

# ABB BALDOR RELIANCE III

---

## Customer information packet

### CPX25246T

60M 4P XPFC HOR 256T TSTATS CP FEAT INV

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

Division - Division I

**Specifications**

|                                       |                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                                 |
| <b>Frame</b>                          | 256TY                                                                                |
| <b>Frame Material</b>                 | Iron                                                                                 |
| <b>Frequency</b>                      | 50.00 Hz<br>60.00 Hz                                                                 |
| <b>Haz Area Class and Group</b>       | CLI GP C,D; CLII GP E,F,G                                                            |
| <b>Haz Area Division</b>              | Division I                                                                           |
| <b>Motor Letter Type</b>              | Three Phase                                                                          |
| <b>Output @ Frequency</b>             | 20.000 HP @ 60 HZ<br>15.000 HP @ 50 HZ                                               |
| <b>Phase</b>                          | 3                                                                                    |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                                                     |
| <b>Voltage @ Frequency</b>            | 190.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ<br>460.0 V @ 60 HZ             |
| <b>Agency Approvals</b>               | CSA EEV<br>UL                                                                        |
| <b>Ambient Temperature</b>            | 40 °C                                                                                |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                                                     |
| <b>Auxiliary Box Lead Termination</b> | None                                                                                 |
| <b>Base Indicator</b>                 | Rigid                                                                                |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                                              |
| <b>Blower</b>                         | None                                                                                 |
| <b>Constant Torque Speed Range</b>    | 6                                                                                    |
| <b>Current @ Voltage</b>              | 22.000 A @ 380.0 V<br>24.000 A @ 460.0 V<br>44.000 A @ 190.0 V<br>48.000 A @ 230.0 V |
| <b>Design Code</b>                    | A                                                                                    |
| <b>Drip Cover</b>                     | No Drip Cover                                                                        |
| <b>Duty Rating</b>                    | CONT                                                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | R          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 09M363     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 09WGT459   |
| <b>Layout</b>       | 09LYM363   |
| <b>Eff. date</b>    | 03-28-2025 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#10       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 02-12-2019 |

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Efficiency @ 100% Load</b>        | 93.0 %                    |
| <b>Electrically Isolated Bearing</b> | Not Electrically Isolated |
| <b>Enclosure Modification</b>        | Severe Duty Features      |
| <b>Feedback Device</b>               | NO FEEDBACK               |
| <b>Front Shaft Indicator</b>         | None                      |
| <b>Haz Area Temp Code</b>            | T3C                       |
| <b>Heater Indicator</b>              | No Heater                 |
| <b>High Voltage Full Load Amps</b>   | 22.0 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 Quantity/Wire Size</b> | 9 @ 10 AWG                |
| <b>Motor Lead Termination</b>        | Flying Leads              |
| <b>Motor Standards</b>               | NEMA                      |
| <b>Motor Type</b>                    | X0960M                    |
| <b>Mounting Arrangement</b>          | F1                        |
| <b>Number of Poles</b>               | 4                         |
| <b>Overall Length</b>                | 25.75 IN                  |
| <b>Power Factor</b>                  | 83                        |
| <b>Product Family</b>                | Hazardous Location Motor  |
| <b>Pulley End Bearing Type</b>       | Ball                      |
| <b>Pulley Face Code</b>              | Standard                  |
| <b>Pulley Shaft Indicator</b>        | Standard                  |
| <b>Rodent Screen</b>                 | None                      |
| <b>RoHS Status</b>                   | ROHS NON-COMPLIANT        |
| <b>Service Factor</b>                | 1.00                      |
| <b>Shaft Diameter</b>                | 1.625 IN                  |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding        |
| <b>Shaft Rotation</b>                | Reversible                |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger             |

|                            |                            |
|----------------------------|----------------------------|
| Speed                      | 1470 rpm<br>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                       |

**Nameplate**

| NP2033XPSLEV |                            |        |              |       |         |                      |      |          |    |  |  |
|--------------|----------------------------|--------|--------------|-------|---------|----------------------|------|----------|----|--|--|
| NO.          |                            |        |              |       |         | CC                   | 010A |          |    |  |  |
| S/N          |                            |        |              |       |         | TEMP CODE            | T3C  |          |    |  |  |
| SPEC.        | 09M363T459G1               |        |              |       |         | INV.TYPE             | PWM  |          |    |  |  |
| CAT.NO.      | CPX25246T                  |        |              |       |         | C HP FR              | 60   | C HP TO  | 90 |  |  |
| HP           | 20//15                     |        |              |       |         | CT HZ FROM           | 6    | CT HZ TO | 60 |  |  |
| VOLTS        | 230/460//190/380           |        |              |       |         | VT HZ FROM           | 6    | VT HZ TO | 60 |  |  |
| AMPS         | 48/24//44/22               |        |              |       | MAG CUR | 20.8/10.4//20.4/10.2 |      |          |    |  |  |
| RPM          | 1770//1470                 |        |              |       | MX RPM  | 2700                 |      |          |    |  |  |
| HZ           | 60//50                     | PH     | 3            | CL    | F       | NOM.EFF.             | 93   |          |    |  |  |
| SER.F.       | 1.00                       | DES    | A            | SL HZ | 1       | WK2                  | 2.62 |          |    |  |  |
| FRAME        | 256TY                      | RATING | 40C AMB-CONT |       |         |                      |      |          |    |  |  |
| BLANK        | 55C AMB AT 1.0SF, 60C RISE |        |              |       |         |                      |      |          |    |  |  |
|              | 1.15SF ON SINEWAVE         |        |              |       |         | NEMA MG-1 PT.5,IP55  |      |          |    |  |  |

**AC Induction Motor Performance Data**

Record # 68068

Typical performance - not guaranteed values

| Winding: 09WGT459-R009 |    |              | Type: 0960M  |                                          | Enclosure: XPFC |                       |           |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|-----------------------|-----------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                 |                       |           |
| Rated Output (HP)      |    | 20           |              | Full Load Torque                         |                 | 59.27 LB-FT           |           |
| Volts                  |    | 230/460      |              | Start Configuration                      |                 | direct on line        |           |
| Full Load Amps         |    | 48/24        |              | Breakdown Torque                         |                 | 232 LB-FT             |           |
| R.P.M.                 |    | 1770         |              | Pull-up Torque                           |                 | 126 LB-FT             |           |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                 | 141 LB-FT             |           |
| NEMA Design Code       |    | A            | KVA Code     | J                                        |                 | Starting Current      | 198 A     |
| Service Factor (S.F.)  |    | 1            |              | No-load Current                          |                 | 10.4 A                |           |
| NEMA Nom. Eff.         |    | 93           | Power Factor | 83                                       |                 | Line-line Res. @ 25°C | 0.33814 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 58°C                  |           |
|                        |    |              |              | Locked-rotor Power Factor                |                 | 26.5                  |           |

**Load Characteristics 460 V, 60 Hz, 20 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    |
|-----------------|--------|--------|--------|--------|--------|--------|
| Power Factor    | 45     | 67     | 78     | 83     | 86     | 87     |
| Efficiency      | 89.2   | 93     | 93.7   | 93.6   | 93.1   | 92.4   |
| Speed           | 1793.2 | 1786.4 | 1779.1 | 1771.9 | 1763.7 | 1755.3 |
| Line amperes    | 11.8   | 15     | 19.2   | 24     | 29.3   | 34.9   |

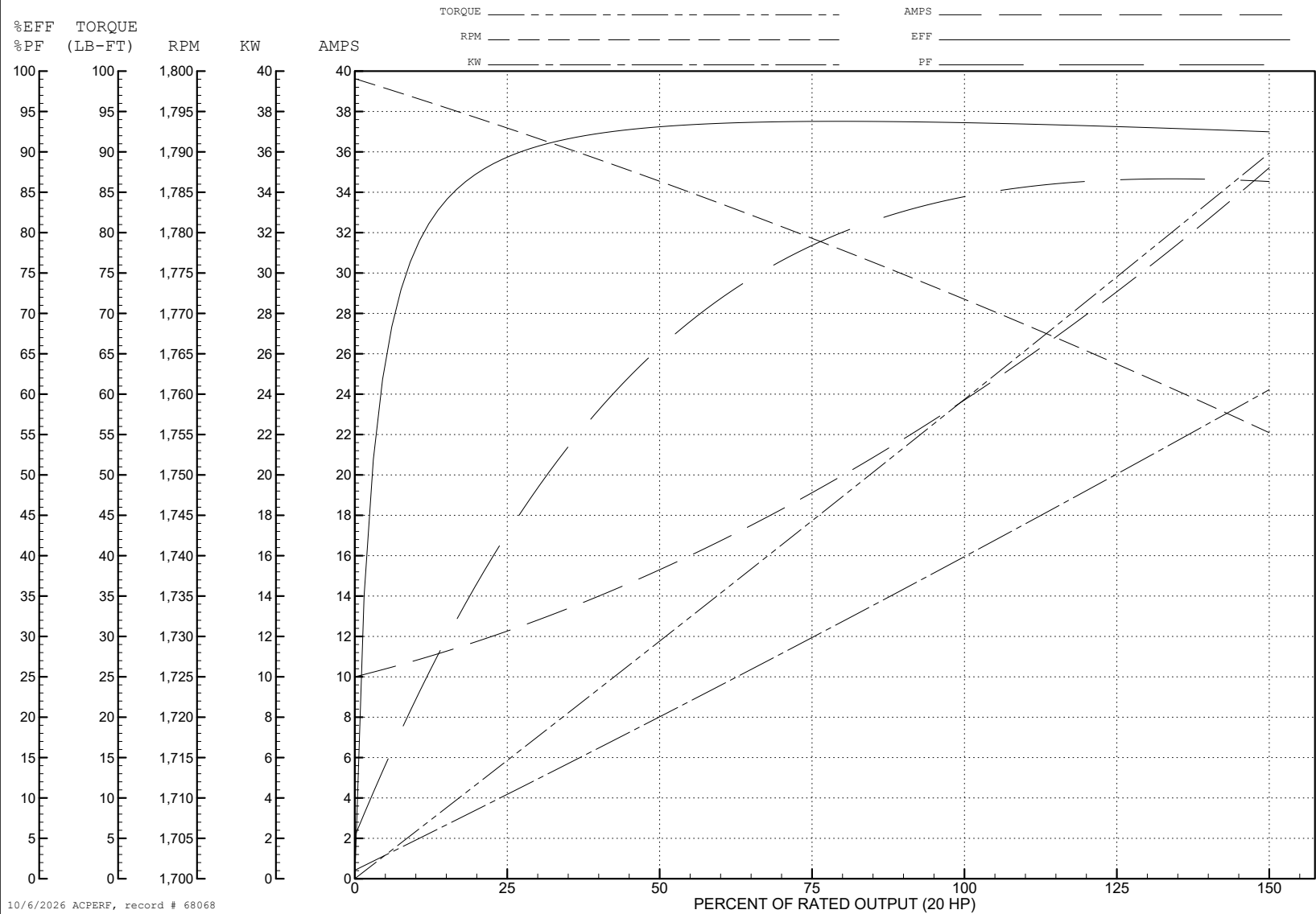
ABB Motors and Mechanical Inc.

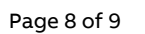
WINDING # 09WGT459

Typical performance - not guaranteed values.

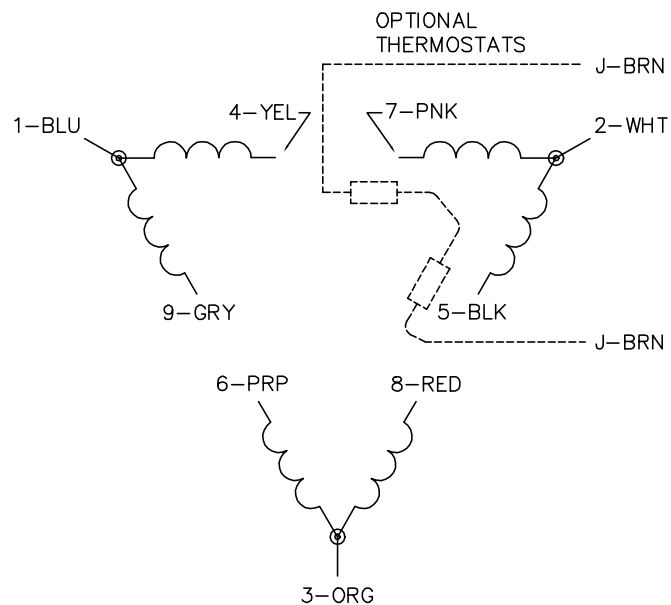
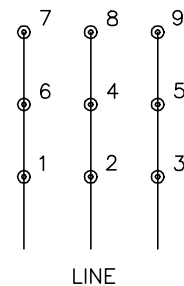
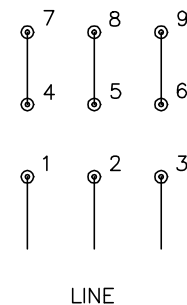
20 HP 3 PH 60 HZ 1770 RPM 460 V 0960M

TORQUES (LB-FT): PO=232 PU=126 LR=141 LRA=198





CD0180


 LOW VOLTAGE  
(2D)

 HIGH VOLTAGE  
(1D)

**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: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -


**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180