Data sheets - Siemens SIMOTICS GP motors

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Data sheet

1LE1502-3AC43-4AA4

SIMOTICS GP low-voltage motor - cast-iron series 1LE1502 Basic Line (IE1)

110 kW / 1000 rpm

Frame size 315 L | Article No. 1LE1502-3AC43-4AA4 | mounting IM B3

GENERAL DATA

Motor series	**1LE1502 Basic Line (cast iron)**
Article No.	**1LE1502-3AC43-4AA4**
Frame size	**315 L**
Number of poles	**6**
Housing material	**Cast iron**
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)	**IE1**
Voltage / connection	**400 V Δ / 690 V Y (50 Hz), 460 V Δ (60 Hz)**
Type of construction	**IM B3 (basic type, without flange)**
Net weight (IM B3)	**880 kg**

ELECTRICAL DATA - 400 V, 50 HZ

Rated power, 50 Hz	**110 kW (150 HP)**
Rated speed, 50 Hz	**988 rpm (synchronous 1000 rpm)**
Rated torque	**1063 Nm**
Rated current at 400 V	**198 A**
Power factor cos φ	**0.86**
Efficiency at 4/4 | 3/4 | 2/4 load	**93.3 | 93.6 | 93.4 %**
Locked-rotor current ratio (I_LR/I_N)	**6.8**
Locked-rotor torque ratio (T_LR/T_N)	**2.6**
Breakdown torque ratio (T_B/T_N)	**2.8**
Moment of inertia J	**3.2 kgm²**
Sound pressure level LpfA (50 Hz)	**61 dB(A)**
Sound power level LWA (50 Hz)	**78 dB(A)**

60 HZ OPERATION

Rated power at 60 Hz (460 V)	**132 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 Catalog D 81.1 (05/2018), p. 2/50. 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 - series 1LE0102 (IE1)

1LE0102-3AC53-4AA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE0102-3AC53-4AA4

GENERAL DATA

Series / efficiency class	**1LE0102 / IE1**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**915 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**986 rpm**
Rated torque	**1066 Nm**
Rated current	**200 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**93.3 | 93.9 | 93.8 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.4 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0102, p. 22 (PDF 22)**

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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 1LE0102 (IE1)

1LE0102-3AC53-4FA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B5 | Article No. 1LE0102-3AC53-4FA4

GENERAL DATA

Series / efficiency class	**1LE0102 / IE1**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**915 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**986 rpm**
Rated torque	**1066 Nm**
Rated current	**200 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**93.3 | 93.9 | 93.8 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.4 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0102, p. 22 (PDF 22)**

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Data sheet

SIMOTICS GP low-voltage motor - series 1LE0102 (IE1)

1LE0102-3AC54-1AA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE0102-3AC54-1AA4

GENERAL DATA

Series / efficiency class	**1LE0102 / IE1**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**525 V D**
Net weight (IM B3)	**915 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**986 rpm**
Rated torque	**1066 Nm**
Rated current	**152 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**93.3 | 93.9 | 93.8 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.4 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0102, p. 27 (PDF 27)**

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Data sheet

SIMOTICS GP low-voltage motor - series 1LE0102 (IE1)

1LE0102-3AC54-1FA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B5 | Article No. 1LE0102-3AC54-1FA4

GENERAL DATA

Series / efficiency class	**1LE0102 / IE1**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**525 V D**
Net weight (IM B3)	**915 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**986 rpm**
Rated torque	**1066 Nm**
Rated current	**152 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**93.3 | 93.9 | 93.8 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.4 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0102, p. 27 (PDF 27)**

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Data sheet

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

1LE1501-3AC43-4AA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE1501-3AC43-4AA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**940 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**988 rpm**
Rated torque	**1063 Nm**
Rated current	**196 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**94.3 | 94.6 | 94.5 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**7 | 2.7 | 2.8**
Moment of inertia J	**3.6 kgm2**
Sound pressure / power LpfA | LWA	**68 | 82 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 1LE0101 (IE2)

1LE0101-3AC53-4AB4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE0101-3AC53-4AB4

GENERAL DATA

Series / efficiency class	**1LE0101 / IE2**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**975 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**988 rpm**
Rated torque	**1063 Nm**
Rated current	**195 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**94.3 | 94.7 | 94.6 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.9 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0101, p. 25 (PDF 25)**

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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 1LE0101 (IE2)

1LE0101-3AC53-4FB4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B5 | Article No. 1LE0101-3AC53-4FB4

GENERAL DATA

Series / efficiency class	**1LE0101 / IE2**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**975 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**988 rpm**
Rated torque	**1063 Nm**
Rated current	**195 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**94.3 | 94.7 | 94.6 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.9 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0101, p. 25 (PDF 25)**

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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 1LE0101 (IE2)

1LE0101-3AC54-1AB4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE0101-3AC54-1AB4

GENERAL DATA

Series / efficiency class	**1LE0101 / IE2**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**525 V D**
Net weight (IM B3)	**975 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**988 rpm**
Rated torque	**1063 Nm**
Rated current	**148 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**94.3 | 94.7 | 94.6 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.9 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0101, p. 29 (PDF 29)**

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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 1LE0101 (IE2)

1LE0101-3AC54-1FB4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B5 | Article No. 1LE0101-3AC54-1FB4

GENERAL DATA

Series / efficiency class	**1LE0101 / IE2**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**525 V D**
Net weight (IM B3)	**975 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**132 kW**
Rated speed (50 Hz)	**988 rpm**
Rated torque	**1063 Nm**
Rated current	**148 A**
Power factor	**0.86**
Efficiency 4/4 | 3/4 | 2/4	**94.3 | 94.7 | 94.6 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.5 | 2.2 | 2.7**
Moment of inertia J	**3.9 kgm2**

SOURCE OF DATA

Catalog 1	**Brochure 07/2014 (14050629), table 1LE0101, p. 29 (PDF 29)**

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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)

1LE1503-3AC43-4AA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE1503-3AC43-4AA4

GENERAL DATA

Series / efficiency class	**1LE1503 / IE3**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**990 kg**

ELECTRICAL DATA

Rated power 50 Hz	**110 kW (about 148 HP)**
Rated power 60 Hz	**not listed (catalog 09/2023)**
Rated speed (50 Hz)	**991 rpm**
Rated torque	**1060 Nm**
Rated current	**199 A**
Power factor	**0.84**
Efficiency 4/4 | 3/4 | 2/4	**95.1 | 95.5 | 95.3 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**7.2 | 2.8 | 3**
Moment of inertia J	**3.9 kgm2**
Sound pressure / power LpfA | LWA	**63 | 78 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 1LE1543 (IE3)

1LE1543-3AC43-4AA4

110 kW / 1000 rpm

Frame 315 L | 6 poles | IM B3 | Article No. 1LE1543-3AC43-4AA4

GENERAL DATA

Series / efficiency class	**1LE1543 / IE3**
Housing	**Cast iron**
Frame size	**315 L**
Poles	**6**
Degree of protection	**IP55**
Duty type	**S1**
Insulation	**Thermal class 155 (F), utilized to 130 (B)**
Voltage	**400 D / 690 Y V (50 Hz)**
Net weight (IM B3)	**990 kg**

ELECTRICAL DATA - CATALOG VALUES AT 60 HZ (APAC LINE)

Rated power (P50 rating)	**110 kW (about 148 HP)**
Rated power (P60 rating)	**132 kW**
Rated speed (60 Hz)	**1192 rpm**
Rated torque (60 Hz)	**881 Nm**
Rated current (460 V, 60 Hz)	**174 A**
Power factor (60 Hz)	**0.83**
Efficiency 4/4 | 3/4 | 2/4 (60 Hz)	**95.8 | 95.9 | 95.5 %**
I_LR/I_N | T_LR/T_N | T_B/T_N (60 Hz)	**8.2 | 3.2 | 3.4**
Moment of inertia J	**3.9 kgm2**
Sound pressure / power LpfA | LWA (60 Hz)	**64 | 79 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1543, p. 2/59 (PDF 177)**

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APAC Line: the catalog lists operating values at 60 Hz only; 50 Hz speed/efficiency are not listed (see Siemens DT Configurator).