

## 2 Technical Data and Dimension Sheets

### 2.1 CE-marking, UL approval and C-Tick

#### CE marking

- Low voltage directive  
MOVIDRIVE® MDX60B/61B inverters comply with the regulations of the Low Voltage Directive 2006/95/EC.
- Electromagnetic compatibility (EMC)  
The designated use of MOVIDRIVE® inverters and regenerative power supply units is as components for installation in machinery and systems. They comply with the EMC product standard EN 61800-3 "Variable-speed electrical drives." Provided the installation instructions are complied with, they satisfy the relevant requirements for the CE marking for the entire machine/system in which they are installed, on the basis of the EMC Directive 89/336/EEC. For detailed information on EMC compliant installation, refer to the publication "Electromagnetic Compatibility in Drive Engineering" from SEW-EURODRIVE.
- Compliance with limit classes C1 or C2 has been tested on a specified test setup. SEW-EURODRIVE can provide detailed information on request.



The CE-mark on the nameplate indicates conformity with the low voltage directive 2006/95/EC. We can provide a declaration of conformity on request.

#### UL / cUL / GOST-R

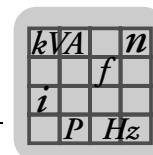
UL, cUL approval (USA) and the GOST-R certificate (Russia) have been approved for the entire MOVIDRIVE® unit series. cUL is equivalent to CSA approval.



#### C-Tick

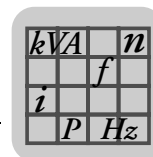


C-Tick approval has been granted for the entire MOVIDRIVE® range of units. C-Tick certifies conformity with ACMA (Australian Communications and Media Authority) standards.



MDX61B standard version Design with coated printed circuit boards	0005-5A3-4-00 0005-5A3-4-00/L	0008-5A3-4-00 0008-5A3-4-00/L	0011-5A3-4-00 0011-5A3-4-00/L	0014-5A3-4-00 0014-5A3-4-00/L
<b>Part number</b>	827 722 2 828 947 6	827 723 0 828 948 4	827 724 9 828 949 2	827 725 7 828 950 6
MDX61B Application version Design with coated printed circuit boards	0005-5A3-4-0T 0005-5A3-4-0T/L	0008-5A3-4-0T 0008-5A3-4-0T/L	0011-5A3-4-0T 0011-5A3-4-0T/L	0014-5A3-4-0T 0014-5A3-4-0T/L
<b>Part number</b>	827 726 5 828 951 4	827 727 3 828 952 2	827 728 1 828 953 0	827 729 X 828 954 9
<b>Constant load</b> Recommended motor power $P_{Mot}$	0.55 kW (0.74 HP)	0.75 kW (1.0 HP)	1.1 kW (1.5 HP)	1.5 kW (2.0 HP)
<b>Variable torque load or constant load without overload</b> Recommended motor power $P_{Mot}$	0.75 kW (1.0 HP)	1.1 kW (1.5 HP)	1.5 kW (2.0 HP)	2.2 kW (3.0 HP)
<b>Weight</b>	2.0 kg (4.4 lb)		2.5 kg (5.5 lb)	
<b>Dimensions</b> $W \times H \times D$	45 mm × 317 mm × 260 mm (1.8 in × 12.5 in × 10.2 in)		67.5 mm × 317 mm × 260 mm (2.66 in × 12.5 in × 10.2 in)	

MDX61B standard version (VFC/CFC/SERVO) Design with coated printed circuit boards	0005-5A3-4-00 0005-5A3-4-00/L	0008-5A3-4-00 0008-5A3-4-00/L	0011-5A3-4-00 0011-5A3-4-00/L	0014-5A3-4-00 0014-5A3-4-00/L
<b>Part number</b>	827 730 3 828 955 7	827 731 1 828 956 5	827 732 X 828 957 3	827 733 8 828 958 1
MDX61B Application version (VFC/CFC/SERVO) Design with coated printed circuit boards	0005-5A3-4-0T 0005-5A3-4-0T/L	0008-5A3-4-0T 0008-5A3-4-0T/L	0011-5A3-4-0T 0011-5A3-4-0T/L	0014-5A3-4-0T 0014-5A3-4-0T/L
<b>Part number</b>	827 734 6 828 960 3	827 735 4 828 961 1	827 736 2 828 963 8	827 737 0 828 964 6
<b>Weight</b>	2.3 kg (5.1 lb)		2.8 kg (6.2 lb)	
<b>Dimensions</b> $W \times H \times D$	72.5 mm × 317 mm × 260 mm (2.85 in × 12.5 in × 10.2 in)		95 mm × 317 mm × 260 mm (3.7 in × 12.5 in × 10.2 in)	
<b>Recommended motor power</b>	→ section "Motor selection"			



## 2.15 Resolver card option type DER11B

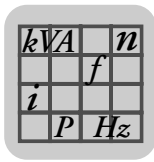
**Part number** 824 307 7

### Description

Option-capable MOVIDRIVE® MDX61B units can be equipped with resolver card type DER11B. The resolver card offers one input for the resolver as motor encoder and one input for an external encoder, also referred to as synchronous encoder. The input for the external encoder can also be used as an output for incremental encoder simulation.

### Electronics data

DER11B option			
	Output for incremental encoder simulation or external encoder input X14:	Output for incremental encoder simulation: Signal level to RS422 The number of pulses is 1024 pulses/revolution	External encoder input (max. 200 kHz): Permitted encoder types: <ul style="list-style-type: none"> <li>HIPERFACE® encoder</li> <li>sin/cos encoder AC 1 V<sub>SS</sub></li> <li>TTL encoder with negated tracks</li> <li>Encoder with signal level to RS422</li> </ul> Encoder power supply: <ul style="list-style-type: none"> <li>DC+12 V (tolerance range DC 10.5 - 13 V)</li> <li>I<sub>max</sub> = DC 650 mA</li> </ul>
	Motor encoder input X15:	Resolver 2-pole, U <sub>ref</sub> = AC 3.5 V <sub>eff</sub> , 4 kHz U <sub>in</sub> / U <sub>ref</sub> = 0.5	
	Maximum cable length:	100 m (328 ft)	



## 2.28 PROFINET IO RT type DFE32B fieldbus interface option

**Part number** 1821 345 6

### Description

The MOVIDRIVE® MDX61B inverter enables you to use the DFE32B option to connect to higher-level automation, project planning and visualization systems via Ethernet (PROFINET/IO protocol) thanks to its powerful, universal fieldbus interface. You can use option DFE32B to communicate directly with the inverters via Ethernet and operate the MOVITOOLS® software to change parameters and IPOS<sup>plus</sup>® programs. An integrated Web server makes it possible for the user to access diagnostic values quickly and easily using a standard browser (e.g. Internet Explorer).

### Electronics data

DFE32B option		
	Application protocol	<ul style="list-style-type: none"> <li>• <b>PROFINET IO</b> (Ethernet frames with frame identification 8892<sub>hex</sub>) to control and set parameters for the inverter.</li> <li>• <b>HTTP</b> (Hypertext Transfer Protocol) for diagnostics using a Web browser.</li> <li>• <b>SMLP</b> (Simple Movilink Protocol), protocol used by MOVITOOLS®.</li> </ul>
	Port numbers used	<ul style="list-style-type: none"> <li>• 300 (SMLP)</li> <li>• 80 (HTTP)</li> </ul>
	Ethernet services	<ul style="list-style-type: none"> <li>• ARP</li> <li>• ICMP (Ping)</li> </ul>
	ISO / OSI layer 2	Ethernet II
	Baud rate	100 Mbaud in full duplex process
	Connection technology	Two RJ45 plug connectors with integrated switch and auto-crossing
	Addressing	4 byte IP address or MAC-ID (00:0F:69:xx:xx:xx)
	Manufacturer ID (vendor ID)	010A <sub>hex</sub>
	Tools for startup	<ul style="list-style-type: none"> <li>• MOVITOOLS® MotionStudio version 5.40 and higher.</li> <li>• DBG60B keypad</li> </ul>
	Firmware status of MOVIDRIVE® MDX61B	Firmware version 824 854 0.17 or higher (→ display with P076)

### Functions

- PROFINET IO protocol
- Two RJ45 plug connectors for star or line type cabling
- Up to 10 process data and PROFINET diagnostic parameter data items can be transferred at the same time
- The PROFINET IO controller assigns the IP address
- Engineering access using MOVITOOLS® via Ethernet-TCP/IP
- Inverter diagnostics using a standard browser (e.g. Internet Explorer) via the integrated Web server:
  - Transfer display values
  - DFE32B configuration (after login)