

# ABB BALDOR RELIANCE III

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## Customer information packet

### CDRX32444T-5

40HP, 1775RPM, 3PH, 60HZ, 324TC, XPFC, F1

Class - CLI GP C,D

Division - Division I

**Specifications**

|                                |                           |
|--------------------------------|---------------------------|
| Enclosure                      | XPFC                      |
| Frame                          | 324TC                     |
| Frame Material                 | Iron                      |
| Frequency                      | 60.00 Hz                  |
| Haz Area Class and Group       | CLI GP C,D                |
| Haz Area Division              | Division I                |
| Motor Letter Type              | Three Phase               |
| Output @ Frequency             | 40.000 HP @ 60 HZ         |
| Phase                          | 3                         |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ          |
| Voltage @ Frequency            | 575.0 V @ 60 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              | 39.000 A @ 575.0 V        |
| Design Code                    | A                         |
| Drip Cover                     | No Drip Cover             |
| Duty Rating                    | CONT                      |
| Efficiency @ 100% Load         | 94.1 %                    |
| Electrically Isolated Bearing  | Not Electrically Isolated |
| Feedback Device                | NO FEEDBACK               |
| Haz Area Temp Code             | T3C                       |
| Heater Indicator               | No Heater                 |
| High Voltage Full Load Amps    | 39.0 a                    |
| Insulation Class               | F                         |
| Inverter Code                  | Inverter Duty             |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | G          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 12WGY285   |
| Layout       | 12LYT021   |
| Eff. date    | 12-10-2024 |
| CD Diagram   | CD0006     |
| Poles        | 04         |
| Leads        | 3#8        |
| Proprietary  | False      |
| Created date | 07-24-2019 |

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>IP Rating</b>                  | NONE                       |
| <b>KVA Code</b>                   | H                          |
| <b>Lifting Lugs</b>               | Standard Lifting Lugs      |
| <b>Locked Bearing Indicator</b>   | Locked Bearing             |
| <b>Max Speed</b>                  | 2700 rpm                   |
| <b>Motor Lead Termination</b>     | Flying Leads               |
| <b>Motor Standards</b>            | NEMA                       |
| <b>Motor Type</b>                 | 1254M                      |
| <b>Mounting Arrangement</b>       | F1                         |
| <b>Number of Poles</b>            | 4                          |
| <b>Overall Length</b>             | 32.00 IN                   |
| <b>Power Factor</b>               | 82                         |
| <b>Product Family</b>             | Hazardous Location Motor   |
| <b>Pulley Face Code</b>           | C-Face                     |
| <b>Rodent Screen</b>              | None                       |
| <b>RoHS Status</b>                | ROHS NON-COMPLIANT         |
| <b>Service Factor</b>             | 1.00                       |
| <b>Shaft Diameter</b>             | 2.125 IN                   |
| <b>Shaft Ground Indicator</b>     | No Shaft Grounding         |
| <b>Shaft Rotation</b>             | Reversible                 |
| <b>Speed</b>                      | 1775 rpm                   |
| <b>Speed Code</b>                 | Single Speed               |
| <b>Starting Method</b>            | Direct on line             |
| <b>Thermal Device - Bearing</b>   | None                       |
| <b>Thermal Device - Winding</b>   | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b> | No Vibration Sensor        |
| <b>Winding Thermal 1</b>          | None                       |
| <b>Winding Thermal 2</b>          | None                       |

**Nameplate**

| NP1401XPSLEV |                            |     |        |    |              |                     |      |      |          |  |    |  |
|--------------|----------------------------|-----|--------|----|--------------|---------------------|------|------|----------|--|----|--|
| NO.          |                            |     |        |    |              | CC                  | 010A |      |          |  |    |  |
| S/N          |                            |     |        |    |              | TEMP CODE           |      | T3C  |          |  |    |  |
| SPEC.        | 12-0000-0852               |     |        |    |              | INV.TYPE            |      | PWM  |          |  |    |  |
| CAT.NO.      | CDRX32444T-5               |     |        |    |              | C HP FR             |      | 60   | C HP TO  |  | 90 |  |
| HP           | 40                         |     |        |    |              | CT HZ FROM          |      | 6    | CT HZ TO |  | 60 |  |
| VOLTS        | 575                        |     |        |    |              | VT HZ FROM          |      | 6    | VT HZ TO |  | 60 |  |
| AMPS         | 39                         |     |        |    |              | MAG CUR             |      |      |          |  |    |  |
| RPM          | 1775                       |     |        |    |              | MX RPM              |      | 2700 |          |  |    |  |
| HZ           | 60                         | PH  | 3      | CL | F            | NOM.EFF.            |      | 94.1 |          |  |    |  |
| SER.F.       | 1.00                       | DES |        | A  | SL HZ        | 0.83                | WK2  |      | 7.19     |  |    |  |
| FRAME        | 324TC                      |     | RATING |    | 40C AMB-CONT |                     |      |      |          |  |    |  |
|              | 55C AMB @ 1.0 SF, 60C RISE |     |        |    |              |                     |      |      |          |  |    |  |
|              | 1.15SF ON SINEWAVE         |     |        |    |              | NEMA MG-1 PT.5,IP55 |      |      |          |  |    |  |

**AC Induction Motor Performance Data**

Record # 77494

Typical performance - not guaranteed values

| Winding: 12WGY285-R007 |    |              |              | Type: 1254M                           |                       | Enclosure: XPFC |         |
|------------------------|----|--------------|--------------|---------------------------------------|-----------------------|-----------------|---------|
| Nameplate Data         |    |              |              | 575 V, 60 Hz:<br>Single Voltage Motor |                       |                 |         |
| Rated Output (HP)      |    | 40           |              | Full Load Torque                      |                       | 118 LB-FT       |         |
| Volts                  |    | 575          |              | Start Configuration                   |                       | direct on line  |         |
| Full Load Amps         |    | 39           |              | Breakdown Torque                      |                       | 367 LB-FT       |         |
| R.P.M.                 |    | 1775         |              | Pull-up Torque                        |                       | 174 LB-FT       |         |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                   |                       | 185 LB-FT       |         |
| NEMA Design Code       |    | A            | KVA Code     | H                                     | Starting Current      |                 | 267 A   |
| Service Factor (S.F.)  |    | 1            |              | No-load Current                       |                       | 15.6 A          |         |
| NEMA Nom. Eff.         |    | 94.1         | Power Factor | 82                                    | Line-line Res. @ 25°C |                 | 0.226 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load               |                       | 54°C            |         |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                |                       | 65°C            |         |
|                        |    |              |              | Locked-rotor Power Factor             |                       | 27.2            |         |
|                        |    |              |              | Rotor inertia                         |                       | 7.19 LB-FT2     |         |

**Load Characteristics 575 V, 60 Hz, 40 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 46   | 67   | 77   | 82   | 84   | 85   |
| Efficiency      | 90   | 93.6 | 94.3 | 94.3 | 94.1 | 93.3 |
| Speed           | 1795 | 1790 | 1785 | 1780 | 1774 | 1767 |
| Line amperes    | 18.3 | 24.1 | 31.1 | 38.7 | 47.6 | 56.3 |

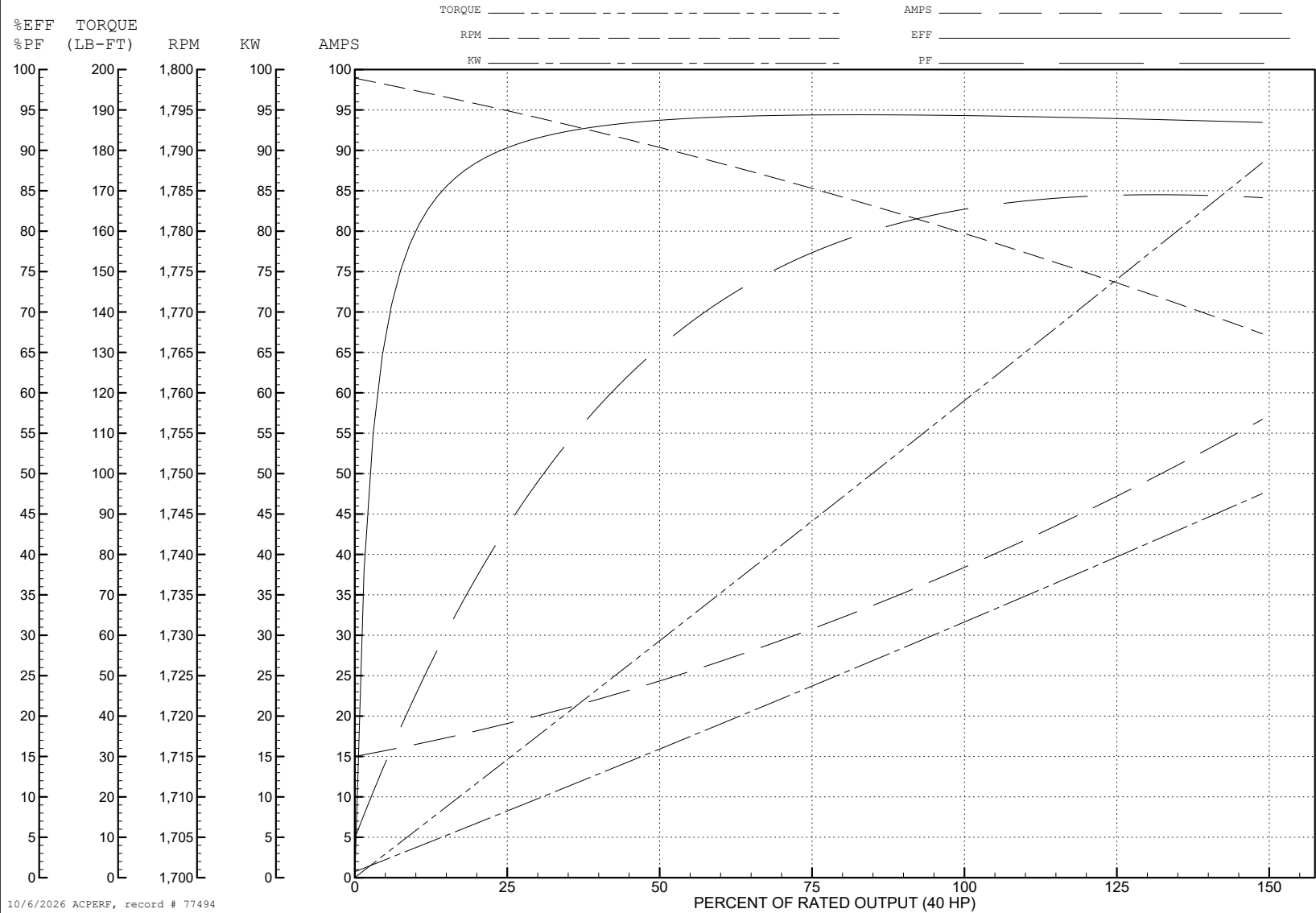
ABB Motors and Mechanical Inc.

WINDING # 12WGY285

Typical performance - not guaranteed values.

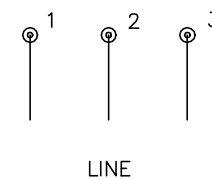
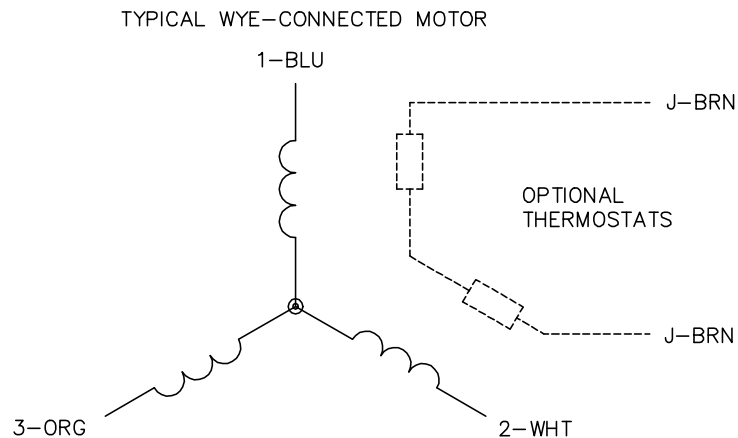
40 HP 3 PH 60 HZ 1775 RPM 575 V 1254M

TORQUES (LB-FT): PO=367 PU=174 LR=185 LRA=267





CD0006


**NOTES:**

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: —


**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1