

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EHM3615T**

**5HP,1750RPM,3PH,60HZ,184T,3642M,TEFC,F1**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | S      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 36WGS268   | CD Diagram: | CD0005 | Mfg Plant:    |            |
| Mech. Spec: | 36M965 | Layout:     | 36LYM965   | Poles:      | 04     | Created Date: | 08-25-2010 |
| Base:       | RG     | Eff. Date:  | 12-03-2018 | Leads:      | 9#16   |               |            |

| Specs                           |                         |                                |                       |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number:                 | EHM3615T                | Insulation Class:              | F                     |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Inverter Ready        |
| Frame:                          | 184T                    | KVA Code:                      | J                     |
| Frame Material:                 | Steel                   | Lifting Lugs:                  | Standard Lifting Lugs |
| Output @ Frequency:             | 5.000 HP @ 60 HZ        | Locked Bearing Indicator:      | No Locked Bearing     |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Motor Lead Quantity/Wire Size: | 9 @ 16 AWG            |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box                |
|                                 | 230.0 V @ 60 HZ         | Motor Lead Termination:        | Flying Leads          |
| XP Class and Group:             | None                    | Motor Type:                    | 3642M                 |
| XP Division:                    | Not Applicable          | Mounting Arrangement:          | F1                    |
| Agency Approvals:               | CSA                     | Power Factor:                  | 78                    |
|                                 | UR                      | Product Family:                | General Purpose       |
| Auxillary Box:                  | No Auxillary Box        | Pulley End Bearing Type:       | Ball                  |
| Auxillary Box Lead Termination: | None                    | Pulley Face Code:              | Standard              |
| Base Indicator:                 | Rigid                   | Pulley Shaft Indicator:        | Standard              |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Rodent Screen:                 | None                  |
| Blower:                         | None                    | Shaft Extension Location:      | Pulley End            |
| Current @ Voltage:              | 13.400 A @ 230.0 V      | Shaft Ground Indicator:        | No Shaft Grounding    |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
|                                       | 13.900 A @ 208.0 V        | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 6.700 A @ 460.0 V         | <b>Shaft Slinger Indicator:</b>    | No Slinger          |
| <b>Design Code:</b>                   | B                         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Motor Standards:</b>            | NEMA                |
| <b>Duty Rating:</b>                   | CONT                      | <b>Starting Method:</b>            | Direct on line      |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 1:</b>          | None                |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 2:</b>          | None                |

| Nameplate NP2094E06B03 |                     |
|------------------------|---------------------|
| CAT.NO.                | EHM3615T            |
| SPEC.                  | 36M965S268G1        |
| HP                     | 5                   |
| VOLTS                  | 230/460             |
| AMPS                   | 13.4/6.7            |
| RPM                    | 1750                |
| FRAME                  | 184T                |
|                        | HZ 60               |
|                        | PH 3                |
| SER.F.                 | 1.15                |
| CODE                   | J                   |
| DES                    | B                   |
| CL                     | F                   |
| NEMA-NOM-EFF           | 89.5                |
|                        | PF 78               |
| RATING                 | 40C AMB-CONT        |
| CC                     | 010A                |
|                        | USABLE AT 208V 13.9 |
| DE                     | 6206                |
|                        | ODE 6205            |
| AUTO                   | N                   |
| MANUAL                 | N                   |
| NONE                   | Y                   |
| ENCL                   | TEFC                |
| SN                     |                     |
| BLANK                  |                     |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA202098      | SA 36M965S268G1                          | 1.000 EA |
| RA189382      | RA 36M965S268G1                          | 1.000 EA |
| 36FN3000C01SP | EXFN, PLASTIC, 5.25 OD, .912 ID          | 1.000 EA |
| HA6362ZP      | LIFTING LUG FOR 36 FRAME MOTORS.         | 2.000 EA |
| 36CB3004      | 36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0 | 1.000 EA |
| 36GS1000SP    | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 EA |
| 51XB1016A08   | 10-16X 1/2HXWSSLD SERTYB                 | 2.000 EA |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 36EP3104A01   | FREP MACH ASSEMBLY FOR ROUTING           | 1.000 EA |
| HW4500A19     | 1/4-28X1/4 SLOTTED PLUG F/S              | 1.000 EA |
| HW5100A05     | WVY WSHR F/205 & 304 BRGS                | 1.000 EA |
| 36EP3100B98   | PU ENDPLATE, MACH                        | 1.000 EA |
| 91XN0540J08   | SCREW, 5-40 X 1/2", FHC, AS              | 4.000 EA |
| HW4500A19     | 1/4-28X1/4 SLOTTED PLUG F/S              | 1.000 EA |
| XY2520A12     | 1/4-20 HEX NUT, DIRECTIONAL SERRATIONS   | 4.000 EA |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 EA |
| 36FH4009A124  | IEC FH W/GRSR,GRILL,NO DIMPLES,PRIMER    | 1.000 EA |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 36CB4516      | 750LIPPED CB LID - GALVANNEAL            | 1.000 EA |
| 37GS1001      | GASKET, CONDUIT BOX LID, .06 THICK LEXID | 1.000 EA |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| HW2501E16     | KEY, 1/4 SQ X 1.750                      | 1.000 EA |
| HA7000A02     | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 EA |
| MJ1000A02     | GREASE, MOBIL POLYREX EM - 124047        | 0.050 LB |

| <b>Parts List (continued)</b> |   |                 |
|-------------------------------|---|-----------------|
| <b>Part Number</b>            | <b>Description</b>                      | <b>Quantity</b> |
| HA3101A40                     | THRUBOLT 1/4-20 X 12.687                | 4.000 EA        |
| MG1000G27                     | MED CHARCOAL METALLIC GREY 400-0096     | 0.022 GA        |
| LC0005                        | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING | 1.000 EA        |
| NP2094E06B03                  | NP LABEL W/BARCODE (PREM EFF HVAC MTR)  | 1.000 EA        |
| 36PA1001                      | PKG GRP, PRINT PK1017A06                | 1.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 35063

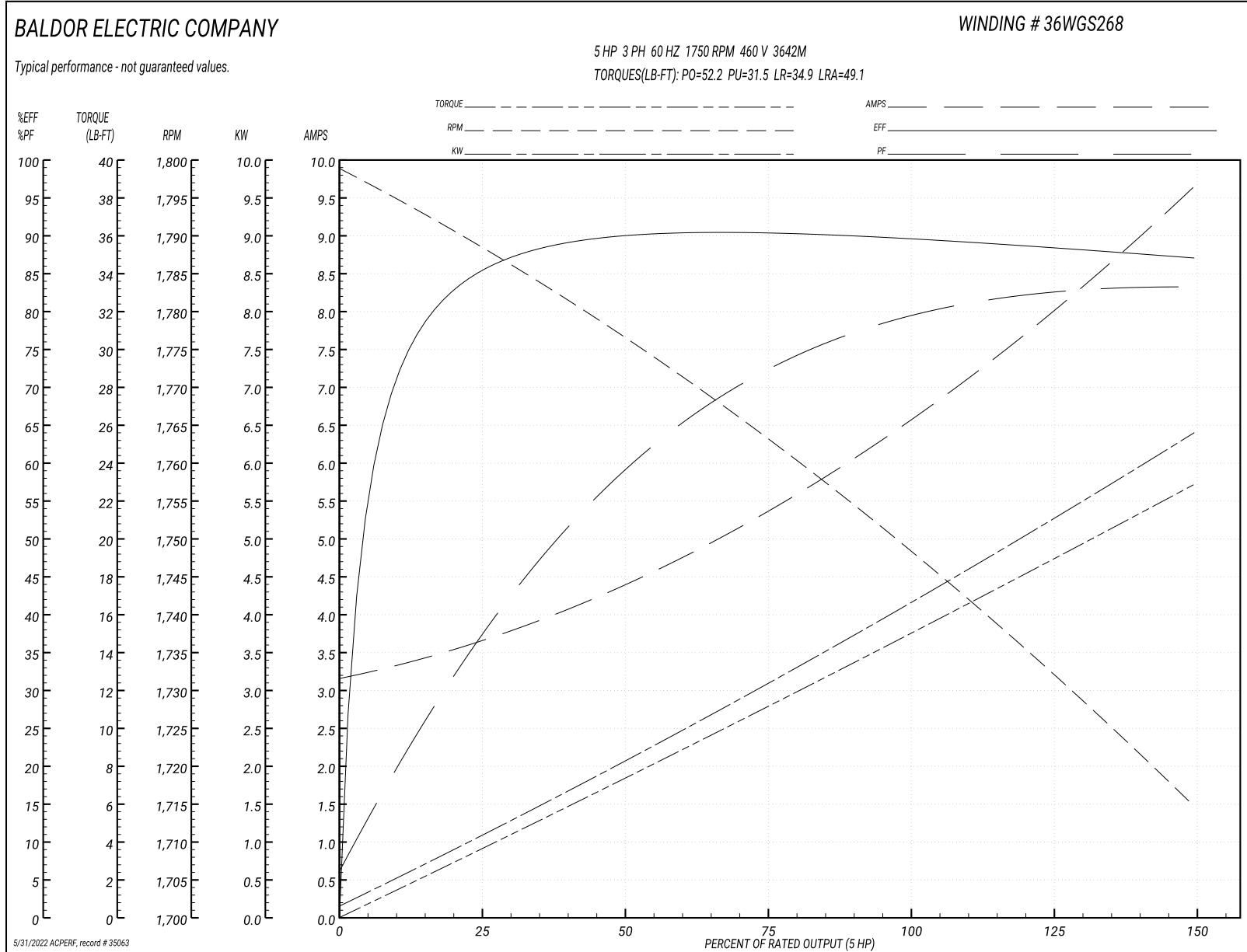
Typical performance - not guaranteed values

| Winding: 36WGS268-R016 |                   | Type: 3642M               | Enclosure: TEFC                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 5                 | Full Load Torque          | 14.9 LB-FT                                       |  |
| Volts                  | 230/460           | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 13.4/6.7          | Breakdown Torque          | 52.2 LB-FT                                       |  |
| R.P.M.                 | 1750              | Pull-up Torque            | 31.5 LB-FT                                       |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 34.9 LB-FT                                       |  |
| NEMA Design Code       | B KVA Code        | Starting Current          | 49.1 A   |  |
| Service Factor (S.F.)  | 1.15              | No-load Current           | 3.24 A   |  |
| NEMA Nom. Eff.         | 89.5 Power Factor | Line-line Res. @ 25°C     | 2.27 Ω   |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 71°C   |  |
| S.F. Amps              |                   | Temp. Rise @ S.F. Load    | 87°C   |  |
|                        |                   | Locked-rotor Power Factor | 39.8   |  |
|                        |                   | Rotor inertia             | 0.391 LB-FT <sup>2</sup>                         |  |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 39   | 60   | 72   | 78   | 83   | 83   | 81   |
| Efficiency      | 85   | 89.7 | 90.6 | 89.6 | 88.6 | 87   | 89   |
| Speed           | 1789 | 1776 | 1762 | 1750 | 1733 | 1714 | 1740 |
| Line amperes    | 3.55 | 4.31 | 5.43 | 6.65 | 7.94 | 9.64 | 7.42 |

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 93277

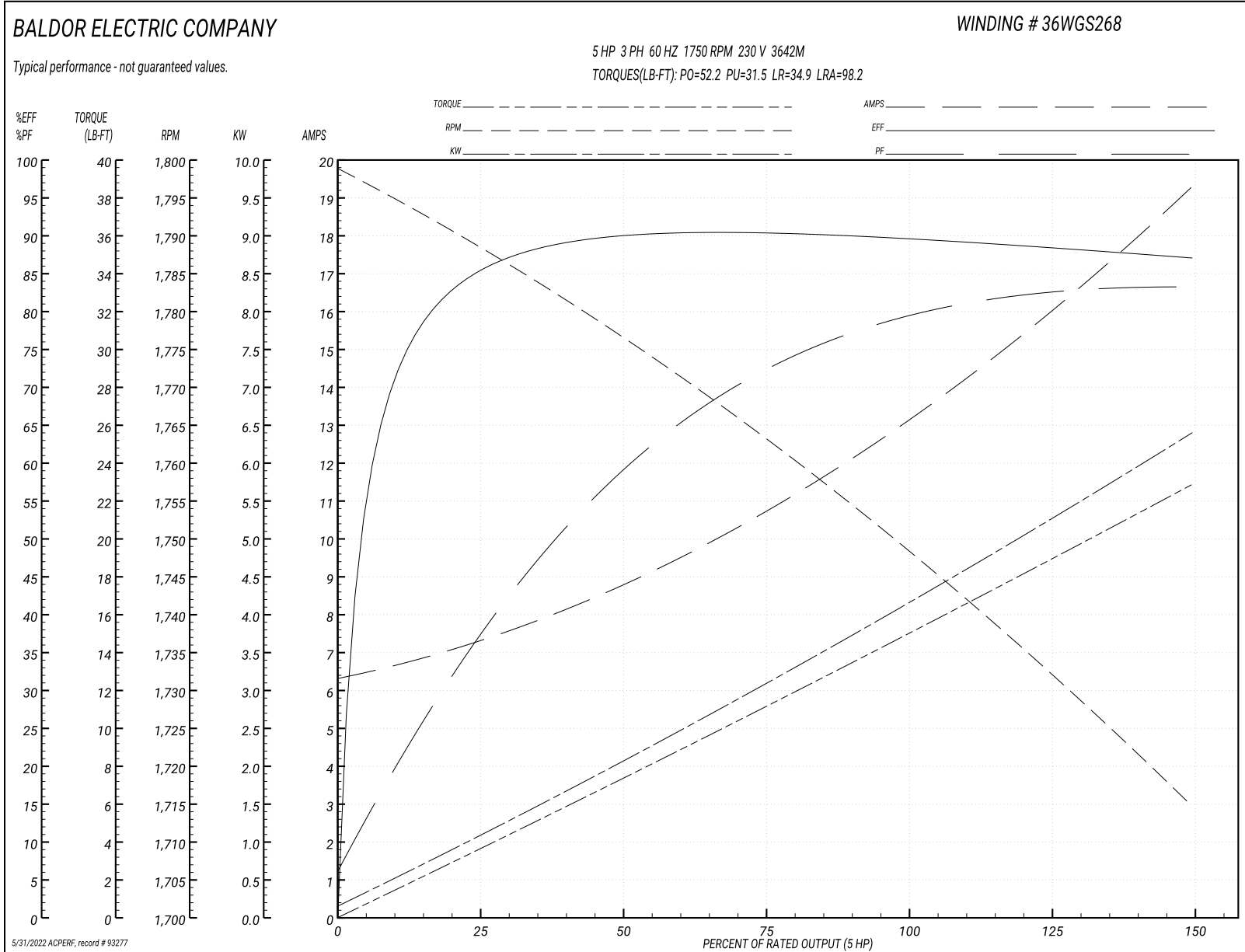
Typical performance - not guaranteed values

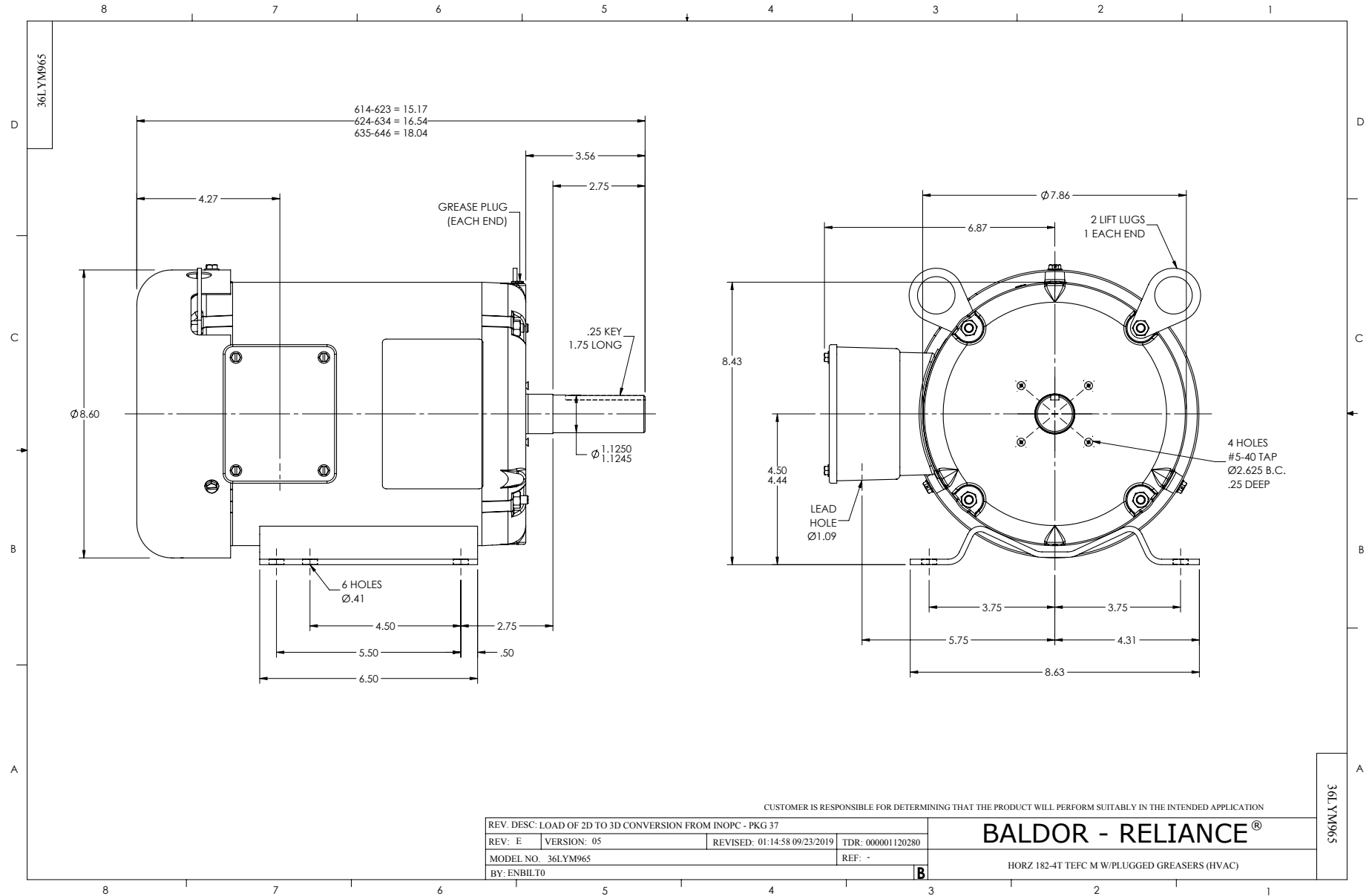
| <b>Winding: 36WGS268-R016</b> |                   | <b>Type: 3642M</b>         |   | <b>Enclosure: TEFC</b>       |         |
|-------------------------------|-------------------|----------------------------|---|------------------------------|---------|
| <b>Nameplate Data</b>         |                   |                            | <b>230 V, 60 Hz:<br/>Low Voltage Connection</b> |                              |         |
| <b>Rated Output (HP)</b>      | 5                 | <b>Full Load Torque</b>    | 14.9 LB-FT                                      |                              |         |
| <b>Volts</b>                  | 230/460           | <b>Start Configuration</b> | direct on line                                  |                              |         |
| <b>Full Load Amps</b>         | 13.4/6.7          | <b>Breakdown Torque</b>    | 52.2 LB-FT                                      |                              |         |
| <b>R.P.M.</b>                 | 1750              | <b>Pull-up Torque</b>      | 31.5 LB-FT                                      |                              |         |
| <b>Hz</b>                     | 60 <b>Phase</b>   | 3                          | <b>Locked-rotor Torque</b>                      | 34.9 LB-FT                   |         |
| <b>NEMA Design Code</b>       | <b>B KVA Code</b> | J                          | <b>Starting Current</b>                         | 98.2 A                       |         |
| <b>Service Factor (S.F.)</b>  | 1.15              | <b>No-load Current</b>     | 6.48 A  |                              |         |
| <b>NEMA Nom. Eff.</b>         | 89.5              | <b>Power Factor</b>        | 78  | <b>Line-line Res. @ 25°C</b> | 0.567 Ω |
| <b>Rating - Duty</b>          | 40C AMB-CONT      |                            | <b>Temp. Rise @ Rated Load</b>                  | 71°C                         |         |
| <b>S.F. Amps</b>              |                   |                            | <b>Temp. Rise @ S.F. Load</b>                   | 86°C                         |         |
|                               |                   |                            | <b>Locked-rotor Power Factor</b>                | 39.8                         |         |
|                               |                   |                            | <b>Rotor inertia</b>                            | 0.391 lb-ft <sup>2</sup>     |         |

**Load Characteristics 230 V, 60 Hz, 5 HP**

| <b>% of Rated Load</b> | <b>25</b> | <b>50</b> | <b>75</b> | <b>100</b> | <b>125</b> | <b>150</b> | <b>S.F.</b> |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| <b>Power Factor</b>    | 38        | 60        | 72        | 78         | 83         | 83         | 81          |
| <b>Efficiency</b>      | 84.9      | 89.6      | 90.5      | 89.6       | 88.5       | 87         | 88.9        |
| <b>Speed</b>           | 1789      | 1776      | 1762      | 1750       | 1733       | 1714       | 1740        |
| <b>Line amperes</b>    | 7.1       | 8.62      | 10.86     | 13.3       | 15.88      | 19.28      | 14.8        |

Performance Graph at 230V, 60Hz, 5.0HP Typical performance - Not guaranteed values

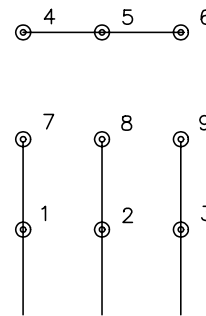




CD0005

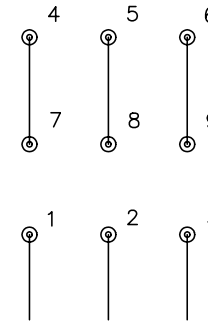


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 90000                                     |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005