

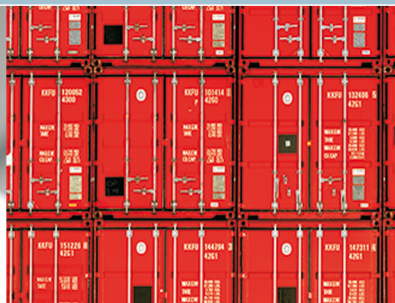


**SEW**  
EURODRIVE

# Catalog



**MOVITRAC® LTE-B+**



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# 1 System description

## 1.1 Technology

The MOVITRAC®-LTE-B+ device family is the entry level product series of the powerful frequency inverter portfolio from SEW-EURODRIVE. The devices are characterized by a simple installation and startup philosophy, together with a powerful range of functions for this class.

The power spectrum ranges from 0.37 kW up to a maximum rating of 37 kW for the IP20 design.

Inverters with a power range from 0.37 kW up to 11 kW are available with an IP66 degree of protection for use in environments that are heavily subjected to dust and splash water. The devices are available with or without integrated switch.

All variants feature an integrated keypad as standard, which, in combination with the removable "Helpcard", enables simple and intuitive startup and operating procedures.

In addition to a simple V/f voltage control system, all LTE-B+ devices are also equipped with a field-oriented open-loop vector control unit, which enables both the optimized operation of AC asynchronous motors, as well as the additional operation of other motor types, such as the LSPM (Line Start Permanent Magnet Motor) IE4 drive from SEW-EURODRIVE:

Extensive diagnostics methods are available to the user to guarantee smooth operation of the system and to ensure minimal downtime. In addition to 40 diagnostics parameters, MOVITRAC® LTE-B+ also offers a powerful scope function, which can be operated via the LT Shell software.

The extensive functionality is rounded off by the standard bus systems, namely Modbus RTU, CANopen, and SEW-EURODRIVE SBus, which enable the MOVITRAC® LTE-B+ to be easily integrated into the fieldbus network on the system side.

## 1.2 Markets and applications

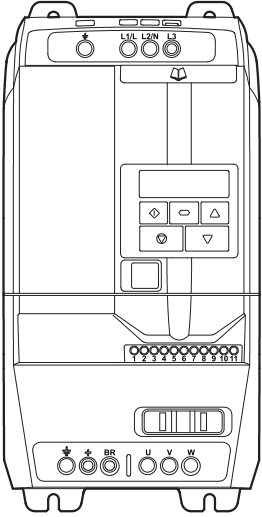
The MOVITRAC® LTE-B+ product series is intended for a wide market that requires general speed control. End customers with large quantities as well as OEMs benefit from this series, as the time needed for startup is reduced significantly due to the user-friendliness and the innovative mechanical design.

The simple but powerful functions as well as the available accessories make MOVITRAC® LTE-B+ suited for a wide variety of applications.

Typical applications are:

- Pumps for water supply systems, the paper industry, and sewage systems
- Temperature control systems for air-conditioners, energy efficient applications, and refrigeration systems
- Compressors for refrigeration systems and compressed-air systems
- Conveyor belts

## 1.3 System overview of MOVITRAC® LTE-B+

Frequency inverter	
LTE-B+	<ul style="list-style-type: none"> <li>Performance classes: 0.37 – 37 kW</li> <li>Voltage range: 1 × 115 V, 1 × 230 V, 3 × 230 V, 3 × 400 V,</li> <li>Overload capacity: 150% for 60 s, 175% for 2 s</li> <li>Integrated keypad (keypad with 7-segment display)</li> <li>Integrated engineering interface</li> <li>Housing designs IP20 and IP66</li> </ul> <p>For further information on this device, refer to the following documents:</p> <ul style="list-style-type: none"> <li>"MOVITRAC® LTE-B+ Frequency Inverters" operating instructions</li> </ul>
	
Option cards	
OB LT 2ROUT B	Second relay output
OB LT HAVAC-B	Second signal relay
OB LT VCON A	110 V/24 V converter card
OB LT VCON B	230 V/24 V converter card
System components	
BW	Braking resistor
NF LT	Line filter
ND LT	Line choke
HD LT	Output choke
Remote keypads	
LT BG C	7-segment display keypad
LT BG OLED A	Full-text OLED keypad
Accessories	
Cable set A	Basic package
Cable set B	Expansion package
Cable set C	PC engineering package
LT BP D	Bluetooth® parameter module
LT SB 23 A	Shield plate for IP20 devices of size 2 + 3

software	
MOVITOOLS® MotionStudio	Software for parameterization and data backup Connection possible via: <ul style="list-style-type: none"> <li>• USB11A or USM21A via SEW gateway or MOVI-PLC</li> <li>• USM21A with CKS13A (RJ10/RJ45 connection cable)</li> </ul>
LT Shell	Software for parameterization, data backup, firmware updates, manual mode and scope Connection possible via: <ul style="list-style-type: none"> <li>• USB11A or USM21A and cable set C</li> <li>• Parameter module and Bluetooth</li> </ul>

## 1.4 The inverters at a glance

### 1.4.1 MOVITRAC® LTE-B+ without filter

Line connection	Motor power	Nominal output current	Type designation	Degree of protection	Size
115 V 1-phase	0.37 kW	2.3 A	MC LTE-B0004-101-1-00	IP20	1
			MC LTE-B0004-101-1-30	IP66	1
			MC LTE-B0004-101-1-40	IP66	1
	0.75 kW	4.3 A	MC LTE-B0008-101-1-00	IP20	1
			MC LTE-B0008-101-1-30	IP66	1
			MC LTE-B0008-101-1-40	IP66	1
	1.1 kW	5.8 A	MC LTE-B0011-101-4-00	IP20	2
			MC LTE-B0011-101-4-30	IP66	2
			MC LTE-B0011-101-4-40	IP66	2

# 1

## System description

The inverters at a glance

### 1.4.2 MOVITRAC® LTE-B+ with filter

Line connection	Motor power	Nominal output current	Type designation	Degree of protection	Size
230 V 1-phase	0.37 kW	2.3 A	MC LTE-B0004-2B1-1-00	IP20	1
			MC LTE-B0004-2B1-1-30	IP66	1
			MC LTE-B0004-2B1-1-40	IP66	1
	0.75 kW	4.3 A	MC LTE-B0008-2B1-1-00	IP20	1
			MC LTE-B0008-2B1-1-30	IP66	1
			MC LTE-B0008-2B1-1-40	IP66	1
	1.5 kW	7 A	MC LTE-B0015-2B1-1-00	IP20	1
			MC LTE-B0015-2B1-1-30	IP66	1
			MC LTE-B0015-2B1-1-40	IP66	1
	1.5 kW	7 A	MC LTE-B0015-2B1-4-00	IP20	2
			MC LTE-B0015-2B1-4-30	IP66	2
			MC LTE-B0015-2B1-4-40	IP66	2
	2.2 kW	10.5 A	MC LTE-B0022-2B1-4-00	IP20	2
			MC LTE-B0022-2B1-4-30	IP66	2
			MC LTE-B0022-2B1-4-40	IP66	2
	4 kW	16 A	MC LTE-B0040-2B1-4-00	IP20	3
			MC LTE-B0040-2B1-4-30	IP66	3
			MC LTE-B0040-2B1-4-40	IP66	3
230 V 3-phase	1.5 kW	7 A	MC LTE-B0015-2A3-4-00	IP20	2
			MC LTE-B0015-2A3-4-30	IP66	2
			MC LTE-B0015-2A3-4-40	IP66	2
	2.2 kW	10.5 A	MC LTE-B0022-2A3-4-00	IP20	2
			MC LTE-B0022-2A3-4-30	IP66	2
			MC LTE-B0022-2A3-4-40	IP66	2
	4.0 kW	18 A	MC LTE-B0040-2A3-4-00	IP20	3
			MC LTE-B0040-2A3-4-30	IP66	3
			MC LTE-B0040-2A3-4-40	IP66	3
	5.5 kW	24 A	MC LTE-B0055-2A3-4-00	IP20	3
			MC LTE-B0055-2A3-4-30	IP66	3
			MC LTE-B0055-2A3-4-40	IP66	3
	7.5 kW	30 A	MC LTE-B0075-2A3-4-00	IP20	4
	11 kW	46 A	MC LTE-B0110-2A3-4-00	IP20	4
	15 kW	61 A	MC LTE-B0150-2A3-4-00	IP20	5
18.5 kW	72 A	MC LTE-B0185-2A3-4-00	IP20	5	

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Line connection	Motor power	Nominal output current	Type designation	Degree of protection	Size
400 V 3-phase	0.75 kW	2.2 A	MC LTE-B0008-5A3-1-00	IP20	1
			MC LTE-B0008-5A3-1-30	IP66	1
			MC LTE-B0008-5A3-1-40	IP66	1
	1.5 kW	4.1 A	MC LTE-B0015-5A3-1-00	IP20	1
			MC LTE-B0015-5A3-1-30	IP66	1
			MC LTE-B0015-5A3-1-40	IP66	1
	1.5 kW	4.1 A	MC LTE-B0015-5A3-4-00	IP20	2
			MC LTE-B0015-5A3-4-30	IP66	2
			MC LTE-B0015-5A3-4-40	IP66	2
	2.2 kW	5.8 A	MC LTE-B0022-5A3-4-00	IP20	2
			MC LTE-B0022-5A3-4-30	IP66	2
			MC LTE-B0022-5A3-4-40	IP66	2
	4 kW	9.5 A	MC LTE-B0040-5A3-4-00	IP20	2
			MC LTE-B0040-5A3-4-30	IP66	2
			MC LTE-B0040-5A3-4-40	IP66	2
	5.5 kW	14 A	MC LTE-B0055-5A3-4-00	IP20	3
			MC LTE-B0055-5A3-4-30	IP66	3
			MC LTE-B0055-5A3-4-40	IP66	3
	7.5 kW	18 A	MC LTE-B0075-5A3-4-00	IP20	3
			MC LTE-B0075-5A3-4-30	IP66	3
			MC LTE-B0075-5A3-4-40	IP66	3
	11 kW	24 A	MC LTE-B0110-5A3-4-00	IP20	3
			MC LTE-B0110-5A3-4-30	IP66	3
			MC LTE-B0110-5A3-4-40	IP66	3
	15 kW	30 A	MC LTE-B0150-5A3-4-00	IP20	4
	18.5 kW	39 A	MC LTE-B0185-5A3-4-00	IP20	4
	22 kW	46 A	MC LTE-B0220-5A3-4-00	IP20	4
30 kW	61 A	MC LTE-B0300-5A3-4-00	IP20	5	
37 kW	72 A	MC LTE-B0370-5A3-4-00	IP20	5	

# 1 System description

Input voltage ranges

## 1.5 Input voltage ranges

Depending on the model and the nominal power, the frequency inverters are designed for direct connection to the following voltage sources:

MOVITRAC® LTE-B+		
Nominal voltage	Connection type	Rated frequency
110 – 115 V ± 10%	1-phase	50 – 60 Hz ± 5%
200 – 240 V ± 10%	1-phase	
200 – 240 V ± 10%	3-phase	
380 – 480 V ± 10%	3-phase	

Units that are connected to a 3-phase supply system are designed for a maximum power grid imbalance of 3% between the phases. For supply systems with a power grid imbalance of more than 3% (for example, in India and parts of the Asia-Pacific region including China), SEW-EURODRIVE recommends that you use input chokes.

### INFORMATION



Single-phase frequency inverters can also be connected to 2 phases of a three-phase power supply system of 200 – 240 V.

Taking into account 50% derating of the nominal output current, all 3-phase inverters can also be operated as 1-phase.

## 1.6 Permitted voltage supply systems

- **Voltage supply systems with grounded star point**

Inverters with all degrees of protection are intended for operation on TN and TT systems with a directly grounded star point.

- **Voltage supply systems with non-grounded star point**

Inverters with all degrees of protection can be used on supply systems with a non-grounded star point (e.g. IT systems). The devices must be converted accordingly prior to electrical installation. See chapter Operation on IT system.

- **Voltage supply systems with grounded outer conductor**

The inverters with all degrees of protection may only be operated on voltage supply systems with a maximum phase-to-ground AC voltage of 300 V.

## 1.7 Control / control signal source

- Terminals
- Keypad
- Fieldbus

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## 1.8 Operating modes / motor controls

- V/f control for asynchronous motors
- LVFC speed control for asynchronous motors
- PMVC speed control for synchronous motors
- LSPM speed control for SEW motors with LSPM technology
- SYN-R speed control for synchronous reluctance motors
- BLDC speed control for brushless DC motors

## 1.9 Functions

- Process controller (PI controller)
- 4 fixed setpoints
- Flying start function
- Fire mode/emergency mode
- Fieldbus/manual mode switch
- Standby function/energy-saving function
- Parameter lock
- Parameter backup
- DC braking
- Master/slave speed control

## 1.10 Protection function

- Output short circuit, phase-phase, phase-ground
- Output overcurrent
- Overload protection
  - Inverter responds to overload as described in chapter "Overload capacity" (→ 12).
- Overvoltage error
  - Set to 123% of the maximum nominal line voltage of the inverter.
- Undervoltage error
- Overtemperature error
- Undertemperature error
  - The inverter is shut down at a temperature of under -20 °C.
- Line phase failure
  - An enabled inverter switches off with delay depending on the load.
- Thermal motor overload protection in accordance with NEC (National Electrical Code, US), UL508C
- Evaluation of TF, TH

# 1 System description

## Overload capacity

### 1.11 Overload capacity

The inverter supplies a constant output current of 100%.

All inverter types of MOVITRAC® LTE-B+ have the following overload capacity:

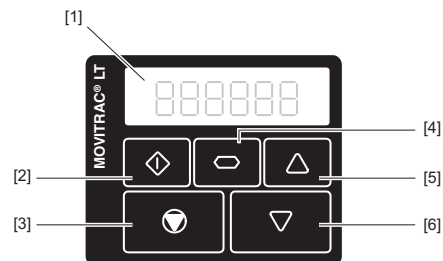
- 150% for 60 seconds
- 175% for 2 seconds

With an output frequency of < 10 Hz, the overload capacity is reduced to 150% for 7.5 seconds.

### 1.12 Keypads

The inverters are equipped with a standard keypad.

#### 1.12.1 Standard keypad









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- |                               |                     |
|-------------------------------|---------------------|
| [1] 6-digit 7-segment display | [4] Navigate button |
| [2] Start button              | [5] Up button       |
| [3] Stop/Reset button         | [6] Down button     |

### 1.13 Marks

The MOVITRAC® LTE-B+ inverter complies with the following regulations and directives:

Marks	Meaning
	The CE mark states compliance with the following European directives: <ul style="list-style-type: none"> <li>• Machinery Directive 2006/42/EC</li> <li>• Directive 2011/65/EU for limiting the use of certain hazardous substances in electric and electronic equipment</li> </ul>
	The waste disposal of this product is performed in compliance with the WEEE Directive 2012/19/EU.
	The UL and cUL marks state the awarding of UL approval. cUL is equivalent to CSA approval.
	The EAC mark declares compliance with the requirements of the technical regulations of the Customs Union of Russia, Kazakhstan, and Belarus.
	The RCM mark declares compliance with the technical regulations of the Australian Communications and Media Authority ACMA.
	The NM mark states the compliance with the following Moroccan guidelines: <ul style="list-style-type: none"> <li>• Low Voltage Directive N° 2573-14 (July 16, 2015)</li> <li>• EMC Directive N° 2574-14 (July 16, 2015)</li> </ul>

# 1 System description

Type designation

## 1.14 Type designation

Example: MCLTE-B 0015-2B1-1-00		
Product name	MCLTE	MOVITRAC® LTE-B
Version	B	Version status of the device series
Recommended motor power	0015	0015 = 1.5 kW
Connection voltage	2	<ul style="list-style-type: none"><li>• 1 = 110 – 115 V</li><li>• 2 = 200 – 240 V</li><li>• 5 = 380 – 480 V</li></ul>
Interference suppression on the input	B	<ul style="list-style-type: none"><li>• 0 = Device without filter (no interference suppression)</li><li>• A = C2</li><li>• B = C1</li></ul>
Connection type	1	<ul style="list-style-type: none"><li>• 1 = 1-phase</li><li>• 3 = 3-phase</li></ul>
Quadrants	1	<ul style="list-style-type: none"><li>• 1 = 1-quadrant operation without brake chopper</li><li>• 4 = 4-quadrant operation with brake chopper</li></ul>
Design	00	<ul style="list-style-type: none"><li>• 00 = Standard IP20 housing</li><li>• 30 = IP66/NEMA-4X housing without switch</li><li>• 40 = IP66/NEMA-4X housing with switch</li></ul>
Country-specific variant	(60 Hz)	60 Hz = 60 Hz design

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### 1.15 Overview of signal terminals

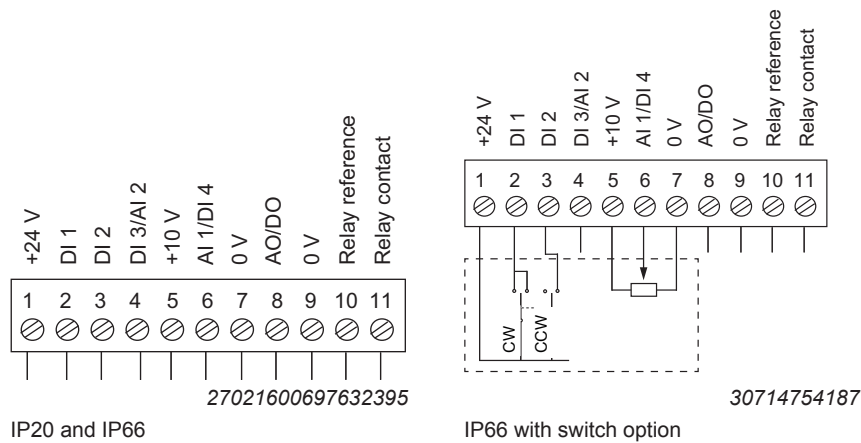
#### NOTICE



Connecting impermissible voltages may damage the device.

Possible damage to property.

- Do not connect any voltages to the output terminal.
- The voltage applied to the signal terminals must not exceed 30 V.



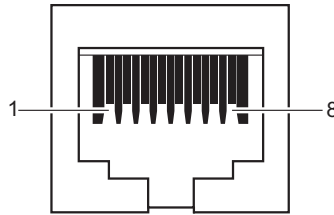
**1.15.1 Terminal overview:**

<b>Digital and analog inputs</b>	
Number of DI/AI	2 DI + 2 DI/AI
Functions	Parameterizable/scalable
Voltage range DI	DC 0/24 V (max. 30 V)
Voltage range AI	DC 0 – 10 V (scalable)
Current range AI	0 – 20 mA, 4 – 20 mA, 20 – 4 mA (scalable)
Response time DI	< 8 ms
Response time AI	< 16 ms
Resolution AI	12 bits
Accuracy AI	+/- 2% in reference to maximum scaling
Temperature sensor	TF and TH via DI3/AI2
Internal power supply units	<ul style="list-style-type: none"> <li>• DC 24 V, 100 mA</li> <li>• DC 10 V, 10 mA</li> </ul>
<b>Digital and analog outputs</b>	
Number of DO/AO	1 DO/AO
Functions	Parameterizable
Voltage range DO	DC 0/24 V (max. 30 V)
Voltage range AO	DC 0 – 10 V
Response time DO	64 ms
Response time AO	64 ms
Resolution AO	10 bits
<b>Relay</b>	
Number of relays	1
Functions	Parameterizable
Switching voltage and current	<ul style="list-style-type: none"> <li>• AC 250 V max. 5 A (no inductive loads)</li> <li>• DC 30 V max. 5 A (no inductive loads)</li> </ul>



## 1.16 Communication socket RJ45

Socket at unit



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- [1] SBus-/CAN bus-
- [2] SBus+/CAN bus+
- [3] 0 V
- [4] RS485- (engineering)
- [5] RS485+ (engineering)
- [6] +24 V (output voltage)
- [7] RS485- (Modbus RTU)
- [8] RS485+ (Modbus RTU)

## 2 Technical data

### 2.1 Electromagnetic compatibility (EMC)

Inverters with EMC filters are designed for use in machines and drive systems. They meet the EMC product standard EN 61800-3 for drives with variable speed. Observe the specifications of Directive 2014/30/EU for EMC-compliant installation of the drive system.

#### 2.1.1 Interference immunity

With regard to interference immunity, the inverter with EMC filter satisfies the limit values of standard EN 61800-3 and can therefore be used both in industrial and household applications (light industry).

#### 2.1.2 Interference emission

With regard to interference emission, the inverter meets the EMC limit values of the standard EN 61800-3:2004. The inverters are suitable for industrial as well as household applications (light industry).

Install the inverters as specified in chapter Installation to ensure best possible electromagnetic compatibility. Ensure proper ground connections for the inverters. Use shielded motor cables to comply with the specifications on interference emission.

The conditions for use in drive applications are defined in the following tables.

Inverter type with filter	Cat. C1 (class B)	Cat. C2 (class A)	Cat. C3
230 V, 1-phase LTE-B xxxx 2B1-x-xx	No additional filtering required. Use a shielded motor cable.		
230 V/400 V, 3-phase LTE-B xxxx 2A3-x-xx LTE-B xxxx 5A3-x-xx	Use an external filter of the type NF LT xxx xxx.	No additional filtering required.	
	Use a shielded motor cable.		

Use an external filter and a shielded motor cable to comply with the specifications on frequency inverters without internal filter.

## 2.2 Ambient conditions

Ambient temperature range during operation (For PWM frequency 2 kHz)	-20 °C to +50 °C (IP20/NEMA 1) -20 °C to +40 °C (IP66/NEMA 4X)
Derating depending on the ambient temperature	4%/°C to 55 °C for inverters with IP degree of protection IP20/NEMA 1
	4%/°C to 45 °C for inverters with IP degree of protection IP66/NEMA 4X
Storage temperature	-40 °C to +60 °C
Maximum installation altitude for nominal operation	1000 m
Derating above 1000 m	1%/100 m to max. 2000 m with UL
	1%/100 m to max. 4000 m without UL
Maximum relative humidity	95% (condensation not permitted)
Device designs	IP20/NEMA 1
	IP66/NEMA 4X

## 2.3 Output power and current carrying capacity without EMC filter

The "Horsepower" (HP) data is specified as follows.

- 200 – 240 V devices: NEC2002, table 430-150, 230 V
- 380 – 480 V devices: NEC2002, table 430-150, 460 V

### 2.3.1 1-phase system AC 115 V for 3-phase AC 230 V motors (voltage doubler)

MOVITRAC® LTEB+ – EMC filter class 0 to EN 61800-3				
Power in kW		0.37	0.75	1.1
IP20/NEMA 1				
MC LTE-B..		0004-101-1-00	0008-101-1-00	0011-101-4-00
Part number		18261663	18261671	18261868
IP66/NEMA-4X housing without switch				
MC LTE-B..		0004-101-1-30	0008-101-1-30	0011-101-4-30
Part number		18277497	18277500	18277519
IP66/NEMA-4X housing with switch				
MC LTE-B..		0004-101-1-40	0008-101-1-40	0011-101-4-40
Part number		18277527	18277535	18277543
<b>INPUT</b>				
Nominal line voltage $U_{line}$ in accordance with EN 50160	V	1 × AC 110 – 115 ±10%		
Line frequency $f_{line}$	Hz	50/60 ±5%		
Line fuse	A	10	25 (20) <sup>1)</sup>	32 (30) <sup>1)</sup>
Nominal input current	A	7.8	15.8	21.9
<b>OUTPUT</b>				
Recommended motor power	kW	0.37	0.75	1.1
Output voltage $U_{motor}$	V	3 × 20 – 250		
Output current	A	2.3	4.3	5.8
PWM frequency	kHz	2/4/6/8/12/16		
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000		
Maximum output frequency	Hz	500		
Maximum motor cable length, shielded	m	50		100
Maximum motor cable length, unshielded		75		150
<b>GENERAL</b>				
Size		1		2
Nominal power loss 24 V	W	3.1		4.5
Power section nominal power loss	W	11.1	22.5	33
Minimum braking resistance value	Ω	–		47
Maximum device terminal cross section	mm <sup>2</sup>	2.5 (6) <sup>2)</sup>		
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5		

1) Recommended values for UL compliance.

2) When used with forked cable lugs.

## 2.4 Output power and current carrying capacity with EMC filter

The "Horsepower" (HP) data is specified as follows.

- 200 – 240 V devices: NEC2002, table 430-150, 230 V
- 380 – 480 V devices: NEC2002, table 430-150, 460 V

### 2.4.1 1-phase system AC 230 V for 3-phase AC 230 V motors

## INFORMATION



Single-phase devices can also be connected to 2 phases of a 3-phase supply system of 200 – 240 V.

MOVITRAC® LTEB+ – EMC filter class C1 to EN 61800-3						
Power in kW		0.37	0.75	1.5	2.2	4
IP20/NEMA 1						
MC LTE-B..		0004-2B1-1-00	0008-2B1-1-00	0015-2B1-1-00	0015-2B1-4-00	0022-2B1-4-00
Part number		18261728	18261752	18261787	18261892	18261930
IP66/NEMA-4X housing without switch						
MC LTE-B..		0004-2B1-1-30	0008-2B1-1-30	0015-2B1-1-30	0015-2B1-4-30	0022-2B1-4-30
Part number		18276016	18276024	18276032	18276040	18276059
IP66/NEMA-4X housing with switch						
MC LTE-B..		0004-2B1-1-40	0008-2B1-1-40	0015-2B1-1-40	0015-2B1-4-40	0022-2B1-4-40
Part number		18276253	18276261	18276288	18276296	18276318
<b>INPUT</b>						
Nominal line voltage $U_{line}$ Complies with EN 50160	V	1 × AC 200 – 240 ±10%				
Line frequency $f_{line}$	Hz	50/60 ±5%				
Line fuse	A	10 (6) <sup>1)</sup>	10	16 (17.5) <sup>1)</sup>	25	40
Nominal input current	A	3.7	7.5	12.9	19.2	29.2
<b>OUTPUT</b>						
Recommended motor power	kW	0.37	0.75	1.5	2.2	4
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$				
Output current	A	2.3	4.3	7	10.5	16
PWM frequency	kHz	2/4/8/12/16				2/4/6/8/12
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000				
Maximum output frequency	Hz	500				
Maximum motor cable length, shielded	m	50			100	
Maximum motor cable length, unshielded	m	75			150	
<b>GENERAL</b>						
Size		1		2	3	
Nominal power loss 24 V	W	3.1		4.5	5.2	
Power section nominal power loss	W	11.1	22.5	45	66	120
Minimum braking resistance value	Ω	–			47	
Maximum device terminal cross section	mm <sup>2</sup>	2.5 (6) <sup>2)</sup>				2.5 (10) <sup>2)</sup>
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5				

1) Recommended values for UL compliance.

2) When used with forked cable lugs.

## 2.4.2 3-phase system AC 230 V for 3-phase AC 230 V motors

## INFORMATION



All inverters with a power supply of 3 × AC 200 – 240 V can also be operated with 1 × AC 200 – 240 V at device connections L1 and L2 when observing a derating of 50% of the output current. Application example with SWER (Single-Wire Earth Return) supply systems.

## Power 1.5 – 5.5 kW

MOVITRAC® LTEB+ – EMC filter class C2 to EN 61800-3					
Power in kW		1.5	2.2	4.0	5.5
IP20/NEMA 1					
MC LTE-B..		0015-2A3-4-00	0022-2A3-4-00	0040-2A3-4-00	0055-2A3-4-00
Part number		18261884	18261922	18262058	18267416
IP66/NEMA-4X housing without switch					
MC LTE-B..		0015-2A3-4-30	0022-2A3-4-30	0040-2A3-4-30	0055-2A3-4-30
Part number		18276075	18276083	18276091	18276105
IP66/NEMA-4X housing with switch					
MC LTE-B..		0015-2A3-4-40	0022-2A3-4-40	0040-2A3-4-40	0055-2A3-4-40
Part number		18276334	18276342	18276350	18276369
<b>INPUT</b>					
Nominal line voltage $U_{line}$ in accordance with EN 50160	V	3 × AC 200 – 240 ±10%			
Line frequency $f_{line}$	Hz	50/60 ±5%			
Line fuse	A	16 (15) <sup>1)</sup>	16 (17.5) <sup>1)</sup>	32 (30) <sup>1)</sup>	40 (35) <sup>1)</sup>
Nominal input current	A	9.5	12.1	20.9	26.4
<b>OUTPUT</b>					
Recommended motor power	kW	1.5	2.2	4.0	5.5
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$			
Output current	A	7	10.5	18	24
PWM frequency	kHz	2/4/6/8/12/16		2/4/6/8/12	
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000			
Maximum output frequency	Hz	500			
Maximum motor cable length, shielded	m	100			
Maximum motor cable length, unshielded	m	150			
<b>GENERAL</b>					
Size		2		3	
Nominal power loss 24 V	W	4.5		5.2	
Power section nominal power loss	W	45	66	120	165
Minimum braking resistance value	Ω	47			22
Maximum device terminal cross section	mm <sup>2</sup>	2.5 (6) <sup>2)</sup>		2.5 (10) <sup>2)</sup>	
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5			

1) Recommended values for UL compliance.

2) When used with forked cable lugs.

Power 7.5 – 18.5 kW

MOVITRAC® LTEB+ – EMC filter class C2 to EN 61800-3					
Power in kW		7.5	11	15	18.5
		IP20/NEMA 1			
MC LTE-B..		0075-2A3-4-00	0110-2A3-4-00	0150-2A3-4-00	0185-2A3-4-00
Part number		18267424	18267432	18267440	18267459
<b>INPUT</b>					
Nominal line voltage $U_{line}$ Complies with EN 50160	V	3 × AC 200 – 240 ±10%			
Line frequency $f_{line}$	Hz	50/60 ±5%			
Line fuse	A	40 (45) <sup>1)</sup>	63 (70) <sup>1)</sup>	80	100
Nominal input current	A	33.3	50.1	70.2	82.9
<b>OUTPUT</b>					
Recommended motor power	kW	7.5	11	15	18.5
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$			
Output current	A	30	46	61	72
PWM frequency	kHz	2/4/6/8/12			
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000			
Maximum output frequency	Hz	500			
Maximum motor cable length, shielded	m	100			
Maximum motor cable length, unshielded		150			
<b>GENERAL</b>					
Size		4		5	
Nominal power loss 24 V	W	7.5		8.8	
Power section nominal power loss	W	225	330	450	555
Minimum braking resistance value	Ω	22	12	6	
Maximum device terminal cross section	mm <sup>2</sup>	16		35	
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5			

1) Recommended values for UL compliance.

## 2.4.3 3-phase system AC 400 V for 3-phase AC 400 V motors

## INFORMATION



All inverters with a power supply of 3 × AC 380 – 480 V can also be operated with 1 × AC 380 – 480 V at device connections L1 and L2 when observing a derating of 50% of the output current. Application example with SWER (Single-Wire Earth Return) supply systems.

## Power 0.75 – 4 kW

MOVITRAC® LTEB+ – EMC filter class C2 to EN 61800-3					
Power in kW		0.75	1.5	2.2	4
IP20/NEMA 1					
MC LTE-B..		0008-5A3-1-00	0015-5A3-1-00	0015-5A3-4-00	0022-5A3-4-00
Part number		18261809	18261825	18261957	18261973
IP66/NEMA-4X housing without switch					
MC LTE-B..		0008-5A3-1-30	0015-5A3-1-30	0015-5A3-4-30	0022-5A3-4-30
Part number		18276148	18276156	18276164	18276172
IP66/NEMA-4X housing with switch					
MC LTE-B..		0008-5A3-1-40	0015-5A3-1-40	0015-5A3-4-40	0022-5A3-4-40
Part number		18276393	18276407	18276415	18276423
<b>INPUT</b>					
Nominal line voltage $U_{line}$ in accordance with EN 50160	V	3 × AC 380 – 480 ±10%			
Line frequency $f_{line}$	Hz	50/60 ±5%			
Line fuse	A	6	10	16 (10) <sup>1)</sup>	16 (15) <sup>1)</sup>
Nominal input current	A	3.5	5.6	7.5	11.5
<b>OUTPUT</b>					
Recommended motor power	kW	0.75	1.5	2.2	4
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$			
Output current	A	2.2	4.1	5.8	9.5
PWM frequency	kHz	2/4/6/8/12/16			
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000			
Maximum output fre- quency	Hz	500			
Maximum motor cable length, shielded	m	50		100	
Maximum motor cable length, unshielded	m	75		150	
<b>GENERAL</b>					
Size		1		2	
Nominal power loss 24 V	W	4.6		6.4	
Power section nominal power loss	W	22	45	66	120
Minimum braking resis- tance value	Ω	–		100	
Maximum device termi- nal cross section	mm <sup>2</sup>	2.5 (6) <sup>2)</sup>			
Maximum control termi- nal cross section	mm <sup>2</sup>	0.05 – 2.5			

1) Recommended values for UL compliance.

2) When used with forked cable lugs.



Power 5.5 – 11 kW

MOVITRAC® LTEB+ – EMC filter class C2 to EN 61800-3				
Power in kW		5.5	7.5	11
IP20/NEMA 1				
MC LTE-B..		0055-5A3-4-00	0075-5A3-4-00	0110-5A3-4-00
Part number		18262074	18262090	18262112
IP66/NEMA-4X housing without switch				
MC LTE-B..		0055-5A3-4-30	0075-5A3-4-30	0110-5A3-4-30
Part number		18276199	18276202	18276210
IP66/NEMA-4X housing with switch				
MC LTE-B..		0055-5A3-4-40	0075-5A3-4-40	0110-5A3-4-40
Part number		18276458	18276466	18276474
<b>INPUT</b>				
Nominal line voltage $U_{line}$ in accordance with EN 50160	V	3 × AC 380 – 480 ±10%		
Line frequency $f_{line}$	Hz	50/60 ±5%		
Line fuse	A	25	32 (30) <sup>1)</sup>	40 (35) <sup>1)</sup>
Nominal input current	A	17.2	21.2	27.5
<b>OUTPUT</b>				
Recommended motor power	kW	5.5	7.5	11
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$		
Output current	A	14	18	24
PWM frequency	kHz	2/4/6/8/12		
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000		
Maximum output frequency	Hz	500		
Maximum motor cable length, shielded	m	100		
Maximum motor cable length, unshielded		150		
<b>GENERAL</b>				
Size		3		
Nominal power loss 24 V	W	6.4		
Power section nominal power loss	W	165	225	330
Minimum braking resistance value	Ω	47		
Maximum device terminal cross section	mm <sup>2</sup>	2.5 (10) <sup>2)</sup>		
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5		

1) Recommended values for UL compliance.

2) When used with forked cable lugs.

## Power 15 – 22 kW

MOVITRAC® LTEB+ – EMC filter class C2 to EN 61800-3				
Power in kW		15	18.5	22
		IP20/NEMA 1		
MC LTE-B..		0150-5A3-4-00	0185-5A3-4-00	0220-5A3-4-00
Part number		18262147	18262155	18262163
<b>INPUT</b>				
Nominal line voltage $U_{line}$ in accordance with EN 50160	V	3 × AC 380 – 480 ± 10%		
Line frequency $f_{line}$	Hz	50/60 ± 5%		
Line fuse	A	40 (45) <sup>1)</sup>	50 (60) <sup>1)</sup>	63 (70) <sup>1)</sup>
Nominal input current	A	34.2	44.1	51.9
<b>OUTPUT</b>				
Recommended motor power	kW	15	18.5	22
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$		
Output current	A	30	39	46
PWM frequency	kHz	2/4/6/8/12		
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000		
Maximum output frequency	Hz	500		
Maximum motor cable length, shielded	m	100		
Maximum motor cable length, unshielded		150		
<b>GENERAL</b>				
Size		4		
Nominal power loss 24 V	W	14.6		
Power section nominal power loss	W	450	555	660
Minimum braking resistance value	Ω	39		
Maximum device terminal cross section	mm <sup>2</sup>	16		
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5		

1) Recommended values for UL compliance.

Power 30 – 37 kW

MOVITRAC® LTEB+ – EMC filter class C2 to EN 61800-3			
Power in kW		30	37
		IP20/NEMA 1	
MC LTE-B..		0300-5A3-4-00	0370-5A3-4-00
Part number		18267394	18267408
INPUT			
Nominal line voltage $U_{line}$ in accordance with EN 50160	V	3 × AC 380 – 480 ± 10%	
Line frequency $f_{line}$	Hz	50/60 ±5%	
Line fuse	A	80	100
Nominal input current	A	63.8	76.4
OUTPUT			
Recommended motor power	kW	30	37
Output voltage $U_{motor}$	V	3 × 20 – $U_{line}$	
Output current	A	61	72
PWM frequency	kHz	2/4/6/8/12	
Speed range	min <sup>-1</sup>	-30 000 – 0 – +30 000	
Maximum output frequency	Hz	500	
Maximum motor cable length, shielded	m	100	
Maximum motor cable length, unshielded		150	
GENERAL			
Size		5	
Nominal power loss 24 V	W	18.6	
Power section nominal power loss	W	900	1110
Minimum braking resistance value	Ω	12	
Maximum device terminal cross section	mm <sup>2</sup>	35	
Maximum control terminal cross section	mm <sup>2</sup>	0.05 – 2.5	

## 2.5 Housing variants and dimensions

### 2.5.1 Housing variants

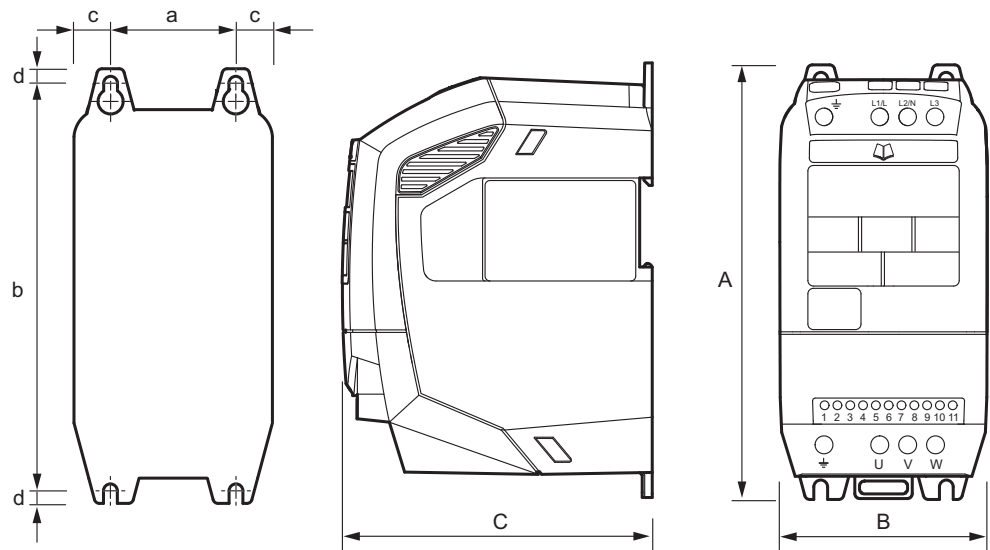
MOVITRAC® LTE-B+ is available with the following housing variants:

- IP20/NEMA-1 housing for installation in control cabinets
- IP66/NEMA-4X housing without switch option
- IP66/NEMA-4X housing with switch option

The IP66/NEMA-4X housing is protected against moisture and dust. These frequency inverters can be operated indoors in a dusty or damp environment.

The device variant IP66/NEMA-4X housing with switch options is fitted with a main switch, a direction of rotation switch, and a potentiometer.

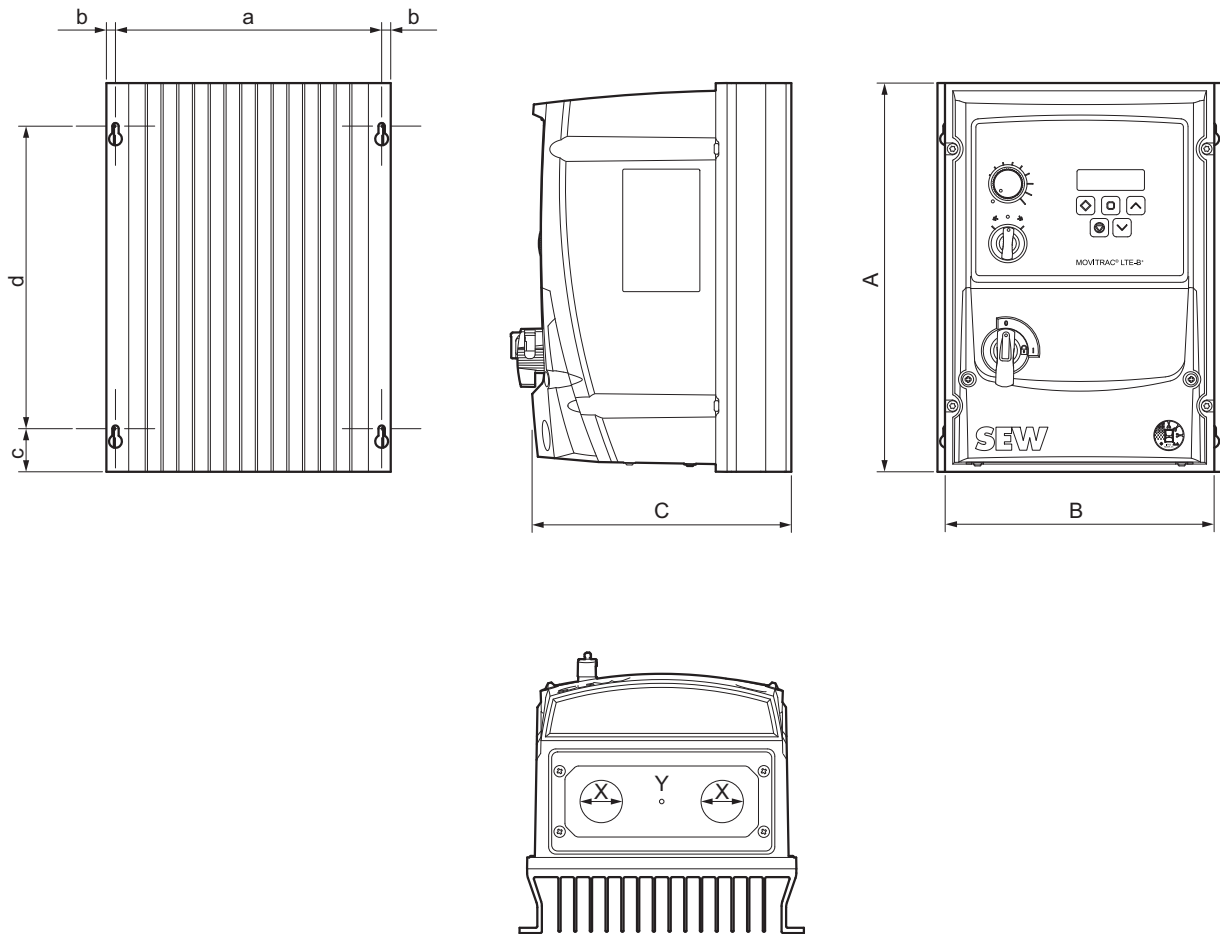
### 2.5.2 Dimensions IP20/NEMA-1 housing



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Dimensions	Unit	Size 1	Size 2	Size 3	Size 4	Size 5
Height (A)	mm	173	221	261	420	486
Width (B)	mm	83	110	131	171	222
Depth (C)	mm	123	150	175	212	226
Mass	kg	1.0	1.7	3.2	9.1	18.1
a	mm	50	63	80	125	175
b	mm	162	209	247	400	463
c	mm	16.5	23.5	25.5	23	24
d	mm	6	6	7	10	11.5
Recommended screws		4 × M4	4 × M4	4 × M4	4 × M8	4 × M8

2.5.3 Dimensions of IP66/NEMA-4X housings (LTE xxx -30 and -40)



30819615755

Dimensions		Size 1	Size 2	Size 3
Height (A)	mm	232	257	310
Width (B)	mm	161	188	211
Depth (C)	mm	162	182	238
Mass	kg	2.5	3.5	7
a	mm	148.5	176	197.5
b	mm	8	8.5	8.5
c	mm	25	28.5	33.4
d	mm	189	200	251.5
Recommended screw size		4 × M4	4 × M4	4 × M4
X <sup>1)</sup>	mm	22	29	29
	PG/M <sup>2)</sup>	PG13.5/M20	PG21/M25	PG21/M25
Y <sup>3)</sup>	mm	22	22	22
	PG/M <sup>2)</sup>	PG13.5/M20	PG13.5/M20	PG13.5/M20

- 1) The cable bushing X is open ex factory.
- 2) The specified data refers to plastic screws.
- 3) The cable bushing Y is prepunched and can be drilled out with a suitable tool.

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### 3 Technical data of options and variants

#### 3.1 Remote keypads

The MOVITRAC® LT basic unit has an integrated keypad. Some applications require a remote keypad. The operating terminal option comes equipped with a self-adhesive gasket and a 3 m cable, which is plugged into the RJ45 socket of frequency inverter. This option is supplied with 24 V via the RJ45 cable of the frequency inverter.

The maximum cable length between keypad and frequency inverter is 25 m with shielded cables. The length of all the cables in the network must not exceed 25 m for unshielded cables, and 100 m for shielded cables.

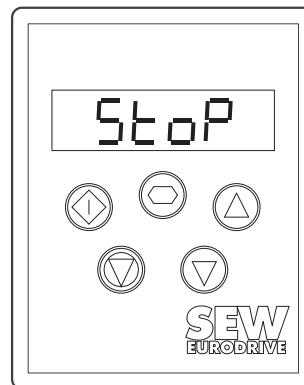
##### 3.1.1 LT BG-C remote keypad

We offer a 7-segment display keypad as an additional option.

Type	Part number	LTE-B+	LTP-B
LT BG-C	18241522	X	X

X = available

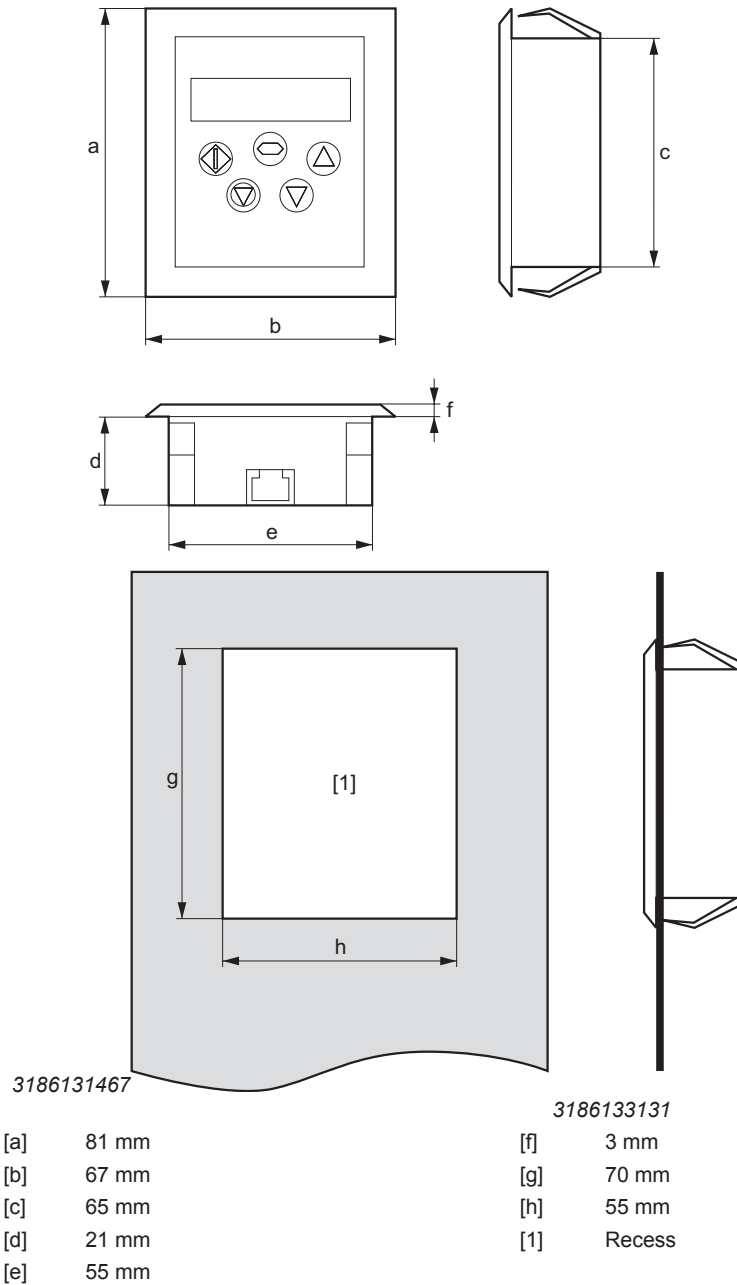
- = not available



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**Installation in the control cabinet or on a control panel**

For installing an LT BG-C in the door of a control cabinet or in a control panel, the metal has to be cut as depicted below. The installed keypad meets degree of protection IP54/NEMA 13 if the self-adhesive gasket enclosed in the delivery is used.



# 3 Technical data of options and variants

## Remote keypads

### Technical data

Device connections	RJ45
Supply voltage	DC 24 V ± 10%
Supply current	30 mA
Degree of protection	IP20 (if not installed in the control cabinet) IP54/NEMA 13 (if installed in the control cabinet door)
Ambient temperature during operation	-10 °C to +50 °C
Maximum relative humidity	95%, condensation not permitted

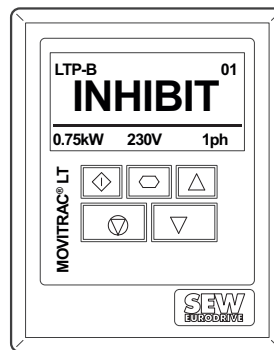
### 3.1.2 LT BG OLED A remote keypad

We offer a full-text OLED keypad as an additional option.

Type	Part number	LTE-B+	LTP-B
LT BG OLED A	28205731	X	X

X = available

- = not available

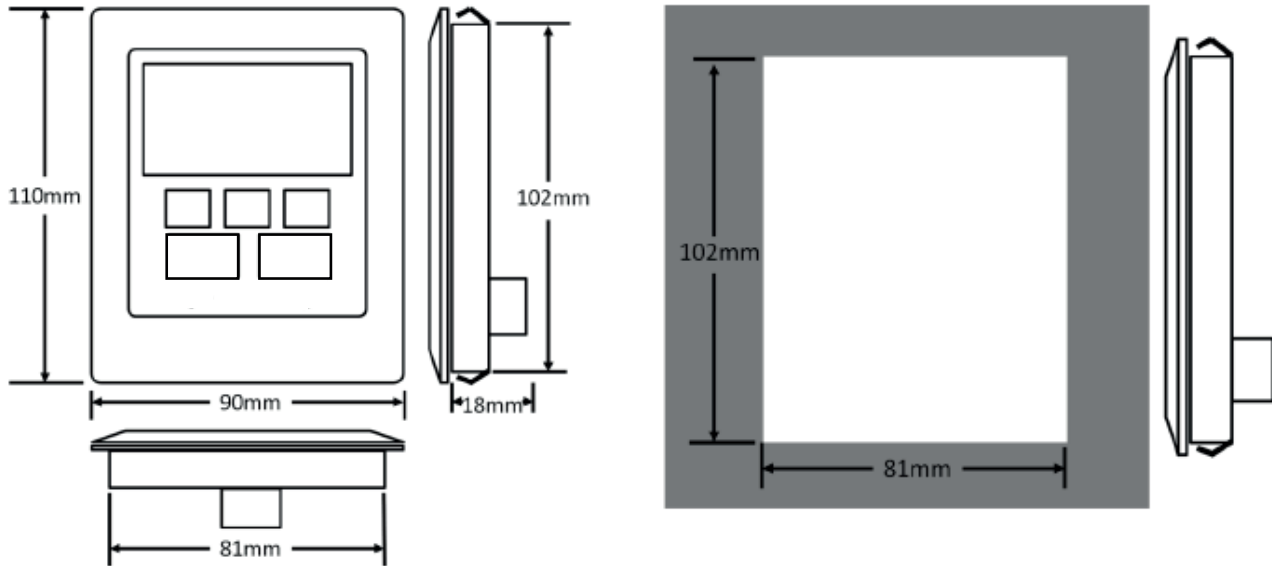


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**Installation in the control cabinet or on a control panel**

For installing an LT BG OLED A in the door of a control cabinet or in a control panel, the metal has to be cut as depicted below. The installed keypad meets degree of protection IP54/NEMA 13 if the self-adhesive gasket enclosed in the delivery is used.



9288183563

**Technical data**

Device connections	RJ45
Supply voltage	DC 24 V ± 10%
Supply current	30 mA
Degree of protection	IP20 (if not installed in the control cabinet) IP54/NEMA 13 (if installed in the control cabinet door)
Ambient temperature during operation	-10 °C to +50 °C
Maximum relative humidity	95%, condensation not permitted

# 3 Technical data of options and variants

## Network connection packages

### 3.2 Network connection packages

The network packages are divided into 3 cable sets:

- The basic package (cable set A) contains all the components to connect the frequency inverter to a gateway, MOVI-PLC®, or a CCU.
- The extension package (cable set B) is used in addition to the basic package (cable set A) to connect more frequency inverters to the network.
- The PC engineering package (cable set C) is used to connect the inverters to the engineering software LT Shell for software updates or for configuration purposes. In addition, an USB11A or USM21A interface adapter is required.

#### 3.2.1 Basic package (cable set A)

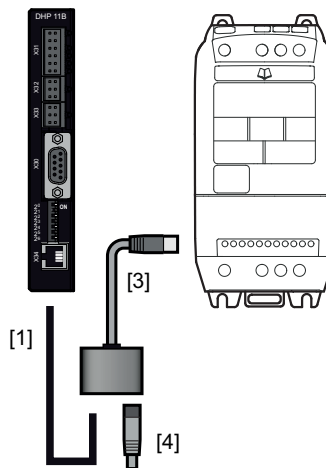
The basic package (cable set A) contains all the components to connect the frequency inverter to a gateway, MOVI-PLC®, or a CCU.

Cable set A also contains a heat shrink tubing for insulation of the cable splitter.

Type	Quantity	Description	Length	Part number
LT OP 003 A2	1	RJ45 cable with open end	0.5 m	28202554
	1	Cable splitter	–	
	1	Terminating connector	–	

#### Example

The following example shows the use of cable set A between the inverter and an SEW gateway/MOVI-PLC®.



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- [1] RJ45 cable with open end
- [3] Cable splitter
- [4] Terminating connector (120 Ω)

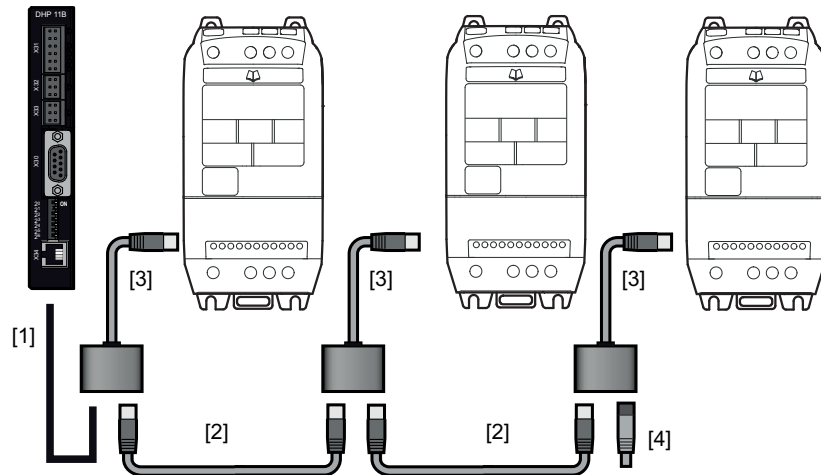
3.2.2 Extension package (cable set B)

The extension package is used in addition to the basic package (cable set A) to connect more frequency inverters to the network. Cable set B also contains a heat shrink tubing for insulation of the cable splitter.

Type	Quantity	Description	Length	Part number
LT OP 005 B2	1	RJ45 to RJ45 cable	0.5 m	28202546
	1	Cable splitter	–	
LT OP 010 B2	1	RJ45 to RJ45 cable	1 m	28202562
	1	Cable splitter	–	

Example

The following example shows the operation of three inverters at one gateway (controller). This requires cable set A and two times the extension package (cable set B).



9007217500782987

- [1] RJ45 cable with open end
- [2] RJ45 to RJ45 cable

- [3] Cable splitter
- [4] Terminating connector (120 Ω)

# 3 Technical data of options and variants

## Network connection packages

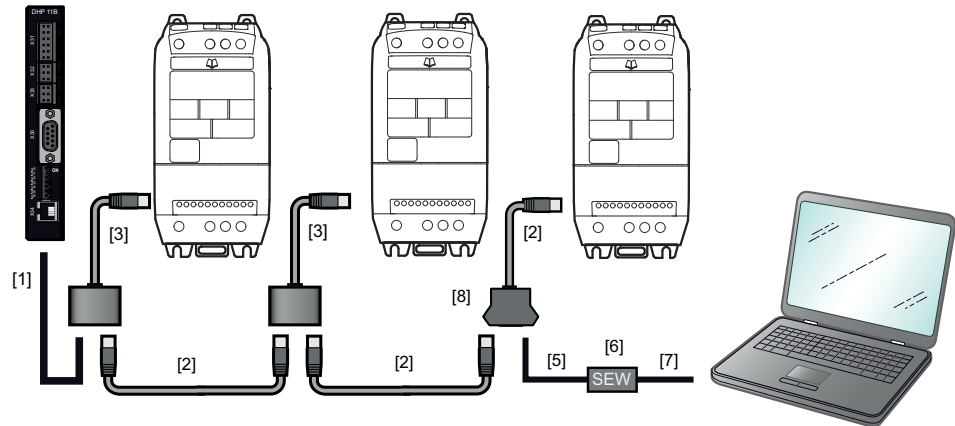
### 3.2.3 PC engineering package (cable set C)

This cable set is used to connect the inverters to the engineering software LT Shell for software updates or for configuration purposes. In addition, an USB11A or USM21A interface adapter is required.

Type	Quantity	Description	Length	Part number
LT OP 003 C	1	RJ adapter (RJ45, RJ45, RJ10)	–	18243681
	1	1 × RJ45 to RJ45 cable (blue) (LTE-B+, LTP-B)	0.5 m	
	1	1 × RJ45 to RJ11 cable (black) (LTP-A, MOVIFIT® basic)	0.5 m	

#### Example

The following example shows the use of cable set C in an existing network consisting of inverters and an SEW gateway/MOVI-PLC®. A point-to-point connection of PC to inverter is also possible.



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- |     |                          |     |                                 |
|-----|--------------------------|-----|---------------------------------|
| [1] | RJ45 cable with open end | [6] | USB11A or USM21A                |
| [2] | RJ45 to RJ45 cable       | [7] | Cable USB A-B                   |
| [3] | Cable splitter           | [8] | RJ adapter (2 x RJ45, 1 x RJ10) |
| [5] | RJ10 to RJ10 cable       |     |                                 |

In an SBus network, the terminating connector or RJ adapter is equipped with a terminating resistor. If you use the PC engineering package (C) with the basic package (A), you have to replace the terminating connector with the RJ adapter.

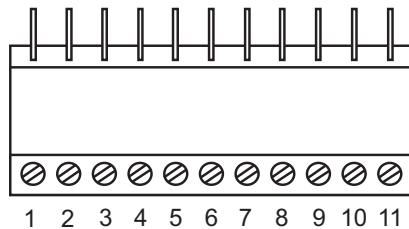
Connect the RJ10 connector (4-pin) to USB11A or USM21A.

### 3.3 Second relay output

Type	Part number
OBLT2ROUTB	18223168

If 2 relay outputs are required, use this option card. The second relay output is suitable for applications where the analog output of the MOVITRAC® LTE-B is converted into a relay output.

The functions of the relay can be programmed in the frequency inverter.



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9007204994939531

If this option card is used, the terminal assignment differs from the inverter. The following assignment applies in conjunction with this option card.

Terminal no.	Signal	Connection	Description
1	+24 V	Output +24 V: Reference voltage	Reference voltage for the control of the digital inputs (100 mA max.)
2	DI 1	Binary input 1	Compatible with PLC requirement if 0 V is connected to terminal 7.
3	DI 2	Binary input 2	
4	DI 3/AI 2	Binary input 3 Analog input 2 (12 bits)/ thermistor contact	Digital: 0/24 V Analog: 0 – 10 V, 0 – 20 mA, 4 – 20 mA, 20 – 4 mA, Ptc-th
5	+10 V	Output +10 V: Reference voltage	10 V reference voltage for analog input (Pot. supply +, 10 mA max., 1 kΩ min.)
6	AI 1/DI 4	Analog input 1 (12 bit) Binary input 4	Analog: 0 – 10 V, 0 – 20 mA, 4 – 20 mA, 20 – 4 mA Digital: 0/24 V
7	0 V	0 V: Reference potential	0 V: Reference potential for analog input (potential shift)
8	Relay 2 contact	Relay contact	NO contact (AC 250 V / DC 220 V max. 1 A)
9	Relay 2 reference	Relay reference potential	
10	Relay 1 contact	Relay contact	NO contact (AC 250 V / DC 220 V max. 1 A)
11	Relay 1 reference	Relay reference potential	

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**INFORMATION**

In case of IP66 devices, the option card must be slightly bent downwards to enable the front cover to close. This does not impair the function of the option card.

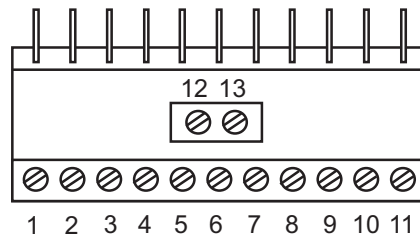
**3.3.1 Technical data**

Maximum relay switching voltage	AC 250 V / DC 220 V
Maximum relay switching current	1 A
Conformity	IP00, UL94V-0
Ambient temperature	-10 °C to +50 °C
Dimensions	56 × 24 (without pins) × 14 mm

### 3.4 Two signal relays

Type	Part number
OB LT HVAC-B	18218180

HVAC-B option card is suitable for applications that require 2 status messages. For example, the status message "frequency inverter in fault status" can be extended by "frequency inverter enabled".



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If this option card is used, the terminal assignment differs from the inverter. The following assignment applies in conjunction with this option card.

Terminal no.	Signal	Connection	Description
1	+24 V	Output +24 V: Reference voltage	Reference voltage for the control of the digital inputs (100 mA max.)
2	DI 1	Binary input 1	Compatible with PLC requirement if 0 V is connected to terminal 7 or 9.
3	DI 2	Binary input 2	
4	DI 3/AI 2	Binary input 3 Analog input 2 (12 bit)	Digital: 0/24 V Analog: 0 – 10 V, 0 – 20 mA, 4 – 20 mA, 20 – 4 mA, Ptc-th
5	+10 V	Output +10 V: Reference voltage	10 V reference voltage for analog input (Pot. supply +, 10 mA max., 1 kΩ min.)
6	AI 1/DI 4	Analog input 1 (12 bit) Binary input 4	Analog: 0 – 10 V, 0 – 20 mA, 4 – 20 mA, 20 – 4 mA Digital: 0/24 V
7	0 V	0 V: Reference potential	0 V: Reference potential for analog input (potential shift)
8	AO/DO	Analog output (10 bit) Binary output	Analog: 0 – 10 V, max. 20 mA Digital: 0/24 V, max. 20 mA
9	0 V	0 V: Reference potential	0 V: Reference potential for analog output
10	Relay 1 contact	Relay contact	NO contact (AC 250 V / DC 220 V max. 1 A)
11	Relay 1 reference	Relay reference potential	

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# 3 Technical data of options and variants

Two signal relays

Terminal no.	Signal	Connection	Description
12	Relay 2 contact	Relay contact	NO contact (AC 250 V / DC 220 V max. 1 A)
13	Relay 2 reference	Relay reference potential	

## INFORMATION



In case of IP66 devices, the option card must be slightly bent downwards to enable the front cover to close. This does not impair the function of the option card.

### 3.4.1 Technical data

Maximum relay switching voltage	AC 250 V / DC 220 V
Maximum relay switching current	1 A
Conformity	IP00, UL94V-0
Ambient temperature	-10 °C to +50 °C
Dimensions	56 × 24 (without pins) × 14 mm



### 3.5 Converter card

Type	Part number	Description
OB LT VCON A	18217672	110/24 V converter
OB LT VCON B	18221947	230/24 V converter

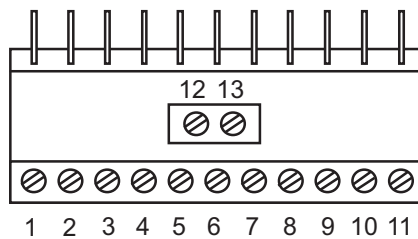
Via the converter card, the binary inputs of the frequency inverter can also be controlled directly by a 110 V or 230 V control voltage, without an interconnected relay.

#### INFORMATION



The existing analog input can further be used by connecting the analog signal at terminal 6. This has no influence on the other inputs/outputs of the frequency inverter.

The digital input terminals are isolated via optocoupler.



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If this option card is used, the terminal assignment differs from the inverter. The following assignment applies in conjunction with this option card.

Terminal no.	Signal	Connection	Description
1	Neutral	Neutral	Do not connect to 0 V
2	DI 1	Binary input 1	OB LT VCON A: AC 80 – 130 V
3	DI 2	Binary input 2	OB LT VCON B: AC 180 – 250 V
4	DI 3	Binary input 3	68 kΩ impedance
5	+10 V	Output +10 V: Reference voltage	10 V reference voltage for analog input (Pot. supply +, 10 mA max., 1 kΩ min.)
6	AI 1/DI 4	Analog input 1 (12 bit) Binary input 4	Analog: 0 – 10 V, 0 – 20 mA, 4 – 20 mA, 20 – 4 mA Digital: 0/24 V
7	0 V	0 V: Reference potential	0 V: Reference potential for analog input (potential shift)
8	AO/DO	Analog output (10 bit) Binary output	Analog: 0 – 10 V, max. 20 mA Digital: 0/24 V, max. 20 mA
9	0 V	0 V: Reference potential	0 V: Reference potential for analog output

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Terminal no.	Signal	Connection	Description
10	Relay 1 contact	Relay contact	NO contact (AC 250 V / DC 220 V max. 1 A)
11	Relay 1 reference	Relay reference potential	
12	Neutral	Neutral	Do not connect to 0 V.
13	DI 4	Binary input 4	OB LT VCON A: AC 80 – 130 V OB LT VCON B: AC 180 – 250 V 68 kΩ impedance

## INFORMATION



In case of IP66 devices, the option card must be slightly bent downwards to enable the front cover to close. This does not impair the function of the option card.

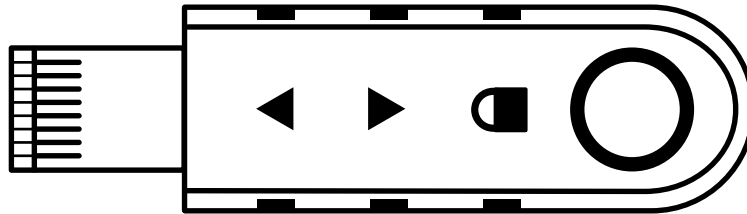
### 3.5.1 Technical data

Maximum relay switching voltage	AC 250 V / DC 220 V
Maximum relay switching current	1 A
Conformity	IP00, UL94V-0
Ambient temperature	-10 °C to +50 °C
Dimensions	56 × 24 (without pins) × 14 mm

### 3.6 Parameter module

The parameter module is exclusively designed for operation in the RJ45 port of the frequency inverter.

Type	Part number
LT BP D	28251768



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- Functionality:
  - Saves a data set from the frequency inverter to the parameter module.
  - Simultaneously saves a data set from both LT frequency inverter types to the parameter module.
  - Integrated parameter lock. Prevents overwriting of saved parameters if activated.
  - Loads data back from the parameter module to the frequency inverter.
  - Bluetooth® interface for communication between engineering software LT Shell and MOVITRAC® LT or directly with the parameter module.

#### 3.6.1 Technical data

Degree of protection	IP20, NEMA 1
Ambient temperature during operation	-10 °C to +50 °C
Range of the Bluetooth® interface	< 10 m, depending on ambient conditions
Data transfer	Bluetooth®

### 3.7 Fieldbus gateways

The fieldbus gateways convert standard fieldbuses to the SBus of SEW-EURODRIVE. This allows up to eight inverters to be triggered using one gateway.

The controller (PLC or PC) and the MOVITRAC® LTE-B+ frequency inverter exchange process data, such as control words or speed, using the fieldbus.

In principle, you can also connect and operate other SEW-EURODRIVE devices (e.g. MOVIDRIVE® drive inverters) via the SBus.

#### 3.7.1 Available gateways

For fieldbus connection, gateways are available for the following bus systems:

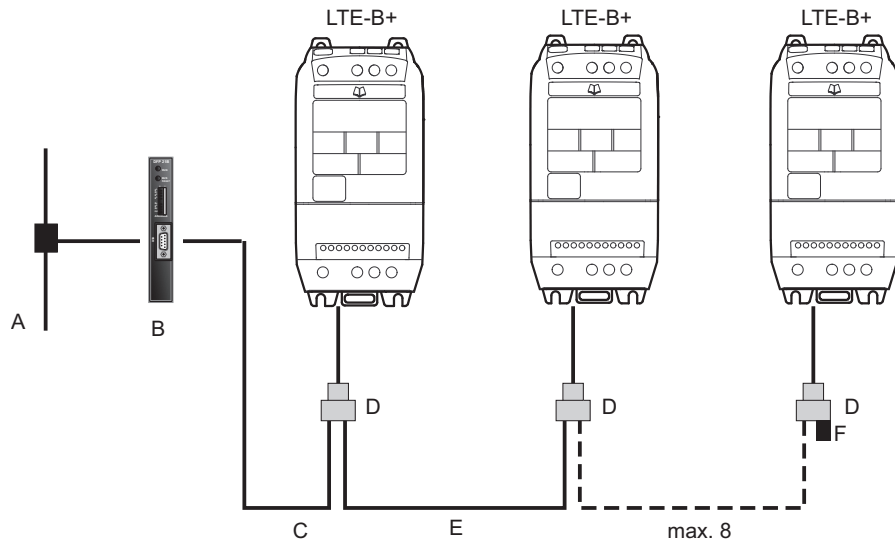
Bus	Separate housing
PROFIBUS	DFP21B/UOH11B
EtherCAT®	DFE24/UOH11B
DeviceNet™	DFD11/UOH11B
PROFINET	DFE32/UOH11B
EtherNet/IP™	DFE33B/UOH11B
Interbus	UFI11A

#### 3.7.2 Available controllers

Type	Fieldbus interfaces
DHE21B/41B in UOH11B	<ul style="list-style-type: none"> <li>• Ethernet TCP/IP</li> <li>• UDP</li> </ul>
DHF21B/41B in UOH21B	<ul style="list-style-type: none"> <li>• Ethernet TCP/IP</li> <li>• UDP</li> <li>• PROFIBUS DP-V1</li> <li>• DeviceNet™</li> </ul>
DHR21B/41B in UOH21B	<ul style="list-style-type: none"> <li>• Ethernet TCP/IP</li> <li>• UDP</li> <li>• PROFINET</li> <li>• EtherNet/IP™</li> <li>• Modbus TCP/IP</li> </ul>

3.7.3 Functional principle

The fieldbus gateways have standardized interfaces. Connect lower-level MOVITRAC® LTE-B+ devices to the fieldbus gateway via the SBus device system bus.



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Key		Additional information
A	Bus connection	–
B	Gateway	See chapter "Available gateways" (→ 44)
C	Pre-fabricated cable	See chapter "Network packages" (→ 34)
D	Splitter	
E	Pre-fabricated cable	
F	Terminating resistor	

# 3 Technical data of options and variants

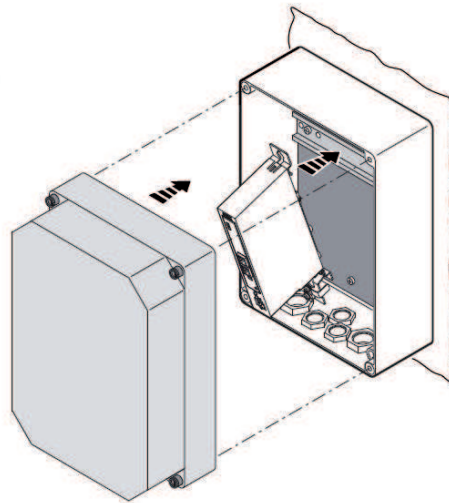
## UOH65A housing

### 3.8 UOH65A housing

With the UOH65A housing option, gateways or controllers can be installed with UOx housing in the field.

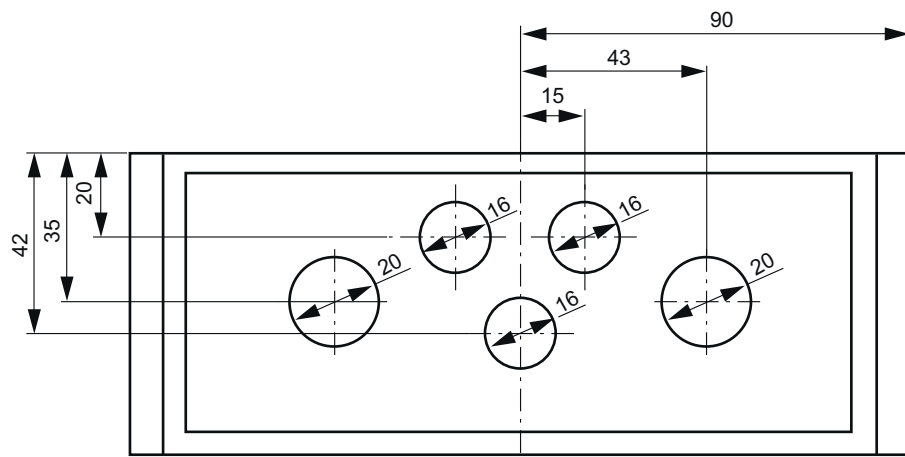
The housing is delivered with prefabricated screw fittings and mounting rail with appropriate accessories for mounting.

Type	Part number
UOH65A	18149227



9450040203

#### 3.8.1 Dimensions of the cable bushings



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#### 3.8.2 Housing dimensions

Width	Height	Depth
254 mm	180 mm	165 mm

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### 3.8.3 Technical data

Housing material	Lower part	Glass fiber reinforced polycarbonate color RAL 7035
	Top part	Glass fibre reinforced polycarbonate transparent
Degree of protection		IP65 (EN 60529)
Ambient temperature during operation		-10 °C – +55 °C

## 3.9 USM21A interface adapter USB/RS485/SBus/CAN

The USM21A option is required for engineering between PC or laptop and inverter.

The connection between USM21A and PC is made using a standard USB cable type A-B (shielded).

If the LT Shell software is used via RS485, the PC engineering package (cable set C) is required.

If the MOVITOOLS® MotionStudio software is used via SBus, the CKS13A (connection cable RJ10/RJ45) is required.

### INFORMATION



Use the correct components for the software in use.

Observe the different functionalities of the software (→ 6).

Type	Part number
USM21A	28231449
CKS13A (connection cable RJ10/RJ45)	28118677

### 3.9.1 USM21A scope of delivery

- USM21A device
- USB connection cable type USB A-B to connect PC to USM21A.
- Serial interface cable with 2 × RJ10 connectors
- CD-ROM with drivers and MOVITOOLS® MotionStudio software

### 3.9.2 CKS13A scope of delivery (connection cable RJ10/RJ45)

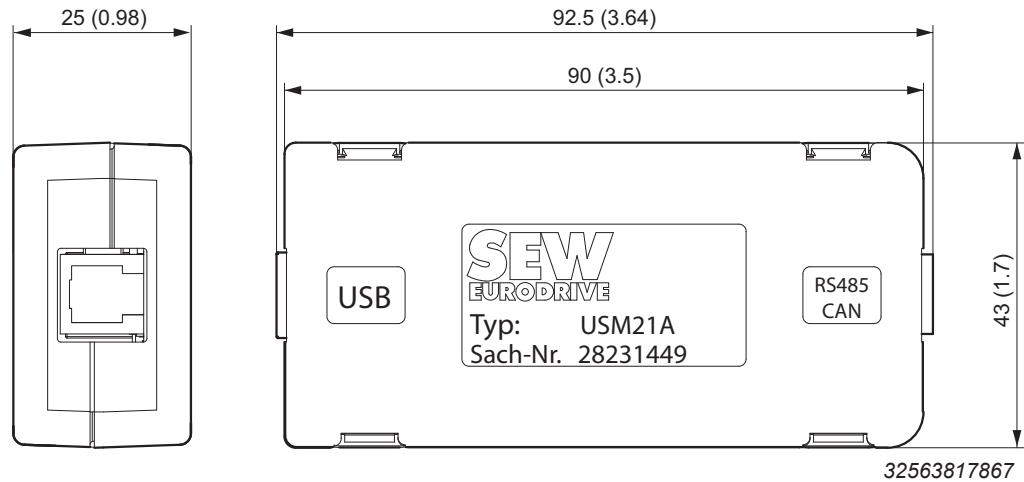
- Serial interface cable with 1 × RJ10 connector to 1 × RJ45 connector for the USM21A – inverter connection.

### 3.9.3 Technical data

Ambient temperature during operation	0 °C to 40 °C
Degree of protection	IP20

#### 3.9.4 Dimensions

The dimensions are specified in mm (in).



#### 3.9.5 RS485 interface

A maximum of 63 MOVITRAC® LTP-B and LTE-B devices can be connected via the RS485 interface of the USM21A for communication purposes.

The maximum shielded cable length is 100 m.

Each inverter needs a unique address.



## 4 Technical data – system accessories

### 4.1 Braking resistors

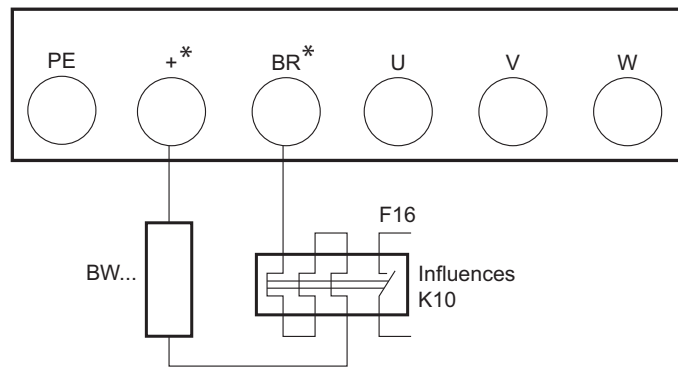
#### 4.1.1 Braking resistor circuit

MOVITRAC® LTE-B+ devices are equipped with a brake chopper for size 2 and higher. It can be used together with an external braking resistor to convert braking energy generated by the motor into thermal energy. This brake circuit is usually necessary for applications with short deceleration ramp or high mass moment of inertia.

SEW-EURODRIVE recommends to additionally protect the wire and grid resistors against overload using a bimetallic relay as shown in the figure below.

The bimetallic relay is not needed for braking resistors BW LT 050 002, for SEW-EURODRIVE flatpack resistors, and for all other overload protected braking resistors.

The following figure shows the wiring diagram for the braking resistor.



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\* No + and BR connection in size 1.

#### 4.1.2 Braking resistor minimum values

Power in kW		1.1	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	37
1 × 115 V	$R_{min}/\Omega$	47											
1 × 230 V	$R_{min}/\Omega$		47	47	47								
3 × 230 V	$R_{min}/\Omega$		47	47	47	22	22	12	6	6			
3 × 400 V	$R_{min}/\Omega$		100	100	100	47	47	47	39	39	39	12	12

### INFORMATION



To avoid damaging the device, the respective values must not fall below the limit values specified above.

# 4 Technical data – system accessories

## Braking resistors

### 4.1.3 BW.../BW..-T/ BW...-P/BW LT.. braking resistors

#### Flatpack resistors

- Protection against contact (IP54)
- With internal thermal overload protection
- With a touch guard on the mounting rail

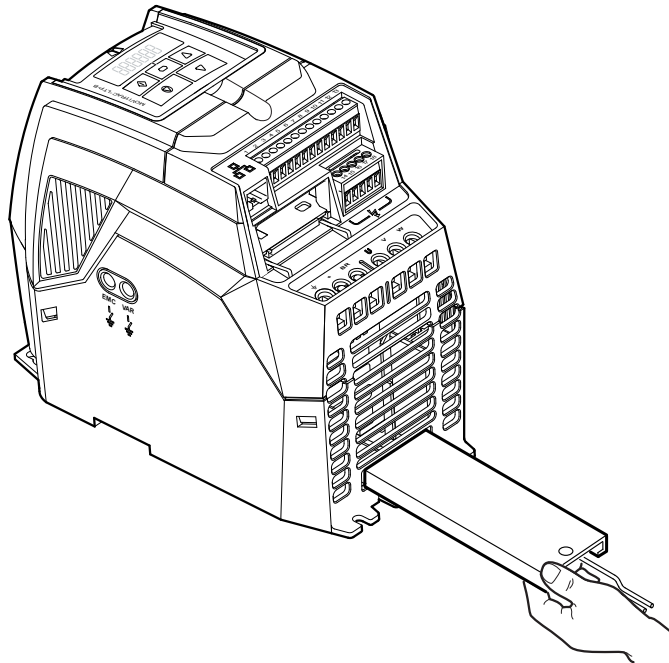
**NOTE:** The load capacity specified in the assignment tables applies to a horizontal mounting position [2]. Values are reduced by 10% for a vertical mounting position [1].



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#### Plug-in flatpack resistor

- Plug-in resistor suitable for size 2 + 3 in IP20
- No additional space is required in the control cabinet
- For small regenerative power



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<b>Type</b>	<b>BW LT 100 002</b>
<b>Part number</b>	<b>18208770</b>
100% ED	200 W
Resistance value RBW	100 Ω ±10%
Max. ambient temperature	50 °C

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<b>Type</b>		<b>BW LT 100 002</b>
<b>Part number</b>		<b>18208770</b>
Degree of protection		IP20
Dimensions L × W × H	mm	188 × 41 × 9
	inch	7,402 × 1,614 × 0,354

**Wire and grid resistors**

- Perforated sheet cover (IP20) open to mounting surface.
- The short-time load capacity of the wire and grid resistors is greater than in the flatpack resistors.
- A temperature switch is integrated in the BW...-T braking resistor.
- A thermal overcurrent relay is integrated in the BW...-P braking resistor.

SEW-EURODRIVE recommends implementing additional protection against overload for the wire and grid resistors by using a bimetallic relay with trip characteristics of trip class 10 or 10 A (in accordance with EN 60947-4-1). Set the tripping current to the value  $I_F$  (→ following tables). Do not use electronic or electromagnetic fuses because these can be triggered even in case of short-term excess currents that are still within the tolerance range.

For braking resistors in the BW...-T/BW...-P series, you can connect the integrated temperature sensor / overcurrent relay using a 2-core, shielded cable as an alternative to a bimetallic relay. The cable entry for BW...-T and BW...-P series braking resistors can be run from the front or the back (→ dimension drawing for BW.../BW...-T/BW...-P). Use filler plugs for tapped holes that are not connected.

The surfaces of the resistors get very hot if loaded with  $P_N$ . Make sure that you select an installation site that will accommodate these high temperatures. For this reason, braking resistors are usually mounted on the control cabinet roof.

The performance data listed in the tables below show the load capacity of the braking resistors according to their cyclic duration factor (cyclic duration factor = cdf of the braking resistor in % in relation to a cycle duration ≤ 120 s).

# 4 Technical data – system accessories

## Braking resistors

### 4.1.4 Assignment of braking resistors to AC 230 V units (...-2A3-.../...-2B1-...)

Braking resistor type BW...		BW027-006	BW027-012
Part number		8224226	8224234
Braking resistor type BW...-T	BW039-026-T		
Part number	18204155		
Continuous braking power (= 100% cdf)	2.6 kW	0.6 kW	1.2 kW
Load capacity 50% cdf <sup>1)</sup>	4.6 kW	1.1 kW	2.1 kW
At 25% cdf	6.0 kW	1.9 kW	3.8 kW
12% cdf	6.0 kW	3.6 kW	7.2 kW
6% cdf	6.0 kW	5.7 kW	8.7 kW
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)		
Resistance value $R_{BW}$	39 $\Omega$ $\pm$ 10%	27 $\Omega$ $\pm$ 10%	
Tripping current (of F16) $I_F$	8.1 A	4.7 A	6.6 A
Design	Wire resistor		
Connections / Tightening torque	Ceramic terminals 2.5 mm <sup>2</sup> (AWG12) 0.5 Nm		
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recommendation)	0055 – 0075	0055	

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration of TD ≤ 120 s.

Braking resistor type	BW047-003	BW047-005
Part number	8262659	8262683
100% cdf	250 W	450 W
50% cdf	330 W	610 W
25% cdf	430 W	840 W
12% cdf	580 W	1200 W
6% cdf	1050 W	2360 W
Resistance value $R_{BW}$	47 $\Omega$ $\pm$ 10%	
Tripping current of external bimetallic relay	0.8 A	1.2 A
Ambient temperature $\vartheta_A$	-20 °C to +45 °C	
For MOVITRAC® LTE-B+ (recommendation)	0015 – 0040	
Design	Flat design	
Degree of protection	IP65	

Braking resistor type BW...-	BW012-025		
Part number	8216800		
Braking resistor type BW...-T/-P	BW012-025-P	BW012-050T	BW012-100-T
Part number	18204147	18201407	18201415
Continuous braking power (= 100% cdf)	2.5 kW	5.0 kW	10 kW
Load capacity 50% cdf <sup>1)</sup>	4.2 kW	8.5 kW	17 kW
At 25% cdf	7.5 kW	15.0 kW	30 kW
12% cdf	11.2 kW	22.5 kW	45 kW
6% cdf	19.0 kW	38.0 kW	76 kW
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)		
Resistance value $R_{BW}$	12 $\Omega$ $\pm$ 10%		
Tripping current (of F16) $I_F$	14.4 A	20.4 A	28.8 A
Design	Grid resistor		
Connections / Tightening torque	M8 bolts/6 Nm		
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recommendation)	0110/0150		

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration T D ≤ 120 s.

Braking resistor type BW...	BW018-015		
Part number	8216843		
Braking resistor type BW...-T/-P	BW018-015-P	BW018-035-T	BW018-075-T
Part number	18204163	18201385	18201393
Continuous braking power (= 100% cdf)	1.5 kW	3.5 kW	7.5 kW
Load capacity 50% cdf <sup>1)</sup>	2.5 kW	5.9 kW	12.7 kW
At 25% cdf	4.5 kW	10.5 kW	22.5 kW
12% cdf	6.7 kW	15.7 kW	33.7 kW
6% cdf	11.4 kW	26.6 kW	52.2 kW <sup>2)</sup>
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)		
Resistance value $R_{BW}$	18 $\Omega$ $\pm$ 10%		
Tripping current (of F16) $I_F$	9.1 A	13.9 A	20.4 A
Design	Wire resistor on ceramic core	Grid resistor	
Connections / Tightening torque	BW018-015: -Ceramic terminals 2.5 mm <sup>2</sup> (AWG13) / 0.5 Nm BW018-015-P: Terminal 2.5 mm <sup>2</sup> (AWG13) / 1 Nm	M8 bolts/6 Nm	
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recommendation)	0110 – 0185		

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration T D ≤ 120 s.

2) Physical power limit due to DC link voltage and resistance value

# 4 Technical data – system accessories

## Braking resistors

Braking resistor type BW...	BW147	BW247	BW347
Part number	8207135	8207143	8207984
Braking resistor type BW...-T	BW147-T	BW247-T	BW347-T
Part number	18201342	18200842	18201350
Continuous braking power (= 100% cdf)	1.2 kW	2.0 kW	4.0 kW
Load capacity 50% cdf <sup>1)</sup>	2.2 kW	3.6 kW	7.2 kW
At 25% cdf	3.8 kW	6.4 kW	12.8 kW
12% cdf	7.2 kW	12 kW	20 kW <sup>2)</sup>
6% cdf	11 kW	19 kW	20 kW
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)		
Resistance value $R_{BW}$	47 $\Omega$ $\pm$ 10%		
Tripping current (of F16) $I_F$	5 A	6.5 A	9.2 A
Design	Wire resistor on ceramic core		
Connections / Tightening torque	Ceramic terminals 2.5 mm <sup>2</sup> (AWG13) / 0.5 Nm BW347-T: Ceramic terminals 10 mm <sup>2</sup> (AWG8) / 1.6 Nm		
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recommendation)	0015 – 0040		

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration  $T D \leq 120$  s.

2) Physical power limit due to DC link voltage and resistance value

Braking resistor type BW...-T/-P	BR915-T	BW106-T	BW206-T
Part number	18204139	18200834	18204120
Continuous braking power (= 100% cdf)	16 kW	13.5 kW	18 kW
Load capacity 50% cdf <sup>1)</sup>	27.2 kW	23 kW	30.6 kW
At 25% cdf	48 kW	39.2 kW	39.2 kW
12% cdf	62.7 kW	39.2 kW	39.2 kW
6% cdf	62.7 kW	39.2 kW	39.2 kW
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)		
Resistance value $R_{BW}$	15 $\Omega$ $\pm$ 10%	6 $\Omega$ $\pm$ 10%	
Tripping current (of F16) $I_F$	32.6 A	47.4 A	54.7 A
Design	Grid resistor		Grid resistor
Connections / Tightening torque	M8 stud / 6 Nm		
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recommendation)	0110 – 0185	0150 – 0185	

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration  $T D \leq 120$  s.

## 4.1.5 Assignment of braking resistors to AC 400 V units

Braking resistor type BW...	BW100-005	BW100-006
Part number	8262691	8217017
Braking resistor type BW...-T	–	BW100-006-T
Part number	–	18204198
Continuous braking power (= 100% cdf)	0.45 kW	0.6 kW
Load capacity 50% cdf <sup>1)</sup>	0.60 kW	1.1 kW
At 25% cdf	0.83 kW	1.9 kW
12% cdf	1.11 kW	3.6 kW
6% cdf	2.00 kW	5.7 kW
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)	
Resistance value $R_{BW}$	100 $\Omega$ $\pm$ 10%	
Tripping current (of F16) $I_F$	0.8 A	2.4 A
Design	Flat design	Wire resistor on ceramic core
Connections / Tightening torque	Cables	Ceramic terminals 2.5 mm <sup>2</sup> (AWG13) 0.5 Nm
Degree of protection	IP54	IP20 (when installed)
Ambient temperature $\vartheta_{amb}$	-20 to +40 °C	
Type of cooling	KS = natural cooling	
For MOVITRAC® LTE-B+ (recommendation)	0015 – 0022	0015 – 0040

 1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration  $T D \leq 120$  s.

Braking resistor type BW...	BW047-003	BW047-005
Part number	8262659	8262683
Continuous braking power (= 100% cdf)	250 W	450 W
Load capacity 50% cdf <sup>1)</sup>	330 W	610 W
At 25% cdf	430 W	840 W
12% cdf	580 W	1200 W
6% cdf	1050 W	2360 W
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)	
Resistance value $R_{BW}$	47 $\Omega$ $\pm$ 10%	
Tripping current (of F16) $I_F$	0.8 A	1.2 A
Design	Flat design	
Connections / Tightening torque	Cables	
Degree of protection	IP54	
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C	
Type of cooling	KS = natural cooling	
For MOVITRAC® LTE-B+ (recommendation)	0055 – 0110	

 1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration  $T D \leq 120$  s.

# 4 Technical data – system accessories

## Braking resistors

Braking resistor type BW...	BW147	BW247	BW347	BW039-012		
Part number	8207135	8207143	8207984	8216894		
Braking resistor type BW...-T	BW147-T	BW247-T	BW347-T	BW039-012-T	BW039-026-T	BW039-050-T
Part number	18201342	18200842	18201350	18201369	18204155	18201377
Continuous braking power (= 100% cdf)	1.2 kW	2.0 kW	4.0 kW	1.2 kW	2.6 kW	5.0 kW
Load capacity 50% cdf <sup>1)</sup>	2.2 kW	3.6 kW	7.2 kW	2.1 kW	4.7 kW	8.5 kW
At 25% cdf	3.8 kW	6.4 kW	12.8 kW	3.8 kW	8.3 kW	15.0 kW
12% cdf	7.2 kW	12 kW	20 kW <sup>2)</sup>	7.2 kW	15.6 kW	24.0 kW
6% cdf	11 kW	19 kW	20 kW	11.4 kW	24.0 kW	24.0 kW
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)					
Resistance value R <sub>BW</sub>	47 Ω ±10%			39 Ω ±10%		
Tripping current (of F16) I <sub>F</sub>	5 A	6.5 A	9.2 A	5.5 A	8.1 A	11.3 A
Design	Wire resistor on ceramic core					Grid resistor
Connections / Tightening torque	Ceramic terminals 2.5 mm <sup>2</sup> (AWG13) / 0.5 Nm BW347-T: Ceramic terminals 10 mm <sup>2</sup> (AWG8) / 1.6 Nm					M8 stud / 6 Nm
Degree of protection	IP20 (when installed)					
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C					
Type of cooling	KS = natural cooling					
For MOVITRAC® LTE-B+ (recommendation)	0055 – 0110			0150 – 0220		

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration T D ≤ 120 s.

2) Physical power limit due to DC link voltage and resistance value

Braking resistor type BW...	BW018-015		
Part number	8216843		
Braking resistor type BW...-T/-P	BW018-015-P	BW018-035-T	BW018-075-T
Part number	18204163	18201385	18201393
Continuous braking power (= 100% cdf)	1.5 kW	3.5 kW	7.5 kW
Load capacity 50% cdf <sup>1)</sup>	2.5 kW	5.9 kW	12.7 kW
At 25% cdf	4.5 kW	10.5 kW	22.5 kW
12% cdf	6.7 kW	15.7 kW	33.7 kW
6% cdf	11.4 kW	26.6 kW	52.2 kW <sup>2)</sup>
	Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)		
Resistance value R <sub>BW</sub>	18 Ω ±10%		
Tripping current (of F16) I <sub>F</sub>	9.1 A	13.9 A	20.4 A
Design	Wire resistor on ceramic core	Grid resistor	
Connections / Tightening torque	BW018-015: -Ceramic terminals 2.5 mm <sup>2</sup> (AWG13) / 0.5 Nm BW018-015-P: Terminal 2.5 mm <sup>2</sup> (AWG13) / 1 Nm	M8 bolts/6 Nm	
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recommendation)	0300 – 0370		

1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration T D ≤ 120 s.

2) Physical power limit due to DC link voltage and resistance value

Braking resistor type BW...-	BW012-025		
Part number	8216800		
Braking resistor type BW...-T/-P	BW012-025-P	BW012-050T	BW012-100-T
Part number	18204147	18201407	18201415

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Continuous braking power (= 100% cdf) Load capacity 50% cdf <sup>1)</sup> At 25% cdf 12% cdf 6% cdf	2.5 kW	5.0 kW	10 kW
	4.2 kW	8.5 kW	17 kW
	7.5 kW	15.0 kW	30 kW
	11.2 kW	22.5 kW	45 kW
	19.0 kW	38.0 kW	76 kW
Observe the <b>regenerative power limit</b> of the inverter! (= 150% of the recommended motor power → Technical Data)			
Resistance value $R_{BW}$	12 $\Omega$ $\pm$ 10%		
Tripping current (of F16) $I_F$	14.4 A	20.4 A	28.8 A
Design	Grid resistor		
Connections / Tightening torque	M8 bolts/6 Nm		
Degree of protection	IP20 (when installed)		
Ambient temperature $\vartheta_{amb}$	-20 °C to +40 °C		
Type of cooling	KS = natural cooling		
For MOVITRAC® LTE-B+ (recom- mendation)	0300/0370		

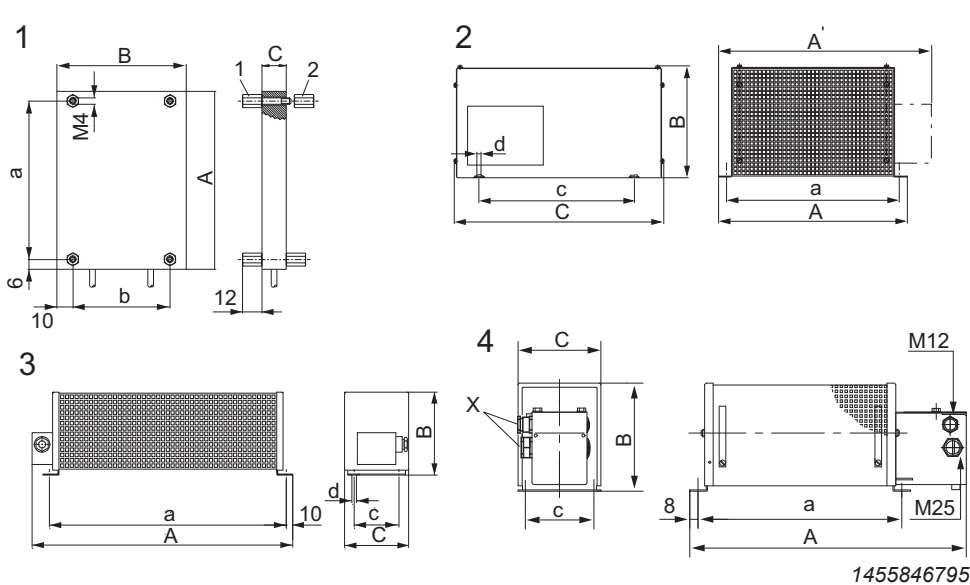
1) cdf = Cyclic duration factor of the braking resistor in relation to a cycle duration  $T D \leq 120$  s.

# 4 Technical data – system accessories

## Braking resistors

### 4.1.6 Dimension drawing of BW.../BW...-T/BW...-P braking resistors

The following figure shows the mechanical dimensions in mm (in).



BW... :

- 1 = Flat design  
The connection lead is 500 mm long. The scope of delivery includes 4 M4 stud bolts each of type 1 and 2.
- 2 = Grid resistor
- 3 = Wire resistor
- 4 = Wire resistor with temperature switch (-T/-P)  
Cable entry (X) is possible from both sides.

#### Design 1

BW... type	Main dimensions in mm			Fastening parts mm			Cable gland	Mass kg
	A/A'	B	C	a	b/c	d		
BW072-003	110	80	15	98	60	–	–	0.3
BW072-005	216	80	15	204	60	–	–	0.6
BW100-005	216	80	15	204	60	–	–	0.6
BW047-005	216	80	15	204	60	–	–	0.6

#### Design 2

BW... type	Main dimensions in mm			Fastening parts mm			Cable gland	Mass kg
	A/A'	B	C	a	b/c	d		
BW106-T	795	270	490	770	380	10.5	–	32
BW206-T	995	270	490	970	380	10.5	–	40
BW012-025	295	260	490	270	380	10.5	M12 + M25	8.0
BW012-025-P	295/355	260	490	270	380	10.5	M12 + M25	8.0
BW012-050-T	395	260	490	370	380	10.5	–	12
BW012-100-T	595	270	490	570	380	10.5	–	21
BR915-T	795	270	490	770	380	10.5	–	30
BW018-035-T	295	270	490	270	380	10.5	–	9.0
BW018-075-T	595	270	490	570	380	10.5	–	18.5
BW039-050-T	395	260	490	370	380	10.5	–	12
BW206-120-T	595	270	490	570	380	10.5	2 × 2 × M8	22.0

**Design 3**

BW... type BW...-T/BW...-P	Main dimensions in mm			Fastening parts mm			Cable gland	Mass kg
	A/A'	B	C	a	b/c	d		
BW018-015	620	120	92	544	64	6.5	PG11	4.0
BW027-006	486	120	92	430	64	6.5	PG11	2.2
BW027-012	486	120	185	426	150	6.5	PG11	4.3
BW039-003	286	120	92	230	64	6.5	PG11	1.5
BW039-006	486	120	92	430	64	6.5	PG11	2.2
BW039-012	486	120	185	426	150	6.5	PG11	4.3
BW147	465	120	185	426	150	6.5	PG13.5	4.3
BW247	665	120	185	626	150	6.5	PG13.5	6.1
BW347	670	145	340	630	300	6.5	PG13.5	13.2
BW168	365	120	185	326	150	6.5	PG13.5	3.5
BW268	465	120	185	426	150	6.5	PG13.5	4.3

**Design 4**

BW... type BW...-T/BW...-P	Main dimensions in mm			Fastening parts mm			Cable gland	Mass kg
	A/A'	B	C	a	b/c	d		
BW018-015-P	649	120	185	530	150	6.5	M12 + M25	5.8
BW039-012-T	549	120	185	426	150	6.5	M12 + M25	4.9
BW039-026-T	649	120	275	530	240	6.5	M12 + M25	7.5
BW147-T	549	120	185	426	150	6.5	M12 + M25	4.9
BW247-T	749	120	185	626	150	6.5	M12 + M25	9.2
BW347-T	749	210	185	630	150	6.5	M12 + M25	12.4
BW168-T	449	120	185	326	150	6.5	M12 + M25	3.6
BW268-T	549	120	185	426	150	6.5	M12 + M25	4.9
BW100-006	486	120	92	430	64	6.5	PG11	2.2
BW100-006-T	549	120	92	430	80	6.5	M12 + M25	3.0

# 4 Technical data – system accessories

NF line filter

## 4.2 NF line filter

Type	LTE-B+	LTP-B
NF LT xxx xxx xx	X	X

X = available                      – = not available

A line filter reduces interference emission via the line cable, which is generated by the frequency inverter due to its operating principle. It mainly serves to meet interference voltage limit requirements in the frequency range from 150 kHz to 30 MHz at the power supply. In addition, a line filter dampens the interference from the supply system affecting the frequency inverter.

All MOVITRAC® LT inverters are developed to minimize interference emission and to ensure a high electromagnetic compatibility for the drives.

Additional EMC filters can be installed to:

- Further reduce grid disturbances.
- Minimize the risk of interference affecting other devices.

The line filter keeps back the interference voltages generated by the frequency inverter from the power supply system and feeds them back to the frequency inverter.

The use of line filters is recommended for the following requirements:

- Reduced interference emission via the line cable.
- Compliance with limit values.
- Reduced equipotential bonding currents.
- Reduced leakage currents in case of long motor cables.

### 4.2.1 Electromagnetic compatibility

With regard to interference emission, MOVITRAC® LT meets the limit values of the standards EN 61800-3 and EN 55014 and can therefore be used in the industry and for household applications (light industry).

### 4.2.2 Technical data

#### IP20/IP66, 1 × 200 – 250 V, 10 – 25 A

Type	Unit	NF LT 010 201-20	NF LT 025 201-20	NF LT 010 201-66	NF LT 025 201-66
Part number		18411029	18411037	18411134	18411142
Nominal voltage $U_N$ (in accordance with EN 50160)	V	1 × AC 200 – 250, 48 – 62 Hz			
Rated current $I_N$	A	10	25	10	25
Leakage current I	mA	< 5			
Operating temperature	°C	-25 to +40			
Degree of protection		IP20		IP66	
Mass	kg	1.32	1.5	1.4	1.6
Assignment for AC 230 V:		0004 – 0008	0015 – 0022	0004 – 0008	0015 – 0022
UL/cUL approval		No	No	No	No

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**IP20, 3 × 220 – 480 V, 6 – 25 A**

Type	Unit	NF LT 006 503-20	NF LT 016 503-20	NF LT 025 503-20
Part number		18411045	18411053	18411061
Nominal voltage $U_N$ (in accordance with EN 50160)	V	3 × AC 220 – 480, 48 – 62 Hz		
Rated current $I_N$	A	6	16	25
Leakage current I	mA	< 10	< 35	< 35
Operating temperature	°C	-25 to +40		
Degree of protection		IP20		
Mass	kg	1.58	2.5	2.7
Assignment to AC 230 V		–	0015 – 0022	0040
Assignment to AC 400 V		0008/0015	0022 – 0040	0055 – 0075
UL/cUL approval		No	No	No

**IP66, 3 × 220 – 480 V, 6 – 25 A**

Type	Unit	NF LT 006 503-66	NF LT 016 503-66	NF LT 025 503-66
Part number		18411150	18411169	18411177
Nominal voltage $U_N$ (in accordance with EN 50160)	V	3 × AC 220 – 480, 48 – 62 Hz		
Rated current $I_N$	A	6	16	25
Leakage current I	mA	< 10	< 35	< 35
Operating temperature	°C	-25 to +40		
Degree of protection		IP66		
Mass	kg	1.6	2.5	2.7
Assignment to AC 230 V		–	0015 – 0022	0040
Assignment to AC 400 V		0008/0015	0022 – 0040	0055 – 0075
UL/cUL approval		No	No	No

# 4 Technical data – system accessories

NF line filter

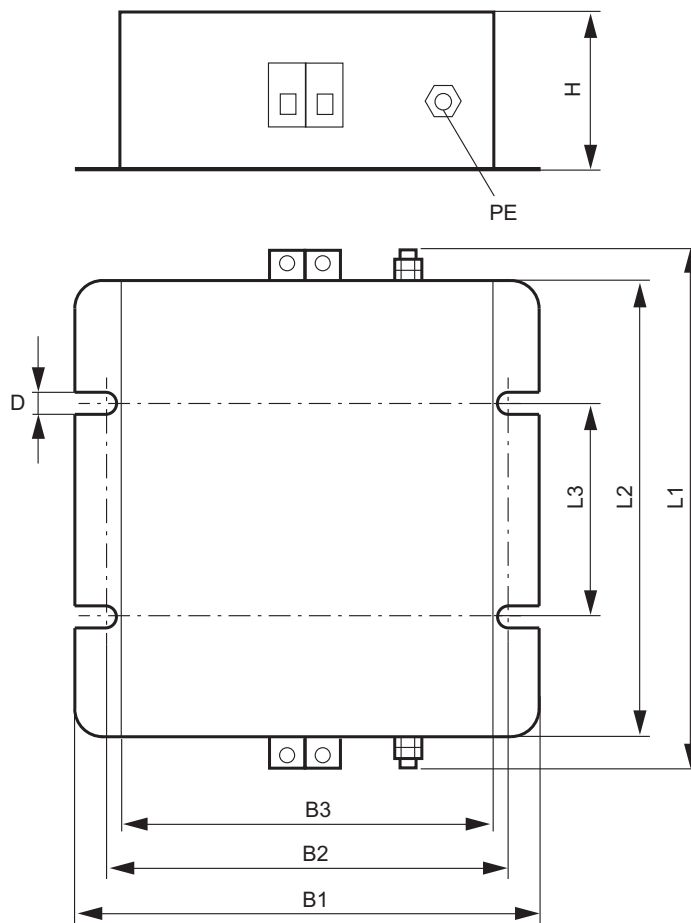
## IP20, 3 × 220 – 500 V, 50 – 80 A

Type	Unit	NF LT 050 503-20	NF LT 080 503-20
Part number		18411088	18411096
Nominal voltage $U_N$ (in accordance with EN 50160)	V	3 × AC 220 – 480, 48 – 62 Hz	3 × AC 220 – 500, 48 – 62 Hz
Rated current $I_N$	A	50	80
Leakage current $I$	mA	< 100	< 100
Operating temperature	°C	-25 to +40	
Degree of protection		IP20	
Mass	kg	2.63	7.35
Assignment to AC 230 V		0055 – 0110	0150 – 0185
Assignment to AC 400 V		0110 – 0185	0220 – 0370
UL/cUL approval		No	No

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4.2.3 Dimensions

IP20, 1 × AC 200 – 250 V, 10 – 25 A



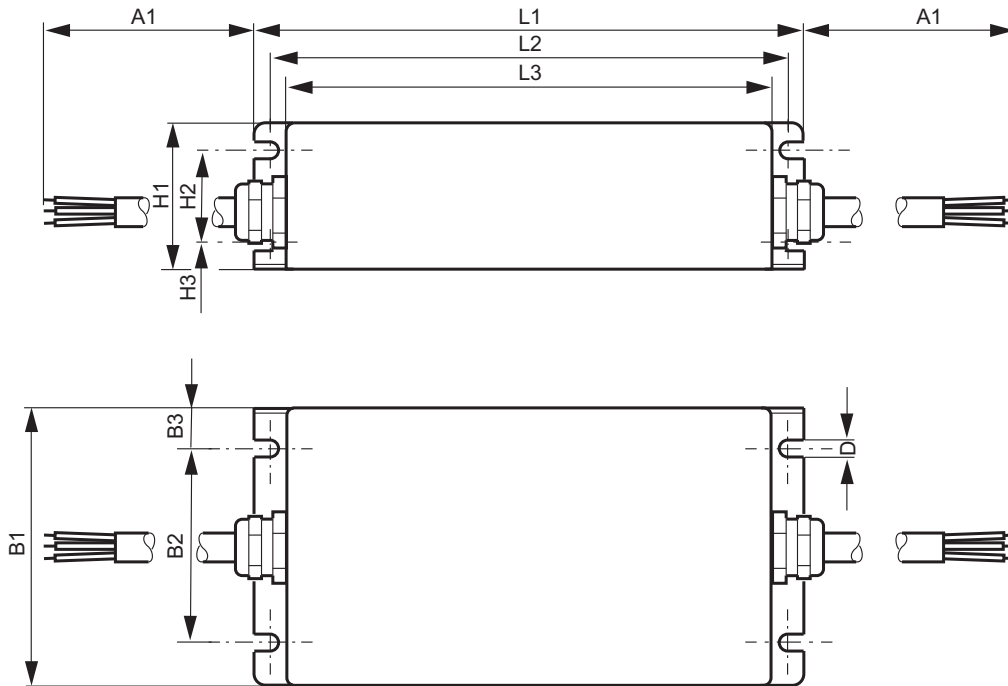
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Part number	PE connection	L1 mm	L2 mm	L3 mm	B1 mm	B2 mm	B3 mm	H mm	D mm
NF LT 010 201-20	2 × M6	180	160	150	70	45	12.5	65	6.2
NF LT 025 201-20	2 × M6	250	236	220	70	45	12.5	65	6.2

# 4 Technical data – system accessories

NF line filter

IP66, 1 × AC 200 – 250 V, 10 – 25 A

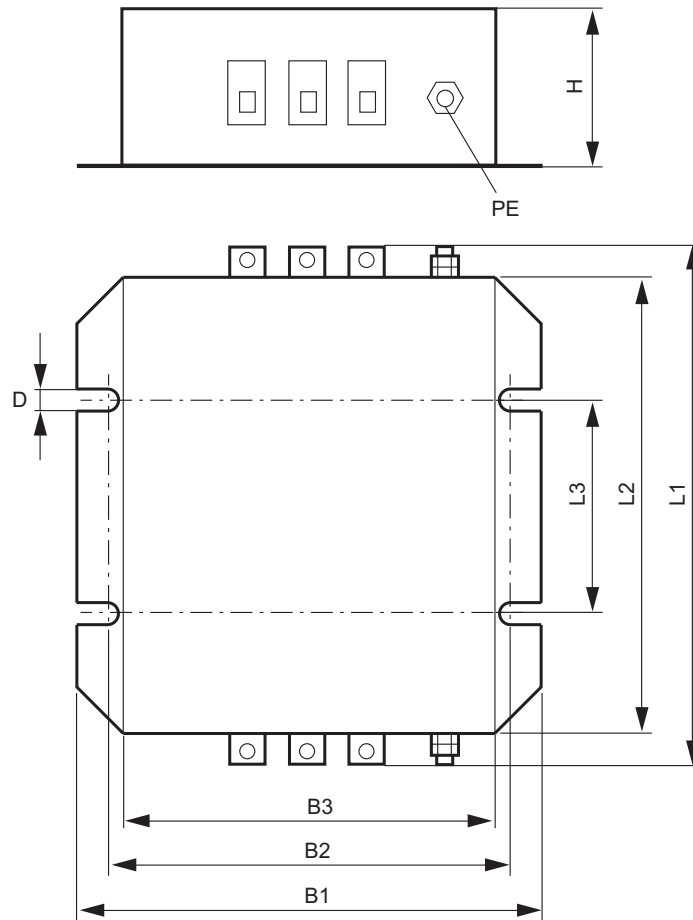


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Part number	PE connection	L1 mm	L2 mm	L3 mm	B1 mm	B2 mm	B3 mm	H1 mm	H2 mm	H3 mm	D mm	A1 mm
NF LT 010 201-66	3G2.5	180	166	150	70	45	12.5	65	40	12.5	6.2	500
NF LT 025 201-66	3G4.0	250	236	220	70	45	12.5	65	40	12.5	6.2	500



IP20, 3 × AC 220 – 480 V, 6 – 50 A



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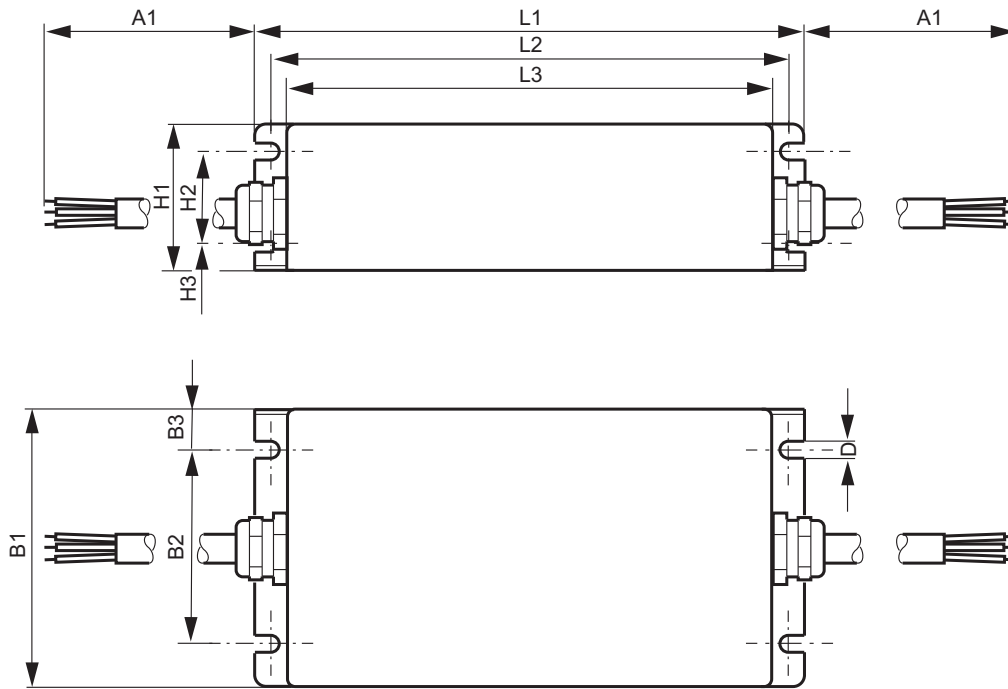
Part number	PE connection	L1 mm	L2 mm	L3 mm	B1 mm	B2 mm	B3 mm	H mm	D mm
NF LT 006 503-20	2 × M6	210	196	180	85	55	15	60	6.2
NF LT 016 503-20	2 × M6	230	216	200	120	80	20	65	6.2
NF LT 025 503-20	2 × M6	230	216	200	120	80	20	65	6.2
NF LT 050 503-20	2 × M6	247	200	115	150	136	120	65	6.2

# 4 Technical data – system accessories

NF line filter

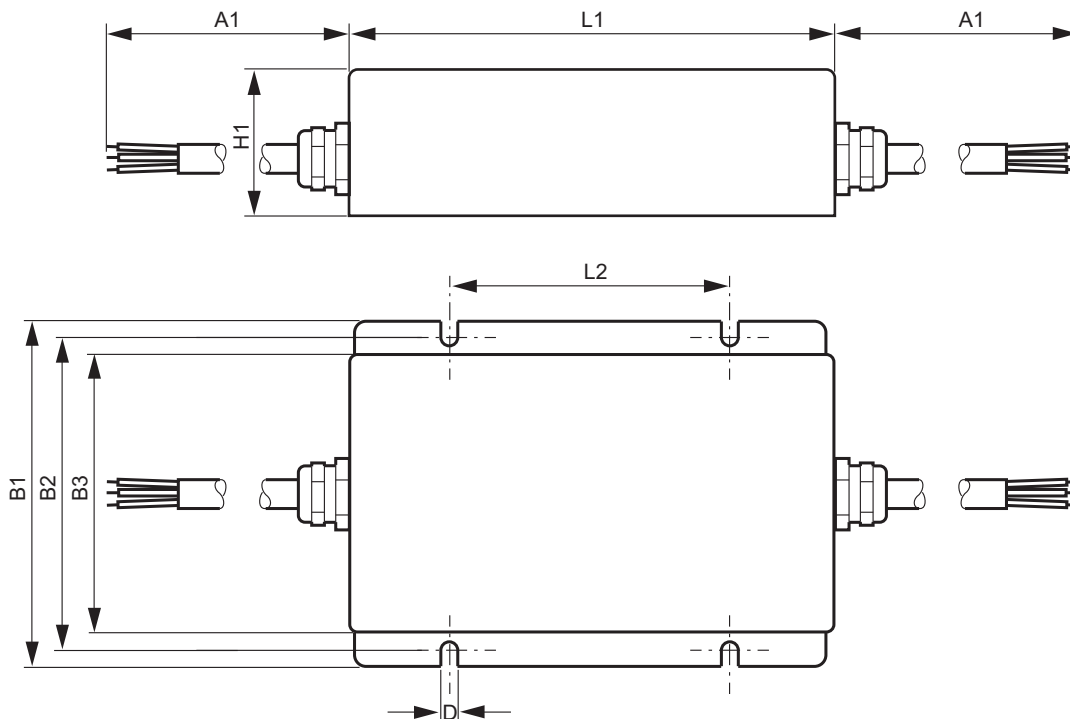
IP66, 3 × AC 220 – 480 V, 6 – 25 A

NF LT 006 503-66, NF LT 016 503-66



12263312139

NF LT 025 503-66

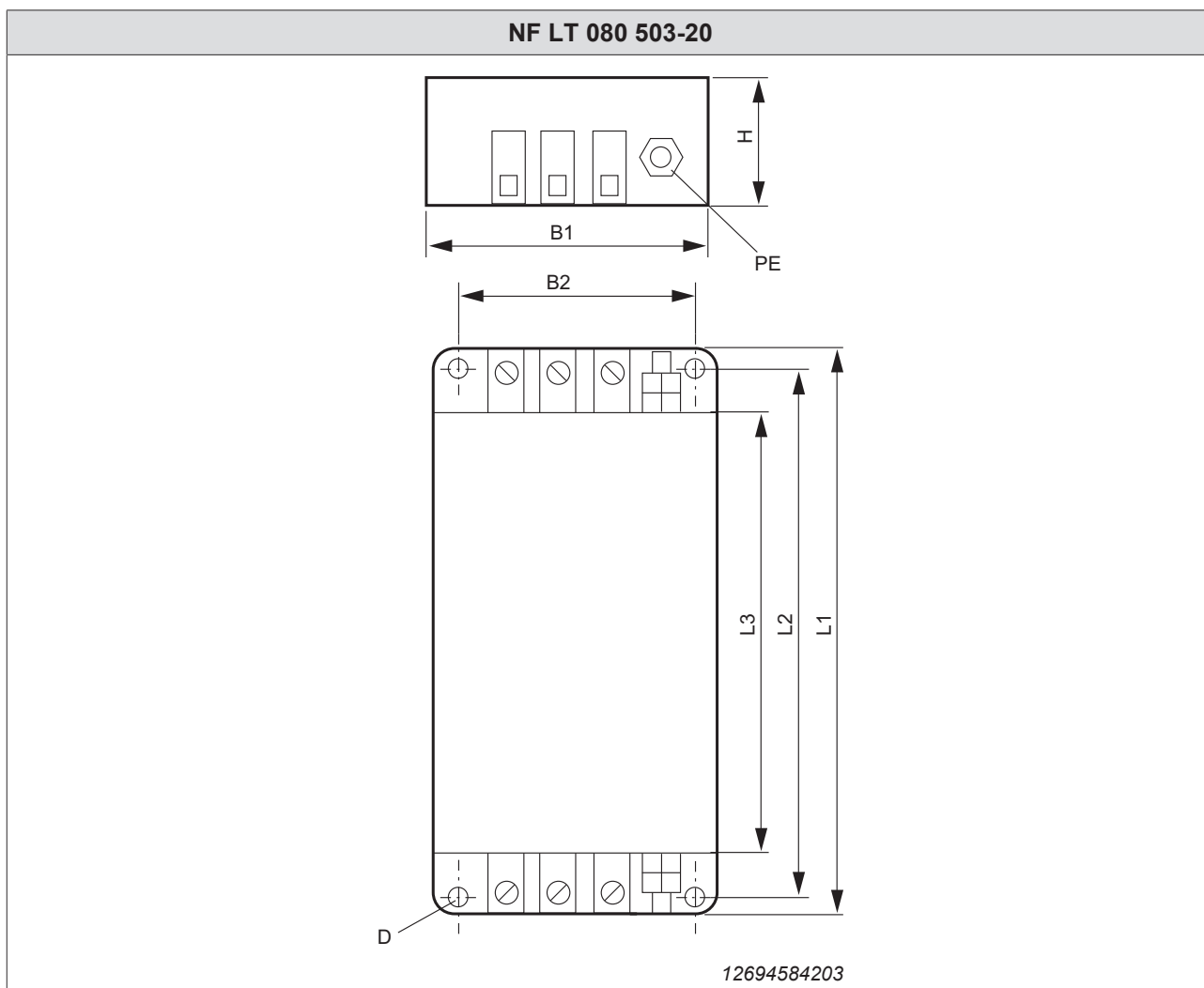


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Part number	PE connection	L1 mm	L2 mm	L3 mm	B1 mm	B2 mm	B3 mm	H1 mm	H2 mm	H3 mm	D mm	A1 mm
NF LT 006 503-66	4G1.5	210	196	180	85	55	15	60	40	10	6.2	500
NF LT 016 503-66	4G2.5	230	216	200	120	80	20	65	40	12.5	6.2	500
NF LT 025 503-66	4G4.0	200	115	–	150	136	120	65	–	–	6.2	500

IP00/IP20, 3 × AC 220 – 400 V, 80 A



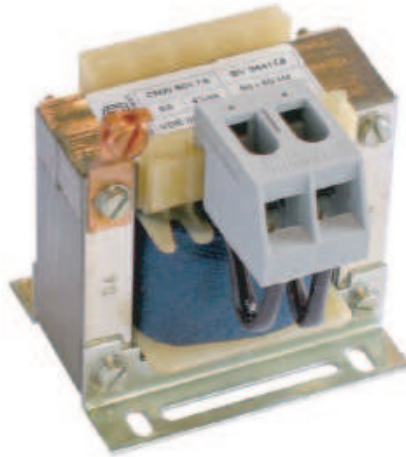
Part number	PE connection	L1 mm	L2 mm	L3 mm	L4 mm	B1 mm	B2 mm	H mm	D mm
NF LT 080 503-20	2 × M10	400	373	350	–	170	130	90	8.5

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### 4.3 Line chokes

Using line chokes is optional in the following instances:

- Reduction of harmonic distortions in the power supply
- To support overvoltage protection
- To smoothen the line current, to reduce harmonics
- Protection in the event of distorted line voltage
- Protection against overvoltage peaks for the power input circuits of the MOVITRAC® LTE-B+
- To limit the charging current when several inverters are connected together in parallel on the input end with a shared line contactor (nominal current of line choke = total of inverter currents)
- Inverter input current reduction



5738408715

## 4.3.1 Technical data

**IP20, 1 × 230 V, 3 × 230 V, 6 – 36 A**

Type	Unit	ND LT 016 180 21-20	ND LT 025 110 21-20	ND LT 006 480 53-20	ND LT 010 290 53-20	ND LT 036 081 53-20
Part number		28233417	18201652	18201660	18201679	18201687
Nominal voltage $U_N$ (in accordance with EN 50160)	V	1 × AC 230, 50/60 Hz		3 × AC 230 – 500, 50/60 Hz		
Rated current $I_N$	A	16	25	6	10	36
Inductance $L_N$	mH	1.8	1.1	4.8	2.9	0.81
Ambient temperature	°C	-25 to +45				
IP degree of protection		IP20 (EN 60529)				
Mass	kg	1.1	1.8	1.3	2.5	7.2
Assignment to AC 230 V		0004 – 0015	0022	–	0015	0022 – 0075
Assignment to AC 400 V		–	–	0008/0015	0022	0040 – 0150
UL/cUL approval		No	No	No	No	No

**IP20, 3 × 230 – 500 V, 50 – 90 A**

Type	Unit	ND LT 050 058 53-20	ND LT 090 032 53-20
Part number		18410936	18410944
Nominal voltage $U_N$ (in accordance with EN 50160)	V	3 × AC 230 – 500, 50/60 Hz	
Rated current $I_N$	A	50	90
Inductance $L_N$	mH	0.58	0.32
Ambient temperature	°C	-25 to +40	
IP degree of protection		IP20 (EN 60529)	
Mass	kg	8.7	16
Assignment to AC 230 V		0110	0150 – 0185
Assignment to AC 400 V		0185 – 0220	0300 – 0370
UL/cUL approval		No	No

**IP66, 1 × 230 V, 3 × 230 – 600 V, 6 – 25 A**

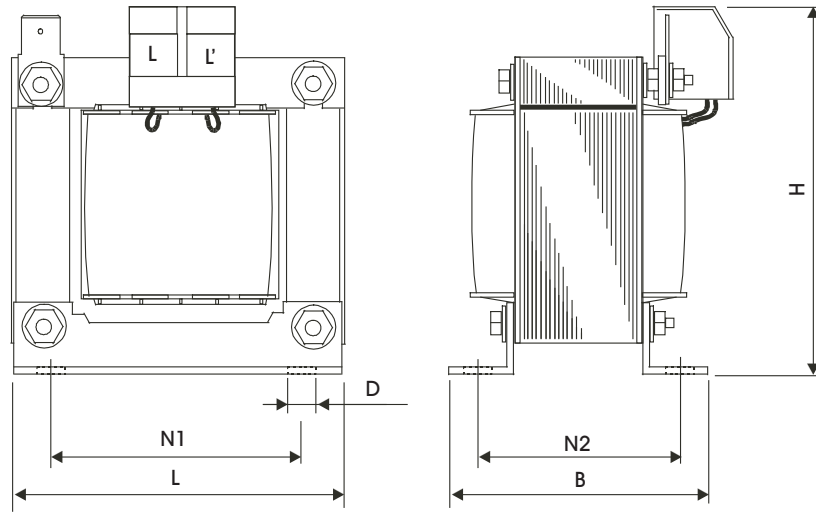
Type	Unit	ND LT 016 183 21-66	ND LT 025 117 21-66	ND LT 006 480 63-66	ND LT 010 386 63-66	ND LT 018 204 63-66
Part number		18217680	18217699	28233409	18217710	28233425
Nominal voltage $U_N$ (in accordance with EN 50160)	V	1 × AC 230, 50/60 Hz		3 × AC 230 – 600, 50/60 Hz		
Rated current $I_N$	A	16	25	6	10	18
Inductance $L_N$	mH	1.83	1.17	4.8	3.86	2.04
Ambient temperature	°C	-25 to +40				
IP degree of protection		IP66 (EN 60529)				
Mass	kg	1	1.3	1.6	3.5	7
Assignment to AC 230 V		0004 – 0015	0022	–	0015	0022
Assignment to AC 400 V		–	–	0008/0015	0022	0040 – 0110
UL/cUL approval		No	No	No	No	No

# 4 Technical data – system accessories

Line chokes

## 4.3.2 Dimensions

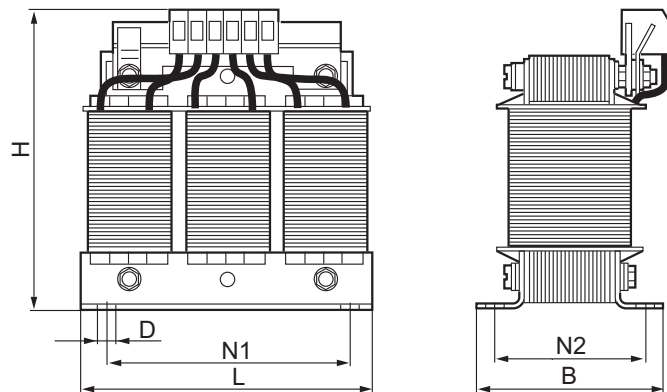
IP20, 1 × 230 V, 10/25 A



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Type	L mm	B mm	H mm	N1 mm	N2 mm	D mm
ND LT 016 180 21-20	78	78	80	56	49	4.8
ND LT 025 110 21-20	85	76	158	100	55	5

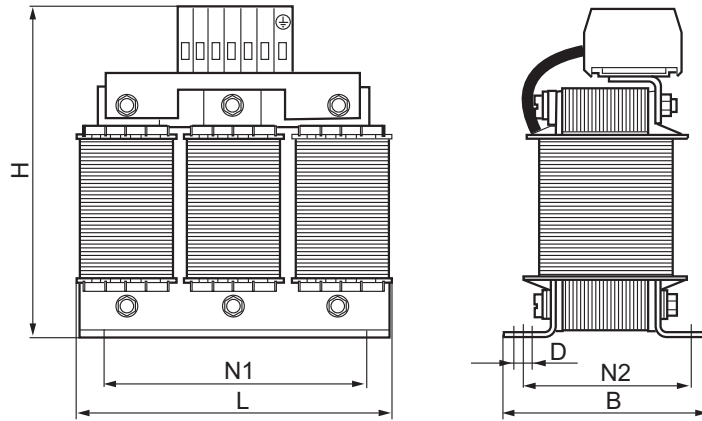
IP20, 3 × 230 – 500 V, 6/10 A



9453581067

Type	L mm	B mm	H mm	N1 mm	N2 mm	D mm
ND LT 006 480 53-20	95	56	107	56	43	5 × 9
ND LT 010 290 53-20	125	71	127	100	55	5 × 8

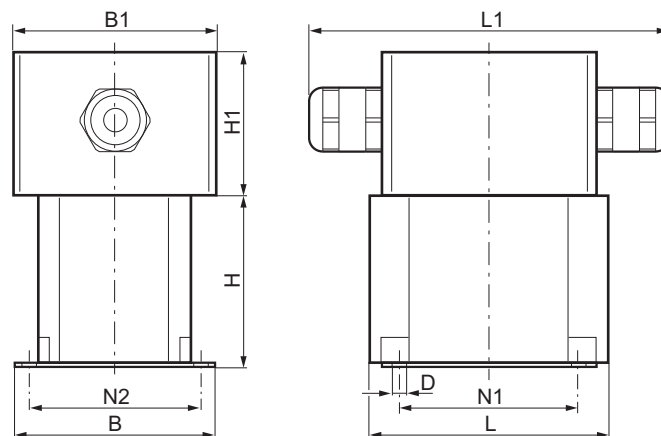
IP20, 3 x 230 – 500 V, 36 – 90 A



9453583371

Type	L	B	H	N1	N2	D
	mm	mm	mm	mm	mm	mm
ND LT 036 081 53-20	190	82	205	170	58	8 x 12
ND LT 050 058 53-20	190	102	220	170	78	8 x 12
ND LT 090 032 53-20	240	107	280	185	85	10 x 18

IP66, 1 x 230 V, 3 x 230 – 600 V, 6 – 25 A



9453666955

Type	L	B	H	N1	N2	D	L1	B1	H1
	mm	mm	mm	mm	mm	mm	mm	mm	mm
ND LT 016 183 21-66	82	70	70	70	58	6	151	85	60
ND LT 025 117 21-66	90	84	75	84	72	6	151	85	60
ND LT 006 480 63-66	115	74	88	80	60	5.5 x 7	151	85	60
ND LT 010 386 63-66	175	99	137	130	79	5.5 x 12	151	85	60
ND LT 018 204 63-66	175	114	137	130	94	5.5 x 12	151	85	60

# 4 Technical data – system accessories

## Output chokes

### 4.4 Output chokes

Output chokes improve the quality of the output wave shape. When using an output choke, you can use twice the length of the maximum cable length indicated in the technical data tables.

Like most inverters, MOVITRAC® LTE-B+ has unfiltered outputs. In most applications, a satisfactory performance is achieved this way. SEW-EURODRIVE recommends using output chokes in applications with the following features:

- Long motor cables up to 300 m (the nominal length can be doubled when using an output choke), requires PWM frequency  $\leq 4$  kHz
- High capacity motor cable (e.g. "Pyro" wire for fire protection)
- Several motors connected in parallel
- Motors without insulation suited for inverters (usually older motors)

A series of high-quality output chokes with the following main features are available for MOVITRAC® LTE-B+:

- Limiting the output voltage drop, usually  $< 200$  V/ $\mu$ s
- Limiting of transient overvoltage at the motor terminals, usually  $< 1000$  V
- Suppressing line-related interference in low frequency ranges
- Compensating capacitive load currents
- Reducing HF interference emission of the motor cable
- Reducing motor losses and audible noise caused by ripple
- Reduction of dynamic overcurrent effects on the motor side

#### 4.4.1 Technical data

##### IP20, 3 × 200 – 500 V, 8 – 75 A

Type	Unit	HD LT 008 200 53-20	HD LT 012 130 53-20	HD LT 030 050 53-20	HD LT 075 022 53-20
Part number		18201695	18201709	18201717	18201725
Nominal voltage $U_N$ (in accordance with EN 50160)	V	3 × AC 200 – 500			
Rated current $I_N$	A	8	12	30	75
Inductance $L_N$	mH	2	1.3	0.5	0.22
Degree of protection (EN 60529)		IP20			
Mass	kg	1.5	2.8	4.2	8.6
Assignment to AC 230 V		0004 – 0015	0022	0040 – 0075	0110 – 0185
Assignment to AC 400 V		0008 – 0022	0040	0055 – 0150	0185 – 0370
UL/cUL approval		No	No	No	No

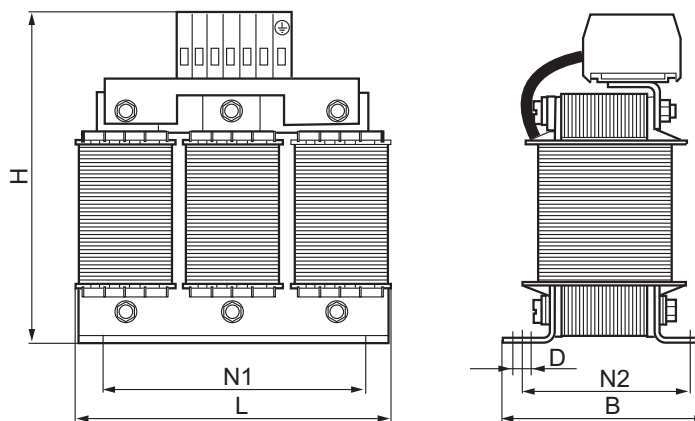


**IP66, 3 × 200 – 600 V, 8 – 18 A**

Type	Unit	HD LT 008 200 63-66	HD LT 012 120 63-66	HD LT 018 090 63-66
Part number		18216757	18216765	18216773
Nominal voltage $U_N$ (in accordance with EN 50160)	V	3 × AC 200 – 600		
Rated current $I_N$	A	8	12	18
Inductance $L_N$	mH	2	1.2	0.9
Degree of protection (EN 60529)		IP66		
Mass	kg	1.7	3.2	3.2
Assignment to AC 230 V		0004 – 0015	0022	0040
Assignment to AC 400 V		0008 – 0022	0040	0055/0075
UL/cUL approval		No	No	No

**4.4.2 Dimensions**

**IP20, 3 × 200 – 500 V, 8 – 75 A**



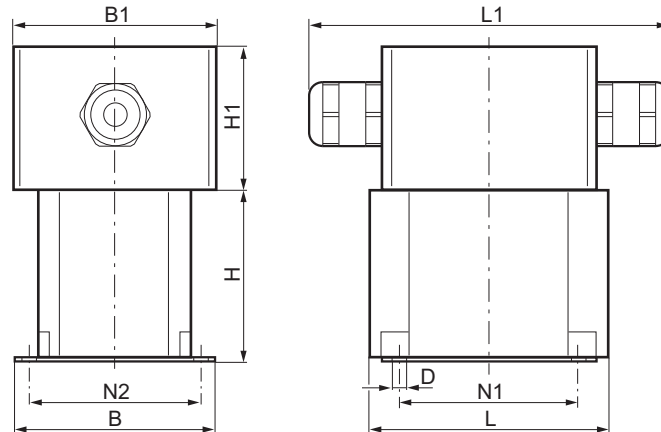
9453583371

Type	L	B	H	N1	N2	D
	mm	mm	mm	mm	mm	mm
HD LT 008 200 53-20	95	61	107	56	43	4
HD LT 012 130 53-20	125	76	158	100	55	5
HD LT 030 050 53-20	155	66	185	130	57	8
HD LT 075 022 53-20	190	92	223	170	68	8

# 4 Technical data – system accessories

## Output chokes

IP66, 3 × 200 – 600 V, 8 – 18 A



9453666955

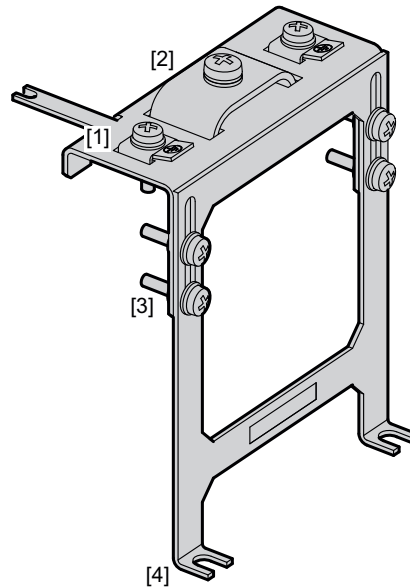
Type	L	B	H	N1	N2	D	L1	B1	H1
	mm	mm	mm	mm	mm	mm	mm	mm	mm
HD LT 008 200 63-66	115	74	85	80	60	5.5 × 7	151	85	60
HD LT 012 120 63-66	140	87	110	100	70	5.5 × 12	151	85	60
HD LT 018 090 63-66	140	87	110	100	70	5.5 × 12	151	85	60

### 4.5 Shield plate IP20

To ensure a good EMC performance and to establish the required equipotential bonding, SEW-EURODRIVE recommends placing the shield of the motor cables on the mounting plate of the control cabinet over a large surface area. When doing this, use the shield plate listed below with an IP20 rating.

Type	Part number
LT SB 23 A <sup>1)</sup> .	28214994

1) Only for size 2 and 3

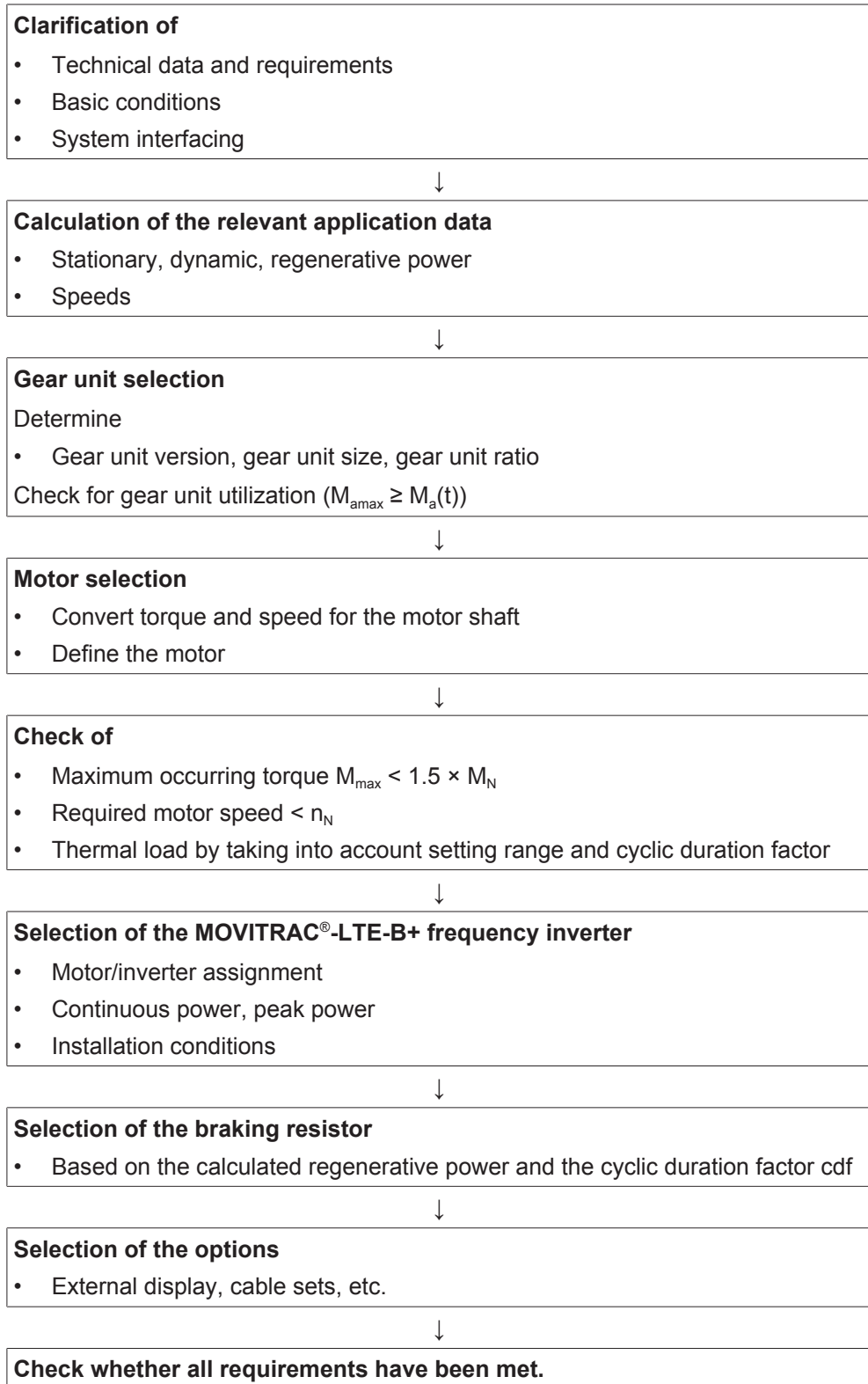


13406635275

- [1] Earth connection
- [2] Terminal for motor cable
- [3] Adjustment screw for sizes 2 and 3
- [4] Connection for back panel installation

## 5 Motor selection

### 5.1 Project planning flowchart



## 6 Address list

<b>Argentina</b>			
Assembly Sales	Buenos Aires	SEW EURODRIVE ARGENTINA S.A. Ruta Panamericana Km 37.5, Lote 35 (B1619IEA) Centro Industrial Garín Prov. de Buenos Aires	Tel. +54 3327 4572-84 Fax +54 3327 4572-21 <a href="http://www.sew-eurodrive.com.ar">http://www.sew-eurodrive.com.ar</a> <a href="mailto:sewar@sew-eurodrive.com.ar">sewar@sew-eurodrive.com.ar</a>
<b>Australia</b>			
Assembly Sales Service	Melbourne	SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043	Tel. +61 3 9933-1000 Fax +61 3 9933-1003 <a href="http://www.sew-eurodrive.com.au">http://www.sew-eurodrive.com.au</a> <a href="mailto:enquires@sew-eurodrive.com.au">enquires@sew-eurodrive.com.au</a>
	Sydney	SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164	Tel. +61 2 9725-9900 Fax +61 2 9725-9905 <a href="mailto:enquires@sew-eurodrive.com.au">enquires@sew-eurodrive.com.au</a>
<b>Austria</b>			
Assembly Sales Service	Vienna	SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Straße 24 1230 Wien	Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 <a href="http://www.sew-eurodrive.at">http://www.sew-eurodrive.at</a> <a href="mailto:sew@sew-eurodrive.at">sew@sew-eurodrive.at</a>
<b>Bangladesh</b>			
Sales	Bangladesh	SEW-EURODRIVE INDIA PRIVATE LIMITED 345 DIT Road East Rampura Dhaka-1219, Bangladesh	Tel. +88 01729 097309 <a href="mailto:salesdhaka@seweurodrivebangladesh.com">salesdhaka@seweurodrivebangladesh.com</a>
<b>Belarus</b>			
Sales	Minsk	Foreign unitary production enterprise SEW- EURODRIVE RybalkoStr. 26 220033 Minsk	Tel. +375 17 298 47 56 / 298 47 58 Fax +375 17 298 47 54 <a href="http://www.sew.by">http://www.sew.by</a> <a href="mailto:sales@sew.by">sales@sew.by</a>
<b>Belgium</b>			
Assembly Sales Service	Brussels	SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 3001 Leuven	Tel. +32 16 386-311 Fax +32 16 386-336 <a href="http://www.sew-eurodrive.be">http://www.sew-eurodrive.be</a> <a href="mailto:info@sew-eurodrive.be">info@sew-eurodrive.be</a>
Service Competence Center	Industrial Gears	SEW-EURODRIVE n.v./s.a. Rue du Parc Industriel, 31 6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 <a href="http://www.sew-eurodrive.be">http://www.sew-eurodrive.be</a> <a href="mailto:info@sew.be">info@sew.be</a>
<b>Brazil</b>			
Production Sales Service	São Paulo	SEW-EURODRIVE Brasil Ltda. Estrada Municipal José Rubim, 205 – Rodovia Santos Dumont Km 49 Indaiatuba – 13347-510 – SP	Tel. +55 19 3835-8000 <a href="mailto:sew@sew.com.br">sew@sew.com.br</a>
Assembly Sales Service	Rio Claro	SEW-EURODRIVE Brasil Ltda. Rodovia Washington Luiz, Km 172 Condomínio Industrial Conpark Caixa Postal: 327 13501-600 – Rio Claro / SP	Tel. +55 19 3522-3100 Fax +55 19 3524-6653 <a href="mailto:montadora.rc@sew.com.br">montadora.rc@sew.com.br</a>
	Joinville	SEW-EURODRIVE Brasil Ltda. Jvl / Ind Rua Dona Francisca, 12.346 – Pirabeiraba 89239-270 – Joinville / SC	Tel. +55 47 3027-6886 Fax +55 47 3027-6888 <a href="mailto:filial.sc@sew.com.br">filial.sc@sew.com.br</a>
<b>Bulgaria</b>			
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**Cameroon**

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**Canada**

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	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. Tilbury Industrial Park 7188 Honeyman Street Delta, BC V4G 1G1	Tel. +1 604 946-5535 Fax +1 604 946-2513 b.wake@sew-eurodrive.ca
	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2001 Ch. de l'Aviation Dorval Quebec H9P 2X6	Tel. +1 514 367-1124 Fax +1 514 367-3677 n.paradis@sew-eurodrive.ca

**Chile**

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**China**

Production Assembly Sales Service	Tianjin	SEW-EURODRIVE (Tianjin) Co., Ltd. No. 78, 13th Avenue, TEDA Tianjin 300457	Tel. +86 22 25322612 Fax +86 22 25323273 <a href="http://www.sew-eurodrive.cn">http://www.sew-eurodrive.cn</a> info@sew-eurodrive.cn
Assembly Sales Service	Suzhou	SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021	Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew-eurodrive.cn
	Guangzhou	SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530	Tel. +86 20 82267890 Fax +86 20 82267922 guangzhou@sew-eurodrive.cn
	Shenyang	SEW-EURODRIVE (Shenyang) Co., Ltd. 10A-2, 6th Road Shenyang Economic Technological Development Area Shenyang, 110141	Tel. +86 24 25382538 Fax +86 24 25382580 shenyang@sew-eurodrive.cn
	Taiyuan	SEW-EURODRIVE (Taiyuan) Co., Ltd. No.3, HuaZhang Street, TaiYuan Economic & Technical Development Zone ShanXi, 030032	Tel. +86-351-7117520 Fax +86-351-7117522 taiyuan@sew-eurodrive.cn
	Wuhan	SEW-EURODRIVE (Wuhan) Co., Ltd. 10A-2, 6th Road No. 59, the 4th Quanli Road, WEDA 430056 Wuhan	Tel. +86 27 84478388 Fax +86 27 84478389 wuhan@sew-eurodrive.cn
	Xi'An	SEW-EURODRIVE (Xi'An) Co., Ltd. No. 12 Jinye 2nd Road Xi'An High-Technology Industrial Development Zone Xi'An 710065	Tel. +86 29 68686262 Fax +86 29 68686311 xian@sew-eurodrive.cn
Sales Service	Hong Kong	SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong	Tel. +852 36902200 Fax +852 36902211 contact@sew-eurodrive.hk

<b>Colombia</b>			
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Sales Service	Zagreb	KOMPEKS d. o. o. Zeleni dol 10 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 <a href="mailto:kompeks@inet.hr">kompeks@inet.hr</a>
<b>Czech Republic</b>			
Assembly Sales Service	Hostivice	SEW-EURODRIVE CZ s.r.o. Floriánova 2459 253 01 Hostivice	Tel. +420 255 709 601 Fax +420 235 350 613 <a href="http://www.sew-eurodrive.cz">http://www.sew-eurodrive.cz</a> <a href="mailto:sew@sew-eurodrive.cz">sew@sew-eurodrive.cz</a>
<b>Denmark</b>			
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Service	Vejle	SEW-EURODRIVE A/S Bødkervej 2 7100 Vejle	Tel. +45 43 9585 00 <a href="http://www.sew-eurodrive.dk">http://www.sew-eurodrive.dk</a> <a href="mailto:sew@sew-eurodrive.dk">sew@sew-eurodrive.dk</a>
<b>Egypt</b>			
Sales Service	Cairo	Copam Egypt for Engineering & Agencies Building 10, Block 13005, First Industrial Zone, Obour City Cairo	Tel. +202 44812673 / 79 (7 lines) Fax +202 44812685 <a href="http://www.copam-egypt.com">http://www.copam-egypt.com</a> <a href="mailto:copam@copam-egypt.com">copam@copam-egypt.com</a>
<b>Estonia</b>			
Sales	Tallin	ALAS-KUUL AS Loomäe tee 1, Lehmja küla 75306 Rae vald Harjumaa	Tel. +372 6593230 Fax +372 6593231 <a href="http://www.alas-kuul.ee">http://www.alas-kuul.ee</a> <a href="mailto:info@alas-kuul.ee">info@alas-kuul.ee</a>
<b>Finland</b>			
Assembly Sales Service	Hollola	SEW-EURODRIVE OY Vesimäentie 4 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 <a href="http://www.sew-eurodrive.fi">http://www.sew-eurodrive.fi</a> <a href="mailto:sew@sew.fi">sew@sew.fi</a>
Service	Hollola	SEW-EURODRIVE OY Keskikankaantie 21 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 <a href="http://www.sew-eurodrive.fi">http://www.sew-eurodrive.fi</a> <a href="mailto:sew@sew.fi">sew@sew.fi</a>
	Tornio	SEW-EURODRIVE Oy Lossirannankatu 5 95420 Tornio	Tel. +358 201 589 300 Fax +358 3 780 6211 <a href="http://www.sew-eurodrive.fi">http://www.sew-eurodrive.fi</a> <a href="mailto:sew@sew.fi">sew@sew.fi</a>
Production Assembly	Karkkila	SEW Industrial Gears Oy Santasalonkatu 6, PL 8 03620 Karkkila, 03601 Karkkila	Tel. +358 201 589-300 Fax +358 201 589-310 <a href="http://www.sew-eurodrive.fi">http://www.sew-eurodrive.fi</a> <a href="mailto:sew@sew.fi">sew@sew.fi</a>
<b>France</b>			
Production Sales Service	Hagenau	SEW USOCOME 48-54 route de Soufflenheim B. P. 20185 67506 Hagenau Cedex	Tel. +33 3 88 73 67 00 Fax +33 3 88 73 66 00 <a href="http://www.usocom.com">http://www.usocom.com</a> <a href="mailto:sew@usocom.com">sew@usocom.com</a>
Production	Forbach	SEW USOCOME Zone industrielle Technopôle Forbach Sud B. P. 30269 57604 Forbach Cedex	Tel. +33 3 87 29 38 00
	Brumath	SEW USOCOME 1 Rue de Bruxelles 67670 Mommenheim Cedex	Tel. +33 3 88 37 48 00

# 6 Address list

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	Lyon	SEW USOCOME 75 rue Antoine Condorcet 38090 Vaulx-Milieu	Tel. +33 4 74 99 60 00 Fax +33 4 74 99 60 15
	Nantes	SEW USOCOME Parc d'activités de la forêt 4 rue des Fontenelles 44140 Le Bignon	Tel. +33 2 40 78 42 00 Fax +33 2 40 78 42 20
	Paris	SEW USOCOME Zone industrielle 2 rue Denis Papin 77390 Verneuil l'Étang	Tel. +33 1 64 42 40 80 Fax +33 1 64 42 40 88
Gabon			
Representation: Cameroon			
Germany			
Headquarters Production Sales	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 <a href="http://www.sew-eurodrive.de">http://www.sew-eurodrive.de</a> <a href="mailto:sew@sew-eurodrive.de">sew@sew-eurodrive.de</a>
	Production / Industrial Gears	Bruchsal	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Str. 10 76646 Bruchsal
Production / Precision Gear Units	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 <a href="mailto:sew@sew-eurodrive.de">sew@sew-eurodrive.de</a>
Production	Graben	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf	Tel. +49 7251 75-0 Fax +49 7251-2970
Service Competence Center	Mechanics / Mechatronics	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf	Tel. +49 7251 75-1710 Fax +49 7251 75-1711 <a href="mailto:scc-mechanik@sew-eurodrive.de">scc-mechanik@sew-eurodrive.de</a>
	Electronics	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Straße 12 76646 Bruchsal	Tel. +49 7251 75-1780 Fax +49 7251 75-1769 <a href="mailto:scc-elektronik@sew-eurodrive.de">scc-elektronik@sew-eurodrive.de</a>
Drive Technology Center	MAXOLU- TION® Factory Automation	SEW-EURODRIVE GmbH & Co KG Eisenbahnstraße 11 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 <a href="mailto:sew@sew-eurodrive.de">sew@sew-eurodrive.de</a>
	North	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 43 30823 Garbsen (Hannover)	Tel. +49 5137 8798-30 Fax +49 5137 8798-55 <a href="mailto:dtc-nord@sew-eurodrive.de">dtc-nord@sew-eurodrive.de</a>
	East	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 08393 Meerane (Zwickau)	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 <a href="mailto:dtc-ost@sew-eurodrive.de">dtc-ost@sew-eurodrive.de</a>
	South	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim (München)	Tel. +49 89 909551-21 Fax +49 89 909551-50 <a href="mailto:dtc-sued@sew-eurodrive.de">dtc-sued@sew-eurodrive.de</a>
Drive Center	West	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld (Düsseldorf)	Tel. +49 2173 8507-10 Fax +49 2173 8507-50 <a href="mailto:dtc-west@sew-eurodrive.de">dtc-west@sew-eurodrive.de</a>
	Berlin	SEW-EURODRIVE GmbH & Co KG Alexander-Meißner-Straße 44 12526 Berlin	Tel. +49 306331131-30 Fax +49 306331131-36 <a href="mailto:dc-berlin@sew-eurodrive.de">dc-berlin@sew-eurodrive.de</a>
	Hamburg	SEW-EURODRIVE GmbH & Co KG Hasselbinnen 44 22869 Schenefeld	Tel. +49 40298109-60 Fax +49 40298109-70 <a href="mailto:dc-hamburg@sew-eurodrive.de">dc-hamburg@sew-eurodrive.de</a>
	Ludwigshafen	SEW-EURODRIVE GmbH & Co KG c/o BASF SE c/o BASF SE Gebäude W130 67056 Ludwigshafen	Tel. +49 7251 75 3759 Fax +49 7251 75 503759 <a href="mailto:dc-ludwigshafen@sew-eurodrive.de">dc-ludwigshafen@sew-eurodrive.de</a>

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**Germany**

Saarland	SEW-EURODRIVE GmbH & Co KG Gottlieb-Daimler-Straße 4 66773 Schwalbach Saar – Hülzweiler	Tel. +49 6831 48946 10 Fax +49 6831 48946 13 dc-saarland@sew-eurodrive.de
Ulm	SEW-EURODRIVE GmbH & Co KG Dieselstraße 18 89160 Dornstadt	Tel. +49 7348 9885-0 Fax +49 7348 9885-90 dc-ulm@sew-eurodrive.de
Würzburg	SEW-EURODRIVE GmbH & Co KG Nürnbergerstraße 118 97076 Würzburg-Lengfeld	Tel. +49 931 27886-60 Fax +49 931 27886-66 dc-wuerzburg@sew-eurodrive.de

Drive Service Hotline / 24 Hour Service

0 800 SEWHELP  
0 800 7394357**Great Britain**

Assembly Sales Service	Normanton	SEW-EURODRIVE Ltd. DeVilliers Way Trident Park Normanton West Yorkshire WF6 1GX	Tel. +44 1924 893-855 Fax +44 1924 893-702 <a href="http://www.sew-eurodrive.co.uk">http://www.sew-eurodrive.co.uk</a> info@sew-eurodrive.co.uk
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**Greece**

Sales	Athens	Christ. Boznos & Son S.A. 12, K. Mavromichali Street P.O. Box 80136 18545 Piraeus	Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 <a href="http://www.boznos.gr">http://www.boznos.gr</a> info@boznos.gr
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**Hungary**

Sales Service	Budapest	SEW-EURODRIVE Kft. Csillaghegyi út 13. 1037 Budapest	Tel. +36 1 437 06-58 Fax +36 1 437 06-50 <a href="http://www.sew-eurodrive.hu">http://www.sew-eurodrive.hu</a> office@sew-eurodrive.hu
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**Iceland**

Sales	Reykjavik	Varma & Vélaverk ehf. Knarrarvogi 4 104 Reykjavik	Tel. +354 585 1070 Fax +354 585)1071 <a href="https://vov.is/">https://vov.is/</a> vov@vov.is
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**India**

Registered Office Assembly Sales Service	Vadodara	SEW-EURODRIVE India Private Limited Plot No. 4, GIDC POR Ramangamdi • Vadodara - 391 243 Gujarat	Tel. +91 265 3045200 Fax +91 265 3045300 <a href="http://www.seweurodriveindia.com">http://www.seweurodriveindia.com</a> salesvadodara@seweurodriveindia.com
Assembly Sales Service	Chennai	SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu	Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com
	Pune	SEW-EURODRIVE India Private Limited Plant: Plot No. D236/1, Chakan Industrial Area Phase- II, Warale, Tal- Khed, Pune-410501, Maharashtra	Tel. +91 21 35 628700 Fax +91 21 35 628715 salespune@seweurodriveindia.com
Sales Service	Gurgaon	SEW-EURODRIVE India Private Limited Drive Center Gurugram Plot no 395, Phase-IV, UdyogVihar Gurugram , 122016 Haryana	Tel. +91 99588 78855 salesgurgaon@seweurodriveindia.com

**Indonesia**

Sales	Medan	PT. Serumpun Indah Lestari Jl.Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252	Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com <a href="http://www.serumpunindah.com">http://www.serumpunindah.com</a>
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Indonesia			
	Jakarta	PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350	Tel. +62 21 65310599 Fax +62 21 65310600 csajkt@cbn.net.id
	Jakarta	PT. Agrindo Putra Lestari JL.Pantai Indah Selatan, Komplek Sentra In- dustri Terpadu, Pantai indah Kapuk Tahap III, Blok E No. 27 Jakarta 14470	Tel. +62 21 2921-8899 Fax +62 21 2921-8988 aplindo@indosat.net.id http://www.aplindo.com
	Surabaya	PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60111	Tel. +62 31 5990128 Fax +62 31 5962666 sales@triagri.co.id http://www.triagri.co.id
	Surabaya	CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174	Tel. +62 31 5458589 Fax +62 31 5317220 sianhwa@sby.centrin.net.id http://www.cvmultimas.com
Ireland			
Sales Service	Dublin	Alperon Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458 http://www.alperon.ie info@alperon.ie
Israel			
Sales	Tel Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il
Italy			
Assembly Sales Service	Milan	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Bernini,12 20020 Solaro (Milano)	Tel. +39 02 96 980229 Fax +39 02 96 980 999 http://www.sew-eurodrive.it milano@sew-eurodrive.it
Ivory Coast			
Sales	Abidjan	SEW-EURODRIVE SARL Ivory Coast Rue des Pêcheurs, Zone 3 26 BP 916 Abidjan 26	Tel. +225 21 21 81 05 Fax +225 21 25 30 47 info@sew-eurodrive.ci http://www.sew-eurodrive.ci
Japan			
Assembly Sales Service	Iwata	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818	Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp
Kazakhstan			
Sales Service	Almaty	SEW-EURODRIVE LLP 291-291A, Tole bi street 050031, Almaty	Tel. +7 (727) 350 5156 Fax +7 (727) 350 5156 http://www.sew-eurodrive.kz sew@sew-eurodrive.kz
	Tashkent	Representative Office SEW-EURODRIVE Representative office in Uzbekistan 95A Amir Temur ave, office 401/3 100084 Tashkent	Tel. +998 97 134 01 99 http://www.sew-eurodrive.uz sew@sew-eurodrive.uz
	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Fax +976-77109997 imt@imt.mn
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C 1073 Riga	Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.lv info@alas-kuul.com

**Lebanon**

Sales (Lebanon)	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb
Sales (Jordan, Kuwait , Beirut Saudi Arabia, Syria)		Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut	Tel. +961 1 494 786 Fax +961 1 494 971 <a href="http://www.medrives.com">http://www.medrives.com</a> info@medrives.com

**Lithuania**

Sales	Alytus	UAB Irseva Statybininku 106C 63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 <a href="http://www.irseva.lt">http://www.irseva.lt</a> irmantas@irseva.lt
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**Luxembourg**

Representation: Belgium

**Macedonia**

Sales	Skopje	Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje	Tel. +389 23256553 Fax +389 23256554 <a href="http://www.boznos.mk">http://www.boznos.mk</a>
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**Malaysia**

Assembly Sales Service	Johor	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my
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**Mexico**

Assembly Sales Service	Quéretaro	SEW-EURODRIVE MEXICO S.A. de C.V. SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Querétaro, México	Tel. +52 442 1030-300 Fax +52 442 1030-301 <a href="http://www.sew-eurodrive.com.mx">http://www.sew-eurodrive.com.mx</a> scmexico@seweurodrive.com.mx
Sales Service	Puebla	SEW-EURODRIVE MEXICO S.A. de C.V. Calzada Zavaleta No. 3922 Piso 2 Local 6 Col. Santa Cruz Buenavista C.P. 72154 Puebla, México	Tel. +52 (222) 221 248 <a href="http://www.sew-eurodrive.com.mx">http://www.sew-eurodrive.com.mx</a> scmexico@seweurodrive.com.mx

**Mongolia**

Technical Office	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Tel. +976-99070395 Fax +976-77109997 <a href="http://imt.mn/">http://imt.mn/</a> imt@imt.mn
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**Morocco**

Sales Service Assembly	Bouskoura	SEW-EURODRIVE Morocco SARL Parc Industriel CFCIM, Lot. 55/59 27182 Bouskoura Grand Casablanca	Tel. +212 522 88 85 00 Fax +212 522 88 84 50 <a href="http://www.sew-eurodrive.ma">http://www.sew-eurodrive.ma</a> sew@sew-eurodrive.ma
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**Namibia**

Sales	Swakopmund	DB MINING & INDUSTRIAL SUPPLIES CC Einstein Street Strauss Industrial Park Unit1 Swakopmund	Tel. +264 64 462 738 Fax +264 64 462 734 anton@dbminingnam.com
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**Netherlands**

Assembly Sales Service	Rotterdam	SEW-EURODRIVE B.V. Industrieweg 175 3044 AS Rotterdam Postbus 10085 3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP <a href="http://www.sew-eurodrive.nl">http://www.sew-eurodrive.nl</a> info@sew-eurodrive.nl
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<b>New Zealand</b>			
Assembly Sales Service	Auckland	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 <a href="http://www.sew-eurodrive.co.nz">http://www.sew-eurodrive.co.nz</a> sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 30 Lodestar Avenue, Wigram Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
<b>Nigeria</b>			
Sales	Lagos	Greenpeg Nig. Ltd Plot 296A, Adeyemo Akapo Str. Omole GRA Ikeja Lagos-Nigeria	Tel. +234-701-821-9200-1 <a href="http://www.greenpegltd.com">http://www.greenpegltd.com</a> sales@greenpegltd.com
<b>Norway</b>			
Assembly Sales Service	Moss	SEW-EURODRIVE A/S Solgaard skog 71 1599 Moss	Tel. +47 69 24 10 20 Fax +47 69 24 10 40 <a href="http://www.sew-eurodrive.no">http://www.sew-eurodrive.no</a> sew@sew-eurodrive.no
<b>Pakistan</b>			
Sales	Karachi	Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Com- mercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi	Tel. +92 21 452 9369 Fax +92-21-454 7365 seweurodrive@cyber.net.pk
<b>Paraguay</b>			
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<b>Peru</b>			
Assembly Sales Service	Lima	SEW EURODRIVE DEL PERU S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 <a href="http://www.sew-eurodrive.com.pe">http://www.sew-eurodrive.com.pe</a> sewperu@sew-eurodrive.com.pe
<b>Philippines</b>			
Sales	Makati	P.T. Cerna Corporation 4137 Ponte St., Brgy. Sta. Cruz Makati City 1205	Tel. +63 2 519 6214 Fax +63 2 890 2802 mech_drive_sys@ptcerna.com <a href="http://www.ptcerna.com">http://www.ptcerna.com</a>
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	Service	Tel. +48 42 293 0030 Fax +48 42 293 0043	24 Hour Service Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl
<b>Portugal</b>			
Assembly Sales Service	Coimbra	SEW-EURODRIVE, LDA. Av. da Fonte Nova, n.º 86 3050-379 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 <a href="http://www.sew-eurodrive.pt">http://www.sew-eurodrive.pt</a> infosew@sew-eurodrive.pt
<b>Romania</b>			
Sales Service	Bucharest	Sialco Trading SRL str. Brazilia nr. 36 011783 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 <a href="http://www.sialco.ro">http://www.sialco.ro</a> sialco@sialco.ro

**Russia**

Assembly Sales Service	St. Petersburg	ЗАО «СЕВ-ЕВРОДРАЙФ» 188660, Russia, Leningrad Region, Vse- volozhsky District, Korabselki, Aleksandra Nevskogo str. building 4, block 1 P.O. Box 36 195220 St. Petersburg	Tel. +7 812 3332522 / +7 812 5357142 Fax +7 812 3332523 <a href="http://www.sew-eurodrive.ru">http://www.sew-eurodrive.ru</a> <a href="mailto:sew@sew-eurodrive.ru">sew@sew-eurodrive.ru</a>
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**Senegal**

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**Serbia**

Sales	Belgrade	DIPAR d.o.o. Ustanicka 128a PC Košum, IV floor 11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 <a href="mailto:office@dipar.rs">office@dipar.rs</a>
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**Singapore**

Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 <a href="http://www.sew-eurodrive.com.sg">http://www.sew-eurodrive.com.sg</a> <a href="mailto:sewsingapore@sew-eurodrive.com">sewsingapore@sew-eurodrive.com</a>
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**Slovakia**

Sales	Bernolákovo	SEW-Eurodrive SK s.r.o. Priemyselná ulica 6267/7 900 27 Bernolákovo	Tel.+421 2 33595 202, 217, 201 Fax +421 2 33595 200 <a href="http://www.sew-eurodrive.sk">http://www.sew-eurodrive.sk</a> <a href="mailto:sew@sew-eurodrive.sk">sew@sew-eurodrive.sk</a>
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**Slovenia**

Sales Service	Celje	Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 <a href="mailto:pakman@siol.net">pakman@siol.net</a>
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**South Africa**

Assembly Sales Service	Johannesburg	SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 248-7289 <a href="http://www.sew.co.za">http://www.sew.co.za</a> <a href="mailto:info@sew.co.za">info@sew.co.za</a>
	Cape Town	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 <a href="mailto:bgriffiths@sew.co.za">bgriffiths@sew.co.za</a>
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 48 Prospecton Road Isipingo Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 902 3815 Fax +27 31 902 3826 <a href="mailto:cdejager@sew.co.za">cdejager@sew.co.za</a>
	Nelspruit	SEW-EURODRIVE (PROPRIETARY) LIMITED 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200	Tel. +27 13 752-8007 Fax +27 13 752-8008 <a href="mailto:robermeyer@sew.co.za">robermeyer@sew.co.za</a>

**South Korea**

Assembly Sales Service	Ansan	SEW-EURODRIVE Korea Co., Ltd. 7, Dangjaengi-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Zip 425-839	Tel. +82 31 492-8051 Fax +82 31 492-8056 <a href="http://www.sew-eurodrive.kr">http://www.sew-eurodrive.kr</a> <a href="mailto:master.korea@sew-eurodrive.com">master.korea@sew-eurodrive.com</a>
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<b>South Korea</b>			
	Busan	SEW-EURODRIVE Korea Co., Ltd. 28, Noksansandan 262-ro 50beon-gil, Gangseo-gu, Busan, Zip 618-820	Tel. +82 51 832-0204 Fax +82 51 832-0230
Assembly Service	Siheung	SEW-EURODRIVE Korea Co., Ltd. 35, Emtibeui 26-ro 58beon-gil, Siheung-si, Gyeonggi-do	<a href="http://www.sew-eurodrive.kr">http://www.sew-eurodrive.kr</a>
<b>Spain</b>			
Assembly Sales Service	Bilbao	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 48170 Zamudio (Vizcaya)	Tel. +34 94 43184-70 <a href="http://www.sew-eurodrive.es">http://www.sew-eurodrive.es</a> <a href="mailto:sew.spain@sew-eurodrive.es">sew.spain@sew-eurodrive.es</a>
<b>Sri Lanka</b>			
Sales	Colombo	SM International (Pte) Ltd 254, Galle Raod Colombo 4, Sri Lanka	Tel. +94 1 2584887 Fax +94 1 2582981
<b>Swaziland</b>			
Sales	Manzini	C G Trading Co. (Pty) Ltd Simunye street Matsapha, Manzini	Tel. +268 7602 0790 Fax +268 2 518 5033 <a href="mailto:charles@cgtrading.co.sz">charles@cgtrading.co.sz</a> <a href="http://www.cgtradingswaziland.com">www.cgtradingswaziland.com</a>
<b>Sweden</b>			
Assembly Sales Service	Jönköping	SEW-EURODRIVE AB Gnejsvägen 6-8 553 03 Jönköping Box 3100 S-550 03 Jönköping	Tel. +46 36 34 42 00 Fax +46 36 34 42 80 <a href="http://www.sew-eurodrive.se">http://www.sew-eurodrive.se</a> <a href="mailto:jonkoping@sew.se">jonkoping@sew.se</a>
<b>Switzerland</b>			
Assembly Sales Service	Basel	Alfred Imhof A.G. Jurastrasse 10 4142 Münchenstein bei Basel	Tel. +41 61 417 1717 Fax +41 61 417 1700 <a href="http://www.imhof-sew.ch">http://www.imhof-sew.ch</a> <a href="mailto:info@imhof-sew.ch">info@imhof-sew.ch</a>
<b>Taiwan</b>			
Sales	Taipei	Ting Shou Trading Co., Ltd. 6F-3, No. 267, Sec. 2 Tung Huw S. Road Taipei	Tel. +886 2 27383535 Fax +886 2 27368268 Telex 27 245 <a href="mailto:sewtwn@ms63.hinet.net">sewtwn@ms63.hinet.net</a> <a href="http://www.tingshou.com.tw">http://www.tingshou.com.tw</a>
	Nan Tou	Ting Shou Trading Co., Ltd. No. 55 Kung Yeh N. Road Industrial District Nan Tou 540	Tel. +886 49 255353 Fax +886 49 257878 <a href="mailto:sewtwn@ms63.hinet.net">sewtwn@ms63.hinet.net</a> <a href="http://www.tingshou.com.tw">http://www.tingshou.com.tw</a>
<b>Tanzania</b>			
Sales	Daressalam	SEW-EURODRIVE PTY LIMITED TANZANIA Plot 52, Regent Estate PO Box 106274 Dar Es Salaam	Tel. +255 0 22 277 5780 Fax +255 0 22 277 5788 <a href="http://www.sew-eurodrive.co.tz">http://www.sew-eurodrive.co.tz</a> <a href="mailto:info@sew.co.tz">info@sew.co.tz</a>
<b>Thailand</b>			
Assembly Sales Service	Chonburi	SEW-EURODRIVE (Thailand) Ltd. 700/456, Moo.7, Donhuaroh Muang Chonburi 20000	Tel. +66 38 454281 Fax +66 38 454288 <a href="mailto:sewthailand@sew-eurodrive.com">sewthailand@sew-eurodrive.com</a>
<b>Tunisia</b>			
Sales	Tunis	T. M.S. Technic Marketing Service Zone Industrielle Mghira 2 Lot No. 39 2082 Fouchana	Tel. +216 79 40 88 77 Fax +216 79 40 88 66 <a href="http://www.tms.com.tn">http://www.tms.com.tn</a> <a href="mailto:tms@tms.com.tn">tms@tms.com.tn</a>

**Turkey**

Assembly Sales Service	Kocaeli-Gebze	SEW-EURODRIVE Ana Merkez Gebze Organize Sanayi Böl. 400 Sok No. 401 41480 Gebze Kocaeli	Tel. +90 262 9991000 04 Fax +90 262 9991009 <a href="http://www.sew-eurodrive.com.tr">http://www.sew-eurodrive.com.tr</a> <a href="mailto:sew@sew-eurodrive.com.tr">sew@sew-eurodrive.com.tr</a>
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**Ukraine**

Assembly Sales Service	Dnipropetrovsk	SEW-EURODRIVE, LLC Robochya str., bld. 23-B, office 409 49008 Dnipro	Tel. +380 56 370 3211 Fax +380 56 372 2078 <a href="http://www.sew-eurodrive.ua">http://www.sew-eurodrive.ua</a> <a href="mailto:sew@sew-eurodrive.ua">sew@sew-eurodrive.ua</a>
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**United Arab Emirates**

Drive Technology Center	Dubai	SEW-EURODRIVE FZE PO Box 263835 Jebel Ali Free Zone – South, P.O. Box Dubai, United Arab Emirates	Tel. +971 (0)4 8806461 Fax +971 (0)4 8806464 <a href="mailto:info@sew-eurodrive.ae">info@sew-eurodrive.ae</a>
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**Uruguay**

Assembly Sales	Montevideo	SEW-EURODRIVE Uruguay, S. A. Jose Serrato 3569 Esquina Corumbe CP 12000 Montevideo	Tel. +598 2 21181-89 Fax +598 2 21181-90 <a href="mailto:sewuy@sew-eurodrive.com.uy">sewuy@sew-eurodrive.com.uy</a>
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**USA**

Production Assembly Sales Service	Southeast Region	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Production +1 864 439-9948 Fax Assembly +1 864 439-0566 Fax Confidential/HR +1 864 949-5557 <a href="http://www.seweurodrive.com">http://www.seweurodrive.com</a> <a href="mailto:cslyman@seweurodrive.com">cslyman@seweurodrive.com</a>
Assembly Sales Service	Northeast Region	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 845-3179 <a href="mailto:csbridgeport@seweurodrive.com">csbridgeport@seweurodrive.com</a>
	Midwest Region	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 332-0038 <a href="mailto:cstroy@seweurodrive.com">cstroy@seweurodrive.com</a>
	Southwest Region	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 <a href="mailto:csdallas@seweurodrive.com">csdallas@seweurodrive.com</a>
	Western Region	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544	Tel. +1 510 487-3560 Fax +1 510 487-6433 <a href="mailto:cshayward@seweurodrive.com">cshayward@seweurodrive.com</a>
	Wellford	SEW-EURODRIVE INC. 148/150 Finch Rd. Wellford, S.C. 29385	Tel. +1 864 439-7537 Fax +1 864 661 1167 <a href="mailto:IGOrders@seweurodrive.com">IGOrders@seweurodrive.com</a>

Additional addresses for service provided on request!

**Vietnam**

Sales	Ho Chi Minh City	SEW-EURODRIVE PTE. LTD. RO at Hochim- inh City Floor 8, KV I, Loyal building, 151-151 Bis Vo Thi Sau street, ward 6, District 3, Ho Chi Minh City, Vietnam	Tel. +84 937 299 700 <a href="mailto:huytam.phan@sew-eurodrive.com">huytam.phan@sew-eurodrive.com</a>
	Hanoi	MICO LTD Quảng Trị - North Vietnam / All sectors except Construction Materials 8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam	Tel. +84 4 39386666 Fax +84 4 3938 6888 <a href="mailto:nam_ph@micogroup.com.vn">nam_ph@micogroup.com.vn</a> <a href="http://www.micogroup.com.vn">http://www.micogroup.com.vn</a>

**Zambia**

Representation: South Africa

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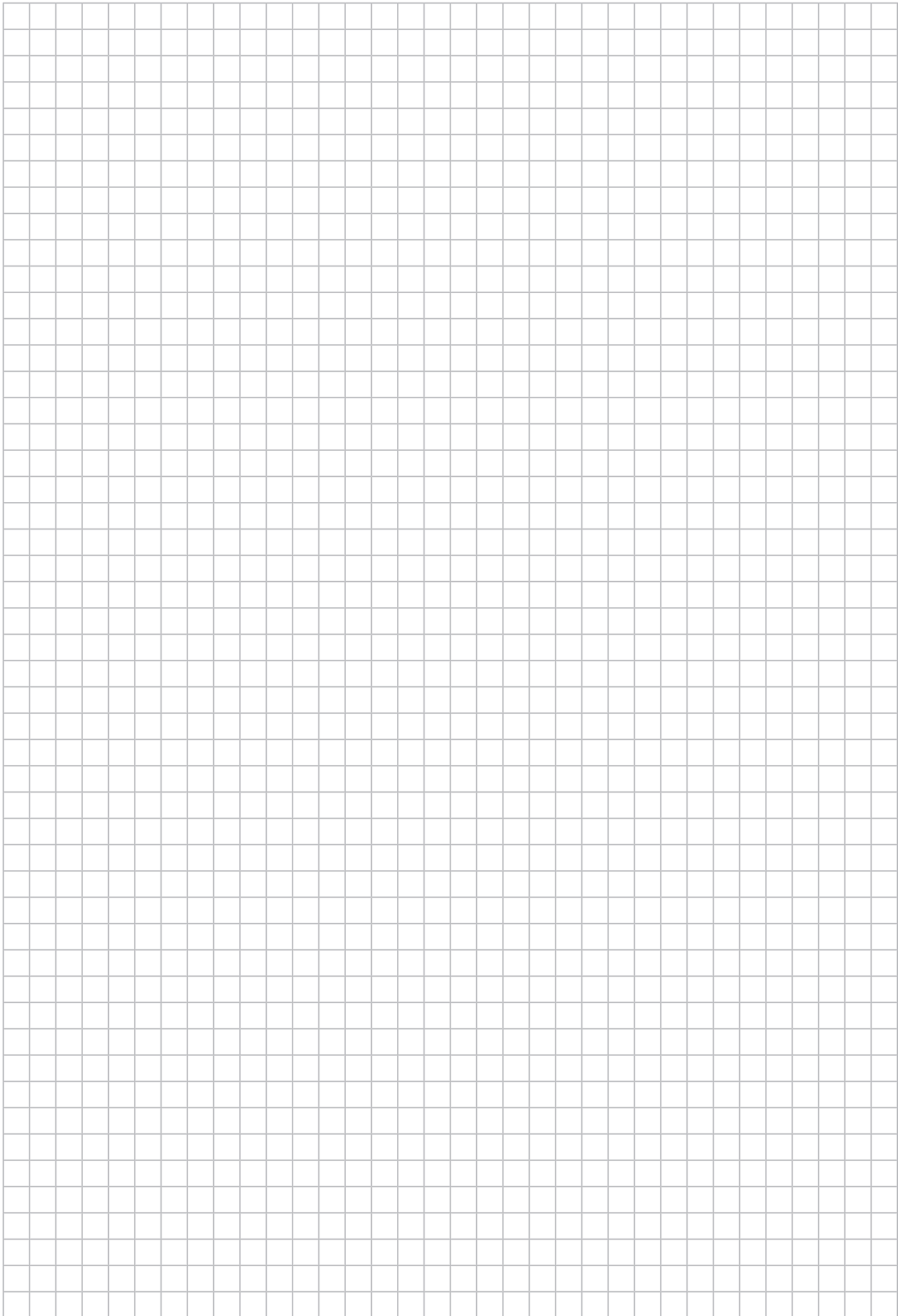
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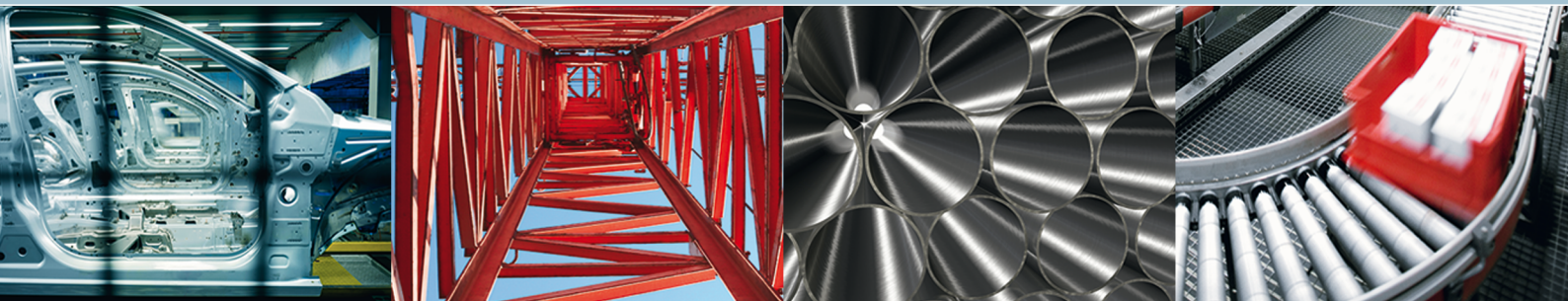
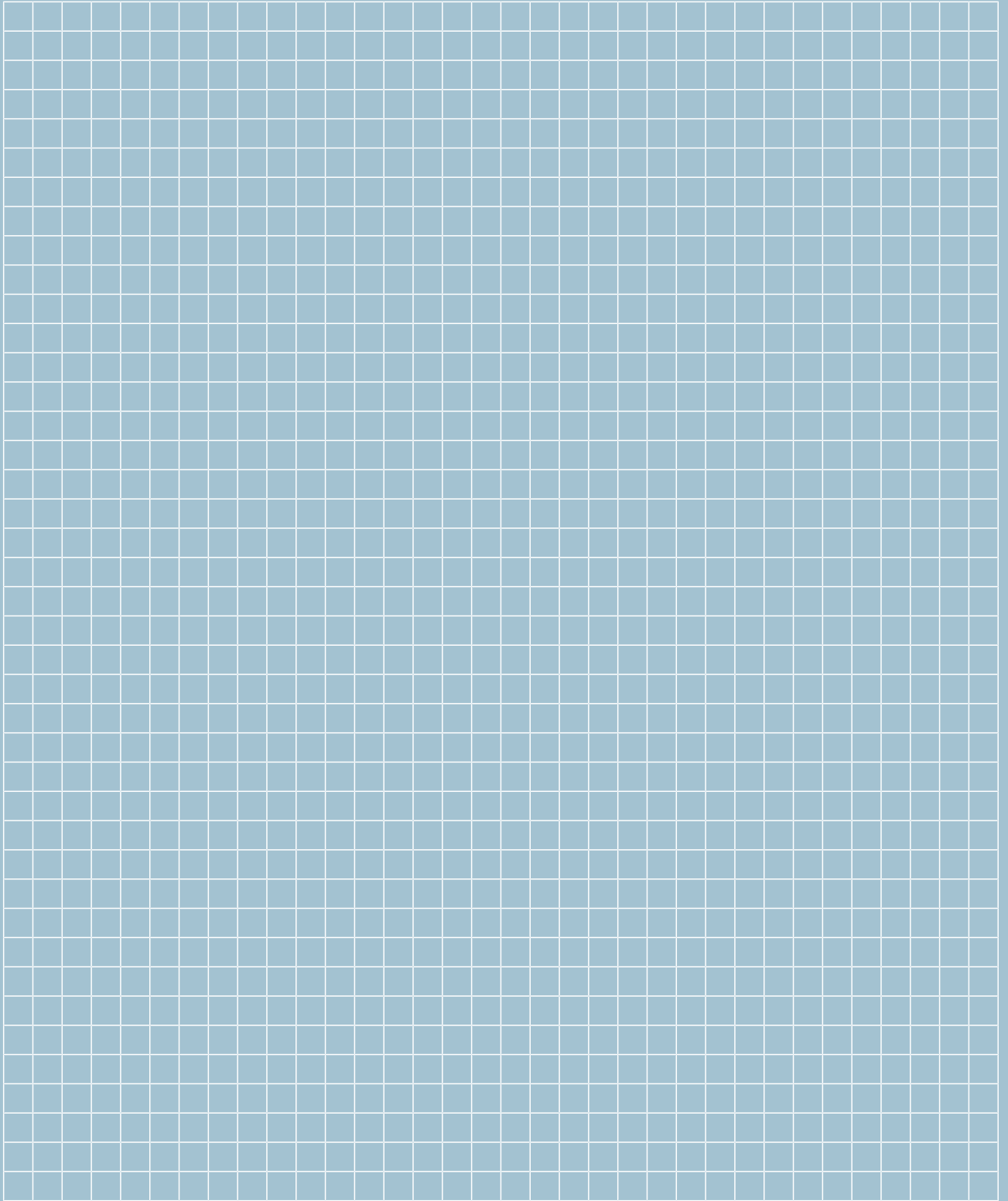
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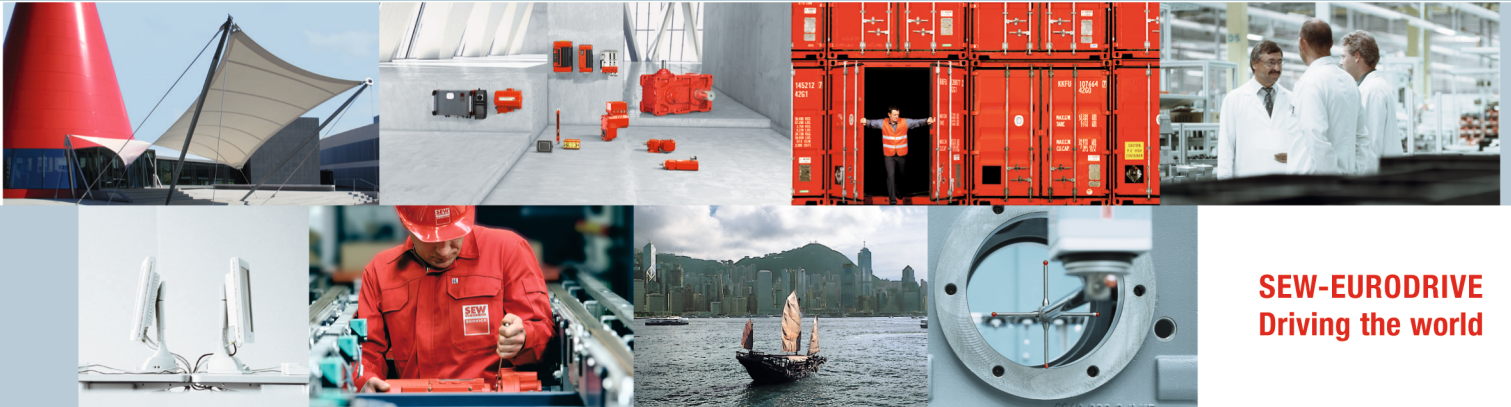
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