

BALDOR • RELIANCE

Customer information packet

CEM31155

2HP, 3450RPM, 3PH, 60HZ, 56C, 3524M, OPEN, F1, N

Class - None

Division - Not Applicable

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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 | 2.000 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 3600 RPM @ 60 HZ |
| Voltage @ Frequency | 230.0 V @ 60 HZ 460.0 V @ 60 HZ |
| Agency Approvals | CURUSEEV |
| Ambient Temperature | 40 °C |
| Auxillary Box | No Auxillary Box |
| Auxillary Box Lead Termination | None |
| Base Indicator | Rigid |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Blower | None |
| Current @ Voltage | 2.600 A @ 460.0 V 5.200 A @ 230.0 V 5.600 A @ 208.0 V |
| Design Code | B |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 85.5 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Face Code | Standard |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 2.6 a |

Part detail

| | |
|--------------|------------|
| Revision | K |
| Type | AC |
| Mech. spec. | 35Z564 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 35WGS254 |
| Layout | 35LYZ564 |
| Eff. date | 05-16-2024 |
| CD Diagram | CD0005 |
| Poles | 02 |
| Leads | 9#18 |
| Proprietary | False |
| Created date | 09-30-2014 |

| | |
|-------------------------------|---------------------|
| Insulation Class | F |
| Inverter Code | Inverter Ready |
| KVA Code | K |
| 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 | 3524M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 12.07 IN |
| Power Factor | 85 |
| 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

| NP3155LUA | | | | | | | | | |
|-----------------------|----------------------------|-------------|------------|------------|---|--------------|---|--|-------|
| CAT.NO. | CEM31155 | | | | | | | | |
| SPEC. | 35Z564S254G1 | | | | | | | | |
| HP | 2 | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | |
| AMPS | 5.2/2.6 | | | | | | | | |
| RPM | 3450 | | | | | | | | |
| FRAME | 56C | | HZ | 60 | | PH | 3 | | |
| SF | 1.15 | CODE | K | DES | B | CLASS | F | | |
| F.L. AVG. EFF. | 85.5 | PF | 85 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | |
| CC | | | | | | | | | |
| DE | 6205 | | ODE | 6203 | | | | | |
| ENCL | OPEN | SN | | | | | | | |
| USABLE AT | 50HZ 2HP 190/380V 6.2/3.1A | | | | | | | | SF1.0 |

AC Induction Motor Performance Data

Record # 57243

Typical performance - not guaranteed values

| Winding: 35WGS254-R009 | | Type: 3524M | | Enclosure: OPEN | |
|------------------------|-------------------|---------------------------|--|-----------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 2 | Full Load Torque | 3 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 5.2/2.6 | Breakdown Torque | 11.6 LB-FT | | |
| R.P.M. | 3450 | Pull-up Torque | 8.2 LB-FT | | |
| Hz | 60 Phase | Locked-rotor Torque | 10.7 LB-FT | | |
| NEMA Design Code | B KVA Code | Starting Current | 18.8 A | | |
| Service Factor (S.F.) | 1.15 | No-load Current | 1 A | | |
| NEMA Nom. Eff. | 85.5 Power Factor | Line-line Res. @ 25°C | 8.08 Ω | | |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 36°C | | |
| S.F. Amps | | Temp. Rise @ S.F. Load | 43°C | | |
| | | Locked-rotor Power Factor | 53.6 | | |
| | | Rotor inertia | 0.0657 LB-FT ² | | |

Load Characteristics 460 V, 60 Hz, 2 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 54 | 73 | 82 | 86 | 88 | 88 | 87 |
| Efficiency | 78.2 | 84.9 | 86.2 | 85.8 | 84.5 | 82.9 | 85 |
| Speed | 3566 | 3536 | 3504 | 3469 | 3429 | 3387 | 3445 |
| Line amperes | 1.2 | 1.6 | 2.1 | 2.6 | 3.2 | 3.8 | 3 |

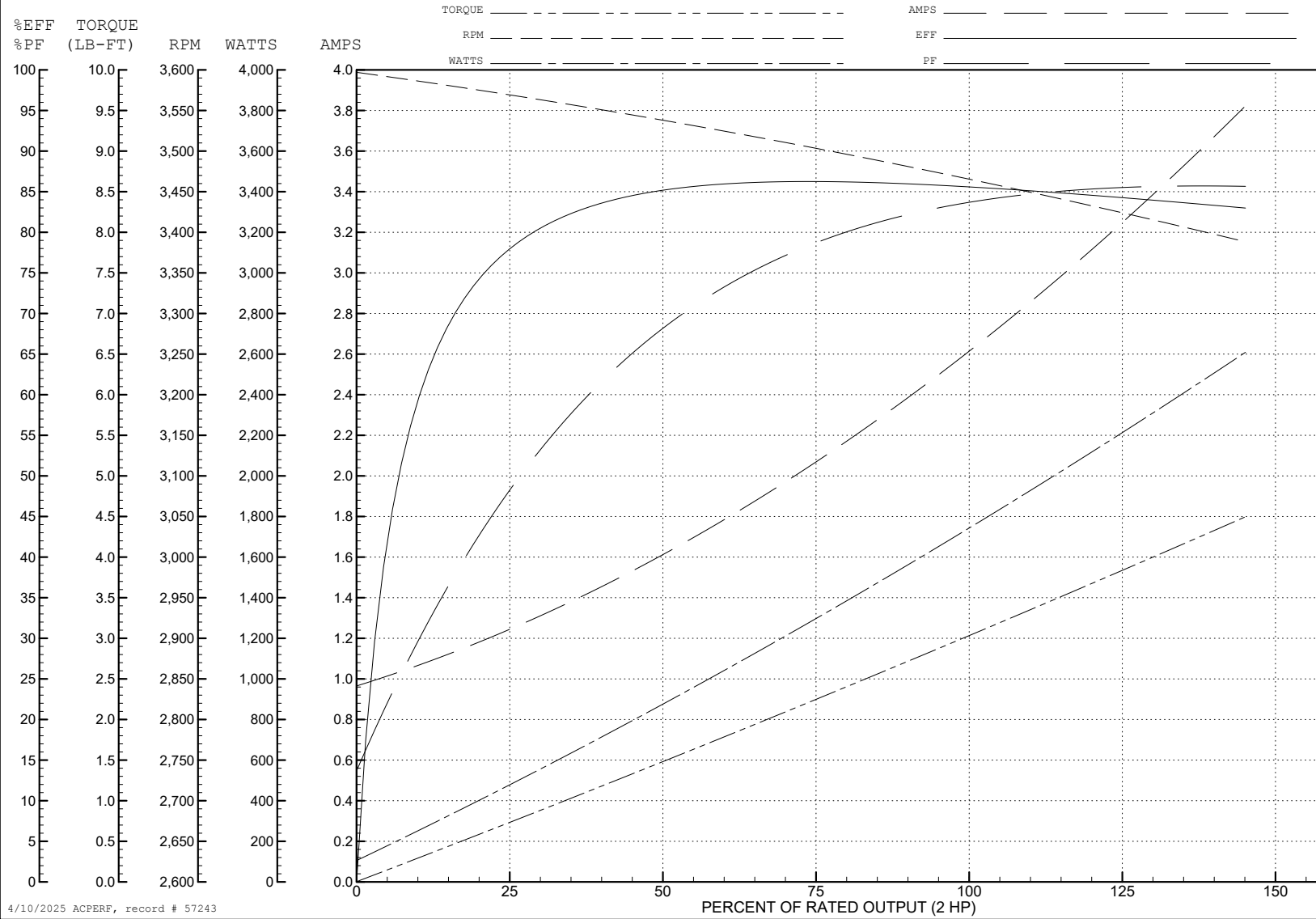
ABB Motors and Mechanical Inc.

WINDING # 35WGS254

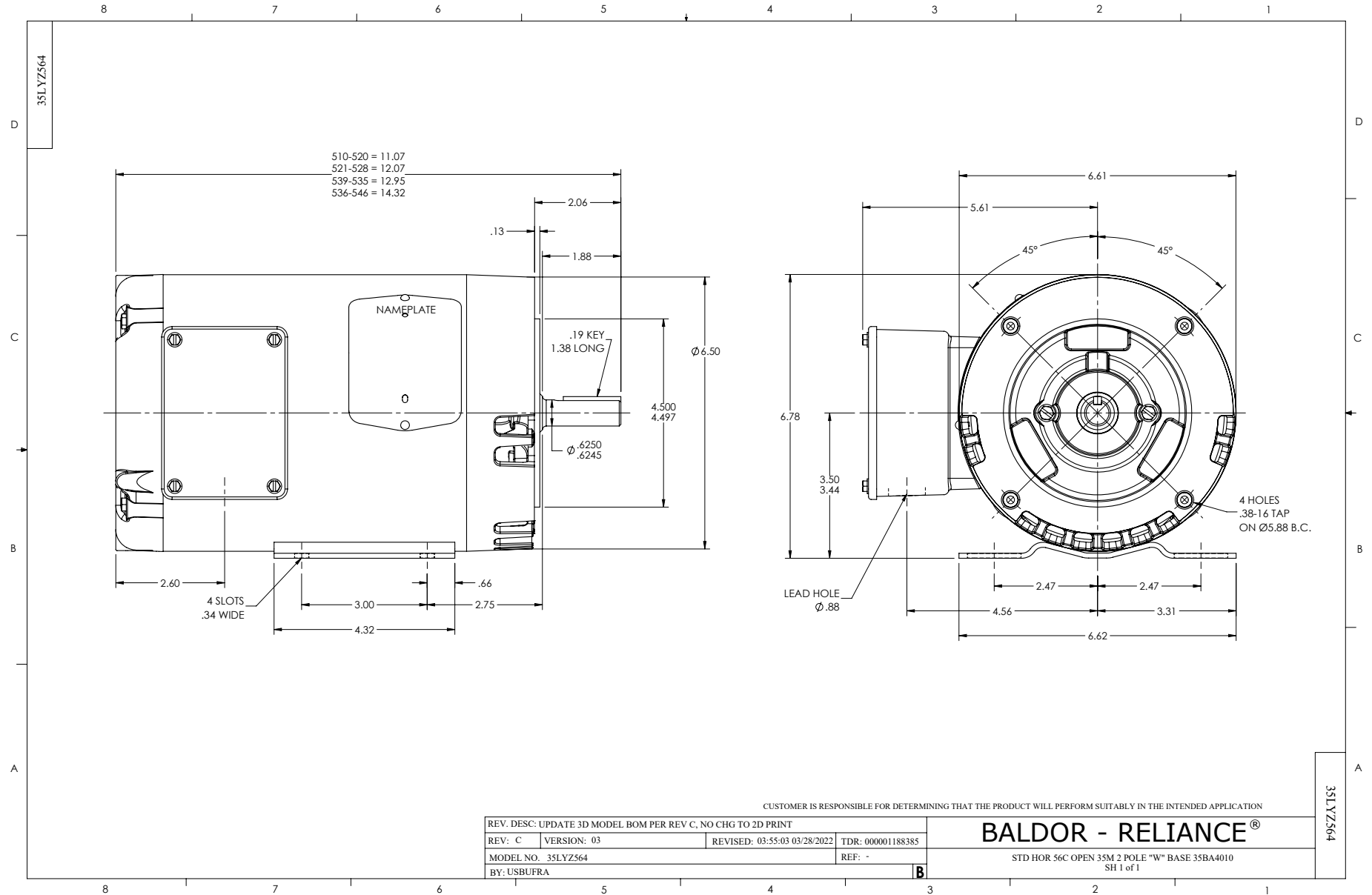
Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 3450 RPM 460 V 3524M

TORQUES (LB-FT): PO=11.6 PU=8.2 LR=10.7 LRA=18.8



4/10/2025 ACPERF, record # 57243



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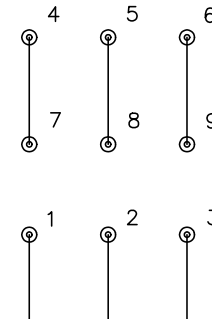


LOW VOLTAGE
(2Y)



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