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# Customer information packet

## GNEM31154-G

1.5/1.1KWHP, 1755//1445RPM, 3PH, 60//50HZ, 5

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                                             |
|--------------------------------|---------------------------------------------------------------------------------------------|
| Enclosure                      | OPSB                                                                                        |
| Frame                          | 56                                                                                          |
| Frame Material                 | Steel                                                                                       |
| Frequency                      | 50.00 Hz<br>60.00 Hz                                                                        |
| Haz Area Class and Group       | None                                                                                        |
| Haz Area Division              | Not Applicable                                                                              |
| Motor Letter Type              | Three Phase                                                                                 |
| Output @ Frequency             | 1.500 HP @ 60 HZ<br>1.500 HP @ 50 HZ                                                        |
| Phase                          | 3                                                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                                                            |
| Voltage @ Frequency            | 190.0 V @ 50 HZ<br>208.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ<br>460.0 V @ 60 HZ |
| Agency Approvals               | CE<br>WEEE<br>UKCA<br>CURUSEEV<br>IE3<br>NEMA PREMIUM                                       |
| 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              | 5.400 A @ 190.0 V<br>4.600 A @ 230.0 V<br>4.600 A @ 208.0 V<br>2.700 A @ 380.0 V            |

## Part detail

|              |            |
|--------------|------------|
| Revision     | E          |
| Type         | AC         |
| Mech. spec.  | 35Z946     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGZ801   |
| Layout       | 35LYZ946   |
| Eff. date    | 05-08-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18 Y     |
| Proprietary  | False      |
| Created date | 08-24-2023 |

2.300 A @ 460.0 V

|                               |                           |
|-------------------------------|---------------------------|
| Design Code                   | B                         |
| Drip Cover                    | No Drip Cover             |
| Duty Rating                   | CONT                      |
| Efficiency @ 100% Load        | 86.5 %                    |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device               | NO FEEDBACK               |
| Front Shaft Indicator         | None                      |
| Heater Indicator              | No Heater                 |
| High Voltage Full Load Amps   | 2.3 a                     |
| Insulation Class              | F                         |
| Inverter Code                 | Inverter Duty             |
| KVA Code                      | K                         |
| Lifting Lugs                  | No Lifting Lugs           |
| Locked Bearing Indicator      | Locked Bearing            |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                |
| Motor Lead Termination        | Flying Leads              |
| Motor Standards               | NEMA                      |
| Motor Type                    | 3528M                     |
| Mounting Arrangement          | F1                        |
| Number of Poles               | 4                         |
| Overall Length                | 12.06 IN                  |
| Power Factor                  | 80                        |
| 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                | 0.625 IN                  |
| Shaft Ground Indicator        | Shaft Grounding           |
| Shaft Rotation                | Reversible                |
| Shaft Slinger Indicator       | No Slinger                |

|                                   |                     |
|-----------------------------------|---------------------|
| <b>Speed</b>                      | 1445 rpm            |
|                                   | 1755 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

| NP4304L        |                              |               |          |        |    |       |      |    |    |
|----------------|------------------------------|---------------|----------|--------|----|-------|------|----|----|
| CAT.NO.        | GNEM31154-G                  |               |          |        |    |       |      |    |    |
| SPEC.          | 35Z946Z801G1                 |               |          |        |    |       |      |    |    |
| HP             | 1.5/1.1KW                    |               |          |        |    | PH    | 3    |    |    |
| VOLTS          | 208-230/460//190/380         |               |          |        |    |       |      |    |    |
| AMPS           | 4.6/2.3//5.4/2.7             |               |          |        |    |       |      |    |    |
| R.P.M. (1/MIN) | 1755//1445                   |               |          |        |    | WT.   | 19KG |    | KG |
| FRAME          | 56                           |               | HZ       | 60//50 |    |       | I.P. | 22 |    |
| SER.F.         | 1.15                         | CODE          | K        | DES.   | B  | CLASS | H    |    |    |
| NOM.EFF.       | 86.5//84.2                   |               | % (100%) |        |    |       |      |    |    |
| P.F.           | 80                           | IC01, 10:1 VT |          |        |    |       |      |    |    |
| RATING         | 40C AMB-S1 CONT              |               |          |        | CC | 010A  |      |    |    |
| DE             | 6205                         |               | ODE      | 6203   |    |       |      |    |    |
| ENCL           | OPSB                         | SN            |          |        |    |       |      |    |    |
|                | SFA 5.2-5/2.5//6/3           |               |          |        |    |       |      |    |    |
|                | IE3-50HZ-85.5(75%),83.8(50%) |               |          |        |    |       |      |    |    |
|                | IE3-60HZ-86.3(75%),84.1(50%) |               |          |        |    |       |      |    |    |

## AC Induction Motor Performance Data

Record # 102727

Preliminary Data Sheet

| Winding: 35WGZ801-R043 |                      | Type: 3528M            | Enclosure: OPEN                          |                       |             |              |
|------------------------|----------------------|------------------------|------------------------------------------|-----------------------|-------------|--------------|
| Nameplate Data         |                      |                        | 460 V, 60 Hz:<br>High Voltage Connection |                       |             |              |
| Rated Output (HP)      | 1.5                  | Full Load Torque       | 4.51 LB-FT                               |                       |             |              |
| Volts                  | 208-230/460//190/380 | Start Configuration    | direct on line                           |                       |             |              |
| Full Load Amps         | 4.6/2.3//5.4/2.7     | Breakdown Torque       | 21.49 LB-FT                              |                       |             |              |
| R.P.M.                 | 1755//1445           | Pull-up Torque         | 14.77 LB-FT                              |                       |             |              |
| Hz                     | 60//50               | Phase                  | 3                                        | Locked-rotor Torque   | 18.15 LB-FT |              |
| NEMA Design Code       | B                    | KVA Code               | K                                        | Starting Current      | 20.62 A     |              |
| Service Factor (S.F.)  | 1.15                 | No-load Current        | 1.45 A                                   |                       |             |              |
| NEMA Nom. Eff.         | 86.5                 | Power Factor           | 80                                       | Line-line Res. @ 25°C | 9.85 Ω      |              |
| Rating - Duty          | 40C                  | AMB-CONT               | Temp. Rise @ Rated Load                  |                       |             | 41°C         |
| S.F. Amps              | 5.2-5/2.5//6/3       | Temp. Rise @ S.F. Load |                                          |                       | 48°C        |              |
|                        |                      |                        | Locked-rotor Power Factor                |                       |             | 60.6         |
|                        |                      |                        | Rotor inertia                            |                       |             | 0.188 lb-ft² |

## Load Characteristics 460 V, 60 Hz, 1.5 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 32   | 50   | 63   | 72   | 78   | 82   | 76   |
| Efficiency      | 75.2 | 84.1 | 86.3 | 86.7 | 86.2 | 85   | 86.4 |
| Speed           | 1788 | 1777 | 1766 | 1754 | 1741 | 1727 | 1746 |
| Line amperes    | 1.52 | 1.69 | 1.95 | 2.26 | 2.63 | 3.05 | 2.48 |

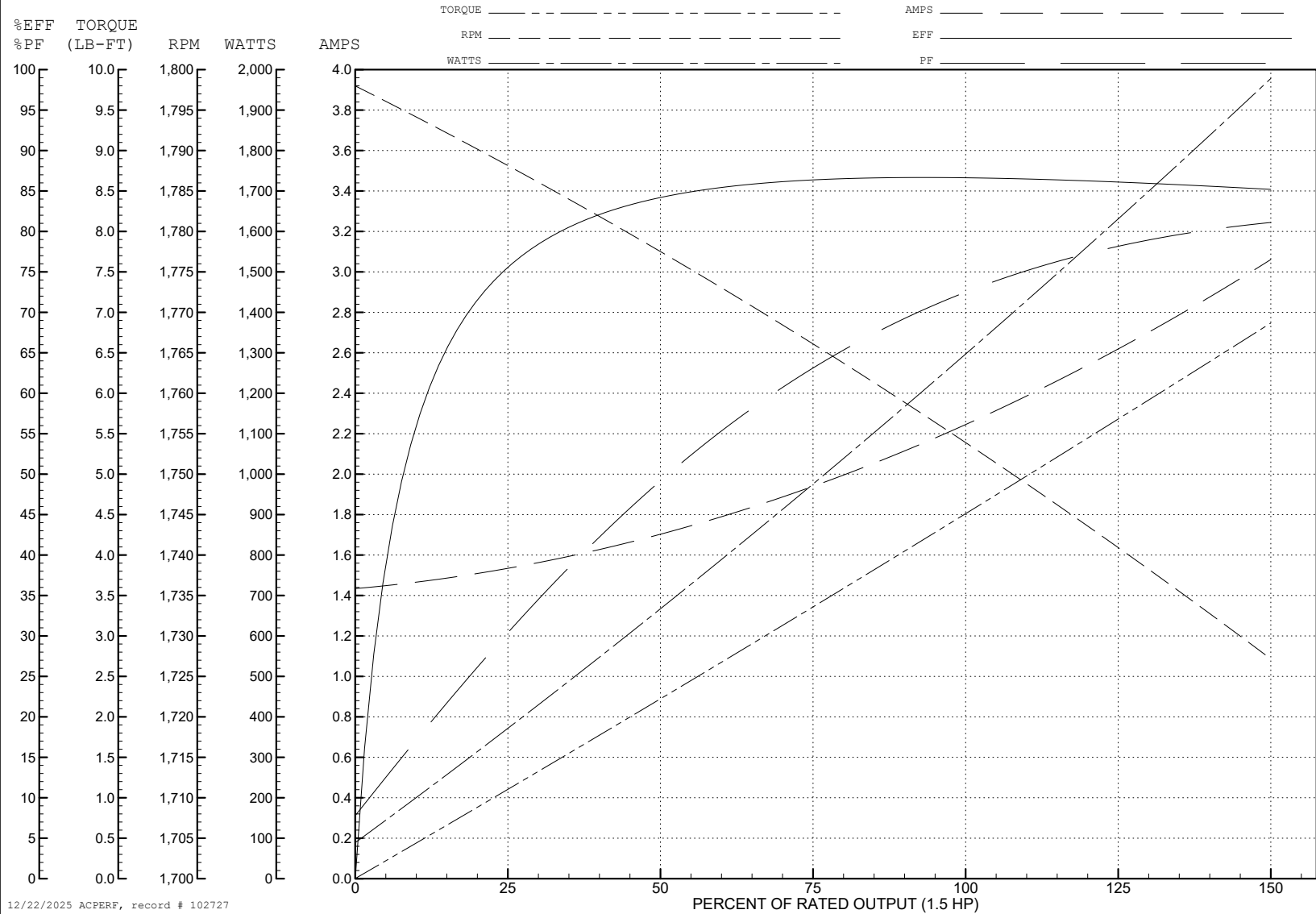
ABB Motors and Mechanical Inc.

WINDING # 35WGZ801

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1754 RPM 460 V 3528M

TORQUES (LB-FT): PO=21.49 PU=14.77 LR=18.15 LRA=20.62



## AC Induction Motor Performance Data

Record # 102728

Typical performance - not guaranteed values

| Winding: 35WGZ801-R043 |                      | Type: 3528M                              | Enclosure: OPEN         |                       |              |      |
|------------------------|----------------------|------------------------------------------|-------------------------|-----------------------|--------------|------|
| Nameplate Data         |                      | 380 V, 50 Hz:<br>High Voltage Connection |                         |                       |              |      |
| Rated Output (HP)      | 1.5                  | Full Load Torque                         | 5.45 LB-FT              |                       |              |      |
| Volts                  | 208-230/460//190/380 | Start Configuration                      | direct on line          |                       |              |      |
| Full Load Amps         | 4.6/2.3//5.4/2.7     | Breakdown Torque                         | 20.8 LB-FT              |                       |              |      |
| R.P.M.                 | 1755//1445           | Pull-up Torque                           | 16.9 LB-FT              |                       |              |      |
| Hz                     | 60//50               | Phase                                    | 3                       | Locked-rotor Torque   | 18.1 LB-FT   |      |
| NEMA Design Code       | B                    | KVA Code                                 | K                       | Starting Current      | 19 A         |      |
| Service Factor (S.F.)  | 1.15                 | No-load Current                          | 1.64 A                  |                       |              |      |
| NEMA Nom. Eff.         | 86.5                 | Power Factor                             | 80                      | Line-line Res. @ 25°C | 9.85 Ω       |      |
| Rating - Duty          | 40C                  | AMB-CONT                                 | Temp. Rise @ Rated Load |                       |              | 57°C |
| S.F. Amps              | 5.2-5/2.5//6/3       | Temp. Rise @ S.F. Load                   |                         |                       | 70°C         |      |
|                        |                      | Locked-rotor Power Factor                |                         |                       | 66.2         |      |
|                        |                      | Rotor inertia                            |                         |                       | 0.188 lb-ft² |      |

## Load Characteristics 380 V, 50 Hz, 1.5 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 33   | 53   | 67   | 75   | 81   | 84   | 79   |
| Efficiency      | 76.1 | 83.8 | 85.5 | 85.1 | 83.8 | 81.8 | 84.3 |
| Speed           | 1488 | 1475 | 1460 | 1445 | 1428 | 1409 | 1435 |
| Line amperes    | 1.71 | 1.92 | 2.24 | 2.66 | 3.14 | 3.71 | 2.95 |

ABB Motors and Mechanical Inc.

WINDING # 35WGZ801

Typical performance - not guaranteed values.

1.5 HP 3 PH 50 HZ 1445 RPM 380 V 3528M

TORQUES (LB-FT): PO=20.8 PU=16.9 LR=18.1 LRA=19

