

BALDOR® • ***RELIANCE***

Product Information Packet

D5525R

25 1750/2300 MC2812ATZ TEFC 500V

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| Part Detail | | | |
|-------------------|------------|----------------|-------------|
| Type: | DC | Prod. Type: | TR |
| Power Code: | C | Weight: | 830 |
| Frame Group: | MC 2812ATZ | Mounting Pos.: | F1 |
| HP: | 25 | Enclosure: | TEFC |
| RPM: | 1750/2300 | Wound: | STAB SHUNT |
| Service Factor: | 1.0 | Arm V: | 500 |
| Arm A: | 41.00 | Field V: | 300 |
| Field A: | 2.23 | Field A Hot: | 1.50/1.10 |
| Insulation Class: | F | Ambient: | 40 |
| Duty: | CONT | DE Bearing: | 65BC03J30X |
| ODE Bearing: | 55BC02J30X | Brushes: | 419904-51AB |
| Brush Qty.: | | | |

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM IIII

ENCLOSURE: TOTALLY ENCLOSED COOLING: FAN COOLED
MOUNTING: FOOT ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED
METHOD OF DRIVE: COUPLED OR BELTED

FRAMES SC2113ATZ THRU LC2812ATZ

DIMENSIONS ARE IN INCHES

| FRAME | A | (X) | E | G | H | HG | J | D | P | T | BA | K | FK | BK | FAK(6) | FZK(7) | XC(5) |
|---------------------|-------|------|------|-----|-----|------|------|-------|-------|------|------|------|------|------|--------|--------|-------|
| SC2113ATZ-LC2113ATZ | 10.25 | 5.25 | 4.25 | .44 | .44 | 1.38 | 1.75 | 11.62 | 12.75 | 1.38 | 3.50 | 5.19 | 6.81 | 2.38 | 9.750 | N/A | 1.25 |
| SC2512ATZ-LC2512ATZ | 12.31 | 6.25 | 5.00 | .50 | .56 | 1.62 | 2.00 | 13.62 | 14.75 | 1.94 | 4.25 | 6.06 | 8.00 | 3.00 | 11.250 | N/A | 1.25 |
| MC2812ATZ-LC2812ATZ | 13.78 | 7.00 | 5.50 | .62 | .56 | 1.88 | 2.75 | 15.06 | 16.12 | 2.31 | 4.75 | 6.75 | 9.19 | 3.50 | N/A | 12.500 | 1.25 |

| FRAME | DRIVE END SHAFT AND KEY | | | | | | | | | | WT. LBS. | |
|-----------|-------------------------|-------|-------|-------|------|------|-------|------|-------|-----|----------|------|
| | C | B | BS | 2F | N | N-W | (X2) | Y | R(3) | SD | | LGTH |
| SC2113ATZ | 32.19 | 22.50 | 11.38 | 18.00 | 4.00 | 3.75 | 1.875 | 3.50 | 1.591 | 500 | 2.30 | 355 |
| MC2113ATZ | 33.44 | 23.75 | 12.62 | 18.00 | 4.00 | 3.75 | 1.875 | 3.50 | 1.591 | 500 | 2.50 | 380 |
| LC2113ATZ | 35.06 | 25.38 | 14.25 | 18.00 | 4.00 | 3.75 | 1.875 | 3.50 | 1.591 | 500 | 2.50 | 410 |
| SC2512ATZ | 35.94 | 25.06 | 12.06 | 20.00 | 4.50 | 4.25 | 2.125 | 4.00 | 1.845 | 500 | 3.00 | 355 |
| MC2512ATZ | 37.44 | 26.56 | 13.56 | 20.00 | 4.50 | 4.25 | 2.125 | 4.00 | 1.845 | 500 | 3.00 | 590 |
| LC2512ATZ | 38.94 | 28.06 | 15.06 | 20.00 | 4.50 | 4.25 | 2.125 | 4.00 | 1.845 | 500 | 3.00 | 630 |
| MC2812ATZ | 41.62 | 29.94 | 14.25 | 22.00 | 5.00 | 4.75 | 2.375 | 4.50 | 2.021 | 625 | 3.50 | 835 |
| LC2812ATZ | 43.88 | 32.19 | 16.50 | 22.00 | 5.00 | 4.75 | 2.375 | 4.50 | 2.021 | 625 | 3.50 | 900 |

(1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) "P" VARIES----- .000 --- .001
(3) "R" VARIES----- .000 --- .015
(4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". SEE DRAWING NUMBER 609959-1.
(5) WALLS OR OBSTRUCTIONS MUST NOT ENCRUGH ON AIR INLET SPACE "XC".
(6) "FAK" VARIES +.005 --- .000---FACE RUNOUT AND ECCENTRICITY .007 MAX. T. I. R.
(7) "FZK" VARIES +.000 --- .005---FACE RUNOUT AND ECCENTRICITY .007 MAX. T. I. R.
(8) STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE 1.88 X .188 X 1.00
(9) FOR RE-045 OR SPY PROVISIONS ON "C2812" ADD 1.00 TO "LL" DIMENSION.
TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

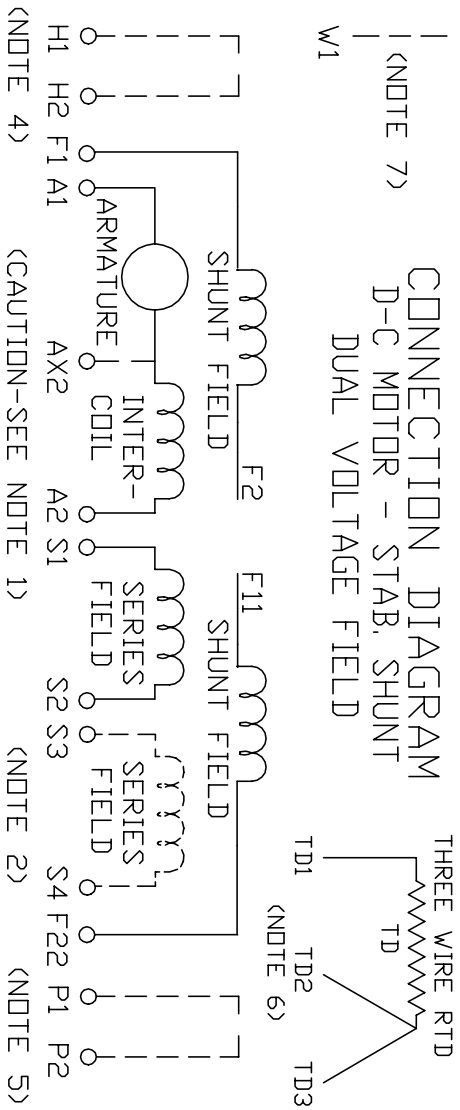
| TACHOMETER | LL |
|-------------|-------|
| BC-42 | |
| RD-11 | |
| RD-12 | 4.25 |
| RD-51 | |
| RD-61 | |
| RD-62 | |
| RE-210 | |
| M627, M628 | |
| M728, M737 | |
| DYNAPAR 74S | |
| RE-045 | 3.80 |
| SPY | 11.12 |

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

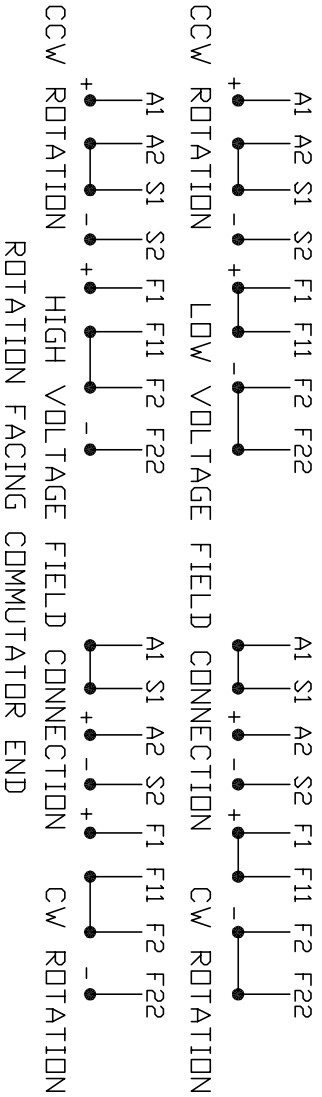
| | | |
|--------------------------|------------------------------|-------------------|
| REV. DESC: LOADED TO BUS | VERSION: 00 | TDR: 000000577407 |
| REV. LTR: - | REVISED: 11:02:01 01/26/2011 | BY: CONNAS |
| FILE: \RGG\00015\557 | | |
| MTL: - | | |

BALDOR
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, TEFC, FOOT MTG
SH 1 of 1

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



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



- CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
- 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.
- OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
- SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
- THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
- WINDING RTDS, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3
- BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
- 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 _____ RELIANCE
ORDER NO. _____ S.D. NO. _____

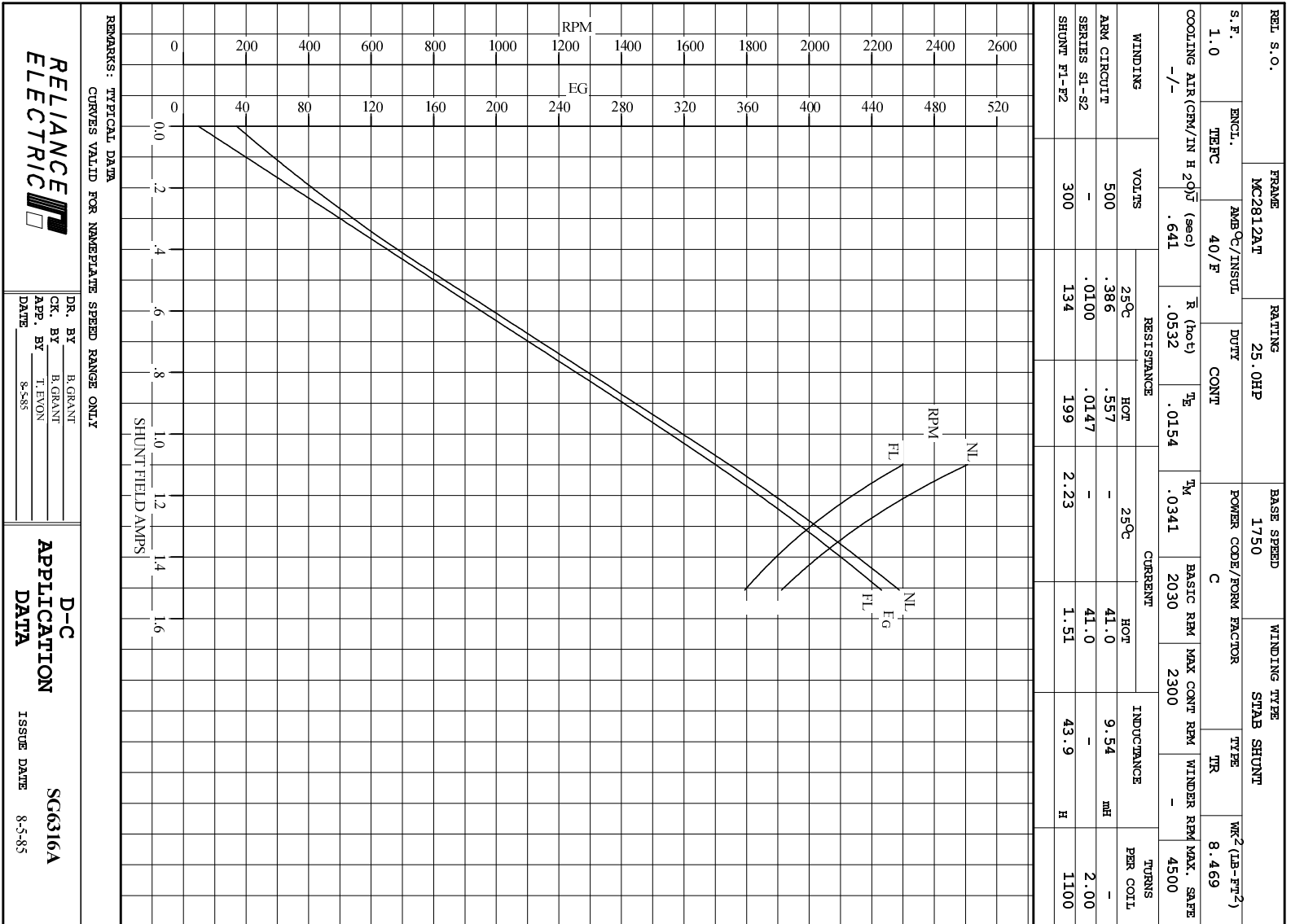


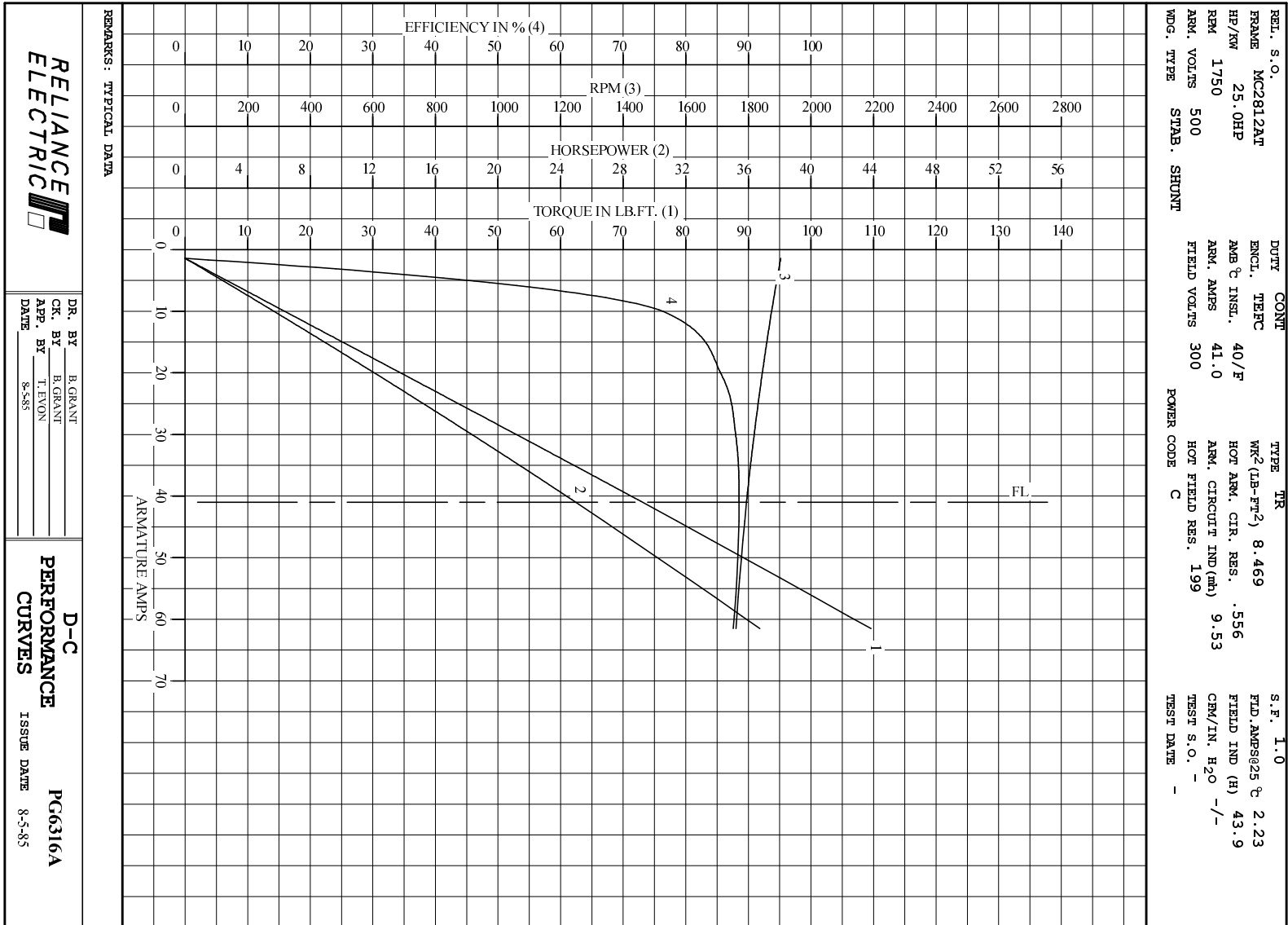
Rev. BY N.L. EVANS
CHK BY N. JESCHKE
APP. BY E. J. HINER
DATE 5-5-69

CONNECTION DIAGRAM
406770-2
ORIGINAL AT RRC

C/R 244907, 290048, 354478, 354480

| | | | | | |
|---|----------------|--|-----------------------------|---|---------------|
| REL. S.O. | FRAME | RATING | RPM | ARM. VOLTS | ARM. AMPS |
| | MC2812AT | 25.0HP | 1750 | 500 | 41.0 |
| WINDING TYPE | | S.F. | ENCL. | AMB °C/INSUL | DUTY |
| STAB. SHUNT | | 1.0 | TEFC | 40/F | CONT |
| | | | | | 300 |
| POWER CODE | TYPE | WK ² (LB-FT ²) | HOT ARM. CIR. RES. | FLD. AMPS@25 °C | HOT FIELD RES |
| C | TR | 8.469 | .556 | 2.23 | 199 |
| ARM. CIR. IND. (mh) | FIELD IND. (H) | COOLING AIR (CFM/IN H 20) | TURNS PER COIL SHUNT/SERIES | TEST DATE | |
| 9.53 | 43.9 | -/- | 1100/2 | - | |
| LOAD PERFORMANCE | | | | | |
| LOAD | AMPERES | TORQUE IN LB.-FT. | OUTPUT IN HP | RPM | % EFFICIENCY |
| NO LOAD | 1.4 | 0 | 0 | 1904 | 0 |
| 1/4 | 10 | 16.4 | 5.84 | 1874 | 76.9 |
| 2/4 | 21 | 35.4 | 12.4 | 1843 | 85.8 |
| 3/4 | 31 | 54.3 | 18.8 | 1817 | 88.1 |
| 4/4 | 41 | 73.1 | 25.0 | 1794 | 88.5 |
| O.L. | 62 | 110 | 36.7 | 1760 | 87.6 |
| RPM VS. FIELD AMPS | | | Eg VS. FIELD AMPS | | |
| FIELD AMPS | RPM N.L. | RPM F.L. | Eg N.L. @ BASE SPEED | Eg F.L. @ BASE SPEED | |
| 1.50 | 1903 | 1794 | 457 | 446 | |
| 1.40 | 2023 | 1888 | 432 | 421 | |
| 1.30 | 2156 | 2001 | 406 | 396 | |
| 1.20 | 2314 | 2136 | 378 | 368 | |
| 1.09 | 2506 | 2300 | 348 | 340 | |
| REMARKS: TYPICAL DATA MAXIMUM SAFE SPEED = 4500 RPM | | | | | |
| RELIANCE ELECTRIC | | DR. BY <u>B. GRANT</u> CK. BY <u>B. GRANT</u> APP. BY <u>T. EVON</u> DATE <u>8-5-85</u> | | D-C MOTOR PERFORMANCE DATA D66316A ISSUE DATE 8-5-85 | |





DR. BY B. GRANT
 CK. BY B. GRANT
 APP. BY T. EVON
 DATE 8-5-85

D-C PERFORMANCE CURVES
 ISSUE DATE 8-5-85
PG6316A