



Customer information packet

EM2539T-CI

40HP, 1770RPM, 3PH, 60HZ, 324T, 1250M, OPEN, F1

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|--|
| Enclosure | OPEN |
| Frame | 324T |
| Frame Material | Iron |
| Frequency | 60.00 Hz |
| Motor Letter Type | Three Phase |
| Output @ Frequency | 40.000 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ |
| Voltage @ Frequency | 230.0 V @ 60 HZ 460.0 V @ 60 HZ |
| XP Class and Group | None |
| XP Division | Not Applicable |
| Agency Approvals | UR CSA CSA EEV |
| Ambient Temperature | 40 °C |
| Auxillary Box | No Auxillary Box |
| Auxillary Box Lead Termination | None |
| Base Indicator | Rigid |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Blower | None |
| Current @ Voltage | 96.000 A @ 230.0 V 48.000 A @ 460.0 V |
| Design Code | A |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 94.1 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Face Code | Standard |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |

Part detail

| | |
|--------------|------------|
| Revision | S |
| Type | AC |
| Mech. spec. | 12B01 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 12WGY580 |
| Layout | 12LYB001 |
| Eff. date | 09-24-2019 |
| CD Diagram | CD0180 |
| Poles | 04 |
| Leads | 9#8 |
| Proprietary | False |
| Created date | 05-14-2012 |

| | |
|-------------------------------|-----------------------|
| High Voltage Full Load Amps | 48.0 a |
| Insulation Class | F |
| Inverter Code | Inverter Ready |
| KVA Code | H |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Lead Exit | Ko Box |
| Motor Lead Quantity/Wire Size | 9 @ 8 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 1250M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 26.13 IN |
| Power Factor | 82 |
| Product Family | General Purpose |
| Pulley End Bearing Type | Ball |
| Pulley Face Code | Standard |
| Pulley Shaft Indicator | Standard |
| Rodent Screen | None |
| Service Factor | 1.15 |
| Shaft Diameter | 2.125 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No Slinger |
| Speed | 1775 rpm |
| Speed Code | Single Speed |
| Starting Method | Direct on line |
| Thermal Device - Bearing | NONE (OLD) |
| Thermal Device - Winding | None |
| Vibration Sensor Indicator | No Vibration Sensor |
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

Nameplate

| NP3554LUA | | | | | | | | | | |
|------------------|----------------------------|--------------------------------|------|----------------------------------|-----------|------|----------------|-------------|---------------|-------------|
| CAT.NO. | EM2539T-CI | | | P/N | | | | ENCL | | OPEN |
| SPEC. | 12B001Y580G1 | CC | 010A | FRAME | | 324T | SER.NO. | | | |
| HP | 40 | CLASS | | F | HZ | 60 | | | | |
| RPM | 1775 | PH | 3 | DES | | A | | | | |
| VOLTS | 230/460 | | | CODE | | H | ODE BRG | 6311 | DE BRG | 6311 |
| AMPS | 96/48 | | | USABLE AT 208V | | | | | | |
| RATING | 40C AMB-CONT | | | NEMA-NOM-EFF | | 94.1 | GREASE | POLYREX EM | | |
| PF | 82 | SER.F. | 1.15 | CT30-60(2:1) VT3-60(20:1) | | | | | | |
| USABLE AT | 50HZ 40HP 190/380V 114/57A | | | SF 1.0 | | | | | | |
| HTR-VOLTS | HTR-AMPS | MAX. SPACE HEATER TEMP. | | | | | | | | |

AC Induction Motor Performance Data

Record # 66028

Typical performance - not guaranteed values

| Winding: 12WGY580-R001 | | Type: 1250M | | Enclosure: OPEN | |
|-------------------------------|----------|--------------------|--|---------------------------|----------------|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | | 40 | Full Load Torque | | 118.8 LB-FT |
| Volts | | 230/460 | Start Configuration | | direct on line |
| Full Load Amps | | 96/48 | Breakdown Torque | | 378 LB-FT |
| R.P.M. | | 1775 | Pull-up Torque | | 178 LB-FT |
| Hz | 60 Phase | 3 | Locked-rotor Torque | | 219 LB-FT |
| NEMA Design Code | A | KVA Code | H | Starting Current | 324 A |
| Service Factor (S.F.) | | 1.15 | No-load Current | | 20 A |
| NEMA Nom. Eff. | 94.1 | Power Factor | 82 | Line-line Res. @ 25°C | 0.16075 Ω |
| Rating - Duty | | 40C | AMB-CONT | Temp. Rise @ Rated Load | 32°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 39°C |
| | | | | Locked-rotor Power Factor | 27.3 |

Load Characteristics 460 V, 60 Hz, 40 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 45 | 67 | 77 | 82 | 84 | 84 | 83 |
| Efficiency | 91.7 | 94.5 | 95 | 94.8 | 94.3 | 93.6 | 94.5 |
| Speed | 1795.1 | 1790.4 | 1785.1 | 1780 | 1773.8 | 1767.5 | 1776 |
| Line amperes | 23.2 | 29.8 | 38.5 | 48.4 | 59.2 | 71 | 54.9 |

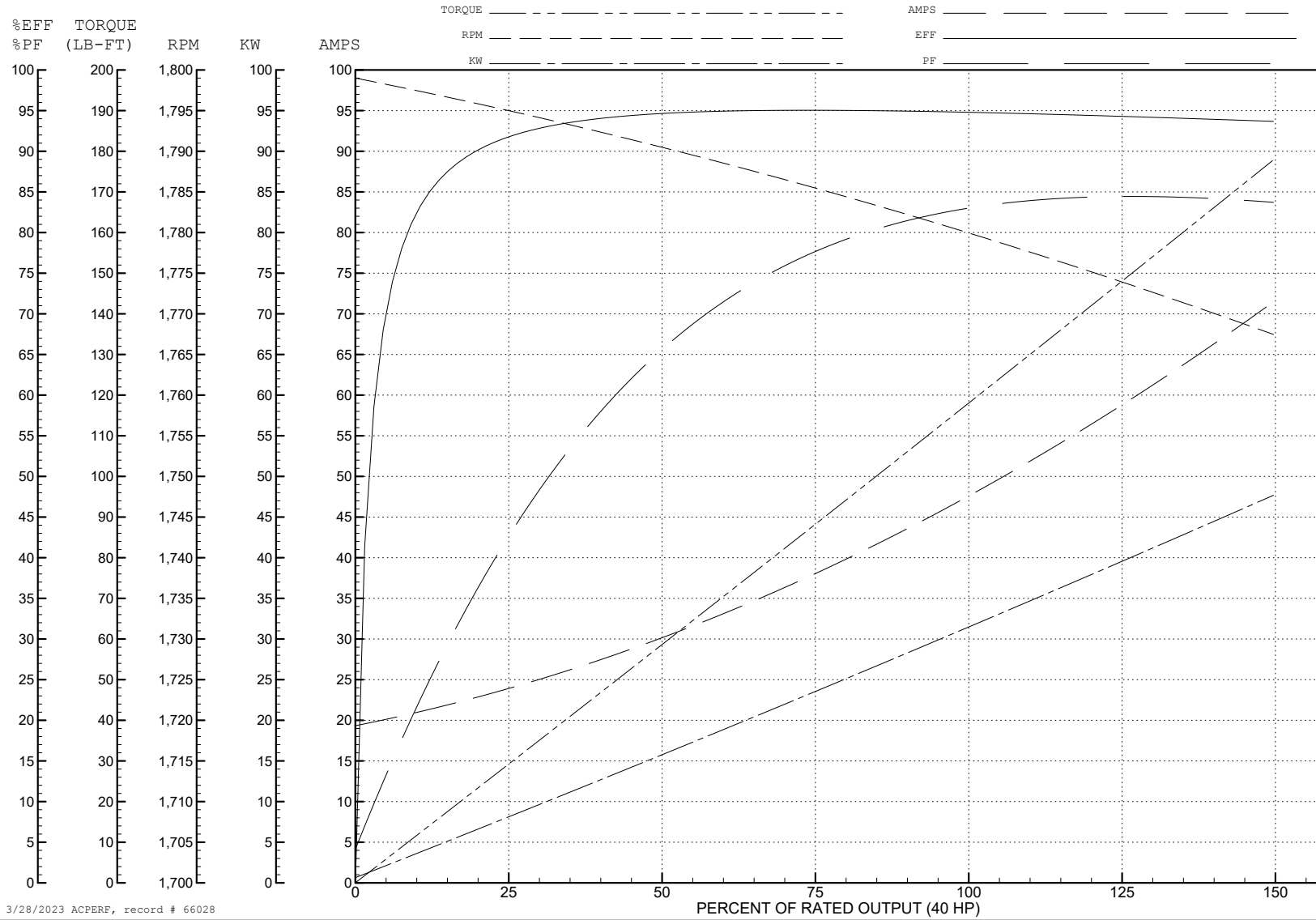
ABB Motors and Mechanical Inc.

WINDING # 12WGY580

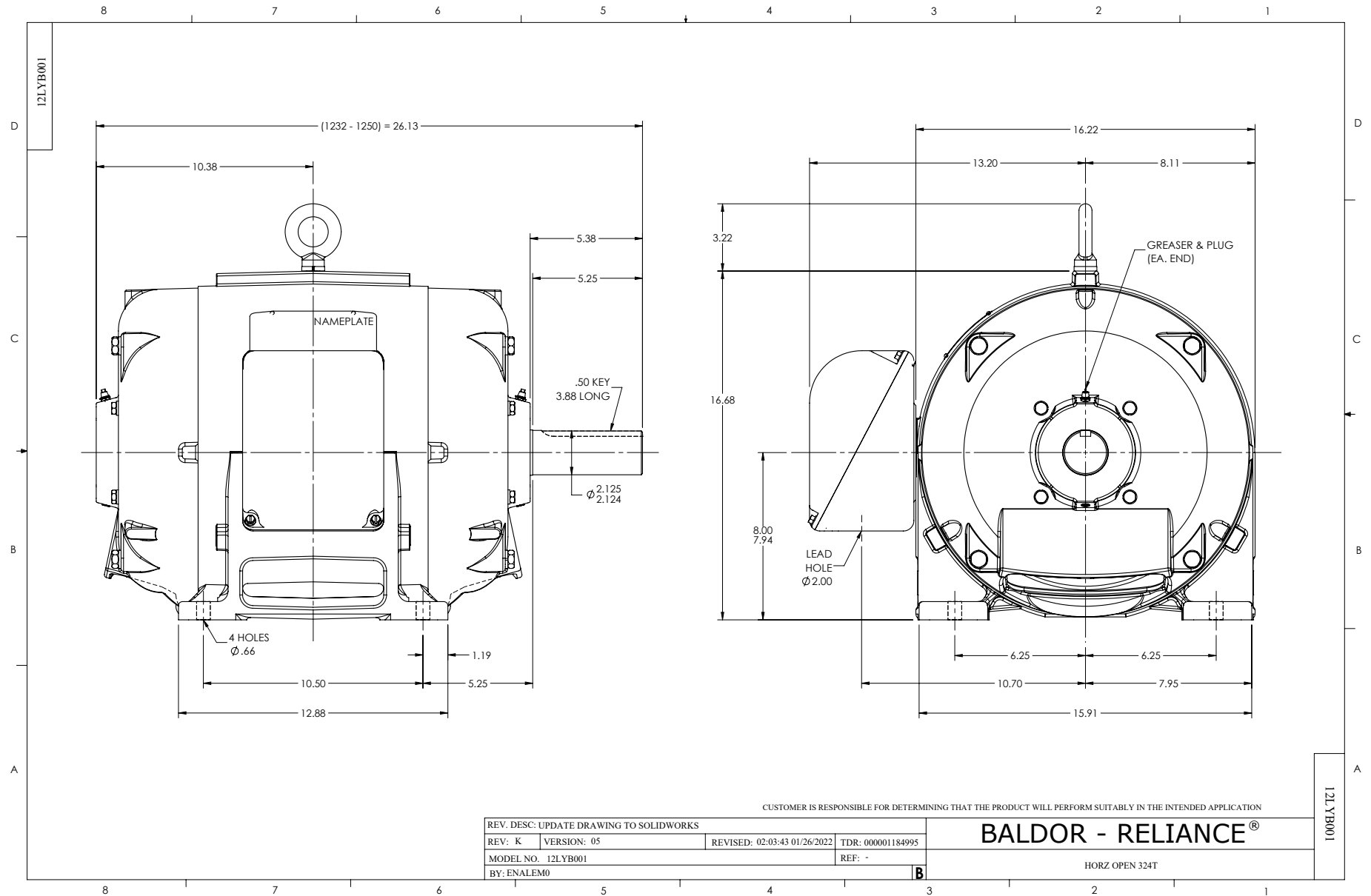
Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1775 RPM 460 V 1250M

TORQUES (LB-FT): PO=378 PU=178 LR=219 LRA=324



3/28/2023 ACPERF, record # 66028



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

| | | | |
|---|-------------|------------------------------|-------------------|
| REV. DESC: UPDATE DRAWING TO SOLIDWORKS | | | |
| REV: K | VERSION: 05 | REVISED: 02:03:43 01/26/2022 | TDR: 000001184995 |
| MODEL NO. 12LYB001 | | REF: - | |
| BY: ENALEM0 | | B | |

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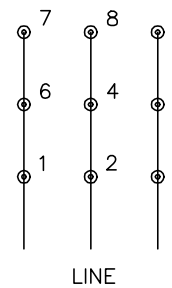
HORZ OPEN 324T

12LYB001

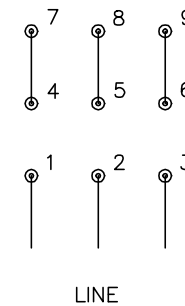
CD0180



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