

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEM4117T-G

30HP, 1180RPM, 3PH, 60HZ, 326TC, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                     |
| <b>Frame</b>                          | 326TC                                    |
| <b>Frame Material</b>                 | Iron                                     |
| <b>Frequency</b>                      | 60.00 Hz                                 |
| <b>Haz Area Class and Group</b>       | None                                     |
| <b>Haz Area Division</b>              | Not Applicable                           |
| <b>Motor Letter Type</b>              | Three Phase                              |
| <b>Output @ Frequency</b>             | 30.000 HP @ 60 HZ                        |
| <b>Phase</b>                          | 3                                        |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                         |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<br>NEMA PREMIUM<br>UR     |
| <b>Ambient Temperature</b>            | 40 °C                                    |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                         |
| <b>Auxiliary Box Lead Termination</b> | None                                     |
| <b>Base Indicator</b>                 | Rigid                                    |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                  |
| <b>Blower</b>                         | None                                     |
| <b>Current @ Voltage</b>              | 78.000 A @ 230.0 V<br>39.000 A @ 460.0 V |
| <b>Design Code</b>                    | A                                        |
| <b>Drip Cover</b>                     | No Drip Cover                            |
| <b>Duty Rating</b>                    | CONT                                     |
| <b>Efficiency @ 100% Load</b>         | 93.0 %                                   |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                |
| <b>Feedback Device</b>                | NO FEEDBACK                              |
| <b>Heater Indicator</b>               | No Heater                                |
| <b>High Voltage Full Load Amps</b>    | 39.0 a                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 12WGY812   |
| <b>Layout</b>       | 12LYH471   |
| <b>Eff. date</b>    | 06-27-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#8        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-06-2020 |

|                                   |                       |
|-----------------------------------|-----------------------|
| <b>Insulation Class</b>           | H                     |
| <b>Inverter Code</b>              | Not Inverter          |
| <b>IP Rating</b>                  | NONE                  |
| <b>KVA Code</b>                   | H                     |
| <b>Lifting Lugs</b>               | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>   | Locked Bearing        |
| <b>Motor Lead Termination</b>     | Flying Leads          |
| <b>Motor Standards</b>            | NEMA                  |
| <b>Motor Type</b>                 | 1264M                 |
| <b>Mounting Arrangement</b>       | F1                    |
| <b>Number of Poles</b>            | 6                     |
| <b>Overall Length</b>             | 30.28 IN              |
| <b>Power Factor</b>               | 78                    |
| <b>Product Family</b>             | General Purpose       |
| <b>Pulley Face Code</b>           | C-Face                |
| <b>Rodent Screen</b>              | None                  |
| <b>Service Factor</b>             | 1.15                  |
| <b>Shaft Diameter</b>             | 2.125 IN              |
| <b>Shaft Ground Indicator</b>     | Shaft Grounding       |
| <b>Shaft Rotation</b>             | Reversible            |
| <b>Speed</b>                      | 1180 rpm              |
| <b>Speed Code</b>                 | Single Speed          |
| <b>Starting Method</b>            | Direct on line        |
| <b>Thermal Device - Bearing</b>   | None                  |
| <b>Thermal Device - Winding</b>   | None                  |
| <b>Vibration Sensor Indicator</b> | No Vibration Sensor   |
| <b>Winding Thermal 1</b>          | None                  |
| <b>Winding Thermal 2</b>          | None                  |

**Nameplate**

| NP3443LUA |                           |                         |                |                           |           |         |        |        |            |  |  |      |
|-----------|---------------------------|-------------------------|----------------|---------------------------|-----------|---------|--------|--------|------------|--|--|------|
| CAT.NO.   | CEM4117T-G                |                         |                |                           | CUST. P/N |         |        |        | ENCL       |  |  | TEFC |
| SPEC.     | 12-0000-1538              | CC                      | 010A           | FRAME                     | 326TC     | SER.NO. |        |        |            |  |  |      |
| HP        | 30                        |                         | CLASS          | H                         | HZ        | 60      |        |        |            |  |  |      |
| R.P.M.    | 1180                      |                         | PH.            | 3                         | DES.      | A       |        |        |            |  |  |      |
| VOLTS     | 230/460                   |                         |                | CODE                      | H         | ODE BRG | 6311   | DE BRG | 6312       |  |  |      |
| AMPS      | 78/39                     |                         |                |                           |           |         |        |        |            |  |  |      |
| RATING    | 40C AMB-CONT              |                         | NEMA NOM. EFF. |                           |           | 93      | GREASE |        | POLYREX EM |  |  |      |
| P.F.      | 78                        | SER.F.                  | 1.15           | CT6-60H(10:1)VT3-60H(20:1 |           |         |        |        |            |  |  |      |
| USABLE AT | 50HZ 30HP 190/380V 92/46A |                         |                | SF1.0                     |           |         |        |        |            |  |  |      |
| VOLTS     | AMPS                      | MAX. SPACE HEATER TEMP. |                |                           |           |         |        |        |            |  |  |      |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA379765      | SA 12-0000-1538                          | 1.000 ea |
| RA369787      | RA 12-0000-1538                          | 1.000 ea |
| LC0005E01     | SPL CONN.DIA./WARN.LABEL(LC0005/LB1119)  | 1.000 ea |
| NP3443LUA     | SS SUPER-E,CURUS-EEV,NEMA PREM, CC       | 1.000 ea |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| MN416A01      | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 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 |
| 09FN3001B03SP | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| HW2500A25     | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.200 lb |
| 12EP1107A188  | FREP W/"O" DRAIN W/O RET RING HLS        | 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 |
| HA4017A01     | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 ea |
| HA4051A00     | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A21     | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 ea |
| HW4500A17     | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4066A01     | PUSH IN T-DRAIN FITTING (BLACK)          | 1.000 ea |
| 12EP1105A121  | PU ENDPLATE, MACH W/"O" DRAIN            | 1.000 ea |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 4.000 ea |
| 10XN5013K28   | 1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD   | 4.000 ea |
| HW4600B41     | V-RING SLINGER 2.125 X 2.880 X 0.280     | 1.000 ea |
| 10XN3118K40   | 5/16-18 X 2.75" HEX HD, GRADE 5          | 4.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| HA4051A00     | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A03     | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A17     | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4066A01     | PUSH IN T-DRAIN FITTING (BLACK)          | 1.000 ea |

|             |                                          |          |
|-------------|------------------------------------------|----------|
| BP5307      | SHAFT GRD BOLT THROUGH (SGR-71.5-3FH)    | 1.000 ea |
| 10CB3000SP  | KOBX, CAST W/2.00 LEAD HOLE              | 1.000 ea |
| 09GS1000    | 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 |
| 10CB3500SP  | CONDUIT BOX LID, CAST                    | 1.000 ea |
| 10GS1000    | GASKET, CONDUIT BOX LID                  | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 ea |
| MG1050Y01   | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.125 ga |
| 12PA1000    | PACKAGING GROUP PRINT PK1024A07          | 1.000 ea |
| HW2501H33   | KEY, 1/2 SQ X 3.875                      | 1.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 47206

Typical performance - not guaranteed values

| Winding: 12WGY812-R005 |    |              | Type: 1264M                              |                           | Enclosure: TEFC       |             |           |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|-------------|-----------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |             |           |
| Rated Output (HP)      |    | 30           | Full Load Torque                         |                           | 133 LB-FT             |             |           |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |             |           |
| Full Load Amps         |    | 78/39        | Breakdown Torque                         |                           | 370 LB-FT             |             |           |
| R.P.M.                 |    | 1180         | Pull-up Torque                           |                           | 179 LB-FT             |             |           |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 217 LB-FT   |           |
| NEMA Design Code       |    | A            | KVA Code                                 | H                         | Starting Current      |             | 245 A     |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current           |                       | 17.2 A      |           |
| NEMA Nom. Eff.         |    | 93           | Power Factor                             | 78                        | Line-line Res. @ 25°C |             | 0.22799 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 56°C        |           |
| S.F. Amps              |    |              |                                          | Temp. Rise @ S.F. Load    |                       | 68°C        |           |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 27.5        |           |
|                        |    |              |                                          | Rotor inertia             |                       | 12.2 lb-ft² |           |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 42     | 63     | 73     | 78     | 80     | 80     | 79   |
| Efficiency      | 89     | 92.7   | 93.4   | 93.1   | 92.4   | 91.4   | 92.7 |
| Speed           | 1196.5 | 1191.9 | 1188.3 | 1183.2 | 1178.2 | 1171.8 | 1180 |
| Line amperes    | 19.2   | 24.1   | 31     | 38.7   | 47.5   | 57.3   | 44   |

ABB Motors and Mechanical Inc.

WINDING # 12WGY812

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1180 RPM 460 V 1264M

TORQUES (LB-FT): PO=370 PU=179 LR=217 LRA=245





