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# Customer information packet

## VEM3774T

10HP, 1765RPM, 3PH, 60HZ, 215TC, 0748M, 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  | 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                 | No Mounting                                                    |
| 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     | H          |
| Type         | AC         |
| Mech. spec.  | 07G082     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 07WGT511   |
| Layout       | 07LYG082   |
| Eff. date    | 05-28-2025 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 02-08-2021 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 12.3 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | H                     |
| 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                    | 0748M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 19.20 IN              |
| Power Factor                  | 83                    |
| 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                         | 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

## NP3441LUA

|                               |              |      |               |    |      |   |       |  |   |       |  |
|-------------------------------|--------------|------|---------------|----|------|---|-------|--|---|-------|--|
| CAT.NO.                       | VEM3774T     |      |               |    |      |   |       |  |   |       |  |
| SPEC                          | 07G082T511G1 |      |               |    |      |   |       |  |   |       |  |
| HP                            | 10           |      |               |    |      |   |       |  |   |       |  |
| VOLTS                         | 230/460      |      |               |    |      |   |       |  |   |       |  |
| AMPS                          | 24.6/12.3    |      |               |    |      |   |       |  |   |       |  |
| RPM                           | 1765         |      |               |    |      |   |       |  |   |       |  |
| FRAME                         | 215TC        |      | HZ            |    | 60   |   | PH    |  | 3 |       |  |
| SF                            | 1.15         | CODE |               | H  | DES  | B | CLASS |  | F |       |  |
| NEMA NOM. EFF                 | 91.7         | PF   |               | 83 |      |   |       |  |   |       |  |
| RATING                        | 40C AMB-CONT |      |               |    |      |   |       |  |   |       |  |
| CC                            | 010A         |      |               |    |      |   |       |  |   |       |  |
| ENCL                          | TEFC         | SER  |               |    |      |   |       |  |   |       |  |
| DE                            | 6307         |      | ODE           |    | 6206 |   |       |  |   |       |  |
| VPWM INVERTER READY           |              |      | SFA 28.2/14.1 |    |      |   |       |  |   |       |  |
| CT6-60H(10:1)VT3-60H(20:1     |              |      |               |    |      |   |       |  |   |       |  |
| 50HZ 10HP 190/380V 29.8/14.9A |              |      |               |    |      |   |       |  |   | SF1.0 |  |

## AC Induction Motor Performance Data

Record # 85502

Preliminary Data Sheet

| Winding: 07WGT511-R001 |  |              |  | 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 | 1.11 Ω |
| Rating - Duty          |  | 40C AMB-CONT |  | Temp. Rise @ Rated Load                  |  | 70°C                |  |                  |                       |        |
| S.F. Amps              |  | 28.3/14.15   |  | Temp. Rise @ S.F. Load                   |  | 93°C                |  |                  |                       |        |
|                        |  |              |  | Locked-rotor Power Factor                |  | 40.4                |  |                  |                       |        |
|                        |  |              |  | 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      | 89.8 | 92.6 | 92.6 | 91.7 | 90.4 | 88.8 | 90.7 |
| Speed           | 1791 | 1783 | 1774 | 1763 | 1752 | 1739 | 1753 |
| Line amperes    | 5.44 | 7.24 | 9.6  | 12.3 | 15.3 | 18.6 | 14.1 |

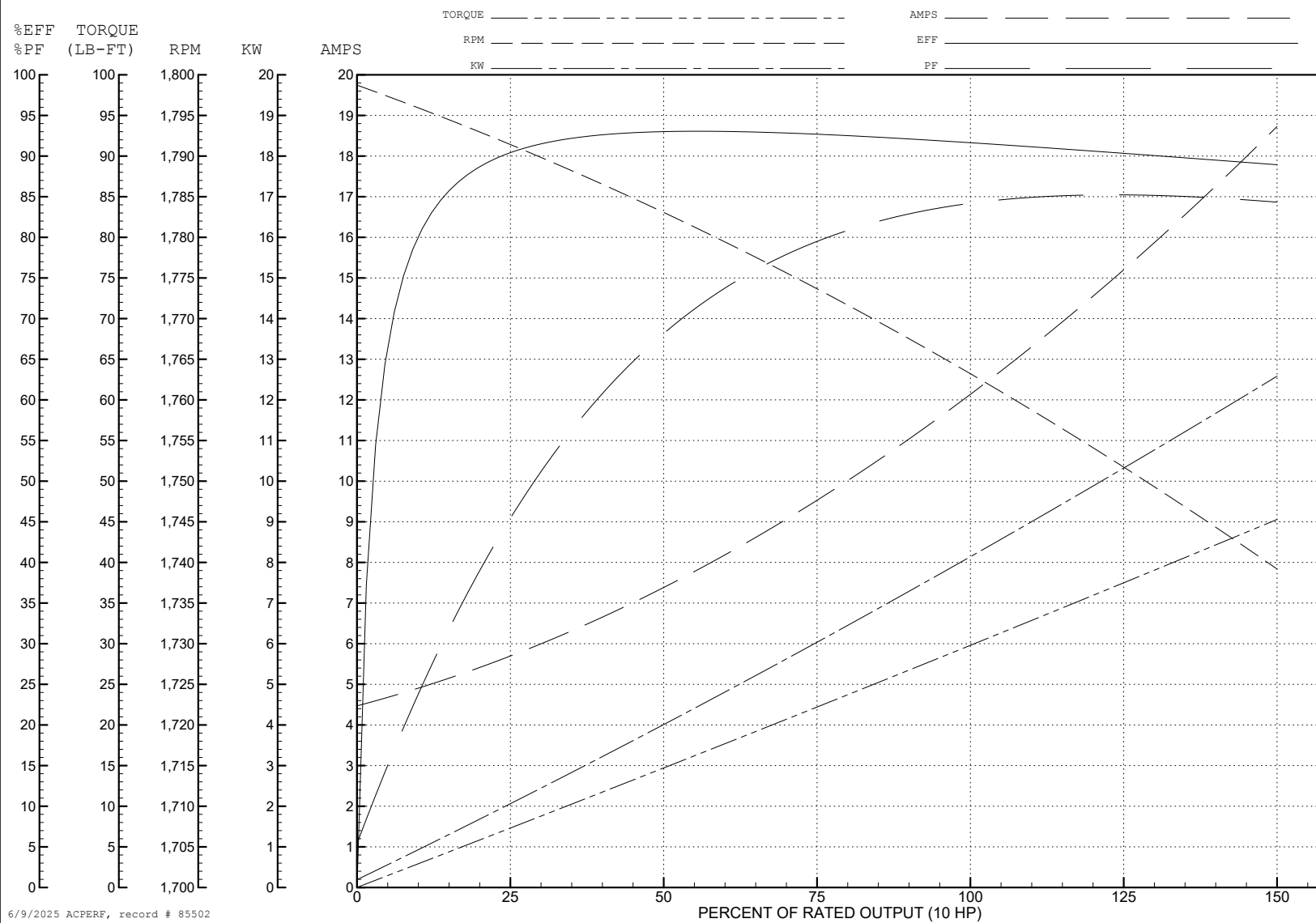
ABB Motors and Mechanical Inc.

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



**AC Induction Motor Performance Data**

Record # 88389

Typical performance - not guaranteed values

| Winding: 07WGT511-R001 |    |              | Type: 0748M  |                                          | Enclosure: TEFC       |                |         |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|----------------|---------|
| Nameplate Data         |    |              |              | 400 V, 50 Hz:<br>High Voltage Connection |                       |                |         |
| Rated Output (HP)      |    | 10           |              | Full Load Torque                         |                       | 35.99 LB-FT    |         |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line |         |
| Full Load Amps         |    | 24.6/12.3    |              | Breakdown Torque                         |                       | 89.52 LB-FT    |         |
| R.P.M.                 |    | 1765         |              | Pull-up Torque                           |                       | 46.23 LB-FT    |         |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 59.13 LB-FT    |         |
| NEMA Design Code       |    | B            | KVA Code     | H                                        | Starting Current      |                | 88.53 A |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 5.03 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                  |                       | 91°C           |         |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                       | 117°C          |         |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 35.2           |         |
|                        |    |              |              | Rotor inertia                            |                       | 1.18 lb-ft²    |         |

**Load Characteristics 400 V, 50 Hz, 10 HP**

| % of Rated Load | 25   | 50   | 75    | 100   | 125   | 150   | S.F. |
|-----------------|------|------|-------|-------|-------|-------|------|
| Power Factor    | 50   | 71   | 80    | 84    | 85    | 85    | 85   |
| Efficiency      | 90   | 92.4 | 91.9  | 90.4  | 88.9  | 86.5  | 89.5 |
| Speed           | 1491 | 1482 | 1472  | 1460  | 1448  | 1433  | 1453 |
| Line amperes    | 5.96 | 8.13 | 10.95 | 14.22 | 17.88 | 21.98 | 16.4 |

ABB Motors and Mechanical Inc.

WINDING # 07WGT511

Typical performance - not guaranteed values.

10 HP 3 PH 50 HZ 1765 RPM 400 V 0748M

TORQUES (LB-FT): PO=89.52 PU=46.23 LR=59.13 LRA=88.53

