Data sheets - Siemens SIMOTICS GP motors

18.5 kW / 750 rpm - 10 article numbers in this file

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Data sheet

1LE1502-2BD03-4AA4

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

18.5 kW / 750 rpm

Frame size 225 S | Article No. 1LE1502-2BD03-4AA4 | mounting IM B3

GENERAL DATA

Motor series	**1LE1502 Basic Line (cast iron)**
Article No.	**1LE1502-2BD03-4AA4**
Frame size	**225 S**
Number of poles	**8**
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)	**250 kg**

ELECTRICAL DATA - 400 V, 50 HZ

Rated power, 50 Hz	**18.5 kW (25 HP)**
Rated speed, 50 Hz	**730 rpm (synchronous 750 rpm)**
Rated torque	**242 Nm**
Rated current at 400 V	**39.5 A**
Power factor cos φ	**0.78**
Efficiency at 4/4 | 3/4 | 2/4 load	**86.9 | 87.8 | 87.4 %**
Locked-rotor current ratio (I_LR/I_N)	**5.5**
Locked-rotor torque ratio (T_LR/T_N)	**2.2**
Breakdown torque ratio (T_B/T_N)	**2.7**
Moment of inertia J	**0.43 kgm²**
Sound pressure level LpfA (50 Hz)	**59 dB(A)**
Sound power level LWA (50 Hz)	**72 dB(A)**

60 HZ OPERATION

Rated power at 60 Hz (460 V)	**22 kW**
Synchronous speed at 60 Hz	**900 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. 2/51. 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

1LE1502-2BD03-4FA4

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

18.5 kW / 750 rpm

Frame size 225 S | Article No. 1LE1502-2BD03-4FA4 | mounting IM B5

GENERAL DATA

Motor series	**1LE1502 Basic Line (cast iron)**
Article No.	**1LE1502-2BD03-4FA4**
Frame size	**225 S**
Number of poles	**8**
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 B5 (flange)**
Net weight (IM B3)	**250 kg**

ELECTRICAL DATA - 400 V, 50 HZ

Rated power, 50 Hz	**18.5 kW (25 HP)**
Rated speed, 50 Hz	**730 rpm (synchronous 750 rpm)**
Rated torque	**242 Nm**
Rated current at 400 V	**39.5 A**
Power factor cos φ	**0.78**
Efficiency at 4/4 | 3/4 | 2/4 load	**86.9 | 87.8 | 87.4 %**
Locked-rotor current ratio (I_LR/I_N)	**5.5**
Locked-rotor torque ratio (T_LR/T_N)	**2.2**
Breakdown torque ratio (T_B/T_N)	**2.7**
Moment of inertia J	**0.43 kgm²**
Sound pressure level LpfA (50 Hz)	**59 dB(A)**
Sound power level LWA (50 Hz)	**72 dB(A)**

60 HZ OPERATION

Rated power at 60 Hz (460 V)	**22 kW**
Synchronous speed at 60 Hz	**900 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 1LE1001 (IE2)

1LE1001-2AD63-4AA4

18.5 kW / 750 rpm

Frame 200 L | 8 poles | IM B3 | Article No. 1LE1001-2AD63-4AA4

GENERAL DATA

Series / efficiency class	**1LE1001 / IE2**
Housing	**Aluminum**
Frame size	**200 L**
Poles	**8**
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)	**198 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**720 rpm**
Rated torque	**245 Nm**
Rated current	**38.5 A**
Power factor	**0.78**
Efficiency 4/4 | 3/4 | 2/4	**88.6 | 89.9 | 90.2 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**5.8 | 2.6 | 3**
Moment of inertia J	**0.416 kgm2**
Sound pressure / power LpfA | LWA	**65 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1001, p. 2/31 (PDF 149)**

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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 1LE1001 (IE2)

1LE1001-2AD63-4FA4

18.5 kW / 750 rpm

Frame 200 L | 8 poles | IM B5 | Article No. 1LE1001-2AD63-4FA4

GENERAL DATA

Series / efficiency class	**1LE1001 / IE2**
Housing	**Aluminum**
Frame size	**200 L**
Poles	**8**
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)	**198 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**720 rpm**
Rated torque	**245 Nm**
Rated current	**38.5 A**
Power factor	**0.78**
Efficiency 4/4 | 3/4 | 2/4	**88.6 | 89.9 | 90.2 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**5.8 | 2.6 | 3**
Moment of inertia J	**0.416 kgm2**
Sound pressure / power LpfA | LWA	**65 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1001, p. 2/31 (PDF 149)**

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Data sheet

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

1LE1501-2BD03-4AA4

18.5 kW / 750 rpm

Frame 225 S | 8 poles | IM B3 | Article No. 1LE1501-2BD03-4AA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**225 S**
Poles	**8**
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)	**250 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**730 rpm**
Rated torque	**242 Nm**
Rated current	**38.5 A**
Power factor	**0.78**
Efficiency 4/4 | 3/4 | 2/4	**89 | 89.9 | 89.5 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**5.4 | 2.2 | 2.7**
Moment of inertia J	**0.43 kgm2**
Sound pressure / power LpfA | LWA	**59 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1501, p. 2/35 (PDF 153)**

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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)

1LE1501-2BD03-4FA4

18.5 kW / 750 rpm

Frame 225 S | 8 poles | IM B5 | Article No. 1LE1501-2BD03-4FA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**225 S**
Poles	**8**
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)	**250 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**730 rpm**
Rated torque	**242 Nm**
Rated current	**38.5 A**
Power factor	**0.78**
Efficiency 4/4 | 3/4 | 2/4	**89 | 89.9 | 89.5 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**5.4 | 2.2 | 2.7**
Moment of inertia J	**0.43 kgm2**
Sound pressure / power LpfA | LWA	**59 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1501, p. 2/35 (PDF 153)**

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Data sheet

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

1LE1501-2AD63-4AA4

18.5 kW / 750 rpm

Frame 200 L | 8 poles | IM B3 | Article No. 1LE1501-2AD63-4AA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**200 L**
Poles	**8**
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)	**250 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**720 rpm**
Rated torque	**245 Nm**
Rated current	**38.5 A**
Power factor	**0.78**
Efficiency 4/4 | 3/4 | 2/4	**88.6 | 89.9 | 90.2 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**5.8 | 2.6 | 3**
Moment of inertia J	**0.416 kgm2**
Sound pressure / power LpfA | LWA	**65 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1501, p. 2/41 (PDF 159)**

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Data sheet

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

1LE1501-2AD63-4FA4

18.5 kW / 750 rpm

Frame 200 L | 8 poles | IM B5 | Article No. 1LE1501-2AD63-4FA4

GENERAL DATA

Series / efficiency class	**1LE1501 / IE2**
Housing	**Cast iron**
Frame size	**200 L**
Poles	**8**
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)	**250 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**720 rpm**
Rated torque	**245 Nm**
Rated current	**38.5 A**
Power factor	**0.78**
Efficiency 4/4 | 3/4 | 2/4	**88.6 | 89.9 | 90.2 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**5.8 | 2.6 | 3**
Moment of inertia J	**0.416 kgm2**
Sound pressure / power LpfA | LWA	**65 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1501, p. 2/41 (PDF 159)**

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Data sheet

SIMOTICS GP low-voltage motor - series 1LE1502 (IE1)

1LE1502-2AD63-4AA4

18.5 kW / 750 rpm

Frame 200 L | 8 poles | IM B3 | Article No. 1LE1502-2AD63-4AA4

GENERAL DATA

Series / efficiency class	**1LE1502 / IE1**
Housing	**Cast iron**
Frame size	**200 L**
Poles	**8**
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)	**250 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**720 rpm**
Rated torque	**245 Nm**
Rated current	**40 A**
Power factor	**0.76**
Efficiency 4/4 | 3/4 | 2/4	**86.9 | 88.2 | 88.4 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.1 | 2.7 | 3.2**
Moment of inertia J	**0.416 kgm2**
Sound pressure / power LpfA | LWA	**59 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1502, p. 2/53 (PDF 171)**

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Data sheet

SIMOTICS GP low-voltage motor - series 1LE1502 (IE1)

1LE1502-2AD63-4FA4

18.5 kW / 750 rpm

Frame 200 L | 8 poles | IM B5 | Article No. 1LE1502-2AD63-4FA4

GENERAL DATA

Series / efficiency class	**1LE1502 / IE1**
Housing	**Cast iron**
Frame size	**200 L**
Poles	**8**
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)	**250 kg**

ELECTRICAL DATA

Rated power 50 Hz	**18.5 kW (about 25 HP)**
Rated power 60 Hz	**22 kW**
Rated speed (50 Hz)	**720 rpm**
Rated torque	**245 Nm**
Rated current	**40 A**
Power factor	**0.76**
Efficiency 4/4 | 3/4 | 2/4	**86.9 | 88.2 | 88.4 %**
I_LR/I_N | T_LR/T_N | T_B/T_N	**6.1 | 2.7 | 3.2**
Moment of inertia J	**0.416 kgm2**
Sound pressure / power LpfA | LWA	**59 | 72 dB(A)**

SOURCE OF DATA

Catalog 1	**Catalog D 81.1 (05/2018), table 1LE1502, p. 2/53 (PDF 171)**

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