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# Customer information packet

## EM3154T

1.5HP, 1770RPM, 3PH, 60HZ, 145T, 3524M, OPSB, F

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | OPSB                                                        |
| Frame                          | 145T                                                        |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Three Phase                                                 |
| Output @ Frequency             | 1.500 HP @ 60 HZ                                            |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR               |
| Ambient Temperature            | 40 °C                                                       |
| Auxillary Box                  | No Auxillary Box                                            |
| Auxillary Box Lead Termination | None                                                        |
| Base Indicator                 | Rigid                                                       |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 4.640 A @ 208.0 V<br>4.600 A @ 230.0 V<br>2.300 A @ 460.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 86.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |

## Part detail

|              |            |
|--------------|------------|
| Revision     | D          |
| Type         | AC         |
| Mech. spec.  | 35BB101    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGL955   |
| Layout       | 35LYBB101  |
| Eff. date    | 06-11-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 07-16-2021 |

|                               |                     |
|-------------------------------|---------------------|
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 2.3 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Ready      |
| KVA Code                      | M                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No Locked Bearing   |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3524M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 11.62 IN            |
| Power Factor                  | 72                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | Standard            |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| RoHS Status                   | ROHS COMPLIANT      |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.875 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1770 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                |

## Nameplate

## NP3553LUA

|                           |                              |           |     |      |   |       |       |
|---------------------------|------------------------------|-----------|-----|------|---|-------|-------|
| CAT.NO.                   | EM3154T                      |           |     |      |   |       |       |
| SPEC.                     | 35BB101L955G1                |           |     |      |   |       |       |
| HP                        | 1.5                          |           |     |      |   |       |       |
| VOLTS                     | 230/460                      |           |     |      |   |       |       |
| AMPS                      | 4.6/2.3                      |           |     |      |   |       |       |
| RPM                       | 1770                         |           |     |      |   |       |       |
| FRAME                     | 145T                         |           | HZ  | 60   |   | PH    | 3     |
| SF                        | 1.15                         | CODE      | M   | DES  | B | CLASS | F     |
| NEMA NOM. EFF             | 86.5                         | PF        | 72  |      |   |       |       |
| RATING                    | 40C AMB-CONT                 |           |     |      |   |       |       |
| CC                        | 010A                         |           |     |      |   |       |       |
| ENCL                      | OPSB                         | SN        |     |      |   |       |       |
| DE                        | 6205                         |           | ODE | 6203 |   |       |       |
| VPWM INVERTER READY       |                              | SFA 5/2.5 |     |      |   |       |       |
| CT30-60(2:1) VT3-60(20:1) |                              |           |     |      |   |       |       |
| USABLE AT                 | 1.5HP 190/380V 50HZ 5.2/2.6A |           |     |      |   |       | SF1.0 |

**Accessories**

| Part number   | Description  | Multiplier |
|---------------|--------------|------------|
| 35-8764       | C FACE KIT   | A8         |
| 35EP1604A01SP | D-FLANGE KIT |            |

**AC Induction Motor Performance Data**

Record # 95388

Typical performance - not guaranteed values

| Winding: 35WGL955-R002 |    |         | Type: 3524M  |                                          | Enclosure: OPEN       |                         |        |
|------------------------|----|---------|--------------|------------------------------------------|-----------------------|-------------------------|--------|
| Nameplate Data         |    |         |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                         |        |
| Rated Output (HP)      |    | 1.5     |              | Full Load Torque                         |                       | 4.48 LB-FT              |        |
| Volts                  |    | 230/460 |              | Start Configuration                      |                       | direct on line          |        |
| Full Load Amps         |    | 4.6/2.3 |              | Breakdown Torque                         |                       | 18.8 LB-FT              |        |
| R.P.M.                 |    | 1770    |              | Pull-up Torque                           |                       | 9.6 LB-FT               |        |
| Hz                     | 60 | Phase   | 3            | Locked-rotor Torque                      |                       | 12.6 LB-FT              |        |
| NEMA Design Code       |    | B       |              | KVA Code                                 | M                     | Starting Current        | 19.7 A |
| Service Factor (S.F.)  |    | 1.15    |              | No-load Current                          |                       | 1.51 A                  |        |
| NEMA Nom. Eff.         |    | 86.5    | Power Factor | 72                                       | Line-line Res. @ 25°C |                         | 11.8 Ω |
| Rating - Duty          |    | 40C     |              | AMB-CONT                                 |                       | Temp. Rise @ Rated Load | 48°C   |
| S.F. Amps              |    | 5/2.5   |              | Temp. Rise @ S.F. Load                   |                       | 57°C                    |        |
|                        |    |         |              | Locked-rotor Power Factor                |                       | 58.4                    |        |
|                        |    |         |              | Rotor inertia                            |                       | 0.173 lb-ft²            |        |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 31   | 49   | 63   | 72   | 78   | 81   | 76   |
| Efficiency      | 75.1 | 83.5 | 86   | 86.5 | 85.8 | 84.8 | 86.1 |
| Speed           | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 | 1764 |
| Line amperes    | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 | 2.5  |

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





