

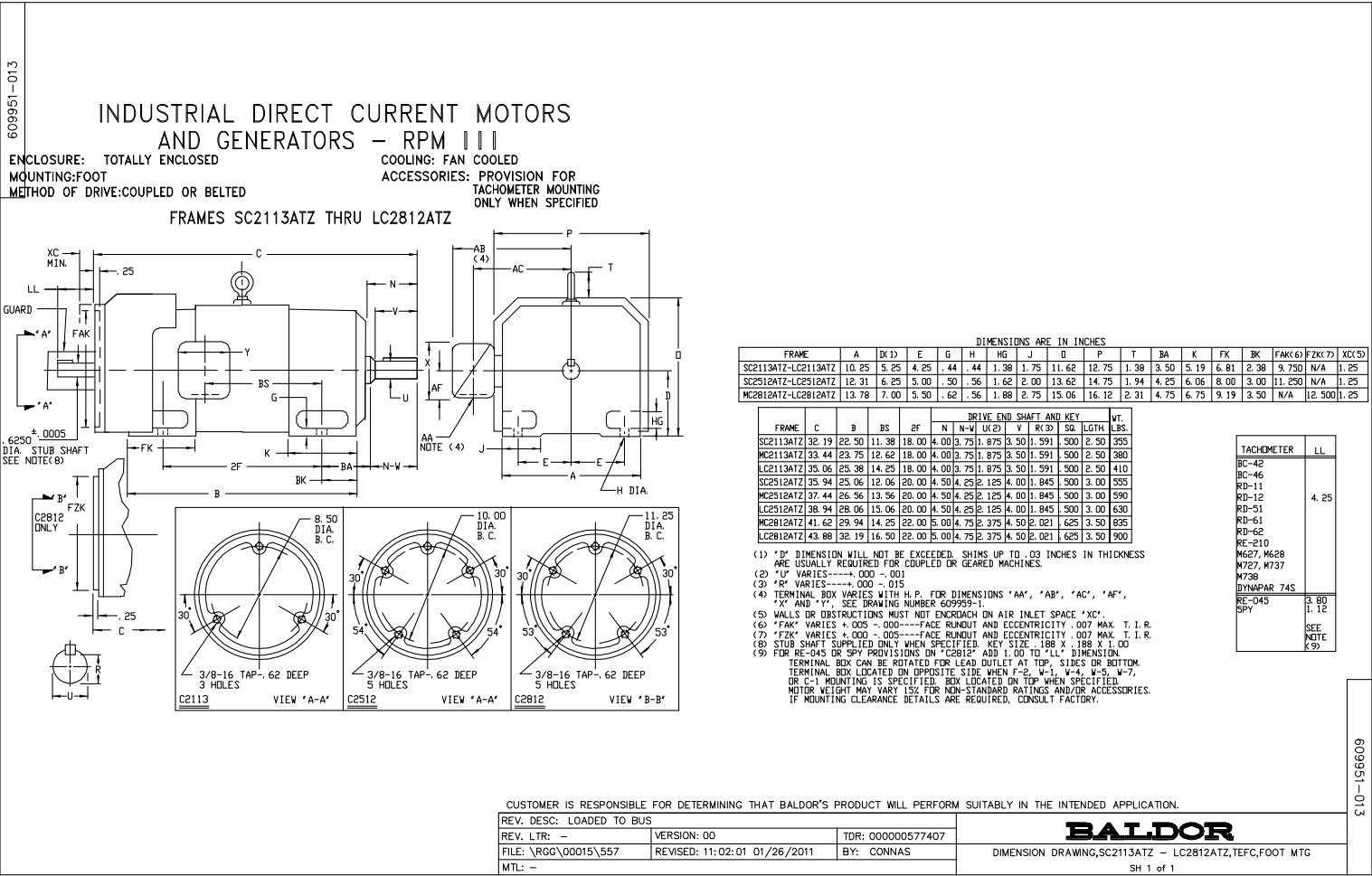
# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **D5510R**

**10HP,1750RPM,DC,2113ATY,TEFC,**

| Part Detail       |            |                |            |
|-------------------|------------|----------------|------------|
| Type:             | DC         | Prod. Type:    | TR         |
| Power Code:       | C          | Weight:        | 384        |
| Frame Group:      | MC 2113ATZ | Mounting Pos.: | F1         |
| HP:               | 10         | Enclosure:     | TEFC       |
| RPM:              | 1750/2300  | Wound:         | STAB SHUNT |
| Service Factor:   | 1.0        | Arm V:         | 500        |
| Arm A:            | 17.50      | Field V:       | 300        |
| Field A:          | 1.55       | Field A Hot:   | 1.06/.76   |
| Insulation Class: | F          | Ambient:       | 40         |
| Duty:             | CONT       | DE Bearing:    | 50BC03J30X |
| ODE Bearing:      | 45BC02J30X | Brushes:       | 419904-51E |
| Brush Qty.:       |            |                |            |



406770-002

406770-002

CONNECTION DIAGRAM  
D-C MOTOR - STAB. SHUNT  
DUAL VOLTAGE FIELD

W1

(NOTE 7)

SHUNT FIELD

INTER-COIL

AX2

ARMATURE

H1 H2 F1 A1

(NOTE 4)

(CAUTION-SEE NOTE 1)

AX2

A2 S1

S2 S3

S4 F22 P1 P2

(NOTE 5)

(NOTE 2)

SHUNT FIELD

SERIES FIELD

SERIES FIELD

TD1

TD2

TD3

(NOTE 6)

TD

THREE WIRE RTD

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CCW ROTATION

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

CCW ROTATION

ROTATION FACING COMMUTATOR END

1. CAUTION — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.

2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4, FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.

3. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.

4. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.

5. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.

6. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.

7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.

8. WARNING — MOTOR MUST BE GROUNDED TO PREVENT SERIOUS INJURIES TO PERSONNEL. GROUND THE MOTOR PER IEC, NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL ELECTRICAL CODES. A TAPPED HOLE IS PROVIDED IN THE CONDUIT BOX, ON THE FOOT, FRAME, BRACE OR OPPOSITE OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER ORDER NO. \_\_\_\_\_

CUSTOMER RELIANCE S.D. NO. \_\_\_\_\_

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS

REV. LTR: - VERSION: 00 TDR: 000000781086

FILE: \RSN\00026\434 REVISED: 02: 35: 07 02/01/2013

MTL: - BY: MGHPC

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD

SH 1 of 1

Page 4 of 7

BALDOR  
A MEMBER OF THE ABB GROUP

|                                                                                                      |                |                                                                                                               |                         |                                                                           |                 |
|------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------|-----------------|
| REL. S.O.                                                                                            | FRAME          | RATING                                                                                                        | RPM                     | ARM. VOLTS                                                                | ARM. AMPS       |
|                                                                                                      | MC2113AT       | 10.0HP                                                                                                        | 1750                    | 500                                                                       | 17.5            |
| WINDING TYPE                                                                                         |                |                                                                                                               |                         |                                                                           |                 |
|                                                                                                      | S.F.           | ENCL.                                                                                                         | AMB °C/INSUL            | DUTY                                                                      | FIELD VOLTS     |
| STAB. SHUNT                                                                                          | 1.0            | TEFC                                                                                                          | 40/F                    | CONT                                                                      | 300             |
| POWER CODE                                                                                           |                |                                                                                                               |                         |                                                                           |                 |
|                                                                                                      | TYPE           | WK <sup>2</sup> (LB-FT <sup>2</sup> )                                                                         | HOT ARM. CIR. RES.      | FLD. AMPS@25 °C                                                           | HOT FIELD RES   |
| C                                                                                                    | TR             | 2.564                                                                                                         | 2.21                    | 1.55                                                                      | 281             |
| ARM. CIR. IND. (mh)                                                                                  |                |                                                                                                               |                         |                                                                           |                 |
|                                                                                                      | FIELD IND. (H) | COOLING AIR (CFM/IN H 20)                                                                                     |                         | TURNS PER COIL SHUNT/SERIES                                               | TEST DATE       |
| 21.8                                                                                                 | 35.0           | -/-                                                                                                           |                         | 1300/3                                                                    | -               |
| LOAD PERFORMANCE                                                                                     |                |                                                                                                               |                         |                                                                           |                 |
| LOAD                                                                                                 | AMPERES        | TORQUE<br>IN LB.-FT.                                                                                          | OUTPUT<br>IN HP         | RPM                                                                       | %<br>EFFICIENCY |
| NO LOAD                                                                                              | .75            | 0                                                                                                             | 0                       | 2049                                                                      | 0               |
| 1/4                                                                                                  | 4.4            | 6.20                                                                                                          | 2.37                    | 2008                                                                      | 69.4            |
| 2/4                                                                                                  | 8.8            | 13.7                                                                                                          | 5.12                    | 1967                                                                      | 80.6            |
| 3/4                                                                                                  | 13             | 21.0                                                                                                          | 7.73                    | 1930                                                                      | 83.3            |
| 4/4                                                                                                  | 18             | 28.3                                                                                                          | 10.2                    | 1899                                                                      | 83.7            |
| O.L.                                                                                                 | 26             | 42.1                                                                                                          | 14.8                    | 1847                                                                      | 82.0            |
| RPM VS. FIELD AMPS                                                                                   |                |                                                                                                               |                         |                                                                           |                 |
| FIELD AMPS                                                                                           | RPM N.L.       | RPM F.L.                                                                                                      | Eg N.L.<br>@ BASE SPEED | Eg F.L.<br>@ BASE SPEED                                                   |                 |
| 1.06                                                                                                 | 2049           | 1898                                                                                                          | 424                     | 413                                                                       |                 |
| 1.00                                                                                                 | 2149           | 1976                                                                                                          | 407                     | 395                                                                       |                 |
| .939                                                                                                 | 2255           | 2067                                                                                                          | 388                     | 376                                                                       |                 |
| .876                                                                                                 | 2379           | 2174                                                                                                          | 367                     | 357                                                                       |                 |
| .813                                                                                                 | 2527           | 2300                                                                                                          | 346                     | 336                                                                       |                 |
| REMARKS: TYPICAL DATA                                                                                |                |                                                                                                               |                         |                                                                           |                 |
| MAXIMUM SAFE SPEED = 4500 RPM                                                                        |                |                                                                                                               |                         |                                                                           |                 |
| <b>RELIANCE</b><br> |                | DR. BY <u>E. H. GILLOT</u><br>CK. BY <u>E. H. GILLOT</u><br>APP. BY <u>T. S. EVON</u><br>DATE <u>10-29-86</u> |                         | <b>D-C MOTOR</b><br>PERFORMANCE<br>DATA<br>D66142B<br>ISSUE DATE 10-29-86 |                 |

