

**BALDOR® • RELIANCE** 

**Product Information Packet**

**CEM3614T**

**2HP, 1175RPM, 3PH, 60HZ, 184TC, 3644M, TEFC, F1**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | H      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 36WGS917   | CD Diagram: | CD0005 | Mfg Plant:    |            |
| Mech. Spec: | 36A002 | Layout:     | 36LYA002   | Poles:      | 06     | Created Date: | 06-04-2012 |
| Base:       | RG     | Eff. Date:  | 09-14-2017 | Leads:      | 9#16   |               |            |

| Specs                           |                         |                                |                 |
|---------------------------------|-------------------------|--------------------------------|-----------------|
| Catalog Number:                 | CEM3614T                | Heater Indicator:              | No Heater       |
| Enclosure:                      | TEFC                    | Insulation Class:              | F               |
| Frame:                          | 184TC                   | Inverter Code:                 | Inverter Ready  |
| Frame Material:                 | Steel                   | KVA Code:                      | M               |
| Output @ Frequency:             | 2.000 HP @ 60 HZ        | Lifting Lugs:                  | No Lifting Lugs |
| Synchronous Speed @ Frequency:  | 1200 RPM @ 60 HZ        | Locked Bearing Indicator:      | Locked Bearing  |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Quantity/Wire Size: | 9 @ 16 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:                    | 3644M           |
| Agency Approvals:               | UR                      | Mounting Arrangement:          | F1              |
|                                 | CSA EEV                 | Power Factor:                  | 60              |
|                                 | CSA                     | Product Family:                | General Purpose |
| Auxillary Box:                  | No Auxillary Box        | Pulley End Bearing Type:       | Ball            |
| Auxillary Box Lead Termination: | None                    | Pulley Face Code:              | C-Face          |
| 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>             | 3.500 A @ 460.0 V         | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding  |
|                                       | 7.000 A @ 208.0 V         | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 7.000 A @ 230.0 V         | <b>Shaft Slinger Indicator:</b>    | No Slinger          |
| <b>Design Code:</b>                   | A                         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Motor Standards:</b>            | NEMA                |
| <b>Duty Rating:</b>                   | CONT                      | <b>Starting Method:</b>            | Direct on line      |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 1:</b>          | None                |
|                                       |                           | <b>Winding Thermal 2:</b>          | None                |

|                                  |                            |  |             |            |                       |    |  |              |           |   |
|----------------------------------|----------------------------|--|-------------|------------|-----------------------|----|--|--------------|-----------|---|
| <b>Nameplate NP3441LUA</b>       |                            |  |             |            |                       |    |  |              |           |   |
| <b>CAT.NO.</b>                   | CEM3614T                   |  |             |            |                       |    |  |              |           |   |
| <b>SPEC</b>                      | 36A002S917G1               |  |             |            |                       |    |  |              |           |   |
| <b>HP</b>                        | 2                          |  |             |            |                       |    |  |              |           |   |
| <b>VOLTS</b>                     | 230/460                    |  |             |            |                       |    |  |              |           |   |
| <b>AMPS</b>                      | 7/3.5                      |  |             |            |                       |    |  |              |           |   |
| <b>RPM</b>                       | 1175                       |  |             |            |                       |    |  |              |           |   |
| <b>FRAME</b>                     | 184TC                      |  |             |            | <b>HZ</b>             | 60 |  |              | <b>PH</b> | 3 |
| <b>SF</b>                        | 1.15                       |  | <b>CODE</b> | M          | <b>DES</b>            | A  |  | <b>CLASS</b> | F         |   |
| <b>NEMA NOM. EFF</b>             | 88.5                       |  | <b>PF</b>   | 60         |                       |    |  |              |           |   |
| <b>RATING</b>                    | 40C AMB-CONT               |  |             |            |                       |    |  |              |           |   |
| <b>CC</b>                        | 010A                       |  |             |            | <b>USABLE AT 208V</b> |    |  |              |           | 7 |
| <b>ENCL</b>                      | TEFC                       |  | <b>SER</b>  |            |                       |    |  |              |           |   |
| <b>DE</b>                        | 6206                       |  |             | <b>ODE</b> | 6205                  |    |  |              |           |   |
| <b>VPWM INVERTER READY</b>       |                            |  |             |            |                       |    |  |              |           |   |
| <b>CT6-60H(10:1)VT3-60H(20:1</b> |                            |  |             |            |                       |    |  |              |           |   |
|                                  | 50Hz 2HP 190/380V 7.8/3.9A |  |             |            |                       |    |  |              |           |   |
|                                  | SF1.0                      |  |             |            |                       |    |  |              |           |   |

| Parts List   |  |          |
|--------------|--|----------|
| Part Number  | Description                              | Quantity |
| SA246179     | SA 36A002S917G1                          | 1.000 EA |
| RA233064     | RA 36A002S917G1                          | 1.000 EA |
| 36FN3000B01  | EXFN, PLASTIC, 6.00 OD, .912 ID          | 1.000 EA |
| 36CB3004     | 36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0 | 1.000 EA |
| 36GS1000SP   | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 EA |
| 51XB1016A08  | 10-16X 1/2HXWSSLD SERTYB                 | 2.000 EA |
| 11XW1032G06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B01    | BRASS CUP WASHER, FOR #10 SCREW          | 1.000 EA |
| 36EP3104A01  | FREP MACH ASSEMBLY FOR ROUTING           | 1.000 EA |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HW5100A05    | WVY WSHR F/205 & 304 BRGS                | 1.000 EA |
| 36PE3301A23  | PUEP ASSEMBLY FOR ROUTING PURPOSES       | 1.000 EA |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| 10XN2520A28  | 1/4-20X 1 3/4 HEX HD                     | 4.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| 51XB1214A16  | 12-14X1.00 HXWSSLD SERTYB                | 1.000 EA |
| 36FH4009A102 | IEC FH GREASER PRIMED                    | 1.000 EA |
| 51XW1032A06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 36CB4516     | 36 LIPPED CB LID - GALVANNEAL            | 1.000 EA |
| 37GS1001SP   | GASKET, CONDUIT BOX LID, .06 THICK LEXID | 1.000 EA |
| 51XW0832A07  | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| HW2501E16    | KEY, 1/4 SQ X 1.750                      | 1.000 EA |
| HA7000A02    | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 EA |
| 85XU0407S04  | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| HW3200A01                     | 3/8-16X3/4 I-BLT WELDED F/S              | 1.000 EA        |
| MJ1000A02                     | GREASE, MOBIL POLYREX EM - 124047        | 0.050 LB        |
| MG1000Y03                     | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.022 GA        |
| HA3101A28                     | THRUBOLT 1/4-20 X 12.500 OHIO ROD        | 4.000 EA        |
| LB1115N                       | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA        |
| LC0005E01                     | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA        |
| NP3441LUA                     | ALUM SUPER-E VPWM INV READY UL CSA-EEV C | 1.000 EA        |
| G0PA1000                      | PKG GRP, PRINT PK1026A06                 | 1.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 3/19  | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 53367 - Typical performance - not guaranteed values

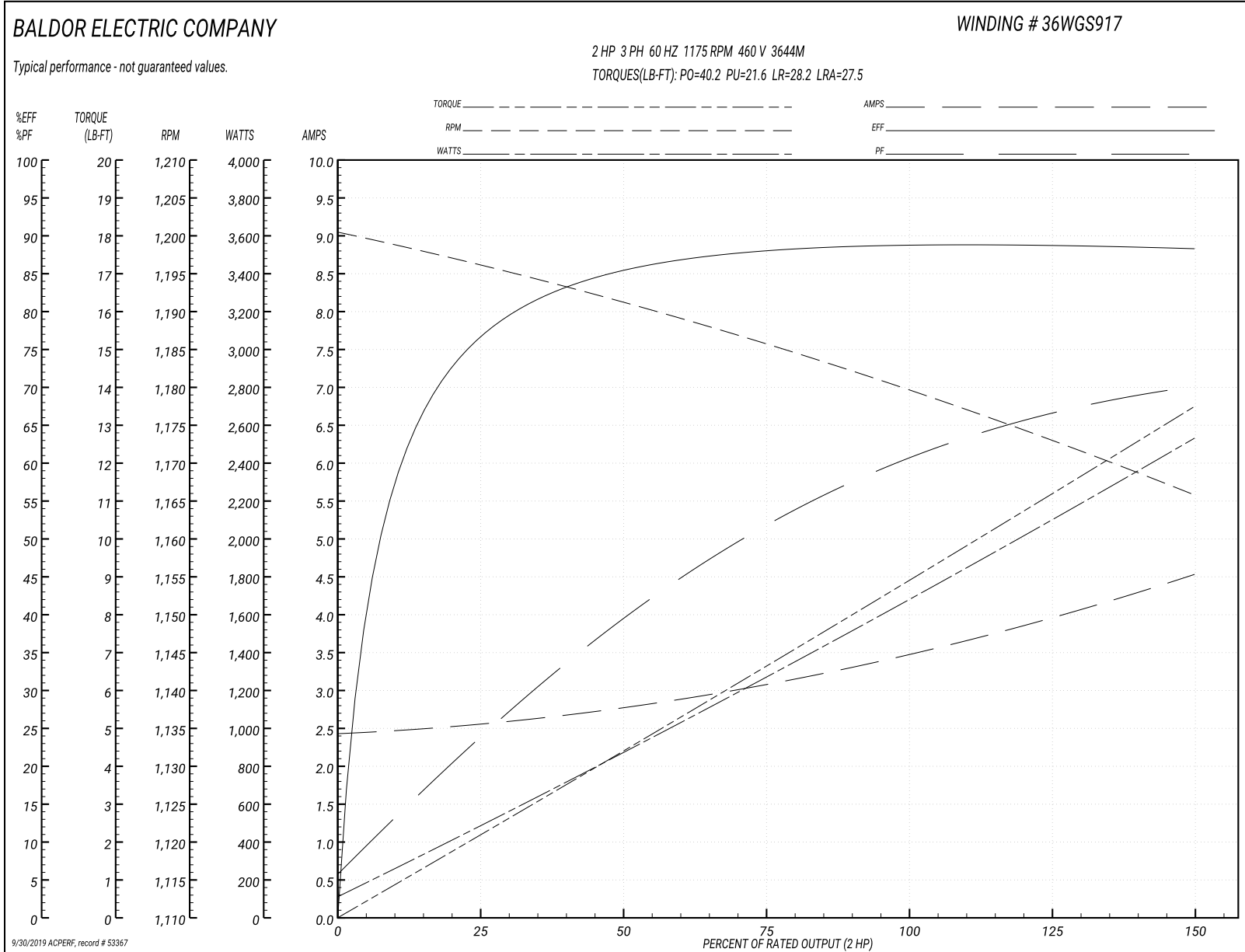
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 36WGS917-R019 | <b>Type:</b> 3644M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                          |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP)     | 2            |              |    | Full Load Torque                         | 8.91 LB-FT               |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line           |
| Full Load Amps        | 7/3.5        |              |    | Breakdown Torque                         | 40.2 LB-FT               |
| R.P.M.                | 1175         |              |    | Pull-up Torque                           | 21.6 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 28.2 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | M  | Starting Current                         | 27.5 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 2.45 A                   |
| NEMA Nom. Eff.        | 88.5         | Power Factor | 60 | Line-line Res. @ 25°C                    | 4.02 Ω                   |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 34°C                     |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 39°C                     |
|                       |              |              |    | Locked-rotor Power Factor                | 28.7                     |
|                       |              |              |    | Rotor inertia                            | 0.413 LB-FT <sup>2</sup> |

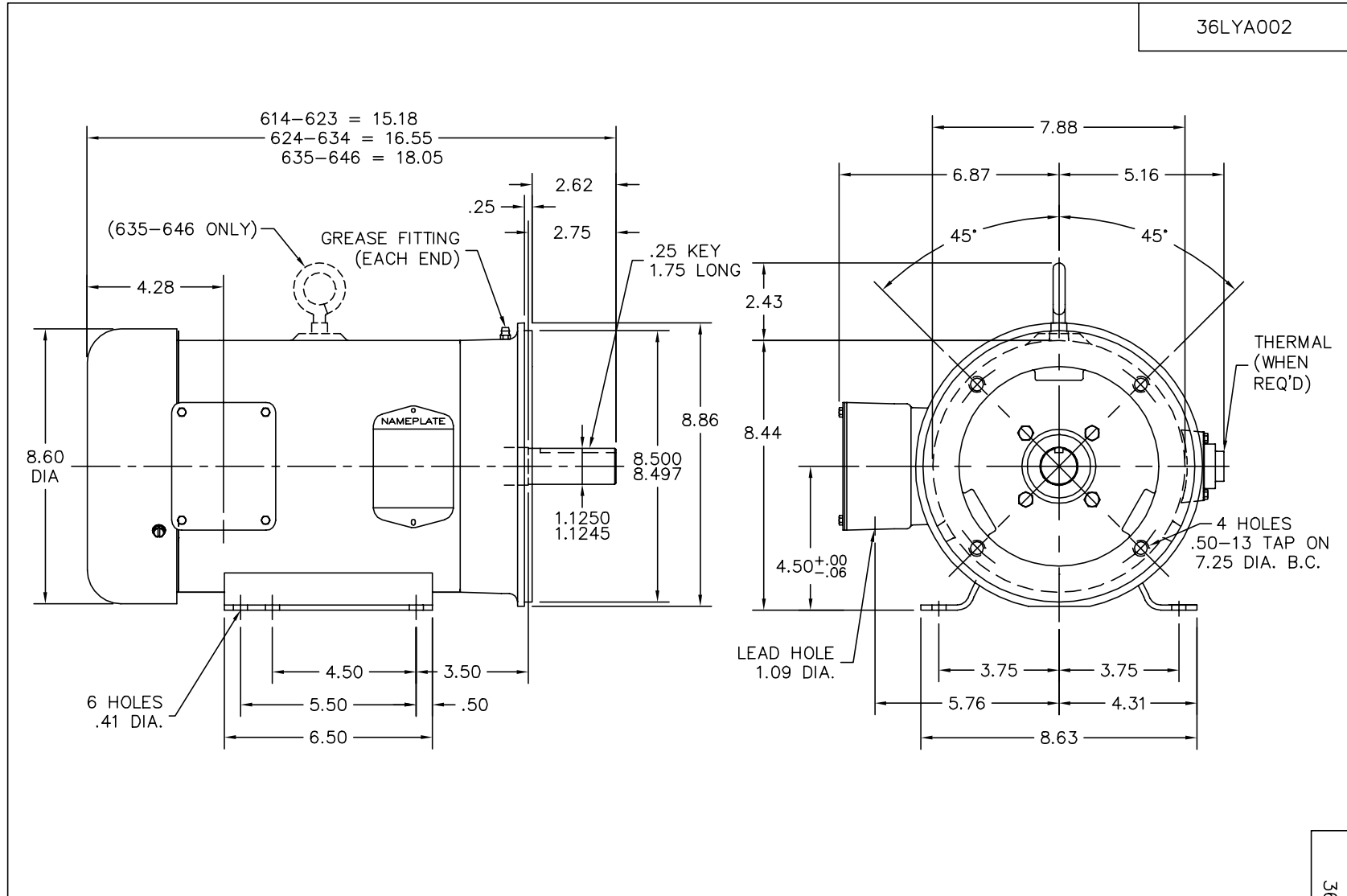
Load Characteristics 460 V, 60 Hz, 2 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 24   | 40   | 52   | 60   | 66   | 70   | 64   |
| Efficiency      | 76.4 | 85.3 | 87.9 | 88.8 | 88.9 | 88.2 | 88.8 |
| Speed           | 1197 | 1191 | 1186 | 1179 | 1173 | 1166 | 1175 |
| Line amperes    | 2.53 | 2.76 | 3.09 | 3.49 | 3.97 | 4.52 | 3.78 |

Performance Graph at 460V, 60Hz, 2.0HP Typical performance - Not guaranteed values







CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

|  |                      |                              |
|--|----------------------|------------------------------|
| REV. DESC: FREEZE LINES SHOWING THROUGH CAPACITOR/KO BOX |                      |                              |
| REV. LTR: K  | VERSION: 04          | TDR: 000000384004            |
| Z00VΛ 79C  | FILE: \AAA\00003\161 | REVISED: 14:56:41 12/22/2005 |
|  | MTL: -               | BY: ENCHRC0                  |

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STD HORZ FACE MTD 182-4TC TEFC 36M

36LYA002

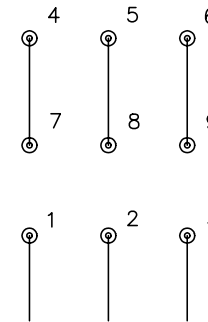
CD0005



LOW VOLTAGE  
(2Y)



HIGH VOLTAGE  
(1Y)



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.

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 9000D                                     |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005