# Customer information packet

ZDVSNCP3581T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0522M, TENV, F1
Class - None
Division - Not Applicable

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11/26/2026 11:24:06 AM

## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 143TC |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 1.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | CSA |
| | UR |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Current @ Voltage** | 3.200 A @ 230.0 V |
| | 1.600 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 85.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | ENCODER |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 1.6 a |
| **Insulation Class** | H |

## Part Detail

| | |
|---|---|
| **Revision** | D |
| **Type** | AC |
| **Mech. spec.** | 05F205 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 05WGX545 |
| **Layout** | 05LYF205 |
| **Eff. date** | 03-05-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 Y |
| **Proprietary** | False |
| **Created date** | 03-11-2022 |

| | |
|---|---|
| **Inverter Code** | Inverter Ready |
| **KVA Code** | N |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 6000 rpm |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 0522M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 14.61 IN |
| **Power Factor** | 68 |
| **Product Family** | Chemical Processing (Not DC) |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 0.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 1770 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Direct on line |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | Normally Closed Thermostat |
| **Vibration Sensor Indicator** | No Vibration Sensor |
| **Winding Thermal 1** | None |
| **Winding Thermal 2** | None |

**Nameplate**

| NP4357L | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CAT NO** | ZDVSNCP3581T | | | | | | |
| **SPEC.** | 05F205X545G1 | | | | | | |
| **FRAME** | 143TC | | **HP** | 1 TE | | | |
| **VOLTS** | 230/460 | | | | | | |
| **MAG CUR** | 2.14/1.07 | | | **FLA** | 3.2/1.6 | | |
| **RPM** | 1770 | | **RPM MAX** | 6000 | | | |
| **HZ** | 60 | **PH** | 3 | | **CLASS** | H | |
| **SER.F.** | 1.00 | | | **SL HZ** | 0.77 | | |
| **NEMA-NOM-EFF** | 85.5 | | **WK2** | 0.159 | | | |
| **RATING** | 40C AMB-CONT | | | | | | |
| **DE BRG** | 6205 | | **ODE BRG** | 6203 | | | |
| **CC** | 010A | **SN** | | | | | |
| | 1000:1 CT/VT | | | | | | |

**AC Induction Motor Performance Data**
Record # 87236
Preliminary Data Sheet

| **Winding:** 05WGX545-R005 | **Type:** 0522M | **Enclosure:** TENV |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1 | **Full Load Torque** | 2.97 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 3.2/1.6 | **Breakdown Torque** | 13.7 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 6.77 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 8.13 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | N | **Starting Current** | 12.1 A |
| **Service Factor (S.F.)** | | | 1 | **No-load Current** | 1.07 A |
| **NEMA Nom. Eff.** | 85.5 | **Power Factor** | 68 | **Line-line Res. @ 25ºC** | 16.4 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | |
| | | | | **Locked-rotor Power Factor** | 61.4 |
| | | | | **Rotor inertia** | 0.159 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 31 | 49 | 62 | 72 | 78 | 82 |
| **Efficiency** | 68.5 | 79.7 | 83.6 | 85.1 | 85.6 | 85.5 |
| **Speed** | 1794 | 1789 | 1783 | 1777 | 1771 | 1765 |
| **Line amperes** | 1.11 | 1.2 | 1.35 | 1.54 | 1.76 | 2 |

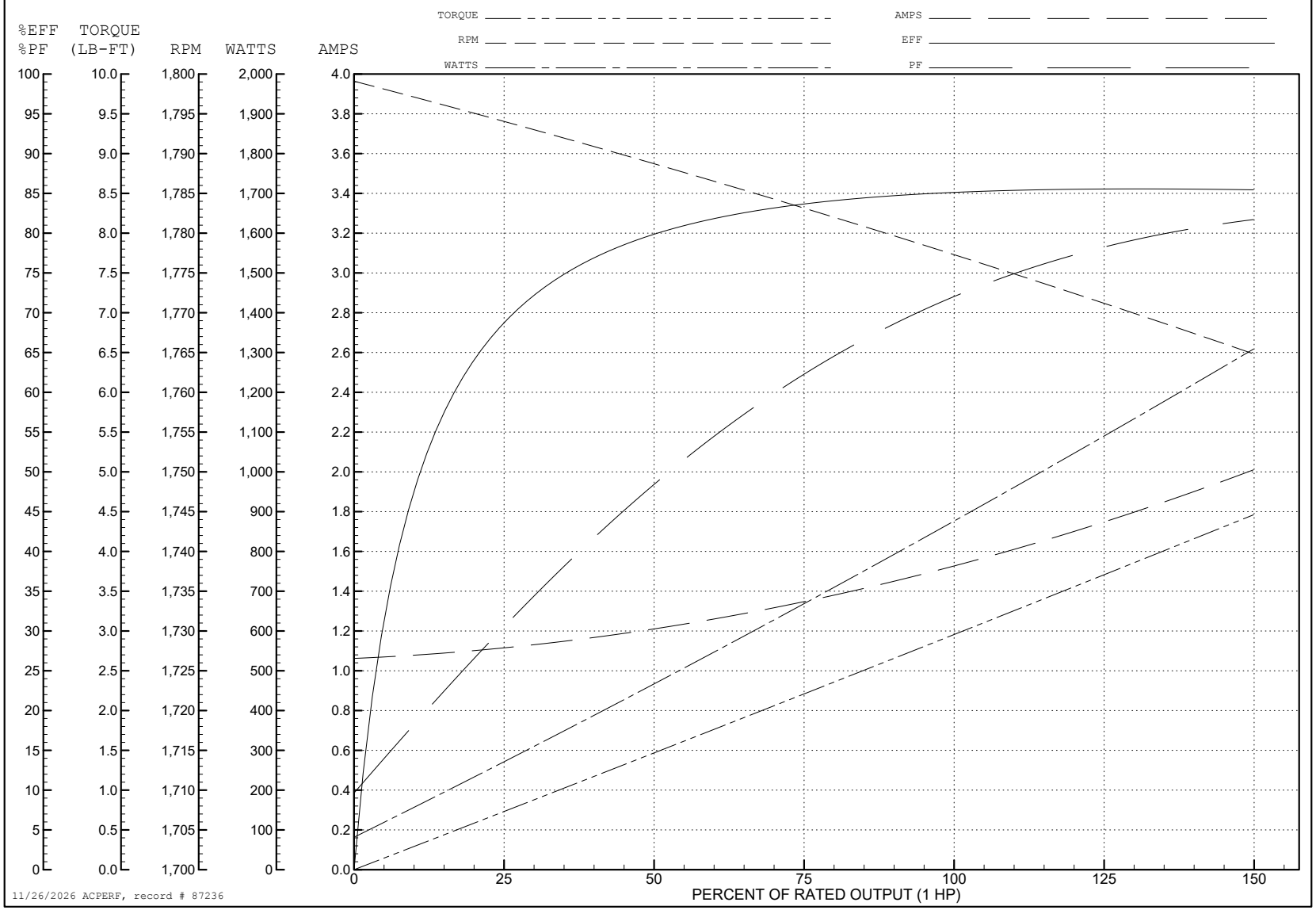
ABB Motors and Mechanical Inc.

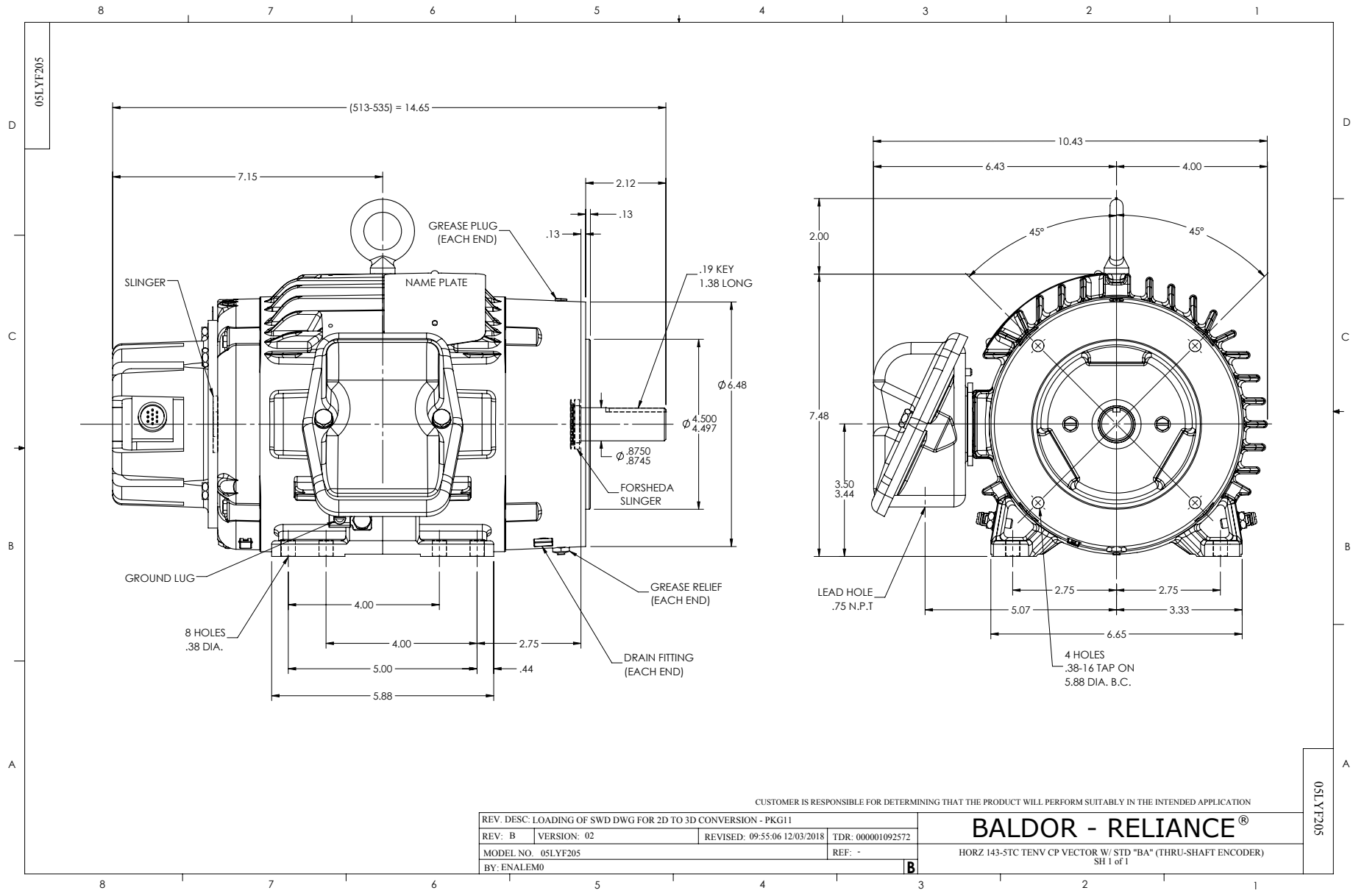
WINDING # 05WGX545

1 HP 3 PH 60 HZ 1770 RPM 460 V 0522M

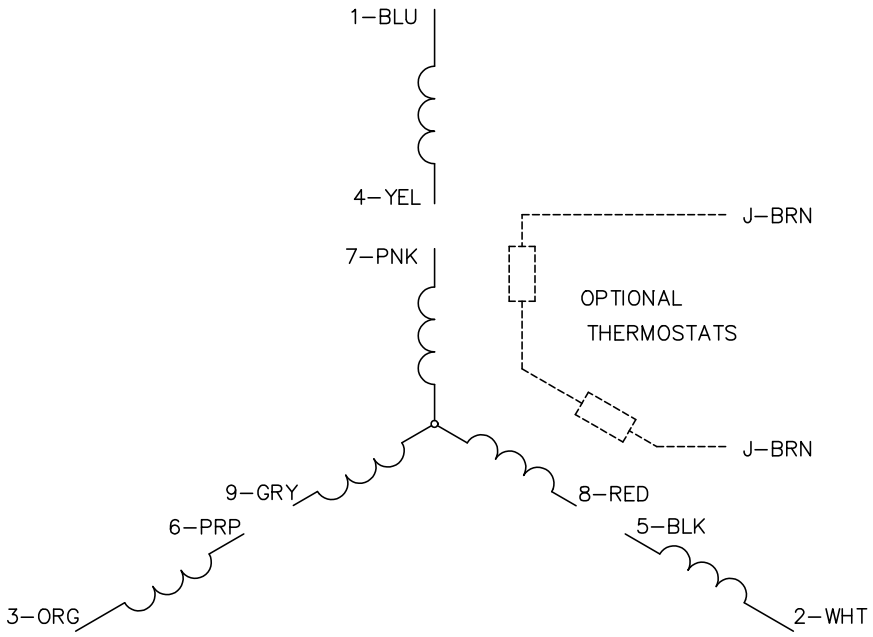
Typical performance - not guaranteed values.

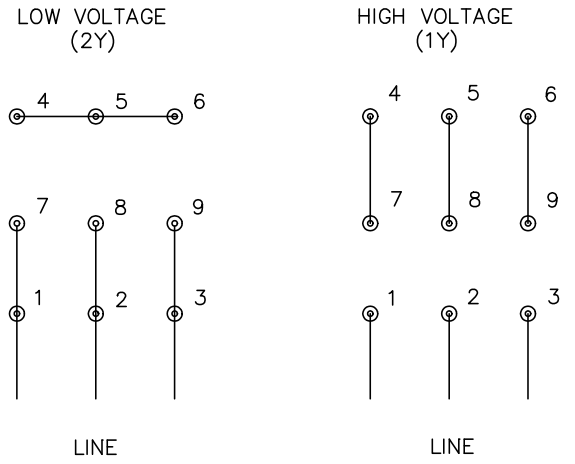
TORQUES(LB-FT): PO=13.7 PU=6.77 LR=8.13 LRA=12.1




05LYF205
(513-535) = 14.65
7.15
2.12
.13
.13
GREASE PLUG
(EACH END)
SLINGER
NAME PLATE
.19 KEY
1.38 LONG
Ø6.48
Ø4.500
4.497
Ø.8750
.8745
FORSHEDA
SLINGER
GROUND LUG
GREASE RELIEF
(EACH END)
8 HOLES
.38 DIA.
4.00
4.00
2.75
5.00
.44
5.88
DRAIN FITTING
(EACH END)
10.43
6.43
4.00
2.00
45°
45°
7.48
3.50
3.44
LEAD HOLE
.75 N.P.T
2.75
2.75
5.07
3.33
6.65
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG11
REV: B
VERSION: 02
REVISED: 09:55:06 12/03/2018
TDR: 000001092572
MODEL NO. 05LYF205
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HORZ 143-5TC TENV CP VECTOR W/ STD "BA" (THRU-SHAFT ENCODER)
SH 1 of 1
05LYF205

CD0005




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 | | | BALDOR ELECTRIC Co. |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| CD0005 | | FILE: AAA00005140 | MDL: – |
| | | MTL: – | 3PH, DV, 9 LEADS |