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# Customer information packet

## WDM3538

.5HP, 1775RPM, 3PH, 60HZ, 56, 3514M, TENV, F1, N

Class - None

Division - Not Applicable

## Specifications

|                                |                                        |
|--------------------------------|----------------------------------------|
| Enclosure                      | TENV                                   |
| Frame                          | 56                                     |
| 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             | .500 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               | 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              | 1.010 A @ 460.0 V<br>2.020 A @ 230.0 V |
| Design Code                    | B                                      |
| Drip Cover                     | No Drip Cover                          |
| Duty Rating                    | CONT                                   |
| Efficiency @ 100% Load         | 81.5 %                                 |
| Electrically Isolated Bearing  | Not Electrically Isolated              |
| Feedback Device                | NO FEEDBACK                            |
| Front Shaft Indicator          | None                                   |
| Heater Indicator               | No Heater                              |
| High Voltage Full Load Amps    | 1.0 a                                  |
| Insulation Class               | F                                      |
| Inverter Code                  | Inverter Duty                          |

## Part detail

|              |            |
|--------------|------------|
| Revision     | -          |
| Type         | AC         |
| Mech. spec.  | 35S578     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG069   |
| Layout       | 35LYS578   |
| Eff. date    | 10-05-2023 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 09-15-2023 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>KVA Code</b>                      | <b>N</b>                   |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>     |
| <b>Locked Bearing Indicator</b>      | <b>No Locked Bearing</b>   |
| <b>Motor Lead Quantity/Wire Size</b> | <b>9 @ 18 AWG</b>          |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>        |
| <b>Motor Standards</b>               | <b>NEMA</b>                |
| <b>Motor Type</b>                    | <b>3514M</b>               |
| <b>Mounting Arrangement</b>          | <b>F1</b>                  |
| <b>Number of Poles</b>               | <b>4</b>                   |
| <b>Overall Length</b>                | <b>11.06 IN</b>            |
| <b>Power Factor</b>                  | <b>63</b>                  |
| <b>Product Family</b>                | <b>Wash Down</b>           |
| <b>Pulley End Bearing Type</b>       | <b>Sealed Bearing</b>      |
| <b>Pulley Face Code</b>              | <b>Standard</b>            |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>            |
| <b>Rodent Screen</b>                 | <b>None</b>                |
| <b>Service Factor</b>                | <b>1.25</b>                |
| <b>Shaft Diameter</b>                | <b>0.625 IN</b>            |
| <b>Shaft Ground Indicator</b>        | <b>No Shaft Grounding</b>  |
| <b>Shaft Rotation</b>                | <b>Reversible</b>          |
| <b>Shaft Slinger Indicator</b>       | <b>Shaft Slinger</b>       |
| <b>Speed</b>                         | <b>1775 rpm</b>            |
| <b>Speed Code</b>                    | <b>Single Speed</b>        |
| <b>Starting Method</b>               | <b>Direct on line</b>      |
| <b>Thermal Device - Bearing</b>      | <b>None</b>                |
| <b>Thermal Device - Winding</b>      | <b>None</b>                |
| <b>Vibration Sensor Indicator</b>    | <b>No Vibration Sensor</b> |
| <b>Winding Thermal 1</b>             | <b>None</b>                |
| <b>Winding Thermal 2</b>             | <b>None</b>                |

## Nameplate

| NP1496L      |              |      |     |      |   |       |    |   |  |
|--------------|--------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | WDM3538      |      |     |      |   |       |    |   |  |
| SPEC.        | 35S578G069G2 |      |     |      |   |       |    |   |  |
| HP           | .5           |      |     |      |   |       |    |   |  |
| VOLTS        | 230/460      |      |     |      |   |       |    |   |  |
| AMP          | 2.02/1.01    |      |     |      |   |       |    |   |  |
| RPM          | 1775         |      |     |      |   |       |    |   |  |
| FRAME        | 56           |      | HZ  | 60   |   |       | PH | 3 |  |
| SER.F.       | 1.25         | CODE | N   | DES  | B | CLASS |    | F |  |
| NEMA-NOM-EFF | 81.5         | PF   | 63  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT |      |     |      |   |       |    |   |  |
| CC           |              |      |     |      |   |       |    |   |  |
| DE           | 6205         |      | ODE | 6203 |   |       |    |   |  |
| ENCL         | TENV         | SN   |     |      |   |       |    |   |  |
|              | SFA 2.2/1.1  |      |     |      |   |       |    |   |  |

## AC Induction Motor Performance Data

Record # 100503

Typical performance - not guaranteed values

| Winding: 35WGG069-R077 |    |           | Type: 3514M                              |                     | Enclosure: TENV         |           |        |
|------------------------|----|-----------|------------------------------------------|---------------------|-------------------------|-----------|--------|
| Nameplate Data         |    |           | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |           |        |
| Rated Output (HP)      |    | .5        | Full Load Torque                         |                     | 1.48 LB-FT              |           |        |
| Volts                  |    | 230/460   | Start Configuration                      |                     | direct on line          |           |        |
| Full Load Amps         |    | 2.02/1.01 | Breakdown Torque                         |                     | 8 LB-FT                 |           |        |
| R.P.M.                 |    | 1775      | Pull-up Torque                           |                     | 4.4 LB-FT               |           |        |
| Hz                     | 60 | Phase     | 3                                        | Locked-rotor Torque |                         | 5.1 LB-FT |        |
| NEMA Design Code       |    | B         | KVA Code                                 | N                   | Starting Current        |           | 8.4 A  |
| Service Factor (S.F.)  |    | 1.25      | No-load Current                          |                     | 0.85 A                  |           |        |
| NEMA Nom. Eff.         |    | 81.5      | Power Factor                             | 63                  | Line-line Res. @ 25°C   |           | 30.3 Ω |
| Rating - Duty          |    | 40C       | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |           | 44°C   |
| S.F. Amps              |    | 2.2/1.1   | Temp. Rise @ S.F. Load                   |                     | 51°C                    |           |        |
|                        |    |           | Locked-rotor Power Factor                |                     | 66.8                    |           |        |
|                        |    |           | Rotor inertia                            |                     | 0.101 lb-ft²            |           |        |

## Load Characteristics 460 V, 60 Hz, 0.5 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 24   | 37   | 48   | 58   | 65   | 71   | 65   |
| Efficiency      | 58.9 | 72.5 | 78.4 | 80.5 | 81.6 | 81.5 | 81.6 |
| Speed           | 1793 | 1788 | 1782 | 1776 | 1771 | 1763 | 1771 |
| Line amperes    | 0.85 | 0.89 | 0.94 | 1.01 | 1.11 | 1.21 | 1.11 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG069

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1775 RPM 460 V 3514M

TORQUES (LB-FT) : PO=8 PU=4.4 LR=5.1 LRA=8.4





