<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>              | 3.340 A @ 230.0 V<br>3.300 A @ 208.0 V<br>1.670 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>         | 85.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Front Shaft Indicator</b>          | None                                                        |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E4762    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG184   |
| <b>Layout</b>       | 35LYE4762  |
| <b>Eff. date</b>    | 11-28-2023 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-10-2022 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Heater Indicator</b>              | No Heater                  |
| <b>High Voltage Full Load Amps</b>   | 1.7 a                      |
| <b>Insulation Class</b>              | H                          |
| <b>Inverter Code</b>                 | Inverter Ready             |
| <b>KVA Code</b>                      | N                          |
| <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> | 9 @ 18 AWG                 |
| <b>Motor Lead Termination</b>        | Flying Leads               |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | 3522M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 14.97 IN                   |
| <b>Power Factor</b>                  | 66                         |
| <b>Product Family</b>                | WD All SD Non-Encapsulated |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing             |
| <b>Pulley Face Code</b>              | C-Face                     |
| <b>Pulley Shaft Indicator</b>        | Tapped & Key               |
| <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>Shaft Slinger Indicator</b>       | No Slinger                 |
| <b>Speed</b>                         | 1770 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**

| NP4427AAA01 |                |         |          |      |      |               |       |      |      |       |  |  |  |
|-------------|----------------|---------|----------|------|------|---------------|-------|------|------|-------|--|--|--|
| CAT #       | JMFSWDM3546T-E |         |          |      |      | WT            | 37    | LBS  |      |       |  |  |  |
| SPEC        | 35E4762G184G1  |         |          |      |      | ENCL          | TENV  |      |      |       |  |  |  |
| SER #       |                |         |          |      |      | CC            | 010A  | IP   | 69   |       |  |  |  |
| HP          | 1              | MAG CUR |          |      |      | 2.5/1.25      |       |      |      |       |  |  |  |
| VOLTS       | 230/460        |         |          |      |      | NEMA NOM. EFF |       |      | 85.5 |       |  |  |  |
| AMPS        | 3.34/1.67      |         |          |      |      | PF            | 66    |      |      |       |  |  |  |
| RATING      | 40C AMB-CONT   |         |          |      |      |               |       |      |      |       |  |  |  |
| RPM         | 1770           |         |          |      |      | MAX RPM       |       | 2700 |      |       |  |  |  |
| FRAME       | 143JM          | HZ      | 60       | CODE |      | N             | CLASS |      | H    |       |  |  |  |
| SER.F.      | 1.15           | SF AMP  | 3.5/1.75 |      |      |               | PH    | 3    | DES  | B     |  |  |  |
| DE          | 6206           |         | ODE      |      | 6205 |               |       |      |      |       |  |  |  |
| LUBRICATION | POLYREX EM     |         |          |      |      |               |       |      |      |       |  |  |  |
| ID LOGO     | INVERTER TYPE  |         |          | VPWM |      | CHP           | 60    | TO   | 90   | 1.5:1 |  |  |  |
| ID LOGO     | WK2            | 0.159   | CT       | 15   | TO   | 60            | 4:1   |      |      |       |  |  |  |
| ID LOGO     | SL HZ          | 1       | VT       | 3    | TO   | 60            | 20:1  |      |      |       |  |  |  |
|             |                |         |          |      |      |               |       |      |      |       |  |  |  |
|             |                |         |          |      |      |               |       |      |      |       |  |  |  |
|             |                |         |          |      |      |               |       |      |      |       |  |  |  |
|             |                |         |          |      |      |               | QR    |      |      |       |  |  |  |
| YR          |                |         |          |      |      |               |       |      |      |       |  |  |  |

**AC Induction Motor Performance Data**

Record # 87470

Typical performance - not guaranteed values

| Winding: 35WGG184-R004 |    |           | Type: 3522M                              |                     | Enclosure: TENV           |             |              |
|------------------------|----|-----------|------------------------------------------|---------------------|---------------------------|-------------|--------------|
| Nameplate Data         |    |           | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |             |              |
| Rated Output (HP)      |    | 1         | Full Load Torque                         |                     | 2.99 LB-FT                |             |              |
| Volts                  |    | 230/460   | Start Configuration                      |                     | direct on line            |             |              |
| Full Load Amps         |    | 3.34/1.67 | Breakdown Torque                         |                     | 16.6 LB-FT                |             |              |
| R.P.M.                 |    | 1770      | Pull-up Torque                           |                     | 7.42 LB-FT                |             |              |
| Hz                     | 60 | Phase     | 3                                        | Locked-rotor Torque |                           | 10.32 LB-FT |              |
| NEMA Design Code       |    | B         | KVA Code                                 |                     | N                         |             |              |
| Service Factor (S.F.)  |    | 1.15      | Starting Current                         |                     | 16.1 A                    |             |              |
| NEMA Nom. Eff.         |    | 85.5      | Power Factor                             |                     | 66                        |             |              |
| Rating - Duty          |    | 40C       | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |             | 63°C         |
| S.F. Amps              |    |           |                                          |                     | Temp. Rise @ S.F. Load    |             | 71°C         |
|                        |    |           |                                          |                     | Locked-rotor Power Factor |             | 59.4         |
|                        |    |           |                                          |                     | Rotor inertia             |             | 0.159 lb-ft² |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 27   | 43   | 56   | 66   | 73   | 78   | 72   |
| Efficiency      | 70.8 | 81.2 | 84.5 | 85.9 | 85.8 | 85.2 | 85.5 |
| Speed           | 1793 | 1786 | 1781 | 1773 | 1766 | 1758 | 1768 |
| Line amperes    | 1.25 | 1.34 | 1.49 | 1.67 | 1.87 | 2.12 | 1.75 |

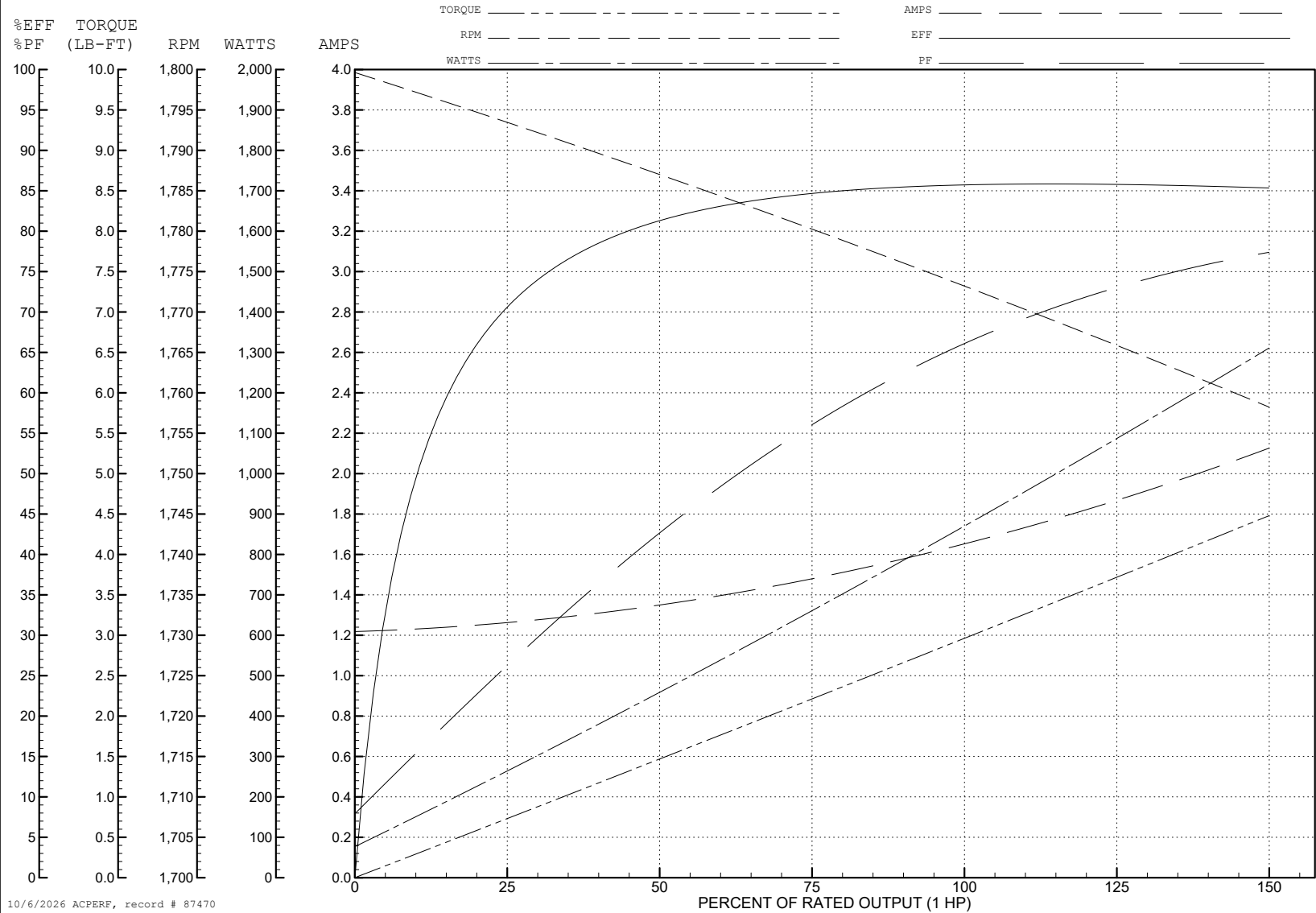
ABB Motors and Mechanical Inc.

WINDING # 35WGG184

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1



**AC Induction Motor Performance Data**

Record # 89717

Typical performance - not guaranteed values

| Winding: 35WGG184-R010 |    |               | Type: 3522M                              |                     | Enclosure: TENV         |             |        |
|------------------------|----|---------------|------------------------------------------|---------------------|-------------------------|-------------|--------|
| Nameplate Data         |    |               | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |             |        |
| Rated Output (HP)      |    | 1             | Full Load Torque                         |                     | 2.99 LB-FT              |             |        |
| Volts                  |    | 208-230/460   | Start Configuration                      |                     | direct on line          |             |        |
| Full Load Amps         |    | 3.3-3.34/1.67 | Breakdown Torque                         |                     | 16.6 LB-FT              |             |        |
| R.P.M.                 |    | 1770          | Pull-up Torque                           |                     | 7.42 LB-FT              |             |        |
| Hz                     | 60 | Phase         | 3                                        | Locked-rotor Torque |                         | 10.32 LB-FT |        |
| NEMA Design Code       |    | B             | KVA Code                                 | N                   | Starting Current        |             | 16.1 A |
| Service Factor (S.F.)  |    | 1.15          | No-load Current                          |                     | 1.23 A                  |             |        |
| NEMA Nom. Eff.         |    | 85.5          | Power Factor                             | 66                  | Line-line Res. @ 25°C   |             | 14.4 Ω |
| Rating - Duty          |    | 65C           | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |             | 63°C   |
| S.F. Amps              |    | 3.6-3.5/1.75  | Temp. Rise @ S.F. Load                   |                     | 71°C                    |             |        |
|                        |    |               | Locked-rotor Power Factor                |                     | 59.3666                 |             |        |
|                        |    |               | Rotor inertia                            |                     | 0.159 lb-ft²            |             |        |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 27   | 43   | 56   | 66   | 73   | 78   | 70   |
| Efficiency      | 70.8 | 81.2 | 84.5 | 85.9 | 85.8 | 85.2 | 85.8 |
| Speed           | 1793 | 1786 | 1781 | 1773 | 1766 | 1758 | 1769 |
| Line amperes    | 1.25 | 1.34 | 1.49 | 1.67 | 1.87 | 2.12 | 1.79 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG184

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1

