

# ABB BALDOR RELIANCE III

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## Customer information packet

### EBM3710T-D

7.5HP, 1770RPM, 3PH, 60HZ, 213T, 3738M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 213T                                                          |
| <b>Frame Material</b>                 | Steel                                                         |
| <b>Frequency</b>                      | 60.00 Hz                                                      |
| <b>Haz Area Class and Group</b>       | None                                                          |
| <b>Haz Area Division</b>              | Not Applicable                                                |
| <b>Motor Letter Type</b>              | Three Phase                                                   |
| <b>Output @ Frequency</b>             | 7.500 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                              |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | CE<br>CURUSEEV<br>NEMA PREMIUM<br>UKCA<br>WEEE                |
| <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>Current @ Voltage</b>              | 9.500 A @ 460.0 V<br>20.000 A @ 208.0 V<br>19.000 A @ 230.0 V |
| <b>Design Code</b>                    | A                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <b>Efficiency @ 100% Load</b>         | 91.7 %                                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 37M908     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 37WGL864   |
| <b>Layout</b>       | 37LYM908   |
| <b>Eff. date</b>    | 07-18-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 02-01-2021 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Shaft Indicator         | None                  |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 9.5 a                 |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | J                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | No Locked Bearing     |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3738M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 25.37 IN              |
| Power Factor                  | 80                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.375 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1770 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

| NP2934L        |                      |      |      |     |   |    |   |  |  |
|----------------|----------------------|------|------|-----|---|----|---|--|--|
| CAT.NO.        | EBM3710T-D           |      |      |     |   |    |   |  |  |
| SPEC.          | 37M908L864G1         |      |      |     |   |    |   |  |  |
| HP             | 7.5/5.59KW IP44      |      |      |     |   |    |   |  |  |
| VOLTS          | 230/460 IC411        |      |      |     |   |    |   |  |  |
| AMP            | 19/9.5 77KG          |      |      |     |   |    |   |  |  |
| R.P.M. (1/MIN) | 1770                 |      |      |     |   |    |   |  |  |
| FRAME          | 213T                 |      | HZ   | 60  |   | PH | 3 |  |  |
| SER.F.         | 1.15                 | CODE | J    | DES | A | CL | F |  |  |
| NEMA-NOM-EFF   | 91.7                 | PF   | 80   |     |   |    |   |  |  |
| RATING         | 40C AMB-CONT         |      |      |     |   |    |   |  |  |
| CC             | 010A                 |      |      |     |   |    |   |  |  |
| DE             | 6307                 | ODE  | 6206 |     |   |    |   |  |  |
| ENCL           | TEFC                 | SN   |      |     |   |    |   |  |  |
|                | IE3-92(75%)91.4(50%) |      |      |     |   |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 85467

Preliminary Data Sheet

| Winding: 37WGL864-R001 |    |              |              | Type: 3738M                              |  | Enclosure: TEFC       |  |
|------------------------|----|--------------|--------------|------------------------------------------|--|-----------------------|--|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                       |  |
| Rated Output (HP)      |    | 7.5          |              | Full Load Torque                         |  | 22.2 LB-FT            |  |
| Volts                  |    | 230/460      |              | Start Configuration                      |  | direct on line        |  |
| Full Load Amps         |    | 19.0/9.5     |              | Breakdown Torque                         |  | 69.8 LB-FT            |  |
| R.P.M.                 |    | 1770         |              | Pull-up Torque                           |  | 31.5 LB-FT            |  |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |  | 41 LB-FT              |  |
| NEMA Design Code       |    | A            | KVA Code     | Starting Current                         |  | 70.7 A                |  |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |  | 4.32 A                |  |
| NEMA Nom. Eff.         |    | 91.7         | Power Factor | 80                                       |  | Line-line Res. @ 25°C |  |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |  | 64°C                  |  |
| S.F. Amps              |    | 21.4/10.7    |              | Temp. Rise @ S.F. Load                   |  | 84°C                  |  |
|                        |    |              |              | Locked-rotor Power Factor                |  | 41.9                  |  |
|                        |    |              |              | Rotor inertia                            |  | 0.934 lb-ft²          |  |

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 42   | 64   | 75   | 80   | 83   | 84   | 83   |
| Efficiency      | 87.1 | 91.4 | 92   | 91.7 | 90.7 | 89.6 | 90.7 |
| Speed           | 1793 | 1786 | 1778 | 1770 | 1760 | 1750 | 1761 |
| Line amperes    | 4.83 | 6.03 | 7.64 | 9.5  | 11.6 | 13.9 | 10.7 |

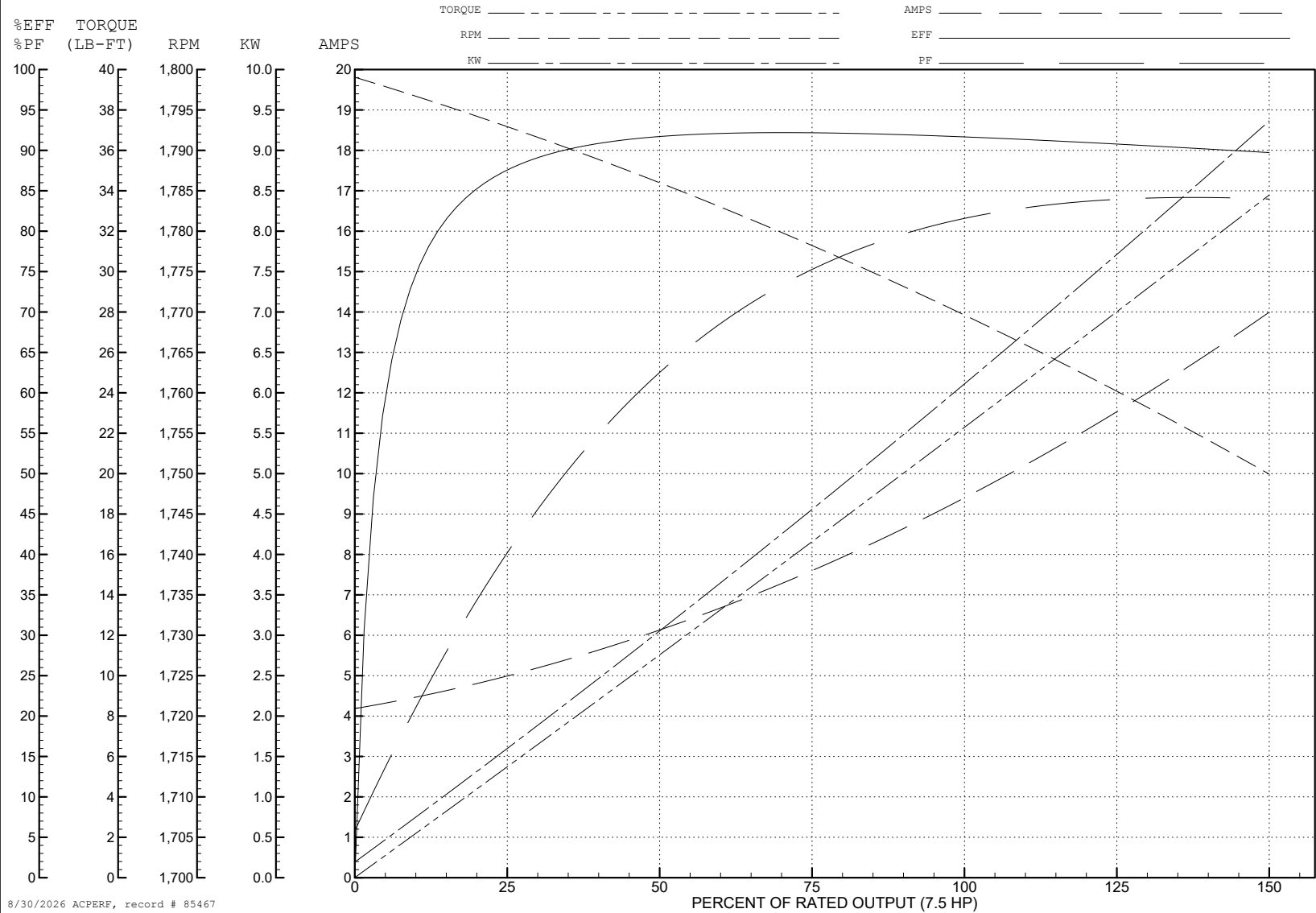
ABB Motors and Mechanical Inc.

WINDING # 37WGL864

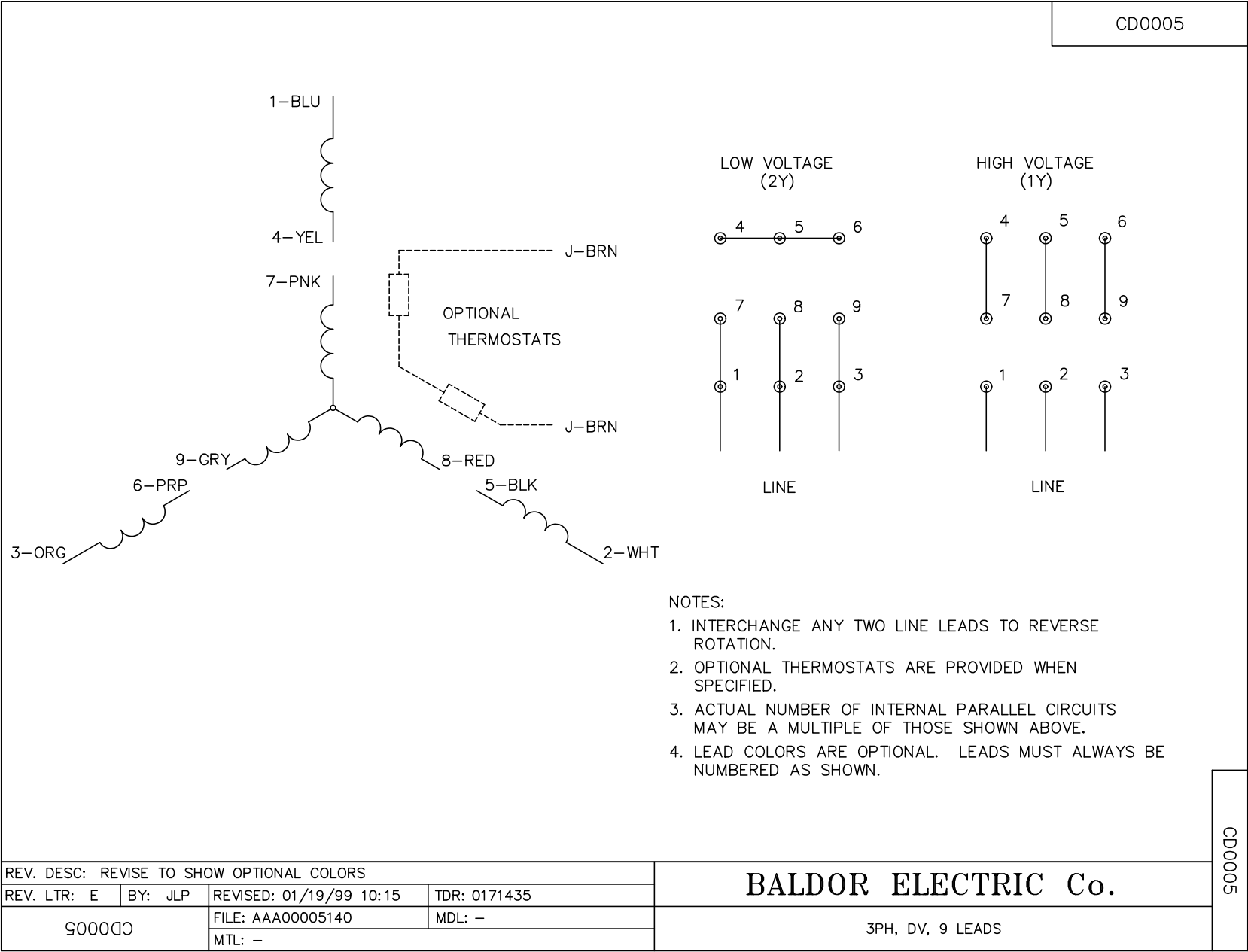
Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3738M

TORQUES (LB-FT): PO=69.8 PU=31.5 LR=41 LRA=70.7









CD2120

### WIRING CONNECTIONS (1 PHASE VAC)

|               | POWER LINE A | POWER LINE B | CAP TOGETHER | CAP ALONE                    |
|---------------|--------------|--------------|--------------|------------------------------|
| AC LOW VOLT.  | B1           | B2           | B3 & B5      | B4                           |
| AC HIGH VOLT. | B1 & B5      | B2           | ---          | B3 CAP ALONE<br>B4 CAP ALONE |
| DC VOLT.      | B1           | B2           | B3 & B5      | B4                           |

B1 WHITE  
 B2 BLACK  
 B3 GRAY  
 B4 BLUE  
 B5 RED

CD2120

|                      |                               |                   |
|----------------------|-------------------------------|-------------------|
| REV. DESC: NEW       |                               |                   |
| REV. LTR: -          | VERSION: 00                   | TDR: 000000741785 |
| FILE: \CKA\00037\282 | REVISED: 12: 28:11 04/12/2012 |                   |
| MTL: -               | BY: CKRONSO                   |                   |

|                                  |
|----------------------------------|
| <b>BALDOR • DODGE • RELIANCE</b> |
| D-SERIES MOTOR BRAKE 5LD AC\DC   |
| SH 1 of 1                        |