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# Customer information packet

## CDRX14244T

2/1.5HP, 1765//1455RPM, 3PH, 60//50HZ, 145TC

Class - CLI GP C,D

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 C,D                                                                                            |
| Haz Area Division              | Division I                                                                                            |
| Motor Letter Type              | Three Phase                                                                                           |
| Output @ Frequency             | 1.500 HP @ 60 HZ<br>2.000 HP @ 60 HZ                                                                  |
| Phase                          | 3                                                                                                     |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                                                                      |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>190.0 V @ 50 HZ<br>460.0 V @ 60 HZ<br>380.0 V @ 50 HZ                              |
| Agency Approvals               | CSA EEV<br>UL                                                                                         |
| 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                                                                                                  |
| Constant Torque Speed Range    | 6                                                                                                     |
| Current @ Voltage              | 5.600 A @ 230.0 V<br>5.800 A @ 208.0 V<br>5.200 A @ 190.0 V<br>2.800 A @ 460.0 V<br>2.600 A @ 380.0 V |
| Design Code                    | B                                                                                                     |
| Drip Cover                     | No Drip Cover                                                                                         |

## Part detail

|              |            |
|--------------|------------|
| Revision     | E          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG073   |
| Layout       | 35LYX732   |
| Eff. date    | 01-10-2023 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 10-28-2021 |

|                               |                            |
|-------------------------------|----------------------------|
| Duty Rating                   | CONT                       |
| Efficiency @ 100% Load        | 86.5 %                     |
| Electrically Isolated Bearing | Not Electrically Isolated  |
| Feedback Device               | NO FEEDBACK                |
| Haz Area Temp Code            | T3C                        |
| Heater Indicator              | No Heater                  |
| High Voltage Full Load Amps   | 2.6 a                      |
| Insulation Class              | F                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | K                          |
| Lifting Lugs                  | No Lifting Lugs            |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 2700 rpm                   |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 3528M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 15.21 IN                   |
| Power Factor                  | 77                         |
| Product Family                | General Purpose            |
| Pulley Face Code              | C-Face                     |
| Rodent Screen                 | None                       |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 0.875 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Speed                         | 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 |
|-------------------|------|

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## Nameplate

| NP1401XPSLEV |                   |        |   |              |     |                      |         |          |    |  |  |
|--------------|-------------------|--------|---|--------------|-----|----------------------|---------|----------|----|--|--|
| NO.          |                   |        |   |              |     | CC                   | 010A    |          |    |  |  |
| S/N          |                   |        |   |              |     | TEMP CODE            | T3C     |          |    |  |  |
| SPEC.        | 35-0000-1352      |        |   |              |     | INV.TYPE             | PWM     |          |    |  |  |
| CAT.NO.      | CDRX14244T        |        |   |              |     | C HP FR              | 60      | C HP TO  | 90 |  |  |
| HP           | 2/1.5             |        |   |              |     | CT HZ FROM           | 6       | CT HZ TO | 60 |  |  |
| VOLTS        | 230/460//190/380  |        |   |              |     | VT HZ FROM           | 6       | 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        | 145TC             | RATING |   | 40C AMB-CONT |     |                      |         |          |    |  |  |
|              | 55C AMB @ 1.0 SF  |        |   |              |     |                      |         |          |    |  |  |
|              | 1.15 SF SINE WAVE |        |   |              |     | NEMA MG-1 PT 5, IP55 |         |          |    |  |  |
|              |                   |        |   |              |     |                      |         |          |    |  |  |

## 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 |

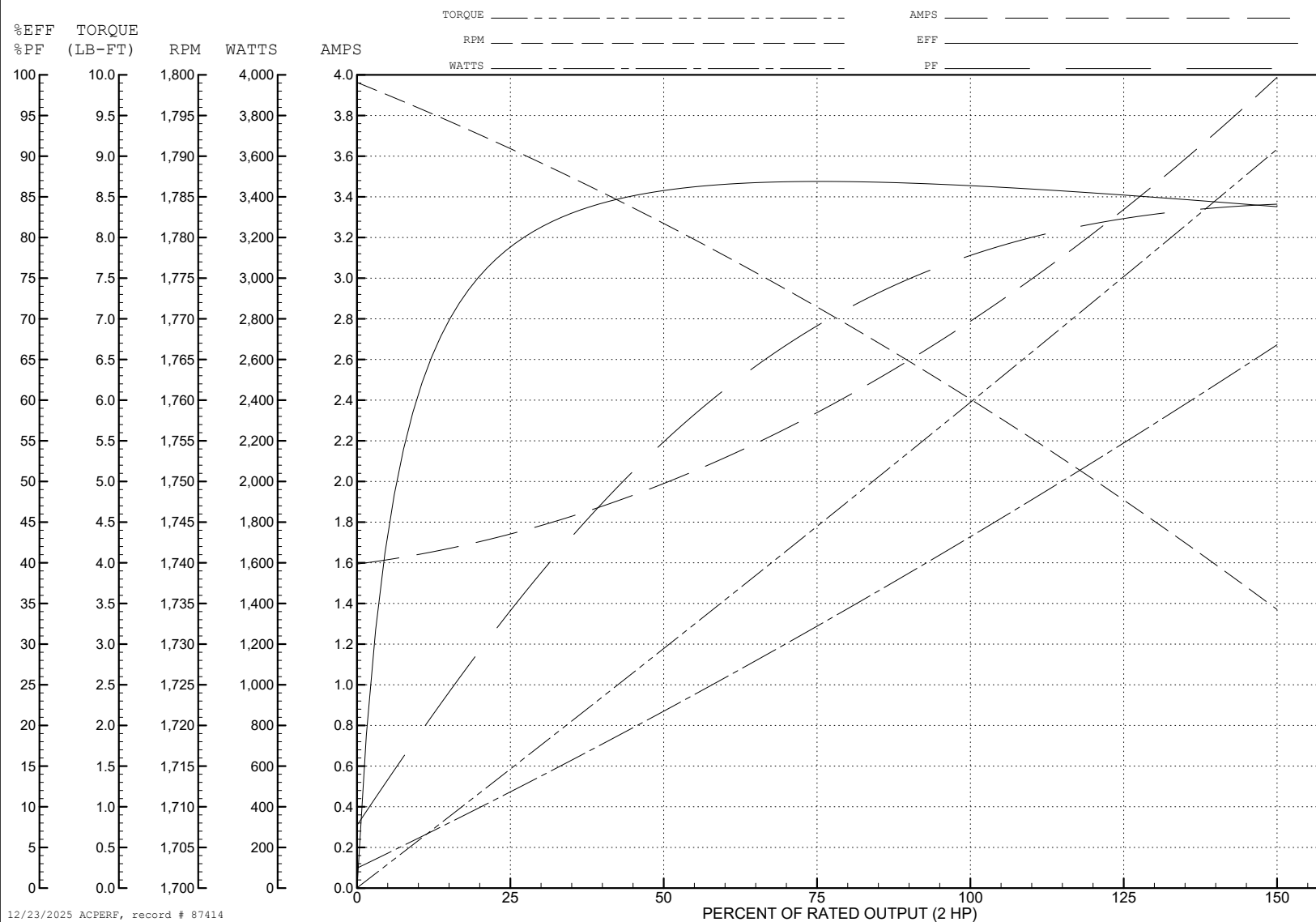
ABB Motors and Mechanical Inc.

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 | Phase            | 3            | Locked-rotor Torque                      |                       | 14.4 LB-FT       |              |        |
| NEMA Design Code       |        | B                |              | KVA Code                                 | L                     | Starting Current |              | 21 A   |
| Service Factor (S.F.)  |        | 1                |              | No-load Current                          |                       |                  |              | 1.58 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                  |                       |                  | 58°C         |        |
|                        |        |                  |              | Locked-rotor Power Factor                |                       |                  | 63.3         |        |
|                        |        |                  |              | Rotor inertia                            |                       |                  | 0.202 lb-ft² |        |

**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

