

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPM4312T-4

50HP, 1185RPM, 3PH, 60HZ, 365T, A3678M, TEFC, F

Class - CLI GP A,B,C,D; CLII GP F,G

Division - Division II

**Specifications**

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| <b>Enclosure</b>                     | TEFC                                                  |
| <b>Frame</b>                         | 365T                                                  |
| <b>Frame Material</b>                | Iron                                                  |
| <b>Frequency</b>                     | 60.00 Hz                                              |
| <b>Haz Area Class and Group</b>      | CLI GP A,B,C,D; CLII GP F,G                           |
| <b>Haz Area Division</b>             | Division II                                           |
| <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>           | 460.0 V @ 60 HZ                                       |
| <b>Agency Approvals</b>              | CCSAUSEEV<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM |
| <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>             | 55.100 A @ 460.0 V                                    |
| <b>Design Code</b>                   | A                                                     |
| <b>Drip Cover</b>                    | No Drip Cover                                         |
| <b>Duty Rating</b>                   | CONT                                                  |
| <b>Efficiency @ 100% Load</b>        | 95.0 %                                                |
| <b>Feedback Device</b>               | NO FEEDBACK                                           |
| <b>Heater Indicator</b>              | No Heater                                             |
| <b>High Voltage Full Load Amps</b>   | 55.1 a                                                |
| <b>Insulation Class</b>              | F                                                     |
| <b>Inverter Code</b>                 | Inverter Duty                                         |
| <b>KVA Code</b>                      | J                                                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs                                 |
| <b>Max Speed</b>                     | 1800 rpm                                              |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A36WG6602  |
| <b>Layout</b>       | 617436-320 |
| <b>Eff. date</b>    | 01-03-2025 |
| <b>CD Diagram</b>   | 416820-036 |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 3#4 Y      |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-19-2023 |

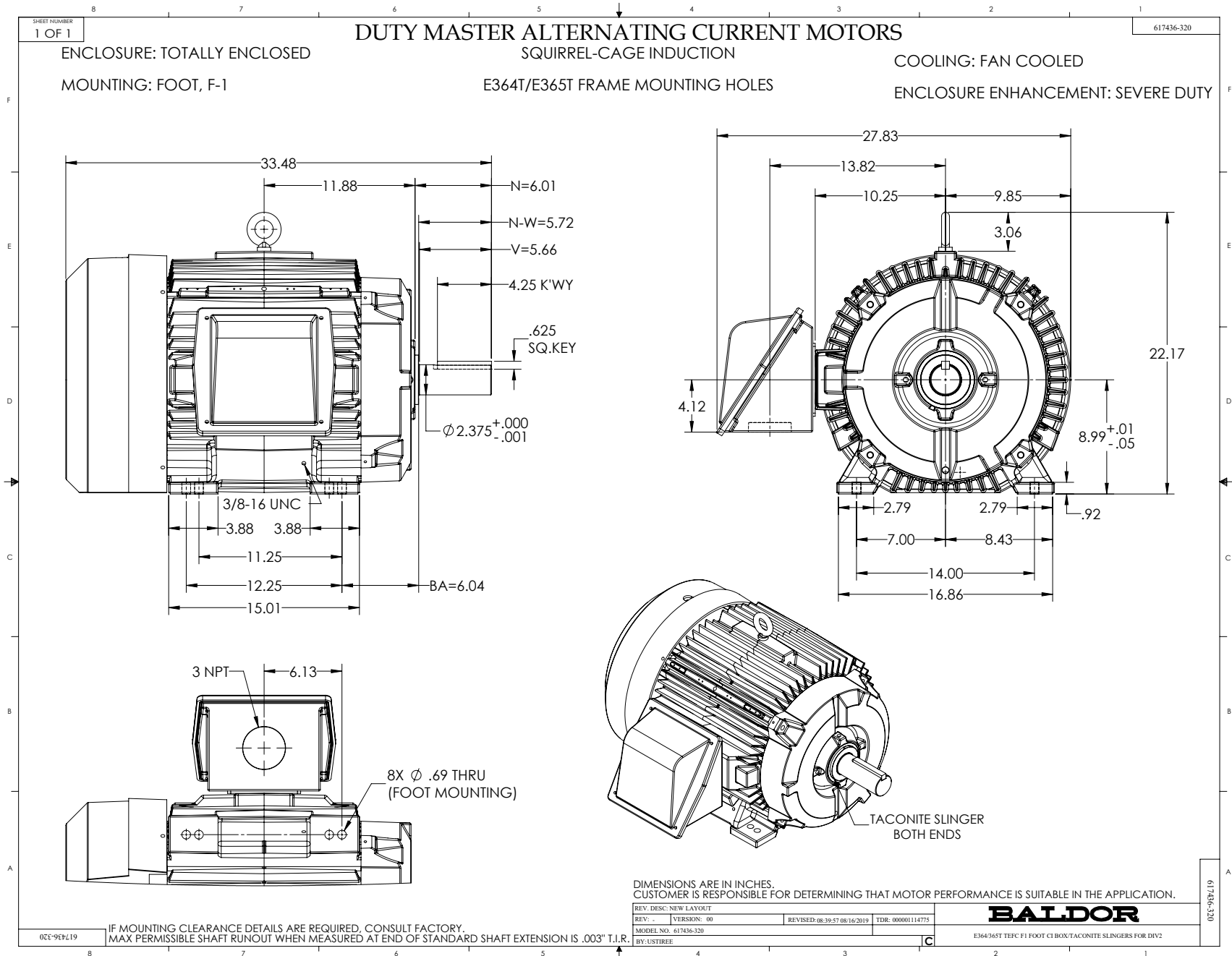
|                                      |                    |
|--------------------------------------|--------------------|
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 4 AWG          |
| <b>Motor Standards</b>               | NEMA               |
| <b>Motor Type</b>                    | A3678M             |
| <b>Mounting Arrangement</b>          | F1                 |
| <b>Number of Poles</b>               | 6                  |
| <b>Overall Length</b>                | 33.48 IN           |
| <b>Power Factor</b>                  | 89                 |
| <b>Product Family</b>                | General Industrial |
| <b>Pulley End Bearing Type</b>       | Ball               |
| <b>Pulley Face Code</b>              | Standard           |
| <b>Service Factor</b>                | 1.15               |
| <b>Shaft Diameter</b>                | 2.374 IN           |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding |
| <b>Shaft Rotation</b>                | Reversible         |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger      |
| <b>Speed</b>                         | 1185 rpm           |
| <b>Speed Code</b>                    | Single Speed       |
| <b>Starting Method</b>               | Direct on line     |
| <b>Thermal Device - Bearing</b>      | None               |
| <b>Thermal Device - Winding</b>      | None               |

**Nameplate**

|                  |  |
|------------------|--|
| NP2496L          |  |
| MOBIL POLYREX EM |  |
|                  |  |

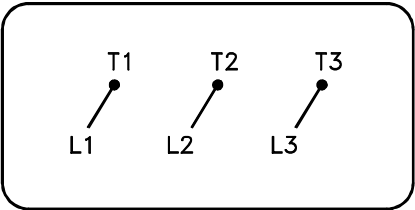
**NP4562L**

|                  |             |               |                         |      |                         |                     |      |             |                        |      |                 |                 |    |    |
|------------------|-------------|---------------|-------------------------|------|-------------------------|---------------------|------|-------------|------------------------|------|-----------------|-----------------|----|----|
| CAT NO           | SPM4312T-4  |               | SPEC NO.                |      | A36-0003-6602           |                     |      | I.P.        |                        | 55   |                 |                 |    |    |
| HP               | 50          | AMPS          | 55.1                    |      | VOLTS                   |                     | 460  |             | DESIGN                 |      | A               |                 |    |    |
| FRAME SIZE       | 365T        | RPM           | 1185                    |      | MAX RPM                 |                     | 1800 | HZ          | 60                     | AMB  | 40              |                 |    |    |
| D.E. BRG.        | 65BC03J30X  |               | PH.3                    | 3    | DUTY                    | CONT                |      | INSUL.CLASS |                        | F    |                 |                 |    |    |
| O.D.E. BRG.      | 65BC03J30X  |               | TYPE P                  |      | P                       | ENCL                | TEFC | SF          | 1.15                   | CODE | J               |                 |    |    |
| POWER FACTOR     | 89          | MAX CORR KVAR |                         | 7.11 |                         | NEMA NOM EFFICIENCY |      |             |                        | 95   |                 |                 |    |    |
| CL.I,DIV 2,GRP:  | A,B,C,D     | T.CODE        | T3C                     |      | CL.1,ZONE 2,GRP:        |                     |      |             | IIA,IIB,IIC            |      | T= 160          | INVERTER T.CODE | T3 |    |
| CL.II,DIV 2,GRP: | F,G         | T.CODE        | T3C                     |      | CL II ZONE 22 GRPS IIIB |                     |      |             | T= 160                 |      | INVERTER T.CODE |                 | T3 |    |
| ID LOGO          | INV TYPE:   | VPWM          | CT                      | 15   | TO                      | 60                  | VT   | 3           | TO                     | 60   | CHP             | 60              | TO | 90 |
| ID LOGO          | 1.0 SF VPWM |               | WK2                     | 25.3 |                         | LBFT2               |      | SL HZ       | 0.75                   |      | MAG CUR         |                 | 21 |    |
| SER.NO.          |             |               | MEETS INTENT OF IEEE-45 |      |                         |                     |      |             | FOR WEATHER PROTECTION |      |                 |                 |    |    |



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