

# **BALDOR® • RELIANCE**

## **Product Information Packet**

# **EM4100T**

**15HP,1175RPM,3PH,60HZ,284T,1046M,TEFC,F1**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | L    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 1046M | Elec. Spec: | 10WGY561 | CD Diagram:   | CD0180     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 10C151   | Layout:       | 10LYC151   |
| Frame:      | 284T | Mounting:      | F1    | Poles:      | 06       | Created Date: | 05-17-2010 |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 01-04-2017 |
| Leads:      | 9#10 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

| Nameplate NP3443LUA |                           |  |    |                |    |       |              |                         |      |        |            |  |
|---------------------|---------------------------|--|----|----------------|----|-------|--------------|-------------------------|------|--------|------------|--|
| CAT.NO.             | EM4100T                   |  |    | P/N            |    |       |              | ENCLOSURE               | TEFC |        |            |  |
| SPEC.               | 10C151Y561G1              |  | CC | 010A           |    | FRAME | 284T         |                         | S/N  |        |            |  |
| HP                  | 15                        |  |    | CLASS          | F  |       | HZ           | 60                      |      |        |            |  |
| RPM                 | 1175                      |  |    | PH             | 3  |       | DES          | A                       |      |        |            |  |
| VOLT                | 230/460                   |  |    | KVA-CODE       | H  |       | ODE BRG      | 6309                    |      | DE BRG | 6311       |  |
| AMP                 | 42/21                     |  |    | USABLE AT 208V | 42 |       | NEMA-NOM-EFF | 91.7                    |      | GREASE | POLYREX EM |  |
| RATING              | 40C AMB-CONT              |  |    | PF             | 73 |       | SER.F.       | 1.15                    |      |        |            |  |
| USABLE AT           | 50Hz 15HP 190/380V 48/24A |  |    |                |    | SF1.0 |              |                         |      |        |            |  |
| HTR-VOLTS           |                           |  |    | HTR-AMPS       |    |       |              | MAX. SPACE HEATER TEMP. |      |        |            |  |

| Parts List     |  |          |
|----------------|--|----------|
| Part Number    | Description                              | Quantity |
| SA196018       | SA 10C151Y561G1                          | 1.000 EA |
| RA183433       | RA 10C151Y561G1                          | 1.000 EA |
| 09FN3001B02    | EXTERNAL FAN, PLASTIC                    | 1.000 EA |
| S/P107-000-004 | SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E | 1.000 EA |
| 10CB3000SP     | STD KO BOX MODEL 310,312,314 MTRS W/2.00 | 1.000 EA |
| 12GS1000SP     | GASKET                                   | 1.000 EA |
| 10XN3118K12    | 5/16-18 X .75 GRADE 5, ZINC PLATED       | 4.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| WD1000B16      | T&B CX70TN TERMINAL                      | 1.000 EA |
| 51XF2520A08    | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 1.000 EA |
| 10EP1106A01    | FR ENDPLATE, MACH                        | 1.000 EA |
| 10XN3816K32    | BOLT, 3/8-16X2 HH YZ(5)                  | 4.000 EA |
| HA4017A01      | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 EA |
| HW1001A38      | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW5100A11      | W3917-042 WVY WSHR (WB)                  | 1.000 EA |
| 10XN2520K32    | 1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P | 2.000 EA |
| HW1001A25      | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| 10XN3118K40    | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| 10EP1105A01    | PU ENDPLATE, MACH                        | 1.000 EA |
| 10XN3816K28    | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 EA |
| HW1001A38      | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 10FH4000       | 310 FAN HOUSING STAMPED                  | 1.000 EA |
| 51XF2520A08    | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 4.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 10CB3500SP             | CONDUIT BOX LID, CAST                    | 1.000 EA |
| 10GS1000SP             | GASKET, CONDUIT BOX LID                  | 1.000 EA |
| 51XW2520A12            | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA |
| HW4600B40              | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 EA |
| HW2501H28              | KEY, 1/2 SQ X 3.250                      | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A21              | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4054                 | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.130 LB |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A03              | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4054                 | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| HW2500A25              | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.125 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0181                 | CONNECTION LABEL                         | 1.000 EA |
| NP3443LUA              | SS SUPER-E UL CSA-EEV PREM CC            | 1.000 EA |
| 10PA1000               | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 EA |

| <b>Accessories</b> |                    |                   |
|--------------------|--------------------|-------------------|
| <b>Part Number</b> | <b>Description</b> | <b>Multiplier</b> |
| 10-1305            | C FACE KIT         | A8                |
| 10EP1502A01SP      | D-FLANGE KIT       | A8                |

**AC Induction Motor Performance Data**

Record # 29743 - Typical performance - not guaranteed values

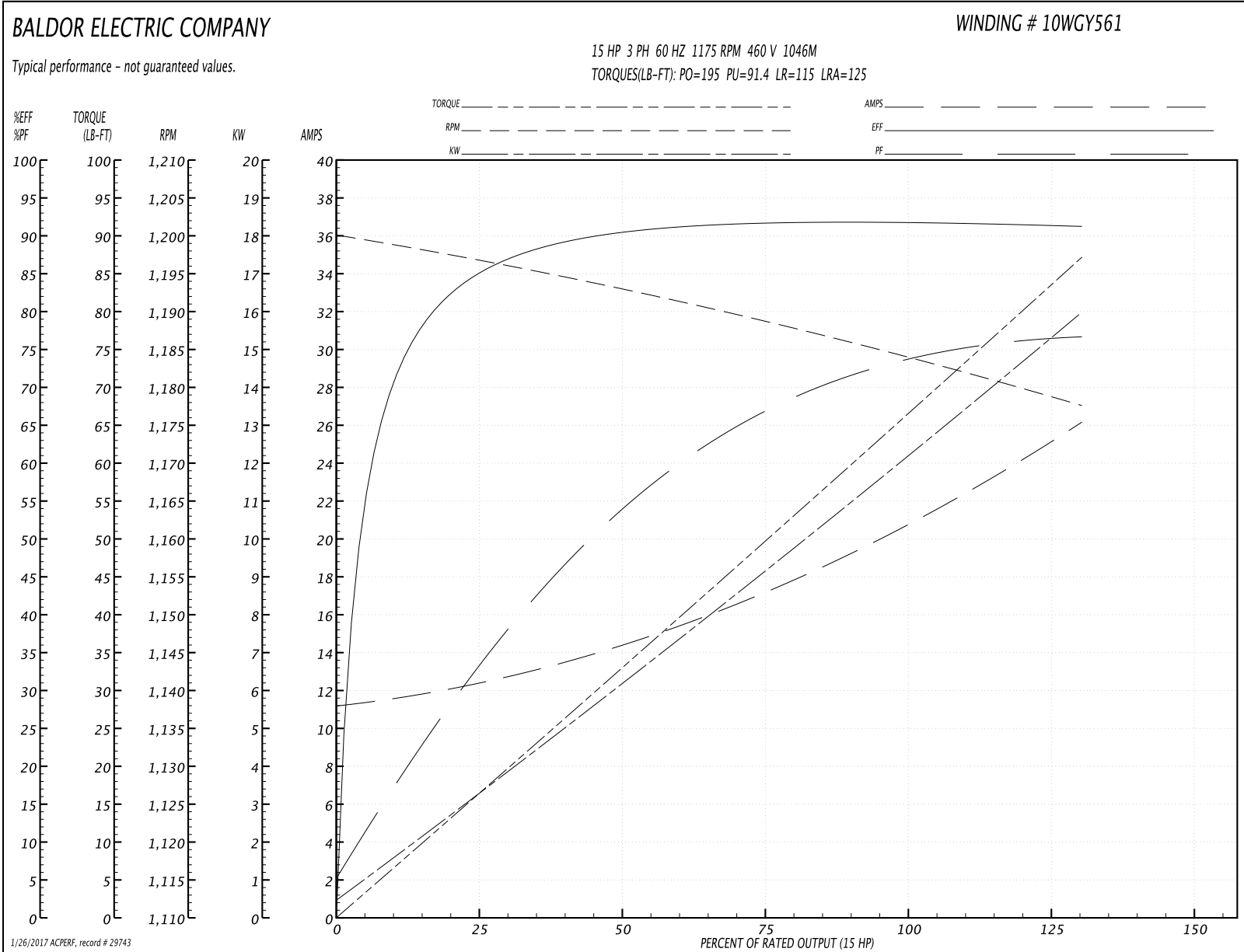
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 10WGY561-R001 | <b>Type:</b> 1046M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

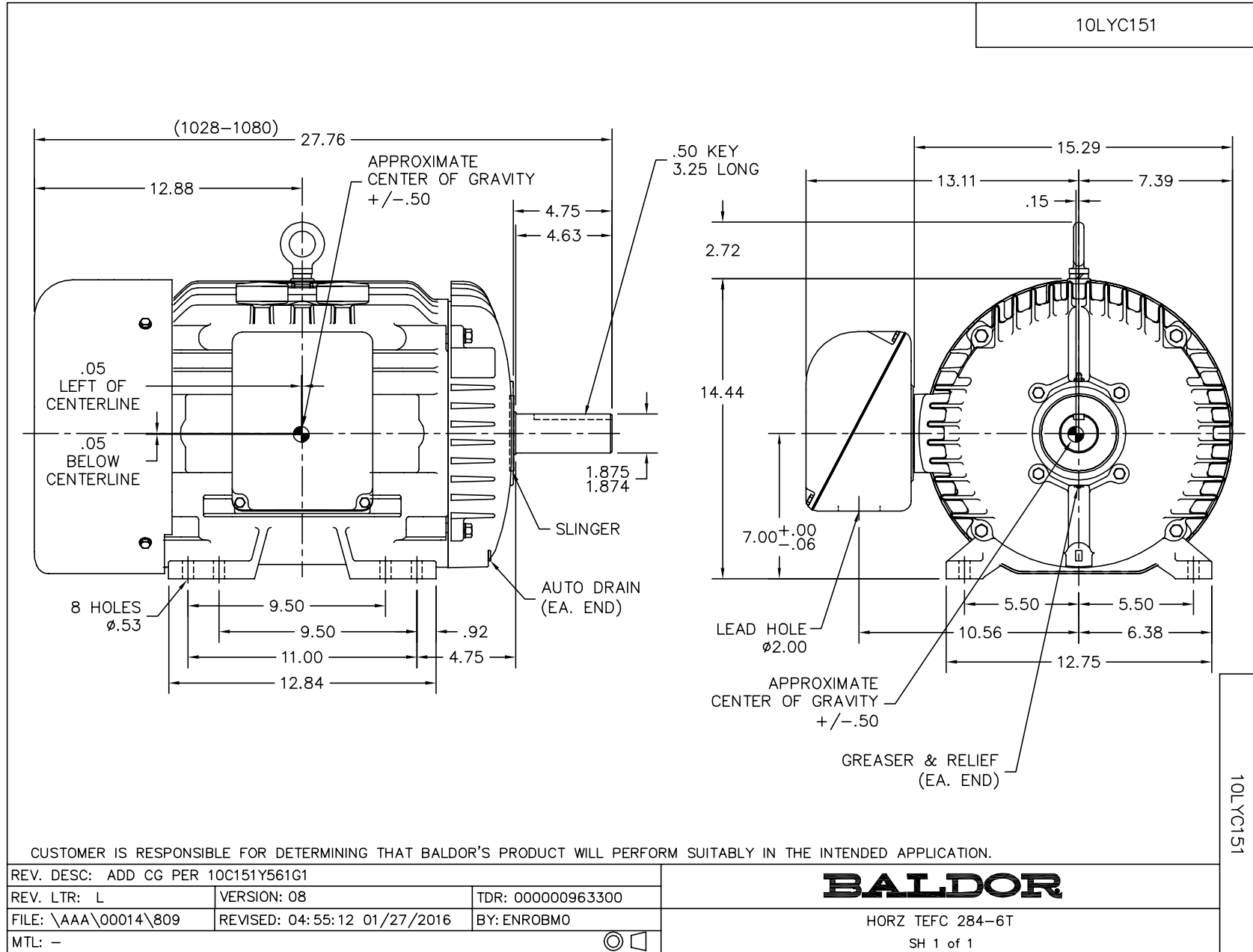
| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                         |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP)     | 15           |              |    | Full Load Torque                         | 66.5 LB-FT              |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line          |
| Full Load Amps        | 42/21        |              |    | Breakdown Torque                         | 195 LB-FT               |
| R.P.M.                | 1175         |              |    | Pull-up Torque                           | 91.4 LB-FT              |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 115 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | H  | Starting Current                         | 125 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 11.3 A                  |
| NEMA Nom. Eff.        | 91.7         | Power Factor | 73 | Line-line Res. @ 25°C                    | 0.56099 Ω               |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 49°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 59°C                    |
|                       |              |              |    | Locked-rotor Power Factor                | 33                      |
|                       |              |              |    | Rotor inertia                            | 5.63 LB-FT <sup>2</sup> |

Load Characteristics 460 V, 60 Hz, 15 HP

| % of Rated Load | 25   | 50   | 75     | 100    | 125  | 150    | S.F. |
|-----------------|------|------|--------|--------|------|--------|------|
| Power Factor    | 34   | 54   | 66     | 73     | 76   | 77     | 75   |
| Efficiency      | 85   | 90.6 | 91.8   | 92     | 91.5 | 91.3   | 91.7 |
| Speed           | 1197 | 1193 | 1188.7 | 1183.9 | 1179 | 1177.5 | 1181 |
| Line amperes    | 12.2 | 14.3 | 17.3   | 20.8   | 25.1 | 26.1   | 23.4 |

Performance Graph at 460V, 60Hz, 15.0HP Typical performance - Not guaranteed values

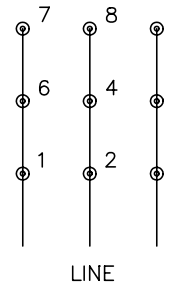




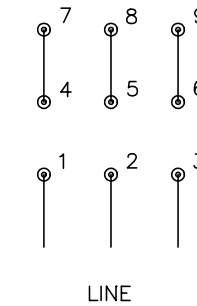
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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.

|   |         |                        |              |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: C                               | BY: JLP | REVISED: 01/21/99 2:28 | TDR: 0171435 |
| 0810D0                                    |         | FILE: AAA00005148      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180