

BALDOR • RELIANCE

Customer information packet

VEM31115

1HP, 3450RPM, 3PH, 60HZ, 56C, 3420M, OPEN, F1, N

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---|
| Enclosure | OPEN |
| 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 | 1.000 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 3600 RPM @ 60 HZ |
| Voltage @ Frequency | 460.0 V @ 60 HZ 208.0 V @ 60 HZ 230.0 V @ 60 HZ |
| Agency Approvals | CURUSEEV |
| Ambient Temperature | 40 °C |
| Auxillary Box | No Auxillary Box |
| Auxillary Box Lead Termination | None |
| Base Indicator | No Mounting |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Blower | None |
| Current @ Voltage | 1.600 A @ 460.0 V 2.900 A @ 208.0 V 3.200 A @ 230.0 V |
| Design Code | B |
| Drip Cover | Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 77.0 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Face Code | Drip Cover Mounting |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |

Part detail

| | |
|--------------|------------|
| Revision | L |
| Type | AC |
| Mech. spec. | 34F012 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 34WG3226 |
| Layout | 34LYF012 |
| Eff. date | 12-31-2024 |
| CD Diagram | CD0005 |
| Poles | 02 |
| Leads | 9#18 |
| Proprietary | False |
| Created date | 10-03-2014 |

| | |
|-------------------------------|---------------------|
| High Voltage Full Load Amps | 1.6 a |
| Insulation Class | F |
| Inverter Code | Not Inverter |
| 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 | 3420M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 11.84 IN |
| Power Factor | 82 |
| 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 | 1.25 |
| 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

| NP3155LUA | | | | | | | | | |
|-----------------------|----------------------------|-------------|------------|------------|---|--------------|---|--|-------|
| CAT.NO. | VEM31115 | | | | | | | | |
| SPEC. | 34F012-3226G1 | | | | | | | | |
| HP | 1 | | | | | | | | |
| VOLTS | 208-230/460 | | | | | | | | |
| AMPS | 2.9-3.2/1.6 | | | | | | | | |
| RPM | 3450 | | | | | | | | |
| FRAME | 56C | | HZ | 60 | | PH | 3 | | |
| SF | 1.25 | CODE | L | DES | B | CLASS | F | | |
| F.L. AVG. EFF. | 77 | PF | 82 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | |
| CC | | | | | | | | | |
| DE | 6203 | | ODE | 6203 | | | | | |
| ENCL | OPEN | SN | | | | | | | |
| USABLE AT | 50HZ 1HP 190/380V 3.4/1.7A | | | | | | | | SF1.0 |

AC Induction Motor Performance Data

Record # 63591

Typical performance - not guaranteed values

| Winding: 34WG3226-R075 | | Type: 3420M | Enclosure: OPEN | |
|------------------------|-----------------|---------------------------|--|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | |
| Rated Output (HP) | 1 | Full Load Torque | 1.51 LB-FT | |
| Volts | 208-230/460 | Start Configuration | direct on line | |
| Full Load Amps | 2.9-3.2/1.6 | Breakdown Torque | 7.97 LB-FT | |
| R.P.M. | 3450 | Pull-up Torque | 6.2 LB-FT | |
| Hz | 60 Phase | Locked-rotor Torque | 8.7 LB-FT | |
| NEMA Design Code | B KVA Code | Starting Current | 14.5 A | |
| Service Factor (S.F.) | 1.25 | No-load Current | 0.913 A | |
| NEMA Nom. Eff. | 77 Power Factor | Line-line Res. @ 25°C | 12.8 Ω | |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 55°C | |
| S.F. Amps | 3.5-3.4/1.7 | Temp. Rise @ S.F. Load | 66°C | |
| | | Locked-rotor Power Factor | 63.6 | |
| | | Rotor inertia | 0.0186 LB-FT ² | |

Load Characteristics 460 V, 60 Hz, 1 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor | 41 | 59 | 72 | 81 | 85 | 89 | 85 |
| Efficiency | 57.3 | 70.7 | 76.9 | 78.9 | 79.6 | 79.5 | 79.6 |
| Speed | 3560 | 3536 | 3506 | 3475 | 3445 | 3406 | 3445 |
| Line amperes | 0.967 | 1.09 | 1.27 | 1.47 | 1.7 | 1.99 | 1.7 |

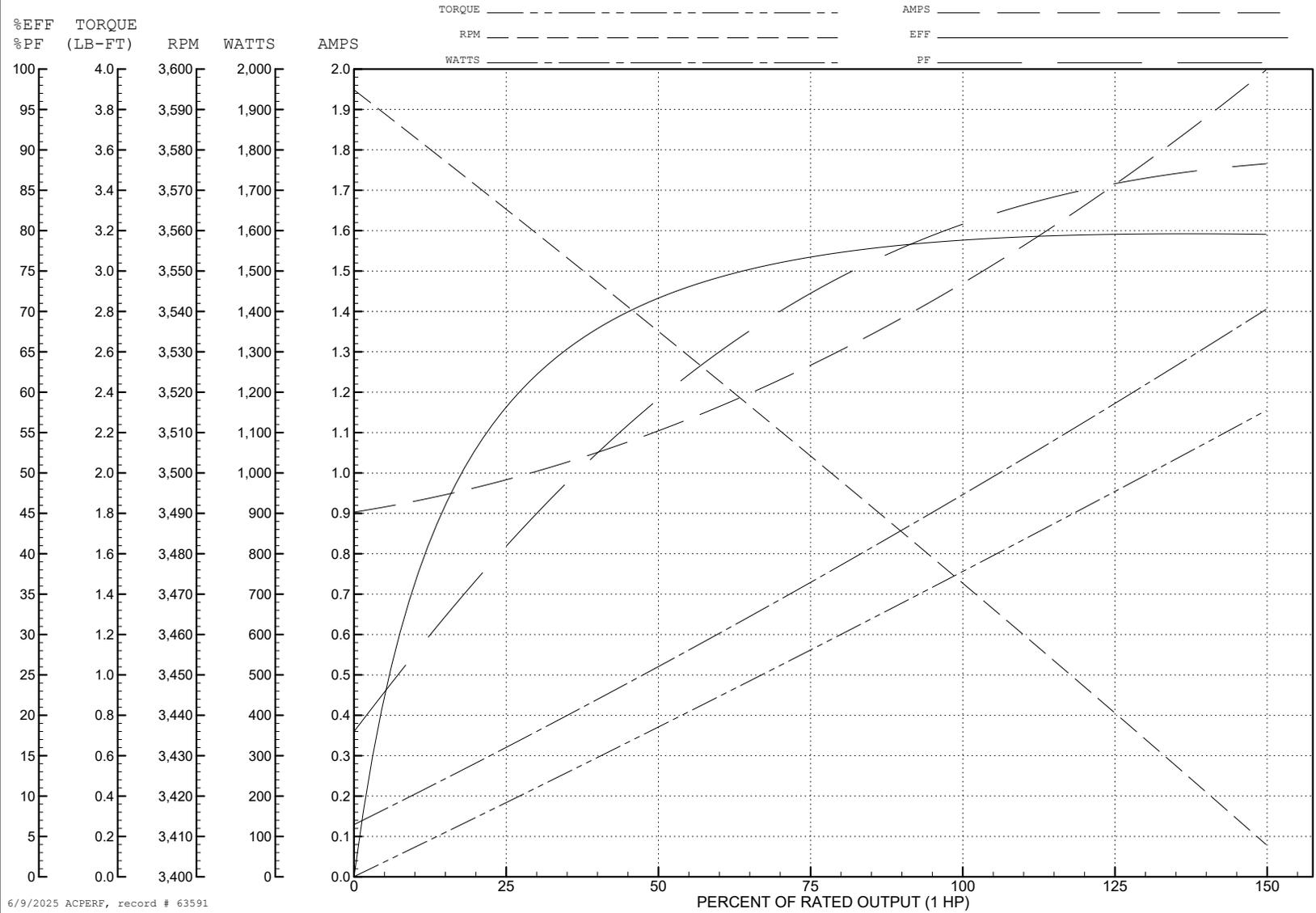
ABB Motors and Mechanical Inc.

WINDING # 34WG3226

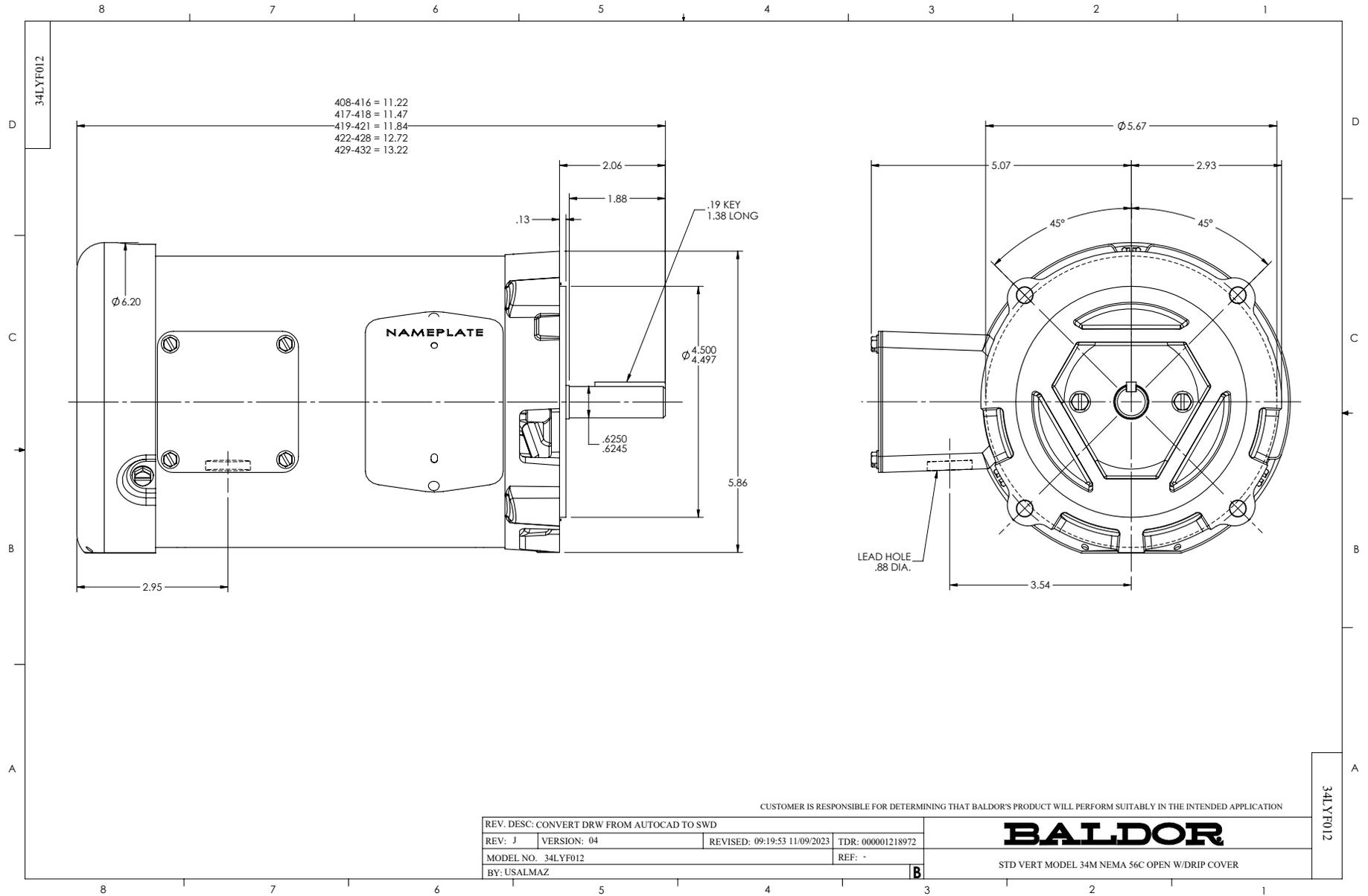
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 460 V 3420M

TORQUES (LB-FT): PO=7.97 PU=6.2 LR=8.7 LRA=14.5



6/9/2025 ACPERF, record # 63591



CD0005



LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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 | | | |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS