

BALDOR® • *RELIANCE*

Product Information Packet

EM4114T-G

50HP,3540RPM,3PH,60HZ,326TS,1252M,TEFC,F

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | Q | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 12WGY291 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | 12H135 | Layout: | 12LYH135 | Poles: | 02 | Created Date: | 12-08-2011 |
| Base: | RG | Eff. Date: | 09-07-2017 | Leads: | 9#8 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM4114T-G | Heater Indicator: | No Heater |
| Enclosure: | TEFC | Insulation Class: | H |
| Frame: | 326TS | Inverter Code: | Inverter Ready |
| Frame Material: | Iron | KVA Code: | H |
| Output @ Frequency: | 50.000 HP @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 8 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: | 1252M |
| Agency Approvals: | UR | Mounting Arrangement: | F1 |
| | CSA EEV | Power Factor: | 90 |
| | CSA | Product Family: | General Purpose |
| Auxillary Box: | No Auxillary Box | Pulley End Bearing Type: | Ball |
| Auxillary Box Lead Termination: | None | Pulley Face Code: | Standard |
| 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: | 112.000 A @ 230.0 V | Shaft Ground Indicator: | Shaft Grounding |
| | 122.000 A @ 208.0 V | Shaft Rotation: | Reversible |
| | 56.000 A @ 460.0 V | Shaft Slinger Indicator: | Shaft 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 NP3443L | | | | | | | | | | |
|-------------------|--------------|--------|----------------|------|---------------------|-----------|------------|---------|------|------|
| CAT.NO. | EM4114T-G | | | | CUST. P/N | | | | ENCL | TEFC |
| SPEC. | 12H135Y291G1 | | CC | 010A | FRAME | 326TS | | SER.NO. | | |
| HP | 50 | | CLASS | H | HZ | 60 | | | | |
| R.P.M. | 3540 | | PH | 3 | DES | A | | | | |
| VOLTS | 230/460 | | CODE | H | | ODE BRG | 6311 | DE BRG | 6312 | |
| AMPS | 112/56 | | USABLE AT 208V | 122 | | | | | | |
| RATING | 40C AMB-CONT | | NEMA NOM. EFF. | 93 | | GREASE | POLYREX EM | | | |
| P.F. | 90 | SER.F. | 1.15 | | VPWM INVERTER READY | | | | | |
| HTR-VOLTS | | | HTR-AMPS | | | HTR-WATTS | | | | |

AC Induction Motor Performance Data

Record # 53036 - Typical performance - not guaranteed values

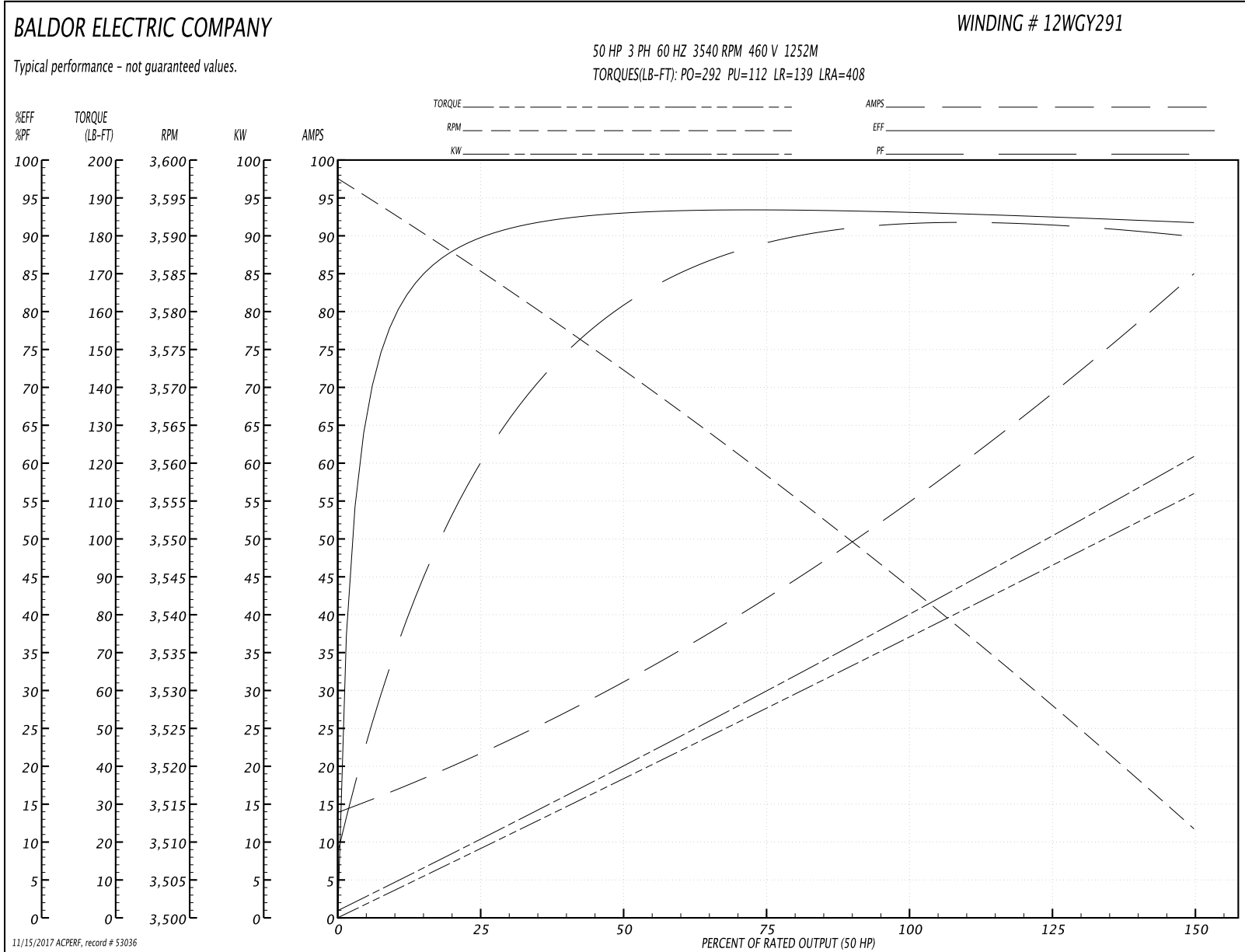
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 12WGY291-R035 | Type: 1252M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

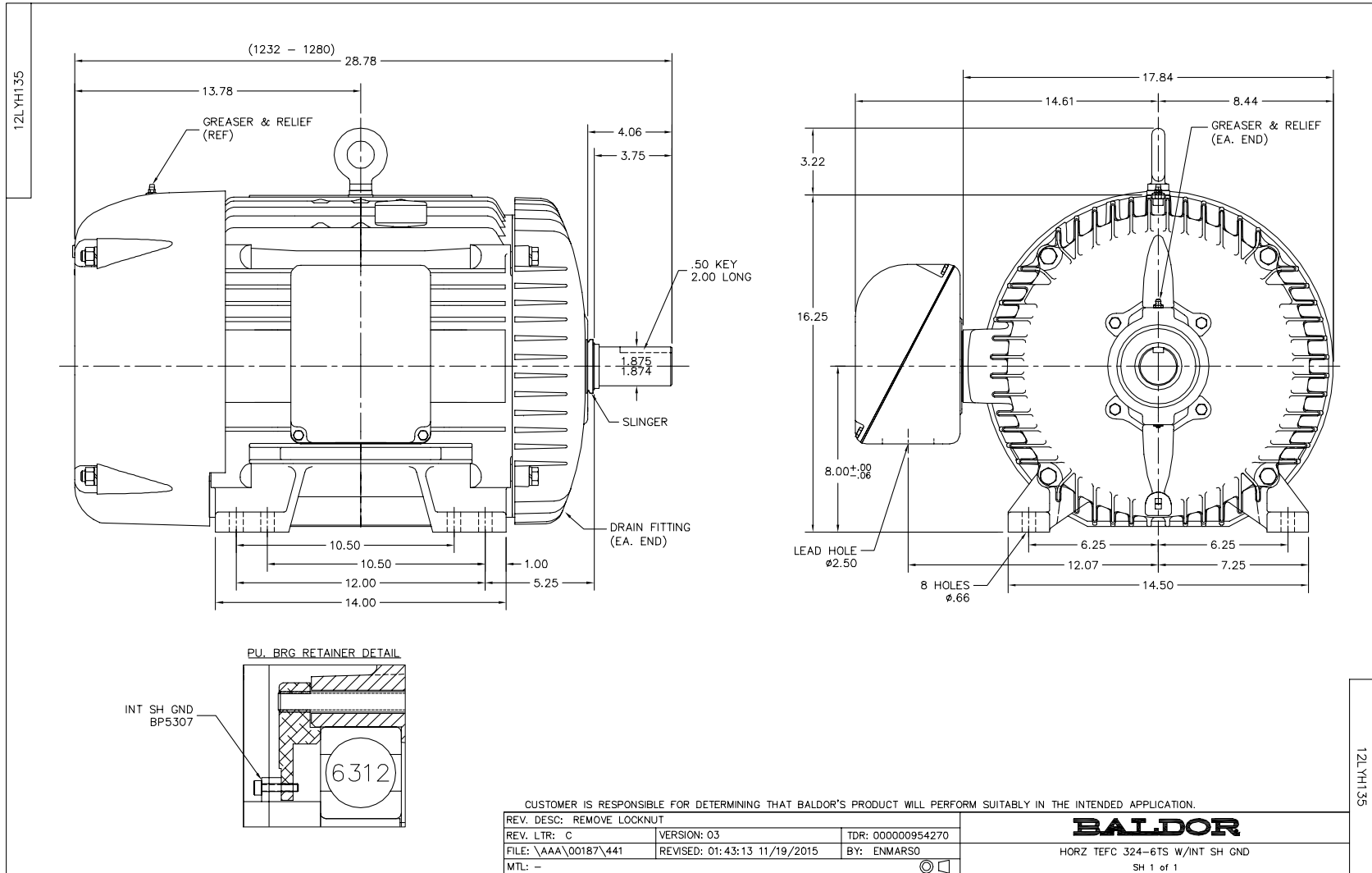
| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|------------------------------------------|-------------------------|
| Rated Output (HP) | 50 | | | Full Load Torque | 74.4 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 112/56 | | | Breakdown Torque | 292 LB-FT |
| R.P.M. | 3540 | | | Pull-up Torque | 112 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 139 LB-FT |
| NEMA Design Code | A | KVA Code | H | Starting Current | 408 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 14.9 A |
| NEMA Nom. Eff. | 93 | Power Factor | 90 | Line-line Res. @ 25°C | 0.11257 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 77°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 95°C |
| | | | | Locked-rotor Power Factor | 21 |
| | | | | Rotor inertia | 4.07 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 | 82 | 88 | 90 | 91 | 90 | 91 |
| Efficiency | 91.1 | 93.8 | 94.2 | 93.9 | 93.2 | 92.3 | 93.5 |
| Speed | 3584.1 | 3571.8 | 3558.2 | 3544.1 | 3528.2 | 3511.2 | 3535 |
| Line amperes | 20.4 | 30.8 | 42.9 | 55.8 | 69.5 | 84.6 | 64 |

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

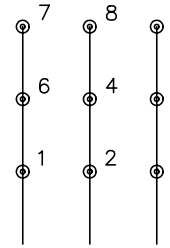




CD0180

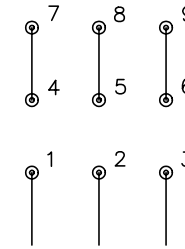


LOW VOLTAGE
(2D)



LINE

HIGH VOLTAGE
(1D)



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: C | BY: JLP | REVISED: 01/21/99 2:28 | TDR: 0171435 |
| 0810D0 | | FILE: AAA00005148 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180