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# Customer information packet

## CECR9204T

20HP, 1765RPM, 3PH, 60HZ, 256T, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Enclosure                      | TEFC                                                     |
| Frame                          | 256TC                                                    |
| Frame Material                 | Iron                                                     |
| Frequency                      | 60.00 Hz                                                 |
| Haz Area Class and Group       | None                                                     |
| Haz Area Division              | Not Applicable                                           |
| Motor Letter Type              | Three Phase                                              |
| Output @ Frequency             | 20.000 HP @ 60 HZ                                        |
| Phase                          | 3                                                        |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                         |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                       |
| Agency Approvals               | UR<br>CCSA US<br>NEMA_PREMIUM<br>NEMA PREMIUM<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              | 24.000 A @ 460.0 V<br>48.000 A @ 230.0 V                 |
| Design Code                    | A                                                        |
| Drip Cover                     | No Drip Cover                                            |
| Duty Rating                    | CONT                                                     |
| Efficiency @ 100% Load         | 93.0 %                                                   |
| Electrically Isolated Bearing  | Not Electrically Isolated                                |
| Enclosure Modification         | Severe Duty Features                                     |

## Part detail

|              |            |
|--------------|------------|
| Revision     | N          |
| Type         | AC         |
| Mech. spec.  | 09M408     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 09WGT156   |
| Layout       | 09LYM408   |
| Eff. date    | 11-14-2023 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#10       |
| Proprietary  | False      |
| Created date | 02-21-2019 |

|                               |                             |
|-------------------------------|-----------------------------|
| Feedback Device               | NO FEEDBACK                 |
| Front Shaft Indicator         | None                        |
| Heater Indicator              | No Heater                   |
| High Voltage Full Load Amps   | 24.0 a                      |
| Insulation Class              | F                           |
| Inverter Code                 | Inverter Duty               |
| IP Rating                     | IP55                        |
| KVA Code                      | G                           |
| Lifting Lugs                  | Standard Lifting Lugs       |
| Locked Bearing Indicator      | Locked Bearing              |
| Max Speed                     | 2700 rpm                    |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG                  |
| Motor Lead Termination        | Flying Leads                |
| Motor Standards               | NEMA                        |
| Motor Type                    | 0962M                       |
| Mounting Arrangement          | F1                          |
| Number of Poles               | 4                           |
| Overall Length                | 25.28 IN                    |
| Power Factor                  | 83                          |
| Product Family                | Super-E Chemical Processing |
| Pulley End Bearing Type       | Ball                        |
| Pulley Face Code              | C-Face                      |
| Pulley Shaft Indicator        | Standard                    |
| Rodent Screen                 | None                        |
| Service Factor                | 1.25                        |
| Shaft Diameter                | 1.625 IN                    |
| Shaft Ground Indicator        | No Shaft Grounding          |
| Shaft Rotation                | Reversible                  |
| Shaft Slinger Indicator       | Shaft Slinger               |
| Speed                         | 1765 rpm                    |
| Speed Code                    | Single Speed                |
| Starting Method               | Direct on line              |
| Thermal Device - Bearing      | None                        |
| Thermal Device - Winding      | None                        |

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

## Nameplate

## NP3293

|           |              |         |              |       |      |          |         |           |            |      |        |      |
|-----------|--------------|---------|--------------|-------|------|----------|---------|-----------|------------|------|--------|------|
| CAT.NO.   | CECR9204T    |         | P/N          |       |      |          |         | ENCLOSURE |            | TEFC |        |      |
| SPEC.     | 09M408T156G1 | CC      | 010A         | FRAME |      | 256TC    |         | S/N       |            |      |        |      |
| HP        | 20           |         | CLASS        |       | F    | HZ       | 60      | DES       | A          |      |        |      |
| RPM       | 1765         | RPM MAX | 2700         |       | PH   |          | 3       | KVA-CODE  | G          |      |        |      |
| VOLT      | 230/460      |         |              |       | I.P. |          | 55      |           |            |      |        |      |
| AMP       | 48/24        |         | SER.F.       |       | 1.25 |          | PF      | 83        | ODE BRG    | 6309 | DE BRG | 6311 |
| RATING    | 40C AMB-CONT |         | NEMA-NOM-EFF |       |      |          | 93      | GREASE    | POLYREX EM |      |        |      |
| HTR-VOLTS | HTR-AMPS     |         | HTR-WATTS    |       |      | INV.TYPE |         |           |            |      |        |      |
|           | SFA 60/30    |         |              |       |      |          |         |           |            |      |        |      |
|           |              |         | C HP FR      |       | 60   |          | C HP TO |           | 90         |      |        |      |
|           |              |         | CT HZ FROM   |       |      |          | 6       |           | CT HZ TO   |      | 60     |      |
|           |              |         | MOTOR WEIGHT |       |      |          | 325     |           | VT HZ FROM |      | 6      |      |
|           |              |         |              |       |      |          |         |           | VT HZ TO   |      | 60     |      |

## AC Induction Motor Performance Data

Record # 49624

Typical performance - not guaranteed values

| Winding: 09WGT156-R001 |    |              |              | Type: 0962M                           |                       | Enclosure: TEFC |           |
|------------------------|----|--------------|--------------|---------------------------------------|-----------------------|-----------------|-----------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>Single Voltage Motor |                       |                 |           |
| Rated Output (HP)      |    | 20           |              | Full Load Torque                      |                       | 59.7 LB-FT      |           |
| Volts                  |    | 230/460      |              | Start Configuration                   |                       | direct on line  |           |
| Full Load Amps         |    | 48/24        |              | Breakdown Torque                      |                       | 173 LB-FT       |           |
| R.P.M.                 |    | 1765         |              | Pull-up Torque                        |                       | 120 LB-FT       |           |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                   |                       | 152 LB-FT       |           |
| NEMA Design Code       |    | A            | KVA Code     | G                                     | Starting Current      |                 | 149 A     |
| Service Factor (S.F.)  |    | 1.25         |              | No-load Current                       |                       | 8.82 A          |           |
| NEMA Nom. Eff.         |    | 93           | Power Factor | 83                                    | Line-line Res. @ 25°C |                 | 0.40887 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load               |                       | 61°C            |           |
| S.F. Amps              |    | 60/30        |              | Temp. Rise @ S.F. Load                |                       | 78°C            |           |
|                        |    |              |              | Locked-rotor Power Factor             |                       | 37              |           |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 50     | 71     | 80     | 83     | 85     | 84     | 84   |
| Efficiency      | 91.3   | 93.7   | 93.8   | 93.1   | 92     | 90.6   | 92.4 |
| Speed           | 1791.3 | 1783.1 | 1774.9 | 1764.6 | 1753.7 | 1740.2 | 1758 |
| Line amperes    | 10.4   | 14.2   | 18.8   | 24.2   | 30.1   | 36.8   | 27.7 |

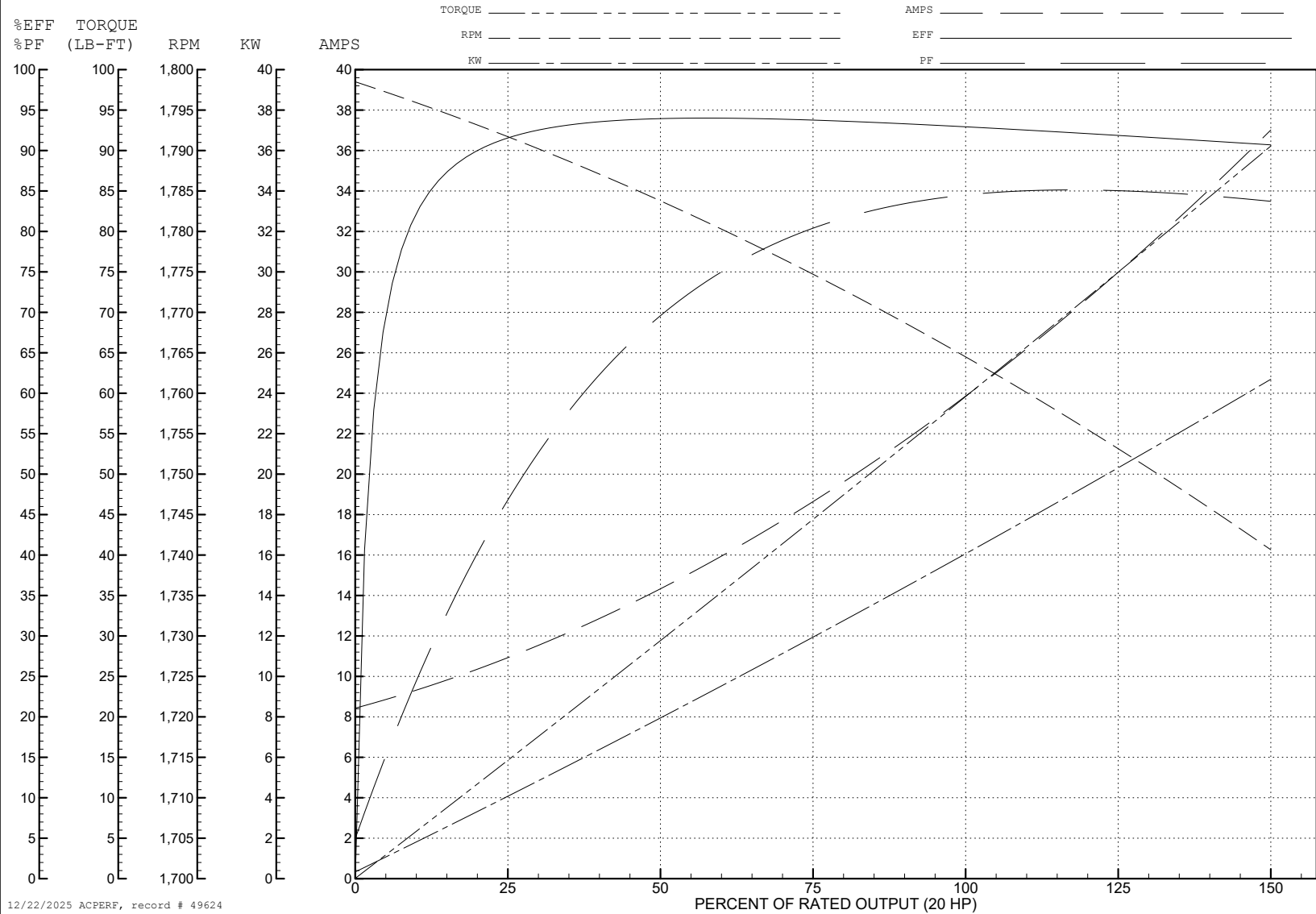
ABB Motors and Mechanical Inc.

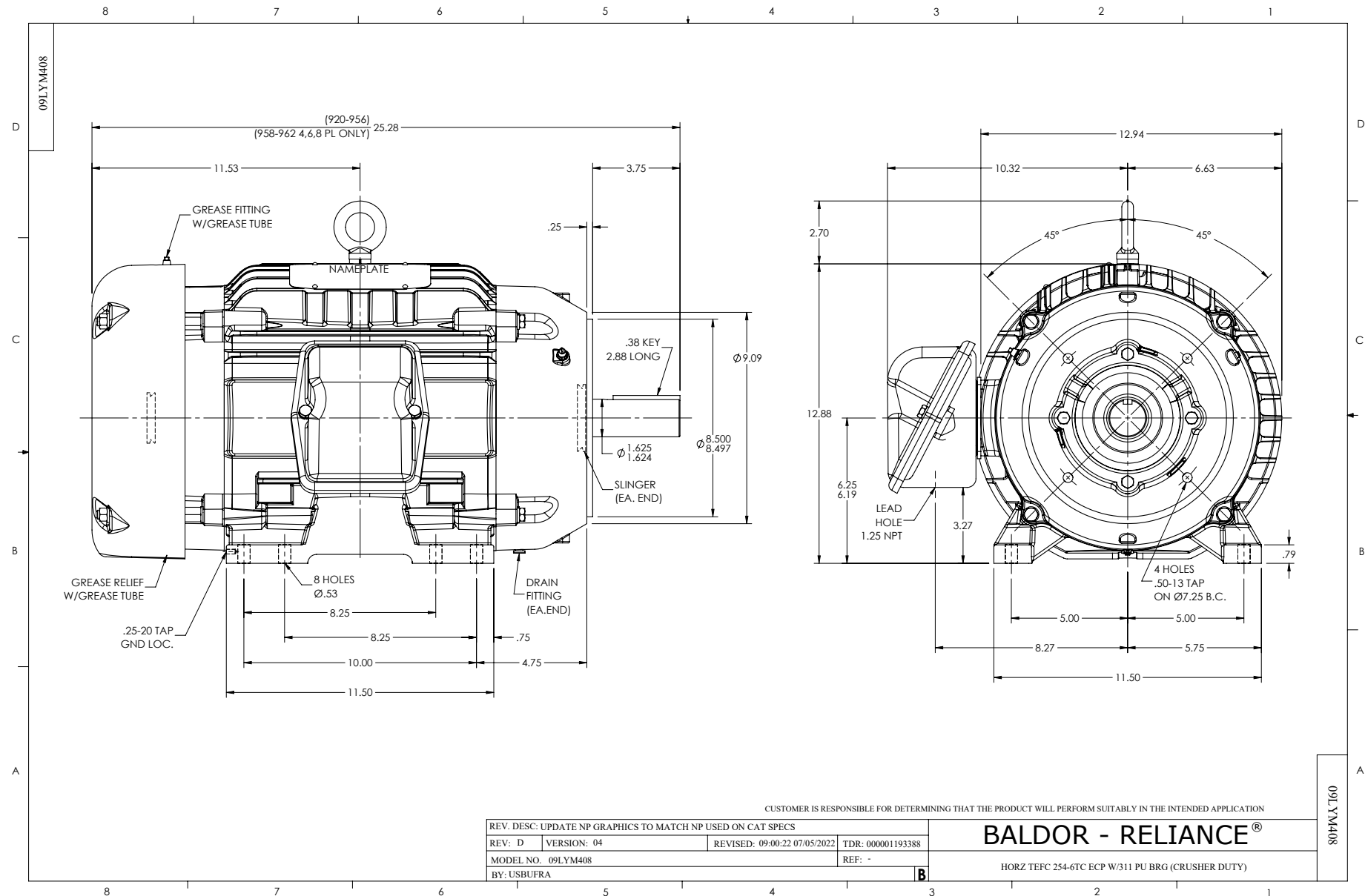
WINDING # 09WGT156

Typical performance - not guaranteed values.

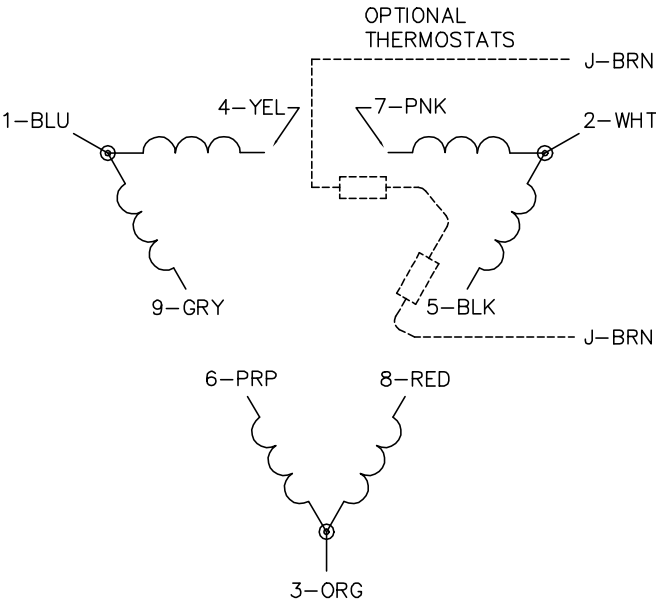
20 HP 3 PH 60 HZ 1765 RPM 460 V 0962M

TORQUES (LB-FT): PO=173 PU=120 LR=152 LRA=149

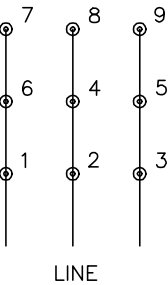




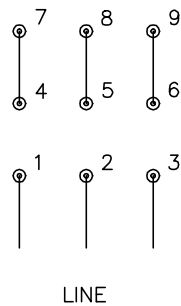
CD0180



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.

CD0180

|                                   |                                |                   |
|-----------------------------------|--------------------------------|-------------------|
| 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