

**BALDOR • RELIANCE**

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# Customer information packet

## BNM3542-D

.75/.55 KWHP, 1765 1/MIN IP44 IC410 19 KG

Class - None

Division - Not Applicable

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1/18/2025 9:00:23 PM

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | TENV  |
| Frame                          | 56  |
| Frame Material                 | Steel   |
| Frequency                      | 60.00 Hz  |
| Haz Area Class and Group       | None  |
| Haz Area Division              | Not Applicable  |
| Motor Letter Type              | Three Phase   |
| Output @ Frequency             | .750 HP @ 60 HZ   |
| Phase                          | 3   |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ  |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>208.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| Agency Approvals               | CSA<br>UR<br>WEEE<br>CE                                     |
| Ambient Temperature            | 40 °C   |
| Auxillary Box                  | No Auxillary Box  |
| Auxillary Box Lead Termination | None  |
| Base Indicator                 | Rigid   |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None  |
| Current @ Voltage              | 2.420 A @ 230.0 V<br>2.420 A @ 208.0 V<br>1.210 A @ 460.0 V |
| Design Code                    | B   |
| Drip Cover                     | No Drip Cover   |
| Duty Rating                    | CONT  |
| Efficiency @ 100% Load         | 82.5 %  |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | G          |
| Type         | AC         |
| Mech. spec.  | 35X056     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG069   |
| Layout       | 35LYX056   |
| Eff. date    | 09-23-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 01-10-2022 |

|                               |                     |
|-------------------------------|---------------------|
| Front Shaft Indicator         | None                |
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 1.2 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Duty       |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No Locked Bearing   |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3514M               |
| Mounting Arrangement          | F3                  |
| Number of Poles               | 4                   |
| Overall Length                | 14.96 IN            |
| Power Factor                  | 74                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | Standard            |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.625 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1765 rpm            |
| Speed Code                    | Single Speed        |
| Starting Method               | Direct on line      |
| Thermal Device - Bearing      | None                |
| Thermal Device - Winding      | None                |
| Vibration Sensor Indicator    | No Vibration Sensor |
| Winding Thermal 1             | None                |
| Winding Thermal 2             | None                |

**Nameplate**

| <b>NP1372L</b>        |                      |             |                 |            |   |           |   |  |  |  |
|-----------------------|----------------------|-------------|-----------------|------------|---|-----------|---|--|--|--|
| <b>CAT.NO.</b>        | BNM3542-D            |             |                 |            |   |           |   |  |  |  |
| <b>SPEC.</b>          | 35X056G069G1         |             |                 |            |   |           |   |  |  |  |
| <b>HP</b>             | .75/.55 KW           |             |                 |            |   |           |   |  |  |  |
| <b>VOLTS</b>          | 208-230/460          |             |                 |            |   |           |   |  |  |  |
| <b>AMP</b>            | 2.42/1.21            |             |                 |            |   |           |   |  |  |  |
| <b>R.P.M. (1/MIN)</b> | 1765                 |             |                 |            |   |           |   |  |  |  |
| <b>FRAME</b>          | 56                   |             | <b>HZ</b>       | 60         |   | <b>PH</b> | 3 |  |  |  |
| <b>SER.F.</b>         | 1.15                 | <b>CODE</b> | K               | <b>DES</b> | B | <b>CL</b> | F |  |  |  |
| <b>NEMA-NOM-EFF</b>   | 82.5                 | <b>PF</b>   | 74              |            |   |           |   |  |  |  |
| <b>RATING</b>         | 40C AMB-S1 CONT      |             |                 |            |   |           |   |  |  |  |
| <b>CC</b>             |                      |             | IP44 IC410 19KG |            |   |           |   |  |  |  |
| <b>DE</b>             | 6205                 |             | <b>ODE</b>      | 6203       |   |           |   |  |  |  |
| <b>ENCL</b>           | TENV                 | <b>SN</b>   |                 |            |   |           |   |  |  |  |
|                       | IE2-83.3(75%)81(50%) |             |                 |            |   |           |   |  |  |  |

**AC Induction Motor Performance Data**

Record # 87328

Typical performance - not guaranteed values

| Winding: 35WGG069-R012 |                   | Type: 3514M               | Enclosure: TENV                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | .75               | Full Load Torque          | 2.24 LB-FT                                       |  |
| Volts                  | 208-230/460       | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 2.42/1.21         | Breakdown Torque          | 8 LB-FT  |  |
| R.P.M.                 | 1765              | Pull-up Torque            | 4.4 LB-FT  |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 5.1 LB-FT  |  |
| NEMA Design Code       | B KVA Code        | Starting Current          | 8.4 A  |  |
| Service Factor (S.F.)  | 1.15              | No-load Current           | 0.85 A   |  |
| NEMA Nom. Eff.         | 82.5 Power Factor | Line-line Res. @ 25°C     | 30.3 Ω   |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 59°C   |  |
| S.F. Amps              | 2.72-2.64/1.32    | Temp. Rise @ S.F. Load    | 69°C   |  |
|                        |                   | Locked-rotor Power Factor | 66.8   |  |
|                        |                   | Rotor inertia             | 0.101 LB-FT <sup>2</sup>                         |  |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 31   | 48   | 61   | 70   | 76   | 81   | 78   |
| Efficiency      | 68.4 | 79.5 | 81.9 | 82.7 | 82.5 | 81.1 | 83.1 |
| Speed           | 1791 | 1783 | 1775 | 1766 | 1757 | 1745 | 1757 |
| Line amperes    | 0.87 | 0.95 | 1.06 | 1.21 | 1.4  | 1.61 | 1.26 |

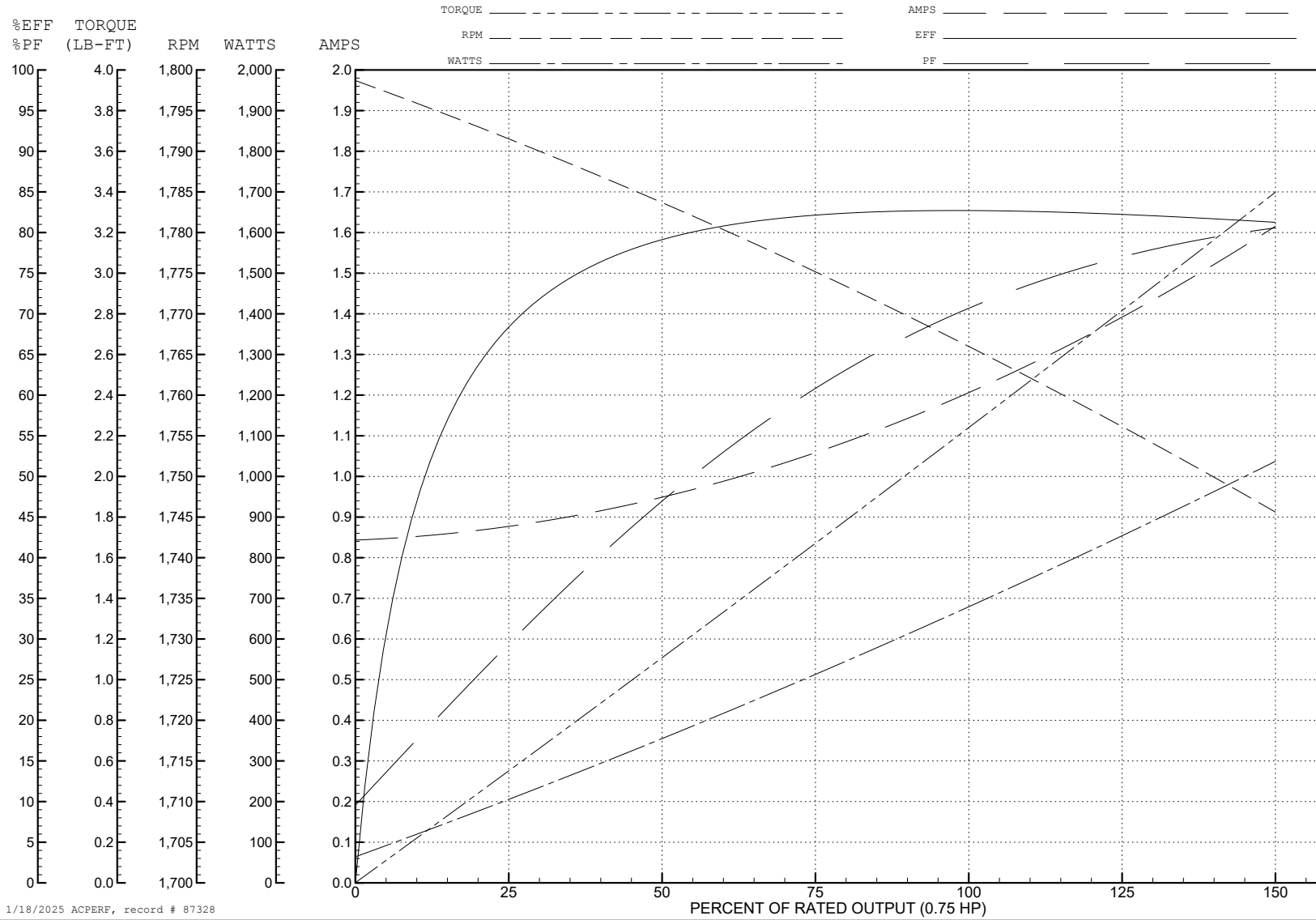
ABB Motors and Mechanical Inc.

WINDING # 35WGG069

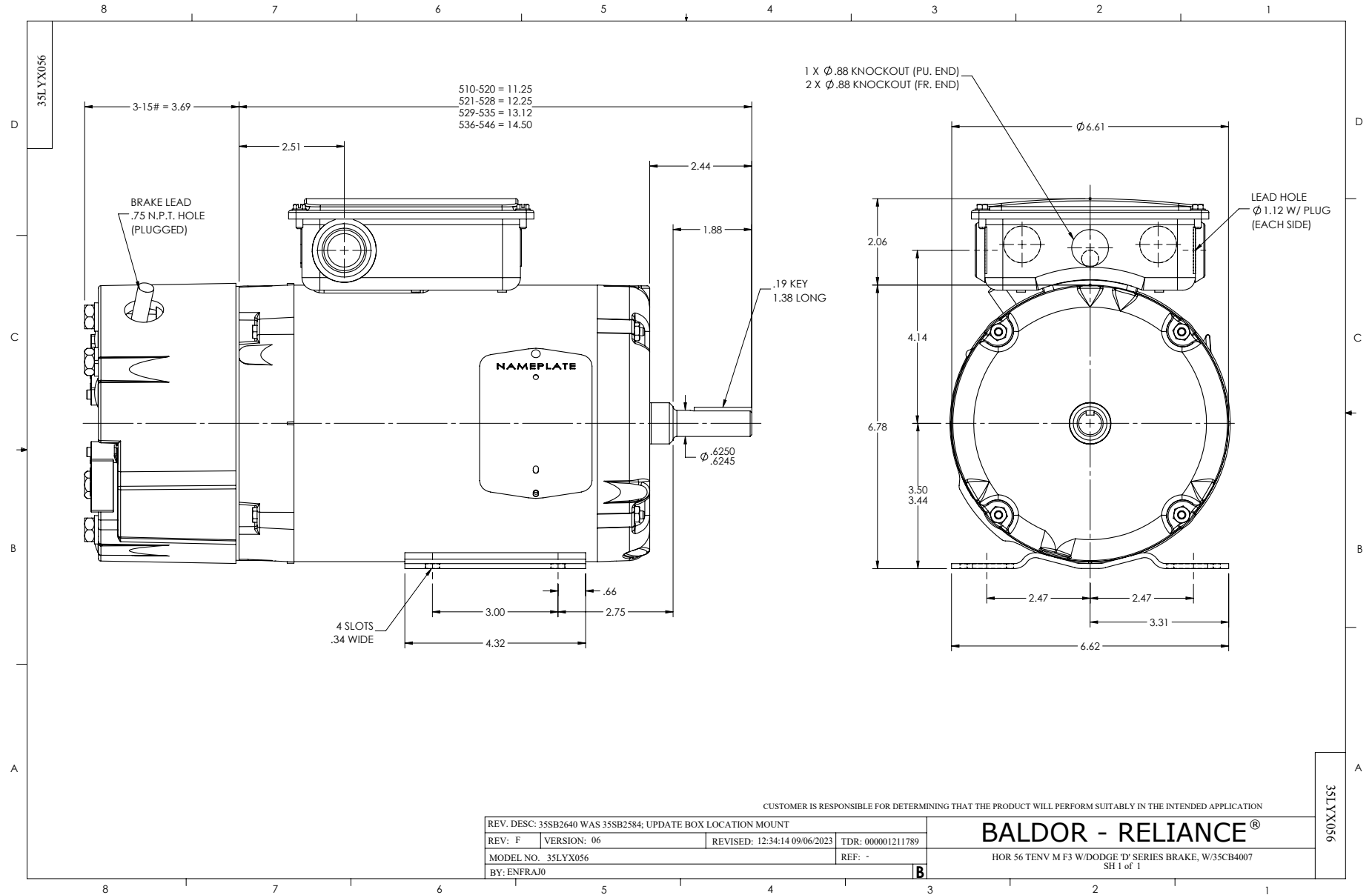
0.75 HP 3 PH 60 HZ 1765 RPM 460 V 3514M

Typical performance - not guaranteed values.

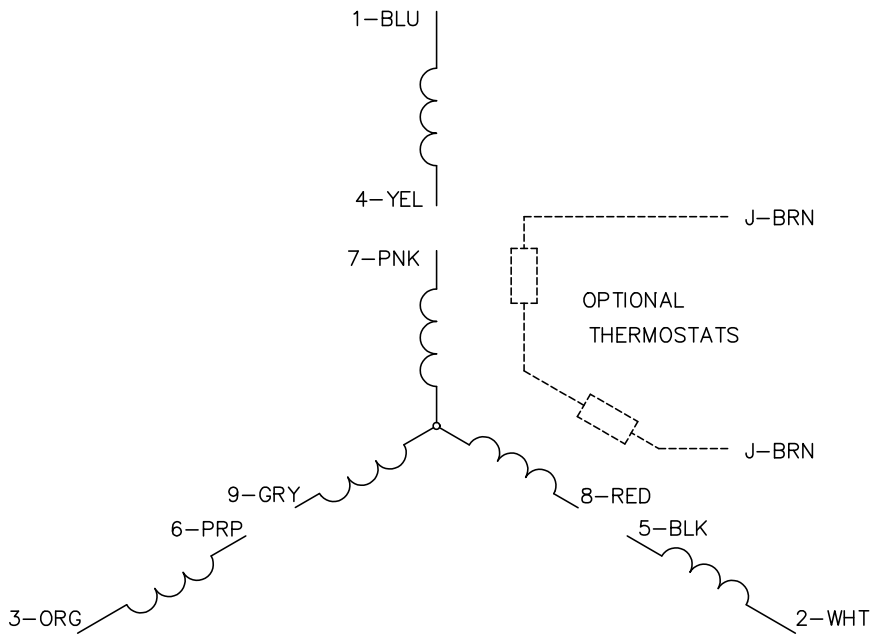
TORQUES (LB-FT) : PO=8 PU=4.4 LR=5.1 LRA=8.4



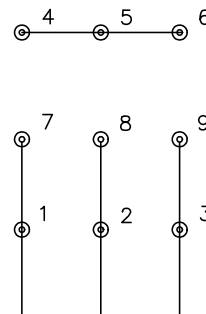
1/18/2025 ACPERF, record # 87328



CD0005



LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

**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.

CD0005

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS



CD2120

WIRING CONNECTIONS (1 PHASE VAC)

|               | POWER LINE A | POWER LINE B | CAP TOGETHER | CAP ALONE                    |
|---------------|--------------|--------------|--------------|------------------------------|
| AC LOW VOLT.  | B1           | B2           | B3 & B5      | B4                           |
| AC HIGH VOLT. | B1 & B5      | B2           | ---          | B3 CAP ALONE<br>B4 CAP ALONE |
| DC VOLT.      | B1           | B2           | B3 & B5      | B4                           |

B1 WHITE  
B2 BLACK  
B3 GRAY  
B4 BLUE  
B5 RED

CD2120

|                      |                               |                   |
|----------------------|-------------------------------|-------------------|
| REV. DESC: NEW       |                               |                   |
| REV. LTR: -          | VERSION: 00                   | TDR: 000000741785 |
| FILE: \CKA\00037\282 | REVISED: 12: 28:11 04/12/2012 |                   |
| MTL: -               | BY: CKRONSO                   |                   |

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D-SERIES MOTOR BRAKE 5LD AC\DC  
SH 1 of 1