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# Customer information packet

## VXM14242T

2//1.5HP, 1760//1456RPM, 3PH, 60//50HZ, 143T

Class - CLI GP D; CLII GP F,G

Division - Division I

## Specifications

|                                |                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------|
| Enclosure                      | XPFC                                                                                                  |
| Frame                          | 145TC                                                                                                 |
| Frame Material                 | Steel                                                                                                 |
| Frequency                      | 50.00 Hz<br>60.00 Hz                                                                                  |
| Haz Area Class and Group       | CLI GP D; CLII GP F,G                                                                                 |
| Haz Area Division              | Division I                                                                                            |
| Motor Letter Type              | Three Phase                                                                                           |
| Output @ Frequency             | 2.000 HP @ 60 HZ<br>1.500 HP @ 50 HZ                                                                  |
| Phase                          | 3                                                                                                     |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                                                                      |
| Voltage @ Frequency            | 190.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ<br>460.0 V @ 60 HZ                              |
| Agency Approvals               | CSA EEV<br>UL                                                                                         |
| 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                                                                                                  |
| Constant Torque Speed Range    | 3                                                                                                     |
| Current @ Voltage              | 2.600 A @ 380.0 V<br>2.800 A @ 460.0 V<br>5.200 A @ 190.0 V<br>5.600 A @ 230.0 V<br>5.800 A @ 208.0 V |
| Design Code                    | B                                                                                                     |
| Drip Cover                     | No Drip Cover                                                                                         |

## Part detail

|              |            |
|--------------|------------|
| Revision     | E          |
| Type         | AC         |
| Mech. spec.  | 35E380     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG073   |
| Layout       | 35LYE380   |
| Eff. date    | 11-05-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 10-01-2021 |

|                               |                           |
|-------------------------------|---------------------------|
| Duty Rating                   | CONT                      |
| Efficiency @ 100% Load        | 86.5 %                    |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device               | NO FEEDBACK               |
| Front Shaft Indicator         | None                      |
| Haz Area Temp Code            | T3C                       |
| Heater Indicator              | No Heater                 |
| High Voltage Full Load Amps   | 2.6 a                     |
| Insulation Class              | F                         |
| Inverter Code                 | Inverter Ready            |
| IP Rating                     | NONE                      |
| KVA Code                      | K                         |
| Lifting Lugs                  | No Lifting Lugs           |
| Locked Bearing Indicator      | Locked Bearing            |
| Max Speed                     | 2700 rpm                  |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                |
| Motor Lead Termination        | Flying Leads              |
| Motor Standards               | NEMA                      |
| Motor Type                    | X3528M                    |
| Mounting Arrangement          | F1                        |
| Number of Poles               | 4                         |
| Overall Length                | 15.21 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                | 1.00                      |
| Shaft Diameter                | 0.875 IN                  |
| Shaft Ground Indicator        | No Shaft Grounding        |
| Shaft Rotation                | Reversible                |
| Shaft Slinger Indicator       | No Slinger                |
| Speed                         | 1465 rpm                  |

|                            |                            |
|----------------------------|----------------------------|
|                            | 1760 rpm                   |
| Speed Code                 | Single Speed               |
| Starting Method            | Direct on line             |
| Thermal Device - Bearing   | None                       |
| Thermal Device - Winding   | Normally Closed Thermostat |
| Vibration Sensor Indicator | No Vibration Sensor        |
| Winding Thermal 1          | None                       |
| Winding Thermal 2          | None                       |

## Nameplate

| NP0887XPSLEV |                  |  |        |   |              |            |          |       |          |  |    |
|--------------|------------------|--|--------|---|--------------|------------|----------|-------|----------|--|----|
| NO.          |                  |  |        |   |              | CC         | 010A     |       |          |  |    |
| S/N          |                  |  |        |   |              | TEMP CODE  |          | T3C   |          |  |    |
| SPEC.        | 35E380G073G1     |  |        |   |              | INV.TYPE   |          |       |          |  |    |
| CAT.NO.      | VXM14242T        |  |        |   |              | C HP FR    |          | 60    | C HP TO  |  | 90 |
| HP           | 2//1.5           |  |        |   |              | CT HZ FROM |          | 3     | CT HZ TO |  | 60 |
| VOLTS        | 230/460//190/380 |  |        |   |              | VT HZ FROM |          | 3     | VT HZ TO |  | 60 |
| AMPS         | 5.6/2.8//5.2/2.6 |  |        |   | MAG CUR      | 3.2/1.6    |          |       |          |  |    |
| RPM          | 1760//1465       |  |        |   | MX RPM       | 2700       |          |       |          |  |    |
| HZ           | 60//50           |  | PH     | 3 | CL           | F          | NOM.EFF. | 86.5  |          |  |    |
| SER.F.       | 1.00             |  | DES    | B | SL HZ        | 1.3        | WK2      | 0.202 |          |  |    |
| FRAME        | 143TC            |  | RATING |   | 40C AMB-CONT |            |          |       |          |  |    |
|              |                  |  |        |   |              |            |          |       |          |  |    |
|              |                  |  |        |   |              |            |          |       |          |  |    |
|              |                  |  |        |   |              |            |          |       |          |  |    |

## Parts list

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA398813      | SA 35E380G073G1                          | 1.000 ea |
| RA389834      | RA 35E380G073G1                          | 1.000 ea |
| 34FN3002B01   | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 ea |
| 35CB3001A02SP | EXPL PROOF CONDUIT BOX, 3/4"PIPE TAP LEA | 1.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW3001B01     | BRASS CUP WASHER, FOR #10 SCREW          | 1.000 ea |
| 35EP3700A01SP | FR ENDPLATE, XPFC                        | 1.000 ea |
| HW5100A03     | WAVY WASHER (W1543-017)                  | 1.000 ea |
| 35EP3702A01SP | PU EP-205 BRG-35X-56C-143-5TC            | 1.000 ea |
| 84XN1032J20   | SCREW, SOC 10-32 X 1 1/4"BMH4602         | 2.000 ea |
| HA3013A01     | 1/2-20X5/8 SPL.HX BOLT                   | 2.000 ea |
| HW3021C06     | 3/32 DI X .625 PIN (F/S)                 | 2.000 ea |
| XY3118A12     | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 ea |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| 35FH4005A01SP | IEC FH NO GREASER W/PRIMED               | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 35CB3500A01SP | CONDUIT BOX LID, MACH                    | 1.000 ea |
| 51XN2520A16   | SCREW, HEX WS SLT, ZN, 1/4-20 X 1.00     | 4.000 ea |
| HW2501D13     | KEY, 3/16 SQ X 1.375                     | 1.000 ea |
| HA7000A01     | KEY RETAINER 7/8" DIA SHAFT              | 1.000 ea |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 6.000 ea |
| NP0018F       | ALUM UL XP CONDUIT BOX NAMEPLATE         | 1.000 ea |
| HA1025A21     | WSHR,FELT .125" THK                      | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1025G29     | WILKOFAS, 789.229, DARK CHARCOAL GRAY    | 0.017 ga |
| HA3104A08     | THRUBOLT 5/16-18 X 9.375 X               | 4.000 ea |
| LB1624        | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0145B01     | CONNECTION LABEL                         | 1.000 ea |
| NP0887XPSLEV  | SS XP INV UL CSA-EEV CC CL-I GP-D        | 1.000 ea |
| 36PA1001      | PKG GRP, PRINT PK1017A06                 | 1.000 ea |
| PK3082        | STYROFOAM CRADLE                         | 1.000 ea |

MN416A01

TAG-INSTAL-MAINT no wire (2400 bx)4/22

1.000 ea

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## AC Induction Motor Performance Data

Record # 87414

Typical performance - not guaranteed values

| Winding: 35WGG073-R008 |        |                  |              | Type: 3528M                              |                       | Enclosure: XPFC  |        |        |
|------------------------|--------|------------------|--------------|------------------------------------------|-----------------------|------------------|--------|--------|
| Nameplate Data         |        |                  |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                  |        |        |
| Rated Output (HP)      |        | 2//1.5           |              | Full Load Torque                         |                       | 5.99 LB-FT       |        |        |
| Volts                  |        | 230/460//190/380 |              | Start Configuration                      |                       | direct on line   |        |        |
| Full Load Amps         |        | 5.6/2.8//5/2.5   |              | Breakdown Torque                         |                       | 20.5 LB-FT       |        |        |
| R.P.M.                 |        | 1760//1456       |              | Pull-up Torque                           |                       | 13.8 LB-FT       |        |        |
| Hz                     | 60//50 | Phase            | 3            | Locked-rotor Torque                      |                       | 15 LB-FT         |        |        |
| NEMA Design Code       |        | B                |              | KVA Code                                 | L                     | Starting Current |        | 22.5 A |
| Service Factor (S.F.)  |        | 1                |              | No-load Current                          |                       | 1.62 A           |        |        |
| NEMA Nom. Eff.         |        | 86.5             | Power Factor | 74                                       | Line-line Res. @ 25°C |                  | 9.54 Ω |        |
| Rating - Duty          |        | 40C AMB-CONT     |              | Temp. Rise @ Rated Load                  |                       | 64°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  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 35   | 55   | 68   | 76   | 81   | 84   |
| Efficiency      | 78.2 | 85.3 | 86.8 | 86.5 | 85.4 | 83.6 |
| Speed           | 1791 | 1782 | 1771 | 1760 | 1748 | 1734 |
| Line amperes    | 1.71 | 1.97 | 2.34 | 2.82 | 3.36 | 3.97 |

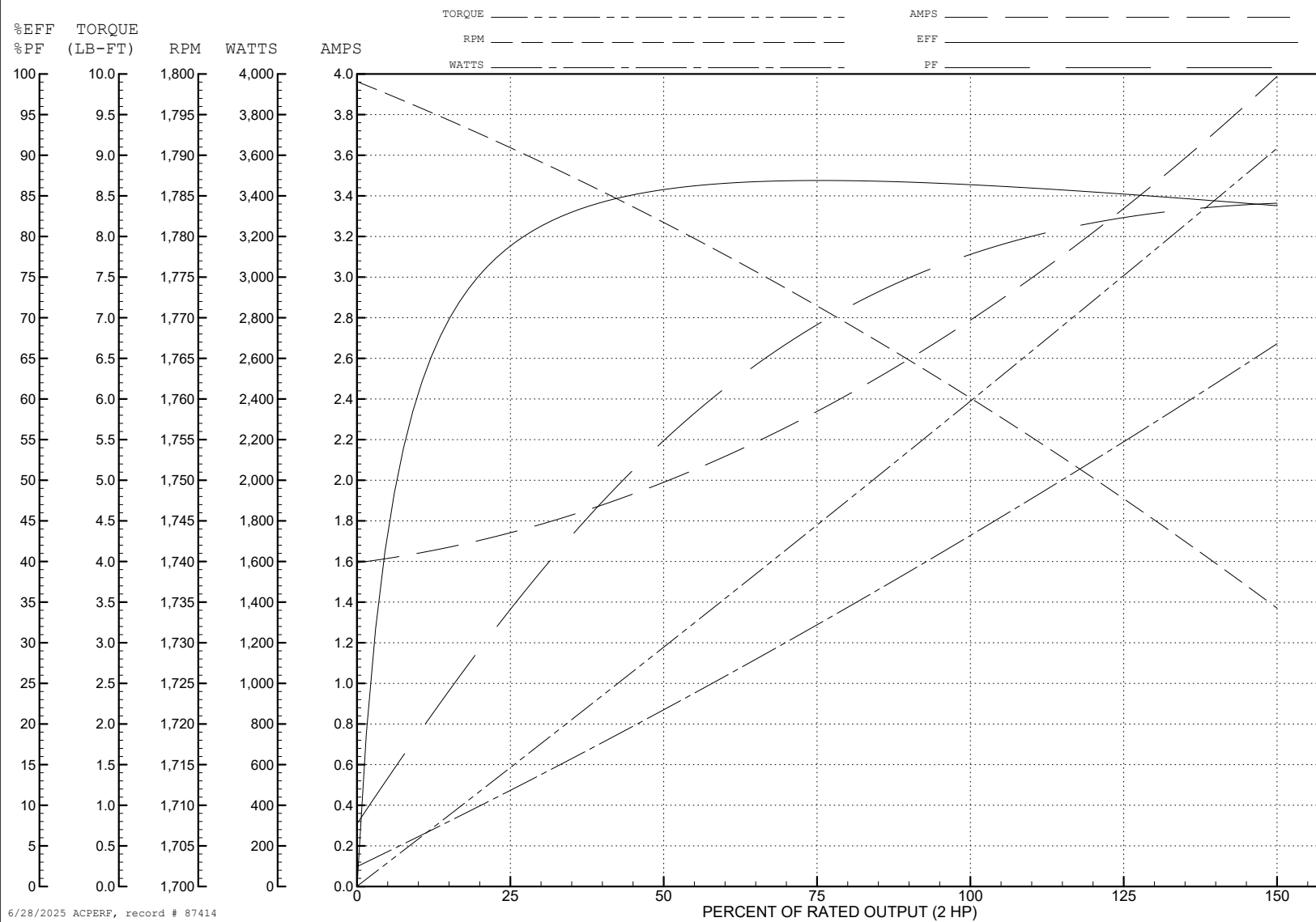
ABB Motors and Mechanical Inc.

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



**AC Induction Motor Performance Data**

Record # 87415

Typical performance - not guaranteed values

| Winding: 35WGG073-R008 |                  | Type: 3528M                              | Enclosure: XPFC          |
|------------------------|------------------|------------------------------------------|--------------------------|
| Nameplate Data         |                  | 380 V, 50 Hz:<br>High Voltage Connection |                          |
| Rated Output (HP)      | 2//1.5           | Full Load Torque                         | 5.4 LB-FT                |
| Volts                  | 230/460//190/380 | Start Configuration                      | direct on line           |
| Full Load Amps         | 5.6/2.8//5/2.5   | Breakdown Torque                         | 18.6 LB-FT               |
| R.P.M.                 | 1760//1456       | Pull-up Torque                           | 13.3 LB-FT               |
| Hz                     | 60//50           | Locked-rotor Torque                      | 14.4 LB-FT               |
| NEMA Design Code       | B                | Starting Current                         | 21 A                     |
| Service Factor (S.F.)  | 1                | No-load Current                          | 1.58 A                   |
| NEMA Nom. Eff.         | 86.5             | Line-line Res. @ 25°C                    | 9.54 Ω                   |
| Rating - Duty          | 40C AMB-CONT     | Temp. Rise @ Rated Load                  | 58°C                     |
|                        |                  | Locked-rotor Power Factor                | 63.3                     |
|                        |                  | Rotor inertia                            | 0.202 lb-ft <sup>2</sup> |

**Load Characteristics 380 V, 50 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 33   | 53   | 67   | 75   | 81   | 84   |
| Efficiency      | 75.7 | 83.6 | 85.4 | 85.3 | 84.1 | 82.2 |
| Speed           | 1492 | 1484 | 1474 | 1464 | 1453 | 1440 |
| Line amperes    | 1.66 | 1.88 | 2.2  | 2.63 | 3.12 | 3.68 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG073

Typical performance - not guaranteed values.

1.5 HP 3 PH 50 HZ 1464 RPM 380 V 3528M

TORQUES (LB-FT): PO=18.6 PU=13.3 LR=14.4 LRA=21

