ABB BALDOR RELIANCE

# Customer information packet

## VBL3518-D

.5HP, 1725RPM, 1PH, 60HZ, 56C, 3520L, TEFC, F3
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 56C |
| **Frame Material** | Steel |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Cap Start, Induction Run |
| **Output @ Frequency** | .500 HP @ 60 HZ |
| **Phase** | 1 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 115.0 V @ 60 HZ |
| | 208.0 V @ 60 HZ |
| | 230.0 V @ 60 HZ |
| **Agency Approvals** | UR |
| | CE |
| | CSA |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Brake Torque** | 3.0 lb-ft |
| **Current @ Voltage** | 7.400 A @ 115.0 V |
| | 3.700 A @ 230.0 V |
| | 3.500 A @ 208.0 V |
| **Design Code** | N |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 68.0 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |

## Part Detail

| | |
|---|---|
| **Revision** | E |
| **Type** | AC |
| **Mech. spec.** | 35X147 |
| **Base** | |
| **Status** | NLA/A |
| **Elec. spec.** | 35WGN406 |
| **Layout** | 35LYX147 |
| **Eff. date** | 09-26-2016 |
| **CD Diagram** | CD0001 |
| **Poles** | 04 |
| **Leads** | 6#18 |
| **Proprietary** | False |
| **Created date** | 09-17-2012 |

| | |
|---|---|
| **Front Face Code** | Fan Housing Cover For Brake |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 3.5 a |
| **Insulation Class** | F |
| **Inverter Code** | Not Inverter |
| **KVA Code** | M |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 6 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3520L |
| **Mounting Arrangement** | F3 |
| **Number of Poles** | 4 |
| **Overall Length** | 16.29 IN |
| **Power Factor** | 65 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.625 IN |
| **Shaft Extension Location** | Pulley End |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 1725 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**

| NP1372L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VBL3518-D | | | | | | | | | | |
| **SPEC.** | 35X147N406G1 | | | | | | | | | | |
| **HP** | .5 | | | | | | | | | | |
| **VOLTS** | 115/208-230 | | | | | | | | | | |
| **AMP** | 7.4/3.5-3.7 | | | | | | | | | | |
| **FRAME** | 56C | | **HZ** | | 60 | | | **PH** | 1 | | |
| **SER.F.** | 1.15 | **CODE** | | M | **DES** | N | **CL** | F | | | |
| **NEMA-NOM-EFF** | 68 | **PF** | | 65 | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | |
| **CC** | | | | | | | | | | | |
| **DE** | 6205 | | **ODE** | | 6203 | | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | | | | |
| | IP44 | | | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 39792
Typical performance - not guaranteed values

| **Winding:** 35WGN406-R004 | **Type:** 3520L | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **230 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | .5 | **Full Load Torque** | 1.51 LB-FT |
| **Volts** | | | 115/208-230 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 7.4/3.5-3.7 | **Breakdown Torque** | 4.62 LB-FT |
| **R.P.M.** | | | 1725 | **Pull-up Torque** | 3.69 LB-FT |
| **Hz** | 60 | **Phase** | 1 | **Locked-rotor Torque** | 5.49 LB-FT |
| **NEMA Design Code** | N | **KVA Code** | M | **Starting Current** | 22.6 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 2.89 A |
| **NEMA Nom. Eff.** | 68 | **Power Factor** | 65 | **Line-line Res. @ 25ºC** | 4.0781 Ω A Ph<br>2.4038 Ω B Ph |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | |

**Load Characteristics 230 V, 60 Hz, 0.5 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 34 | 46 | 56 | 65 | 71 | 76 | 69 |
| **Efficiency** | 41.6 | 57.1 | 64.6 | 68 | 69 | 69 | 68.6 |
| **Speed** | 1783.2 | 1772 | 1759.8 | 1745.9 | 1730.5 | 1714.5 | 1737 |
| **Line amperes** | 2.95 | 3.09 | 3.35 | 3.69 | 4.1 | 4.61 | 3.94 |

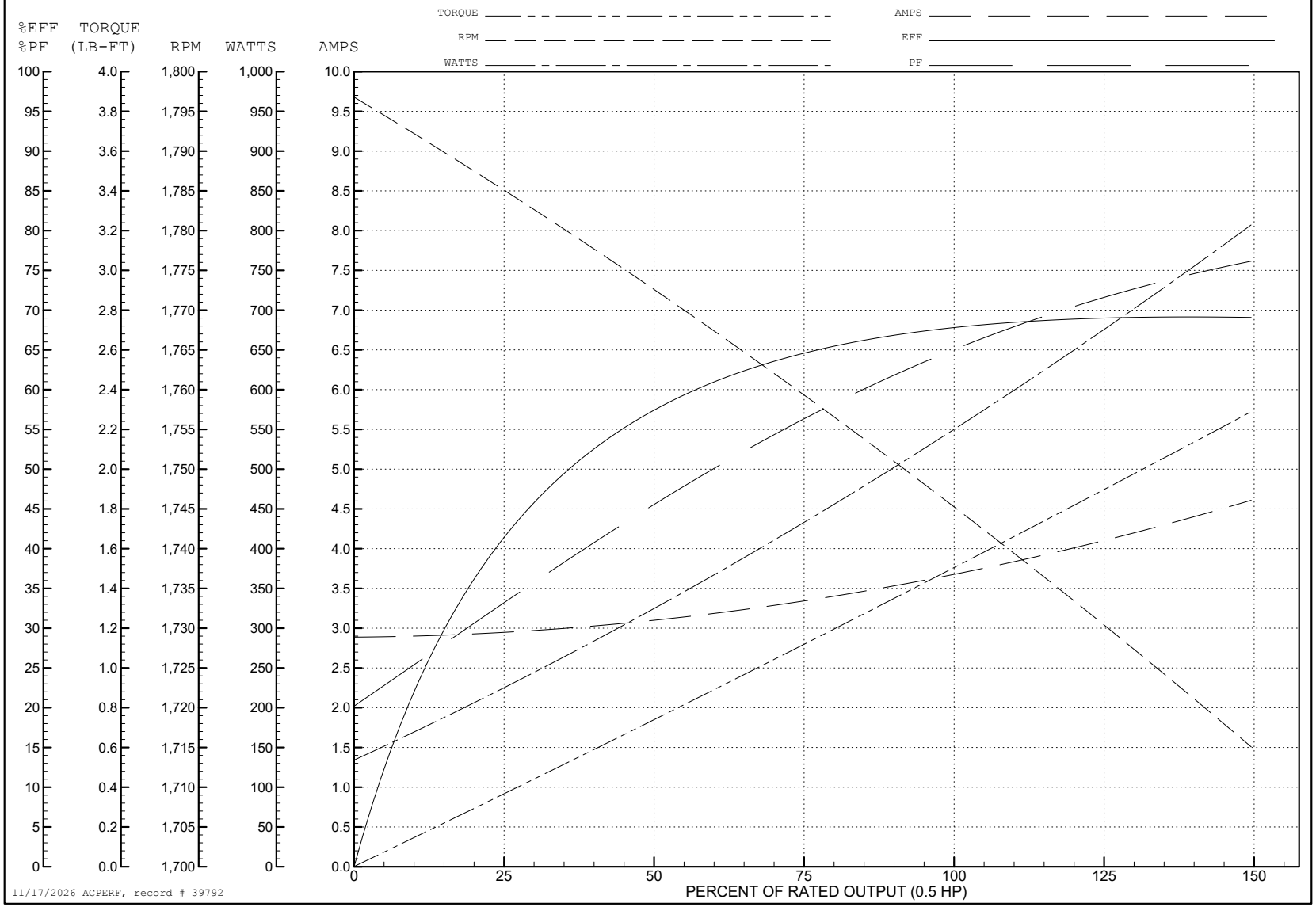
ABB Motors and Mechanical Inc.

WINDING # 35WGN406

0.5 HP 1 PH 60 HZ 1725 RPM 230 V 3520L

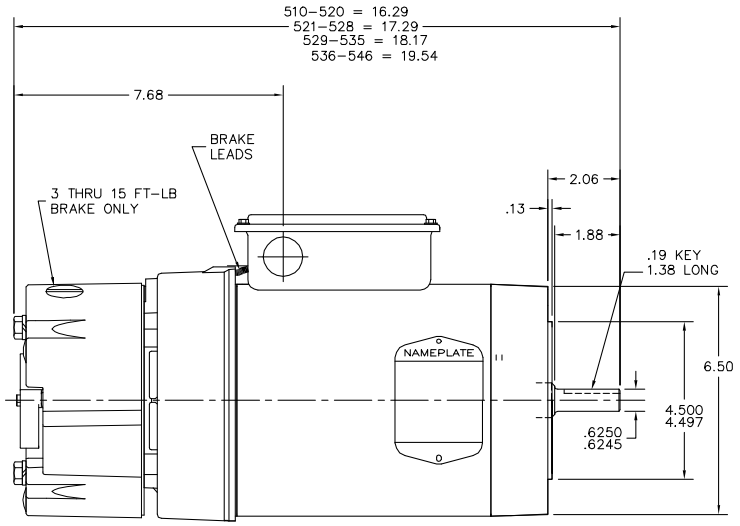
Typical performance - not guaranteed values.

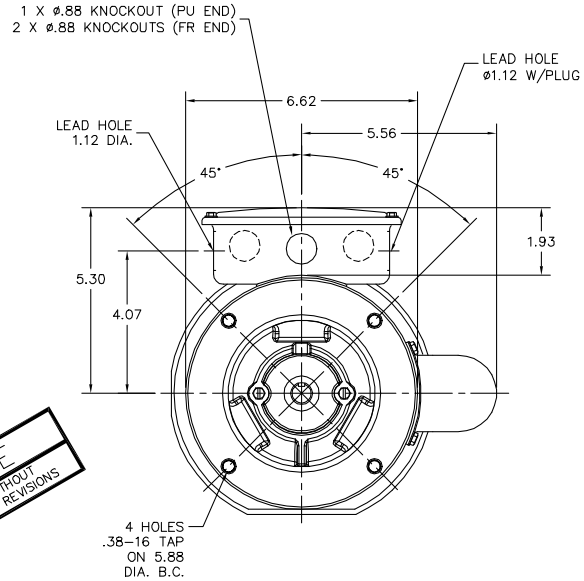
TORQUES(LB-FT): PO=4.62 PU=3.69 LR=5.49 LRA=22.6



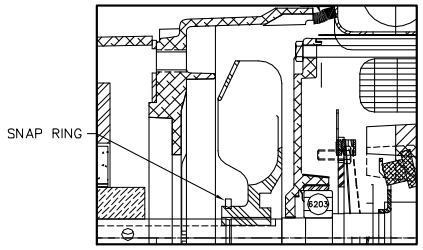

11/17/2026 ACPERF, record # 39792

35LYX147




INACTIVE
DO NOT USE WITHOUT UPDATING ALL REVISIONS



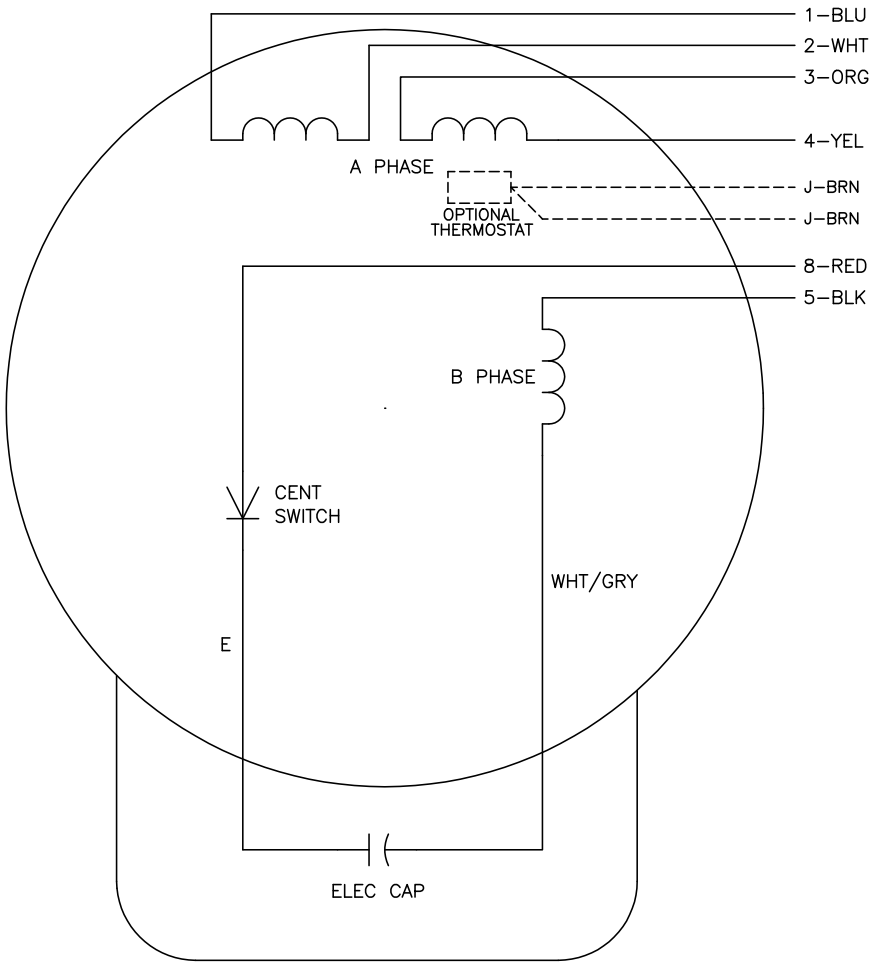

FRONT END DETAIL

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

| | | |
|---|---|---|
| REV. DESC: INA-NO ACTIVE SPECS - UPDATE IF REACTIVATED | | BALDOR - RELIANCE® |
| REV. LTR: C | VERSION: 03 | TDR: 000001211789 |
| FILE: \AAA\00153\566 | REVISED: 02:12:39 10/24/2023 | BY: ENFRAJO |
| MTL: - | | VER 56C TEFC L F3 W/DODGE 'D' SERIES BRAKE & 35CB4007 |
| | | SH 1 of 1 |

35LYX147

CD0001




| | LINE A | LINE B | JOIN |
|---|---|---|---|
| HIGH STD | 1 | 4,5 | 2,3,8 |
| HIGH OPP | 1 | 4,8 | 2,3,5 |
| LOW STD | 1,3,8 | 2,4,5 | – |
| LOW OPP | 1,3,5 | 2,4,8 | – |

NOTES:

1. STANDARD ROTATION IS CCW FACING END OPPOSITE SHAFT EXTENSION.
2. OPTIONAL THERMOSTAT IS PROVIDED WHEN SPECIFIED.
3. MULTIPLE CAPACITORS ARE CONNECTED IN PARALLEL UNLESS OTHERWISE SPECIFIED.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0001

| | | | |
|---|---|---|---|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | BALDOR ELECTRIC Co. |
| REV. LTR: D | BY: JLP | REVISED: 04/08/99 1:16 | TDR: 0178636 |
| CD0001 | | FILE: AAA00007405 | MDL: – |
| | | MTL: – | TYPE L, DV, REV, 6 LEADS |

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 | | | BALDOR • DODGE • RELIANCE |
| REV. LTR: – | VERSION: 00 | TDR: 000000741785 | |
| FILE: \CKA\00037\282 | | REVISED: 12:28:11 04/12/2012 | D–SERIES MOTOR BRAKE 5LD AC\DC |
| MTL: – | | BY: CKRONS0 | SH 1 of 1 |