

BALDOR® • RELIANCE 

Product Information Packet

CEM2513T

15HP,1765RPM,3PH,60HZ,254TC,3948M,OPSB,F

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | H | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 39WGY375 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | 39D102 | Layout: | 39LYD102 | Poles: | 04 | Created Date: | 10-02-2017 |
| Base: | RG | Eff. Date: | 12-02-2021 | Leads: | 9#12 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | CEM2513T | Heater Indicator: | No Heater |
| Enclosure: | OPSB | Insulation Class: | F |
| Frame: | 254TC | Inverter Code: | Inverter Ready |
| Frame Material: | Steel | KVA Code: | G |
| Output @ Frequency: | 15.000 HP @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 12 AWG |
| | 230.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| XP Class and Group: | None | Motor Lead Termination: | Flying Leads |
| XP Division: | Not Applicable | Motor Type: | 3948M |
| Agency Approvals: | UR | Mounting Arrangement: | F1 |
| | CSA EEV | Power Factor: | 85 |
| | CSA | Product Family: | General Purpose |
| Auxillary Box: | No Auxillary Box | Pulley End Bearing Type: | Ball |
| Auxillary Box Lead Termination: | None | Pulley Face Code: | C-Face |
| Base Indicator: | Rigid | Pulley Shaft Indicator: | Standard |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Rodent Screen: | None |
| Blower: | None | Shaft Extension Location: | Pulley End |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 18.000 A @ 460.0 V | Shaft Ground Indicator: | No Shaft Grounding |
| | 36.000 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 38.000 A @ 208.0 V | Shaft Slinger Indicator: | No Slinger |
| Design Code: | A | 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 |
| | | Winding Thermal 2: | None |

| | | | | | | | | | | | |
|----------------------------|---------------------------|--|----------|----------------|--------|-------------------------|---------|--------------|---------|--------|------|
| Nameplate NP3554LUA | | | | | | | | | | | |
| CAT.NO. | CEM2513T | | | P/N | | | | ENCL | OPSB | | |
| SPEC. | 39D102Y375G1 | | CC | 010A | | FRAME | 254TC | | SER.NO. | | |
| HP | 15 | | CLASS | F | | HZ | 60 | | | | |
| RPM | 1765 | | PH | 3 | | DES | A | | | | |
| VOLTS | 230/460 | | | CODE | G | | ODE BRG | 6208 | | DE BRG | 6309 |
| AMPS | 36/18 | | | USABLE AT 208V | 38 | | | | | | |
| RATING | 40C AMB-CONT | | | NEMA-NOM-EFF | 93 | | GREASE | POLYREX EM | | | |
| PF | 85 | | SER.F. | 1.15 | | CT30-60(2:1) | | VT3-60(20:1) | | | |
| USABLE AT | 50HZ 15HP 190/380V 42/21A | | | | SF 1.0 | | | | | | |
| HTR-VOLTS | | | HTR-AMPS | | | MAX. SPACE HEATER TEMP. | | | | | |

| Parts List | | |
|---------------|--|----------|
| Part Number | Description | Quantity |
| SA345603 | SA 39D102Y375G1 | 1.000 EA |
| RA334091 | RA 39D102Y375G1 | 1.000 EA |
| HA6361A01 | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC | 2.000 EA |
| HA6016 | ADAPTER, CAST CONDUIT BOX | 1.000 EA |
| 09CB3003 | CB W/1.75" DIA LD HL - 37, 39, 307 & 309 | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| WD1000B16 | T&B CX70TN OR L70P TERMINAL LUG | 1.000 EA |
| 59XW2520G07 | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN | 1.000 EA |
| 39EP3200A01SP | FR/PU ENDPLATE, MACH | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW5100A08 | W3118-035 WVY WSHR (WB) | 1.000 EA |
| 39EP3400A01 | STD FACE MTD ENDPLATE 309 BRG | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| 10XN2520K28 | 1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| XY3816A12 | 3/8-16 FINISHED NUT | 8.000 EA |
| 09CB3501SP | CONDUIT BOX LID FOR 09CB3001 & 09CB3002 | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| HW2501G25 | KEY, 3/8 SQ X 2.875 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.030 LB |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.050 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 EA |
| 39AD2002A01 | BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS | 1.000 EA |
| 39AD2002A01 | BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS | 1.000 EA |
| HA3154A03 | STUD, 3/8-16 X 17.75 | 4.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0181 | CONNECTION LABEL | 1.000 EA |
| NP3554LUA | SS SUPER-E VPWM INV READY UL CSA-EEV PRE | 1.000 EA |
| 39PA1000 | PACKAGING GROUP 39 PRINT | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 1/21 | 1.000 EA |
| LD7020D09 | LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS | 1.000 EA |

AC Induction Motor Performance Data

Record # 66605

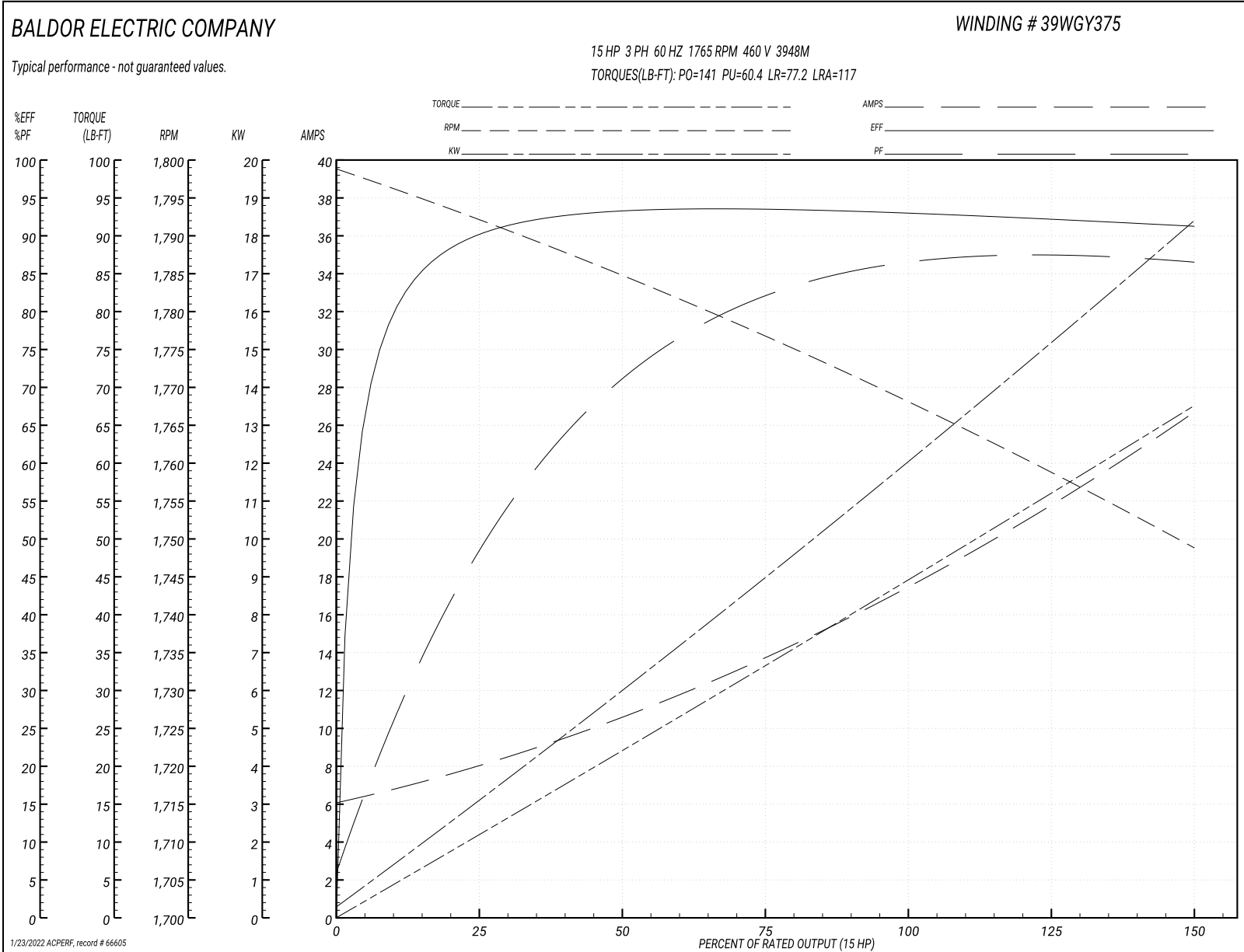
Typical performance - not guaranteed values

| Winding: 39WGY375-R001 | | | Type: 3948M | | | Enclosure: OPSB | | |
|------------------------|--------------|--------------|---------------------------|--|-----------|-----------------|--|--|
| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | | | | |
| Rated Output (HP) | 15 | | Full Load Torque | 44.53 LB-FT | | | | |
| Volts | 230/460 | | Start Configuration | direct on line | | | | |
| Full Load Amps | 36/18 | | Breakdown Torque | 141 LB-FT | | | | |
| R.P.M. | 1765 | | Pull-up Torque | 60.4 LB-FT | | | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 77.2 LB-FT | | | | |
| NEMA Design Code | A | KVA Code | G | Starting Current | 117 A | | | |
| Service Factor (S.F.) | 1.15 | | No-load Current | 6.37 A | | | | |
| NEMA Nom. Eff. | 93 | Power Factor | 85 | Line-line Res. @ 25°C | 0.62591 Ω | | | |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 26°C | | | | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 32°C | | | | |
| | | | Locked-rotor Power Factor | 32.8 | | | | |
| | | | Rotor inertia | 2.1 lb-ft ² | | | | |

Load Characteristics 460 V, 60 Hz, 15 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|--------|--------|------|--------|--------|------|
| Power Factor | 51 | 73 | 81 | 85 | 87 | 87 | 86 |
| Efficiency | 89.9 | 93.1 | 93.5 | 93 | 92.3 | 91.2 | 92.6 |
| Speed | 1792 | 1784.7 | 1776.9 | 1768 | 1759.3 | 1748.7 | 1763 |
| Line amperes | 7.67 | 10.4 | 13.8 | 17.7 | 21.8 | 26.5 | 20.2 |

Performance Graph at 460V, 60Hz, 15.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 89973

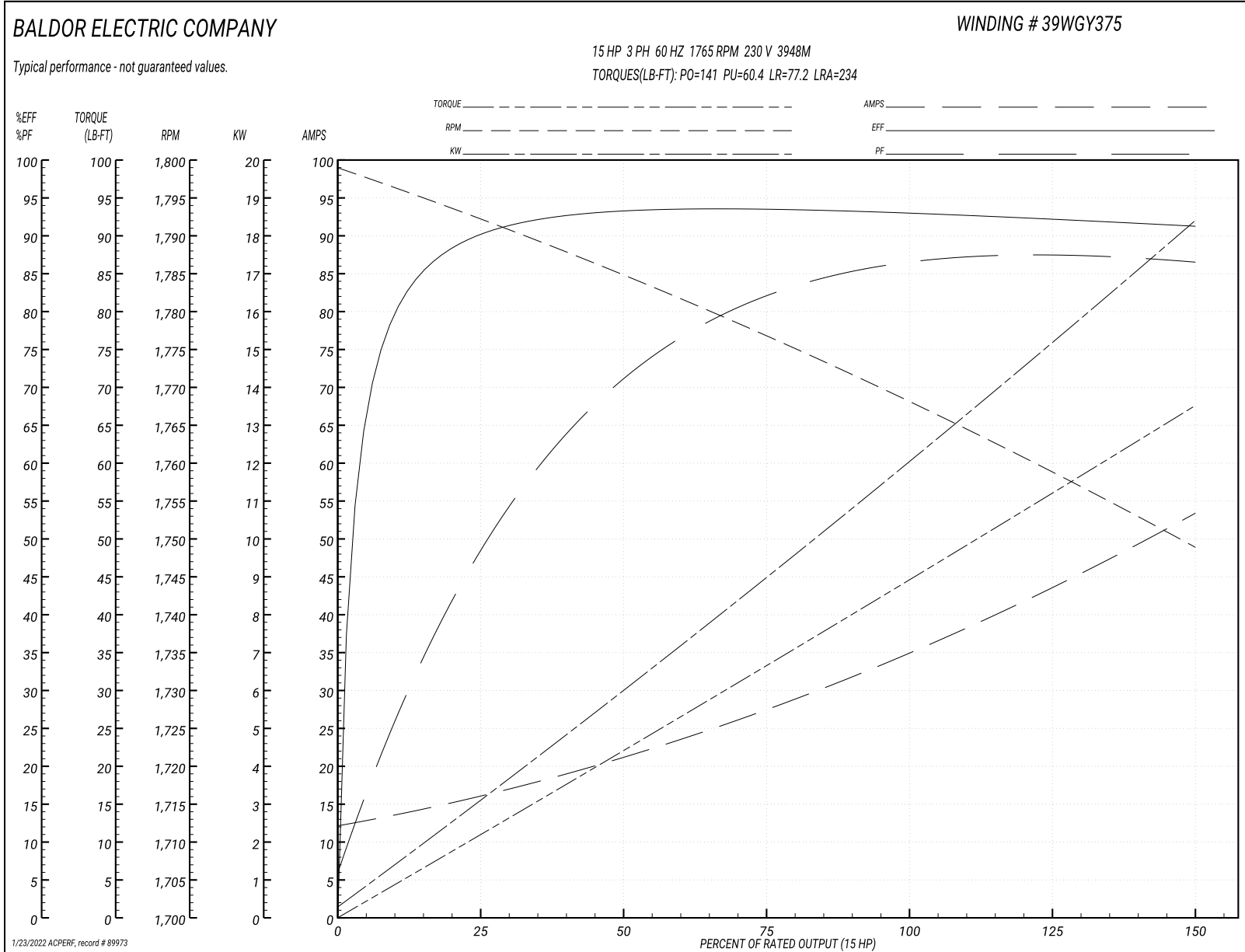
Typical performance - not guaranteed values

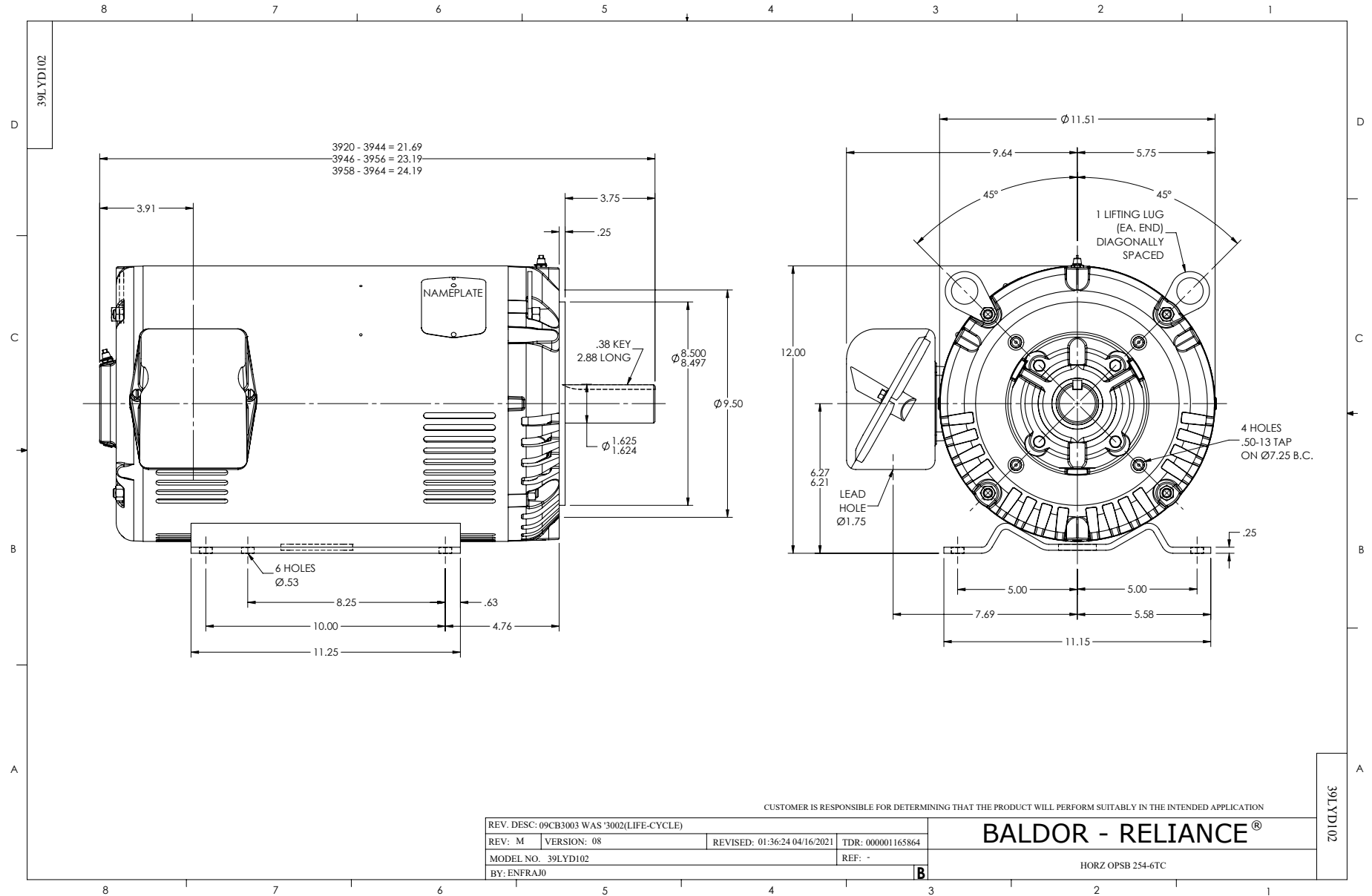
| Winding: 39WGY375-R001 | | | Type: 3948M | | | Enclosure: OPSB | | |
|------------------------|-----------------|----|---------------------------|---|--|-----------------|--|--|
| Nameplate Data | | | | 230 V, 60 Hz: Low Voltage Connection | | | | |
| Rated Output (HP) | 15 | | Full Load Torque | 44.53 LB-FT | | | | |
| Volts | 230/460 | | Start Configuration | direct on line | | | | |
| Full Load Amps | 36/18 | | Breakdown Torque | 141 LB-FT | | | | |
| R.P.M. | 1765 | | Pull-up Torque | 60.4 LB-FT | | | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 77.2 LB-FT | | | | |
| NEMA Design Code | A KVA Code | G | Starting Current | 234 A | | | | |
| Service Factor (S.F.) | 1.15 | | No-load Current | 12.74 A | | | | |
| NEMA Nom. Eff. | 93 Power Factor | 85 | Line-line Res. @ 25°C | 0.145 Ω | | | | |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 26°C | | | | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 32°C | | | | |
| | | | Locked-rotor Power Factor | 32.7816 | | | | |
| | | | Rotor inertia | 2.1 lb-ft ² | | | | |

Load Characteristics 230 V, 60 Hz, 15 HP

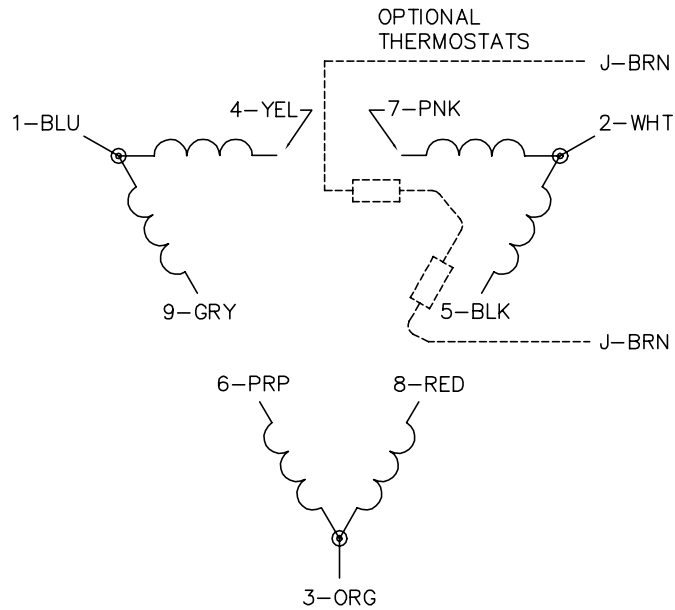
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor | 51 | 73 | 82 | 85 | 87 | 87 | 86 |
| Efficiency | 90 | 93.1 | 93.5 | 93 | 92.2 | 91.2 | 92.5 |
| Speed | 1792 | 1785 | 1777 | 1768 | 1759 | 1749 | 1763 |
| Line amperes | 15.34 | 20.8 | 27.6 | 35.4 | 43.6 | 53 | 40.3 |

Performance Graph at 230V, 60Hz, 15.0HP Typical performance - Not guaranteed values





CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



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.

CD0180

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3PH, DV, 9 LEADS, DELTA CONNECTION

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