

BALDOR® • RELIANCE 

Product Information Packet

CEM3545

1HP,3450RPM,3PH,60HZ,56C,3516M,TEFC,F1,N

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | P | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 35WGY474 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 35T942 | Layout: | 35LYT942 | Poles: | 02 | Created Date: | 04-28-2010 |
| Base: | RG | Eff. Date: | 06-07-2018 | Leads: | 9#18 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------|
| Catalog Number: | CEM3545 | Insulation Class: | F |
| Enclosure: | TEFC | Inverter Code: | Inverter Ready |
| Frame: | 56C | KVA Code: | K |
| Frame Material: | Steel | Lifting Lugs: | No Lifting Lugs |
| Output @ Frequency: | 1.000 HP @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 18 AWG |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| | 230.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | None | Motor Type: | 3516M |
| XP Division: | Not Applicable | Mounting Arrangement: | F1 |
| Agency Approvals: | UR | Power Factor: | 87 |
| | CSA EEV | Product Family: | General Purpose |
| | CSA | Pulley End Bearing Type: | Ball |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | C-Face |
| Auxillary Box Lead Termination: | None | Pulley Shaft Indicator: | Standard |
| Base Indicator: | Rigid | Rodent Screen: | None |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | RoHS Status: | ROHS COMPLIANT |
| Blower: | None | Shaft Extension Location: | Pulley End |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 1.400 A @ 460.0 V | Shaft Ground Indicator: | No Shaft Grounding |
| | 2.800 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 3.000 A @ 208.0 V | Shaft Slinger Indicator: | No Slinger |
| Design Code: | B | Speed Code: | Single Speed |
| Drip Cover: | No Drip Cover | Motor Standards: | NEMA |
| Duty Rating: | CONT | Starting Method: | Direct on line |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Bearing: | None |
| Feedback Device: | NO FEEDBACK | Thermal Device - Winding: | None |
| Front Face Code: | Standard | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Shaft Indicator: | None | Winding Thermal 1: | None |
| Heater Indicator: | No Heater | Winding Thermal 2: | None |

| | | | | | | | | | | |
|----------------------------------|----------------------------|--|-------------|-----------------------|------------|----|--|--------------|-----------|-------|
| Nameplate NP3441LUA | | | | | | | | | | |
| CAT.NO. | CEM3545 | | | | | | | | | |
| SPEC | 35T942Y474G1 | | | | | | | | | |
| HP | 1 | | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | | |
| AMPS | 2.8/1.4 | | | | | | | | | |
| RPM | 3450 | | | | | | | | | |
| FRAME | 56C | | | | HZ | 60 | | | PH | 3 |
| SF | 1.25 | | CODE | K | DES | B | | CLASS | F | |
| NEMA NOM. EFF | 77 | | PF | 87 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | |
| CC | 010A | | | USABLE AT 208V | | | | | | 3 |
| ENCL | TEFC | | SER | | | | | | | |
| DE | 6205 | | | ODE | 6203 | | | | | |
| VPWM INVERTER READY | SFA 3.4/1.7 | | | | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1 | 50Hz 1HP 190/380V 3.4/1.7A | | | | | | | | | |
| | | | | | | | | | | SF1.0 |

| Parts List | | |
|---------------|--|----------|
| Part Number | Description | Quantity |
| SA194199 | SA 35T942Y474G1 | 1.000 EA |
| RA181787 | RA 35T942Y474G1 | 1.000 EA |
| 34FN3002A01SP | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/ | 1.000 EA |
| NS2512A01 | INSULATOR, CONDUIT BOX X | 1.000 EA |
| 35CB3007 | 35 CB CASTING W/.88 DIA. LEAD HOLE | 1.000 EA |
| 36GS1000SP | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 EA |
| 51XB1016A07 | 10-16 X 7/16 HXWSSLD SERTYB | 2.000 EA |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 35EP3122K00 | MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG | 1.000 EA |
| HW5100A03 | WAVY WASHER (W1543-017) | 1.000 EA |
| 35EP3307F00 | MASTER DE,205 BRG,.998SH,#26 DRN | 1.000 EA |
| 51XN1032A20 | 10-32 X 1 1/4 HX WS SL SR | 2.000 EA |
| 35FH4005A32SP | IEC FH NO GR SR W/3 HOLES - PRIMED | 1.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 35CB4521GX | CONDUIT BOX LID KIT **ORDER INDIV PARTS | 1.000 EA |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| HW2501D13 | KEY, 3/16 SQ X 1.375 | 1.000 EA |
| HA7000A04 | KEY RETAINER 0.625 DIA SHAFTS | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.050 LB |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.017 GA |
| HA3100A12 | THRUBOLT 10-32 X 7.375 | 4.000 EA |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| NP3441LUA | ALUM SUPER-E VPWM INV READY UL CSA-EEV C | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|---|-----------------|
| Part Number | Description | Quantity |
| 35PA1066 | PKG GRP, PRINT PK1008A06 | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA |
| FE-0000001 | ZRTG FE ASSEMBLY | 1.000 EA |
| PE-0000001 | ZRTG PE ASSEMBLY | 1.000 EA |

AC Induction Motor Performance Data

Record # 67481

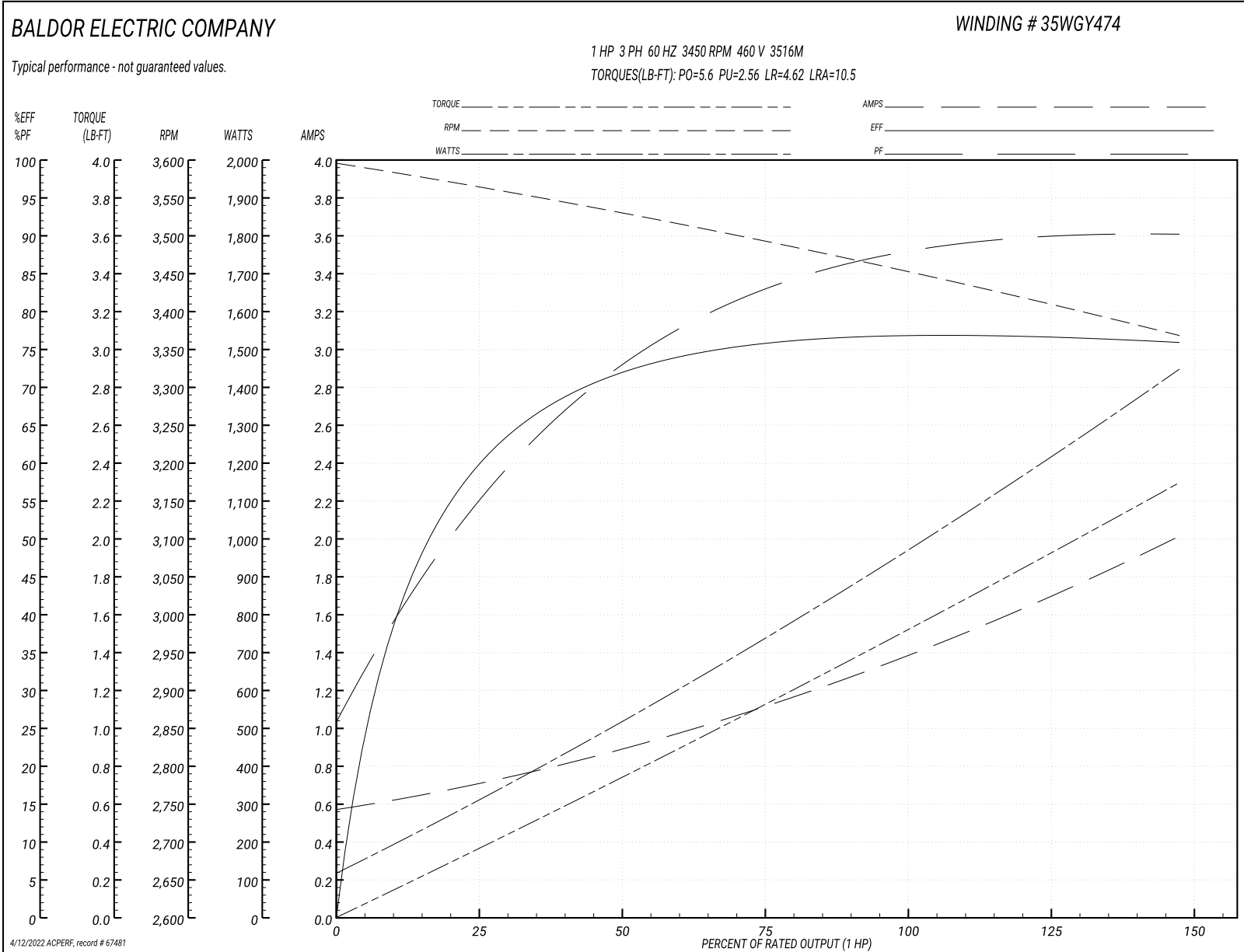
Typical performance - not guaranteed values

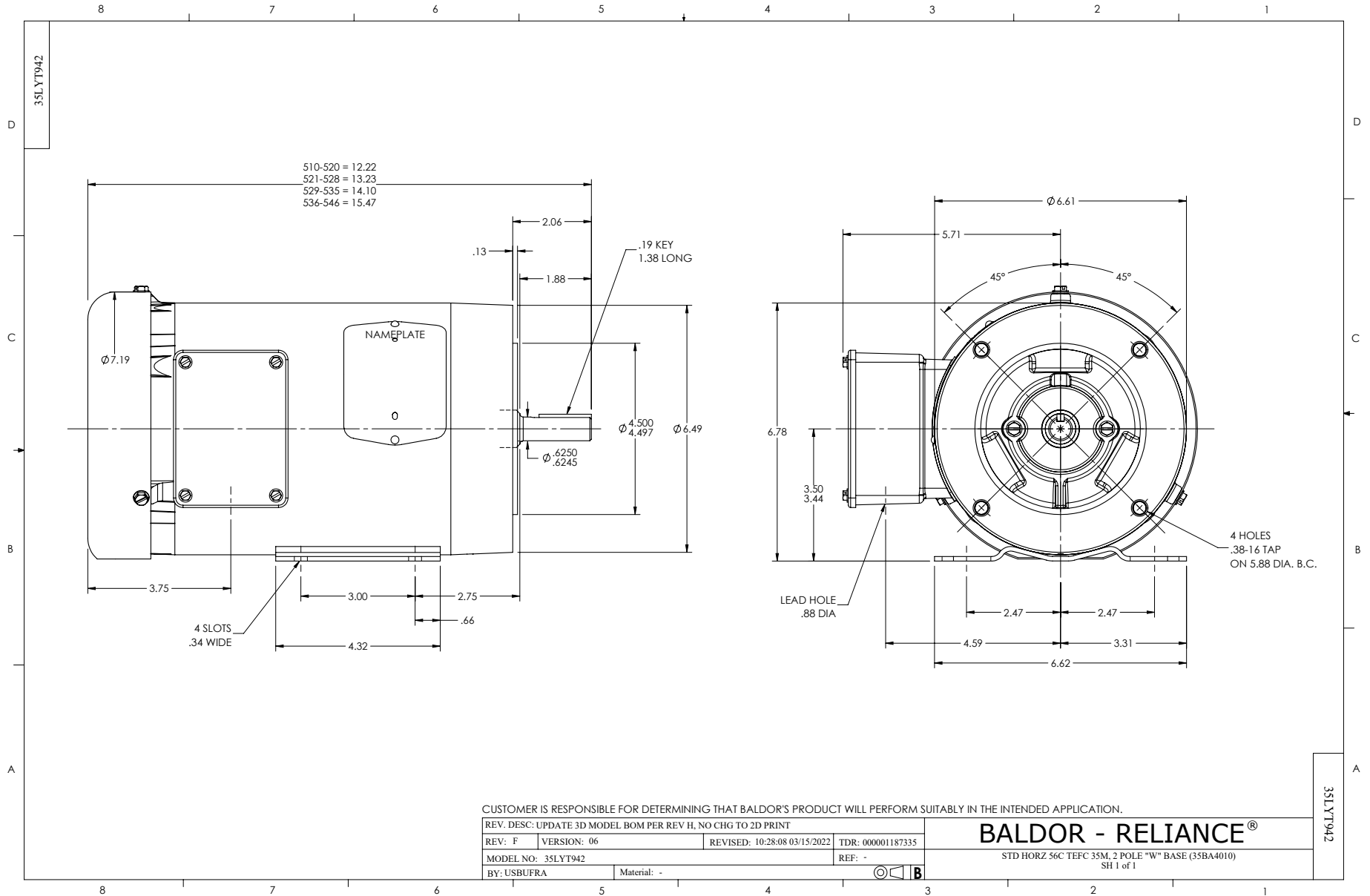
| Winding: 35WGY474-R032 | | Type: 3516M | | Enclosure: TEFC | |
|-------------------------------|--------------|----------------------------------|--|------------------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 1 | Full Load Torque | 1.47 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 2.8/1.4 | Breakdown Torque | 5.6 LB-FT | | |
| R.P.M. | 3450 | Pull-up Torque | 2.56 LB-FT | | |
| Hz | 60 Phase | Locked-rotor Torque | 4.62 LB-FT | | |
| NEMA Design Code | B | Starting Current | 10.5 A | | |
| Service Factor (S.F.) | 1.25 | No-load Current | 0.585 A | | |
| NEMA Nom. Eff. | 77 | Line-line Res. @ 25°C | 20.016 Ω | | |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 41°C | | |
| S.F. Amps | 3.4/1.7 | Temp. Rise @ S.F. Load | 52°C | | |
| | | Locked-rotor Power Factor | 64.1 | | |
| | | Rotor inertia | 0.0443 LB-FT ² | | |

Load Characteristics 460 V, 60 Hz, 1 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 55 | 72 | 82 | 86 | 89 | 91 | 89 |
| Efficiency | 58.7 | 71.7 | 76.4 | 77.6 | 77.4 | 75.9 | 77.4 |
| Speed | 3563.9 | 3532.9 | 3499.6 | 3459.6 | 3418.2 | 3365.9 | 3418 |
| Line amperes | 0.68 | 0.851 | 1.08 | 1.37 | 1.65 | 2.01 | 1.65 |

Performance Graph at 460V, 60Hz, 1.0HP Typical performance - Not guaranteed values





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.

| | | | |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005