

# ABB BALDOR RELIANCE III

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## Customer information packet

### EFM2531T-G

25HP, 1775RPM, 3PH, 60HZ, 284T, 4050M, OPSB, F2

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                                           |
| <b>Frame</b>                          | 284T                                                           |
| <b>Frame Material</b>                 | Steel                                                          |
| <b>Frequency</b>                      | 60.00 Hz                                                       |
| <b>Motor Letter Type</b>              | Three Phase                                                    |
| <b>Output @ Frequency</b>             | 25.000 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>230.0 V @ 60 HZ                             |
| <b>Agency Approvals</b>               | CSA EEV<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>              | 64.000 A @ 208.0 V<br>60.000 A @ 230.0 V<br>30.000 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                              |
| <b>Drip Cover</b>                     | No Drip Cover                                                  |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 93.6 %                                                         |
| <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>    | 30.0 a                                                         |
| <b>Insulation Class</b>               | H                                                              |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 40E304     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 40WGX806   |
| <b>Layout</b>       | 40LYE304   |
| <b>Eff. date</b>    | 06-27-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#10       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-30-2023 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | G                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing     |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 10 AWG            |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 4050M                 |
| <b>Mounting Arrangement</b>          | F2                    |
| <b>Number of Poles</b>               | 4                     |
| <b>Overall Length</b>                | 26.06 IN              |
| <b>Power Factor</b>                  | 82                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | Standard              |
| <b>Pulley Shaft Indicator</b>        | Standard              |
| <b>Rodent Screen</b>                 | None                  |
| <b>Service Factor</b>                | 1.15                  |
| <b>Shaft Diameter</b>                | 1.875 IN              |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding       |
| <b>Shaft Rotation</b>                | Reversible            |
| <b>Shaft Slinger Indicator</b>       | No Slinger            |
| <b>Speed</b>                         | 1775 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**

| NP3554LUA |                           |                         |              |       |                           |      |         |            |        |      |      |
|-----------|---------------------------|-------------------------|--------------|-------|---------------------------|------|---------|------------|--------|------|------|
| CAT.NO.   | EFM2531T-G                |                         |              | P/N   |                           |      |         |            |        | ENCL | OPSB |
| SPEC.     | 40E304X806G1              | CC                      | 010A         | FRAME |                           | 284T | SER.NO. |            |        |      |      |
| HP        | 25                        |                         | CLASS        |       | H                         | HZ   | 60      |            |        |      |      |
| RPM       | 1775                      |                         | PH           | 3     | DES                       |      | A       |            |        |      |      |
| VOLTS     | 230/460                   |                         |              | CODE  |                           | G    | ODE BRG | 6309       | DE BRG | 6311 |      |
| AMPS      | 60/30                     |                         |              |       |                           |      |         |            |        |      |      |
| RATING    | 40C AMB-CONT              |                         | NEMA-NOM-EFF |       |                           | 93.6 | GREASE  | POLYREX EM |        |      |      |
| PF        | 82                        | SER.F.                  | 1.15         |       | CT30-60(2:1) VT3-60(20:1) |      |         |            |        |      |      |
| USABLE AT | 50HZ 25HP 190/380V 72/36A |                         |              |       | SF1.0                     |      |         |            |        |      |      |
| HTR-VOLTS | HTR-AMPS                  | MAX. SPACE HEATER TEMP. |              |       |                           |      |         |            |        |      |      |

**AC Induction Motor Performance Data**

Record # 86830

Typical performance - not guaranteed values

| Winding: 40WGX806-R002 |    |              |              | Type: 4050M                              |  | Enclosure: OPSB |  |
|------------------------|----|--------------|--------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |    | 25           |              | Full Load Torque                         |  | 73.81 LB-FT     |  |
| Volts                  |    | 230/460      |              | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |    | 60/30        |              | Breakdown Torque                         |  | 232 LB-FT       |  |
| R.P.M.                 |    | 1775         |              | Pull-up Torque                           |  | 116 LB-FT       |  |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |  | 133 LB-FT       |  |
| NEMA Design Code       |    | A            | KVA Code     | Starting Current                         |  | 192 A           |  |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |  | 12.6 A          |  |
| NEMA Nom. Eff.         |    | 93.6         | Power Factor | Line-line Res. @ 25°C                    |  | 0.35407 Ω       |  |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |  | 28°C            |  |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |  | 34°C            |  |
|                        |    |              |              | Locked-rotor Power Factor                |  | 35              |  |

**Load Characteristics 460 V, 60 Hz, 25 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125  | 150    | S.F. |
|-----------------|--------|--------|--------|--------|------|--------|------|
| Power Factor    | 45     | 67     | 78     | 82     | 85   | 85     | 84   |
| Efficiency      | 89.4   | 93.1   | 93.8   | 93.6   | 93   | 92.1   | 93.2 |
| Speed           | 1794.8 | 1789.5 | 1783.7 | 1777.6 | 1771 | 1763.2 | 1774 |
| Line amperes    | 14.5   | 18.6   | 24.1   | 30.3   | 37.2 | 44.6   | 34.4 |

ABB Motors and Mechanical Inc.

WINDING # 40WGX806

Typical performance - not guaranteed values.

25 HP 3 PH 60 HZ 1775 RPM 460 V 4050M

TORQUES (LB-FT): PO=232 PU=116 LR=133 LRA=192





