

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECTM4400T-4G

100HP, 1785RPM, 3PH, 60HZ, 405T, A40064M, TEFC

Class - None

Division - Not Applicable

**Specifications**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | TEFC                    |
| Frame                         | 405T                    |
| 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            | 100.000 HP @ 60 HZ      |
| Phase                         | 3                       |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ        |
| Voltage @ Frequency           | 460.0 V @ 60 HZ         |
| Agency Approvals              | CCSAUSEEV               |
| Ambient Temperature           | 40 °C                   |
| Auxiliary Box                 | NO AUXILLARY BOX        |
| Base Indicator                | Rigid                   |
| Bearing Grease Type           | Polyrex EM (-20F +300F) |
| Current @ Voltage             | 112.000 A @ 460.0 V     |
| Design Code                   | B                       |
| Drip Cover                    | No Drip Cover           |
| Duty Rating                   | CONT                    |
| Efficiency @ 100% Load        | 95.4 %                  |
| Feedback Device               | NO FEEDBACK             |
| Heater Indicator              | Heater Included, 115 V  |
| High Voltage Full Load Amps   | 112.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Inverter Ready          |
| KVA Code                      | G                       |
| Lifting Lugs                  | Standard Lifting Lugs   |
| Motor Lead Quantity/Wire Size | 3 @ 2 AWG               |
| Motor Standards               | NEMA                    |
| Motor Type                    | A40064M                 |
| Mounting Arrangement          | F1                      |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A40WG0028  |
| Layout       | 617433-750 |
| Eff. date    | 09-15-2026 |
| CD Diagram   | 416820-036 |
| Poles        | 04         |
| Leads        | 3#2        |
| Proprietary  | False      |
| Created date | 04-13-2022 |

|                                 |                        |
|---------------------------------|------------------------|
| <b>Number of Poles</b>          | <b>4</b>               |
| <b>Overall Length</b>           | <b>38.19 IN</b>        |
| <b>Power Factor</b>             | <b>87</b>              |
| <b>Product Family</b>           | <b>Cooling Tower</b>   |
| <b>Pulley End Bearing Type</b>  | <b>Ball</b>            |
| <b>Pulley Face Code</b>         | <b>Standard</b>        |
| <b>Service Factor</b>           | <b>1.15</b>            |
| <b>Shaft Diameter</b>           | <b>2.875 IN</b>        |
| <b>Shaft Ground Indicator</b>   | <b>Shaft Grounding</b> |
| <b>Shaft Rotation</b>           | <b>Reversible</b>      |
| <b>Shaft Slinger Indicator</b>  | <b>Shaft Slinger</b>   |
| <b>Speed</b>                    | <b>1785 rpm</b>        |
| <b>Speed Code</b>               | <b>Single Speed</b>    |
| <b>Starting Method</b>          | <b>Direct on line</b>  |
| <b>Thermal Device - Bearing</b> | <b>None</b>            |
| <b>Thermal Device - Winding</b> | <b>None</b>            |

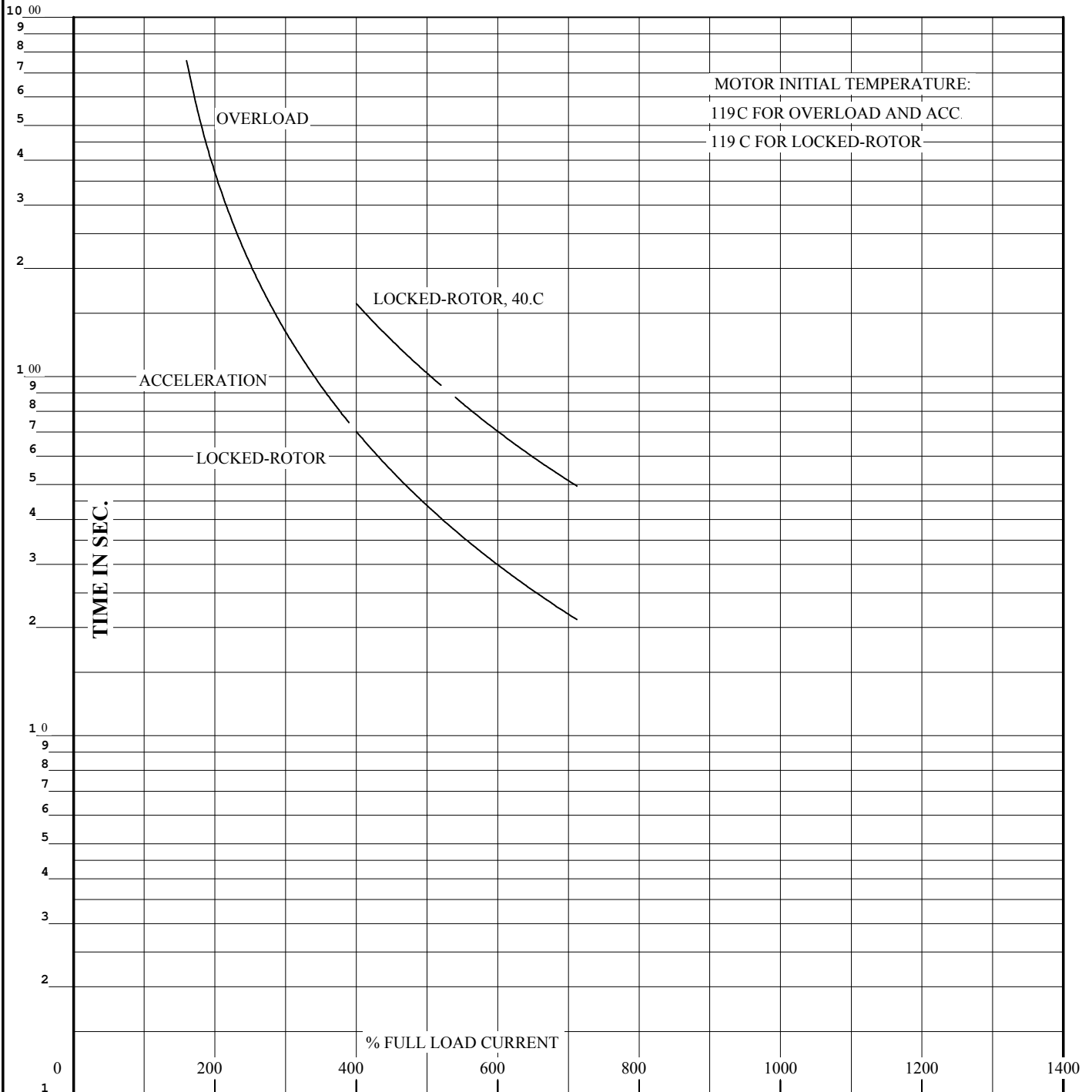
**Nameplate**

| 000613007EW              |              |             |                                |   |                     |               |                              |               |           |      |  |  |
|--------------------------|--------------|-------------|--------------------------------|---|---------------------|---------------|------------------------------|---------------|-----------|------|--|--|
| <b>CAT.NO.</b>           | ECTM4400T-4G |             |                                |   | <b>SPEC NO.</b>     | A40-0001-0028 |                              |               |           |      |  |  |
| <b>HP</b>                | 100          | <b>AMPS</b> | 112                            |   | <b>VOLTS</b>        | 460           |                              | <b>DESIGN</b> | B         |      |  |  |
| <b>FRAME</b>             | 405T         | <b>RPM</b>  | 1785                           |   | <b>HZ</b>           | 60            | <b>AMB</b>                   | 40            | <b>SF</b> | 1.15 |  |  |
| <b>DRIVE END BEARING</b> | 80BC03J30X   |             | <b>PH</b>                      | 3 | <b>DUTY</b>         | CONT          | <b>INSUL.CLASS</b>           |               | F         |      |  |  |
| <b>OPP D.E. BEARING</b>  | 80BC03J30X   |             | <b>TYPE</b>                    | P | <b>ENCL</b>         | TEFC          | <b>CODE</b>                  | G             |           |      |  |  |
| <b>D.E.BRG.DATA</b>      | 6316         |             | <b>POWER FACTOR</b>            |   |                     | 87            | <b>NEMA NOM EFFICIENCY</b>   |               |           | 95.4 |  |  |
| <b>O.D.E.BRG.DATA</b>    | 6316         |             | <b>MAX CORR KVAR</b>           |   |                     | 18.00         | <b>GUARANTEED EFFICIENCY</b> |               |           | 94.5 |  |  |
| <b>3/4 LOAD EFF.</b>     | 95.4         |             | <b>NEMA NOM/CSA QUOTED EFF</b> |   |                     |               |                              |               |           |      |  |  |
| <b>SER.NO.</b>           |              |             |                                |   | <b>MOTOR WEIGHT</b> |               |                              |               |           |      |  |  |

000901002AAA

INV DUTY 20:1 VT

|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
| REL. S.O.               | RPM <b>1785</b>          | S.F. <b>1.15</b>      | ROTOR <b>418142-33-RE</b>        |
| FRAME <b>405T</b>       | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>100</b>           | AMPS <b>112</b>          | CODE LETTER <b>G</b>  | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0492</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>596909</b>     | OHMS (BETWEEN LINES)             |


**THERMAL LIMIT CURVE**

REMARKS: XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT  
GURANTEED MIN EFF. 95.0 PCT

AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE  
AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

**BALDOR**  
A MEMBER OF THE ABB GROUP

|         |              |
|---------|--------------|
| DR. BY  | J.J.HARRISON |
| CK. BY  | W.L.SMITH    |
| APP. BY | W.L.SMITH    |
| DATE    | 02/05/09     |

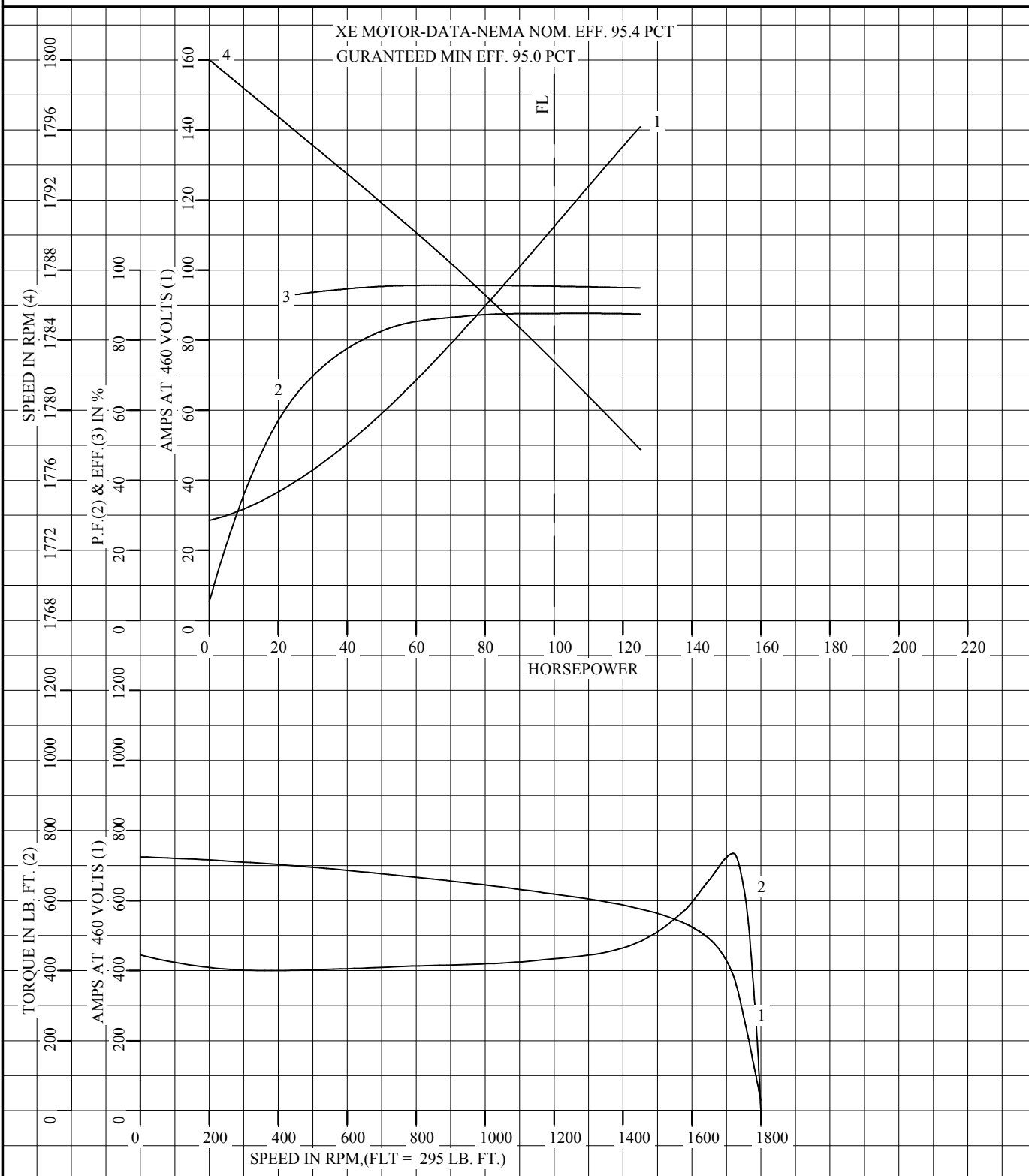
**A-C MOTOR  
PERFORMANCE  
CURVES**

**A40WG0028-R001**

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|                                                                                                                                                                                                                                                    |              |                   |                                       |                                            |                 |       |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------|---------------------------------------|--------------------------------------------|-----------------|-------|--|--|
| REL.<br>S.O.                                                                                                                                                                                                                                       | FRAME        | HP                | TYPE                                  | PHASE/<br>HERTZ                            | RPM             | VOLTS |  |  |
|                                                                                                                                                                                                                                                    | 405T         | 100               | P                                     | 3/60                                       | 1785            | 460   |  |  |
| AMPS                                                                                                                                                                                                                                               | DUTY         | AMB °C/<br>INSUL. | S.F.                                  | NEMA<br>DESIGN                             | CODE<br>LETTER  | ENCL. |  |  |
| 112                                                                                                                                                                                                                                                | CONT         | 40/F              | 1.15                                  | B                                          | G               | TEFC  |  |  |
| E/S                                                                                                                                                                                                                                                | ROTOR        | TEST<br>S.O.      | TEST<br>DATE                          | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |                 |       |  |  |
| 596909                                                                                                                                                                                                                                             | 418142-33-RE | ---               | ---                                   | .0492                                      |                 |       |  |  |
| PERFORMANCE                                                                                                                                                                                                                                        |              |                   |                                       |                                            |                 |       |  |  |
| LOAD                                                                                                                                                                                                                                               | HP           | AMPERES           | RPM                                   | %<br>POWER FACTOR                          | %<br>EFFICIENCY |       |  |  |
| NO LOAD                                                                                                                                                                                                                                            | 0            | 28.7              | 1800                                  | 5.48                                       | 0               |       |  |  |
| 1/4                                                                                                                                                                                                                                                | 25.0         | 39.2              | 1796                                  | 64.3                                       | 93.0            |       |  |  |
| 2/4                                                                                                                                                                                                                                                | 50.0         | 59.4              | 1792                                  | 82.6                                       | 95.4            |       |  |  |
| 3/4                                                                                                                                                                                                                                                | 75.0         | 84.4              | 1788                                  | 86.9                                       | 95.7            |       |  |  |
| 4/4                                                                                                                                                                                                                                                | 100          | 112               | 1783                                  | 87.6                                       | 95.4            |       |  |  |
| 5/4                                                                                                                                                                                                                                                | 125          | 141               | 1778                                  | 87.4                                       | 94.9            |       |  |  |
|                                                                                                                                                                                                                                                    |              |                   |                                       |                                            |                 |       |  |  |
| SPEED TORQUE                                                                                                                                                                                                                                       |              |                   |                                       |                                            |                 |       |  |  |
|                                                                                                                                                                                                                                                    |              | RPM               | TORQUE<br>% FULL LOAD                 | TORQUE<br>LB.-FT.                          | AMPERES         |       |  |  |
| LOCKED ROTOR                                                                                                                                                                                                                                       |              | 0                 | 151                                   | 445                                        | 725             |       |  |  |
| PULL UP                                                                                                                                                                                                                                            |              | 360               | 136                                   | 400                                        | 706             |       |  |  |
| BREAKDOWN                                                                                                                                                                                                                                          |              | 1721              | 250                                   | 735                                        | 382             |       |  |  |
| FULL LOAD                                                                                                                                                                                                                                          |              | 1783              | 100                                   | 295                                        | 112             |       |  |  |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE<br><br>REMARKS: TYPICAL DATA<br>XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT<br>GURANTEED MIN EFF. 95.0 PCT |              |                   |                                       |                                            |                 |       |  |  |
|                                                                                                                                                                 |              | DR. BY            | J. J. HARRISON                        | <b>A-C MOTOR<br/>PERFORMANCE DATA</b>      |                 |       |  |  |
|                                                                                                                                                                                                                                                    |              | CK. BY            | W. L. SMITH                           |                                            |                 |       |  |  |
|                                                                                                                                                                                                                                                    |              | APP. BY           | W. L. SMITH                           |                                            |                 |       |  |  |
|                                                                                                                                                                                                                                                    |              | DATE              | 02/05/09                              |                                            |                 |       |  |  |
|                                                                                                                                                                                                                                                    |              |                   | A40WG0028-R001<br>ISSUE DATE 03/04/20 |                                            |                 |       |  |  |

|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
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| FRAME <b>405T</b>       | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>100</b>           | AMPS <b>112</b>          | CODE LETTER <b>G</b>  | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0492</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>596909</b>     | OHMS (BETWEEN LINES)             |



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 DATE 02/05/09

**A-C MOTOR  
PERFORMANCE  
CURVES**

**A40WG0028-R001**

ISSUE DATE 03/04/2014

# DUTY MASTER ALTERNATING CURRENT MOTORS

## SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

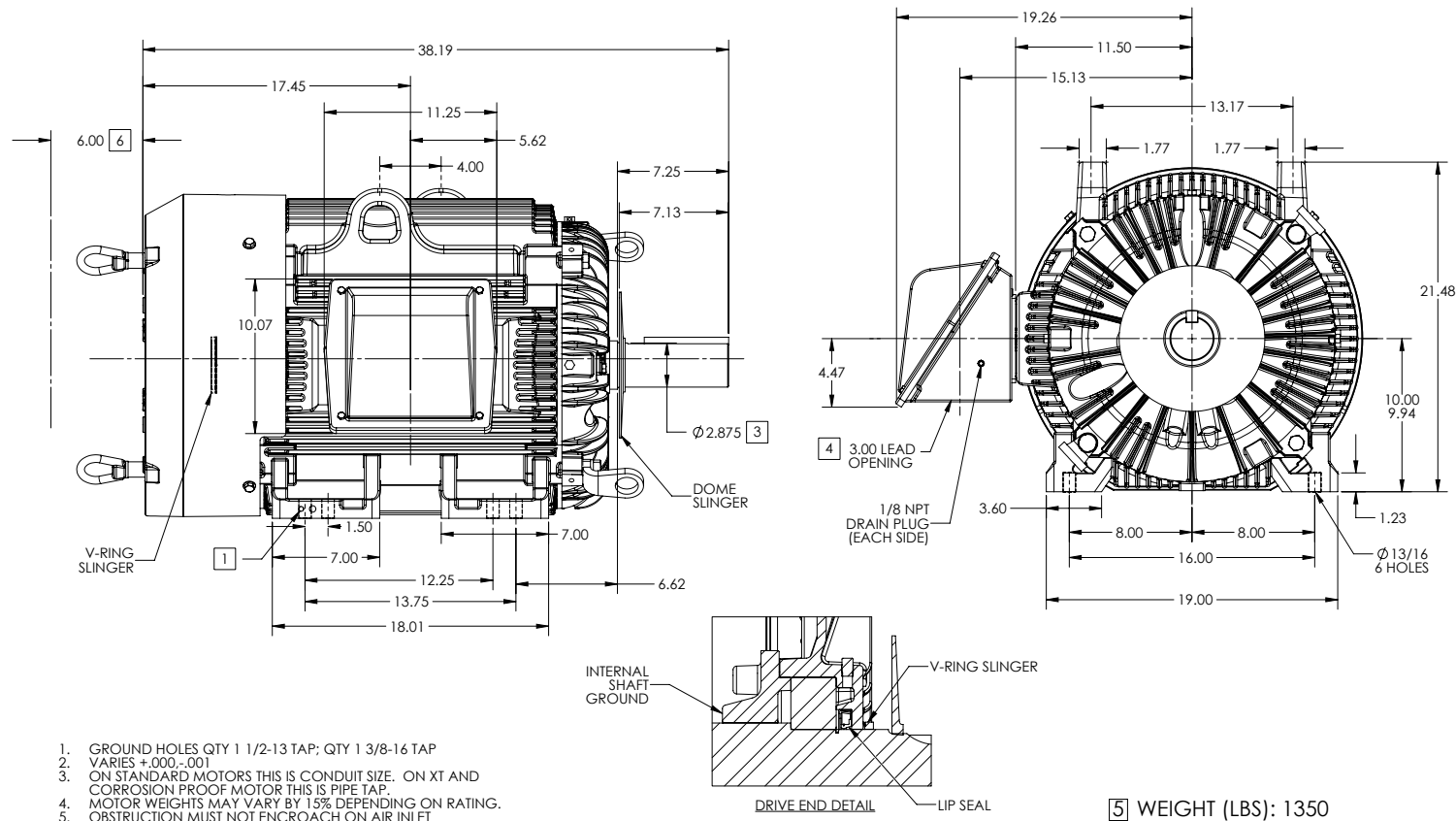
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

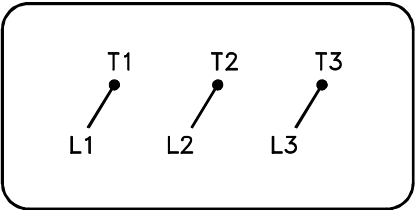
INCLUDES 404T FRAME MOUNTING HOLES

STANDARD INDUSTRIAL ENCLOSURE



416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

|                                      |                                |                   |
|--------------------------------------|--------------------------------|-------------------|
| REV. DESC: LOADED TO BUS, C/R 335225 |                                |                   |
| REV. LTR: -                          | VERSION: 00                    | TDR: 000000538207 |
| FILE: \MGA\00000\682                 | REVISED: 11: 54: 06 04/30/2010 |                   |
| MTL: -                               | BY: RAGRA                      |                   |

**BALDOR**

CONN DIAG - STANDARD 3 LEAD  
SH 1 of 1