Data sheets - Siemens SIMOTICS GP motors

0.18 kW / 1000 rpm - 10 article numbers in this file

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Data sheet

1LA7070-6AA10

SIMOTICS GP low-voltage motor - aluminum series 1LA7

0.18 kW / 1000 rpm

Frame size 071 M | Article No. 1LA7070-6AA10 | mounting IM B3

GENERAL DATA

Motor series	**1LA7 (aluminum)**
Article No.	**1LA7070-6AA10**
Frame size	**071 M**
Number of poles	**6**
Housing material	**Aluminum**
Degree of protection	**IP55**
Cooling	**Self-ventilated (IC 411)**
Insulation / utilization	**Thermal class 155 (F) / utilized to 130 (B)**
Duty type	**S1 (continuous duty)**
Rotor	**Squirrel-cage**
Efficiency class (IEC 60034-30)	**not classified (below IE1 range)**
Voltage / connection	**230 V Δ / 400 V Y (50 Hz), 460 V Y (60 Hz)**
Type of construction	**IM B3 (also B6, B7, B8, V5, V6)**
Net weight (IM B3)	**4.8 kg**

ELECTRICAL DATA - 400 V, 50 HZ

Rated power, 50 Hz	**0.18 kW (0.24 HP)**
Rated speed, 50 Hz	**850 rpm (synchronous 1000 rpm)**
Rated torque	**2 Nm**
Rated current at 400 V	**0.67 A**
No-load current	**0.65 A**
Power factor cos φ	**0.68**
Efficiency at 4/4 | 3/4 | 2/4 load	**57.3 | 55.8 | 51.3 %**
Locked-rotor current ratio (I_LR/I_N)	**2.3**
Locked-rotor torque ratio (T_LR/T_N)	**2.1**
Breakdown torque ratio (T_B/T_N)	**1.9**
Moment of inertia J	**0.00055 kgm²**
Torque class	**16**

60 HZ OPERATION

Rated power at 60 Hz (460 V)	**0.21 kW**
Synchronous speed at 60 Hz	**1200 rpm**
Speed / efficiency / current at 60 Hz	**not listed in the catalog (DT Configurator)**

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Source: Siemens Distribution brochure (07/2014), Chapter 2, p. 18. Dimensions: see the same catalog.
Compiled from the manufacturer's catalog data for reference. It is not an official Siemens document - verify against the current Siemens data sheet before ordering.
Data at rated power, 400 V / 50 Hz, ambient 40 °C, altitude up to 1000 m.

Data sheet

SIMOTICS GP low-voltage motor - aluminum series 1LA7

1LA7070-6AA11

0.18 kW / 1000 rpm

Frame size 071 M | Article No. 1LA7070-6AA11 | mounting IM B5

GENERAL DATA

Motor series	**1LA7 (aluminum)**
Article No.	**1LA7070-6AA11**
Frame size	**071 M**
Number of poles	**6**
Housing material	**Aluminum**
Degree of protection	**IP55**
Cooling	**Self-ventilated (IC 411)**
Insulation / utilization	**Thermal class 155 (F) / utilized to 130 (B)**
Duty type	**S1 (continuous duty)**
Rotor	**Squirrel-cage**
Efficiency class (IEC 60034-30)	**not classified (below IE1 range)**
Voltage / connection	**230 V Δ / 400 V Y (50 Hz), 460 V Y (60 Hz)**
Type of construction	**IM B5 (also V1, V3)**
Net weight (IM B3)	**4.8 kg**

ELECTRICAL DATA - 400 V, 50 HZ

Rated power, 50 Hz	**0.18 kW (0.24 HP)**
Rated speed, 50 Hz	**850 rpm (synchronous 1000 rpm)**
Rated torque	**2 Nm**
Rated current at 400 V	**0.67 A**
No-load current	**0.65 A**
Power factor cos φ	**0.68**
Efficiency at 4/4 | 3/4 | 2/4 load	**57.3 | 55.8 | 51.3 %**
Locked-rotor current ratio (I_LR/I_N)	**2.3**
Locked-rotor torque ratio (T_LR/T_N)	**2.1**
Breakdown torque ratio (T_B/T_N)	**1.9**
Moment of inertia J	**0.00055 kgm²**
Torque class	**16**

60 HZ OPERATION

Rated power at 60 Hz (460 V)	**0.21 kW**
Synchronous speed at 60 Hz	**1200 rpm**
Speed / efficiency / current at 60 Hz	**not listed in the catalog (DT Configurator)**

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Data at rated power, 400 V / 50 Hz, ambient 40 °C, altitude up to 1000 m.

Data sheet

SIMOTICS GP low-voltage motor - aluminum series 1LA7

1LA7070-6AA12

0.18 kW / 1000 rpm

Frame size 071 M | Article No. 1LA7070-6AA12 | mounting IM B14

GENERAL DATA

Motor series	**1LA7 (aluminum)**
Article No.	**1LA7070-6AA12**
Frame size	**071 M**
Number of poles	**6**
Housing material	**Aluminum**
Degree of protection	**IP55**
Cooling	**Self-ventilated (IC 411)**
Insulation / utilization	**Thermal class 155 (F) / utilized to 130 (B)**
Duty type	**S1 (continuous duty)**
Rotor	**Squirrel-cage**
Efficiency class (IEC 60034-30)	**not classified (below IE1 range)**
Voltage / connection	**230 V Δ / 400 V Y (50 Hz), 460 V Y (60 Hz)**
Type of construction	**IM B14 (also V18, V19)**
Net weight (IM B3)	**4.8 kg**

ELECTRICAL DATA - 400 V, 50 HZ

Rated power, 50 Hz	**0.18 kW (0.24 HP)**
Rated speed, 50 Hz	**850 rpm (synchronous 1000 rpm)**
Rated torque	**2 Nm**
Rated current at 400 V	**0.67 A**
No-load current	**0.65 A**
Power factor cos φ	**0.68**
Efficiency at 4/4 | 3/4 | 2/4 load	**57.3 | 55.8 | 51.3 %**
Locked-rotor current ratio (I_LR/I_N)	**2.3**
Locked-rotor torque ratio (T_LR/T_N)	**2.1**
Breakdown torque ratio (T_B/T_N)	**1.9**
Moment of inertia J	**0.00055 kgm²**
Torque class	**16**

60 HZ OPERATION

Rated power at 60 Hz (460 V)	**0.21 kW**
Synchronous speed at 60 Hz	**1200 rpm**
Speed / efficiency / current at 60 Hz	**not listed in the catalog (DT Configurator)**

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Data at rated power, 400 V / 50 Hz, ambient 40 °C, altitude up to 1000 m.

Data sheet

SIMOTICS GP low-voltage motor - series 1LE1002 (IE1)

1LE1002-0CC22-2AA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B3 | Article No. 1LE1002-0CC22-2AA4

GENERAL DATA

Series / efficiency class	**1LE1002 / IE1**
Housing	**Aluminum**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**5 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**0.21 kW**
Rated speed (50 Hz)	**875 rpm**
Rated torque	**1.96 Nm**
Rated current	**0.85 A**
Power factor	**0.67**
Efficiency 4/4 | 3/4 | 2/4	**45.5 | 44.4 | 38.3 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2 | 1.9 | 2**
Moment of inertia J	**0.00055 kgm2**
Sound pressure / power LpfA | LWA	**47 | 58 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (09/2023), table 1LE1002, p. 3/53**

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60 Hz speed/efficiency are not listed in the catalogs (see Siemens DT Configurator).

Data sheet

SIMOTICS GP low-voltage motor - series 1LE1002 (IE1)

1LE1002-0CC22-2FA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B5 | Article No. 1LE1002-0CC22-2FA4

GENERAL DATA

Series / efficiency class	**1LE1002 / IE1**
Housing	**Aluminum**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**5 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**0.21 kW**
Rated speed (50 Hz)	**875 rpm**
Rated torque	**1.96 Nm**
Rated current	**0.85 A**
Power factor	**0.67**
Efficiency 4/4 | 3/4 | 2/4	**45.5 | 44.4 | 38.3 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2 | 1.9 | 2**
Moment of inertia J	**0.00055 kgm2**
Sound pressure / power LpfA | LWA	**47 | 58 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (09/2023), table 1LE1002, p. 3/53**

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Data sheet

SIMOTICS GP low-voltage motor - series 1LE1002 (IE1)

1LE1002-0CC22-2KA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B14 | Article No. 1LE1002-0CC22-2KA4

GENERAL DATA

Series / efficiency class	**1LE1002 / IE1**
Housing	**Aluminum**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**5 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**0.21 kW**
Rated speed (50 Hz)	**875 rpm**
Rated torque	**1.96 Nm**
Rated current	**0.85 A**
Power factor	**0.67**
Efficiency 4/4 | 3/4 | 2/4	**45.5 | 44.4 | 38.3 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2 | 1.9 | 2**
Moment of inertia J	**0.00055 kgm2**
Sound pressure / power LpfA | LWA	**47 | 58 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (09/2023), table 1LE1002, p. 3/53**

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Data sheet

SIMOTICS GP low-voltage motor - series 1LE1501 (IE2)

1LE1501-0CC22-2AA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B3 | Article No. 1LE1501-0CC22-2AA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**12 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**0.21 kW**
Rated speed (50 Hz)	**875 rpm**
Rated torque	**2 Nm**
Rated current	**0.68 A**
Power factor	**0.68**
Efficiency 4/4 | 3/4 | 2/4	**56.6 | 56.9 | 52.7 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2.5 | 2.2 | 2.3**
Moment of inertia J	**0.0008 kgm2**
Sound pressure / power LpfA | LWA	**46 | 57 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1501, p. 2/34 (PDF 152)**

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60 Hz speed/efficiency are not listed in the catalogs (see Siemens DT Configurator).

Data sheet

SIMOTICS GP low-voltage motor - series 1LE1501 (IE2)

1LE1501-0CC22-2FA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B5 | Article No. 1LE1501-0CC22-2FA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**12 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**0.21 kW**
Rated speed (50 Hz)	**875 rpm**
Rated torque	**2 Nm**
Rated current	**0.68 A**
Power factor	**0.68**
Efficiency 4/4 | 3/4 | 2/4	**56.6 | 56.9 | 52.7 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2.5 | 2.2 | 2.3**
Moment of inertia J	**0.0008 kgm2**
Sound pressure / power LpfA | LWA	**46 | 57 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1501, p. 2/34 (PDF 152)**

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60 Hz speed/efficiency are not listed in the catalogs (see Siemens DT Configurator).

Data sheet

SIMOTICS GP low-voltage motor - series 1LE1503 (IE3)

1LE1503-0CC22-2AA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B3 | Article No. 1LE1503-0CC22-2AA4

GENERAL DATA

Series / efficiency class	**1LE1503 / IE3**
Housing	**Cast iron**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**13 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**not listed (catalog 09/2023)**
Rated speed (50 Hz)	**885 rpm**
Rated torque	**1.94 Nm**
Rated current	**0.59 A**
Power factor	**0.69**
Efficiency 4/4 | 3/4 | 2/4	**63.9 | 64.8 | 60.8 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2.8 | 2.3 | 2.3**
Moment of inertia J	**0.00098 kgm2**
Sound pressure / power LpfA | LWA	**39 | 50 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (09/2023), table 1LE1503, p. 3/21**

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60 Hz speed/efficiency are not listed in the catalogs (see Siemens DT Configurator).

Data sheet

SIMOTICS GP low-voltage motor - series 1LE1503 (IE3)

1LE1503-0CC22-2FA4

0.18 kW / 1000 rpm

Frame 71 M | 6 poles | IM B5 | Article No. 1LE1503-0CC22-2FA4

GENERAL DATA

Series / efficiency class	**1LE1503 / IE3**
Housing	**Cast iron**
Frame size	**71 M**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**230 D / 400 Y V (50 Hz)**
Net weight (IM B3)	**13 kg**

ELECTRICAL DATA

Rated power 50 Hz	**0.18 kW (about 0.24 HP)**
Rated power 60 Hz	**not listed (catalog 09/2023)**
Rated speed (50 Hz)	**885 rpm**
Rated torque	**1.94 Nm**
Rated current	**0.59 A**
Power factor	**0.69**
Efficiency 4/4 | 3/4 | 2/4	**63.9 | 64.8 | 60.8 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**2.8 | 2.3 | 2.3**
Moment of inertia J	**0.00098 kgm2**
Sound pressure / power LpfA | LWA	**39 | 50 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (09/2023), table 1LE1503, p. 3/21**

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60 Hz speed/efficiency are not listed in the catalogs (see Siemens DT Configurator).