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# Customer information packet

## SPM3219T

7.5HP, 3500RPM, 3PH, 60HZ, 184T, 3646M, OPSB, F

Class - None

Division - Not Applicable

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | OPSB                                    |
| Frame                          | 184T                                    |
| Frame Material                 | Steel                                   |
| Frequency                      | 60.00 Hz                                |
| Haz Area Class and Group       | None                                    |
| Haz Area Division              | Not Applicable                          |
| Motor Letter Type              | Three Phase                             |
| Output @ Frequency             | 7.500 HP @ 60 HZ                        |
| Phase                          | 3                                       |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                        |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ      |
| Agency Approvals               | CURUSEEV<br>NEMA PREMIUM<br>WEEE        |
| Ambient Temperature            | 40 °C                                   |
| Auxillary Box                  | No Auxillary Box                        |
| Auxillary Box Lead Termination | None                                    |
| Base Indicator                 | Rigid                                   |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                 |
| Blower                         | None                                    |
| Current @ Voltage              | 16.800 A @ 230.0 V<br>8.400 A @ 460.0 V |
| Design Code                    | B                                       |
| Drip Cover                     | No Drip Cover                           |
| Duty Rating                    | CONT                                    |
| Efficiency @ 100% Load         | 90.2 %                                  |
| Electrically Isolated Bearing  | Not Electrically Isolated               |
| Feedback Device                | NO FEEDBACK                             |
| Front Shaft Indicator          | None                                    |
| Heater Indicator               | No Heater                               |
| High Voltage Full Load Amps    | 8.4 a                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | C          |
| Type         | AC         |
| Mech. spec.  | 36P391     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 36WGX419   |
| Layout       | 36LYP391   |
| Eff. date    | 06-07-2024 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#16       |
| Proprietary  | False      |
| Created date | 09-07-2023 |

|                               |                       |
|-------------------------------|-----------------------|
| Insulation Class              | F                     |
| Inverter Code                 | Not Inverter          |
| KVA Code                      | K                     |
| Lifting Lugs                  | Vertical Lifting Lugs |
| Locked Bearing Indicator      | No Locked Bearing     |
| Max Speed                     | 5400 rpm              |
| Motor Lead Quantity/Wire Size | 9 @ 16 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3646M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 2                     |
| Overall Length                | 17.99 IN              |
| Power Factor                  | 91                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| RoHS Status                   | ROHS COMPLIANT        |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.125 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 3500 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Bearing      | None                  |
| Thermal Device - Winding      | None                  |
| Vibration Sensor Indicator    | No Vibration Sensor   |
| Winding Thermal 1             | None                  |
| Winding Thermal 2             | None                  |

**Nameplate**

| NP4423A01A01L      |                      |               |                |             |                      |              |            |       |  |  |
|--------------------|----------------------|---------------|----------------|-------------|----------------------|--------------|------------|-------|--|--|
| <b>CAT #</b>       | SPM3219T             |               |                |             | <b>WGT</b>           | 96           | <b>LBS</b> |       |  |  |
| <b>SPEC</b>        | 36P391X419           |               |                |             | <b>ENCL</b>          | OPSB         |            |       |  |  |
| <b>SER #</b>       |                      |               |                |             | <b>CC</b>            | 010A         | <b>IP</b>  | 22    |  |  |
| <b>HP</b>          | 7.5                  |               | <b>MAG CUR</b> | 4.4/2.2     |                      |              |            |       |  |  |
| <b>VOLTS</b>       | 230/460              |               |                |             | <b>NEMA NOM. EFF</b> |              |            | 90.2  |  |  |
| <b>AMPS</b>        | 16.8/8.4             |               |                |             | <b>PF</b>            | 91           |            |       |  |  |
| <b>RATING</b>      | 40C AMB-CONT         |               |                |             |                      |              |            |       |  |  |
| <b>RPM</b>         | 3500                 |               |                |             | <b>MAX RPM</b>       | 5400         |            |       |  |  |
| <b>FRAME</b>       | 184T                 | <b>HZ</b>     | 60             | <b>CODE</b> | K                    | <b>CLASS</b> | F          |       |  |  |
| <b>SER.F.</b>      | 1.15                 | <b>SF AMP</b> | 19/9.5         |             | <b>PH</b>            | 3            | <b>DES</b> | B     |  |  |
| <b>DE</b>          | 6206                 |               | <b>ODE</b>     | 6205        |                      |              |            |       |  |  |
| <b>LUBRICATION</b> | POLYREX EM           |               |                |             |                      |              |            |       |  |  |
| <b>ID LOGO</b>     | <b>INVERTER TYPE</b> |               | <b>VPWM</b>    | <b>CHP</b>  | 60                   | <b>TO</b>    | 90         | 1.5:1 |  |  |
| <b>ID LOGO</b>     | <b>WK2</b>           | 0.207         | <b>CT</b>      | 6           | <b>TO</b>            | 60           | 10:1       |       |  |  |
| <b>ID LOGO</b>     | <b>SL HZ</b>         | 1.7           | <b>VT</b>      | 3           | <b>TO</b>            | 60           | 20:1       |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
|                    |                      |               |                |             |                      |              |            |       |  |  |
| <b>YR</b>          |                      |               |                |             |                      |              |            |       |  |  |

**AC Induction Motor Performance Data**

Record # 100920

Typical performance - not guaranteed values

| <b>Winding:</b> 36WGX419-R006 |                          | <b>Type:</b> 3646M |  | <b>Enclosure:</b> OPEN   |  |
|-------------------------------|--------------------------|--------------------|--|--------------------------|--|
| <b>Nameplate Data</b>         |                          |                    | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |                          |  |
| <b>Rated Output (HP)</b>      | 7.5                      |                    | <b>Full Load Torque</b>                          | 11.2 LB-FT               |  |
| <b>Volts</b>                  | 230/460                  |                    | <b>Start Configuration</b>                       | direct on line           |  |
| <b>Full Load Amps</b>         | 16.8/8.4                 |                    | <b>Breakdown Torque</b>                          | 55 LB-FT                 |  |
| <b>R.P.M.</b>                 | 3500                     |                    | <b>Pull-up Torque</b>                            | 40 LB-FT                 |  |
| <b>Hz</b>                     | <b>60 Phase</b>          | 3                  | <b>Locked-rotor Torque</b>                       | 48 LB-FT                 |  |
| <b>NEMA Design Code</b>       | <b>B KVA Code</b>        | K                  | <b>Starting Current</b>                          | 87 A                     |  |
| <b>Service Factor (S.F.)</b>  | 1.15                     |                    | <b>No-load Current</b>                           | 2.2 A                    |  |
| <b>NEMA Nom. Eff.</b>         | <b>90.2 Power Factor</b> | 91                 | <b>Line-line Res. @ 25°C</b>                     | 1.45 Ω                   |  |
| <b>Rating - Duty</b>          | 40C AMB-CONT             |                    | <b>Temp. Rise @ Rated Load</b>                   | 52°C                     |  |
| <b>S.F. Amps</b>              | 19/9.5                   |                    | <b>Temp. Rise @ S.F. Load</b>                    | 65°C                     |  |
|                               |                          |                    | <b>Locked-rotor Power Factor</b>                 | 44.6                     |  |
|                               |                          |                    | <b>Rotor inertia</b>                             | 0.205 lb-ft <sup>2</sup> |  |

**Load Characteristics 460 V, 60 Hz, 7.5 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>    | 65        | 84        | 90        | 91         | 93         | 93         | 92          |
| <b>Efficiency</b>      | 87.9      | 91.3      | 91.6      | 90.9       | 89.9       | 88.6       | 90.3        |
| <b>Speed</b>           | 3570      | 3542      | 3511      | 3478       | 3446       | 3412       | 3459        |
| <b>Line amperes</b>    | 3.1       | 4.6       | 6.4       | 8.4        | 10.3       | 12.4       | 9.54        |

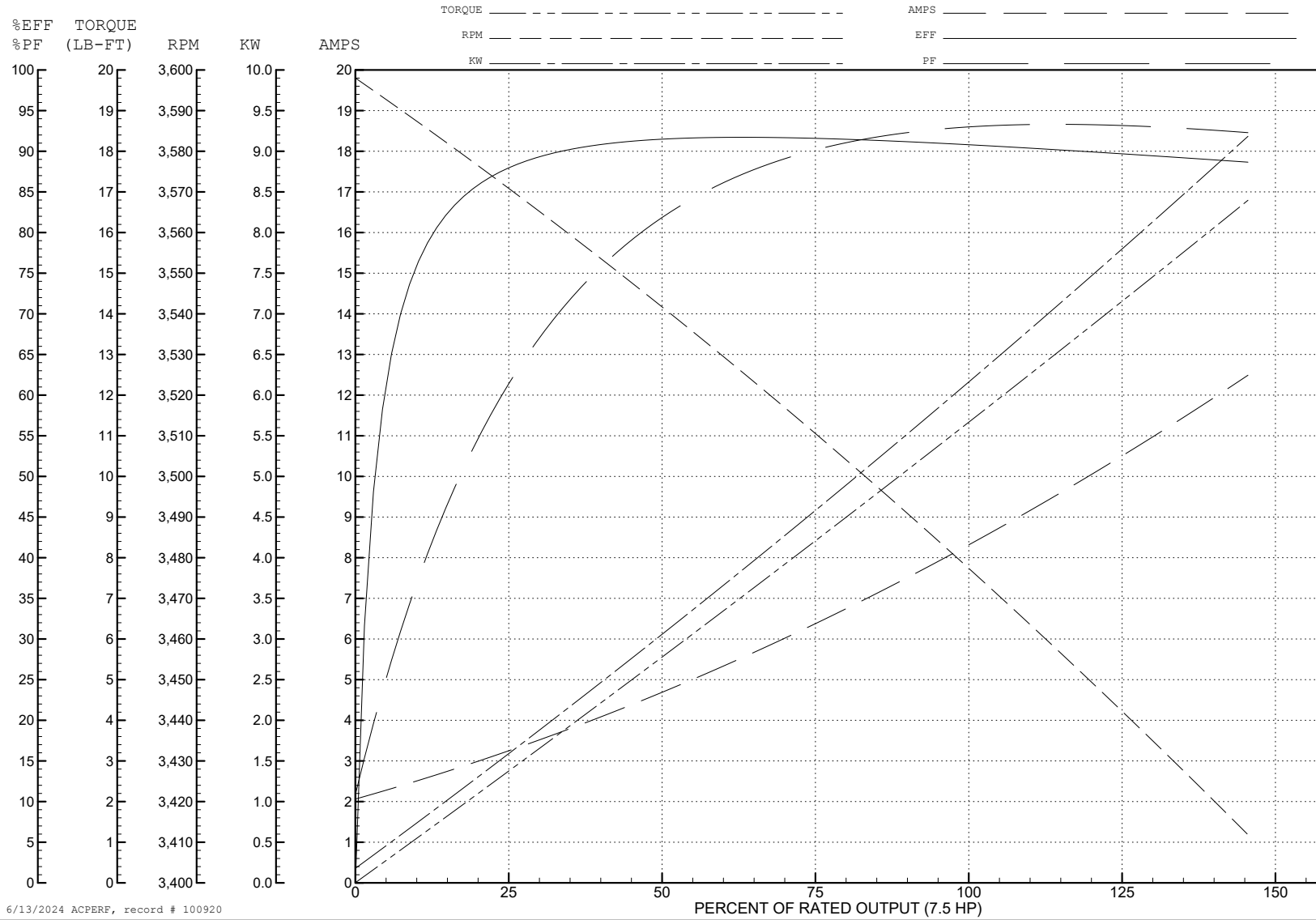
ABB Motors and Mechanical Inc.

WINDING # 36WGX419

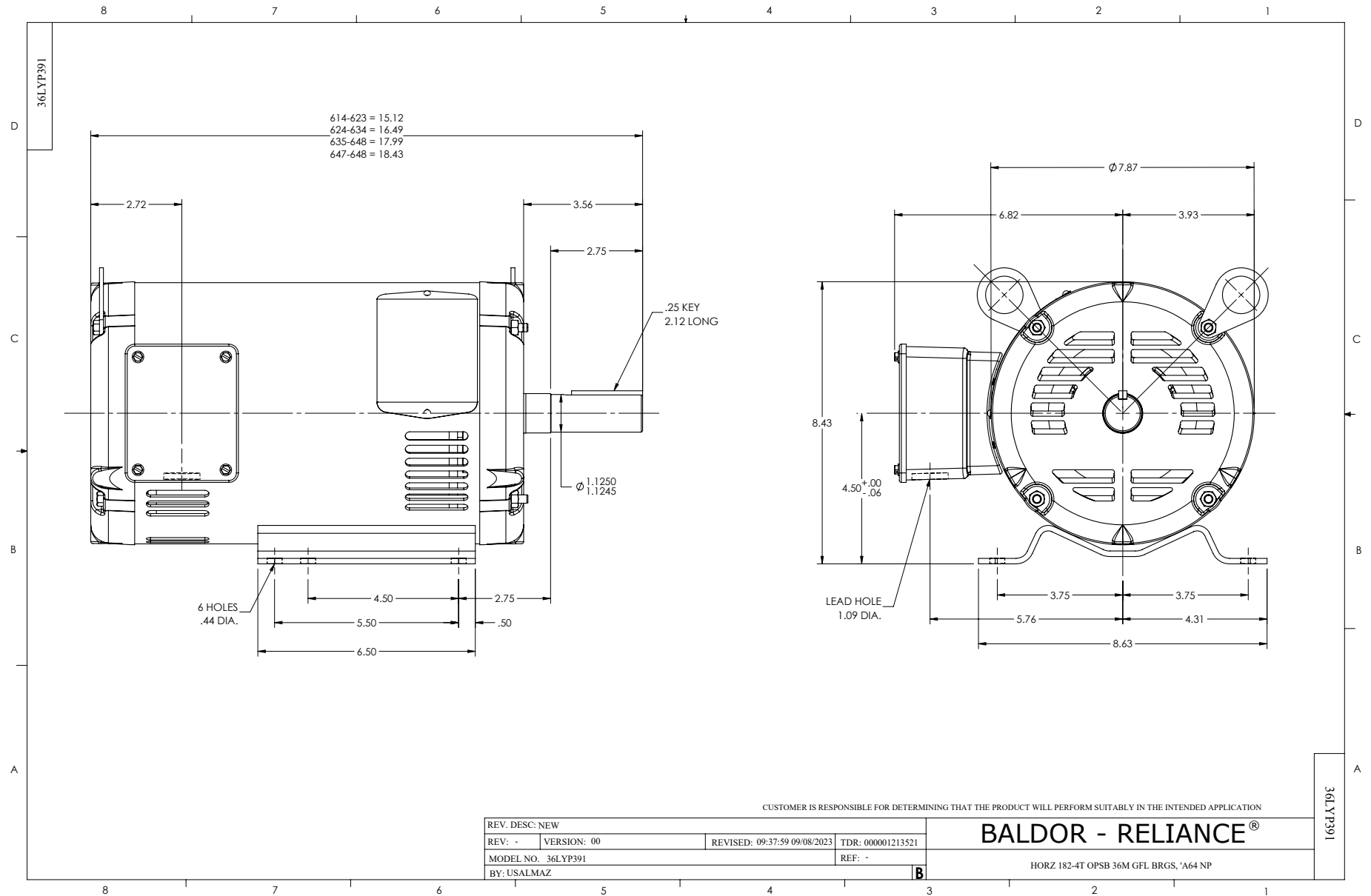
7.5 HP 3 PH 60 HZ 3500 RPM 460 V 3646M

Typical performance - not guaranteed values.

TORQUES (LB-FT) : PO=55 PU=40 LR=48 LRA=87



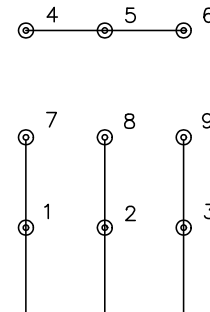
6/13/2024 ACPERF, record # 100920



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.

CD0005

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS