

# ABB BALDOR RELIANCE III

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## Customer information packet 1408W

5HP, 1500/1800RPM, 3PH, 50/60HZ, 3735M, GRND

**Specifications**

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Enclosure</b>                     | TENV                    |
| <b>Frame Material</b>                | Steel                   |
| <b>Frequency</b>                     | 50.00 Hz                |
|                                      | 60.00 Hz                |
|                                      | 50.00 Hz                |
|                                      | 60.00 Hz                |
| <b>Motor Letter Type</b>             | Three Phase             |
| <b>Nameplate Output</b>              | 5                       |
| <b>Number of Poles</b>               | 4                       |
|                                      | 4                       |
| <b>Output @ Frequency</b>            | 5.000 HP @ 60 HZ        |
|                                      | 5.000 HP @ 50 HZ        |
| <b>Phase</b>                         | 3                       |
|                                      | 3                       |
| <b>Product Style</b>                 | GRINDER                 |
| <b>Speed</b>                         | 1500 rpm                |
|                                      | 1800 rpm                |
|                                      | 1500 rpm                |
|                                      | 1800 rpm                |
| <b>Synchronous Speed @ Frequency</b> | 1500 RPM @ 50 HZ        |
| <b>Voltage</b>                       | 575 V                   |
| <b>Voltage @ Frequency</b>           | 575.0 V @ 60 HZ         |
|                                      | 575.0 V @ 50 HZ         |
| <b>Agency Approvals</b>              | CSA                     |
| <b>Ambient Temperature</b>           | 40 °C                   |
| <b>Base Indicator</b>                | Rigid                   |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F) |
| <b>Current @ Voltage</b>             | 5.500 A @ 575.0 V       |
| <b>Design Code</b>                   | B                       |
| <b>Duty Rating</b>                   | CONT                    |
| <b>Feedback Device</b>               | NO FEEDBACK             |
| <b>Insulation Class</b>              | B                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AA         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | G14-116    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | G4WG0047   |
| <b>Layout</b>       | G4LY0116   |
| <b>Eff. date</b>    | 06-05-2026 |
| <b>CD Diagram</b>   | CD0252     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 3#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

|                                      |                               |
|--------------------------------------|-------------------------------|
| <b>KVA Code</b>                      | H                             |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 14 AWG                    |
| <b>Motor Standards</b>               | Other                         |
| <b>Motor Type</b>                    | 3735M                         |
| <b>Mounting Arrangement</b>          | F1                            |
| <b>Overall Length</b>                | 37.39 IN                      |
| <b>Product Family</b>                | Grinder                       |
| <b>Service Factor</b>                | 1.00                          |
| <b>Shaft Extension Location</b>      | Double Shaft                  |
| <b>Shaft Rotation</b>                | Phase Seq-Opp Std Rot (CWODE) |
| <b>Shaft Slinger Indicator</b>       | No Slinger                    |
| <b>Speed Code</b>                    | Single Speed                  |
| <b>Starting Method</b>               | Direct on line                |
| <b>Thermal Device - Winding</b>      | None                          |
| <b>Winding Thermal 1</b>             | None                          |
| <b>Winding Thermal 2</b>             | None                          |

Nameplate

| NP3412L |               |       |            |
|---------|---------------|-------|------------|
| CAT.NO. | 1408W         |       |            |
| HP      | 5             | VOLTS | 575        |
| PHASE   | 3             | AMPS  | 5.5        |
| HZ      | 50//60        | RPM   | 1500//1800 |
| SER.NO  |               |       |            |
| SPEC.   | G14-116D-0047 |       |            |
| BLANK   |               |       |            |

**Accessories**

| <b>Part number</b> | <b>Description</b>                    | <b>Multiplier</b> |
|--------------------|---------------------------------------|-------------------|
| GA20               | PEDESTAL INDUSTRIAL, CAST IRON 8"-14" | A8                |
| GA9                | PAIR LIGHTED EYESHIELDS               | A8                |
| GA9-1              | SINGLE LIGHTED EYESHIELD              | A8                |
| GA9S               | PAIR EYESHIELDS W/ ON-OFF SWITCH      | A8                |
| GA11               | PAIR EYESHIELDS                       | A8                |
| B147               | 14" 30 GRIT GRINDING WHEEL            | A8                |
| B148               | 14" 46 GRIT GRINDING WHEEL            | A8                |
| DC14-3             | DUST CONTROL FOR 14 IN GRINDER        | A8                |

**AC Induction Motor Performance Data**

Record # 16695

Typical performance - not guaranteed values

| Winding: G4WG0047-R001 |                | Type: 3735M                           | Enclosure: TENV |
|------------------------|----------------|---------------------------------------|-----------------|
| Nameplate Data         |                | 575 V, 50 Hz:<br>Single Voltage Motor |                 |
| Rated Output (HP)      | 5              | Full Load Torque                      | 18.1 LB-FT      |
| Volts                  | 575            | Start Configuration                   | direct on line  |
| Full Load Amps         | 5.5            | Breakdown Torque                      | 73.1 LB-FT      |
| R.P.M.                 | 1500//1800     | Pull-up Torque                        | 40 LB-FT        |
| Hz                     | 50//60 Phase   | Locked-rotor Torque                   | 44 LB-FT        |
| NEMA Design Code       | B KVA Code     | Starting Current                      | 37.6 A          |
| Service Factor (S.F.)  | 1              | No-load Current                       | 2.61 A          |
| NEMA Nom. Eff.         | 0 Power Factor | Line-line Res. @ 25°C                 | 3.55 Ω          |
| Rating - Duty          | 40C AMB-CONT   | Temp. Rise @ Rated Load               |                 |
|                        |                | Locked-rotor Power Factor             | 47              |
|                        |                | Rotor inertia                         | 0.74 LB-FT2     |

**Load Characteristics 575 V, 50 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 43   | 64   | 76   | 83   | 86   | 88   |
| Efficiency      | 75.6 | 84.1 | 86.6 | 87.2 | 87.1 | 86.4 |
| Speed           | 1489 | 1478 | 1467 | 1456 | 1443 | 1430 |
| Line amperes    | 2.89 | 3.47 | 4.26 | 5.2  | 6.24 | 7.37 |

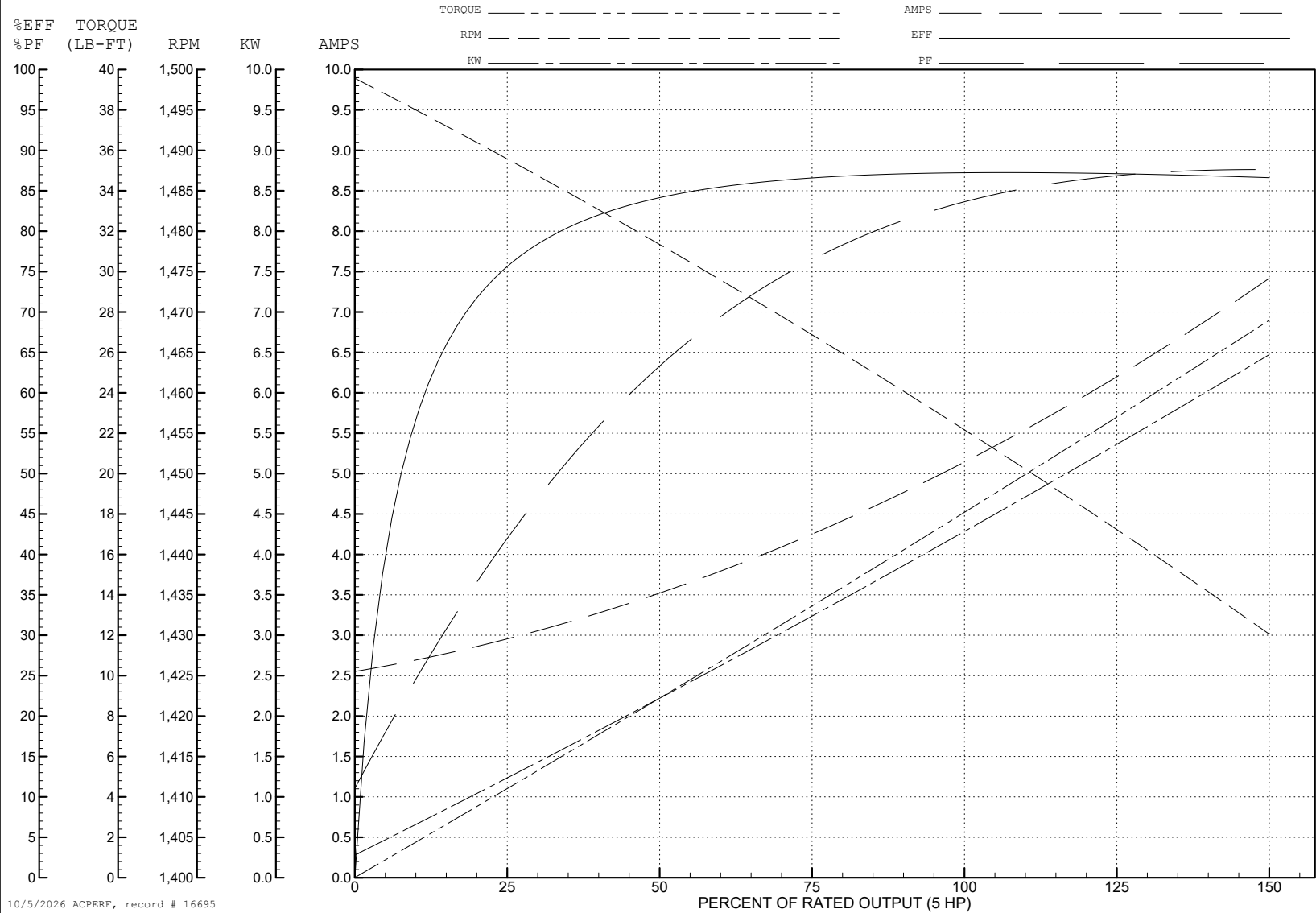
ABB Motors and Mechanical Inc.

WINDING # G4WG0047

Typical performance - not guaranteed values.

5 HP 3 PH 50 HZ 1456 RPM 575 V 3735M

TORQUES (LB-FT): PO=73.1 PU=40 LR=44 LRA=37.6



**AC Induction Motor Performance Data**

Record # 16697

Typical performance - not guaranteed values

| Winding: G4WG0047-R001 |                | Type: 3735M                           | Enclosure: TENV |
|------------------------|----------------|---------------------------------------|-----------------|
| Nameplate Data         |                | 575 V, 60 Hz:<br>Single Voltage Motor |                 |
| Rated Output (HP)      | 5              | Full Load Torque                      | 15.1 LB-FT      |
| Volts                  | 575            | Start Configuration                   | direct on line  |
| Full Load Amps         | 5.5            | Breakdown Torque                      | 51.1 LB-FT      |
| R.P.M.                 | 1500//1800     | Pull-up Torque                        | 23 LB-FT        |
| Hz                     | 50//60 Phase   | Locked-rotor Torque                   | 26.4 LB-FT      |
| NEMA Design Code       | B KVA Code     | Starting Current                      | 31.3 A          |
| Service Factor (S.F.)  | 1              | No-load Current                       | 1.92 A          |
| NEMA Nom. Eff.         | 0 Power Factor | Line-line Res. @ 25°C                 | 3.55 Ω          |
| Rating - Duty          | 40C AMB-CONT   | Temp. Rise @ Rated Load               |                 |
|                        |                | Locked-rotor Power Factor             | 40              |
|                        |                | Rotor inertia                         | 0.74 LB-FT2     |

**Load Characteristics 575 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 54   | 74   | 83   | 87   | 89   | 90   |
| Efficiency      | 77.4 | 85.2 | 87.4 | 87.8 | 87.5 | 86.7 |
| Speed           | 1786 | 1774 | 1761 | 1747 | 1731 | 1715 |
| Line amperes    | 2.27 | 2.97 | 3.87 | 4.88 | 5.98 | 7.18 |

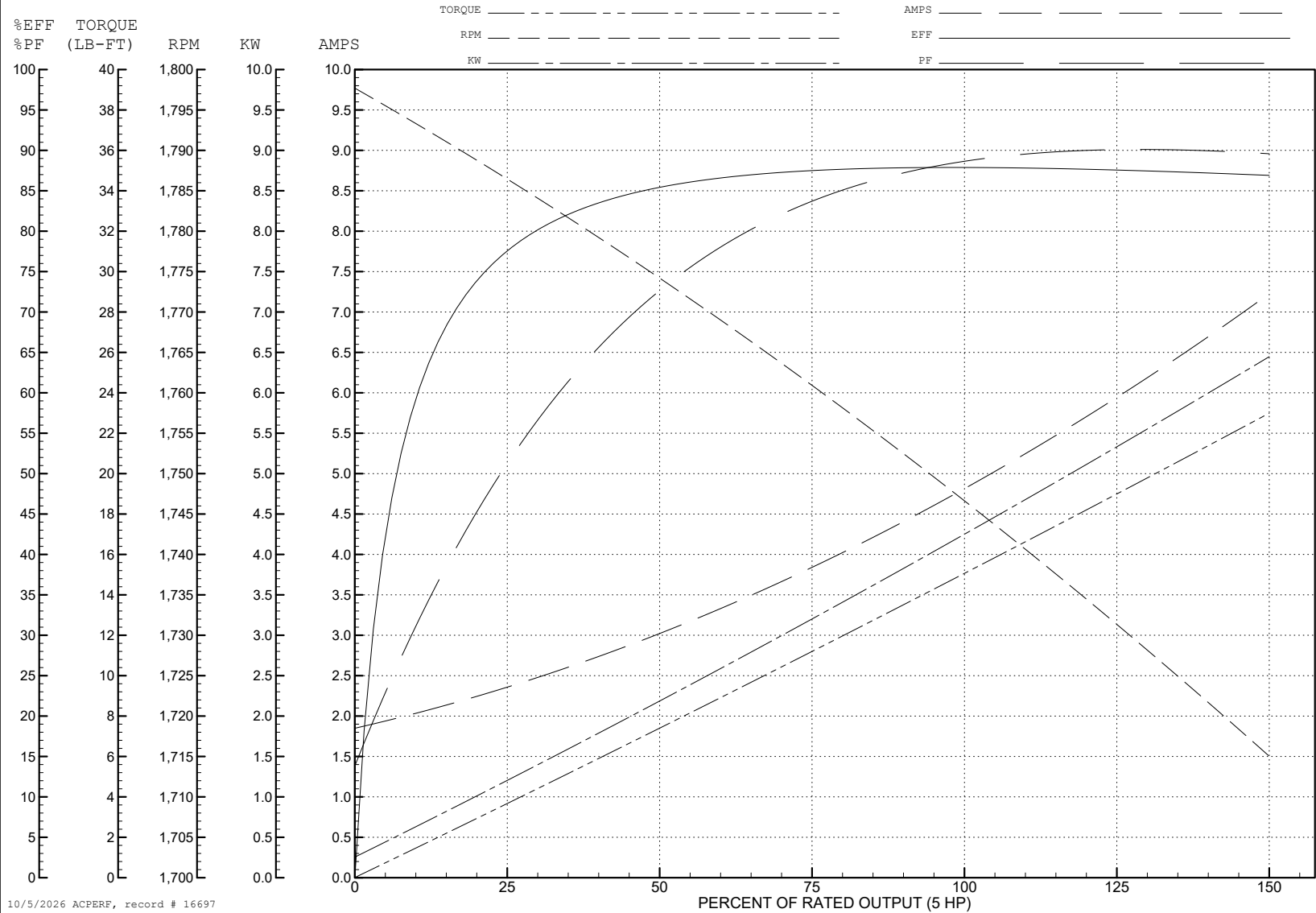
ABB Motors and Mechanical Inc.

WINDING # G4WG0047

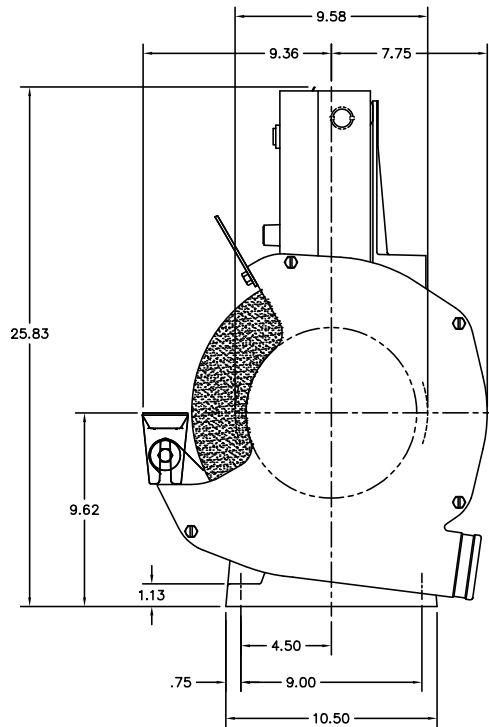
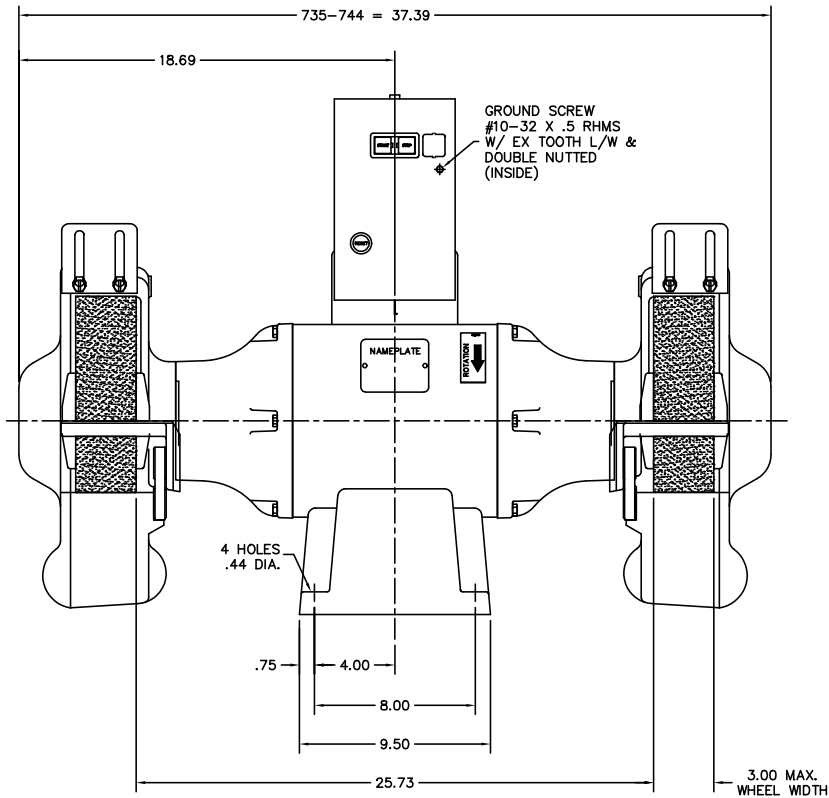
Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1747 RPM 575 V 3735M

TORQUES (LB-FT): PO=51.1 PU=23 LR=26.4 LRA=31.3



G4LY0116



| CUST. NAME                                      |     | CUST. P.O. |                        | CERTIFIED BY |              | MODEL                                                     |       | INSUL | AMB   |  |
|-------------------------------------------------|-----|------------|------------------------|--------------|--------------|-----------------------------------------------------------|-------|-------|-------|--|
| H.P.                                            | MTG | TYPE       | R.P.M.                 | VOLTS        |              | ENCL                                                      | PHASE | FREQ  | FRAME |  |
| REV. DESC: MOVED STARTER BOX TO CENTER OF MOTOR |     |            |                        |              |              | BALDOR ELECTRIC Co.                                       |       |       |       |  |
| REV. LTR: A                                     |     | BY: JD     | REVISED: 01/07/00 1:55 |              | TDR: 0199019 |                                                           |       |       |       |  |
| FILE: AAA00066297                               |     |            |                        | MDL: -       |              |                                                           |       |       |       |  |
| MTL: -                                          |     |            |                        |              |              | STD 14" GRINDER 37 W/REAR EXHAUST & 'GE' MAGNETIC STARTER |       |       |       |  |

G4LY0116

