

# Product Information Packet

November 7, 2016

Data shown is for the current revision model #. Ensure your nameplate model # matches.

|                            |                        |
|----------------------------|------------------------|
| <b>Model Number:</b>       | <b>5CD223PA097B025</b> |
| <b>Catalog Number:</b>     | <b>D618</b>            |
| <b>Instruction Manual:</b> | GEH-3967N              |
| <b>Connection Diagram:</b> | 36A167910FA502         |
| <b>Outline Drawing:</b>    | 36A167939AA002         |

| Accessory Connection Diagrams |      |                              |      |
|-------------------------------|------|------------------------------|------|
| <b>Bearing Thermocouple:</b>  | None | <b>Heater:</b>               | None |
| <b>RTD:</b>                   | None | <b>Thermistor:</b>           | None |
| <b>Thermostat:</b>            | None | <b>Winding Thermocouple:</b> | None |
| <b>Bearing RTD:</b>           | None |                              |      |

| Table of Contents     |    |
|-----------------------|----|
| Specification         | 01 |
| Outline Drawing       | 02 |
| Connection Drawing(s) | 03 |



**Marks:**

|                            |                            |                             |                |
|----------------------------|----------------------------|-----------------------------|----------------|
| <b>MODEL NUMBER:</b>       | <b>5CD223PA097B025</b>     | <b>Enclosure Mtg Assem:</b> | 36A167775AC001 |
| <b>Outline Drawing:</b>    | 36A167939AA002             | <b>Instruction Book:</b>    | GEH-3967N      |
| <b>Connection Diagram:</b> | 36A167910FA502             | <b>RPM:</b>                 | 1150/1700      |
| <b>Horsepower:</b>         | 250                        | <b>Armature Amps:</b>       | 402            |
| <b>Armature Volts:</b>     | 500                        | <b>Type:</b>                | CD506AT        |
| <b>Wound:</b>              | SHUNT                      | <b>Power Supply Code:</b>   | C              |
| <b>Enclosure:</b>          | DPFG-SV                    | <b>Insulation Class:</b>    | F              |
| <b>Duty:</b>               | CONT                       | <b>Ambient Max (°C):</b>    | 40 C           |
| <b>Rating Code:</b>        | 223P1250-02                | <b>Field Volts:</b>         | 300/150        |
| <b>K(V):</b>               | 3.95 Cemf volts/Radian/Sec | <b>WK2:</b>                 | 99.00Lb Ft2    |
| <b>K(T):</b>               | 2.84 Ft/Amp                | <b>Year of Manufacture:</b> | 2016           |
| <b>Minimum Ambient:</b>    | 0 C                        | <b>Max Altitude:</b>        | 3300 Ft        |

|                                      |            |                                |                          |
|--------------------------------------|------------|--------------------------------|--------------------------|
| <b>Resistances at 25 Degrees C :</b> |            | <b>Inductances:</b>            |                          |
| <b>Shunt Field:</b>                  | 34.7 OHMS  | <b>Armature Circuit Total:</b> | 1.690 mH Saturated       |
| <b>Armature:</b>                     | .0332 OHMS | <b>Shunt Field:</b>            | 48.0 Henries Unsaturated |
| <b>Commutator Field:</b>             | .0097 OHMS |                                |                          |

**Shunt Field Data:**

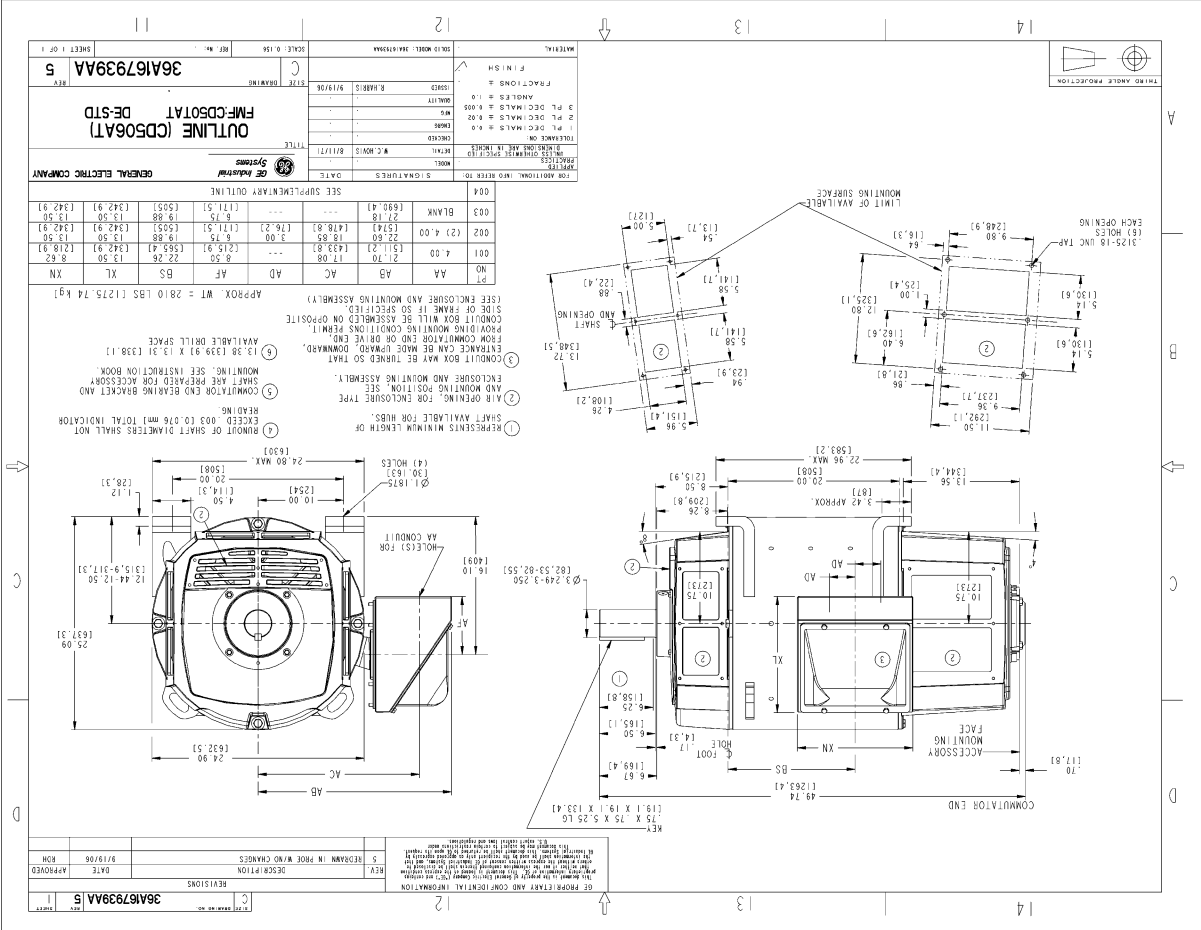
Shunt Field Current(1): 6.5 AMPS at Rated Load and 1150 RPM  
 Shunt Field Current(2): 5.04 AMPS at Rated Load and 1333 RPM  
 Shunt Field Current(3): 3.48 AMPS at Rated Load and 1700 RPM

**Additional Machine Notes:**

DRIPPROOF FULLY GUARDED, SEPARATELY VENTILATED -  
 BALL BEARINGS  
 CONDUIT BOX ON RIGHT HAND SIDE FACING COMMUTATOR END  
 STANDARD SHAFT DRIVE END ONLY - WITH FEET  
 WITH:  
 THERMOSTAT- NORMALLY CLOSED, AC RATING- 600V MAX-  
 .5A, 250V-1.5A, OR 125V-3A- DC RATING- 30V MAX-  
 1.5A. MAXIMUM CURRENT BASED ON INDUCTIVE LOADS UP  
 TO AND INCLUDING NEMA NO. 5 CONTACTOR.

Marks:

NAME: 28089544 OBJECT: 36A167939AA DATE: 19 SEP 06 11:28:15



| REV | DESCRIPTION                 | DATE    | APPROVED | BY |
|-----|-----------------------------|---------|----------|----|
| 5   | REWORK IN HOPE WIND CHANGES | 9/17/06 | MON      |    |
| 4   | REVISIONS                   |         |          |    |

| REV | DESCRIPTION | DATE | APPROVED | BY |
|-----|-------------|------|----------|----|
| 5   | 36A167939AA |      |          |    |

| REV | DESCRIPTION | DATE | APPROVED | BY |
|-----|-------------|------|----------|----|
| 5   | 36A167939AA |      |          |    |

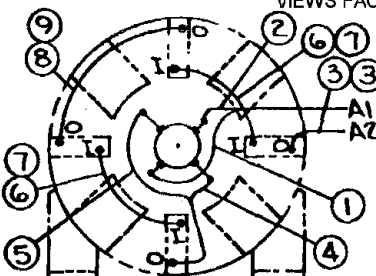
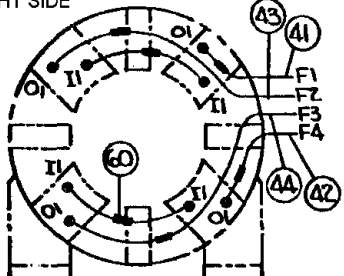
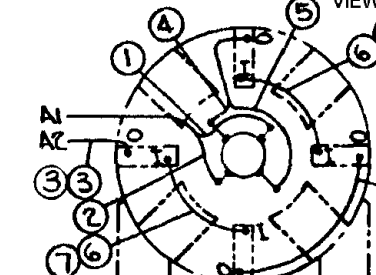
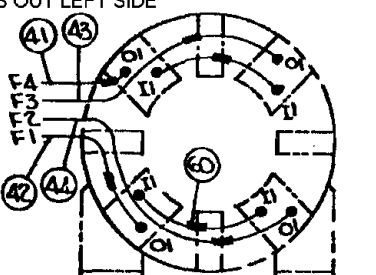
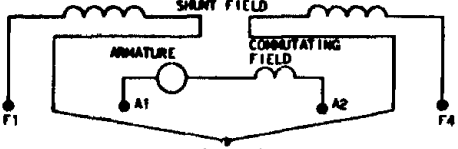
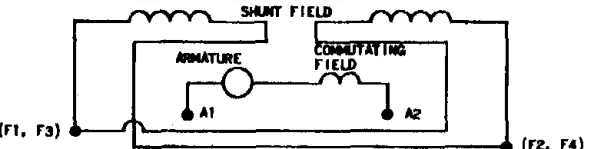
| REV | DESCRIPTION | DATE | APPROVED | BY |
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| 5   | 36A167939AA |      |          |    |

Marks:

|  |   |   |                                  |
|--|---|---|----------------------------------|
| EA054-1  | 36A167910FA502  | CONT ON SHEET   | SH NO.                           |
| REV 0  | TITLE   | 36A167910FA502  |                                  |
| 36A167910FA502   |   | CONNECTION DIAGRAM  |                                  |
| CONT ON SHEET  | SH NO.  | FIRST MADE FOR  | 4 POLE (EW) (HA)                 |
| DIRECT CURRENT MOTOR & GENERATOR - SHUNT WOUND<br>1 OR 2 CIRCUIT SHUNT FIELD, 1 CIRCUIT COMMUTATING FIELD  |   |   |                                  |
| VIEWS FACING COMMUTATOR END - LEADS OUT RIGHT SIDE   |   |   |                                  |
|    |   |   |                                  |
| COMMUTATING FIELD AND ARMATURE   | 1ST SHUNT FIELD   |   |                                  |
| VIEWS FACING COMMUTATOR END - LEADS OUT LEFT SIDE  |   |   |                                  |
|   |  |   |                                  |
| COMMUTATING FIELD AND ARMATURE   | 1ST SHUNT FIELD   |   |                                  |
| <p>ALL EXTERNAL LEADS ARE MARKED. ALL CONNECTIONS AND TERMINATIONS EXTERNAL TO MAGNET FRAME MUST BE INSULATED PER NATIONAL ELECTRIC CODE AND SOUND LOCAL PRACTICES. LIKE MARKINGS ARE TO BE BOLTED TOGETHER. SPACE HEATERS, WHEN SPECIFIED, WILL HAVE LEADS WITH TERMINAL MARKINGS H1 AND H2. THERMOSTAT, WHEN SPECIFIED, WILL HAVE LEADS WITH TERMINAL MARKINGS P1 AND P2. ENCIRCLED NUMBERS MAY BE USED FOR PART IDENTIFICATION.</p> |   |   |                                  |
| <p>FOR HIGH NAMEPLATE EXCITATION VOLTAGE, CONNECT SHUNT FIELD LEADS AS INDICATED</p>   |   |   |                                  |
|   |   | GENERATOR CONNECTIONS:  |                                  |
| <p>MOTOR CONNECTIONS:<br/>FOR CCW ROTATION FACING COMMUTATOR END, MAKE LEADS F1 AND A1 THE SAME POLARITY.<br/>FOR CW ROTATION FACING COMMUTATOR END, MAKE LEADS F1 AND A2 THE SAME POLARITY.</p>   |   | <p>FOR CW ROTATION FACING COMMUTATOR END, F1 POSITIVE WILL MAKE A2 POSITIVE.<br/>FOR CCW ROTATION FACING COMMUTATOR END, F1 POSITIVE WILL MAKE A1 POSITIVE.</p>             |                                  |
| <p>FOR LOW NAMEPLATE EXCITATION VOLTAGE, CONNECT SHUNT FIELD LEADS AS INDICATION.</p>  |   |   |                                  |
|   |   | GENERATOR CONNECTIONS:  |                                  |
| <p>MOTOR CONNECTIONS:<br/>FOR CCW ROTATION FACING COMMUTATOR END, MAKE LEADS (F1, F3) AND A1 THE SAME POLARITY.<br/>FOR CW, ROTATION FACING COMMUTATOR END, MAKE LEADS (F1, F3) AND A2 THE SAME POLARITY.</p>  |   | <p>FOR CW ROTATION FACING COMMUTATOR END, (F1, F3) POSITIVE WILL MAKE A2 POSITIVE.<br/>FOR CCW ROTATION FACING COMMUTATOR END, (F1, F3) POSITIVE WILL MAKE A1 POSITIVE.</p> |                                  |
| MADE BY<br><i>W. J. ...</i> JUNE 29, 1973  | APPROVALS<br>FILE<br><i>KC 13-1</i>   | DIRECT CURRENT<br>MOTOR & GENERATOR   | SHV OR<br>DEPT<br>36A167910FA502 |
| ISSUED<br><i>W. J. ...</i> JUNE 29, 1973   | ERIE  | LOCATION  | CONT ON SHEET<br>SH NO.          |

DC 2-281 (2-15-67)