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# Customer information packet

## VDRX051544

1.5//1HP, 1770//1475RPM, 3PH, 60//50HZ, 56C

Class - CLI GP C,D

Division - Division I

## Specifications

|                                |                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------|
| Enclosure                      | XPFC                                                                                                  |
| Frame                          | 56C                                                                                                   |
| 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             | 1.000 HP @ 50 HZ<br>1.500 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                 | No Mounting                                                                                           |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                                                               |
| Blower                         | None                                                                                                  |
| Constant Torque Speed Range    | 6                                                                                                     |
| Current @ Voltage              | 4.300 A @ 208.0 V<br>4.600 A @ 230.0 V<br>4.000 A @ 190.0 V<br>2.300 A @ 460.0 V<br>2.000 A @ 380.0 V |
| Design Code                    | B                                                                                                     |
| Drip Cover                     | No Drip Cover                                                                                         |

## Part detail

|              |            |
|--------------|------------|
| Revision     | D          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGL955   |
| Layout       | 35LYX748   |
| Eff. date    | 04-21-2025 |
| 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   | 2.0 a                      |
| Insulation Class              | F                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | L                          |
| Lifting Lugs                  | No Lifting Lugs            |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 2700 rpm                   |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 3522M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 15.15 IN                   |
| Power Factor                  | 76                         |
| Product Family                | General Purpose            |
| Pulley Face Code              | C-Face                     |
| Rodent Screen                 | None                       |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 0.625 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Speed                         | 1770 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.        | 35-0000-1356     |        |   |              |                      | INV.TYPE   | PWM   |          |    |  |  |
| CAT.NO.      | VDRX051544       |        |   |              |                      | C HP FR    | 60    | C HP TO  | 90 |  |  |
| HP           | 1.5//1           |        |   |              |                      | CT HZ FROM | 6     | CT HZ TO | 60 |  |  |
| VOLTS        | 230/460//190/380 |        |   |              |                      | VT HZ FROM | 6     | VT HZ TO | 60 |  |  |
| AMPS         | 4.6/2.3//4/2     |        |   |              | MAG CUR              | 3/1.5      |       |          |    |  |  |
| RPM          | 1770//1475       |        |   |              | MX RPM               | 2700       |       |          |    |  |  |
| HZ           | 60//50           | PH     | 3 | CL           | F                    | NOM.EFF.   | 86.5  |          |    |  |  |
| SER.F.       | 1.00             | DES    | B | SL HZ        | 1                    | WK2        | 0.174 |          |    |  |  |
| FRAME        | 56C              | RATING |   | 40C AMB-CONT |                      |            |       |          |    |  |  |
|              | 55C AMB @ 1.0 SF |        |   |              |                      |            |       |          |    |  |  |
|              | 1.15 SF SINEWAVE |        |   |              | NEMA MG-1 PT 5, IP55 |            |       |          |    |  |  |
|              |                  |        |   |              |                      |            |       |          |    |  |  |

**AC Induction Motor Performance Data**

Record # 95398

Typical performance - not guaranteed values

| Winding: 35WGL955-R010 |                  | Type: 3524M                              | Enclosure: XPFC |                           |              |        |
|------------------------|------------------|------------------------------------------|-----------------|---------------------------|--------------|--------|
| Nameplate Data         |                  | 460 V, 60 Hz:<br>High Voltage Connection |                 |                           |              |        |
| Rated Output (HP)      | 1.5//1           | Full Load Torque                         | 4.48 LB-FT      |                           |              |        |
| Volts                  | 230/460//190/380 | Start Configuration                      | direct on line  |                           |              |        |
| Full Load Amps         | 4.6/2.3//4/2     | Breakdown Torque                         | 18.8 LB-FT      |                           |              |        |
| R.P.M.                 | 1770//1475       | Pull-up Torque                           | 9.6 LB-FT       |                           |              |        |
| Hz                     | 60//50           | Phase                                    | 3               | Locked-rotor Torque       | 12.6 LB-FT   |        |
| NEMA Design Code       | B                | KVA Code                                 | M               | Starting Current          | 19.7 A       |        |
| Service Factor (S.F.)  | 1                | No-load Current                          |                 |                           |              | 1.51 A |
| NEMA Nom. Eff.         | 86.5             | Power Factor                             | 72              | Line-line Res. @ 25°C     | 11.8 Ω       |        |
| Rating - Duty          | 40C              | AMB-CONT                                 |                 | Temp. Rise @ Rated Load   | 48°C         |        |
|                        |                  |                                          |                 | Locked-rotor Power Factor | 58.4         |        |
|                        |                  |                                          |                 | Rotor inertia             | 0.173 lb-ft² |        |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 31   | 49   | 63   | 72   | 78   | 81   |
| Efficiency      | 75.1 | 83.5 | 86   | 86.5 | 85.8 | 84.8 |
| Speed           | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 |
| Line amperes    | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 |

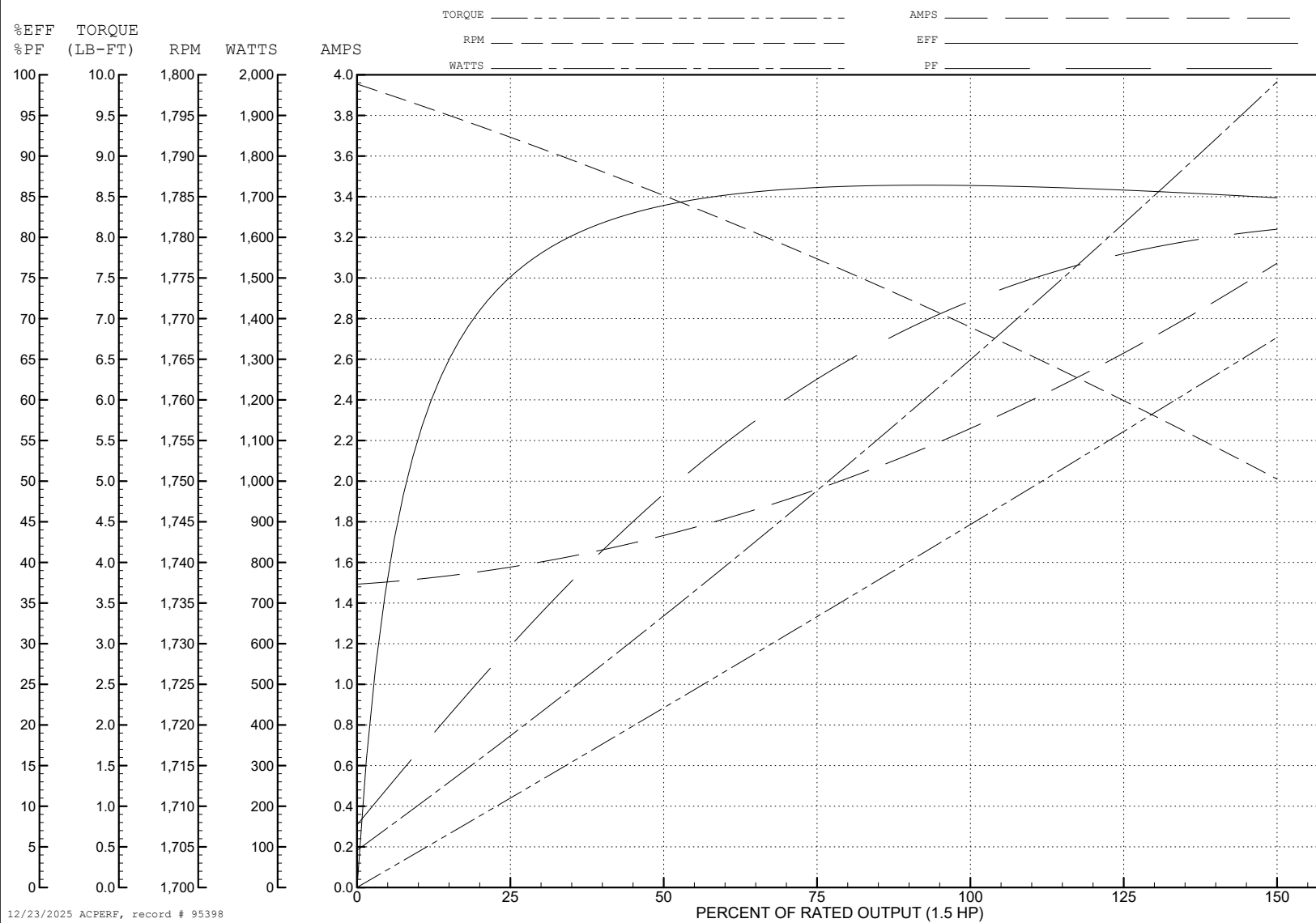
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WINDING # 35WGL955

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1769 RPM 460 V 3524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7



**AC Induction Motor Performance Data**

Record # 95399

Typical performance - not guaranteed values

| Winding: 35WGL955-R010 |        |                  |   | Type: 3524M                              |    | Enclosure: XPFC |                       |        |
|------------------------|--------|------------------|---|------------------------------------------|----|-----------------|-----------------------|--------|
| Nameplate Data         |        |                  |   | 380 V, 50 Hz:<br>High Voltage Connection |    |                 |                       |        |
| Rated Output (HP)      |        | 1.5//1           |   | Full Load Torque                         |    | 3.58 LB-FT      |                       |        |
| Volts                  |        | 230/460//190/380 |   | Start Configuration                      |    | direct on line  |                       |        |
| Full Load Amps         |        | 4.6/2.3//4/2     |   | Breakdown Torque                         |    | 17 LB-FT        |                       |        |
| R.P.M.                 |        | 1770//1475       |   | Pull-up Torque                           |    | 9.2 LB-FT       |                       |        |
| Hz                     | 60//50 | Phase            | 3 | Locked-rotor Torque                      |    | 12.1 LB-FT      |                       |        |
| NEMA Design Code       |        | B                |   | KVA Code                                 | M  |                 | Starting Current      | 18.4 A |
| Service Factor (S.F.)  |        | 1                |   | No-load Current                          |    | 1.48 A          |                       |        |
| NEMA Nom. Eff.         |        | 86.5             |   | Power Factor                             | 72 |                 | Line-line Res. @ 25°C | 11.8 Ω |
| Rating - Duty          |        | 40C AMB-CONT     |   | Temp. Rise @ Rated Load                  |    | 39°C            |                       |        |
|                        |        |                  |   | Locked-rotor Power Factor                |    | 63.9            |                       |        |
|                        |        |                  |   | Rotor inertia                            |    | 0.173 lb-ft²    |                       |        |

**Load Characteristics 380 V, 50 Hz, 1 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 27   | 44   | 57   | 67   | 74   | 79   |
| Efficiency      | 70.1 | 80.3 | 83.7 | 84.8 | 84.5 | 83.8 |
| Speed           | 1493 | 1487 | 1481 | 1474 | 1467 | 1459 |
| Line amperes    | 1.5  | 1.61 | 1.78 | 2    | 2.27 | 2.58 |

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1 HP 3 PH 50 HZ 1474 RPM 380 V 3524M

TORQUES (LB-FT): PO=17 PU=9.2 LR=12.1 LRA=18.4

