

# **ABB BALDOR RELIANCE III**

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## **Customer information packet**

ECP4113T-4

30HP, 890RPM, 3PH, 60HZ, 364T, A36050M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Enclosure</b>                     | TEFC                    |
| <b>Frame</b>                         | 364T                    |
| <b>Frame Material</b>                | Iron                    |
| <b>Frequency</b>                     | 60.00 Hz                |
| <b>Haz Area Class and Group</b>      | CLI GP A,B,C,D          |
| <b>Haz Area Division</b>             | Division II             |
| <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> | 900 RPM @ 60 HZ         |
| <b>Voltage @ Frequency</b>           | 460.0 V @ 60 HZ         |
| <b>Agency Approvals</b>              | CCSAUSEEV               |
| <b>Ambient Temperature</b>           | 40 °C                   |
| <b>Auxiliary Box</b>                 | NO AUXILLARY BOX        |
| <b>Base Indicator</b>                | Rigid                   |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F) |
| <b>Constant Torque Speed Range</b>   | 6-60                    |
| <b>Current @ Voltage</b>             | 39.300 A @ 460.0 V      |
| <b>Design Code</b>                   | B                       |
| <b>Drip Cover</b>                    | No Drip Cover           |
| <b>Duty Rating</b>                   | CONT                    |
| <b>Efficiency @ 100% Load</b>        | 92.4 %                  |
| <b>Feedback Device</b>               | NO FEEDBACK             |
| <b>Haz Area Temp Code</b>            | T3                      |
| <b>Heater Indicator</b>              | No Heater               |
| <b>High Voltage Full Load Amps</b>   | 39.3 a                  |
| <b>Insulation Class</b>              | F                       |
| <b>Inverter Code</b>                 | Inverter Ready          |
| <b>KVA Code</b>                      | G                       |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs   |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 6 AWG               |
| <b>Motor Standards</b>               | NEMA                    |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | Q          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A36WG0998  |
| <b>Layout</b>       | 617428-034 |
| <b>Eff. date</b>    | 10-24-2024 |
| <b>CD Diagram</b>   | 416820-036 |
| <b>Poles</b>        | 08         |
| <b>Leads</b>        | 3#6        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-04-2013 |

|                                 |                    |
|---------------------------------|--------------------|
| <b>Motor Type</b>               | A36050M            |
| <b>Mounting Arrangement</b>     | F1                 |
| <b>Number of Poles</b>          | 8                  |
| <b>Overall Length</b>           | 33.49 IN           |
| <b>Power Factor</b>             | 77                 |
| <b>Product Family</b>           | General Industrial |
| <b>Pulley End Bearing Type</b>  | Ball               |
| <b>Pulley Face Code</b>         | Standard           |
| <b>Service Factor</b>           | 1.15               |
| <b>Shaft Diameter</b>           | 2.375 IN           |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding |
| <b>Shaft Rotation</b>           | Reversible         |
| <b>Shaft Slinger Indicator</b>  | Shaft Slinger      |
| <b>Speed</b>                    | 890 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               |

**Nameplate**

|                  |
|------------------|
| <b>NP2496L</b>   |
| MOBIL POLYREX EM |

**NP3238**

|                           |            |                        |               |                              |      |               |      |                    |      |
|---------------------------|------------|------------------------|---------------|------------------------------|------|---------------|------|--------------------|------|
| <b>CAT NO</b>             | ECP4113T-4 | <b>SPEC NO.</b>        | A36-5065-0998 |                              |      |               |      |                    |      |
| <b>HP</b>                 | 30         | <b>AMPS</b>            | 39.3          | <b>VOLTS</b>                 | 460  | <b>DESIGN</b> | B    |                    |      |
| <b>FRAME</b>              | 364T       | <b>RPM</b>             | 890           | <b>HZ</b>                    | 60   | <b>AMB</b>    | 40   | <b>SF</b>          | 1.15 |
| <b>D.E. BRG.DATA</b>      | 6313       | <b>O.D.E. BRG.DATA</b> | 6313          | <b>PH</b>                    | 3    | <b>DUTY</b>   | CONT | <b>INSUL.CLASS</b> | F    |
| <b>D.E. BRG.</b>          | 65BC03J30X | <b>TYPE</b>            | P             | <b>ENCL</b>                  | TEFC | <b>CODE</b>   | G    |                    |      |
| <b>O.D.E. BRG.</b>        | 65BC03J30X | <b>POWER FACTOR</b>    | 77            | <b>NEMA NOM EFFICIENCY</b>   | 92.4 |               |      |                    |      |
| <b>3/4 LOAD EFF.</b>      | 93.0       | <b>MAX CORR KVAR</b>   | 10.0          | <b>GUARANTEED EFFICIENCY</b> | 91   |               |      |                    |      |
| <b>TEMP CODE</b>          | T3         | <b>TEMP =</b>          | 200           |                              |      |               |      |                    |      |
| <b>CHP HZ</b>             | 60-90      | <b>CT HZ</b>           | 6-60          | <b>VT HZ</b>                 | 0-60 |               |      |                    |      |
| <b>INVERTER-TEMP-CODE</b> | T3         |                        |               |                              |      |               |      |                    |      |
| <b>SER.NO.</b>            |            | <b>MOTOR WEIGHT</b>    |               |                              |      |               |      |                    |      |

|              |              |                   |              |  |                |       |
|--------------|--------------|-------------------|--------------|--|----------------|-------|
| REL.<br>S.O. | FRAME        | HP                | TYPE         | PHASE/<br>HERTZ                            | RPM            | VOLTS |
|              | 364T         | 30                | P            | 3/60                                       | 890            | 460   |
| AMPS         | DUTY         | AMB °C/<br>INSUL. | S.F.         | NEMA<br>DESIGN                             | CODE<br>LETTER | ENCL. |
| 39.3         | CONT         | 40/F              | 1.15         | B  | G              | TEFC  |
| E/S          | ROTOR        | TEST<br>S.O.      | TEST<br>DATE | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |                |       |
| 591726       | 418141-73-AE | ---               | ---          | .271                                       |                |       |

**PERFORMANCE**

| LOAD    | HP   | AMPERES | RPM | %<br>POWER FACTOR | %<br>EFFICIENCY |
|---------|------|---------|-----|-------------------|-----------------|
| NO LOAD | 0    | 19.7    | 900 | 4.21              | 0               |
| 1/4     | 7.52 | 21.5    | 897 | 37.0              | 88.6            |
| 2/4     | 15.0 | 25.7    | 895 | 59.1              | 92.4            |
| 3/4     | 22.5 | 32.0    | 892 | 70.7              | 93.0            |
| 4/4     | 30.0 | 39.3    | 889 | 77.0              | 92.7            |
| 5/4     | 37.5 | 47.8    | 885 | 80.0              | 92.0            |

**SPEED TORQUE**

|              | RPM | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT. | AMPERES |
|--------------|-----|-----------------------|-------------------|---------|
| LOCKED ROTOR | 0   | 137                   | 242               | 212     |
| PULL UP      | 213 | 128                   | 227               | 200     |
| BREAKDOWN    | 844 | 229                   | 405               | 118     |
| FULL LOAD    | 889 | 100                   | 177               | 39.3    |

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

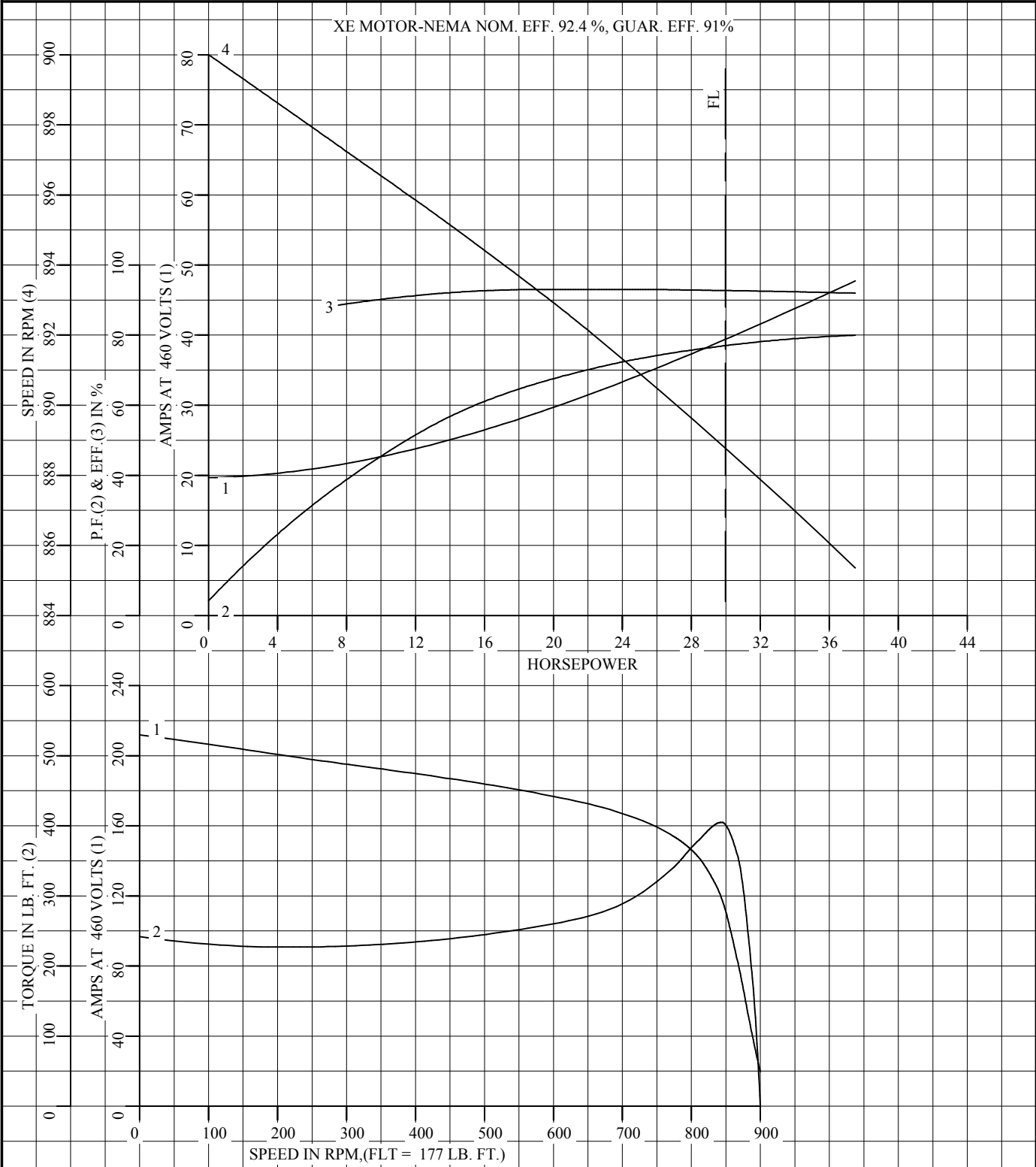
REMARKS: TYPICAL DATA  
XE MOTOR-NEMA NOM. EFF. 92.4 %, GUAR. EFF. 91%



DR. BY R.K. BRIDGES  
CK. BY W.L. SMITH  
APP. BY W.L. SMITH  
DATE 05/23/14

**A-C MOTOR  
PERFORMANCE DATA** A36WG0998-R001  
ISSUE DATE 09/27/16

|                  |                   |                |                          |
|------------------|-------------------|----------------|--------------------------|
| REL S.O.         | RPM 890           | S.F. 1.15      | ROTOR 418141-73-AE       |
| FRAME 364T       | VOLTS 460         | NEMA DESIGN B  | TEST S.O. TYPICAL DATA   |
| HP 30            | AMPS 39.3         | CODE LETTER G  | TEST DATE ---            |
| TYPE P           | DUTY CONT         | ENCLOSURE TEFC | STATOR RES. @ 25 °C .271 |
| PHASE/HERTZ 3/60 | AMB °C/INSUL 40/F | E/S 591726     | OHMS (BETWEEN LINES)     |

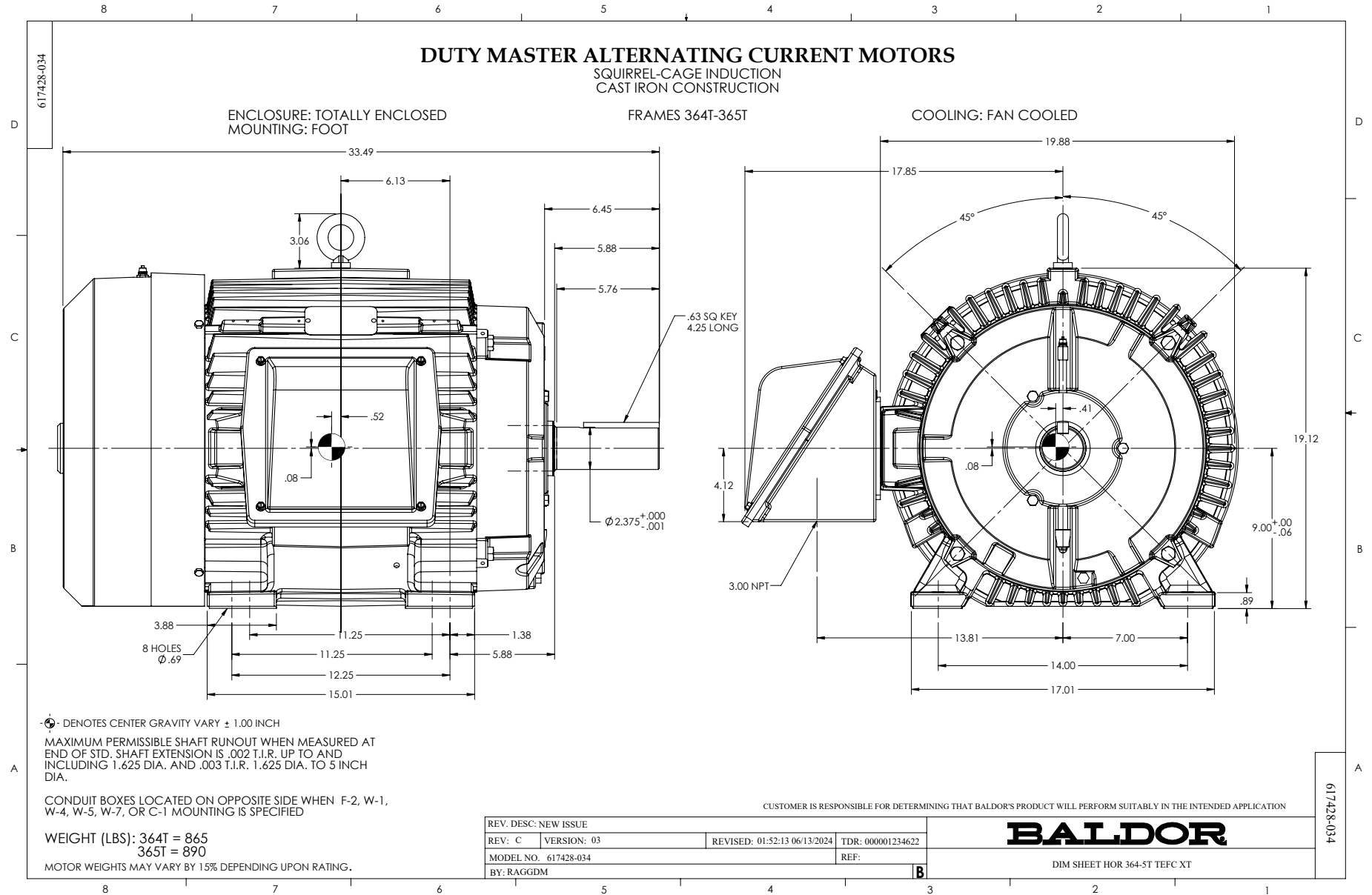


AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



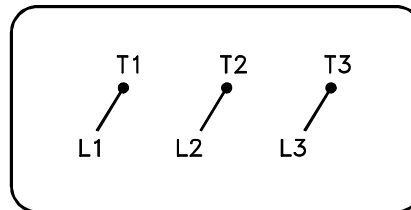
DR. BY R.K. BRIDGES  
 CK. BY W.L. SMITH  
 APP. BY W.L. SMITH  
 DATE 05/23/14

**A-C MOTOR  
 PERFORMANCE CURVES** A36WG0998-R001  
 ISSUE DATE 09/27/16



416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

REV. DESC: LOADED TO BUS, C/R 335225

REV. LTR: -

VERSION: 00

TDR: 000000538207

FILE: \MGA\00000\682

REVISED: 11:54:06 04/30/2010

MTL: -

BY: RAGRA

**BALDOR**

CONN DIAG - STANDARD 3 LEAD

SH 1 of 1