

# ABB BALDOR RELIANCE III

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## Customer information packet

### VBM3542-D

.75/.55 KWHP, 1765 1/MIN IP44 IC411 19 KG

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 56C                                                         |
| <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>             | .750 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<br>208.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | CE<br>CSA<br>UR<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>                 | No Mounting                                                 |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 2.420 A @ 208.0 V<br>2.420 A @ 230.0 V<br>1.210 A @ 460.0 V |
| <b>Design Code</b>                    | B                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 82.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35X145     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG069   |
| <b>Layout</b>       | 35LYX145   |
| <b>Eff. date</b>    | 01-08-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-10-2022 |

|                               |                     |
|-------------------------------|---------------------|
| Front Shaft Indicator         | None                |
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 1.2 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Duty       |
| IP Rating                     | NONE                |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3514M               |
| Mounting Arrangement          | F3                  |
| Number of Poles               | 4                   |
| Overall Length                | 16.29 IN            |
| Power Factor                  | 74                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Sealed Bearing      |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.625 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No 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

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Nameplate

| NP1372L        |                 |      |                 |      |    |    |   |  |  |
|----------------|-----------------|------|-----------------|------|----|----|---|--|--|
| CAT.NO.        | VBM3542-D       |      |                 |      |    |    |   |  |  |
| SPEC.          | 35X145G069G2    |      |                 |      |    |    |   |  |  |
| HP             | .75/.55 KW      |      |                 |      |    |    |   |  |  |
| VOLTS          | 208-230/460     |      |                 |      |    |    |   |  |  |
| AMP            | 2.42/1.21       |      |                 |      |    |    |   |  |  |
| R.P.M. (1/MIN) | 1765            |      |                 |      |    |    |   |  |  |
| FRAME          | 56C             | HZ   |                 | 60   | PH |    | 3 |  |  |
| SER.F.         | 1.15            | CODE | K               | DES  | B  | CL | F |  |  |
| NEMA-NOM-EFF   | 82.5            | PF   | 74              |      |    |    |   |  |  |
| RATING         | 40C AMB-S1 CONT |      |                 |      |    |    |   |  |  |
| CC             |                 |      | IP44 IC411 KG19 |      |    |    |   |  |  |
| DE             | 6205            | ODE  |                 | 6205 |    |    |   |  |  |
| ENCL           | TEFC            | SN   |                 |      |    |    |   |  |  |
|                |                 |      |                 |      |    |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 90018

Typical performance - not guaranteed values

| Winding: 35WGG069-R006 |    |                | Type: 3514M  |                                          | Enclosure: TEFC       |                         |        |      |
|------------------------|----|----------------|--------------|------------------------------------------|-----------------------|-------------------------|--------|------|
| Nameplate Data         |    |                |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                         |        |      |
| Rated Output (HP)      |    | .75            |              | Full Load Torque                         |                       | 2.25 LB-FT              |        |      |
| Volts                  |    | 208-230/460    |              | Start Configuration                      |                       | direct on line          |        |      |
| Full Load Amps         |    | 2.42/1.21      |              | Breakdown Torque                         |                       | 7.38 LB-FT              |        |      |
| R.P.M.                 |    | 1765           |              | Pull-up Torque                           |                       | 4.07 LB-FT              |        |      |
| Hz                     | 60 | Phase          | 3            | Locked-rotor Torque                      |                       | 4.7 LB-FT               |        |      |
| NEMA Design Code       |    | B              | KVA Code     | K                                        |                       | Starting Current        | 7.7 A  |      |
| Service Factor (S.F.)  |    | 1.15           |              | No-load Current                          |                       | 0.734 A                 |        |      |
| NEMA Nom. Eff.         |    | 82.5           | Power Factor | 74                                       | Line-line Res. @ 25°C |                         | 31.8 Ω |      |
| Rating - Duty          |    | 40C            |              | AMB-CONT                                 |                       | Temp. Rise @ Rated Load |        | 24°C |
| S.F. Amps              |    | 2.72-2.64/1.32 |              | Temp. Rise @ S.F. Load                   |                       | 29°C                    |        |      |
|                        |    |                |              | Locked-rotor Power Factor                |                       | 66.8                    |        |      |
|                        |    |                |              | Rotor inertia                            |                       | 0.101 lb-ft²            |        |      |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25    | 50    | 75    | 100  | 125  | 150  | S.F. |
|-----------------|-------|-------|-------|------|------|------|------|
| Power Factor    | 33    | 52    | 65    | 74   | 80   | 83   | 78   |
| Efficiency      | 71.4  | 81    | 83.3  | 83.6 | 82.7 | 81.2 | 83.1 |
| Speed           | 1790  | 1782  | 1773  | 1763 | 1753 | 1740 | 1757 |
| Line amperes    | 0.761 | 0.849 | 0.976 | 1.14 | 1.34 | 1.57 | 1.26 |

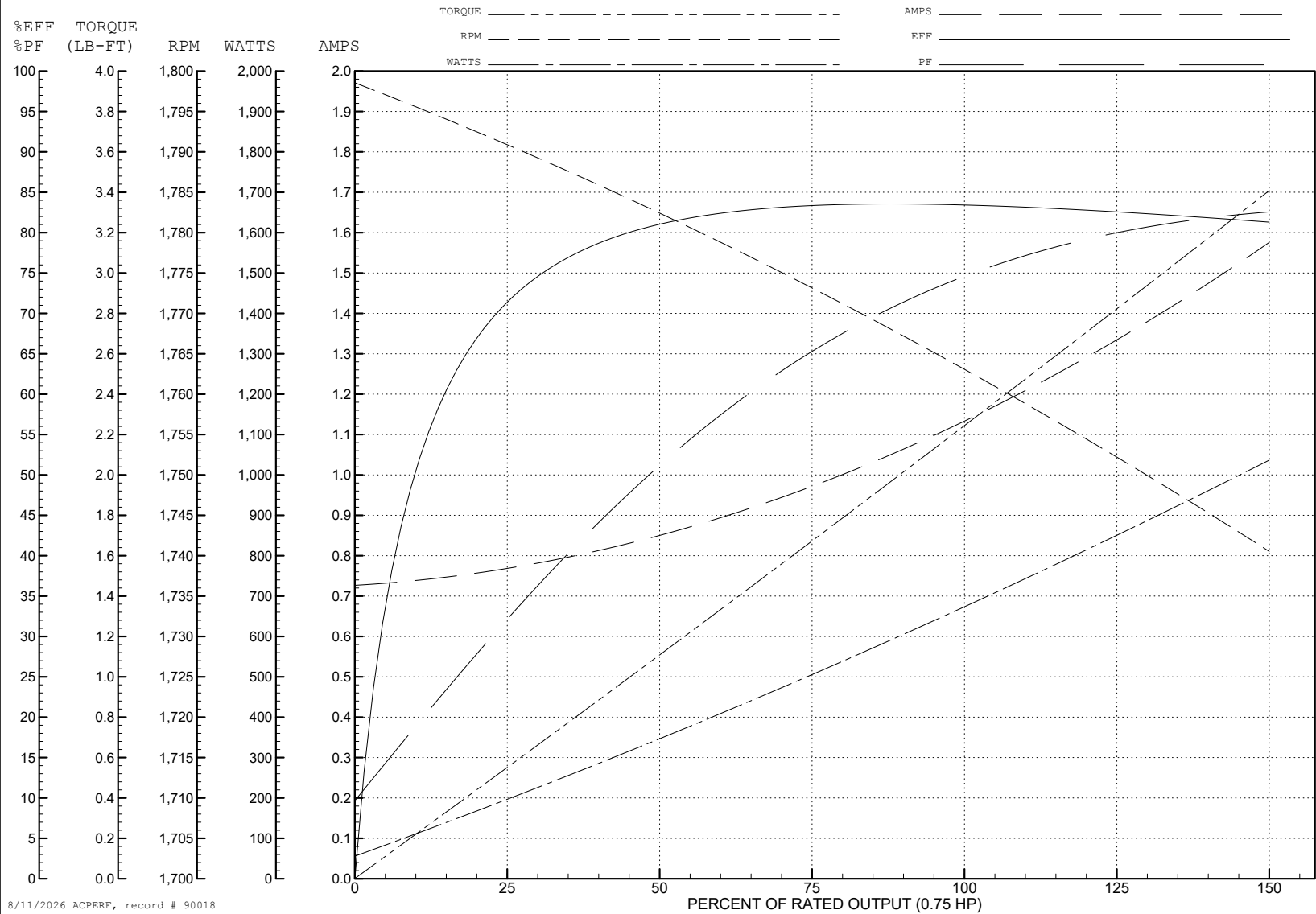
ABB Motors and Mechanical Inc.

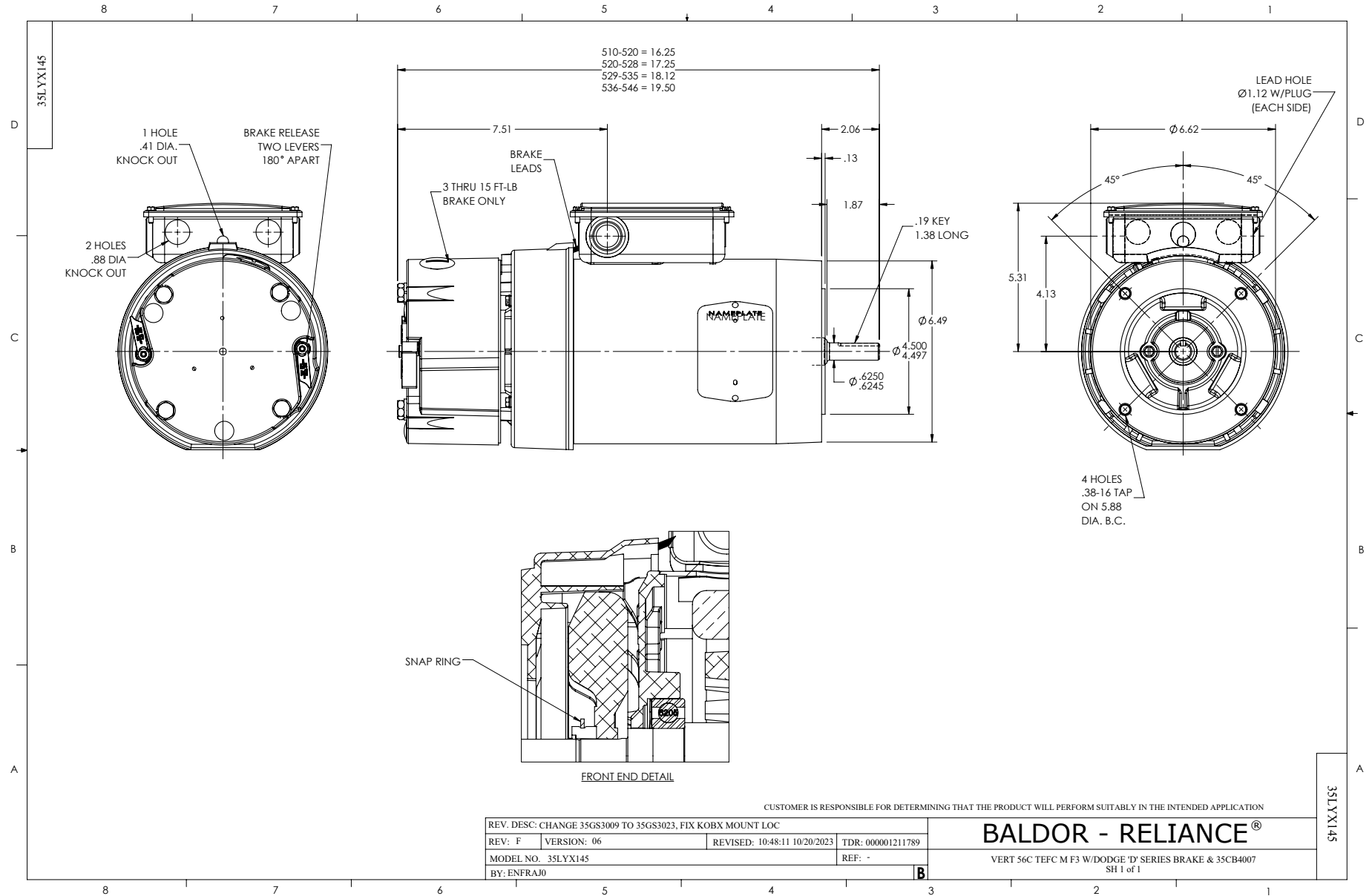
WINDING # 35WGG069

Typical performance - not guaranteed values.

0.75 HP 3 PH 60 HZ 1765 RPM 460 V 3514M

TORQUES (LB-FT): PO=7.38 PU=4.07 LR=4.7 LRA=7.7







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<br>B2 BLACK<br>B3 GRAY<br>B4 BLUE<br>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                        |