

BALDOR® • RELIANCE 

Product Information Packet

CEM2542T

50HP,3525RPM,3PH,60HZ,324TSC,OPSB,F1

| Part Detail | | | | | | | |
|-------------|----|-------------|------------|-------------|--------|---------------|------------|
| Revision: | - | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 40WGW803 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | | Layout: | 40LYE218 | Poles: | 02 | Created Date: | 03-06-2020 |
| Base: | | Eff. Date: | 03-11-2020 | Leads: | 9#8 | | |

| Specs | | | |
|---------------------------------|-------------------------|---------------------------|-----------------------|
| Catalog Number: | CEM2542T | Heater Indicator: | No Heater |
| Enclosure: | OPSB | Insulation Class: | F |
| Frame: | 324TSC | Inverter Code: | Inverter Ready |
| Frame Material: | Steel | IP Rating: | NONE |
| Output @ Frequency: | 50.000 HP @ 60 HZ | KVA Code: | G |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Voltage @ Frequency: | 230.0 V @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| | 460.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| Agency Approvals: | CSA | Motor Type: | 4058M |
| | CSA EEV | Mounting Arrangement: | F1 |
| | UR | Power Factor: | 90 |
| Auxillary Box: | No Auxillary Box | Product Family: | General Purpose |
| Auxillary Box Lead Termination: | None | Pulley Face Code: | C-Face |
| Base Indicator: | Rigid | Rodent Screen: | None |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Shaft Ground Indicator: | No Shaft Grounding |
| Blower: | None | Shaft Rotation: | Reversible |
| Current @ Voltage: | 112.000 A @ 230.0 V | Speed Code: | Single Speed |
| | 56.000 A @ 460.0 V | Motor Standards: | NEMA |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Design Code: | A | Starting Method: | Direct on line |
| Drip Cover: | No Drip Cover | Thermal Device - Bearing: | None |
| Duty Rating: | CONT | Thermal Device - Winding: | None |
| Electrically Isolated Bearing: | Not Electrically Isolated | Vibration Sensor Indicator: | No Vibration Sensor |
| Feedback Device: | NO FEEDBACK | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| Nameplate NP2138L | | | | | | | | | | | |
|-------------------|--------------|----|----------|----------------|------------|--------|----|-----------|------|--------|------|
| CAT.NO. | CEM2542T | | | P/N | | | | ENCLOSURE | OPSB | | |
| SPEC. | 40-0000842 | | CC | 010A | FRAME | 324TSC | | S/N | | | |
| HP | 50 | | | CLASS | F | HZ | 60 | | | | |
| RPM | 3525 | | PH | 3 | DES | A | | | | | |
| VOLT | 230/460 | | | | KVA-CODE | G | | ODE BRG | 6309 | DE BRG | 6312 |
| AMP | 112/56 | | | USABLE AT 208V | | | | | | | |
| RATING | 40C AMB-CONT | | | GREASE | POLYREX EM | | | | | | |
| NEMA-NOM-EFF | 93 | PF | 90 | SER.F. | 1.15 | | | | | | |
| HTR-VOLTS | | | HTR-AMPS | | | | | | | | |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA379770 | SA 40-0000842 | 1.000 EA |
| RA369793 | RA 40-0000842 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0181 | CONNECTION LABEL | 1.000 EA |
| NP2138L | ALUM SUPER-E UL CSA-EEV PREM CC (300 | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA |
| HA6361A01 | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC | 2.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.130 LB |
| HA3159A11 | THRUBOLT- .38-16 X 20.75 X 3.00 THDS X 1 | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 8.000 EA |
| XY3816A12 | 3/8-16 FINISHED NUT | 8.000 EA |
| 40EP3200A02 | STD FREP OPEN 309 BRG | 1.000 EA |
| HW5100A11 | W3917-042 WVY WSHR (WB) | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |
| 40EP1401A01 | PU ENDPLATE, MACH OPEN NEMA 324-6T | 1.000 EA |
| 10XN3118K40 | 5/16-18 X 2.50" HEX HD, GRADE 5 | 4.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| 10CB3001A31 | KOBX, MACH W/2.50 LD HL, .38-16 GND | 1.000 EA |
| 10XN3118K12 | 5/16-18 X .75 GRADE 5, ZINC PLATED | 4.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| WD1000B19 | TERMINAL BURNDY L250HP | 1.000 EA |
| 10XN3816K08 | 3/8-16 X .50 HEX HD CAP SCREW GRADE 5 | 1.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 1.000 EA |
| HA6017 | CAST ADAPTER, 40,42 KOBX | 1.000 EA |
| 19XW3118A12 | .31-18 X .75 HEX WASHER HEAD TAPTITE II | 2.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| 10CB3500SP | CONDUIT BOX LID, CAST | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 4.000 EA |
| 40AD2002B01 | LEXAN BAFFLE 40 FR OPEN | 1.000 EA |
| 40AD2002B01 | LEXAN BAFFLE 40 FR OPEN | 1.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.125 GA |
| 40PA1000 | PACKAGING GROUP | 1.000 EA |
| HW2501H18 | KEY, 1/2 SQ X 2.000 | 1.000 EA |

AC Induction Motor Performance Data

Record # 52622

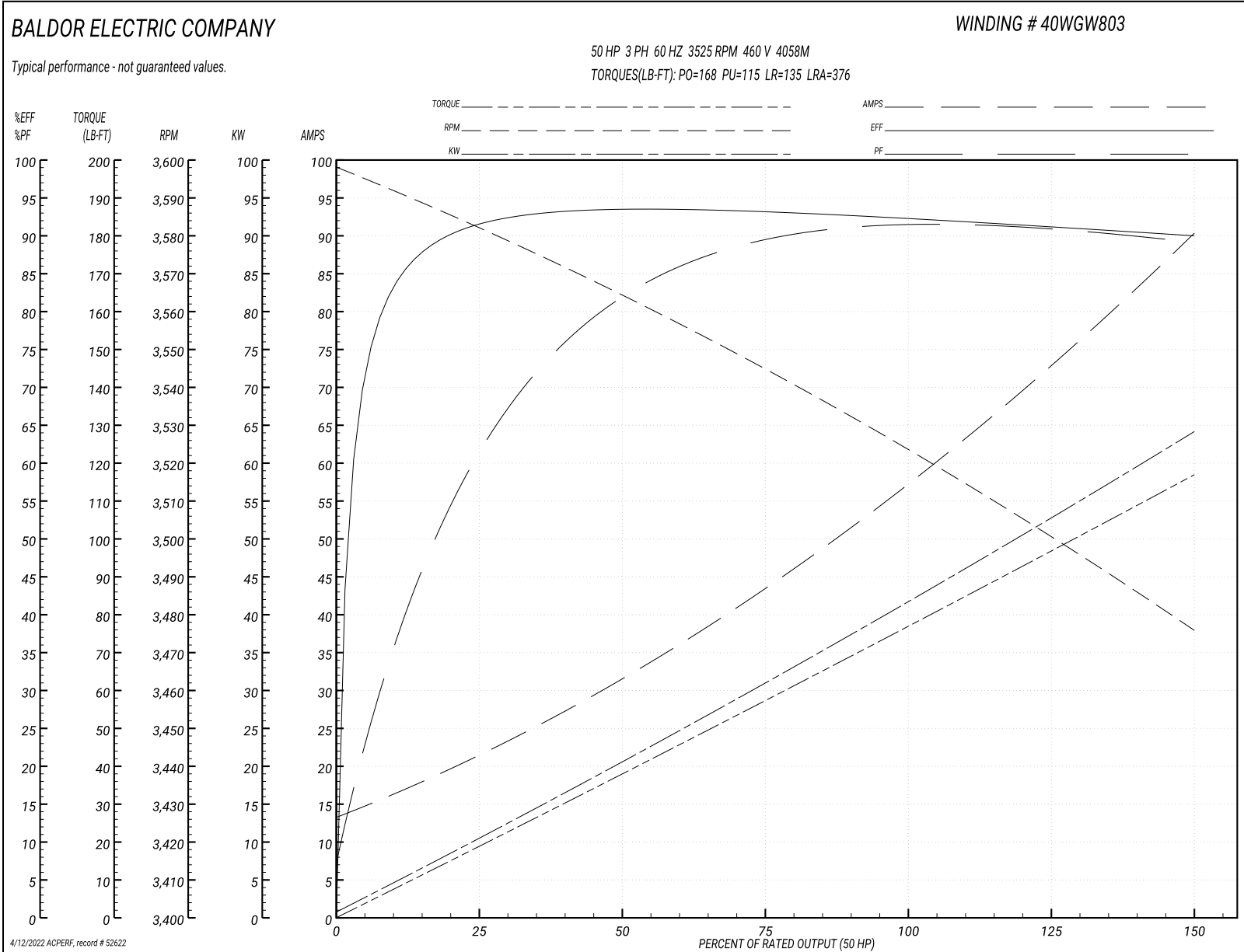
Typical performance - not guaranteed values

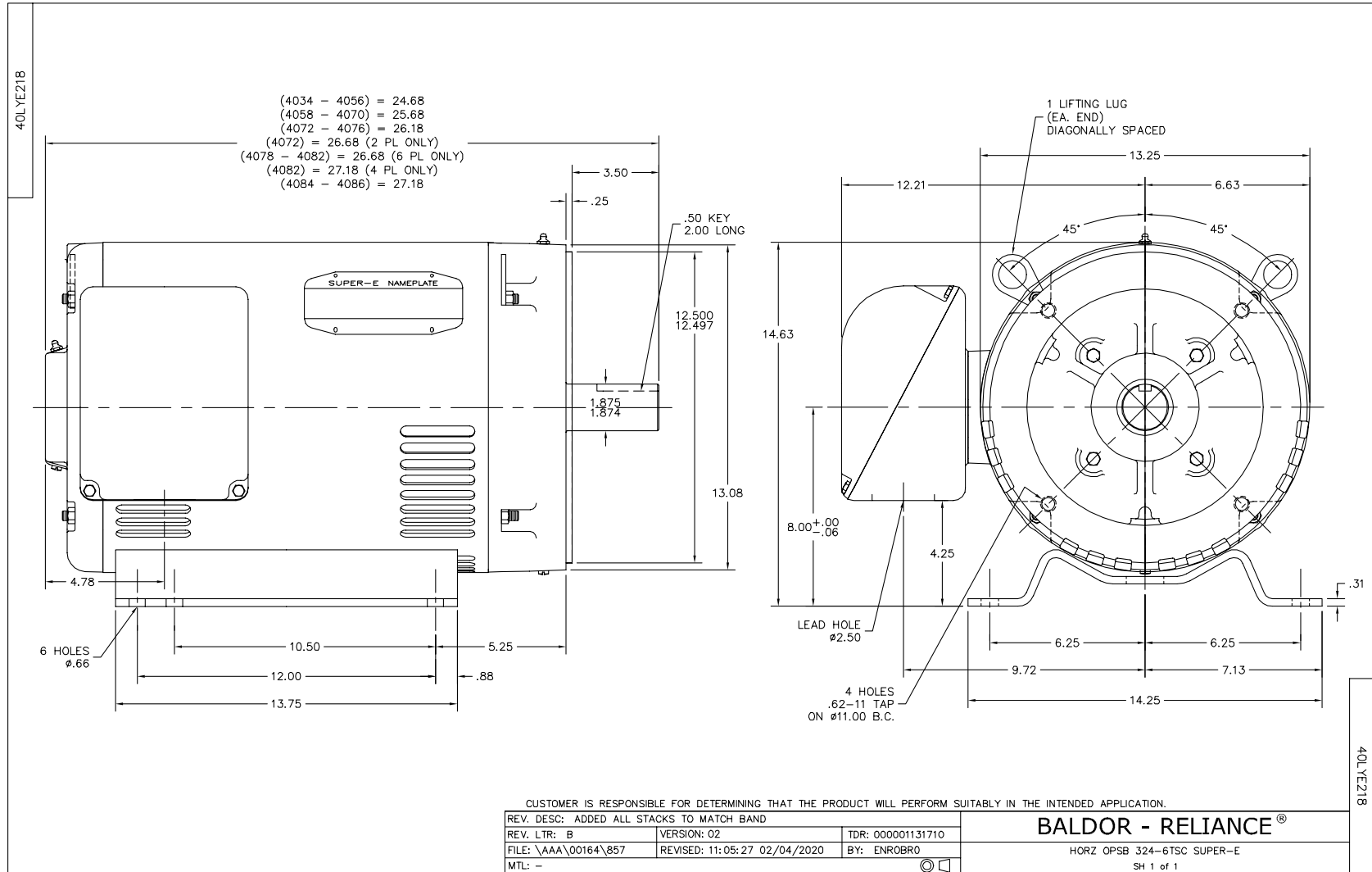
| Winding: 40WGW803-R005 | | | Type: 4058M | Enclosure: OPSB | |
|------------------------|--------------|-----------------|--|-------------------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 50 | | Full Load Torque | 74.7 LB-FT | |
| Volts | 230/460 | | Start Configuration | direct on line | |
| Full Load Amps | 112/56 | | Breakdown Torque | 168 LB-FT | |
| R.P.M. | 3525 | | Pull-up Torque | 115 LB-FT | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 135 LB-FT | |
| NEMA Design Code | A | KVA Code G | Starting Current | 376 A | |
| Service Factor (S.F.) | 1.15 | | No-load Current | 14.2 A | |
| NEMA Nom. Eff. | 93 | Power Factor 90 | Line-line Res. @ 25°C | 0.1415 Ω | |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 47°C | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 60°C | |
| | | | Locked-rotor Power Factor | 23.2 | |
| | | | Rotor inertia | 2.49 LB-FT ² | |

Load Characteristics 460 V, 60 Hz, 50 HP

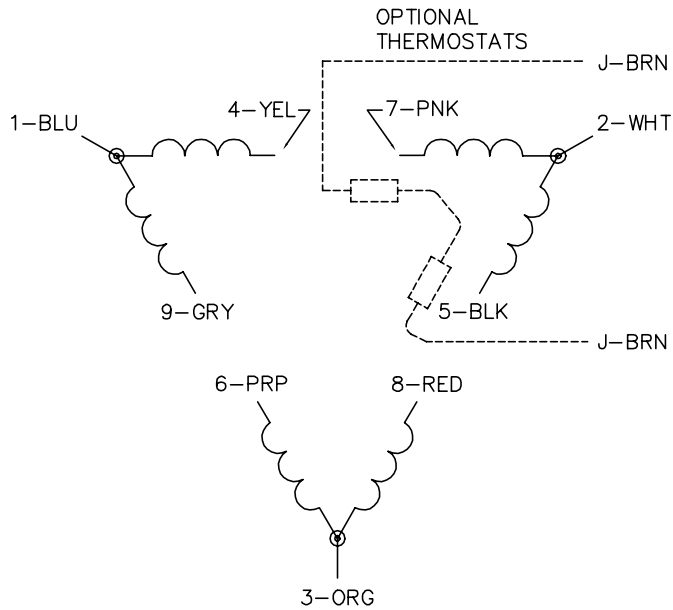
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor | 66 | 83 | 88 | 90 | 90 | 90 | 90 |
| Efficiency | 92.9 | 94.4 | 94.1 | 93.3 | 92.2 | 90.5 | 92.6 |
| Speed | 3581.7 | 3565.2 | 3545.9 | 3526.6 | 3505.2 | 3475.1 | 3514 |
| Line amperes | 20 | 30.4 | 42.8 | 56.3 | 70.7 | 89.9 | 64.9 |

Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values

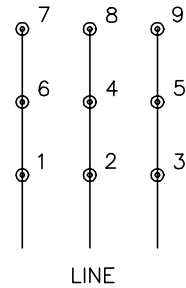




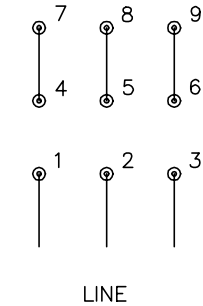
CD0180



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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|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: D | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\148 | REVISED: 10:25:29 02/19/2019 | BY: ENBRIRO |
| MTL: - | © □ | |

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3PH, DV, 9 LEADS, DELTA CONNECTION

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