

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM4110T-12**

**40HP,1770RPM,3PH,60HZ,324T,1260M,TEFC,F1**

| Part Detail |       |             |            |             |        |               |            |
|-------------|-------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | N     | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC    | Elec. Spec: | 12WGY339   | CD Diagram: | CD0104 | Mfg Plant:    |            |
| Mech. Spec: | 12C51 | Layout:     | 12LYC051   | Poles:      | 04     | Created Date: | 08-03-2010 |
| Base:       | RG    | Eff. Date:  | 06-28-2021 | Leads:      | 12#8   |               |            |

| Specs                           |                         |                                |                       |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number:                 | EM4110T-12              | Insulation Class:              | F                     |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Inverter Ready        |
| Frame:                          | 324T                    | IP Rating:                     | NONE                  |
| Frame Material:                 | Iron                    | KVA Code:                      | H                     |
| Output @ Frequency:             | 40.000 HP @ 60 HZ       | Lifting Lugs:                  | Standard Lifting Lugs |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Locked Bearing Indicator:      | Locked Bearing        |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Quantity/Wire Size: | 12 @ 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:                    | 1260M                 |
| Agency Approvals:               | CSA                     | Mounting Arrangement:          | F1                    |
|                                 | CSA EEV                 | Power Factor:                  | 83                    |
|                                 | UR                      | 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            |

|                                       |                           |                                    |                       |
|---------------------------------------|---------------------------|------------------------------------|-----------------------|
| <b>Current @ Voltage:</b>             | 48.000 A @ 460.0 V        | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding    |
|                                       | 96.000 A @ 230.0 V        | <b>Shaft Rotation:</b>             | Reversible            |
| <b>Design Code:</b>                   | A                         | <b>Shaft Slinger Indicator:</b>    | Shaft Slinger         |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Speed Code:</b>                 | Single Speed          |
| <b>Duty Rating:</b>                   | CONT                      | <b>Motor Standards:</b>            | NEMA                  |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Starting Method:</b>            | Wye Start - Delta Run |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Bearing:</b>   | None                  |
| <b>Front Face Code:</b>               | Standard                  | <b>Thermal Device - Winding:</b>   | None                  |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor   |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 1:</b>          | None                  |
|                                       |                           | <b>Winding Thermal 2:</b>          | None                  |

|                          |              |        |                |      |                     |           |            |         |      |      |
|--------------------------|--------------|--------|----------------|------|---------------------|-----------|------------|---------|------|------|
| <b>Nameplate NP3443L</b> |              |        |                |      |                     |           |            |         |      |      |
| CAT.NO.                  | EM4110T-12   |        |                |      | CUST. P/N           |           |            |         | ENCL | TEFC |
| SPEC.                    | 12C051Y339G1 |        | CC             | 010A | FRAME               | 324T      |            | SER.NO. |      |      |
| HP                       | 40           |        | CLASS          | F    | HZ                  | 60        |            |         |      |      |
| R.P.M.                   | 1770         |        | PH             | 3    | DES                 | A         |            |         |      |      |
| VOLTS                    | 230/460      |        | CODE           | H    | ODE BRG             | 6311      |            | DE BRG  | 6312 |      |
| AMPS                     | 96/48        |        | USABLE AT 208V |      |                     |           |            |         |      |      |
| RATING                   | 40C AMB-CONT |        | NEMA NOM. EFF. | 94.1 |                     | GREASE    | POLYREX EM |         |      |      |
| P.F.                     | 83           | SER.F. | 1.15           |      | VPWM INVERTER READY |           |            |         |      |      |
| HTR-VOLTS                |              |        | HTR-AMPS       |      |                     | HTR-WATTS |            |         |      |      |

| Parts List    |   |          |
|---------------|---|----------|
| Part Number   | Description                               | Quantity |
| SA200837      | SA 12C051Y339G1                           | 1.000 EA |
| RA188148      | RA 12C051Y339G1                           | 1.000 EA |
| 09FN3001B03SP | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO  | 1.000 EA |
| 10CB3001      | CONDUIT BOX CAST W/2.500 LEAD HOLE        | 1.000 EA |
| 09GS1000SP    | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE     | 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 |
| WD1000B25     | GND LUG, BURNDY L125HP OR T&B L125HP-BB   | 1.000 EA |
| 19XW3118G08   | .31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN    | 1.000 EA |
| HA3400A13     | STUD, 1/2-13 X 7" WELKER                  | 4.000 EA |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| HW5100A13     | W4627-047 WVY WSHER                       | 1.000 EA |
| 10XN3118K40   | 5/16-18 X 2.25" HEX HD, GRADE 5           | 2.000 EA |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I  | 2.000 EA |
| 12EP1106A01   | PU ENDPLATE, MACH                         | 1.000 EA |
| HW4600B41     | V-RING SLINGER 2.125 X 2.880 X 0.280      | 1.000 EA |
| 10XN5013K28   | 1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD    | 4.000 EA |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 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 |
| 12FH1002SP    | FAN COVER, CAST                           | 1.000 EA |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| XY5013A12     | NUT,1/2-13,HEX,STEEL,ZINCPLATED           | 4.000 EA |
| 10CB3500SP    | CONDUIT BOX LID, CAST                     | 1.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 10GS1000SP             | GASKET, CONDUIT BOX LID                  | 1.000 EA |
| 51XW2520A12            | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA |
| HW2501H33              | KEY, 1/2 SQ X 3.875                      | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (2100/bx) 4/22  | 1.000 EA |
| 12EP1107A05            | FR ENDPLATE, MACH                        | 1.000 EA |
| HW4500A21              | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 EA |
| HA4017A01              | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4054                 | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| MJ1000A02              | GREASE, MOBIL POLYREX EM - 124047        | 0.200 LB |
| HW4500A03              | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4054                 | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW2500A25              | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.080 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0104A01              | CONNECTION DIAGRAM                       | 1.000 EA |
| NP3443L                | SS SUPER-E UL CSA-EEV PREM CC            | 1.000 EA |
| 12PA1000               | PACKAGING GROUP PRINT PK1024A07          | 1.000 EA |

|            |                  |          |
|------------|------------------|----------|
| PE-0000013 | ZRTG PE ASSEMBLY | 1.000 EA |
| FE-0000022 | ZRTG FE ASSEMBLY | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 32033

Typical performance - not guaranteed values

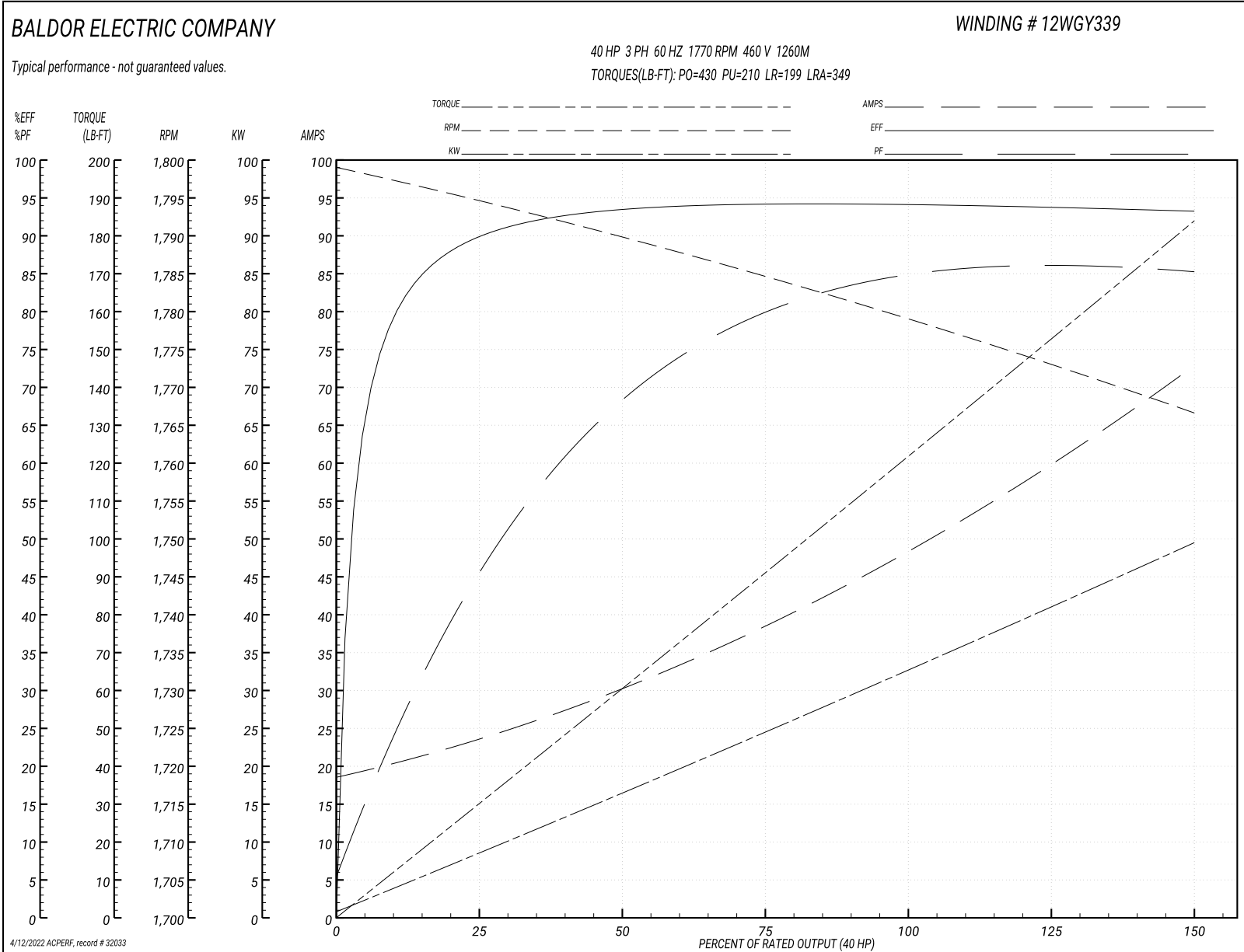
| Winding: 12WGY339-R001 |                   | Type: 1260M               | Enclosure: TEFC                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 40                | Full Load Torque          | 118 LB-FT  |  |
| Volts                  | 208-230/460       | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 102-96/48         | Breakdown Torque          | 430 LB-FT  |  |
| R.P.M.                 | 1770              | Pull-up Torque            | 210 LB-FT  |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 199 LB-FT  |  |
| NEMA Design Code       | A KVA Code        | Starting Current          | 349 A  |  |
| Service Factor (S.F.)  | 1.15              | No-load Current           | 19.3 A   |  |
| NEMA Nom. Eff.         | 94.1 Power Factor | Line-line Res. @ 25°C     | 0.13252 Ω  |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 51°C   |  |
| S.F. Amps              |                   | Temp. Rise @ S.F. Load    | 61°C   |  |
|                        |                   | Locked-rotor Power Factor | 27   |  |
|                        |                   | Rotor inertia             | 7.99 LB-FT <sup>2</sup>                          |  |

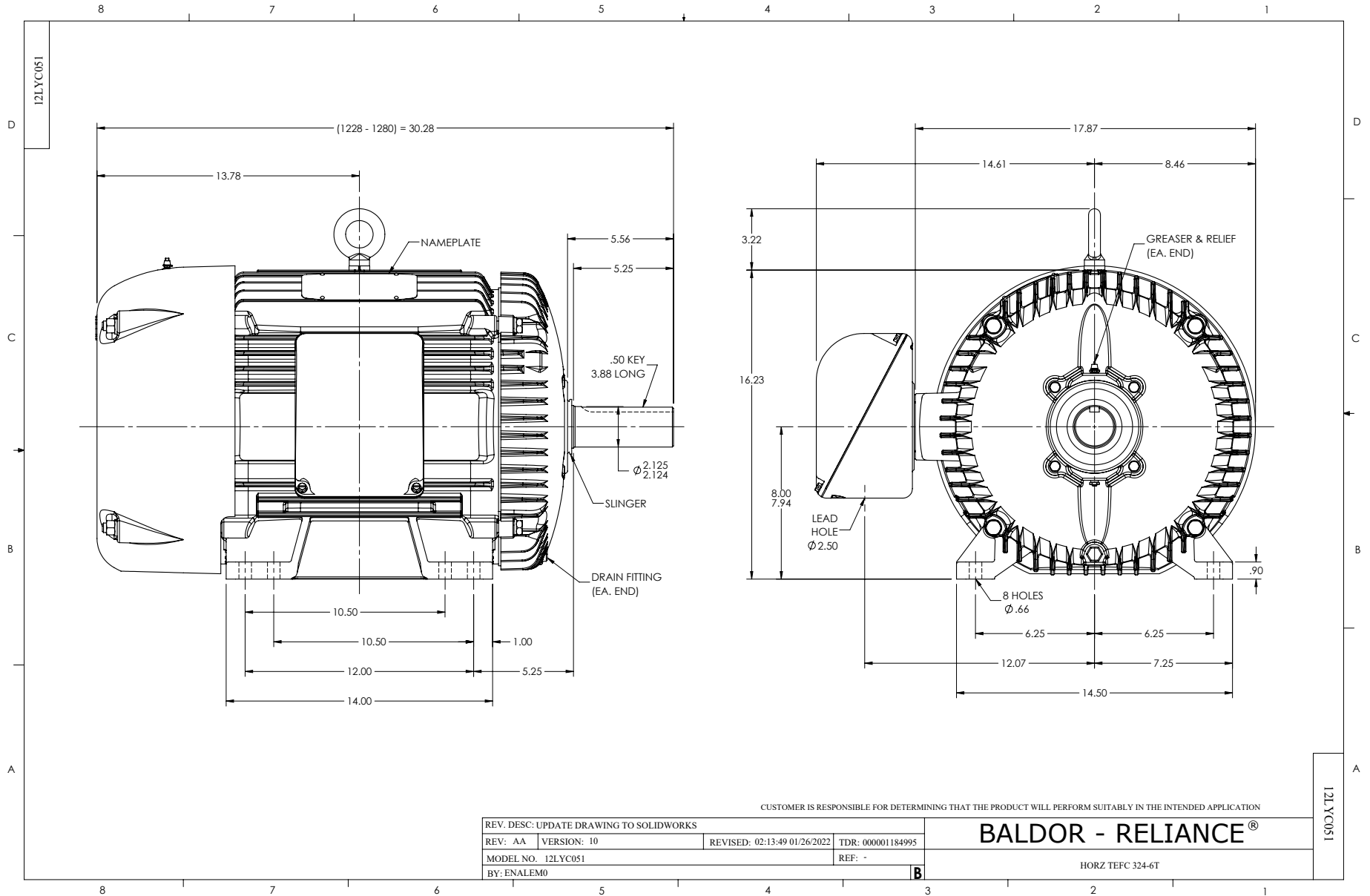
**Load Characteristics 460 V, 60 Hz, 40 HP**

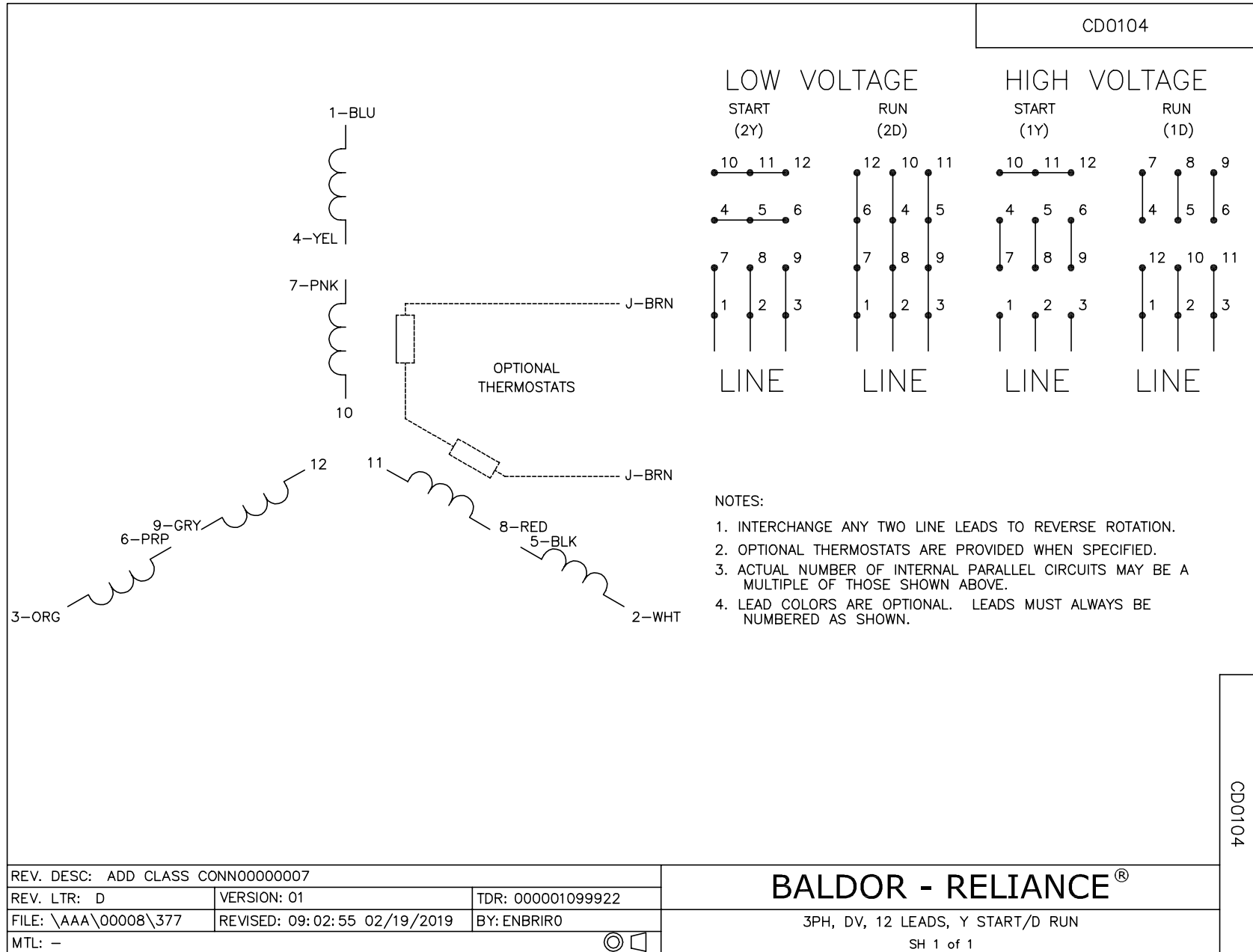
| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 46     | 69     | 79     | 83     | 86     | 86     | 85   |
| Efficiency      | 90.1   | 93.7   | 94.5   | 94.5   | 94.2   | 93.5   | 94.3 |
| Speed           | 1795.1 | 1790.2 | 1784.9 | 1779.7 | 1774.3 | 1766.5 | 1776 |
| Line amperes    | 22.5   | 29.1   | 37.7   | 47.9   | 58.1   | 72.5   | 54   |



Performance Graph at 460V, 60Hz, 40.0HP Typical performance - Not guaranteed values







Marketing maintained PDF of MN416:

<http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416>