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# Customer information packet

## EFM2539T-G

40HP, 1770RPM, 3PH, 60HZ, 324T, 4064M, OPSB, F2

**Part detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | L          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 40E319     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 40WGX166   |
| <b>Layout</b>       | 40LYE319   |
| <b>Eff. date</b>    | 06-27-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#8        |
| <b>Proprietary</b>  | True       |
| <b>Created date</b> | 10-21-2014 |

## Nameplate

| NP3554LUA |                            |                         |              |                           |     |      |         |            |        |      |      |
|-----------|----------------------------|-------------------------|--------------|---------------------------|-----|------|---------|------------|--------|------|------|
| CAT.NO.   | EFM2539T-G                 |                         |              | P/N                       |     |      |         |            |        | ENCL | OPSB |
| SPEC.     | 40E319X166G1               | CC                      | 010A         | FRAME                     |     | 324T | SER.NO. |            |        |      |      |
| HP        | 40                         |                         | CLASS        |                           | H   | HZ   | 60      |            |        |      |      |
| RPM       | 1770                       |                         | PH           | 3                         | DES |      | A       |            |        |      |      |
| VOLTS     | 230/460                    |                         |              | CODE                      |     | H    | ODE BRG | 6309       | DE BRG | 6312 |      |
| AMPS      | 98/49                      |                         |              |                           |     |      |         |            |        |      |      |
| RATING    | 40C AMB-CONT               |                         | NEMA-NOM-EFF |                           |     | 94.1 | GREASE  | POLYREX EM |        |      |      |
| PF        | 82                         | SER.F.                  | 1.15         | CT30-60(2:1) VT3-60(20:1) |     |      |         |            |        |      |      |
| USABLE AT | 50HZ 40HP 190/380V 114/57A |                         |              | SF1.0                     |     |      |         |            |        |      |      |
| HTR-VOLTS | HTR-AMPS                   | MAX. SPACE HEATER TEMP. |              |                           |     |      |         |            |        |      |      |

**AC Induction Motor Performance Data**

Record # 35574

Typical performance - not guaranteed values

| Winding: 40WGX166-R003 |  |         |  | Type: 4064M                              |  | Enclosure: OPSB           |  |
|------------------------|--|---------|--|------------------------------------------|--|---------------------------|--|
| Nameplate Data         |  |         |  | 460 V, 60 Hz:<br>High Voltage Connection |  |                           |  |
| Rated Output (HP)      |  | 40      |  | Full Load Torque                         |  | 119 LB-FT                 |  |
| Volts                  |  | 230/460 |  | Start Configuration                      |  | direct on line            |  |
| Full Load Amps         |  | 98/49   |  | Breakdown Torque                         |  | 427 LB-FT                 |  |
| R.P.M.                 |  | 1770    |  | Pull-up Torque                           |  | 187 LB-FT                 |  |
| Hz                     |  | 60      |  | Phase                                    |  | 3                         |  |
| NEMA Design Code       |  | A       |  | KVA Code                                 |  | H                         |  |
| Service Factor (S.F.)  |  | 1.15    |  | Locked-rotor Torque                      |  | 246 LB-FT                 |  |
| NEMA Nom. Eff.         |  | 94.1    |  | Power Factor                             |  | 82                        |  |
| Rating - Duty          |  | 40C     |  | AMB-CONT                                 |  | Starting Current          |  |
| S.F. Amps              |  |         |  |                                          |  | 330 A                     |  |
|                        |  |         |  |                                          |  | No-load Current           |  |
|                        |  |         |  |                                          |  | 21.1 A                    |  |
|                        |  |         |  |                                          |  | Line-line Res. @ 25°C     |  |
|                        |  |         |  |                                          |  | 0.16236 Ω                 |  |
|                        |  |         |  |                                          |  | Temp. Rise @ Rated Load   |  |
|                        |  |         |  |                                          |  | 41°C                      |  |
|                        |  |         |  |                                          |  | Temp. Rise @ S.F. Load    |  |
|                        |  |         |  |                                          |  | 51°C                      |  |
|                        |  |         |  |                                          |  | Locked-rotor Power Factor |  |
|                        |  |         |  |                                          |  | 32                        |  |
|                        |  |         |  |                                          |  | Rotor inertia             |  |
|                        |  |         |  |                                          |  | 5.09 LB-FT2               |  |

**Load Characteristics 460 V, 60 Hz, 40 HP**

| % of Rated Load | 25     | 50   | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|------|--------|--------|--------|--------|------|
| Power Factor    | 43     | 65   | 76     | 82     | 85     | 85     | 84   |
| Efficiency      | 91.1   | 94   | 94.5   | 94.2   | 93.6   | 92.8   | 93.8 |
| Speed           | 1792.4 | 1785 | 1777.8 | 1770.2 | 1762.1 | 1752.8 | 1765 |
| Line amperes    | 24.1   | 30.7 | 39.2   | 48.7   | 59.3   | 71.3   | 55.1 |

ABB Motors and Mechanical Inc.

WINDING # 40WGX166

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1770 RPM 460 V 4064M

TORQUES (LB-FT): PO=427 PU=187 LR=246 LRA=330

