

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM2544T-CI

50HP, 1185RPM, 3PH, 60HZ, 365T, 1466M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                      |                                             |
|--------------------------------------|---------------------------------------------|
| <b>Enclosure</b>                     | DP                                          |
| <b>Frame</b>                         | 365T                                        |
| <b>Frame Material</b>                | Iron                                        |
| <b>Frequency</b>                     | 60.00 Hz                                    |
| <b>Haz Area Class and Group</b>      | None                                        |
| <b>Haz Area Division</b>             | Not Applicable                              |
| <b>Motor Letter Type</b>             | Three Phase                                 |
| <b>Output @ Frequency</b>            | 50.000 HP @ 60 HZ                           |
| <b>Phase</b>                         | 3                                           |
| <b>Synchronous Speed @ Frequency</b> | 1200 RPM @ 60 HZ                            |
| <b>Voltage @ Frequency</b>           | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ          |
| <b>Agency Approvals</b>              | CCSA US<br>CCSAUSEEV<br>CSA EEV<br>CURUSEEV |
| <b>Ambient Temperature</b>           | 40 °C                                       |
| <b>Auxiliary Box</b>                 | NO AUXILLARY BOX                            |
| <b>Base Indicator</b>                | Rigid                                       |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F)                     |
| <b>Current @ Voltage</b>             | 60.300 A @ 460.0 V<br>120.000 A @ 230.0 V   |
| <b>Design Code</b>                   | B                                           |
| <b>Drip Cover</b>                    | No Drip Cover                               |
| <b>Duty Rating</b>                   | CONT                                        |
| <b>Efficiency @ 100% Load</b>        | 94.1 %                                      |
| <b>Feedback Device</b>               | NO FEEDBACK                                 |
| <b>Heater Indicator</b>              | No Heater                                   |
| <b>High Voltage Full Load Amps</b>   | 60.3 a                                      |
| <b>Insulation Class</b>              | F                                           |
| <b>Inverter Code</b>                 | Inverter Ready                              |
| <b>KVA Code</b>                      | G                                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | Q          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A36WG0753  |
| <b>Layout</b>       | 617428-130 |
| <b>Eff. date</b>    | 09-04-2024 |
| <b>CD Diagram</b>   | 416820-002 |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 3#6,6#8    |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-19-2010 |

| Lifting Lugs                  | Standard Lifting Lugs |
|-------------------------------|-----------------------|
| Motor Lead Quantity/Wire Size | 3 @ 6 AWG             |
| Motor Standards               | NEMA                  |
| Motor Type                    | A36052M               |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 6                     |
| Overall Length                | 29.70 IN              |
| Power Factor                  | 83                    |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 2.374 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1185 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Bearing      | None                  |
| Thermal Device - Winding      | None                  |

**Nameplate**

| NP2349L           |            |       |  |              |  |                         |  |             |        |                       |    |      |  |      |  |  |
|-------------------|------------|-------|--|--------------|--|-------------------------|--|-------------|--------|-----------------------|----|------|--|------|--|--|
| SPEC NO.          | P36G3403   |       |  | CAT.NO.      |  | EM2544T-CI              |  |             |        | FRAME                 |    | 365T |  |      |  |  |
| HP                | 50         | VOLTS |  | 230/460      |  | PHASE                   |  | 3           | DESIGN |                       | B  | TYPE |  | P    |  |  |
| RPM               | 1185       | AMPS  |  | 120/60.3     |  | HZ                      |  | 60          | AMB    |                       | 40 | SF   |  | 1.15 |  |  |
| DRIVE END BEARING | 65BC03J30X |       |  | DUTY         |  | CONT                    |  | INSUL.CLASS |        |                       | F  |      |  |      |  |  |
| OPP D.E. BEARING  | 65BC03J30X |       |  | ENCL         |  | DP                      |  | CODE        |        | G                     |    |      |  |      |  |  |
| SER.NO.           |            |       |  | POWER FACTOR |  |                         |  | 83          |        | NEMA-NOM-EFFICIENCY   |    |      |  | 94.1 |  |  |
|                   |            |       |  |              |  | MAX CORR KVAR           |  | 15.0        |        | GUARANTEED EFFICIENCY |    | 93.6 |  |      |  |  |
|                   |            |       |  |              |  | NEMA NOM/CSA QUOTED EFF |  |             |        |                       |    |      |  |      |  |  |
|                   |            |       |  |              |  | MOTOR WEIGHT            |  |             |        |                       |    |      |  |      |  |  |

|                                                                                                                                                                                                                             |              |                                                                                                                 |                   |                                              |                 |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------|-----------------|---------|
| REL.<br>S.O.                                                                                                                                                                                                                | FRAME        | HP                                                                                                              | TYPE              | PHASE/<br>HERTZ                              | RPM             | VOLTS   |
|                                                                                                                                                                                                                             | 365T         | 50                                                                                                              | P                 | 3/60                                         | 1185            | 230/460 |
|                                                                                                                                                                                                                             |              |                                                                                                                 |                   |                                              |                 |         |
| AMPS                                                                                                                                                                                                                        | DUTY         | AMB °C/<br>INSUL.                                                                                               | S.F.              | NEMA<br>DESIGN                               | CODE<br>LETTER  | ENCL.   |
| 120/60.3                                                                                                                                                                                                                    | CONT         | 40/F                                                                                                            | 1.15              | B                                            | G               | PROT    |
|                                                                                                                                                                                                                             |              |                                                                                                                 |                   |                                              |                 |         |
| E/S                                                                                                                                                                                                                         | ROTOR        | TEST<br>S.O.                                                                                                    | TEST<br>DATE      | STATOR RES.@25 °C<br>OHMS (BETWEEN LINES)    |                 |         |
| 892140                                                                                                                                                                                                                      | 418141-70-NE | ---                                                                                                             | ---               | .0393/.157                                   |                 |         |
| PERFORMANCE                                                                                                                                                                                                                 |              |                                                                                                                 |                   |                                              |                 |         |
| LOAD                                                                                                                                                                                                                        | HP           | AMPERES                                                                                                         | RPM               | %<br>POWER FACTOR                            | %<br>EFFICIENCY |         |
| NO LOAD                                                                                                                                                                                                                     | 0            | 24.8                                                                                                            | 1200              | 3.81                                         | 0               |         |
| 1/4                                                                                                                                                                                                                         | 12.5         | 28.4                                                                                                            | 1196              | 45.1                                         | 91.7            |         |
| 2/4                                                                                                                                                                                                                         | 25.0         | 36.6                                                                                                            | 1193              | 67.9                                         | 94.3            |         |
| 3/4                                                                                                                                                                                                                         | 37.5         | 47.5                                                                                                            | 1189              | 78.2                                         | 94.5            |         |
| 4/4                                                                                                                                                                                                                         | 50.0         | 60.1                                                                                                            | 1185              | 82.8                                         | 94.1            |         |
| 5/4                                                                                                                                                                                                                         | 62.5         | 74.0                                                                                                            | 1180              | 84.7                                         | 93.3            |         |
|                                                                                                                                                                                                                             |              |                                                                                                                 |                   |                                              |                 |         |
| SPEED TORQUE                                                                                                                                                                                                                |              |                                                                                                                 |                   |                                              |                 |         |
|                                                                                                                                                                                                                             | RPM          | TORQUE<br>% FULL LOAD                                                                                           | TORQUE<br>LB.-FT. | AMPERES                                      |                 |         |
| LOCKED ROTOR                                                                                                                                                                                                                | 0            | 149                                                                                                             | 330               | 353                                          |                 |         |
| PULL UP                                                                                                                                                                                                                     | 350          | 122                                                                                                             | 271               | 322                                          |                 |         |
| BREAKDOWN                                                                                                                                                                                                                   | 1118         | 246                                                                                                             | 546               | 209                                          |                 |         |
| FULL LOAD                                                                                                                                                                                                                   | 1185         | 100                                                                                                             | 222               | 60.1                                         |                 |         |
| 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-TYPICAL DATA-NEMA NOM. EFF. 93.6 PCT |              |                                                                                                                 |                   |                                              |                 |         |
|                                                                                                                                          |              | DR. BY <u>W. L. SMITH</u><br>CK. BY <u>J. J. HARRISON</u><br>APP. BY <u>W. L. SMITH</u><br>DATE <u>03/03/06</u> |                   | <b>A-C MOTOR<br/>PERFORMANCE DATA</b>        |                 |         |
|                                                                                                                                                                                                                             |              |                                                                                                                 |                   | <b>A36WG0753-R001</b><br>ISSUE DATE 12/15/10 |                 |         |

FRAME 365T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 50

AMPS 120/60.3

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE PROT

STATOR RES. @ 25 °C .0393/.157

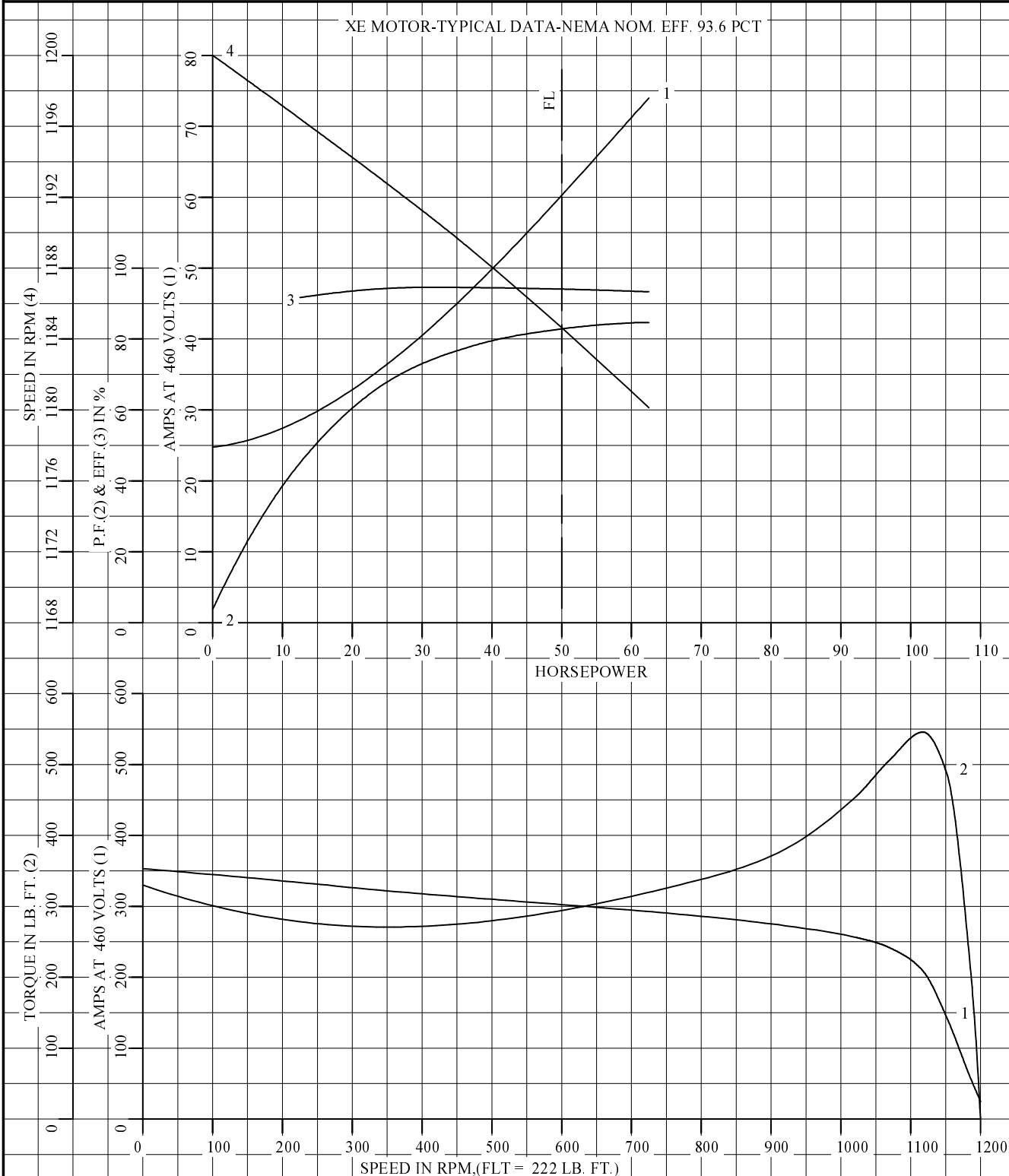
PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 892140

OHMS (BETWEEN LINES)

XE MOTOR-TYPICAL DATA-NEMA NOM. EFF. 93.6 PCT



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

**BALDOR**

DR. BY W. L. SMITH  
CK. BY J. J. HARRISON  
APP. BY W. L. SMITH  
DATE 03/03/06

**A-C MOTOR  
PERFORMANCE  
CURVES** A36WG0753-R001  
ISSUE DATE 12/15/10

REL. S.O.

RPM 1185

S.F. 1.15

ROTOR 418141-70-NE

FRAME 365T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 50

AMPS 120/60.3

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE PROT

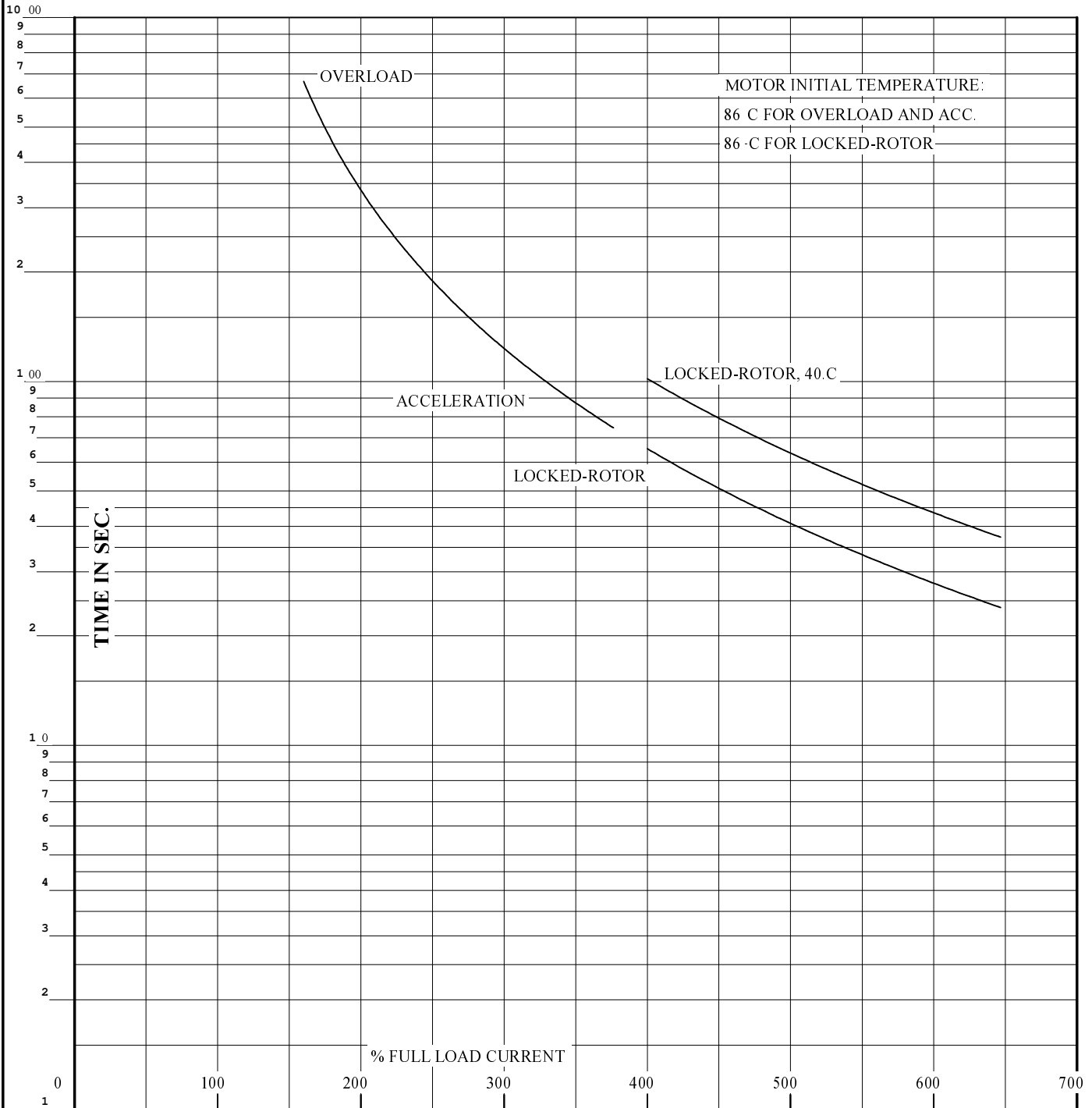
STATOR RES. @ 25 °C .0393/.157

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 892140

OHMS (BETWEEN LINES)



THermal LIMIT CURVE

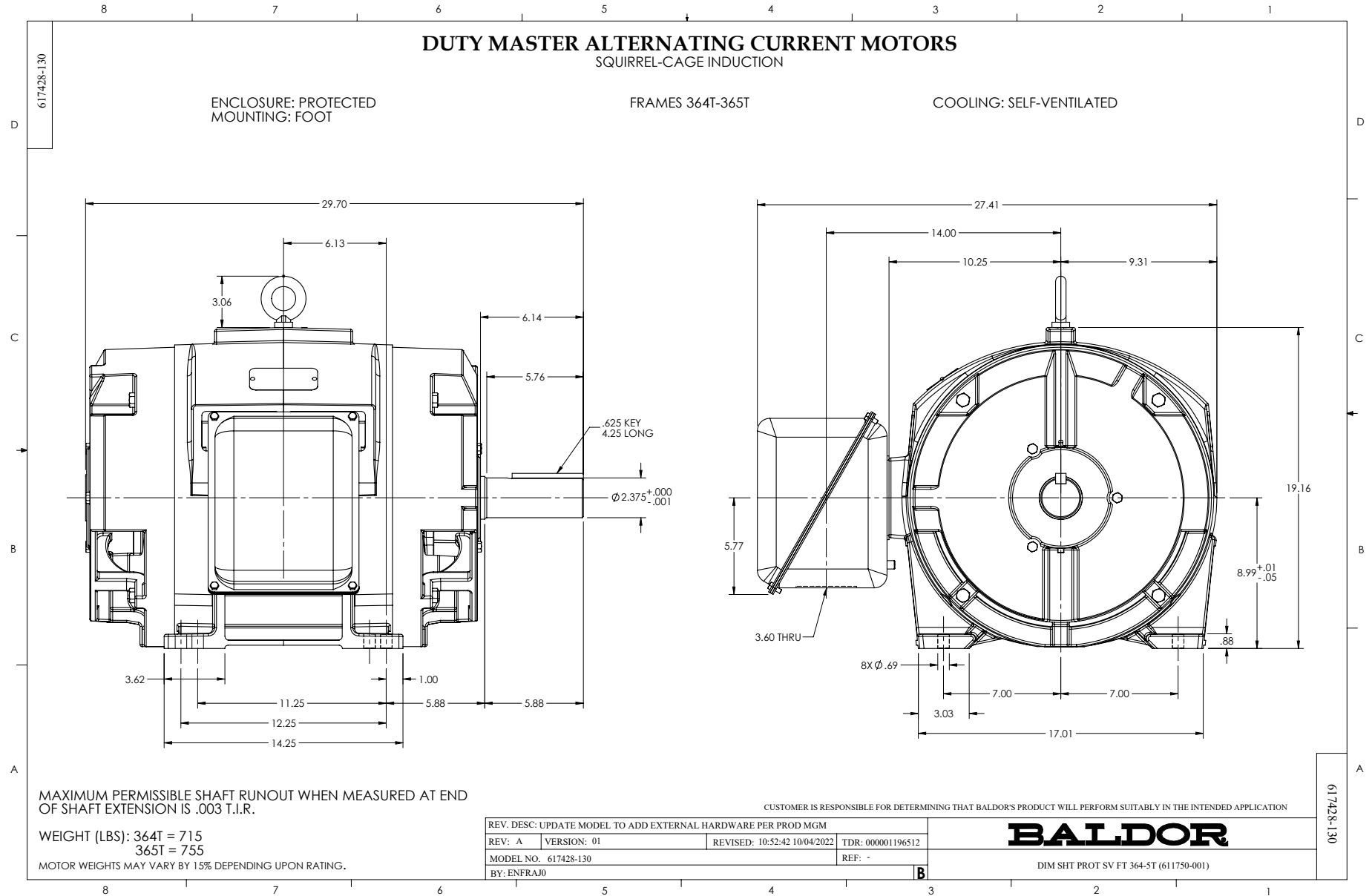
REMARKS: XE MOTOR-TYPICAL DATA-NEMA NOM. EFF. 93.6 PCT

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

**BALDOR**

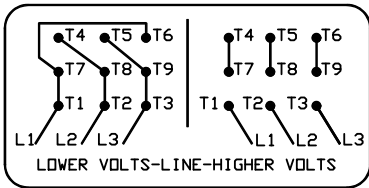
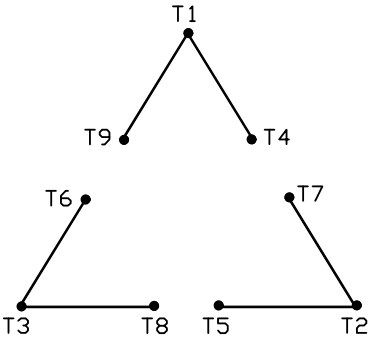
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APP. BY W. L. SMITH  
DATE 03/03/06

**A-C MOTOR  
PERFORMANCE  
CURVES** A36WG0753-R001  
ISSUE DATE 12/15/10



416820-002

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 9 LEAD DELTA-CONNECTED



( N. P. 1575-B )

|                                 |                              |                   |
|---------------------------------|------------------------------|-------------------|
| REV. DESC: ADJUST TEXT DARKNESS |                              |                   |
| REV. LTR: B                     | VERSION: 02                  | TDR: 000001285318 |
| FILE: \RAG\00022\453            | REVISED: 09:36:26 09/24/2026 | BY: USJOSUL       |
| MTL: -                          |                              |                   |



CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH1 of 1

416820-002