

# ABB BALDOR RELIANCE III

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## Customer information packet

### CCPX18546T

5HP, 1750//1450RPM, 3PH, 60HZ, 184TC, XPFC, F1

Class - CLI GP C,D; CLII GP E,F,G

Division - Division I

**Specifications**

|                                |                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------|
| Enclosure                      | XPFC                                                                               |
| Frame                          | 184TC                                                                              |
| Frame Material                 | Iron                                                                               |
| Frequency                      | 50.00 Hz<br>60.00 Hz                                                               |
| Haz Area Class and Group       | CLI GP C,D; CLII GP E,F,G                                                          |
| Haz Area Division              | Division I                                                                         |
| Motor Letter Type              | Three Phase                                                                        |
| Output @ Frequency             | 3.000 HP @ 50 HZ<br>5.000 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               | UL<br>CSA EEV                                                                      |
| 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              | 6.600 A @ 460.0 V<br>5.200 A @ 380.0 V<br>13.200 A @ 230.0 V<br>10.400 A @ 190.0 V |
| Design Code                    | B                                                                                  |
| Drip Cover                     | No Drip Cover                                                                      |
| Duty Rating                    | CONT                                                                               |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | F          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 06WGX182   |
| Layout       | 06LYK422   |
| Eff. date    | 05-02-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#16       |
| Proprietary  | False      |
| Created date | 04-17-2019 |

|                                      |                             |
|--------------------------------------|-----------------------------|
| <b>Efficiency @ 100% Load</b>        | 89.5 %                      |
| <b>Electrically Isolated Bearing</b> | Not Electrically Isolated   |
| <b>Enclosure Modification</b>        | Severe Duty Features        |
| <b>Feedback Device</b>               | NO FEEDBACK                 |
| <b>Haz Area Temp Code</b>            | T3C                         |
| <b>Heater Indicator</b>              | No Heater                   |
| <b>High Voltage Full Load Amps</b>   | 5.2 a                       |
| <b>Insulation Class</b>              | F                           |
| <b>Inverter Code</b>                 | Inverter Duty               |
| <b>IP Rating</b>                     | IP55                        |
| <b>KVA Code</b>                      | J                           |
| <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>                    | 0642M                       |
| <b>Mounting Arrangement</b>          | F1                          |
| <b>Number of Poles</b>               | 4                           |
| <b>Overall Length</b>                | 18.33 IN                    |
| <b>Power Factor</b>                  | 79                          |
| <b>Product Family</b>                | Super-E Chemical Processing |
| <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>                | 1.125 IN                    |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding          |
| <b>Shaft Rotation</b>                | Reversible                  |
| <b>Speed</b>                         | 1750 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  |

| Vibration Sensor Indicator | No Vibration Sensor |
|----------------------------|---------------------|
| Winding Thermal 1          | None                |
| Winding Thermal 2          | None                |

**Nameplate**

| NP2033XPSLEV |                    |        |   |              |     |          |                     |      |         |          |  |    |
|--------------|--------------------|--------|---|--------------|-----|----------|---------------------|------|---------|----------|--|----|
| NO.          |                    |        |   |              |     |          | CC                  | 010A |         |          |  |    |
| S/N          |                    |        |   |              |     |          | TEMP CODE           |      | T3C     |          |  |    |
| SPEC.        | 06-0000-0102       |        |   |              |     |          | INV.TYPE            |      | PWM     |          |  |    |
| CAT.NO.      | CCPX18546T         |        |   |              |     |          | C HP FR             | 60   | C HP TO | 90       |  |    |
| HP           | 5//3               |        |   |              |     |          | CT HZ FROM          |      | 6       | CT HZ TO |  | 60 |
| VOLTS        | 230/460//190/380   |        |   |              |     |          | VT HZ FROM          |      | 6       | VT HZ TO |  | 60 |
| AMPS         | 13.2/6.6//10.4/5.2 |        |   |              |     |          | MAG CUR             |      | 6/3     |          |  |    |
| RPM          | 1750//1450         |        |   |              |     |          | MX RPM              |      | 2700    |          |  |    |
| HZ           | 60//50             | PH     | 3 | CL           | F   | NOM.EFF. |                     | 89.5 |         |          |  |    |
| SER.F.       | 1.00               | DES    | B | SL HZ        | 1.7 | WK2      | 0.39                |      |         |          |  |    |
| FRAME        | 184TC              | RATING |   | 40C AMB-CONT |     |          |                     |      |         |          |  |    |
| BLANK        | 1.15 SF SINEWAVE   |        |   |              |     |          |                     |      |         |          |  |    |
|              | 55C AMB @ 1.0 SF   |        |   |              |     |          | NEMA MG-1 PT 5,IP55 |      |         |          |  |    |

**AC Induction Motor Performance Data**

Record # 39057

Typical performance - not guaranteed values

| Winding: 06WGX182-R030 |        |                  | Type: 0642M  |                                          | Enclosure: TEFC       |                |        |
|------------------------|--------|------------------|--------------|------------------------------------------|-----------------------|----------------|--------|
| Nameplate Data         |        |                  |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |        |
| Rated Output (HP)      |        | 5//3             |              | Full Load Torque                         |                       | 15 LB-FT       |        |
| Volts                  |        | 230/460//190/380 |              | Start Configuration                      |                       | direct on line |        |
| Full Load Amps         |        | 13.2/6//10.4/5.2 |              | Breakdown Torque                         |                       | 53.9 LB-FT     |        |
| R.P.M.                 |        | 1750//1450       |              | Pull-up Torque                           |                       | 22.4 LB-FT     |        |
| Hz                     | 60//50 | Phase            | 3            | Locked-rotor Torque                      |                       | 31.8 LB-FT     |        |
| NEMA Design Code       |        | B                | KVA Code     | J                                        | Starting Current      |                | 46.6 A |
| Service Factor (S.F.)  |        | 1.15             |              | No-load Current                          |                       | 3.02 A         |        |
| NEMA Nom. Eff.         |        | 89.5             | Power Factor | 79                                       | Line-line Res. @ 25°C |                | 2.63 Ω |
| Rating - Duty          |        | 55C AMB-CONT     |              | Temp. Rise @ Rated Load                  |                       | 53°C           |        |
| S.F. Amps              |        |                  |              | Temp. Rise @ S.F. Load                   |                       | 66°C           |        |
|                        |        |                  |              | Locked-rotor Power Factor                |                       | 40.5           |        |
|                        |        |                  |              | Rotor inertia                            |                       | 0.391 LB-FT2   |        |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 41   | 63   | 75   | 81   | 84   | 85   | 81   |
| Efficiency      | 85.1 | 89.7 | 90.3 | 89.8 | 88.4 | 86.8 | 88.7 |
| Speed           | 1789 | 1777 | 1765 | 1752 | 1737 | 1721 | 1739 |
| Line amperes    | 3.35 | 4.14 | 5.21 | 6.45 | 7.91 | 9.47 | 7.52 |

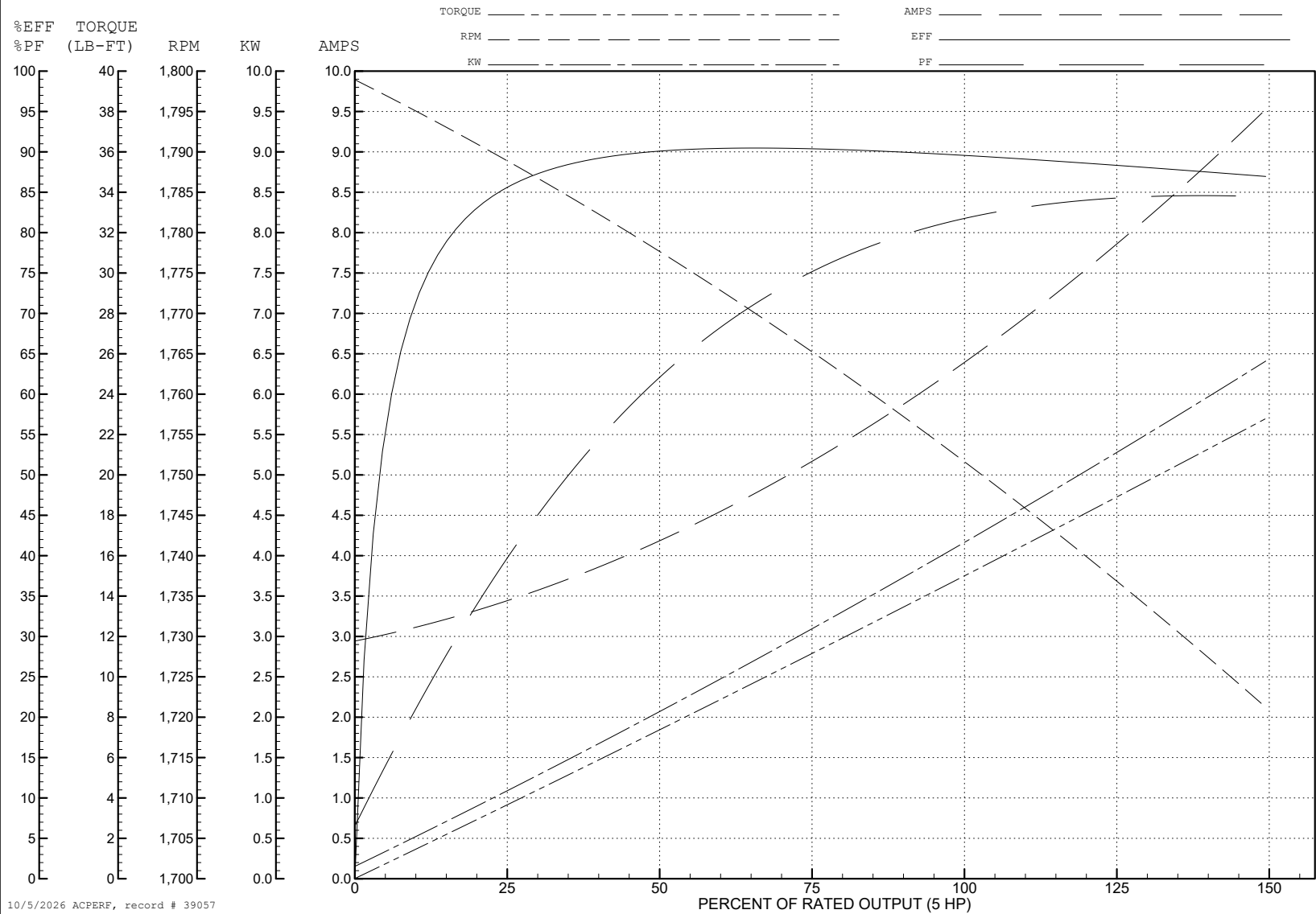
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WINDING # 06WGX182

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1752 RPM 460 V 0642M

TORQUES (LB-FT): PO=53.9 PU=22.4 LR=31.8 LRA=46.6



**AC Induction Motor Performance Data**

Record # 39058

Typical performance - not guaranteed values

| Winding: 06WGX182-R030 |  |                  | Type: 0642M                              |  | Enclosure: TEFC         |                       |             |         |
|------------------------|--|------------------|------------------------------------------|--|-------------------------|-----------------------|-------------|---------|
| Nameplate Data         |  |                  | 380 V, 50 Hz:<br>High Voltage Connection |  |                         |                       |             |         |
| Rated Output (HP)      |  | 5//3             | Full Load Torque                         |  | 10.77 LB-FT             |                       |             |         |
| Volts                  |  | 230/460//190/380 | Start Configuration                      |  | direct on line          |                       |             |         |
| Full Load Amps         |  | 13.2/6//10.4/5.2 | Breakdown Torque                         |  | 50.97 LB-FT             |                       |             |         |
| R.P.M.                 |  | 1750//1450       | Pull-up Torque                           |  | 22.82 LB-FT             |                       |             |         |
| Hz                     |  | 60//50           | Phase                                    |  | 3                       | Locked-rotor Torque   | 32.39 LB-FT |         |
| NEMA Design Code       |  | B                | KVA Code                                 |  | J                       | Starting Current      |             | 44.96 A |
| Service Factor (S.F.)  |  | 1.15             | No-load Current                          |  | 2.97 A                  |                       |             |         |
| NEMA Nom. Eff.         |  | 89.5             | Power Factor                             |  | 79                      | Line-line Res. @ 25°C |             | 2.63 Ω  |
| Rating - Duty          |  | 55C              | AMB-CONT                                 |  | Temp. Rise @ Rated Load |                       | 36°C        |         |
| S.F. Amps              |  |                  | Temp. Rise @ S.F. Load                   |  | 43°C                    |                       |             |         |
|                        |  |                  | Locked-rotor Power Factor                |  | 45                      |                       |             |         |
|                        |  |                  | Rotor inertia                            |  | 0.391 LB-FT2            |                       |             |         |

**Load Characteristics 380 V, 50 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 33   | 54   | 67   | 75   | 80   | 83   | 76   |
| Efficiency      | 80.7 | 87.3 | 89   | 89   | 88.2 | 87.2 | 88.3 |
| Speed           | 1492 | 1483 | 1474 | 1464 | 1454 | 1443 | 1454 |
| Line amperes    | 3.16 | 3.63 | 4.29 | 5.08 | 6.03 | 7.05 | 5.82 |

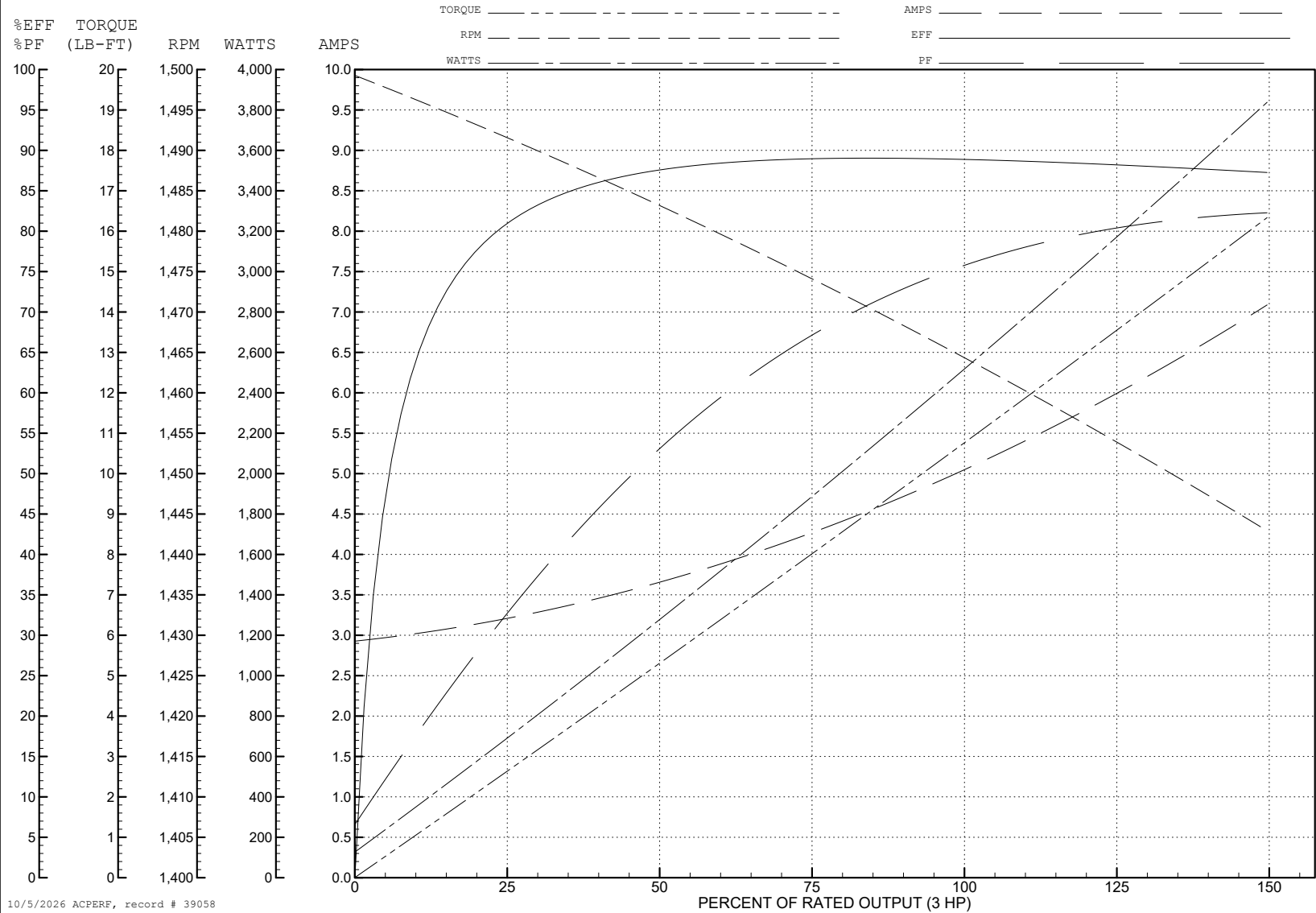
ABB Motors and Mechanical Inc.

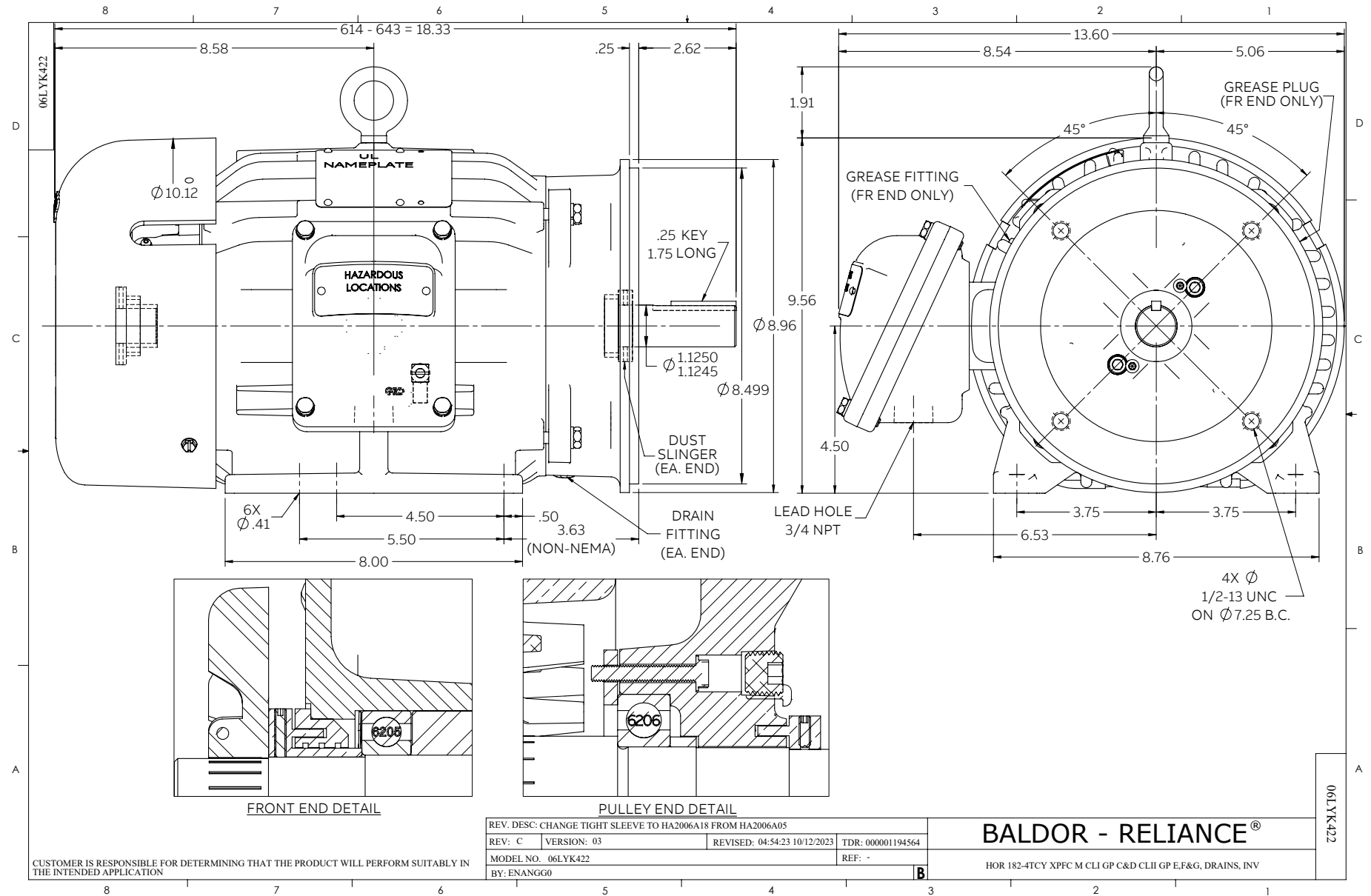
WINDING # 06WGX182

Typical performance - not guaranteed values.

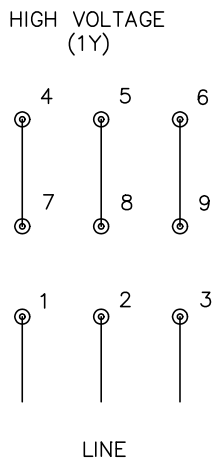
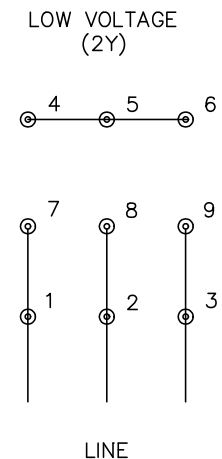
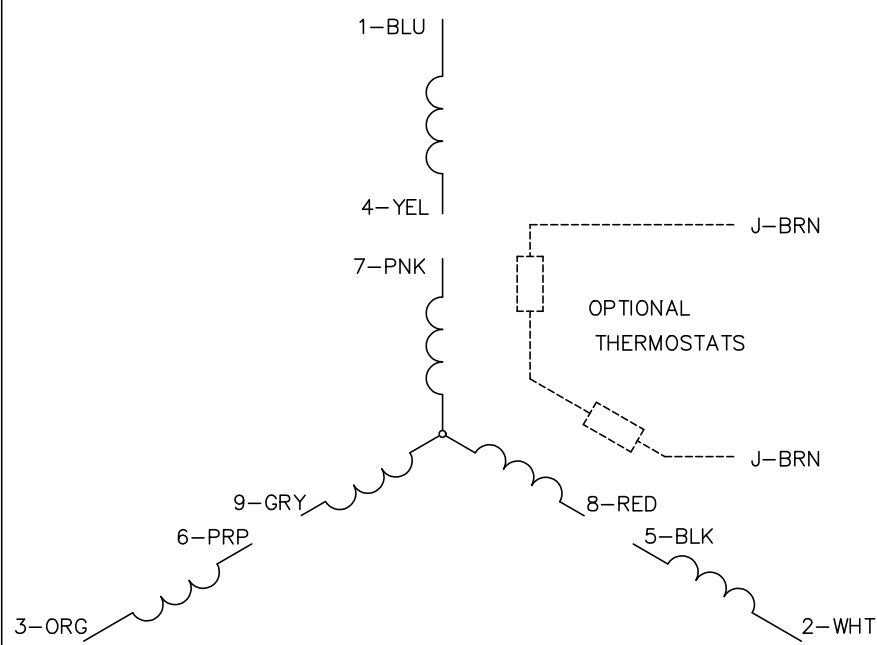
3 HP 3 PH 50 HZ 1464 RPM 380 V 0642M

TORQUES (LB-FT) : PO=50.97 PU=22.82 LR=32.39 LRA=44.96





CD0005



- NOTES:
- 1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  - 2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
  - 3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
  - 4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

|                                           |         |                         |              |
|-------------------------------------------|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

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