

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **CEM4104T-5**

**30HP, 1775RPM, 3PH, 60HZ, 286TC, 1056M, TEFC, F**

| Part Detail |       |                |       |             |          |               |            |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | -     | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC    | Prod. Type:    | 1056M | Elec. Spec: | 10WGZ313 | CD Diagram:   | CD0006     |
| Enclosure:  | TEFC  | Mfg Plant:     |       | Mech. Spec: | 10C152   | Layout:       | 10LYC152   |
| Frame:      | 286TC | Mounting:      | F1    | Poles:      | 04       | Created Date: | 11-04-2015 |
| Base:       | RG    | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 11-16-2015 |
| Leads:      | 3#12  |                |       |             |          | Replaced By:  |            |
| Literature: |       | Elec. Diagram: |       |             |          |               |            |

|                          |              |        |          |                |                     |                         |         |           |      |        |      |            |
|--------------------------|--------------|--------|----------|----------------|---------------------|-------------------------|---------|-----------|------|--------|------|------------|
| <b>Nameplate NP3443L</b> |              |        |          |                |                     |                         |         |           |      |        |      |            |
| CAT.NO.                  | CEM4104T-5   |        |          | P/N            |                     |                         |         | ENCLOSURE | TEFC |        |      |            |
| SPEC.                    | 10C152Z313G1 |        | CC       | 010A           | FRAME               | 286TC                   |         | S/N       |      |        |      |            |
| HP                       | 30           |        |          | CLASS          | F                   | HZ                      | 60      |           |      |        |      |            |
| RPM                      | 1775         |        |          | PH             | 3                   | DES                     | A       |           |      |        |      |            |
| VOLT                     | 575          |        |          | KVA-CODE       | J                   |                         | ODE BRG | 6309      |      | DE BRG | 6311 |            |
| AMP                      | 31           |        |          | USABLE AT 208V |                     |                         |         |           |      |        |      |            |
| RATING                   | 40C AMB-CONT |        |          | NEMA-NOM-EFF   |                     |                         |         | 93.6      |      | GREASE |      | POLYREX EM |
| PF                       | 78           | SER.F. | 1.15     |                | VPWM INVERTER READY |                         |         |           |      |        |      |            |
| HTR-VOLTS                |              |        | HTR-AMPS |                |                     | MAX. SPACE HEATER TEMP. |         |           |      |        |      |            |

| Parts List     |  |          |
|----------------|--|----------|
| Part Number    | Description                              | Quantity |
| SA310044       | SA 10C152Z313G1                          | 1.000 EA |
| RA297419       | RA 10C152Z313G1                          | 1.000 EA |
| S/P107-000-004 | SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E | 1.000 EA |
| 10CB3000       | STD KO BOX MODEL 310,312,314 MTRS W/2.00 | 1.000 EA |
| 12GS1000SP     | GASKET                                   | 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 |
| WD1000B16      | T&B CX70TN TERMINAL                      | 1.000 EA |
| 51XF2520A08    | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 1.000 EA |
| 10EP1106A01    | FR ENDPLATE, MACH                        | 1.000 EA |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| 10XN3816K32    | BOLT, 3/8-16X2 HH YZ(5)                  | 4.000 EA |
| HW1001A38      | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW5100A11      | W3917-042 WVY WSHR (WB)                  | 1.000 EA |
| 10XN2520K36    | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 2.000 EA |
| HW1001A25      | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 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 |
| 10EP1305A01    | PU ENDPLATE, MACH                        | 1.000 EA |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| 10XN3816K28    | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 EA |
| HW1001A38      | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 10FH4000       | 310 FAN HOUSING STAMPED                  | 1.000 EA |
| 51XF2520A08    | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 4.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 10CB3500               | CONDUIT BOX LID, CAST                    | 1.000 EA |
| 10GS1000SP             | GASKET, CONDUIT BOX LID                  | 1.000 EA |
| 51XW2520A12            | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA |
| HW4600B40              | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 EA |
| HW2501H28              | KEY, 1/2 SQ X 3.250                      | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 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 |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.130 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 |
| 09FN3001C02            | EXTERNAL FAN, PLASTIC                    | 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,      | 0.125 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0006                 | CONNECTION LABEL                         | 1.000 EA |
| NP3443L                | SS SUPER-E UL CSA-EEV PREM CC            | 1.000 EA |
| 10PA1000               | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 46990 - Typical performance - not guaranteed values

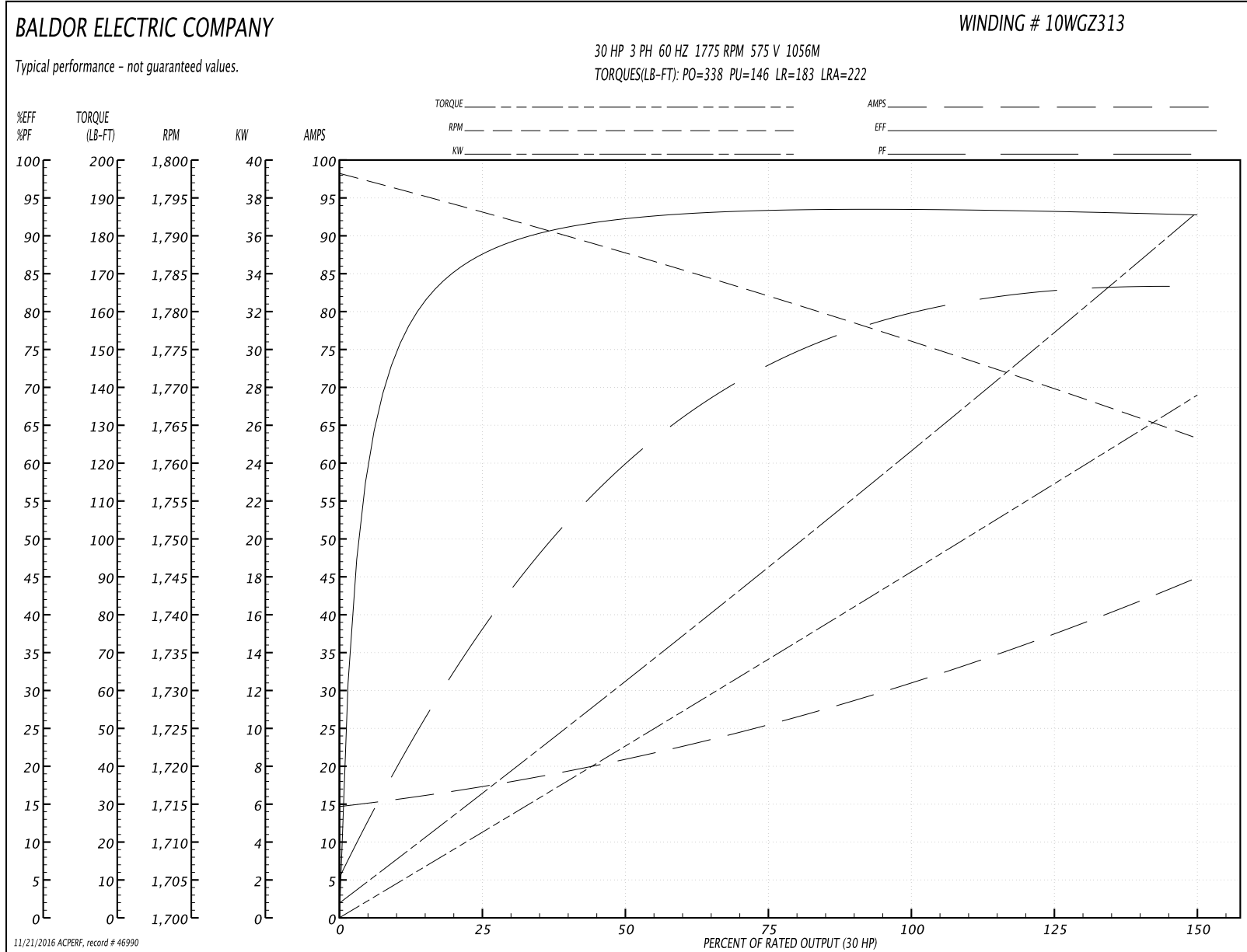
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 10WGZ313-R001 | <b>Type:</b> 1056M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

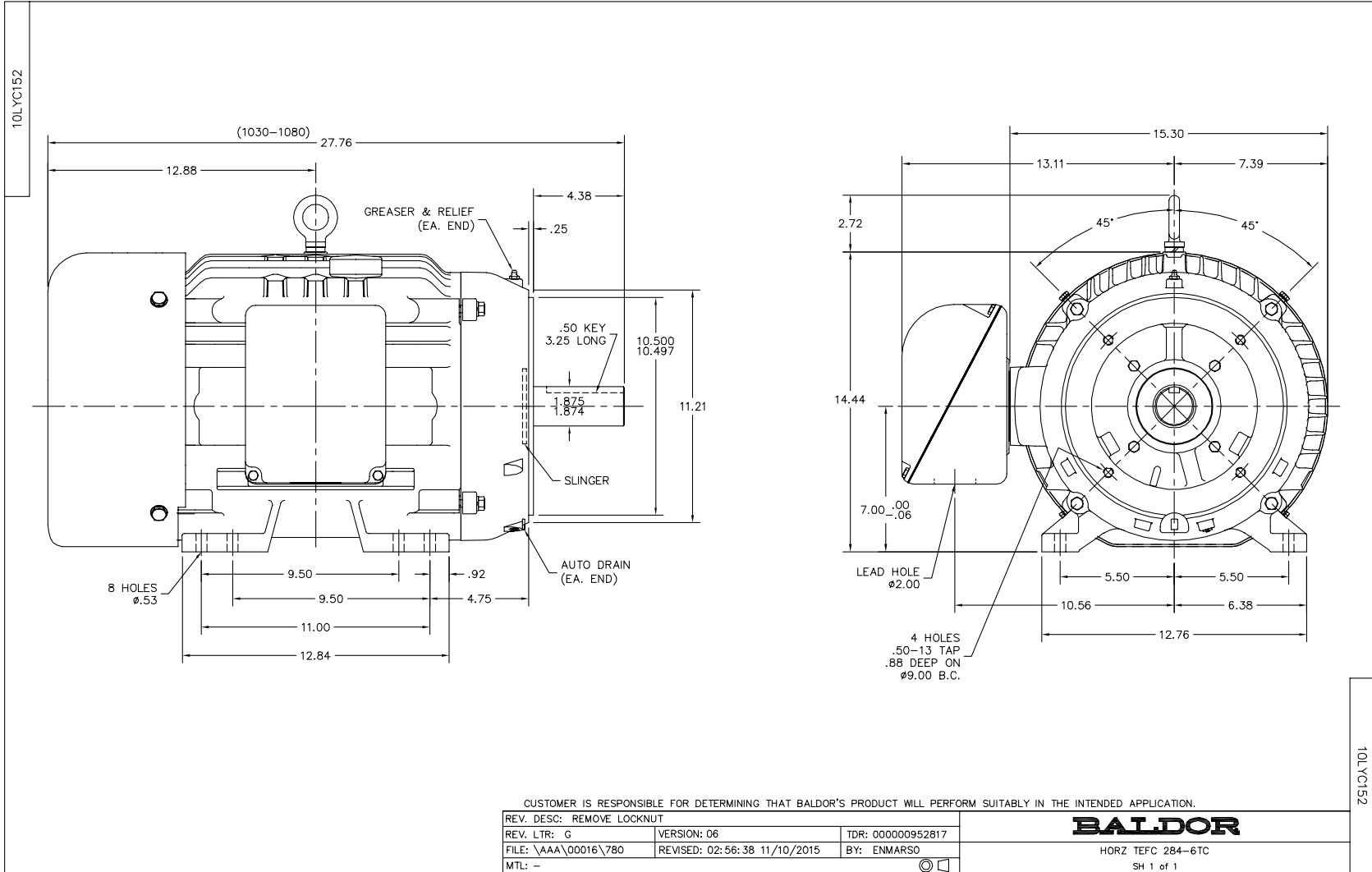
| Nameplate Data        |              |              |    | 575 V, 60 Hz:<br>Single Voltage Motor |                         |
|-----------------------|--------------|--------------|----|---------------------------------------|-------------------------|
| Rated Output (HP)     | 30           |              |    | Full Load Torque                      | 88.6 LB-FT              |
| Volts                 | 575          |              |    | Start Configuration                   | direct on line          |
| Full Load Amps        | 31           |              |    | Breakdown Torque                      | 338 LB-FT               |
| R.P.M.                | 1775         |              |    | Pull-up Torque                        | 146 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                   | 183 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | J  | Starting Current                      | 222 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                       | 15.2 A                  |
| NEMA Nom. Eff.        | 93.6         | Power Factor | 78 | Line-line Res. @ 25°C                 | 0.308 Ω                 |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load               | 64°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                | 76°C                    |
|                       |              |              |    | Locked-rotor Power Factor             | 31                      |
|                       |              |              |    | Rotor inertia                         | 4.47 LB-FT <sup>2</sup> |

**Load Characteristics 575 V, 60 Hz, 30 HP**

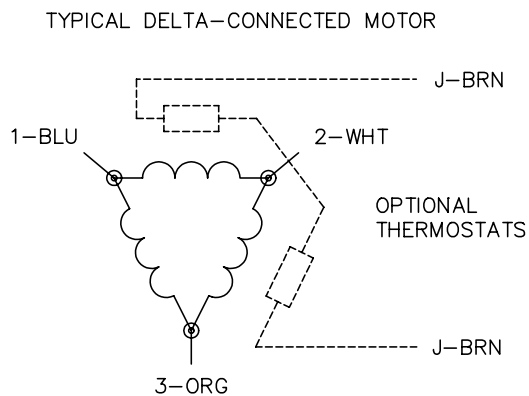
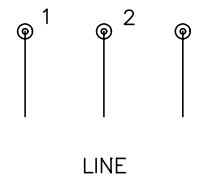
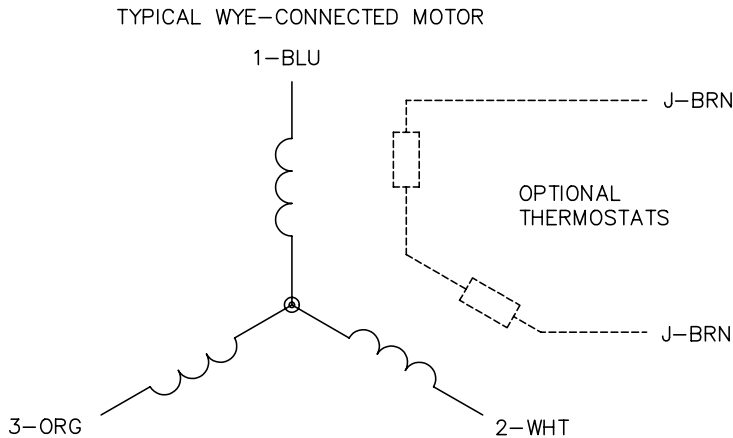
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 39   | 61   | 72   | 78   | 81   | 84   | 78   |
| Efficiency      | 87.4 | 91.9 | 93.2 | 93.6 | 93.5 | 92.7 | 93   |
| Speed           | 1792 | 1788 | 1783 | 1777 | 1771 | 1763 | 1777 |
| Line amperes    | 16.7 | 20.2 | 25.2 | 30.6 | 36.9 | 44.5 | 35.5 |

Performance Graph at 575V, 60Hz, 30.0HP Typical performance - Not guaranteed values





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.

|   |         |                        |              |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: D                               | BY: JLP | REVISED: 01/21/99 4:02 | TDR: 0171435 |
| 9000D                                     |         | FILE: AAA00005141      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

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

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