

# **BALDOR**® • *RELIANCE*

## **Product Information Packet**

# **VEM3545-5**

**1HP,3450RPM,3PH,60HZ,56C,3516M,TEFC,F1,N**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | A    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 3516M | Elec. Spec: | 35WGL509 | CD Diagram:   | CD0006     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 35A013   | Layout:       | 35LYA013   |
| Frame:      | 56C  | Mounting:      | F1    | Poles:      | 02       | Created Date: | 03-01-2016 |
| Base:       | N    | Rotation:      | R     | Insulation: | B        | Eff. Date:    | 04-11-2016 |
| Leads:      | 3#18 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

|                                   |              |  |             |    |                       |      |  |           |           |   |
|-----------------------------------|--------------|--|-------------|----|-----------------------|------|--|-----------|-----------|---|
| <b>Nameplate NP3441L</b>          |              |  |             |    |                       |      |  |           |           |   |
| <b>CAT.NO.</b>                    | VEM3545-5    |  |             |    |                       |      |  |           |           |   |
| <b>SPEC.</b>                      | 35A013L509G1 |  |             |    |                       |      |  |           |           |   |
| <b>HP</b>                         | 1            |  |             |    |                       |      |  |           |           |   |
| <b>VOLTS</b>                      | 575          |  |             |    |                       |      |  |           |           |   |
| <b>AMP</b>                        | 1.1          |  |             |    |                       |      |  |           |           |   |
| <b>RPM</b>                        | 3450         |  |             |    |                       |      |  |           |           |   |
| <b>FRAME</b>                      | 56C          |  |             |    | <b>HZ</b>             | 60   |  |           | <b>PH</b> | 3 |
| <b>SER.F.</b>                     | 1.25         |  | <b>CODE</b> | K  | <b>DES</b>            | B    |  | <b>CL</b> | B         |   |
| <b>NEMA-NOM-EFF</b>               | 77           |  | <b>PF</b>   | 85 |                       |      |  |           |           |   |
| <b>RATING</b>                     | 40C AMB-CONT |  |             |    |                       |      |  |           |           |   |
| <b>CC</b>                         | 010A         |  |             |    | <b>USABLE AT 208V</b> |      |  |           |           |   |
| <b>DE</b>                         | 6205         |  |             |    | <b>ODE</b>            | 6203 |  |           |           |   |
| <b>ENCL</b>                       | TEFC         |  | <b>SN</b>   |    |                       |      |  |           |           |   |
| <b>VPWM INVERTER READY</b>        |              |  |             |    |                       |      |  |           |           |   |
| <b>CT6-60H(10:1)VT3-60H(20:1)</b> |              |  |             |    |                       |      |  |           |           |   |
|                                   | SFA 1.3      |  |             |    |                       |      |  |           |           |   |

| Parts List     |   |          |
|----------------|---|----------|
| Part Number    | Description                               | Quantity |
| SA316430       | SA 35A013L509G1                           | 1.000 EA |
| RA303999       | RA 35A013L509G1                           | 1.000 EA |
| 34FN3002A01SP  | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/   | 1.000 EA |
| S/P107-000-001 | SUPER E PROC'S-FS, WS & CK PLTS           | 1.000 EA |
| NS2512A01      | INSULATOR, CONDUIT BOX X                  | 1.000 EA |
| 35CB3007       | 35 CB CASTING W/.88 DIA. LEAD HOLE        | 1.000 EA |
| 36GS1000       | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE  | 1.000 EA |
| 51XB1016A07    | 10-16 X 7/16 HXWSSLD SERTYB               | 2.000 EA |
| 11XW1032G06    | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U  | 1.000 EA |
| 35EP3100M02    | FREP TEFC 203 BRG W/O GR SR (RAISED FH MT | 1.000 EA |
| HW5100A03SP    | WAVY WASHER (W1543-017)                   | 1.000 EA |
| 35EP3300A33    | SPL FACE MTD EP -ENCL-205 BRG             | 1.000 EA |
| 51XN1032A20    | 10-32 X 1 1/4 HX WS SL SR                 | 2.000 EA |
| 35FH4005A32SP  | IEC FH NO GR SR W/3 HOLES - PRIMED        | 1.000 EA |
| 51XW1032A06    | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S  | 3.000 EA |
| 35CB4521       | 35 LIPPED CB LID (GALV & PHOSPH)          | 1.000 EA |
| 35GS1030       | 35 GS FOR CB LID - LEXIDE                 | 1.000 EA |
| 51XW0832A07    | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE  | 4.000 EA |
| HW2501D13      | KEY, 3/16 SQ X 1.375                      | 1.000 EA |
| HA7000A04      | KEY RETAINER 0.625 DIA SHAFTS             | 1.000 EA |
| 85XU0407S04    | 4X1/4 U DRIVE PIN STAINLESS               | 2.000 EA |
| MJ1000A02      | GREASE, POLYREX EM EXXON (USe 4824-15A)   | 0.050 LB |
| MG1000Y03      | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,       | 0.017 GA |
| HA3100A12      | THRUBOLT 10-32 X 7.375                    | 4.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA        |
| LB1119N                       | WARNING LABEL                            | 1.000 EA        |
| NP3441L                       | ALUM SUPER-E VPWM INVERTER READY UL      | 1.000 EA        |
| 36PA1000                      | PKG GRP, PRINT PK1016A06                 | 1.000 EA        |
| PK3083T                       | STYROFOAM PACKING CRADLE W/TAPE          | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 55694 - Typical performance - not guaranteed values

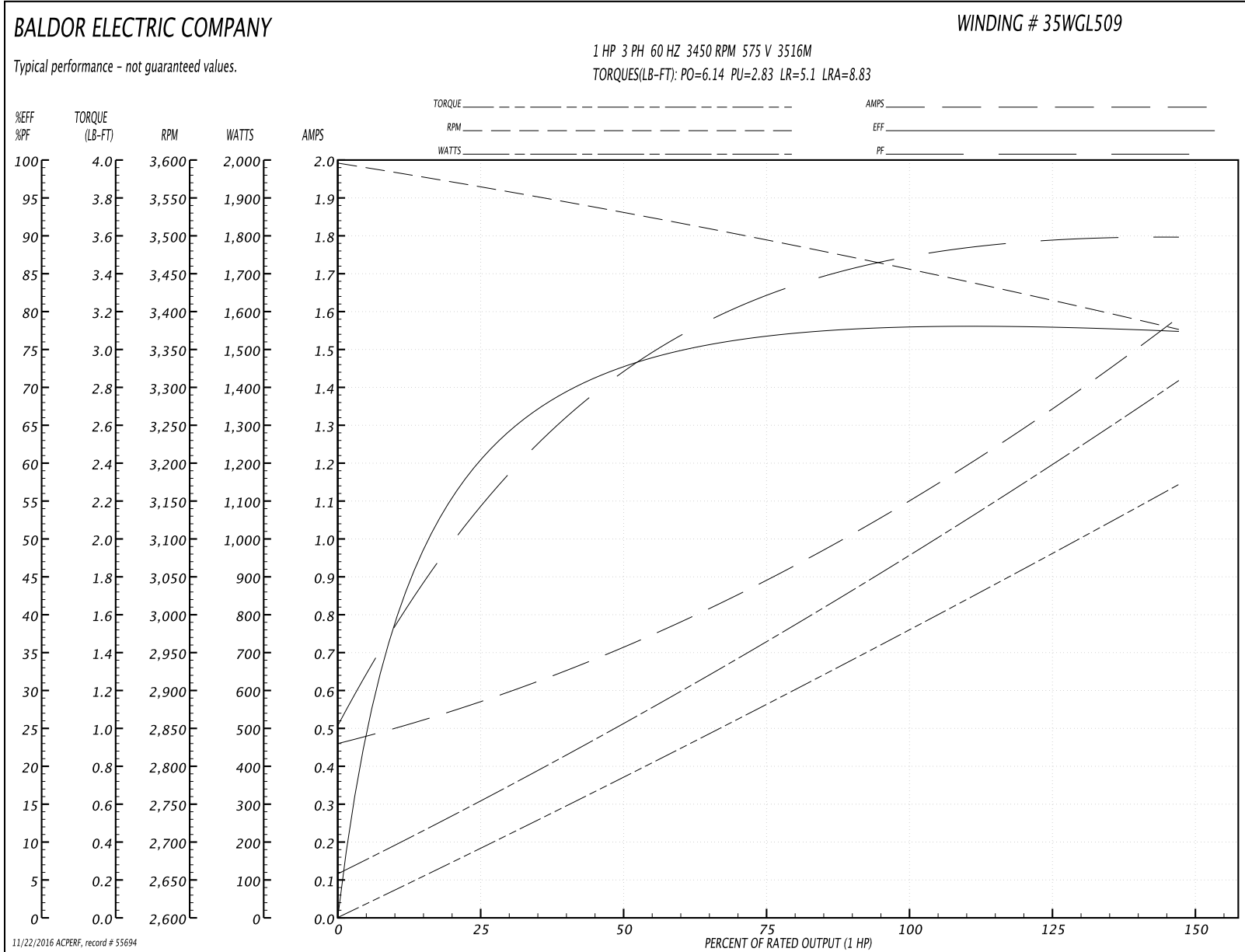
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 35WGL509-R001 | <b>Type:</b> 3516M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

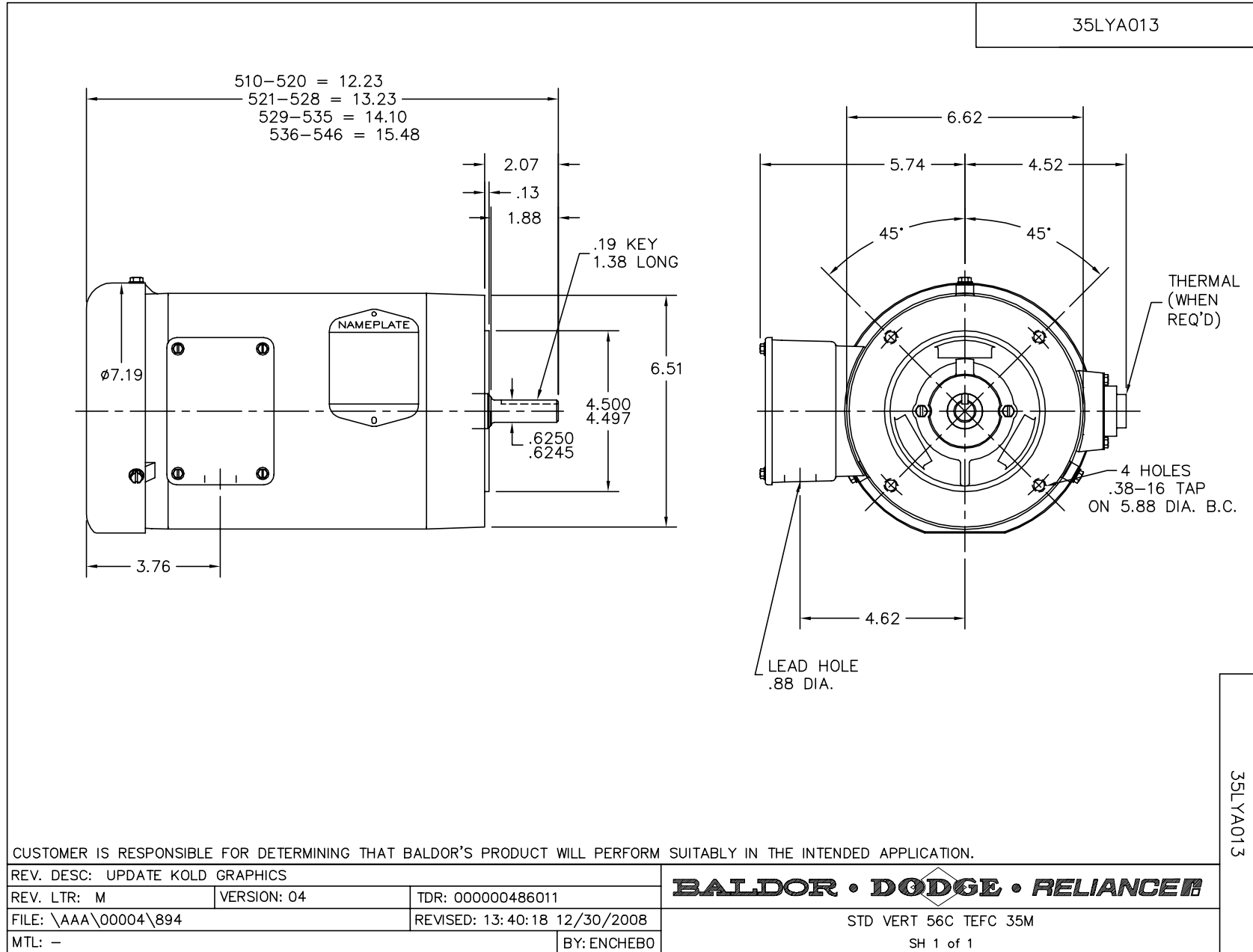
| Nameplate Data        |              |              |    | 575 V, 60 Hz:<br>Single Voltage Motor |                           |
|-----------------------|--------------|--------------|----|---------------------------------------|---------------------------|
| Rated Output (HP)     | 1            |              |    | Full Load Torque                      | 1.47 LB-FT                |
| Volts                 | 575          |              |    | Start Configuration                   | direct on line            |
| Full Load Amps        | 1.1          |              |    | Breakdown Torque                      | 6.14 LB-FT                |
| R.P.M.                | 3450         |              |    | Pull-up Torque                        | 2.83 LB-FT                |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                   | 5.1 LB-FT                 |
| NEMA Design Code      | B            | KVA Code     | K  | Starting Current                      | 8.83 A                    |
| Service Factor (S.F.) | 1.25         |              |    | No-load Current                       | 0.471 A                   |
| NEMA Nom. Eff.        | 77           | Power Factor | 85 | Line-line Res. @ 25°C                 | 24.3 Ω                    |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load               | 38°C                      |
| S.F. Amps             | 1.3          |              |    | Temp. Rise @ S.F. Load                | 47°C                      |
|                       |              |              |    | Locked-rotor Power Factor             | 59.6                      |
|                       |              |              |    | Rotor inertia                         | 0.0443 LB-FT <sup>2</sup> |

Load Characteristics 575 V, 60 Hz, 1 HP

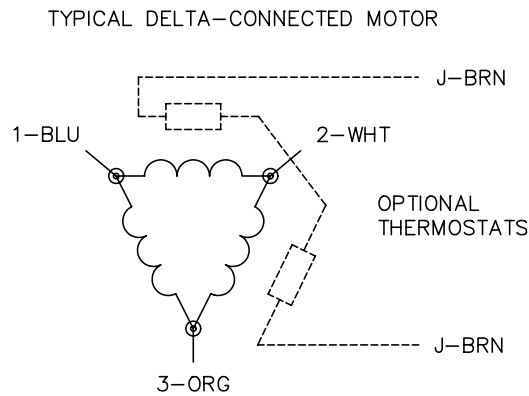
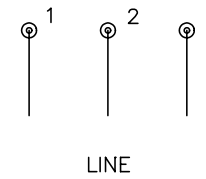
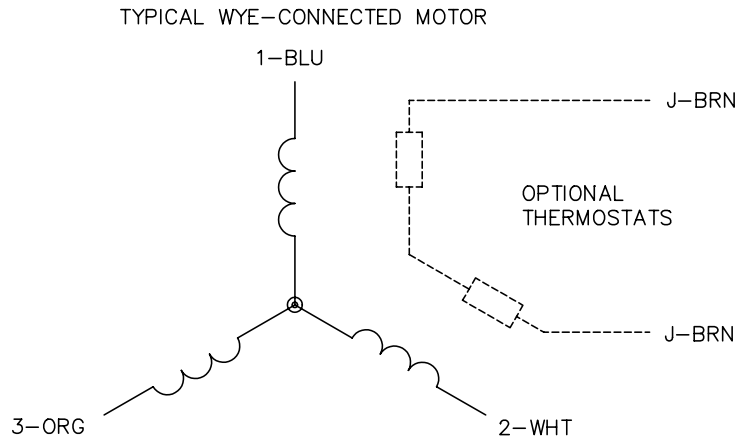
| % of Rated Load | 25    | 50    | 75    | 100  | 125  | 150  | S.F. |
|-----------------|-------|-------|-------|------|------|------|------|
| Power Factor    | 54    | 71    | 81    | 85   | 89   | 90   | 89   |
| Efficiency      | 57.9  | 71.2  | 76.3  | 78.1 | 78.5 | 77.2 | 78.5 |
| Speed           | 3564  | 3534  | 3501  | 3462 | 3423 | 3374 | 3423 |
| Line amperes    | 0.547 | 0.682 | 0.862 | 1.09 | 1.31 | 1.58 | 1.31 |

Performance Graph at 575V, 60Hz, 1.0HP Typical performance - Not guaranteed values





CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

|   |         |                        |              |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: D                               | BY: JLP | REVISED: 01/21/99 4:02 | TDR: 0171435 |
| 9000D                                     |         | FILE: AAA00005141      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

CD0006