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# Customer information packet

## CEM3771T

10HP, 3485RPM, 3PH, 60HZ, 215TC, 0730M, TEFC, F

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEFC                                                           |
| Frame                          | 215TC                                                          |
| Frame Material                 | Iron                                                           |
| Frequency                      | 60.00 Hz                                                       |
| Haz Area Class and Group       | None                                                           |
| Haz Area Division              | Not Applicable                                                 |
| Motor Letter Type              | Three Phase                                                    |
| Output @ Frequency             | 10.000 HP @ 60 HZ                                              |
| Phase                          | 3                                                              |
| Synchronous Speed @ Frequency  | 3600 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                                                          |
| Auxiliary Box                  | NO AUXILLARY BOX                                               |
| Auxiliary Box Lead Termination | None                                                           |
| Base Indicator                 | Rigid                                                          |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                        |
| Blower                         | None                                                           |
| Current @ Voltage              | 25.200 A @ 208.0 V<br>23.400 A @ 230.0 V<br>11.700 A @ 460.0 V |
| Design Code                    | B                                                              |
| Drip Cover                     | No Drip Cover                                                  |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 90.2 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |
| Front Shaft Indicator          | None                                                           |

## Part detail

|              |            |
|--------------|------------|
| Revision     | D          |
| Type         | AC         |
| Mech. spec.  | 07H058     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 07WGT516   |
| Layout       | 07LYH058   |
| Eff. date    | 10-17-2024 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 01-05-2021 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 11.7 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | G                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 0730M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 2                     |
| Overall Length                | 19.20 IN              |
| Power Factor                  | 88                    |
| 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                | 1.375 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 3485 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

## NP3441LUA

|                           |                              |  |      |      |     |   |       |   |       |  |
|---------------------------|------------------------------|--|------|------|-----|---|-------|---|-------|--|
| CAT.NO.                   | CEM3771T                     |  |      |      |     |   |       |   |       |  |
| SPEC                      | 07H058T516G1                 |  |      |      |     |   |       |   |       |  |
| HP                        | 10                           |  |      |      |     |   |       |   |       |  |
| VOLTS                     | 230/460                      |  |      |      |     |   |       |   |       |  |
| AMPS                      | 23.4/11.7                    |  |      |      |     |   |       |   |       |  |
| RPM                       | 3485                         |  |      |      |     |   |       |   |       |  |
| FRAME                     | 215TC                        |  | HZ   | 60   |     |   | PH    | 3 |       |  |
| SF                        | 1.15                         |  | CODE | G    | DES | B | CLASS | F |       |  |
| NEMA NOM. EFF             | 90.2                         |  | PF   | 88   |     |   |       |   |       |  |
| RATING                    | 40C AMB-CONT                 |  |      |      |     |   |       |   |       |  |
| CC                        | 010A                         |  |      |      |     |   |       |   |       |  |
| ENCL                      | TEFC                         |  | SER  |      |     |   |       |   |       |  |
| DE                        | 6307                         |  | ODE  | 6206 |     |   |       |   |       |  |
| VPWM INVERTER READY       |                              |  |      |      |     |   |       |   |       |  |
| CT6-60H(10:1)VT3-60H(20:1 |                              |  |      |      |     |   |       |   |       |  |
|                           | 50HZ 10HP 190/380V 30/15.0 A |  |      |      |     |   |       |   | SF1.0 |  |

**AC Induction Motor Performance Data**

Record # 86063

Typical performance - not guaranteed values

| Winding: 07WGT516-R001 |    |           | Type: 0730M                              |                     | Enclosure: TEFC         |                       |        |        |
|------------------------|----|-----------|------------------------------------------|---------------------|-------------------------|-----------------------|--------|--------|
| Nameplate Data         |    |           | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |                       |        |        |
| Rated Output (HP)      |    | 10        | Full Load Torque                         |                     | 15.1 LB-FT              |                       |        |        |
| Volts                  |    | 230/460   | Start Configuration                      |                     | direct on line          |                       |        |        |
| Full Load Amps         |    | 23.4/11.7 | Breakdown Torque                         |                     | 44.8 LB-FT              |                       |        |        |
| R.P.M.                 |    | 3485      | Pull-up Torque                           |                     | 16.4 LB-FT              |                       |        |        |
| Hz                     | 60 | Phase     | 3                                        | Locked-rotor Torque |                         | 23.5 LB-FT            |        |        |
| NEMA Design Code       |    | B         | KVA Code                                 | G                   | Starting Current        |                       | 75.4 A |        |
| Service Factor (S.F.)  |    | 1.15      | No-load Current                          |                     | 3.77 A                  |                       |        |        |
| NEMA Nom. Eff.         |    | 90.2      | Power Factor                             |                     | 88                      | Line-line Res. @ 25°C |        | 1.13 Ω |
| Rating - Duty          |    | 40C       | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |                       | 68°C   |        |
| S.F. Amps              |    | 27/13.5   | Temp. Rise @ S.F. Load                   |                     | 91°C                    |                       |        |        |
|                        |    |           | Locked-rotor Power Factor                |                     | 39.1                    |                       |        |        |
|                        |    |           | Rotor inertia                            |                     | 0.273 lb-ft²            |                       |        |        |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 57   | 78   | 85   | 88   | 89   | 89   | 89   |
| Efficiency      | 87.7 | 91.1 | 91.1 | 90.2 | 88.5 | 86.6 | 89.3 |
| Speed           | 3573 | 3547 | 3518 | 3486 | 3451 | 3410 | 3466 |
| Line amperes    | 4.65 | 6.59 | 9.02 | 11.7 | 14.8 | 18.1 | 13.5 |

ABB Motors and Mechanical Inc.

WINDING # 07WGT516

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 3485 RPM 460 V 0730M

TORQUES (LB-FT) : PO=44.8 PU=16.4 LR=23.5 LRA=75.4





