ABB BALDOR RELIANCE

# Customer information packet

## VEM3559

3HP, 3450RPM, 3PH, 60HZ, 56C, 3532M, TEFC, F1, N
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** | Three Phase |
| **Output @ Frequency** | 3.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 208.0 V @ 60 HZ |
| | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | NEMA PREMIUM |
| | CURUSEEV |
| | NEMA PREMIUM (OLD LOGO) |
| **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 |
| **Current @ Voltage** | 3.600 A @ 460.0 V |
| | 7.200 A @ 230.0 V |
| | 7.900 A @ 208.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 86.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Face Code** | Standard |

## Part Detail

| | |
|---|---|
| **Revision** | Y |
| **Type** | AC |
| **Mech. spec.** | 35A013 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGQ060 |
| **Layout** | 35LYA013 |
| **Eff. date** | 09-21-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 02 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 01-30-2011 |

| | |
|---|---|
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 3.6 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | L |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3532M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 14.10 IN |
| **Power Factor** | 92 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS COMPLIANT |
| **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** | 3450 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**

| NP3441LUA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VEM3559 | | | | | | | | |
| **SPEC** | 35A013Q060G1 | | | | | | | | |
| **HP** | 3 | | | | | | | | |
| **VOLTS** | 208-230/460 | | | | | | | | |
| **AMPS** | 7.9-7.2/3.6 | | | | | | | | |
| **RPM** | 3450 | | | | | | | | |
| **FRAME** | 56C | **HZ** | 60 | **PH** | 3 | | | | |
| **SF** | 1.15 | **CODE** | L | **DES** | B | **CLASS** | F | | |
| **NEMA NOM. EFF** | 86.5 | **PF** | 92 | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **CC** | 010A | | | | | | | | |
| **ENCL** | TEFC | **SER** | | | | | | | |
| **DE** | 6205 | **ODE** | 6203 | | | | | | |
| **VPWM INVERTER READY** | | | | | | | | | |
| **CT6-60H(10:1)VT3-60H(20:1** | | | | | | | | | |
| | 50Hz 3HP 190/380V 8.8/4.4A | | | | | | | | SF1.0 |

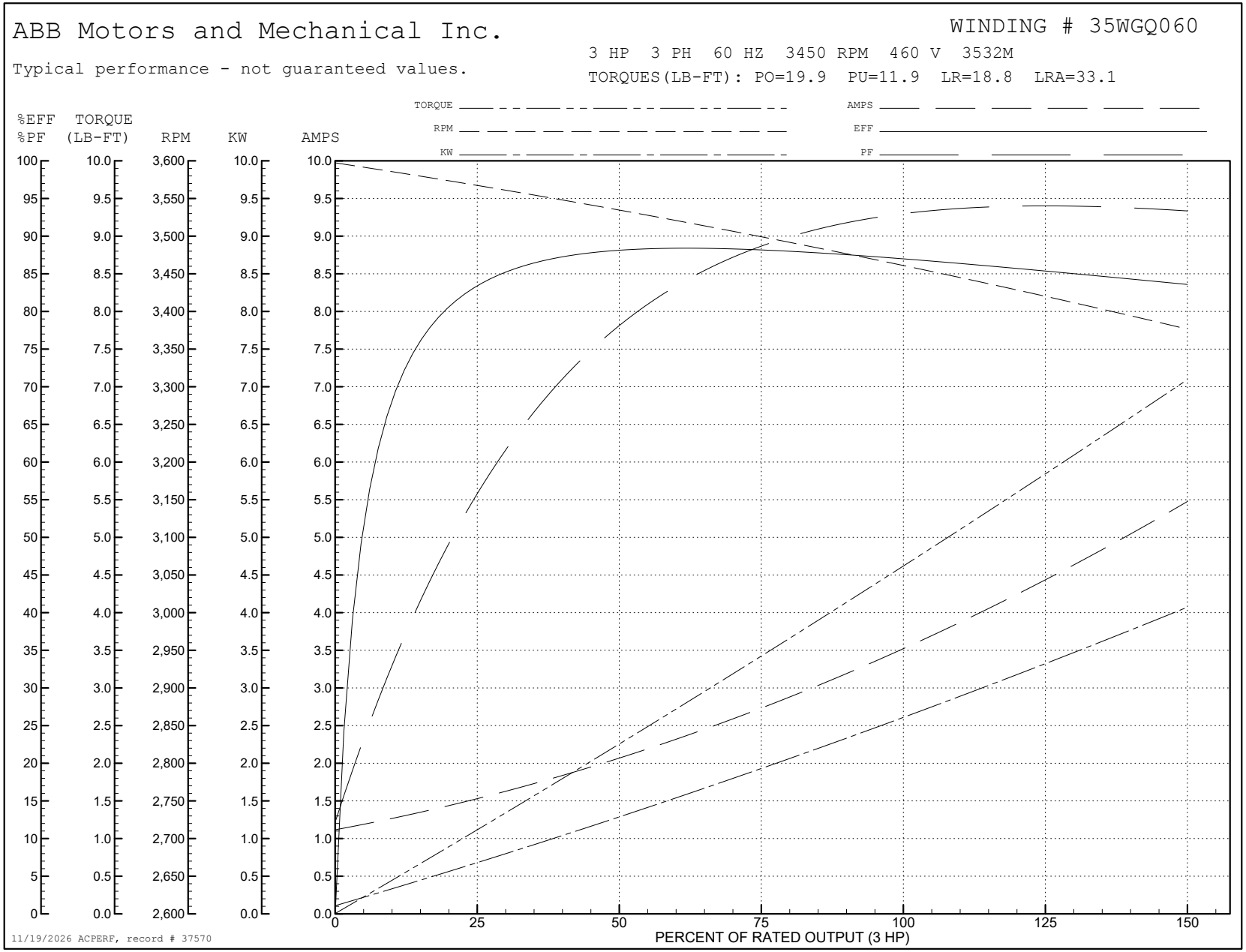
**AC Induction Motor Performance Data**
Record # 37570
Typical performance - not guaranteed values

| **Winding:** 35WGQ060-R001 | **Type:** 3532M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 3 | **Full Load Torque** | 4.61 LB-FT |
| **Volts** | | | 208-230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 7.9-7.2/3.6 | **Breakdown Torque** | 19.9 LB-FT |
| **R.P.M.** | | | 3450 | **Pull-up Torque** | 11.9 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 18.8 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 33.1 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1.17 A |
| **NEMA Nom. Eff.** | 86.5 | **Power Factor** | 92 | **Line-line Res. @ 25ºC** | 4.7916 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 57°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 72°C |
| | | | | **Locked-rotor Power Factor** | 47 |
| | | | | **Rotor inertia** | 0.0885 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 3 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 62 | 81 | 88 | 92 | 93 | 94 | 93 |
| **Efficiency** | 83.7 | 87.9 | 88.2 | 87.2 | 85.6 | 83.5 | 86.2 |
| **Speed** | 3562.2 | 3530.9 | 3497.8 | 3462.5 | 3420.8 | 3375.4 | 3437 |
| **Line amperes** | 1.5 | 2.08 | 2.79 | 3.57 | 4.46 | 5.44 | 4.1 |


ABB Motors and Mechanical Inc.
WINDING # 35WGQ060
3 HP 3 PH 60 HZ 3450 RPM 460 V 3532M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=19.9 PU=11.9 LR=18.8 LRA=33.1
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (3 HP)
11/19/2026 ACPERF, record # 37570

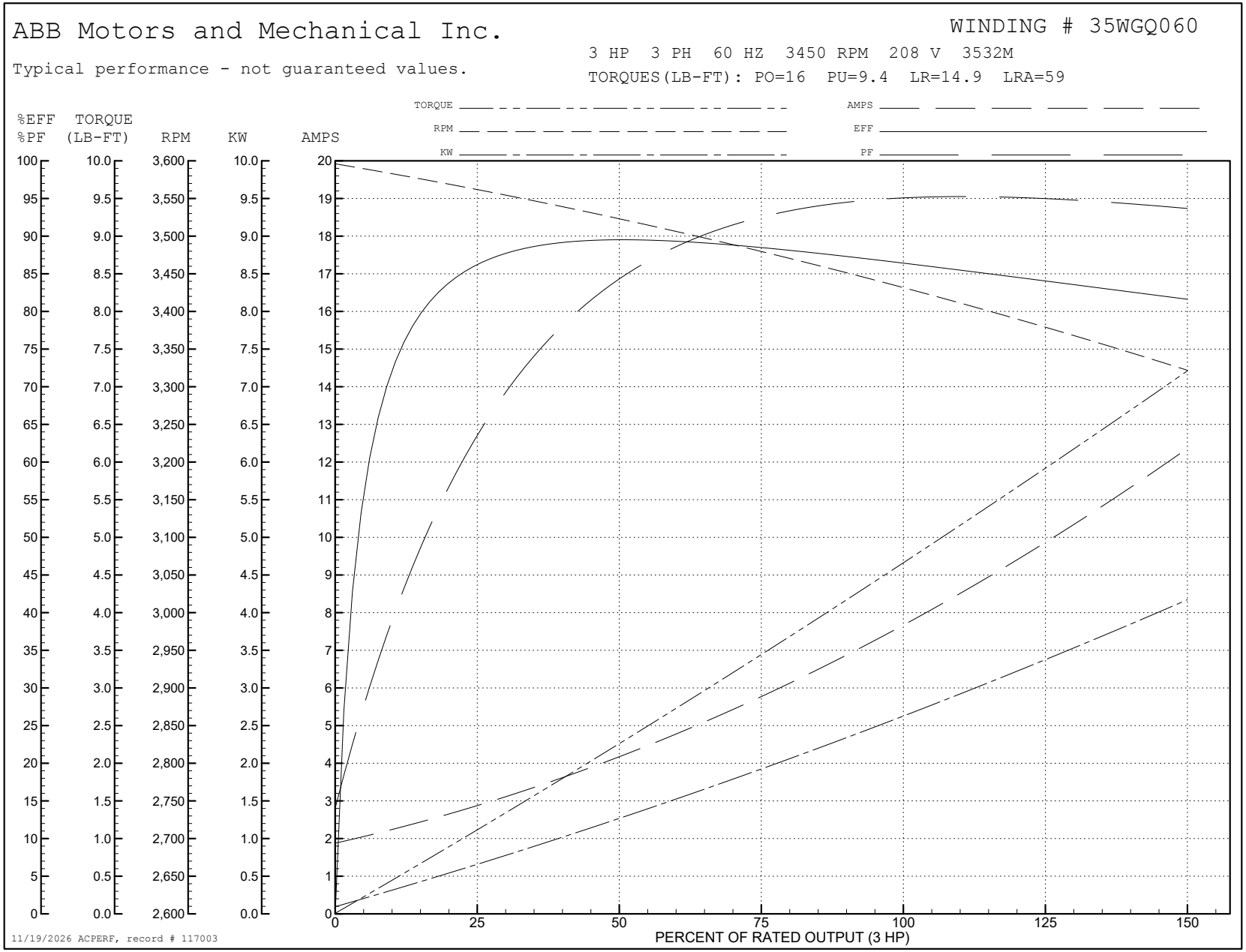
**AC Induction Motor Performance Data**
Record # 117003
Typical performance - not guaranteed values

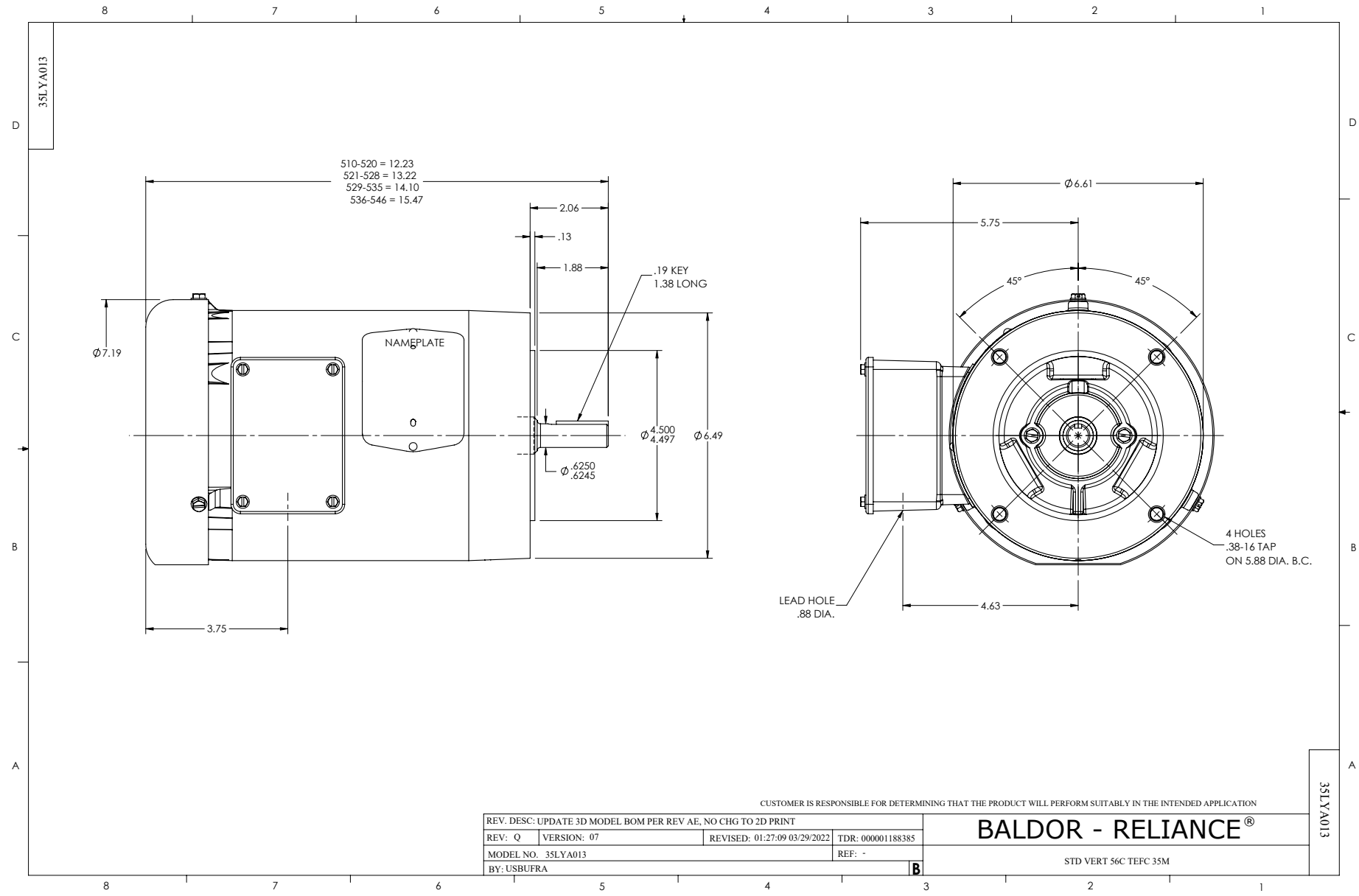
| **Winding:** 35WGQ060-R001 | **Type:** 3532M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **208 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 3 | **Full Load Torque** | 4.65 LB-FT |
| **Volts** | | | 208-230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 7.9-7.2/3.6 | **Breakdown Torque** | 16 LB-FT |
| **R.P.M.** | | | 3450 | **Pull-up Torque** | 9.4 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 14.9 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 59 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1.99 A |
| **NEMA Nom. Eff.** | 86.5 | **Power Factor** | 92 | **Line-line Res. @ 25ºC** | 1.17 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 60°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 75°C |
| | | | | **Locked-rotor Power Factor** | 47.1 |
| | | | | **Rotor inertia** | 0.0885 lb-ft² |

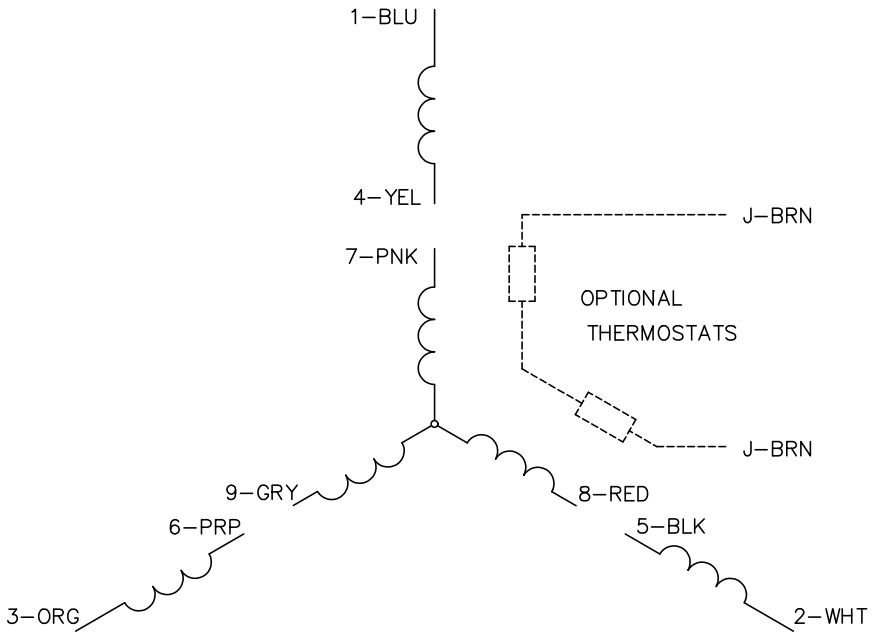
**Load Characteristics 208 V, 60 Hz, 3 HP**

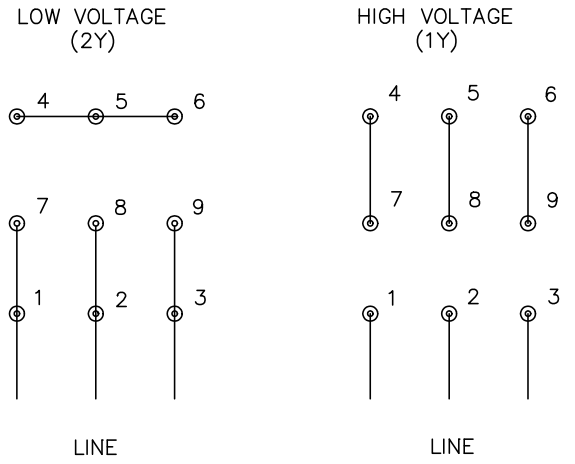
| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 71 | 87 | 92 | 94 | 94 | 94 | 94 |
| **Efficiency** | 86.1 | 89 | 88.3 | 86.6 | 84.3 | 81.4 | 85.2 |
| **Speed** | 3556 | 3518 | 3478 | 3433 | 3381 | 3320 | 3402 |
| **Line amperes** | 2.82 | 4.23 | 5.91 | 7.77 | 9.89 | 12.3 | 9.04 |


ABB Motors and Mechanical Inc.
WINDING # 35WGQ060
3 HP 3 PH 60 HZ 3450 RPM 208 V 3532M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=16 PU=9.4 LR=14.9 LRA=59
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (3 HP)
11/19/2026 ACPERF, record # 117003


35LYA013
510-520 = 12.23
521-528 = 13.22
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
NAMEPLATE
Ø7.19
Ø4.500
4.497
Ø6.49
Ø .6250
.6245
3.75
Ø6.61
5.75
45°
45°
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
LEAD HOLE
.88 DIA.
4.63
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV AE, NO CHG TO 2D PRINT
REV: Q
VERSION: 07
REVISED: 01:27:09 03/29/2022
TDR: 000001188385
MODEL NO. 35LYA013
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
STD VERT 56C TEFC 35M
35LYA013

CD0005




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.

CD0005

| | | | |
|---|---|---|---|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | BALDOR ELECTRIC Co. |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| CD0005 | | FILE: AAA00005140 | MDL: – |
| | | MTL: – | 3PH, DV, 9 LEADS |