

**Operating instructions** 



G130

Line reactors

Edition

11/2017

www.siemens.com/drives

# SIEMENS

| Safety information       | 1 |
|--------------------------|---|
| General                  | 2 |
| Mechanical installation  | 3 |
| Electrical installation  | 4 |
| Technical specifications | 5 |

# SINAMICS

# SINAMICS G130 Line reactors

**Operating Instructions** 

Firmware version V5.1

### Legal information

#### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

#### 

indicates that death or severe personal injury will result if proper precautions are not taken.

#### 

indicates that death or severe personal injury may result if proper precautions are not taken.

#### 

indicates that minor personal injury can result if proper precautions are not taken.

#### NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

#### **Qualified Personnel**

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

#### Proper use of Siemens products

Note the following:

#### <u>∕</u>MARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

#### Trademarks

All names identified by <sup>®</sup> are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

#### **Disclaimer of Liability**

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

# Table of contents

| 1 | Safety information |                             | 5  |
|---|--------------------|-----------------------------|----|
|   | 1.1                | General safety instructions | 5  |
| 2 | General            |                             | 11 |
| 3 | Mechanic           | al installation             | 15 |
| 4 | Electrical         | installation                | 19 |
| 5 | Technical          | specifications              | 21 |

# Safety information

# 1.1 General safety instructions



### 

#### Electric shock and danger to life due to other energy sources

Touching live components can result in death or serious injury.

- Only work on electrical equipment if you are appropriately qualified.
- Always observe the country-specific safety rules for all work.

Generally, the following steps apply when establishing safety:

- 1. Prepare for disconnection. Notify all those who will be affected by the procedure.
- 2. Isolate the drive system from the power supply and take measures to prevent it being switched back on again.
- 3. Wait until the discharge time specified on the warning labels has elapsed.
- 4. Check that there is no voltage between any of the power connections, and between any of the power connections and the protective conductor connection.
- 5. Check that every auxiliary circuit is de-energized.
- 6. Ensure that the motors cannot move.
- 7. Identify all other dangerous energy sources, e.g. compressed air, hydraulic systems or water. Switch the energy sources to a safe state.
- 8. Check that the correct drive system is completely locked.

After you have completed the work, restore the operational readiness by following the above steps in the reverse order.



### 

#### Electric shock due to connection to an unsuitable power supply

When equipment is connected to an unsuitable power supply, exposed components may carry a hazardous voltage that might result in serious injury or death.

 Only use power supplies that provide SELV (Safety Extra Low Voltage) or PELV (Protective Extra Low Voltage) output voltages for all connections and terminals of the electronics modules. 1.1 General safety instructions



#### 

#### Electric shock due to equipment damage

Improper handling may cause damage to equipment. For damaged devices, hazardous voltages can be present at the enclosure or at exposed components; if touched, this can result in death or severe injury.

- Ensure compliance with the limit values specified in the technical data during transport, storage and operation.
- Do not use any damaged devices.



# 

#### Electric shock due to unconnected cable shield

Hazardous touch voltages can occur through capacitive cross-coupling due to unconnected cable shields.

• Connect cable shields and unused conductors of power cables (e.g. brake conductors) at least on one side to the grounded housing potential.



### 

#### Electric shock if there is no ground connection

For missing or incorrectly implemented protective conductor connection for devices with protection class I, high voltages can be present at open, exposed parts, which when touched, can result in death or severe injury.

• Ground the device in compliance with the applicable regulations.



#### 

#### Arcing when a plug connection is opened during operation

Opening a plug connection when a system is in operation can result in arcing that may cause serious injury or death.

• Only open plug connections when the equipment is in a voltage-free state, unless it has been explicitly stated that they can be opened in operation.

#### NOTICE

#### Property damage due to loose power connections

Insufficient tightening torques or vibration can result in loose power connections. This can result in damage due to fire, device defects or malfunctions.

- Tighten all power connections to the prescribed torque.
- Check all power connections at regular intervals, particularly after equipment has been transported.

### 

#### Spread of fire from built-in devices

In the event of fire outbreak, the enclosures of built-in devices cannot prevent the escape of fire and smoke. This can result in serious personal injury or property damage.

- Install built-in units in a suitable metal cabinet in such a way that personnel are
  protected against fire and smoke, or take other appropriate measures to protect
  personnel.
- Ensure that smoke can only escape via controlled and monitored paths.

# 

#### Failure of pacemakers or implant malfunctions due to electromagnetic fields

Electromagnetic fields (EMF) are generated by the operation of electrical power equipment, such as transformers, converters, or motors. People with pacemakers or implants in the immediate vicinity of this equipment are at particular risk.

• If you have a heart pacemaker or implant, maintain a minimum distance of 2 m from electrical power equipment.

# 

#### Unexpected movement of machines caused by radio devices or mobile phones

When radio devices or mobile phones with a transmission power > 1 W are used in the immediate vicinity of components, they may cause the equipment to malfunction. Malfunctions may impair the functional safety of machines and can therefore put people in danger or lead to property damage.

- If you come closer than around 2 m to such components, switch off any radio devices or mobile phones.
- Use the "SIEMENS Industry Online Support App" only on equipment that has already been switched off.

# 

#### Motor fire in the event of insulation overload

There is a greater load on the motor insulation as result of a ground fault in an IT system. If the insulation fails, it is possible that death or severe injury can occur as a result of smoke and fire.

- Use a monitoring device that signals an insulation fault.
- Correct the fault as quickly as possible so the motor insulation is not overloaded.

#### 1.1 General safety instructions

### 

#### Fire due to inadequate ventilation clearances

Inadequate ventilation clearances can cause overheating of components with subsequent fire and smoke. This can cause severe injury or even death. This can also result in increased downtime and reduced service lives for devices/systems.

• Ensure compliance with the specified minimum clearance as ventilation clearance for the respective component.

# 

#### Unrecognized dangers due to missing or illegible warning labels

Dangers might not be recognized if warning labels are missing or illegible. Unrecognized dangers may cause accidents resulting in serious injury or death.

- Check that the warning labels are complete based on the documentation.
- Attach any missing warning labels to the components, where necessary in the national language.
- Replace illegible warning labels.

#### NOTICE

#### Device damage caused by incorrect voltage/insulation tests

Incorrect voltage/insulation tests can damage the device.

 Before carrying out a voltage/insulation check of the system/machine, disconnect the devices as all converters and motors have been subject to a high-voltage test by the manufacturer, and therefore it is not necessary to perform an additional test within the system/machine.

# 

#### Unexpected movement of machines caused by inactive safety functions

Inactive or non-adapted safety functions can trigger unexpected machine movements that may result in serious injury or death.

- Observe the information in the appropriate product documentation before commissioning.
- Carry out a safety inspection for functions relevant to safety on the entire system, including all safety-related components.
- Ensure that the safety functions used in your drives and automation tasks are adjusted and activated through appropriate parameterizing.
- Perform a function test.
- Only put your plant into live operation once you have absolutely guaranteed that the functions relevant to safety are operating correctly.

#### Note

#### Important safety instructions for Safety Integrated functions

If you want to use Safety Integrated functions, you must observe the safety instructions in the Safety Integrated manuals.

1.1 General safety instructions

# General

#### Description

Line reactors limit low-frequency line-side harmonics to permissible values.

### 

#### Non-observance of the fundamental safety instructions and residual risks

The non-observance of the fundamental safety instructions and residual risks stated in Chapter 1 can result in accidents with severe injuries or death.

- · Adhere to the fundamental safety instructions.
- When assessing the risk, take into account residual risks.

# 

#### Burns resulting from high surface temperature

The line reactors can become very hot. You can get seriously burnt when touching the surface.

- Mount the line reactors so that contact is not possible. If this is not possible, attach clearly visible and understandable warning notices at hazardous positions.
- To prevent adjacent components from suffering damage due to these high temperatures, maintain a clearance of 100 mm on all sides of the line reactors.

#### NOTICE

#### Damage of the system caused by the use of inappropriate and not approved line reactors

Inappropriate and not approved line reactors can damage the Line Modules.

Line harmonics that damage/disturb other loads connected to the same line supply can also occur.

• Only use line reactors listed in this manual.

#### Note

#### Malfunctions through magnetic fields

Reactors produce magnetic fields that can disturb or damage components and cables.

 Arrange the components and cables at a suitable distance (at least 200 mm) or shield the magnetic fields appropriately.

#### Note

#### Length of connection cables

The connection cables between line reactor and Line Module, as well as between line reactor and line filter, must be kept as short as possible (max. 5 m).

You must use shielded connection cables, whose cable shields are attached at both ends.

Shielding can only be omitted if the following conditions are met:

- The cables do not exceed 1 m in length.
- The cables are laid flush with the rear metal wall of the control cabinet.
- The cables are laid in a way that keeps them physically separate from signal cables.

Do not route any cables near the line reactor. If this cannot be avoided, observe a minimum distance of 200 mm.

#### Assignment of line reactor and Power Module

| Table 2-1 | Assignment of line reactor and Power Module |
|-----------|---|
|-----------|---|

| Power Module       | Unit rating of the Power Module    | Suitable line reactor |
|--------------------|------------------------------------|-----------------------|
|                    | Line voltage 3-phase 380 – 480 VAC |                       |
| 6SL3310-1GE32-1AA3 | 110 kW                             | 6SL3000-0CE32-3AA0    |
| 6SL3310-1GE32-6AA3 | 132 kW                             | 6SL3000-0CE32-8AA0    |
| 6SL3310-1GE33-1AA3 | 160 kW                             | 6SL3000-0CE33-3AA0    |
| 6SL3310-1GE33-8AA3 | 200 kW                             | 6SL3000-0CE35-1AA0    |
| 6SL3310-1GE35-0AA3 | 250 kW                             | 6SL3000-0CE35-1AA0    |
| 6SL3310-1GE36-1AA3 | 315 kW                             | 6SL3000-0CE36-3AA0    |
| 6SL3310-1GE37-5AA3 | 400 kW                             | 6SL3000-0CE37-7AA0    |
| 6SL3310-1GE38-4AA3 | 450 kW                             | 6SL3000-0CE38-7AA0    |
| 6SL3310-1GE41-0AA3 | 560 kW                             | 6SL3000-0CE41-0AA0    |
|                    | Line voltage 3-phase 500 – 600 VAC |                       |
| 6SL3310-1GF31-8AA3 | 110 kW                             | 6SL3000-0CH32-2AA0    |
| 6SL3310-1GF32-2AA3 | 132 kW                             | 6SL3000-0CH32-2AA0    |
| 6SL3310-1GF32-6AA3 | 160 kW                             | 6SL3000-0CH32-7AA0    |
| 6SL3310-1GF33-3AA3 | 200 kW                             | 6SL3000-0CH33-4AA0    |
| 6SL3310-1GF34-1AA3 | 250 kW                             | 6SL3000-0CH34-8AA0    |
| 6SL3310-1GF34-7AA3 | 315 kW                             | 6SL3000-0CH34-8AA0    |
| 6SL3310-1GF35-8AA3 | 400 kW                             | 6SL3000-0CH36-0AA0    |
| 6SL3310-1GF37-4AA3 | 500 kW                             | 6SL3000-0CH38-4AA0    |
| 6SL3310-1GF38-1AA3 | 560 kW                             | 6SL3000-0CH38-4AA0    |

| Power Module       | Unit rating of the Power Module    | Suitable line reactor |
|--------------------|------------------------------------|-----------------------|
|                    | Line voltage 3-phase 660 – 690 VAC |                       |
| 6SL3310-1GH28-5AA3 | 85 kW                              | 6SL3000-0CH31-1AA0    |
| 6SL3310-1GH31-0AA3 | 90 kW                              | 6SL3000-0CH31-1AA0    |
| 6SL3310-1GH31-2AA3 | 110 kW                             | 6SL3000-0CH31-6AA0    |
| 6SL3310-1GH31-5AA3 | 132 kW                             | 6SL3000-0CH31-6AA0    |
| 6SL3310-1GH31-8AA3 | 160 kW                             | 6SL3000-0CH32-2AA0    |
| 6SL3310-1GH32-2AA3 | 200 kW                             | 6SL3000-0CH32-2AA0    |
| 6SL3310-1GH32-6AA3 | 250 kW                             | 6SL3000-0CH32-7AA0    |
| 6SL3310-1GH33-3AA3 | 315 kW                             | 6SL3000-0CH33-4AA0    |
| 6SL3310-1GH34-1AA3 | 400 kW                             | 6SL3000-0CH34-8AA0    |
| 6SL3310-1GH34-7AA3 | 450 kW                             | 6SL3000-0CH34-8AA0    |
| 6SL3310-1GH35-8AA3 | 560 kW                             | 6SL3000-0CH36-0AA0    |
| 6SL3310-1GH37-4AA3 | 710 kW                             | 6SL3000-0CH38-4AA0    |
| 6SL3310-1GH38-1AA3 | 800 kW                             | 6SL3000-0CH38-4AA0    |

# Mechanical installation

### **Dimension drawing**

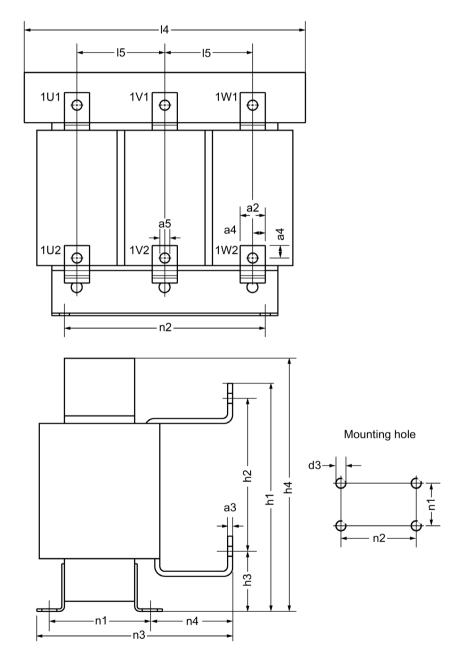


Figure 3-1 Dimension drawing of line reactor

| 6SL3000-         | 0CE32-3AA0<br>0CE32-8AA0<br>0CE33-3AA0 | 0CE35-1AA0<br>0CE36-3AA0<br>0CE37-7AA0 | 0CE38-7AA0 | 0CE41-0AA0 |
|------------------|--|--|------------|------------|
| a2               | 25                                     | 30                                     | 40         | 50         |
| a3               | 5                                      | 6                                      | 8          | 8          |
| a4               | 12.5                                   | 15                                     | 20         | 25         |
| a5               | 11                                     | 14                                     | 14         | 14         |
| 14               | 270                                    | 300                                    | 350        | 350        |
| 15               | 88                                     | 100                                    | 120        | 120        |
| h1               | -                                      | -                                      | 392        | 397        |
| h2               | 150                                    | 180                                    | 252        | 252        |
| h3               | 60                                     | 60                                     | 120        | 120        |
| h4               | 248                                    | 269                                    | 321        | 321        |
| n1 <sup>1)</sup> | 101                                    | 118                                    | 138        | 138        |
| n2 <sup>1)</sup> | 200                                    | 224                                    | 264        | 264        |
| n3               | 200                                    | 212.5                                  | 211.5      | 211.5      |
| n4               | 84.5                                   | 81                                     | 60         | 60         |
| d3               | M8                                     | M8                                     | M8         | M8         |

Table 3-1 Dimensions of line reactor, 380 V – 480 V 3 AC (all values in mm)

| $1 able 5^2$ Dimensions of line reactor, $500 v = 000 v 5 AC (all values in mini)$ | Table 3- 2 | Dimensions of line reactor, 500 V – 600 V 3 AC (all values in mm) |
|--|------------|---|
|--|------------|---|

| 6SL3000-                            | 0CH32-2AA0<br>0CH32-7AA0<br>0CH33-4AA0 | 0CH34-8AA0<br>0CH36-0AA0 | 0CH38-4AA0 |
|-------------------------------------|--|--------------------------|------------|
| a2                                  | 25                                     | 30                       | 40         |
| a3                                  | 5                                      | 6                        | 8          |
| a4                                  |  |                          | 20         |
| а5                                  | 11                                     | 14                       | 14         |
| 14                                  | 270                                    | 350                      | 410        |
| 15                                  | 88                                     | 120                      | 135        |
| h1                                  | -                                      | -                        | 392        |
| h2                                  | 150                                    | 198                      | 252        |
| h3                                  | 60                                     | 75                       | 120        |
| h4                                  | 248                                    | 321                      | 385        |
| n1 <sup>1)</sup>                    | 101                                    | 138                      | 141        |
| n2 1)                               | 200                                    | 264                      | 316        |
| n3                                  | 200                                    | 232.5                    | 224        |
| n4                                  | n4 84.5 81 56.                         |                          | 56.5       |
| d3                                  | M8                                     | M8                       | M10        |
| <sup>1)</sup> Lengths n1 and n2 cor | respond to the drill hole sp           | pacing                   |            |

| 6SL3000-                           | 0CH31-1AA0<br>0CH31-6AA0<br>0CH32-2AA0<br>0CH32-7AA0<br>0CH33-4AA0 | 0CH34-8AA0<br>0CH36-0AA0 | 0CH38-4AA0 |
|------------------------------------|--|--------------------------|------------|
| a2                                 | 25   | 30                       | 40         |
| a3                                 | 5  | 6                        | 8          |
| a4                                 | 12.5   | 15                       | 20         |
| а5                                 | 11   | 14                       | 14         |
| 14                                 | 270  | 350                      | 410        |
| 15                                 | 88   | 120                      | 135        |
| h1                                 | -  | -                        | 392        |
| h2                                 | 150  | 198                      | 252        |
| h3                                 | 60   | 75                       | 120        |
| h4                                 | 248  | 321                      | 385        |
| n1 <sup>1)</sup>                   | 101  | 138                      | 141        |
| n2 <sup>1)</sup>                   | 200  | 264                      | 316        |
| n3                                 | 200  | 232.5                    | 224        |
| n4                                 | 84.5   | 81                       | 56.5       |
| d3                                 | M8   | M8                       | M10        |
| <sup>1)</sup> Lengths n1 and n2 co | prrespond to the drill hole sp                                     | bacing                   |            |

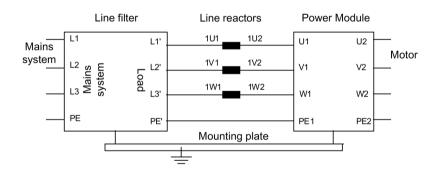
Table 3-3 Dimensions of line reactor, 660 V – 690 V 3 AC (all values in mm)

# **Electrical installation**

#### Connection

When connecting the line filter and line reactor, you must take into account the following conditions to ensure that they function correctly:

- Use shielded control cables. The shield must be connected at both ends.
- With analog control cables, connecting the shield at both ends can result in coupled-in noise. To prevent this, the shield must only be connected at one end on the Power Module.
- Control cables must be routed separately from power cables. Power cables are motor cables or connecting cables from the DC link of the Power Module (terminals DCPA/DCNA) to other components (e.g. Braking Module). In particular, you must ensure that control cables and power cables are not routed in parallel in a joint cable raceway, even if all the cables are shielded.
- You must use shielded motor cables. The shield for the motor cable must be attached to the shield plate and motor housing.
- The ground wire for the motor must be fed directly back to the Power Module.



#### **Connection overview**

Figure 4-1 Connecting the line filter, line reactor, and Power Module

# **Technical specifications**

#### General technical data

| Line frequency  | 47 63 Hz   |   |  |
|---|--|---|--|
| Product standard  | EN 61800-5-1   |   |  |
| Ambient conditions  | Storage  | Transport   | Operation  |
| Ambient temperature   | -25 +70 °C   | -25 +70 °C  | 0 +50 °C   |
| Relative air humidity <sup>1)</sup> (con-<br>densation not permissible)<br>corresponds to class | 5 <i>95%</i><br>1K4 according to EN 60721-<br>3-1                      | 5 95% at 40 °C<br>2K3 according to EN 60721-<br>3-2                     | 5 <i>95%</i><br>3K3 according to EN 60721-<br>3-3  |
| Mechanical strength   | Storage  | Transport   | Operation  |
| Vibrational load <sup>1)</sup><br>- Displacement<br>- Acceleration<br>corresponds to class      | 1.5 mm at <i>5</i> 9 Hz<br>5 m/s² at > 9 200 Hz<br>1M2 to EN 60721-3-1 | 3.5 mm at <i>5</i> 9 Hz<br>10 m/s² at > 9 200 Hz<br>2M2 to EN 60721-3-2 | 0.075 mm at 10 58 Hz<br>10 m/s² at >58 200 Hz<br>- |
| Shock load <sup>1)</sup><br>- Acceleration<br>corresponds to class                              | 40 m/s² at 22 ms<br>1M2 to EN 60721-3-1                                | 100 m/s² at 11 ms<br>2M2 to EN 60721-3-2                                | 100 m/s² at 11 ms<br>3M4 to EN 60721-3-3           |

Table 5-1 General technical data

Deviations from the specified classes are shown in *italics*.

<sup>1)</sup> The EN standards specified are the European editions of the international IEC standards with the same designations.

### Detailed technical data

| Article number                                       | 6SL3000-       | 0CE32-3AA0                                    | 0CE32-8AA0             | 0CE33-3AA0             | 0CE35-1AA0             |
|--|----------------|---|------------------------|------------------------|------------------------|
| Suitable for Power Module                            | 6SL3310-       | 1GE32-1AA3                                    | 1GE32-6AA3             | 1GE33-1AA3             | 1GE33-8AA3             |
| Unit rating of the Power Module                      | kW             | 110   | 132                    | 160                    | 200                    |
| Rated voltage  | V              | 3 AC 380 –10% to 3 AC 480 +10% (-15% < 1 min) |                        |                        |                        |
| I <sub>thmax</sub>                                   | А              | 224   | 278                    | 331                    | 508                    |
| Power loss   | kW             | 0.274   | 0.247                  | 0.267                  | 0.365                  |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M10 connecting<br>lugs                        | M10 connecting<br>lugs | M10 connecting<br>lugs | M12 connecting<br>lugs |
| Degree of protection                                 |                | IP00  | IP00                   | IP00                   | IP00                   |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 270<br>248<br>200                             | 270<br>248<br>200      | 270<br>248<br>200      | 300<br>269<br>212.5    |
| Weight   | kg             | 24.5  | 26.0                   | 27.8                   | 38.0                   |

Table 5-2 Technical data for line reactors 3 AC 380 V ... 480 V, part 1

| Table 5- 3 | Technical data for line reactors 3 AC 380 V 480 V, part 2 |
|------------|---|
|------------|---|

| Article number                                       | 6SL3000-       | 0CE35-1AA0             | 0CE36-3AA0             | 0CE37-7AA0             | 0CE38-7AA0             |
|--|----------------|------------------------|------------------------|------------------------|------------------------|
| Suitable for Power Module                            | 6SL3310-       | 1GE35-0AA3             | 1GE36-1AA3             | 1GE37-5AA3             | 1GE38-4AA3             |
| Unit rating of the Power Module                      | kW             | 250                    | 315                    | 400                    | 450                    |
| Rated voltage  | V              | 3 AC 3                 | 380 –10% to 3 AC 4     | 480 +10% (-15% <       | 1 min)                 |
| I <sub>thmax</sub>                                   | А              | 508                    | 628                    | 773                    | 871                    |
| Power loss   | kW             | 0.365                  | 0.368                  | 0.351                  | 0.458                  |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M12 connecting<br>lugs | M12 connecting<br>lugs | M12 connecting<br>lugs | M12 connecting<br>lugs |
| Degree of protection                                 |                | IP00                   | IP00                   | IP00                   | IP00                   |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 300<br>269<br>212.5    | 300<br>269<br>212.5    | 300<br>269<br>212.5    | 350<br>321<br>211.5    |
| Weight   | kg             | 38.0                   | 41.4                   | 51.3                   | 63.2                   |

| Article number                                       | 6SL3000-       | 0CE41-0AA0             |                  |                  |        |
|--|----------------|------------------------|------------------|------------------|--------|
| Suitable for Power Module                            | 6SL3310-       | 1GE41-0AA3             |                  |                  |        |
| Unit rating of the Power Module                      | kW             | 560                    |                  |                  |        |
| Rated voltage  | V              | 3 AC 3                 | 380 –10% to 3 AC | 480 +10% (-15% < | 1 min) |
| I <sub>thmax</sub>                                   | А              | 1060                   |                  |                  |        |
| Power loss   | kW             | 0.498                  |                  |                  |        |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M12 connecting<br>lugs |                  |                  |        |
| Degree of protection                                 |                | IP00                   |                  |                  |        |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 350<br>321<br>211.5    |                  |                  |        |
| Weight   | kg             | 69.6                   |                  |                  |        |

Table 5-4 Technical data for line reactors 3 AC 380 V ... 480 V, part 3

| Table E E  | Taskaisal data fauliusa |                     | COO \ /       |
|------------|-------------------------|---------------------|---------------|
| Table 5- 5 | Technical data for line | reactors 3 AC 500 V | 600 v, part 1 |

| Article number                                       | 6SL3000-       | 0CH32-2AA0               | 0CH32-7AA0             | 0CH33-4AA0             | 0CH34-8AA0               |
|--|----------------|--------------------------|------------------------|------------------------|--------------------------|
| Suitable for Power Module                            | 6SL3310-       | 1GF31-8AA3<br>1GF32-2AA3 | 1GF32-6AA3             | 1GF33-3AA3             | 1GF34-1AA3<br>1GF34-7AA3 |
| Unit rating of the Power Module                      | kW             | 110<br>132               | 160                    | 200                    | 250<br>315               |
| Rated voltage  | V              | 3 AC 5                   | 500 –10% to 3 AC 6     | 600 +10% (-15% <       | 1 min)                   |
| I <sub>thmax</sub>                                   | А              | 230                      | 270                    | 342                    | 482                      |
| Power loss   | kW             | 0.275                    | 0.277                  | 0.270                  | 0.48                     |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M10 connecting<br>lugs   | M10 connecting<br>lugs | M10 connecting<br>lugs | M12 connecting<br>lugs   |
| Degree of protection                                 |                | IP00                     | IP00                   | IP00                   | IP00                     |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 270<br>248<br>200        | 270<br>248<br>200      | 270<br>248<br>200      | 350<br>321<br>232.5      |
| Weight   | kg             | 31.1                     | 27.9                   | 38.9                   | 55.6                     |

| Article number                                       | 6SL3000-       | 0CH36-0AA0             | 0CH38-4AA0               |                    |      |
|--|----------------|------------------------|--------------------------|--------------------|------|
| Suitable for Power Module                            | 6SL3310-       | 1GF35-8AA3             | 1GF37-4AA3<br>1GF38-1AA3 |                    |      |
| Unit rating of the Power Module                      | kW             | 400                    | 500<br>560               |                    |      |
| Rated voltage  | V              | 3 AC :                 | 500 –10% to 3 AC 6       | 600 +10% (-15% < 1 | min) |
| Ithmax   | А              | 597                    | 840                      |                    |      |
| Power loss   | kW             | 0.485                  | 0.618                    |                    |      |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M12 connecting<br>lugs | M12 connecting<br>lugs   |                    |      |
| Degree of protection                                 |                | IP00                   | IP00                     |                    |      |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 350<br>321<br>232.5    | 410<br>385<br>224        |                    |      |
| Weight   | kg             | 63.8                   | 98                       |                    |      |

Table 5- 6 Technical data for line reactors 3 AC 500 V ... 600 V, part 2

| Table 5-7 | Technical data for line reactors 3 AC 660 V 690 V, part 1 |
|-----------|---|
|           |   |

| Article number                                       | 6SL3000-       | 0CH31-1AA0               | 0CH31-6AA0               | 0CH32-2AA0               | 0CH32-7AA0             |
|--|----------------|--------------------------|--------------------------|--------------------------|------------------------|
| Suitable for Power Module                            | 6SL3310-       | 1GH28-5AA3<br>1GH31-0AA3 | 1GH31-2AA3<br>1GH31-5AA3 | 1GH31-8AA3<br>1GH32-2AA3 | 1GH32-6AA3             |
| Unit rating of the Power Module                      | kW             | 75<br>90                 | 110<br>132               | 160<br>200               | 250                    |
| Rated voltage  | V              | 3 AC (                   | 660 –10% to 3 AC 6       | 690 +10% (-15% <         | 1 min)                 |
| I <sub>thmax</sub>                                   | А              | 107                      | 164                      | 230                      | 270                    |
| Power loss   | kW             | 0.252                    | 0.281                    | 0.275                    | 0.277                  |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M10 connecting<br>lugs   | M10 connecting<br>lugs   | M10 connecting<br>lugs   | M10 connecting<br>lugs |
| Degree of protection                                 |                | IP00                     | IP00                     | IP00                     | IP00                   |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 270<br>248<br>200        | 270<br>248<br>200        | 270<br>248<br>200        | 270<br>248<br>200      |
| Weight   | kg             | 24.4                     | 25.9                     | 31.1                     | 27.9                   |

| Article number                                       | 6SL3000-       | 0CH33-4AA0             | 0CH34-8AA0               | 0CH36-0AA0             | 0CH38-4AA0               |
|--|----------------|------------------------|--------------------------|------------------------|--------------------------|
| Suitable for Power Module                            | 6SL3310-       | 1GH33-3AA3             | 1GH34-1AA3<br>1GH34-7AA3 | 1GH35-8AA3             | 1GH37-4AA3<br>1GH38-1AA3 |
| Unit rating of the Power Module                      | kW             | 315                    | 400<br>450               | 560                    | 710<br>800               |
| Rated voltage  | V              | 3 AC 6                 | 660 –10% to 3 AC 6       | 690 +10% (-15% <       | 1 min)                   |
| I <sub>thmax</sub>                                   | А              | 342                    | 482                      | 597                    | 840                      |
| Power loss   | kW             | 0.270                  | 0.478                    | 0.485                  | 0.618                    |
| Line/load connection<br>1U1, 1V1, 1W1, 1U2, 1V2, 1W2 |                | M10 connecting<br>lugs | M12 connecting<br>lugs   | M12 connecting<br>lugs | M12 connecting<br>lugs   |
| Degree of protection                                 |                | IP00                   | IP00                     | IP00                   | IP00                     |
| Dimensions<br>Width<br>Height<br>Depth               | mm<br>mm<br>mm | 270<br>248<br>200      | 350<br>321<br>232.5      | 350<br>321<br>232.5    | 410<br>385<br>224        |
| Weight   | kg             | 38.9                   | 55.6                     | 63.8                   | 98                       |

Table 5-8 Technical data for line reactors 3 AC 660 V ... 690 V, part 2

### Additional information

Siemens: www.siemens.com

Industry Online Support (service and support): www.siemens.com/online-support

IndustryMall: www.siemens.com/industrymall

Siemens AG Process Industries and Drives Large Drives Postbox 4743 90025 Nuremberg Germany



Scan the QR-Code for product information