



---

# Customer information packet

## WDL3504

.5HP, 1740RPM, 1PH, 60HZ, 56, 3520L, TEFC, F1, N

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 56                                                          |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Cap Start, Induction Run                                    |
| Output @ Frequency             | .500 HP @ 60 HZ                                             |
| Phase                          | 1                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 115.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| Agency Approvals               | CSA<br>UR                                                   |
| 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              | 3.450 A @ 208.0 V<br>3.500 A @ 230.0 V<br>7.000 A @ 115.0 V |
| Design Code                    | N                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 66.0 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |
| High Voltage Full Load Amps    | 3.5 a                                                       |

## Part detail

|              |            |
|--------------|------------|
| Revision     | E          |
| Type         | AC         |
| Mech. spec.  | 35J271     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG470   |
| Layout       | 35LYJ271   |
| Eff. date    | 08-07-2024 |
| CD Diagram   | CD0001     |
| Poles        | 04         |
| Leads        | 6#18       |
| Proprietary  | False      |
| Created date | 08-01-2022 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Insulation Class</b>              | F                   |
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | L                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing   |
| <b>Motor Lead Quantity/Wire Size</b> | 6 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3520L               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 12.23 IN            |
| <b>Power Factor</b>                  | 70                  |
| <b>Product Family</b>                | Wash Down           |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing      |
| <b>Pulley Face Code</b>              | Standard            |
| <b>Pulley Shaft Indicator</b>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.25                |
| <b>Shaft Diameter</b>                | 0.625 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger       |
| <b>Speed</b>                         | 1740 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                |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor |
| <b>Winding Thermal 1</b>             | None                |
| <b>Winding Thermal 2</b>             | None                |

## Nameplate

| NP1496L      |              |      |     |      |   |       |    |   |  |  |  |
|--------------|--------------|------|-----|------|---|-------|----|---|--|--|--|
| CAT.NO.      | WDL3504      |      |     |      |   |       |    |   |  |  |  |
| SPEC.        | 35J271G470   |      |     |      |   |       |    |   |  |  |  |
| HP           | .5           |      |     |      |   |       |    |   |  |  |  |
| VOLTS        | 115/230      |      |     |      |   |       |    |   |  |  |  |
| AMP          | 7/3.5        |      |     |      |   |       |    |   |  |  |  |
| RPM          | 1740         |      |     |      |   |       |    |   |  |  |  |
| FRAME        | 56           |      | HZ  | 60   |   |       | PH | 1 |  |  |  |
| SER.F.       | 1.25         | CODE | L   | DES  | N | CLASS |    | F |  |  |  |
| NEMA-NOM-EFF | 66           | PF   | 70  |      |   |       |    |   |  |  |  |
| RATING       | 40C AMB-CONT |      |     |      |   |       |    |   |  |  |  |
| CC           |              |      |     |      |   |       |    |   |  |  |  |
| DE           | 6205         |      | ODE | 6203 |   |       |    |   |  |  |  |
| ENCL         | TEFC         | SN   |     |      |   |       |    |   |  |  |  |
|              | SFA 8.2/4.1  |      |     |      |   |       |    |   |  |  |  |

## AC Induction Motor Performance Data

Record # 94791

Typical performance - not guaranteed values

| Winding: 35WGG470-R001 |    |              |              | Type: 3520L                             |                       | Enclosure: TEFC |                                |
|------------------------|----|--------------|--------------|-----------------------------------------|-----------------------|-----------------|--------------------------------|
| Nameplate Data         |    |              |              | 115 V, 60 Hz:<br>Low Voltage Connection |                       |                 |                                |
| Rated Output (HP)      |    | .5           |              | Full Load Torque                        |                       | 1.511 LB-FT     |                                |
| Volts                  |    | 115/230      |              | Start Configuration                     |                       | direct on line  |                                |
| Full Load Amps         |    | 7/3.5        |              | Breakdown Torque                        |                       | 4.22 LB-FT      |                                |
| R.P.M.                 |    | 1740         |              | Pull-up Torque                          |                       | 3.95 LB-FT      |                                |
| Hz                     | 60 | Phase        | 1            | Locked-rotor Torque                     |                       | 6.21 LB-FT      |                                |
| NEMA Design Code       |    | N            | KVA Code     | L                                       | Starting Current      |                 | 43.3 A                         |
| Service Factor (S.F.)  |    | 1.25         |              | No-load Current                         |                       | 5.29 A          |                                |
| NEMA Nom. Eff.         |    | 66           | Power Factor | 70                                      | Line-line Res. @ 25°C |                 | 1.3669 Ω A Ph<br>2.3003 Ω B Ph |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                 |                       | 62°C            |                                |
| S.F. Amps              |    | 8/4          |              | Temp. Rise @ S.F. Load                  |                       | 78°C            |                                |
|                        |    |              |              | Locked-rotor Power Factor               |                       | 98.3            |                                |

## Load Characteristics 115 V, 60 Hz, 0.5 HP

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 35     | 49     | 61     | 70     | 77     | 82     | 77   |
| Efficiency      | 42.8   | 57.5   | 63.6   | 65.7   | 65.6   | 63.7   | 65.6 |
| Speed           | 1781.1 | 1768.1 | 1752.9 | 1735.9 | 1715.7 | 1690.5 | 1716 |
| Line amperes    | 5.38   | 5.7    | 6.26   | 7.01   | 8.01   | 9.26   | 8.01 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG470

Typical performance - not guaranteed values.

0.5 HP 1 PH 60 HZ 1740 RPM 115 V 3520L

TORQUES (LB-FT): PO=4.22 PU=3.95 LR=6.21 LRA=43.3





