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# Customer information packet

## SPM4110T

40HP, 1785RPM, 3PH, 60HZ, 324T, 1288M, TEFC, F1

PFC EQUIPMENT INC

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Enclosure                      | TEFC                                                            |
| Frame                          | 324T                                                            |
| Frame Material                 | Iron                                                            |
| Frequency                      | 60.00 Hz                                                        |
| Haz Area Class and Group       | None                                                            |
| Haz Area Division              | Not Applicable                                                  |
| 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<br>230.0 V @ 60 HZ                              |
| Agency Approvals               | CSA<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>WEEE         |
| 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<br>48.000 A @ 460.0 V<br>104.000 A @ 208.0 V |
| Design Code                    | A                                                               |
| Drip Cover                     | No Drip Cover                                                   |
| Duty Rating                    | CONT                                                            |
| Efficiency @ 100% Load         | 95.0 %                                                          |
| Electrically Isolated Bearing  | Not Electrically Isolated                                       |
| Feedback Device                | NO FEEDBACK                                                     |

## Part detail

|              |            |
|--------------|------------|
| Revision     | -          |
| Type         | AC         |
| Mech. spec.  | 12T116     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 12WGZ347   |
| Layout       | 12LYT116   |
| Eff. date    | 06-19-2024 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#8        |
| Proprietary  | False      |
| Created date | 06-18-2024 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Shaft Indicator         | None                  |
| Haz Area Temp Code            | T3B                   |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 48.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Duty         |
| KVA Code                      | K                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Max Speed                     | 2700 rpm              |
| Motor Lead Quantity/Wire Size | 9 @ 8 AWG             |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 1288M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 30.71 IN              |
| Power Factor                  | 82                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| RoHS Status                   | Y                     |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 2.125 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1785 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                |

### Nameplate

## NP4439B05C23L

[illegible]

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## Parts list

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA426992      | SA 12T116Z347                            | 1.000 ea |
| RA419119      | RA 12T116Z347                            | 1.000 ea |
| 09FN3001B03SP | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| 10CB1000A04P  | KO BOX, MACH W/2.00 NPT W/EPOXY PRIMER   | 1.000 ea |
| 09GS1010      | GASKET, DWG, LEADWIRE SEPERATOR          | 1.000 ea |
| 10XN3118K16   | 5/16-18 X 1' GRADE #5, STL, ZINC PLATE   | 4.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| WD1000B16     | T&B CX70TN OR L70P TERMINAL LUG          | 1.000 ea |
| 10XN2520K06   | 1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P | 1.000 ea |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 ea |
| HA3400A32     | STUD, 1/2-13 X 7.38                      | 4.000 ea |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 4.000 ea |
| HW4500A20     | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HA4017A01     | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 ea |
| HA4017A11     | 1/8 X 2.75 GREASE EXT (F/S)              | 1.000 ea |
| HW4019A01     | PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING | 1.000 ea |
| HW4505A02     | BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS | 1.000 ea |
| HW3023E06     | .125 X .625 SPIRAL SPRING PIN            | 1.000 ea |
| HA2009A49     | SLINGER FOR GROUP E MTRS - 312 BRG.      | 1.000 ea |
| 80XN0632J10   | 6-32 X 5/8 SET SCREW, HEX SOC, CUP PT    | 2.000 ea |
| HW5100A15     | W4997-050 WVY WSHR (WB)                  | 1.000 ea |
| 10XN3118K40   | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 ea |
| 12EP1111A111P | PUEP 312 BRG FOR GP.E SLINGER W/EPOXY    | 1.000 ea |
| HW4500A20     | 1/8NPT SL PIPE PLUG                      | 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 |
| HW4505A02     | BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS | 1.000 ea |
| HW3023E06     | .125 X .625 SPIRAL SPRING PIN            | 1.000 ea |
| HA2009A49     | SLINGER FOR GROUP E MTRS - 312 BRG.      | 1.000 ea |
| 80XN0632J10   | 6-32 X 5/8 SET SCREW, HEX SOC, CUP PT    | 2.000 ea |
| 10XN3118K40   | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 ea |

|                |                                          |          |
|----------------|------------------------------------------|----------|
| 12FH1002A15LP5 | FAN COVER, MACH, W/PRIMER W/MG1025L14    | 1.000 ea |
| XY5013A12      | NUT,1/2-13,HEX,STEEL,ZINCPLATED          | 4.000 ea |
| HW1001A50      | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 4.000 ea |
| 10CB1503A01P   | CONDUIT BOX LIPPED LID, MACH W/EPXY PRMR | 1.000 ea |
| 14GS1003       | GASKET CONDUIT BOX LID, NEOP             | 1.000 ea |
| 10XN2520K16    | 1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P   | 4.000 ea |
| HW1001A25      | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| HW2501H33      | KEY, 1/2 SQ X 3.875                      | 1.000 ea |
| MJ5001A27      | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.031 qt |
| MJ5002A01      | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.030 ea |
| 12EP1111A43LP5 | MACH'D EPOXY PRIMED FREP W/GP.E SLINGER  | 1.000 ea |
| HW4500A21      | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 ea |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A17      | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| MJ1000A02      | GREASE, POLYREX EM EXXON                 | 0.200 lb |
| HW4500A03      | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A17      | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HW2500A25      | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| 51XB1214A20    | 12-14X1.25 HXWSSLD SERTYB                | 1.000 ea |
| MG1050Y01      | CELEROL BALDOR GOLD *** NLA IN 5 GALLON  | 0.080 ga |
| 85XU0407S04    | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| NP4439B05C23L  | SS SUPER PREM,CONN 05(CD0180),AGENCY C,  | 1.000 ea |
| 14PA1000       | PACKAGING 314 GROUP COMBINED PRINT       | 1.000 ea |
| MN416A01       | TAG-INSTAL-MAINT no wire (2500bx)4/22    | 1.000 ea |
| LB1636         | LABEL, SUPER PREMIUM SP4, 1.75 X 1.75    | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 104337

Typical performance - not guaranteed values

| Winding: 12WGZ347-R001 |    |         |              | Type: 1288M                              |                       | Enclosure: TEFC           |           |      |
|------------------------|----|---------|--------------|------------------------------------------|-----------------------|---------------------------|-----------|------|
| Nameplate Data         |    |         |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                           |           |      |
| Rated Output (HP)      |    | 40      |              | Full Load Torque                         |                       | 118.2 LB-FT               |           |      |
| Volts                  |    | 230/460 |              | Start Configuration                      |                       | direct on line            |           |      |
| Full Load Amps         |    | 92/46   |              | Breakdown Torque                         |                       | 414 LB-FT                 |           |      |
| R.P.M.                 |    | 1775    |              | Pull-up Torque                           |                       | 230 LB-FT                 |           |      |
| Hz                     | 60 | Phase   | 3            | Locked-rotor Torque                      |                       | 279 LB-FT                 |           |      |
| NEMA Design Code       |    | A       | KVA Code     | J                                        | Starting Current      |                           | 409 A     |      |
| Service Factor (S.F.)  |    | 1.15    |              | No-load Current                          |                       | 21.2 A                    |           |      |
| NEMA Nom. Eff.         |    | 95      | Power Factor | 85                                       | Line-line Res. @ 25°C |                           | 0.10417 Ω |      |
| Rating - Duty          |    | 40C     |              | AMB-CONT                                 |                       | Temp. Rise @ Rated Load   |           | 44°C |
| S.F. Amps              |    |         |              |                                          |                       | Temp. Rise @ S.F. Load    |           | 52°C |
|                        |    |         |              |                                          |                       | Locked-rotor Power Factor |           | 24.9 |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150  | S.F. |
|-----------------|--------|--------|--------|--------|--------|------|------|
| Power Factor    | 44     | 66     | 77     | 82     | 85     | 86   | 84   |
| Efficiency      | 90.8   | 94.3   | 95.2   | 95.2   | 95     | 94.7 | 95.1 |
| Speed           | 1796.2 | 1792.3 | 1788.5 | 1784.3 | 1780.2 | 1775 | 1782 |
| Line amperes    | 23.9   | 30.3   | 38.6   | 48     | 58.2   | 69.1 | 54.1 |

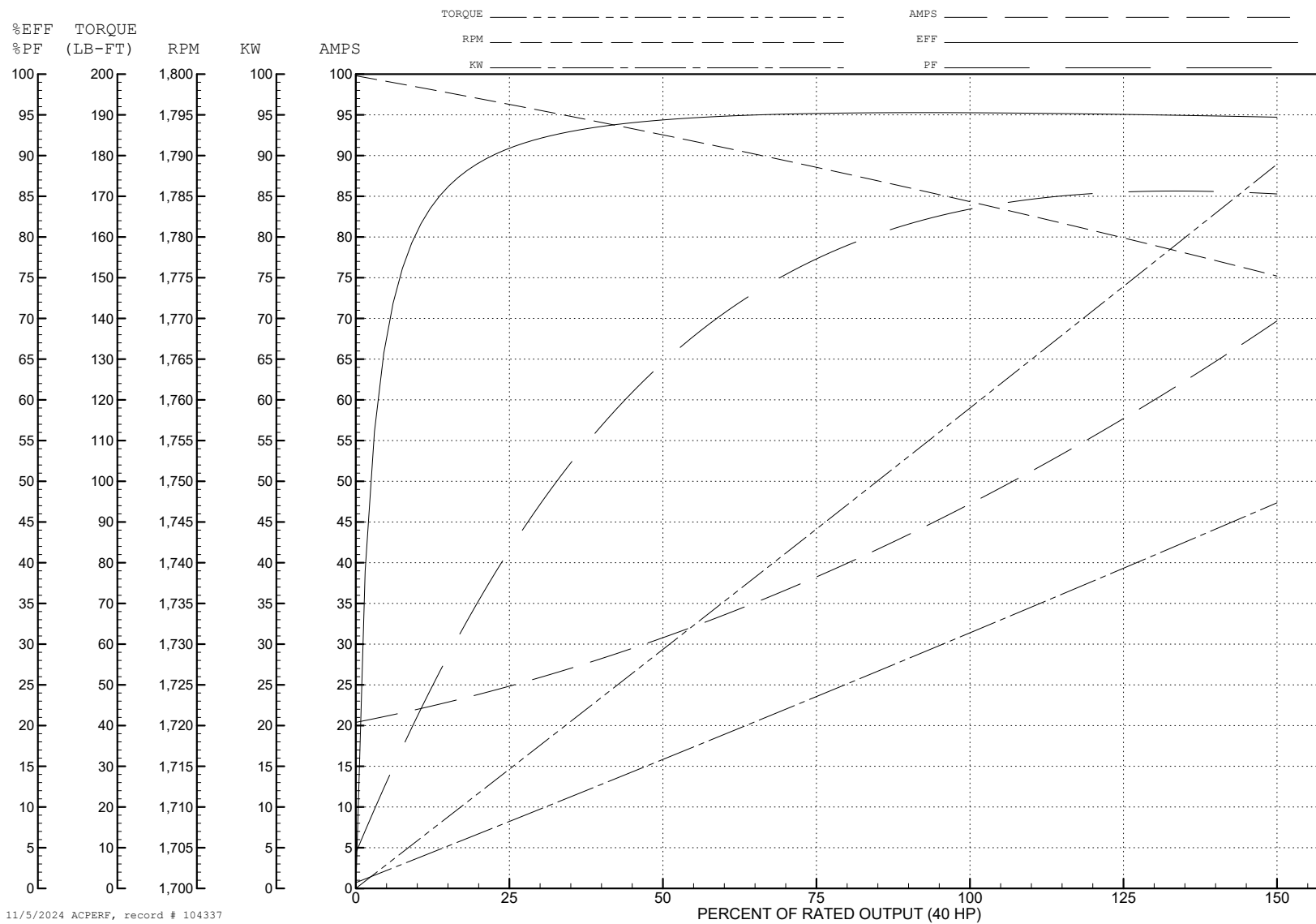
ABB Motors and Mechanical Inc.

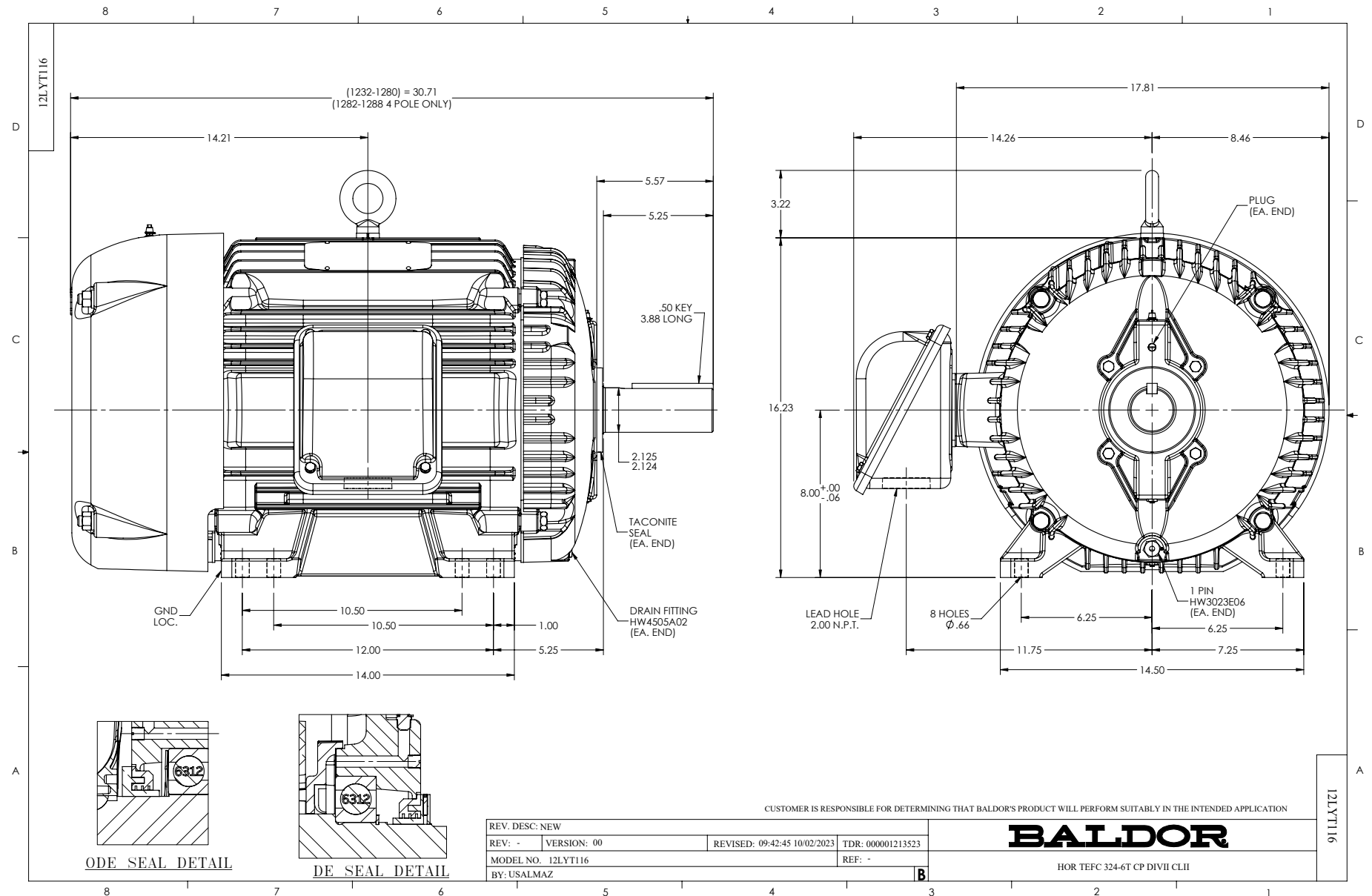
WINDING # 12WGZ347

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1775 RPM 460 V 1288M

TORQUES (LB-FT): PO=414 PU=230 LR=279 LRA=409





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

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: —



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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