



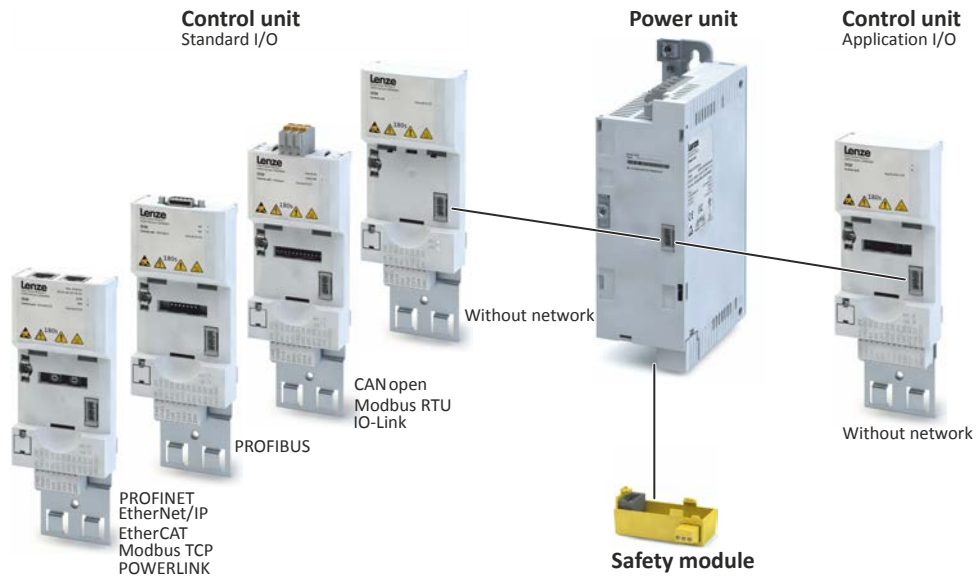
Product extensions

Overview

The inverters can easily be integrated into the machine. The scalable product extensions serve to flexibly match the required functions to your application.

The control unit with standard I/O can be extended with different networks.

The control unit with application I/O provides additional inputs and outputs (I/Os). A network component is not available.



Product extensions

Networks
PROFIBUS



PROFIBUS

PROFIBUS is a common fieldbus for the connection of inverters to different control systems in plants.

General information			
Design		Optional Integrated in standard I/O	
DC supply of the control electronics and optional fieldbus		Internally via the inverter	Mains-dependent
		Optionally: External supply	Mains-independent 24 V DC at X3/24E...GND

Bus-related information			
Name		PROFIBUS-DP	
Communication medium		RS485	
Use		Connection of the inverter to a PROFIBUS-DP network	
Connection system		9-pole Sub-D socket	
Status display		2 LEDs	
Connection designation		X226: Pin 1 ... 9	

Technical data			
Communication profile		PROFIBUS-DP-V0	DRIVECOM parameter data channel
		PROFIBUS-DP-V1	PROFIdrive parameter data channel
Bus terminating resistor	Ω	120	Terminated on both sides
integrated bus terminating resistor		No	
Network topology			
Without repeater		Line	
With repeater		-	
Station			
Type		Slave	
Max. Number without repeater		32	per bus segment, incl. host system
Max. Number with repeater		125	
Address		1 ... 127	Adjustable via code or DIP switch
Transfer rate	kbps	9.6 ... 12000	Automatic detection for cable type A (EN 50170)
Max. Bus length	m	1200	Per bus segment, depending on the transfer rate and the cable type used
Max. Cable length between two nodes		not limited, the max. bus length is decisive	
Process data			
PZD		1 ... 16 words (16 bits/word) per direction	Max. 32 bits (4 bytes) as a coherent PDO object
Transmission mode			
Data length, cyclic		1 ... 16 words, process data channel + 4 words of disconnectable parameter data channel	
Identification number		0x0E550	
User data			
Cyclic (DP-V0)		4 bytes	
Acyclic (DP-V1)		Max. 240 bytes	

Communication time			
Communication time depends on		Processing time in the inverter	Time between the start of a request and arrival of the response
		Telegram runtime (baud rate, telegram length)	
		Nesting depth of the network	
		Bus load	



Product extensions

Networks
PROFINET

Processing time of process data			
Update cycle	ms	1	In the inverter
Processing time	ms	0 ... 1	
Application task runtime of the technology application used (tolerance)	ms	1 ... x	

Other data			
Note		There are no interdependencies between parameter data and process data.	

PROFINET

PROFINET is a common fieldbus for the connection of inverters to different control systems in plants.

General information			
Design		Optional Integrated in standard I/O	
DC supply of the control electronics and optional fieldbus		Internally via the inverter	Mains-dependent
		Optionally: External supply	Mains-independent 24 V DC at X3/24E...GND

Terminal description		PROFINET	PROFINET
Connection		X257	X256
Connection type		RJ45	
Max. cable cross-section	mm ²	-	-
Max. cable cross-section	AWG	-	-
Stripping length	mm	-	-
Stripping length	inch	-	-
Tightening torque	Nm	-	-
Tightening torque	lb-in	-	-
Required tool		-	

Technical data			
Communication profile		PROFINET RT	
Bus terminating resistor		Not required	
Integrated bus terminating resistor		No	
Network topology			
Without repeater		Tree, star and line	
With repeater		-	
Station			
Type		I/O device with real time (RT) communication properties	
Max. number		255	Per subnetwork
Address		Station name	
Max. cable length	m	-	Not limited The length between the nodes is decisive.
Max. cable length between two nodes	m	100	
Process data			
Transmit PDOs		16 words	Max. 32 bits (4 bytes) as a coherent PDO object
Receive PDOs		16 words	
Cycle time	ms	2,4,8,16	
Switching method		Store-and-Forward	
Switch latency	µs	~ 125	At maximum telegram length
Other data		Additional TCP/IP channel	