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# Customer information packet

## CEM3157T

2HP, 1760RPM, 3PH, 60HZ, 145TC, 3528M, OPSB, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | OPSB                                                        |
| Frame                          | 145TC                                                       |
| 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             | 2.000 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              | 5.800 A @ 208.0 V<br>5.600 A @ 230.0 V<br>2.800 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     | B          |
| Type         | AC         |
| Mech. spec.  | 35BB102    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG073   |
| Layout       | 35LYBB102  |
| Eff. date    | 06-11-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 02-17-2023 |

|                               |                     |
|-------------------------------|---------------------|
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 2.8 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Ready      |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3528M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 12.13 IN            |
| Power Factor                  | 77                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.875 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1760 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.                   | CEM3157T                   |              |     |      |   |       |    |       |  |
| SPEC.                     | 35BB102G073G1              |              |     |      |   |       |    |       |  |
| HP                        | 2                          |              |     |      |   |       |    |       |  |
| VOLTS                     | 230/460                    |              |     |      |   |       |    |       |  |
| AMPS                      | 5.6/2.8                    |              |     |      |   |       |    |       |  |
| RPM                       | 1760                       |              |     |      |   |       |    |       |  |
| FRAME                     | 145TC                      |              | HZ  | 60   |   |       | PH | 3     |  |
| SF                        | 1.15                       | CODE         | K   | DES  | B | CLASS | F  |       |  |
| NEMA NOM. EFF             | 86.5                       | PF           | 77  |      |   |       |    |       |  |
| RATING                    | 40C AMB-CONT               |              |     |      |   |       |    |       |  |
| CC                        | 010A                       |              |     |      |   |       |    |       |  |
| ENCL                      | OPSB                       | SN           |     |      |   |       |    |       |  |
| DE                        | 6205                       |              | ODE | 6203 |   |       |    |       |  |
| VPWM INVERTER READY       |                            | SFA 6.3/3.15 |     |      |   |       |    |       |  |
| CT30-60(2:1) VT3-60(20:1) |                            |              |     |      |   |       |    |       |  |
| USABLE AT                 | 2HP 50HZ 190/380V 6.6/3.3A |              |     |      |   |       |    | SF1.0 |  |

## AC Induction Motor Performance Data

Record # 87157

Typical performance - not guaranteed values

| Winding: 35WGG073-R001 |    |          | Type: 3528M                              |                     | Enclosure: TEFC         |          |        |
|------------------------|----|----------|------------------------------------------|---------------------|-------------------------|----------|--------|
| Nameplate Data         |    |          | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |          |        |
| Rated Output (HP)      |    | 2        | Full Load Torque                         |                     | 5.99 LB-FT              |          |        |
| Volts                  |    | 230/460  | Start Configuration                      |                     | direct on line          |          |        |
| Full Load Amps         |    | 5.6/2.8  | Breakdown Torque                         |                     | 20.5 LB-FT              |          |        |
| R.P.M.                 |    | 1760     | Pull-up Torque                           |                     | 13.8 LB-FT              |          |        |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque |                         | 15 LB-FT |        |
| NEMA Design Code       |    | B        | KVA Code                                 | K                   | Starting Current        |          | 22.5 A |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 1.62 A                  |          |        |
| NEMA Nom. Eff.         |    | 86.5     | Power Factor                             | 77                  | Line-line Res. @ 25°C   |          | 9.54 Ω |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |          | 64°C   |
| S.F. Amps              |    | 6.3/3.15 | Temp. Rise @ S.F. Load                   |                     | 77°C                    |          |        |
|                        |    |          | Locked-rotor Power Factor                |                     | 57.9                    |          |        |
|                        |    |          | Rotor inertia                            |                     | 0.202 lb-ft²            |          |        |

## Load Characteristics 460 V, 60 Hz, 2 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 35   | 55   | 68   | 76   | 81   | 84   | 80   |
| Efficiency      | 78.3 | 85.3 | 86.9 | 86.5 | 85.3 | 83.6 | 86.1 |
| Speed           | 1791 | 1782 | 1771 | 1760 | 1748 | 1734 | 1754 |
| Line amperes    | 1.71 | 1.97 | 2.34 | 2.82 | 3.36 | 3.97 | 3.13 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG073

Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1760 RPM 460 V 3528M

TORQUES (LB-FT): PO=20.5 PU=13.8 LR=15 LRA=22.5





