

BALDOR® • RELIANCE 

Product Information Packet

EM2542T-G

50HP,3525RPM,3PH,60HZ,324TS,4058M,OPSB,F

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | P | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 40WGW803 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | 40E295 | Layout: | 40LYE295 | Poles: | 02 | Created Date: | 12-09-2011 |
| Base: | RG | Eff. Date: | 04-29-2019 | Leads: | 9#8 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM2542T-G | Insulation Class: | H |
| Enclosure: | OPSB | Inverter Code: | Inverter Ready |
| Frame: | 324TS | KVA Code: | G |
| Frame Material: | Steel | Lifting Lugs: | Standard Lifting Lugs |
| Output @ Frequency: | 50.000 HP @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 8 AWG |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| | 230.0 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 End Bearing Type: | Ball |
| Base Indicator: | Rigid | Pulley Face Code: | Standard |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Pulley Shaft Indicator: | Standard |
| Blower: | None | Rodent Screen: | None |
| Current @ Voltage: | 56.000 A @ 460.0 V | Shaft Extension Location: | Pulley End |
| | 124.000 A @ 208.0 V | Shaft Ground Indicator: | Shaft Grounding |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| | 112.000 A @ 230.0 V | Shaft Rotation: | Reversible |
| Design Code: | A | Shaft Slinger Indicator: | No Slinger |
| Drip Cover: | No Drip Cover | Speed Code: | Single Speed |
| Duty Rating: | CONT | Motor Standards: | NEMA |
| Electrically Isolated Bearing: | Not Electrically Isolated | Starting Method: | Direct on line |
| Feedback Device: | NO FEEDBACK | Thermal Device - Bearing: | None |
| Front Face Code: | Standard | Thermal Device - Winding: | None |
| Front Shaft Indicator: | None | Vibration Sensor Indicator: | No Vibration Sensor |
| Heater Indicator: | No Heater | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| Nameplate NP3554LUA | | | | | | | | | | | |
|---------------------|----------------------------|--|----------|----------------|-------|-------------------------|---------|------------|---------|--------|------|
| CAT.NO. | EM2542T-G | | | P/N | | | | ENCL | OPSB | | |
| SPEC. | 40E295W803G1 | | CC | 010A | | FRAME | 324TS | | SER.NO. | | |
| HP | 50 | | CLASS | H | | HZ | 60 | | | | |
| RPM | 3525 | | PH | 3 | | DES | A | | | | |
| VOLTS | 230/460 | | | CODE | G | | ODE BRG | 6309 | | DE BRG | 6312 |
| AMPS | 112/56 | | | USABLE AT 208V | 124 | | | | | | |
| RATING | 40C AMB-CONT | | | NEMA-NOM-EFF | 93 | | GREASE | POLYREX EM | | | |
| PF | 90 | | SER.F. | 1.15 | | | | | | | |
| USABLE AT | 50HZ 50HP 190/380V 138/69A | | | | SF1.0 | | | | | | |
| HTR-VOLTS | | | HTR-AMPS | | | MAX. SPACE HEATER TEMP. | | | | | |

AC Induction Motor Performance Data

Record # 53039 - Typical performance - not guaranteed values

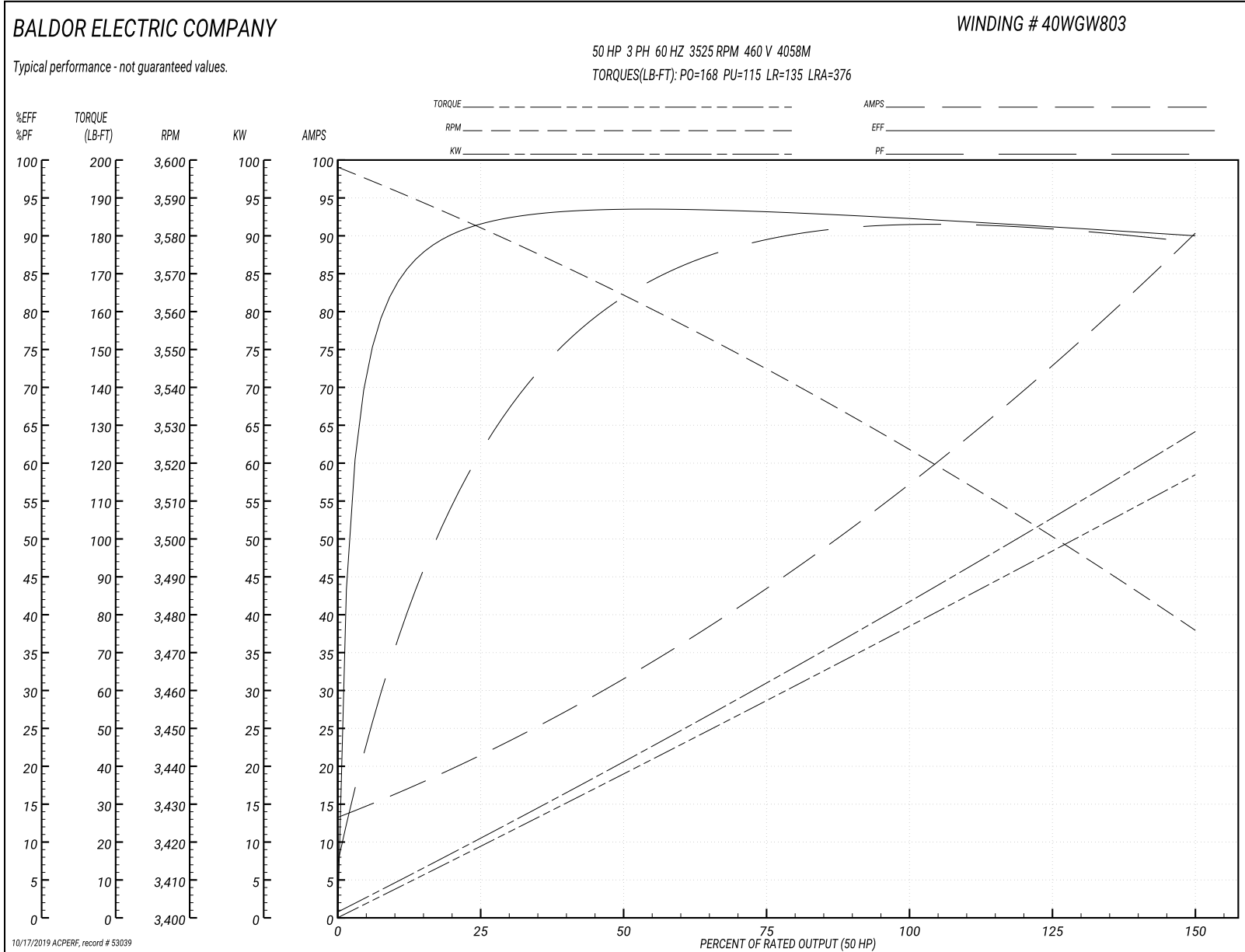
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|-------------------------------|--------------------|------------------------|
| Winding: 40WGW803-R006 | Type: 4058M | Enclosure: OPSB |
|-------------------------------|--------------------|------------------------|

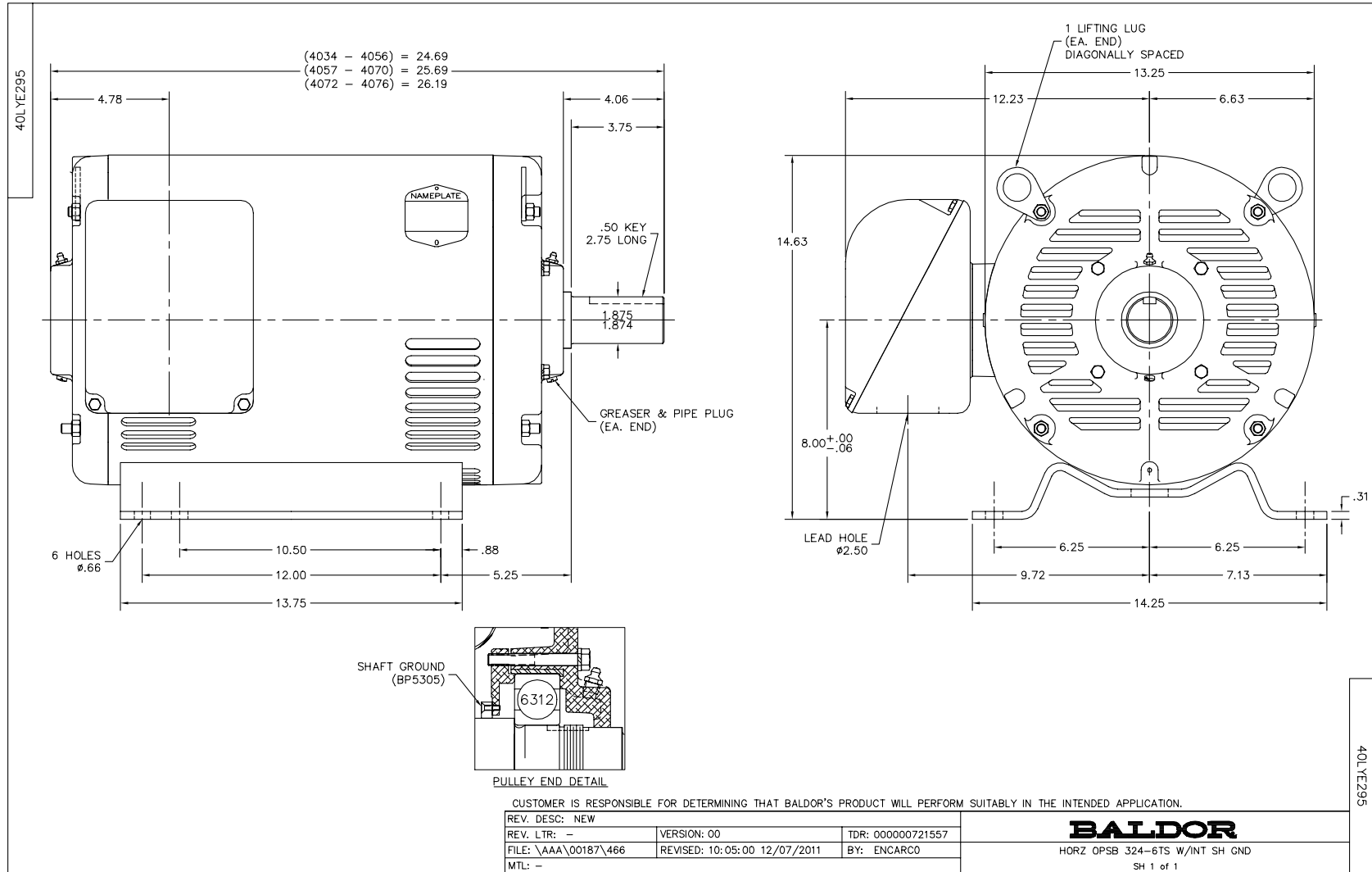
| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP) | 50 | | | Full Load Torque | 74.7 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 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

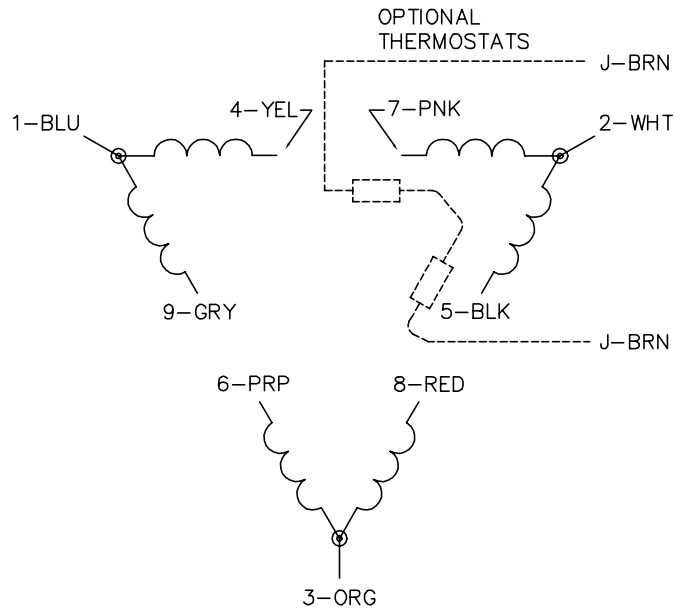
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor | 66 | 83 | 88 | 90 | 90 | 90 | 90 |
| Efficiency | 92.9 | 94.4 | 94.1 | 93.3 | 92.2 | 90.5 | 92.6 |
| Speed | 3581.7 | 3565.2 | 3545.9 | 3526.6 | 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

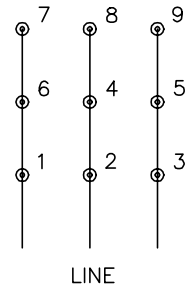




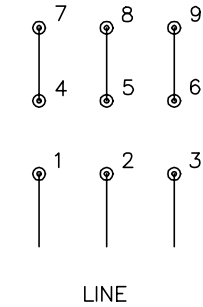
CD0180



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

SH 1 of 1