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# Customer information packet

## SPM4108T

30HP, 3530RPM, 3PH, 60HZ, 286TS, 1056M, TEFC, F

Class - None

Division - Not Applicable

## Specifications

|                                |                                                         |
|--------------------------------|---------------------------------------------------------|
| Enclosure                      | TEFC                                                    |
| Frame                          | 286TS                                                   |
| 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             | 30.000 HP @ 60 HZ                                       |
| Phase                          | 3                                                       |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                                        |
| Voltage @ Frequency            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                      |
| Agency Approvals               | CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>WEEE<br>CSA |
| 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              | 33.000 A @ 460.0 V<br>66.000 A @ 230.0 V                |
| Design Code                    | A                                                       |
| Drip Cover                     | No Drip Cover                                           |
| Duty Rating                    | CONT                                                    |
| Efficiency @ 100% Load         | 93.0 %                                                  |
| Electrically Isolated Bearing  | Not Electrically Isolated                               |
| Feedback Device                | NO FEEDBACK                                             |
| Front Shaft Indicator          | None                                                    |

## Part detail

|              |            |
|--------------|------------|
| Revision     | A          |
| Type         | AC         |
| Mech. spec.  | 10T011     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 10WGZ895   |
| Layout       | 10LYT011   |
| Eff. date    | 03-28-2024 |
| CD Diagram   | CD0180     |
| Poles        | 02         |
| Leads        | 9#10       |
| Proprietary  | False      |
| Created date | 10-04-2023 |

|                               |                              |
|-------------------------------|------------------------------|
| Haz Area Temp Code            | T3C                          |
| Heater Indicator              | No Heater                    |
| High Voltage Full Load Amps   | 33.0 a                       |
| Insulation Class              | F                            |
| Inverter Code                 | Inverter Duty                |
| KVA Code                      | H                            |
| Lifting Lugs                  | Standard Lifting Lugs        |
| Locked Bearing Indicator      | Locked Bearing               |
| Max Speed                     | 5400 rpm                     |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG                   |
| Motor Lead Termination        | Flying Leads                 |
| Motor Standards               | NEMA                         |
| Motor Type                    | 1056M                        |
| Mounting Arrangement          | F1                           |
| Number of Poles               | 2                            |
| Overall Length                | 26.63 IN                     |
| Power Factor                  | 90                           |
| Product Family                | Chemical Processing (Not DC) |
| 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                | 1.625 IN                     |
| Shaft Ground Indicator        | No Shaft Grounding           |
| Shaft Rotation                | Reversible                   |
| Shaft Slinger Indicator       | No Slinger                   |
| Speed                         | 3530 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

NP4439B05C23L

[illegible]

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## Parts list

| Part number     | Description                              | Quantity |
|-----------------|------------------------------------------|----------|
| SA419600        | SA 10T011Z895                            | 1.000 ea |
| RA411541        | RA 10T011Z895                            | 1.000 ea |
| 37FN3002C03     | EXFN, PLASTIC, 6.00 OD, 1.690 ID         | 1.000 ea |
| 10CB1000A352P   | CONDUIT BOX, MACH W/EPOXY PRIMER         | 1.000 ea |
| 09GS1010        | GASKET, DWG, LEADWIRE SEPERATOR          | 1.000 ea |
| 10XN3118K12     | 5/16-18 X .75 GRADE 5, ZINC PLATED       | 4.000 ea |
| HW1001A31       | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| WD1000B25       | GND LUG, BURNDY L125HP OR T&B L125HP-BB  | 1.000 ea |
| 19XW3118G08     | .31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN   | 1.000 ea |
| 10EP1110A142LP5 | FREP, MACH W/PRIMER & PAINT              | 1.000 ea |
| 10XN3816K32     | BOLT, 3/8-16X2 HH YZ(5)                  | 4.000 ea |
| HW1001A38       | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| 80XN1032J06     | 10-32 X 3/8 SET SCREW, HEX SOC, CUP PT   | 2.000 ea |
| HA2009A33       | SLINGER, FOR GROUP E MOTORS - 311 BRG.   | 1.000 ea |
| HW4500A20       | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HA4017A11       | 1/8 X 2.75 GREASE EXT (F/S)              | 1.000 ea |
| HW4019A01       | PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING | 1.000 ea |
| HW4505A02       | BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS | 1.000 ea |
| HW3023E06       | .125 X .625 SPIRAL SPRING PIN            | 1.000 ea |
| HA4017A03       | .125 X 1.75 GREASE EXT (F/S)             | 1.000 ea |
| HW5100A13       | W4627-047 WVY WSHR                       | 1.000 ea |
| 10XN2520K36     | 1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P | 2.000 ea |
| 10XN3118K40     | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 ea |
| 10EP1110A216P   | PU ENDPLATE, MACH W/PRIMER               | 1.000 ea |
| 10XN3816K28     | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 ea |
| HW1001A38       | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW4505A02       | BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS | 1.000 ea |
| HW3023E06       | .125 X .625 SPIRAL SPRING PIN            | 1.000 ea |
| 80XN1032J06     | 10-32 X 3/8 SET SCREW, HEX SOC, CUP PT   | 2.000 ea |
| HA2009A33       | SLINGER, FOR GROUP E MOTORS - 311 BRG.   | 1.000 ea |
| HW4500A20       | 1/8NPT SL PIPE PLUG                      | 1.000 ea |

|               |                                          |          |
|---------------|------------------------------------------|----------|
| 10FH1007LP5   | FAN COVER, W/MG1025L14, PRIMED CASTING   | 1.000 ea |
| 10XN3118K20   | 5/16-18 X 1 1/4 GRADE 5 STEEL ZC PLATED  | 3.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 3.000 ea |
| 10CB1503A01P  | CONDUIT BOX LIPPED LID, MACH W/EPXY PRMR | 1.000 ea |
| 14GS1003      | GASKET CONDUIT BOX LID, NEOP             | 1.000 ea |
| 10XN2520K16   | 1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P   | 4.000 ea |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| HW2501G17     | KEY, 3/8 SQ X 1.875                      | 1.000 ea |
| MG1500Y02     | WILKOPON PRIMER YELLOW                   | 0.010 ga |
| MJ5001A27     | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.031 qt |
| MJ5002A01     | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.033 ea |
| HA4051A00     | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A21     | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 ea |
| HW4500A17     | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.130 lb |
| HA4051A00     | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A03     | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A17     | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HW2500A25     | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| HA6390A01     | HOSE CLAMP FOR 3.12 DIA S.S. OR PLATED   | 1.000 ea |
| MG1050Y01     | CELEROL BALDOR GOLD *** NLA IN 5 GALLON  | 0.070 ga |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| NP4439B05C23L | SS SUPER PREM,CONN 05(CD0180),AGENCY C,  | 1.000 ea |
| 10PA1000      | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 ea |
| MN416A01      | TAG-INSTAL-MAINT no wire (2500bx)4/22    | 1.000 ea |
| LB1636        | LABEL, SUPER PREMIUM SP4, 1.75 X 1.75    | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 101881

Typical performance - not guaranteed values

| Winding: 10WGZ895-R001 |    |              |              | Type: 1056M                              |                       | Enclosure: TEFC |         |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|-----------------|---------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |         |
| Rated Output (HP)      |    | 30           |              | Full Load Torque                         |                       | 44.38 LB-FT     |         |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line  |         |
| Full Load Amps         |    | 66/33        |              | Breakdown Torque                         |                       | 183 LB-FT       |         |
| R.P.M.                 |    | 3530         |              | Pull-up Torque                           |                       | 65.6 LB-FT      |         |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 86.2 LB-FT      |         |
| NEMA Design Code       |    | A            | KVA Code     | H                                        | Starting Current      |                 | 239 A   |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 8.82 A          |         |
| NEMA Nom. Eff.         |    | 93           | Power Factor | 90                                       | Line-line Res. @ 25°C |                 | 0.205 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                       | 54°C            |         |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                       | 67°C            |         |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 22.3            |         |
|                        |    |              |              | Rotor inertia                            |                       | 2.4 lb-ft²      |         |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25   | 50    | 75    | 100  | 125   | 150   | S.F. |
|-----------------|------|-------|-------|------|-------|-------|------|
| Power Factor    | 65   | 83    | 89    | 91   | 92    | 92    | 92   |
| Efficiency      | 89.8 | 93.1  | 93.9  | 93.1 | 93    | 92    | 93   |
| Speed           | 3581 | 3564  | 3548  | 3531 | 3511  | 3490  | 3519 |
| Line amperes    | 11.9 | 18.18 | 25.13 | 32.8 | 40.98 | 49.63 | 37.7 |

ABB Motors and Mechanical Inc.

WINDING # 10WGZ895

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 3530 RPM 460 V 1056M

TORQUES (LB-FT): PO=183 PU=65.6 LR=86.2 LRA=239





