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# Customer information packet

## SPM3454

.25HP, 1735RPM, 3PH, 60HZ, 48, 3416M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                      |
|--------------------------------|--------------------------------------|
| Enclosure                      | TEFC                                 |
| Frame                          | 48                                   |
| 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             | .250 HP @ 60 HZ                      |
| Phase                          | 3                                    |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                     |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ   |
| Agency Approvals               | WEEE<br>C UR US                      |
| Ambient Temperature            | 40 °C                                |
| Auxiliary Box                  | NO AUXILLARY BOX                     |
| Auxiliary Box Lead Termination | None                                 |
| Base Indicator                 | Rigid                                |
| Bearing Grease Type            | Polyrex EM (-20F +300F)              |
| Blower                         | None                                 |
| Current @ Voltage              | .400 A @ 460.0 V<br>.800 A @ 230.0 V |
| Design Code                    | B                                    |
| Drip Cover                     | No Drip Cover                        |
| Duty Rating                    | CONT                                 |
| Efficiency @ 100% Load         | 74.0 %                               |
| Electrically Isolated Bearing  | Not Electrically Isolated            |
| Feedback Device                | NO FEEDBACK                          |
| Front Shaft Indicator          | None                                 |
| Heater Indicator               | No Heater                            |
| High Voltage Full Load Amps    | 0.4 a                                |
| Insulation Class               | F                                    |

## Part detail

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 34T121     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR773   |
| Layout       | 34LYT121   |
| Eff. date    | 10-29-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 09-12-2023 |

|                               |                     |
|-------------------------------|---------------------|
| Inverter Code                 | Not Inverter        |
| KVA Code                      | L                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No Locked Bearing   |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3416M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 10.72 IN            |
| Power Factor                  | 64                  |
| 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                | 1.35                |
| Shaft Diameter                | 0.500 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1735 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                |



## AC Induction Motor Performance Data

Record # 100717

Preliminary Data Sheet

| Winding: 34WGR773-R001 |  |          | Type: 3416M |                          | Enclosure: TEFC |                        |                         |                           |      |
|------------------------|--|----------|-------------|--------------------------|-----------------|------------------------|-------------------------|---------------------------|------|
| Nameplate Data         |  |          |             | 460 V, 60 Hz:<br>Unknown |                 |                        |                         |                           |      |
| Rated Output (HP)      |  | .25      |             | Full Load Torque         |                 | 0.76 LB-FT             |                         |                           |      |
| Volts                  |  | 230/460  |             | Start Configuration      |                 | direct on line         |                         |                           |      |
| Full Load Amps         |  | .8/.4    |             | Breakdown Torque         |                 | 2.8 LB-FT              |                         |                           |      |
| R.P.M.                 |  | 1735     |             | Pull-up Torque           |                 | 1.6 LB-FT              |                         |                           |      |
| Hz                     |  | 60 Phase |             | 3                        |                 | Locked-rotor Torque    | 2.1 LB-FT               |                           |      |
| NEMA Design Code       |  | B        |             | KVA Code                 |                 | L                      | Starting Current        | 2.8 A                     |      |
| Service Factor (S.F.)  |  | 1.35     |             | No-load Current          |                 | 0.3 A                  | Line-line Res. @ 25°C   | 63.2 Ω                    |      |
| NEMA Nom. Eff.         |  | 74       |             | Power Factor             |                 | 64                     | Temp. Rise @ Rated Load | 21°C                      |      |
| Rating - Duty          |  | 40C      |             | AMB-CONT                 |                 | Temp. Rise @ S.F. Load | 29°C                    | Locked-rotor Power Factor | 58.8 |
| S.F. Amps              |  | 1/.5     |             | Rotor inertia            |                 | 0.0381 lb-ft²          |                         |                           |      |

## Load Characteristics 460 V, 60 Hz, 0.25 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F.  |
|-----------------|------|------|------|------|------|------|-------|
| Power Factor    | 36   | 53   | 66   | 75   | 82   | 85   | 83    |
| Efficiency      | 51.2 | 65.6 | 71.6 | 74.6 | 75.5 | 75.8 | 75.6  |
| Speed           | 1778 | 1763 | 1748 | 1730 | 1711 | 1691 | 1703  |
| Line amperes    | 0.31 | 0.33 | 0.37 | 0.42 | 0.47 | 0.54 | 0.498 |

ABB Motors and Mechanical Inc.

WINDING # 34WGR773

Typical performance - not guaranteed values.

0.25 HP 3 PH 60 HZ 1735 RPM 460 V 3416M

TORQUES (LB-FT): PO=2.8 PU=1.6 LR=2.1 LRA=2.8





