



Customer information packet

ECP4110T-4

40HP, 1775RPM, 3PH, 60HZ, 324T, 1254M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

| | |
|--------------------------------|--------------------------------------|
| Enclosure | TEFC |
| 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 | 460.0 V @ 60 HZ |
| XP Class and Group | CL I GP A,B,C,D |
| XP Division | Division II |
| Agency Approvals | CSA UR NEMA PREMIUM 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 |
| Constant Torque Speed Range | 0.8 |
| Current @ Voltage | 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 Shaft Indicator | None |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 48.0 a |

Part detail

| | |
|--------------|------------|
| Revision | D |
| Type | AC |
| Mech. spec. | 12F904 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 12WGY399 |
| Layout | 12LYF904 |
| Eff. date | 02-07-2023 |
| CD Diagram | CD0006 |
| Poles | 04 |
| Leads | 3#8 |
| Proprietary | False |
| Created date | 05-29-2018 |

| | |
|-------------------------------|-----------------------------|
| Insulation Class | F |
| Inverter Code | Inverter Duty |
| KVA Code | H |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Max Speed | 2700 rpm |
| Motor Lead Quantity/Wire Size | 3 @ 8 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 1254M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 30.28 IN |
| Power Factor | 82 |
| Product Family | Super-E Chemical Processing |
| 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 Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | Shaft Slinger |
| Speed | 1775 rpm |
| Speed Code | Single Speed |
| Starting Method | Direct on line |
| Thermal Device - Bearing | None |
| Thermal Device - Winding | None |
| Vibration Sensor Indicator | No Vibration Sensor |
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |
| XP Temp Code | T3 |

Nameplate

NP3241

| | | | | | |
|-------------------|--------------|---------------------------|------|--------------------------------|------------|
| CAT.NO. | ECP4110T-4 | P/N | | ENCLOSURE | TEFC |
| SPEC. | 12F904Y399G6 | CC | 010A | FRAME | 324T |
| HP | 40 | CLASS | F | HZ | 60 |
| RPM | 1775 | RPM MAX | 2700 | PH | 3 |
| VOLT | 460 | MOTOR WEIGHT | 595 | DES | A |
| AMP | 48 | SER.F. | 1.15 | PF | 82 |
| RATING | 40C AMB-CONT | NEMA-NOM-EFF | 94.1 | ODE BRG | 6312 |
| | | | | DE BRG | 6312 |
| | | | | GREASE | POLYREX EM |
| | | | | INV.TYPE | PWM |
| TEMP CODE | T3 | INVERTER-TEMP-CODE | 200 | | |
| TEMP = | 200 | C HP FR | 60 | C HP TO | 90 |
| CT HZ FROM | 0.8 | CT HZ TO | 60 | | |
| HTR-VOLTS | | HTR-AMPS | | HTR-WATTS | |
| | | | | MAX. SPACE HEATER TEMP. | |
| | | | | VT HZ FROM | 0 |
| | | | | VT HZ TO | 60 |

Accessories

| Part number | Description | Multiplier |
|--------------------|--|-------------------|
| 12-1105ECP | C FACE KIT (C-FACE SWAP FOR ECP MOTOR) | A8 |

AC Induction Motor Performance Data

Record # 70998

Typical performance - not guaranteed values

| Winding: 12WGY399-R046 | | Type: 1254M | | Enclosure: TEFC | |
|-------------------------------|-------------------|----------------------------|---|------------------------------|-----------|
| Nameplate Data | | | 460 V, 60 Hz: Single Voltage Motor | | |
| Rated Output (HP) | 40 | Full Load Torque | 118 LB-FT | | |
| Volts | 460 | Start Configuration | direct on line | | |
| Full Load Amps | 48 | Breakdown Torque | 386 LB-FT | | |
| R.P.M. | 1775 | Pull-up Torque | 193 LB-FT | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 216 LB-FT | |
| NEMA Design Code | A KVA Code | H | Starting Current | 338 A | |
| Service Factor (S.F.) | 1.15 | | No-load Current | 19.9 A | |
| NEMA Nom. Eff. | 94.1 | Power Factor | 82 | Line-line Res. @ 25°C | 0.14898 Ω |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 54°C | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 64°C | |
| | | | Locked-rotor Power Factor | 27.3 | |
| | | | Rotor inertia | 7.19 LB-FT ² | |

Load Characteristics 460 V, 60 Hz, 40 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 47 | 69 | 78 | 83 | 85 | 85 | 84 |
| Efficiency | 90.1 | 93.5 | 94.2 | 94.2 | 93.8 | 93.1 | 94 |
| Speed | 1793.5 | 1788 | 1782.5 | 1776.6 | 1770.7 | 1764.1 | 1773 |
| Line amperes | 22.9 | 29.5 | 38.4 | 48.1 | 59.2 | 70.8 | 54.8 |

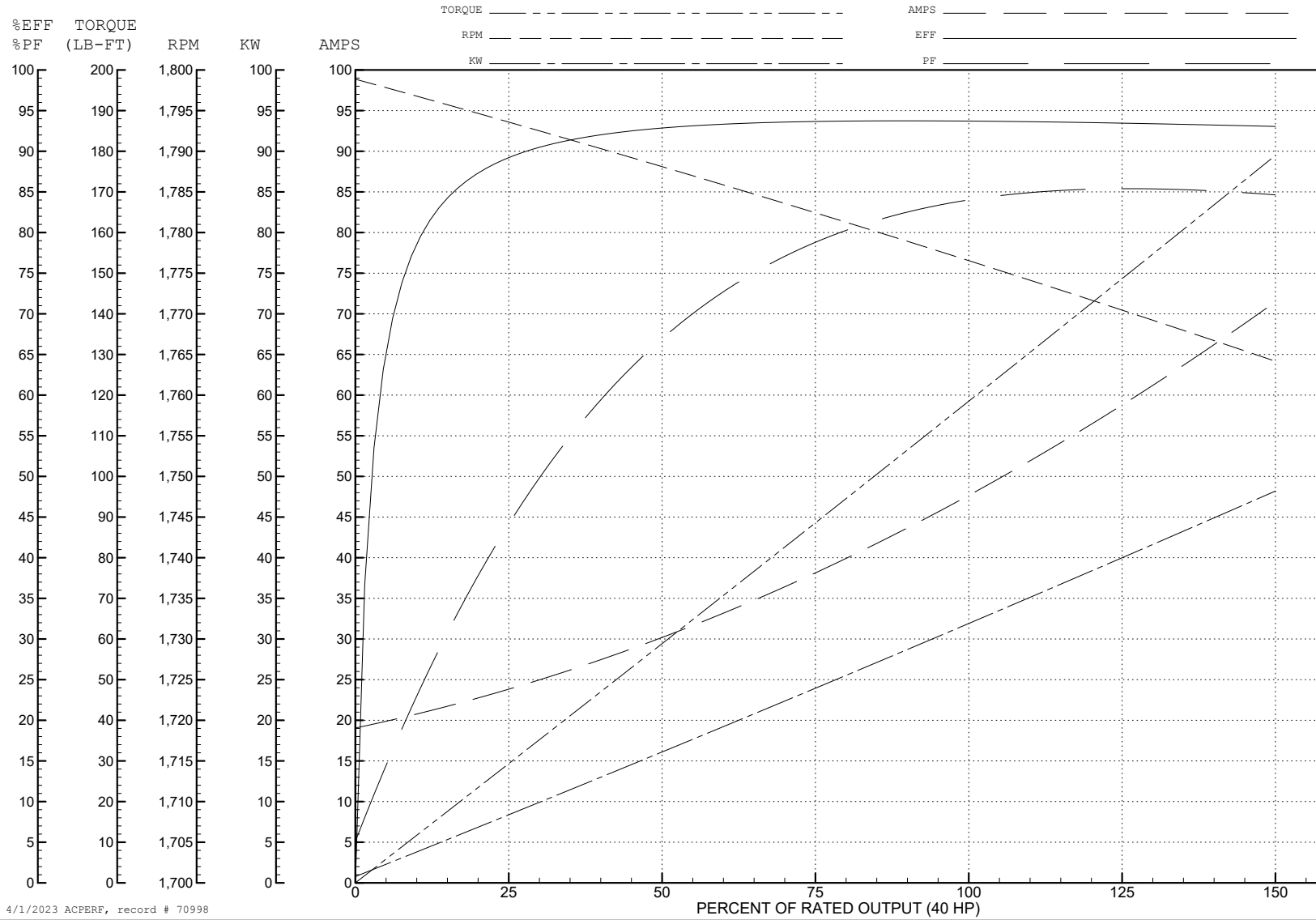
ABB Motors and Mechanical Inc.

WINDING # 12WGY399

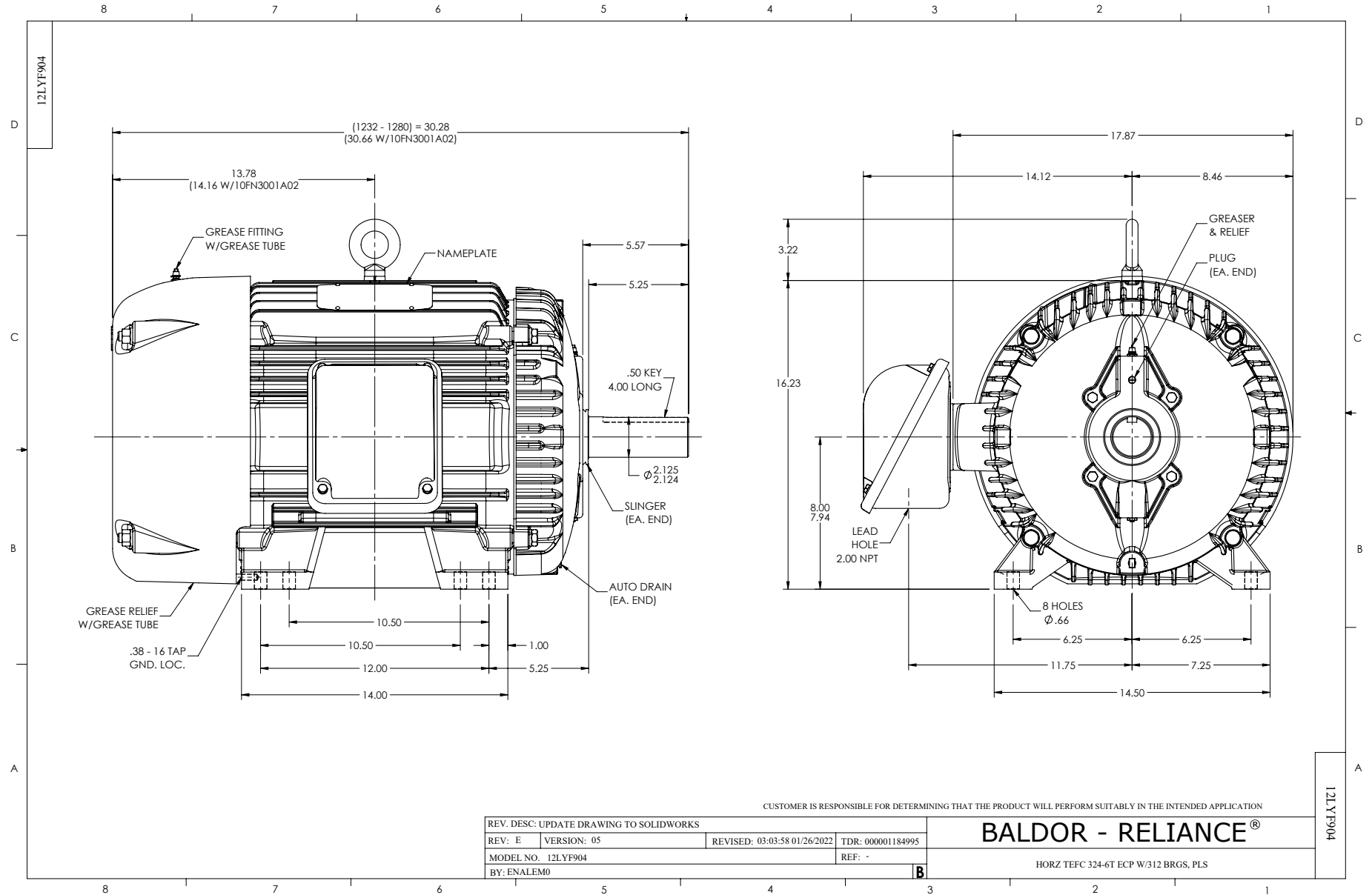
Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

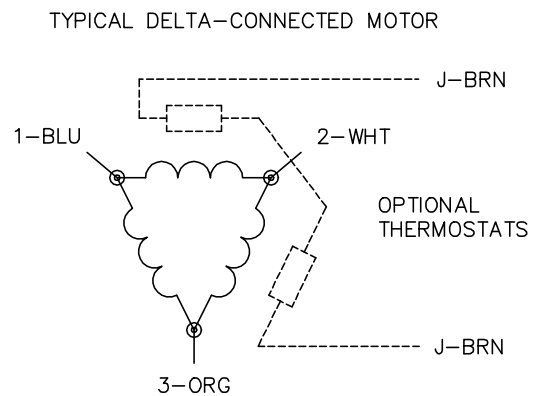
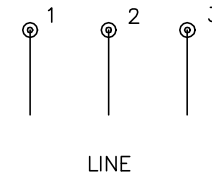
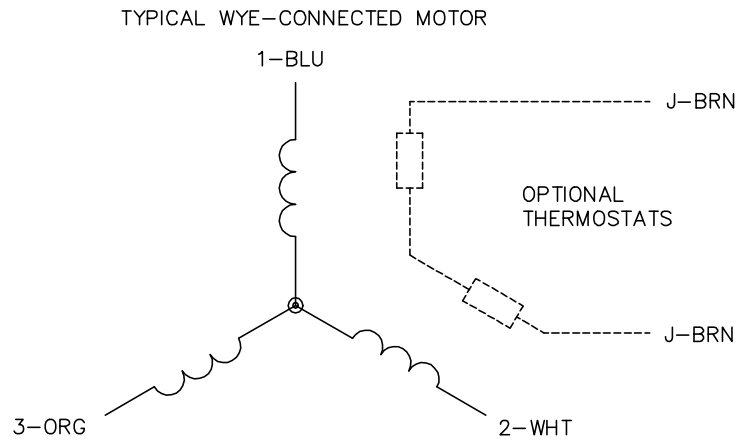
TORQUES (LB-FT): PO=386 PU=193 LR=216 LRA=338



4/1/2023 ACPERF, record # 70998



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

| | | |
|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: E | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\141 | REVISED: 10:24:49 02/19/2019 | BY: ENBRIRO |
| MTL: - | © □ | |

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1