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# Customer information packet

## ECTM3774T-G-AO

10 AIR OVERHP, 1765RPM, 3PH, 60HZ, 215T, 0748

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEAO                                                           |
| Frame                          | 215T                                                           |
| 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  | 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                                                          |
| Auxiliary Box                  | NO AUXILLARY BOX                                               |
| Auxiliary Box Lead Termination | None                                                           |
| Base Indicator                 | Rigid                                                          |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                        |
| Blower                         | None                                                           |
| Current @ Voltage              | 27.000 A @ 208.0 V<br>24.600 A @ 230.0 V<br>12.300 A @ 460.0 V |
| Design Code                    | B                                                              |
| Drip Cover                     | No Drip Cover                                                  |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 91.7 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |
| Front Shaft Indicator          | None                                                           |

## Part detail

|              |            |
|--------------|------------|
| Revision     | D          |
| Type         | AC         |
| Mech. spec.  | 07D709     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 07WGT511   |
| Layout       | 07LYD709   |
| Eff. date    | 09-08-2023 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 04-05-2022 |

|                               |                              |
|-------------------------------|------------------------------|
| Heater Indicator              | Heater Included, 115 V       |
| High Voltage Full Load Amps   | 12.3 a                       |
| Insulation Class              | F                            |
| Inverter Code                 | Inverter Ready               |
| KVA Code                      | H                            |
| Lifting Lugs                  | Vertical 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                    | 0748M                        |
| Mounting Arrangement          | F1                           |
| Number of Poles               | 4                            |
| Overall Length                | 19.62 IN                     |
| Power Factor                  | 83                           |
| Product Family                | Chemical Processing (Not DC) |
| Pulley End Bearing Type       | Sealed Bearing               |
| Pulley Face Code              | Standard                     |
| Pulley Shaft Indicator        | Tapped & Key                 |
| Rodent Screen                 | None                         |
| Service Factor                | 1.15                         |
| Shaft Diameter                | 1.375 IN                     |
| Shaft Ground Indicator        | Shaft Grounding              |
| Shaft Rotation                | Reversible                   |
| Shaft Slinger Indicator       | Shaft Slinger                |
| Speed                         | 1765 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

| NP2178       |                 |      |     |     |      |    |    |   |  |
|--------------|-----------------|------|-----|-----|------|----|----|---|--|
| CAT.NO.      | ECTM3774T-G-AO  |      |     |     |      |    |    |   |  |
| SPEC.        | 07D709T511G1    |      |     |     |      |    |    |   |  |
| HP           | 10 AIR OVER     |      |     |     |      |    |    |   |  |
| VOLTS        | 230/460         |      |     |     |      |    |    |   |  |
| AMP          | 24.6/12.3       |      |     |     |      |    |    |   |  |
| RPM          | 1765            |      |     |     |      |    |    |   |  |
| FRAME        | 215T            |      | HZ  |     | 60   |    | PH | 3 |  |
| SER.F.       | 1.15            | CODE | H   | DES | B    | CL | F  |   |  |
| NEMA-NOM-EFF | 91.7            | PF   | 83  |     |      |    |    |   |  |
| RATING       | 40C AMB-CONT    |      |     |     |      |    |    |   |  |
| CC           |                 |      |     |     |      |    |    |   |  |
| DE           | 6307            |      | ODE |     | 6206 |    |    |   |  |
| ENCL         | TEAO            | SN   |     |     |      |    |    |   |  |
|              | INV DUT 20:1 VT |      |     |     |      |    |    |   |  |

**AC Induction Motor Performance Data**

Record # 92601

Typical performance - not guaranteed values

| Winding: 07WGT511-R008 |    |           | Type: 0748M                              |                     | Enclosure: TEFC         |            |        |
|------------------------|----|-----------|------------------------------------------|---------------------|-------------------------|------------|--------|
| Nameplate Data         |    |           | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |            |        |
| Rated Output (HP)      |    | 10        | Full Load Torque                         |                     | 29.8 LB-FT              |            |        |
| Volts                  |    | 230/460   | Start Configuration                      |                     | direct on line          |            |        |
| Full Load Amps         |    | 24.6/12.3 | Breakdown Torque                         |                     | 84.1 LB-FT              |            |        |
| R.P.M.                 |    | 1765      | Pull-up Torque                           |                     | 39.8 LB-FT              |            |        |
| Hz                     | 60 | Phase     | 3                                        | Locked-rotor Torque |                         | 50.9 LB-FT |        |
| NEMA Design Code       |    | B         | KVA Code                                 | H                   | Starting Current        |            | 85.9 A |
| Service Factor (S.F.)  |    | 1.15      | No-load Current                          |                     | 4.67 A                  |            |        |
| NEMA Nom. Eff.         |    | 91.7      | Power Factor                             | 83                  | Line-line Res. @ 25°C   |            | 1.09 Ω |
| Rating - Duty          |    | 40C       | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |            | 70°C   |
| S.F. Amps              |    | 28.2/14.1 | Temp. Rise @ S.F. Load                   |                     | 87°C                    |            |        |
|                        |    |           | Locked-rotor Power Factor                |                     | 35.2                    |            |        |
|                        |    |           | Rotor inertia                            |                     | 1.18 lb-ft²             |            |        |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 48   | 70   | 79   | 83   | 85   | 85   | 84   |
| Efficiency      | 89.7 | 92.7 | 92.6 | 91.6 | 90.6 | 88.8 | 91   |
| Speed           | 1791 | 1783 | 1774 | 1763 | 1752 | 1739 | 1756 |
| Line amperes    | 5.44 | 7.24 | 9.6  | 12.3 | 15.3 | 18.6 | 14.1 |

ABB Motors and Mechanical Inc.

WINDING # 07WGT511

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 1765 RPM 460 V 0748M

TORQUES (LB-FT): PO=84.1 PU=39.8 LR=50.9 LRA=85.9





