Brochure

Frequency inverter

0.33 ... 175 hp

Lenze

Lenze inverter – universally applicable

A multifunctional solution for all applications - just another way to perfectly describe the frequency inverter. Thanks to a high number of integrated functions, network interfaces and a simple parameter setting, the inverter is suitable for both mechanical engineering and machine construction.

Lenze inverters are an important component in modern drive solutions which range from the cloud via control systems to motors and geared motors.

Typical application fields

- Textile machines
- Materials handling technology
- Packaging technology
- Forming technology
- Commercial HVAC (pumps, fans, and compressors)
- Construction machines
- Access control
- And many more

Features

- The modular and scalable concept allows for the selection of the right inverter required for the respective application.
- The compact design allows an efficient installation for applications where space means money.
- Energy efficiency and high functionality

The benefits for you

- Lower investment costs
- Less control cabinet space
- More productivity
- More time for innovation
- Sustainability
- Reliability

Features at a glance

Compact design

In mechanical engineering and machine construction, space is limited and expensive. Thus, Lenze inverters are extremely compact to implement solutions and save costs.

The i510 cabinet and i550 cabinet frequency inverters impress due to a space-saving design with a width of 2.36 in (up to 5.0 hp) and a depth of just 5.12 in (up to 15 hp). Moreover, the devices can be mounted directly next to each other without derating.

Flexibility

Lenze offers one of the most comprehensive solution portfolios for mechanical engineering and machine construction.

No matter which power, mains voltages, communication interfaces, or diagnostics options – our product range has the right solution optimized for the requirement.

User-friendliness

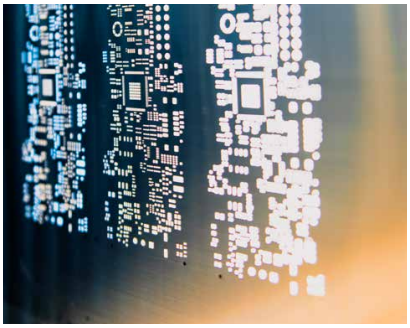
Many small details in the device facilitate handling and significantly reduce the time required for installation, commissioning, and service. These include voltage-free parameterization, simple menu navigation, practical factory settings, and pluggable connections.

Centralized/ decentralized

Many machines provide enough space for a compact frequency inverter such as the i510 cabinet or i550 cabinet.

In many applications, a mixture of centralized and decentralized drive technology is advisable. Fortunately, all Lenze frequency inverters show the same drive behavior.

Innovative



Innovative functions for a safe operation. Two examples:

Easy engineering and reduction of system costs by the integrated IO-Link master functionality of the i550 motec.

Regenerative energy feedback by the i550 motec in case of dynamic braking reduces energy consumption. This simplifies engineering and saves the cost of a brake resistor

Energy-efficient

Lenze inverters comply with the Ecodesign Directive, achieve the lowest possible energy losses, and thus ensure optimum efficiency in system design.

Scaled portfolio for machines

Competitiveness in machine equipment building is becoming increasingly challenging due to rising requirements in terms of energy efficiency, machine intelligence, and market needs, along with a shortage of skilled personnel and cost pressure. Lenze frequency inverters rise to these challenges.

The Lenze EASY Product Finder helps you to configure your required frequency inverter type in next to no time. In addition, you can retrieve all important technical details such as data sheets, CAD data, and EPLAN data.

i510 cabinet

The i510 cabinet frequency inverter is a compact control cabinet device with scalable functionality. It is versatile, reliable, and easy to use.

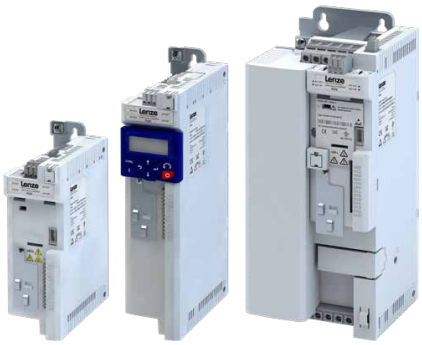
The requirements of the Ecodesign Directive, standard EN 50598-2, are met.

Application areas: Conveyor drives, traveling drives, pumps, fans, ...

Overview				
Power range	0.33 ... 20 hp			
Mains connection	1 x 230 V	3 x 230 V	3 x 400 V	3 x 480 V
Degree of protection	NEMA 250 Open Type (IP20)			
Communication	CANopen, Modbus RTU			

Highlights

- Space saving design: 2.36 in wide (up to 5 hp) and 5.12 in deep (up to 15 hp), with zero-clearance mounting
- Innovative interaction (e.g. over WLAN) makes new record-breaking commissioning times and convenient diagnostics a reality
- Special user-friendliness



i550 cabinet

The i550 cabinet frequency inverter is a compact control cabinet device with scalable functionality. It is versatile, reliable, and easy to use.

The requirements of the Ecodesign Directive, standard EN 50598-2, are met.

Application areas: Conveyor drives, traveling drives, winding drives, hoist drives, extruders, packaging machines, pumps, fans, ...

Overview					
Power range	0.33 ... 175 hp				
Mains connection	1 x 120 V	1 x 230 V	3 x 230 V	3 x 400 V	3 x 480 V
Degree of protection	NEMA 250 Open Type (IP20)				
Communication	CANopen, EtherCAT, EtherNet/IP, Modbus RTU, Modbus TCP, Powerlink, PROFIBUS, PROFINET				

Highlights

- Space saving design: 2.36 in wide (up to 5 hp) and 5.12 in deep (up to 15 hp), with zero-clearance mounting
- Innovative interaction (e.g. over WLAN) makes new record-breaking commissioning times and convenient diagnostics a reality
- Optionally available with “Safe Torque Off (STO)” with SIL 3 (EN IEC 62061/EN IEC 61508) and Performance Level e (EN ISO 13849-1)
- For the greatest possible flexibility available as a complete device or in individual parts (Power Unit, Control Unit and Safety Unit)

i510 protec

The i510 protec frequency inverter uses the same tried-and-tested technology used in our control cabinet inverters. It only differs in terms of an adapted design. If there is not enough space in the control cabinet or the inverter has to be mounted directly on the motor in various machine modules, then this versatile and reliable device is the right solution.

The requirements of the Ecodesign Directive are met.

Application areas: Conveyor drives, traveling drives, pumps, fans, ...

Overview					
Power range	0.5 ... 10 hp				
Mains connection	1 x 120 V	1 x 230 V	3 x 230 V	3 x 400 V	3 x 480 V
Degree of protection	NEMA 1 (IP20)				
Communication	CANopen, Modbus RTU				

Highlights

- Versions with keypad, USB module or WLAN module for easy commissioning
- Industry standard fieldbus network options

i550 protec

The i550 protec frequency inverter uses the same tried-and-tested technology used in control cabinet inverters and only differs in terms of a higher degree of housing protection and an adapted design. If there is not enough space in the control cabinet or the inverter has to be mounted close to the motor in various machine modules, then this versatile and reliable device is the right solution. Thanks to the extension box, a disconnect switch and operating elements can be used.

The requirements of the Ecodesign Directive, standard EN 50598-2, are met.

Application areas: Conveyor drives, traveling drives, winding drives, hoist drives, extruders, packaging machines, pumps, fans, ...

Overview						
Power range	0.5 ... 100 hp					
Mains connection	1 x 120 V	1 x 230 V	3 x 230 V	3 x 400 V	3 x 480 V	3 x 600 V
Degree of protection	NEMA 12/4X (IP55/IP66) Indoor & Outdoor					
Communication	CANopen, EtherCAT, EtherNet/IP, Modbus RTU, Modbus TCP, PROFINET					

Highlights

- Decentralized drive with IO-Link interface V1.1.
- Integrated diagnostic interface (micro USB) for service purposes.
- Versions with or without disconnect switch, with keypad or WLAN module for easy commissioning.
- Optionally available with “Safe Torque Off (STO)” with SIL 3 (EN IEC 62061/EN IEC 61508) and Performance Level e (EN ISO 13849-1)

i550 motec

The i550 motec frequency inverter for motor and wall mounting in protection class NEMA 4X is the optimal decentralized drive solution. The inverter can be extended with an extension box (disconnect switch, operating elements) for universal use.

Fast mounting and easy commissioning thanks to user-friendly tools as well as connections for commercially available connectors are the focus of this inverter. Parameters, drive behavior and usability correspond to our proven frequency inverters. Rounded off by high energy efficiency, we thus offer a modern and sustainable drive solution.

The requirements of the Ecodesign Directive, standard EN 50598-2, are met.

Application areas: Conveyor drives, traveling drives, winding drives, hoist drives, extruders, packaging machines, pumps, fans, ...

Overview			
Power range	0.5 ... 60 hp		
Mains connection	3 x 230 V	3 x 400 V	3 x 480 V
Degree of protection	NEMA 4X (IP66)		
Communication	EtherCAT, EtherNet/IP, Modbus TCP, PROFINET		

Highlights

- Compact solution for decentralized drive technology, wall-mounted or motor-mounted with high NEMA 4X (IP66) protection
- Wall-mounted expandable: Extension Box with disconnect switch and operating elements
- Fast mounting due to pluggable, standardized connections (plug & play)
- IO-Link master functionality for easy data exchange between IO-Link sensors and actuators
- Regenerative feedback mode integrated for very high energy efficiency – no brake resistor required

	i510 cabinet	i550 cabinet	i510 protec	i550 protec	i550 motec
					
Design/Mounting					
	Cabinet		Cabinet or wall		Wall or motor
Degree of protection					
	NEMA 250 Open Type	NEMA 250 Open Type	NEMA 1	NEMA 1, NEMA 12/4X	NEMA 4X
Mains connection/Power range					
1 AC 120 V	–	0.33 ... 1.5 hp	0.5 ... 1 hp	0.5 ... 1.5 hp	–
1 AC 230 V	0.33 ... 3 hp	0.33 ... 3 hp	0.5 ... 4 hp	0.5 ... 3 hp	–
3 AC 230 V	0.33 ... 7.5 hp	0.33 ... 7.5 hp	0.5 ... 7.5 hp	0.5 ... 60 hp	0.5 ... 30 hp
3 AC 480 V	0.5 ... 20 hp	0.5 ... 175 hp	1 ... 10 hp	0.5 ... 100 hp	0.5 ... 60 hp
3 AC 600 V	–	–	–	0.5 ... 30 hp	–
Market approvals					
Approval	CE, UKCA, UL, CSA, CCC, UKSepro				CE, UKCA, UL, CSA
Environment	RoHS				
Energy efficiency	IE2 according to EN IEC 61800-9-2				
Functions					
Motor controls	Energy-saving function (VFC eco), V/f characteristic control linear/square-law (VFC plus), sensorless vector control (SLVC), sensorless control for synchronous motors				
	–	Motor HTL encoder 100 kHz	–	Motor HTL encoder 100 kHz	Motor HTL encoder 200 kHz or IO-Link interface
Properties	DC-injection braking, brake management for low-wear brake control, dynamic braking via brake resistor, S-ramps for smooth acceleration and deceleration, flying restart circuit, PID control, cascade function for pumps and fans				
	Sequencer (16 steps), operation on UPS				–
	–	Dynamic braking through resistor	–	Dynamic braking through resistor	Dynamic braking through regeneration
Functional safety	–	Safe torque off (STO)	–	Safe torque off (STO)	Safe torque off (STO)
	–				Extended Safety (in preparation)
Overload behavior					
	200 % for 3 s; 150 % for 60 s				
Cooling					
Ambient operating temperature	3K3 (+14 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +113 °F)		3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)		
Inputs/Outputs					
Digital input/output	5/1				Max. 8/0 or 4/4 (configurable)
Analog input/output	2/1				–
NO/NC relay	1				–
IO-Link					
Operation	–	Device	–	Device	Master
Ports	–			–	Max. 4
Communication					
	CANopen – – Modbus RTU – – – –	CANopen EtherCAT EtherNet/IP Modbus RTU Modbus TCP Powerlink PROFIBUS PROFINET	CANopen – – Modbus RTU – – – –	– EtherCAT EtherNet/IP – Modbus TCP – – PROFINET	– EtherCAT EtherNet/IP – Modbus TCP – – PROFINET
Diagnostics					
	Keypad, WLAN module, USB module				USB RFID, WLAN (in preparation)
Compliances					
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures, < 1.5 hp: with mains choke				No additional measures
EN 61000-3-12	> 16 A: with mains choke				
	–			From 40 hp mains choke integrated	
EMC category C1	–	Max. 120 in up to 3 hp, above that RFI filter	–	Max. 120 in up to 3 hp	–
EMC category C2	Max. 800 in (up to 0.5 hp 600 in), above that RFI filter		–	Max. 800 in up to 15 hp > 15 hp 600 in	Max. 400 in
RCD operation					
	Up to 15 hp: 30 mA				Up to 60 hp: 30 mA

Technical data

i510 cabinet frequency inverter

Connection to 230 V mains

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 250 Open Type (IP20)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (14 ... 140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above 113 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
EMC category C1	–
EMC category C2	Max. 800 in (up to 0.5 hp 600 in), above that RFI filter
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	m	H x W x D	Material number
	[hp]	[V]	[A]	[lb]	[in]	Basic variant
1-phase mains connection 230 V with integrated RFI filter						
i510-C0.25/230-1	0.33	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	1.7	1.7	6.10 x 2.36 x 5.12	16147439
i510-C0.37/230-1	0.5		2.4	1.7	6.10 x 2.36 x 5.12	16128694
i510-C0.55/230-1	0.75		3.2	2.1	7.08 x 2.36 x 5.12	16180190
i510-C0.75/230-1	1		4.2	2.1	7.08 x 2.36 x 5.12	16162694
i510-C1.1/230-1	1.5		6	3	9.84 x 2.36 x 5.12	16188185
i510-C1.5/230-1	2		7	3	9.84 x 2.36 x 5.12	16179833
i510-C2.2/230-1	3		9.6	3	9.84 x 2.36 x 5.12	16180191
1/3-phase mains connection 230 V without integrated RFI filter						
i510-C0.25/230-2	0.33	1/N/PE AC or 3/PE AC 170 V ... 264 V 45 ... 65 Hz	1.7	1.7	6.10 x 2.36 x 5.12	16147441
i510-C0.37/230-2	0.5		2.4	1.7	6.10 x 2.36 x 5.12	16151013
i510-C0.55/230-2	0.75		3.2	2.1	7.08 x 2.36 x 5.12	16188178
i510-C0.75/230-2	1		4.2	2.1	7.08 x 2.36 x 5.12	16130080
i510-C1.1/230-2	1.5		6	3	9.84 x 2.36 x 5.12	16160109
i510-C1.5/230-2	2		7	3	9.84 x 2.36 x 5.12	16133680
i510-C2.2/230-2	3		9.6	3	9.84 x 2.36 x 5.12	16144480
3-phase mains connection 230 V without integrated RFI filter						
i510-C0.25/230-2	0.33	3/PE AC 170 V ... 264 V 45 ... 65 Hz	1.7	1.7	6.10 x 2.36 x 5.12	16147441
i510-C0.37/230-2	0.5		2.4	1.7	6.10 x 2.36 x 5.12	16151013
i510-C0.55/230-2	0.75		3.2	2.1	7.08 x 2.36 x 5.12	16188178
i510-C0.75/230-2	1		4.2	2.1	7.08 x 2.36 x 5.12	16130080
i510-C1.1/230-2	1.5		6	3	9.84 x 2.36 x 5.12	16160109
i510-C1.5/230-2	2		7	3	9.84 x 2.36 x 5.12	16133680
i510-C2.2/230-2	3		9.6	3	9.84 x 2.36 x 5.12	16144480
i510-C4.0/230-3	5		16.5	4.6	9.84 x 3.54 x 5.12	16167340
i510-C5.5/230-3	7.5		23	4.6	9.84 x 3.54 x 5.12	16172491

The basic i510 cabinet variants listed here are equipped with the basic I/O.

i510 cabinet frequency inverter

Connection to 480 V mains

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 250 Open Type (IP20)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (14 ... 140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above 113 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
EMC category C1	
EMC category C2	Max. 800 in (up to 0.5 hp 600 in), above that RFI filter
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	m	H x W x D	Material number
	[hp]	[V]	[A]	[lb]	[in]	Basic variant
3-phase mains connection 480 V – Heavy Duty with integrated RFI filter						
i510-C0.37/400-3	0.5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	1.1	1.7	6.10 x 2.36 x 5.12	16130711
i510-C0.55/400-3	0.75		1.6	2.1	7.08 x 2.36 x 5.12	16134700
i510-C0.75/400-3	1		2.1	2.1	7.08 x 2.36 x 5.12	16130734
i510-C1.1/400-3	1.5		3	3	9.84 x 2.36 x 5.12	16150517
i510-C1.5/400-3	2		3.5	3	9.84 x 2.36 x 5.12	16150516
i510-C2.2/400-3	3		4.8	3	9.84 x 2.36 x 5.12	16151482
i510-C3.0/400-3	4		6.3	3	9.84 x 2.36 x 5.12	16270552
i510-C4.0/400-3	5		8.2	3	9.84 x 2.36 x 5.12	16270554
i510-C5.5/400-3	7.5		11	5.1	9.84 x 3.54 x 5.12	16172533
i510-C7.5/400-3	10		14	8.2	10.86 x 4.72 x 5.12	16172532
i510-C11/400-3	15		21	8.2	10.86 x 4.72 x 5.12	16165855
3-phase mains connection 480 V – Light Duty with integrated RFI filter						
i510-C3.0/400-3	5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	7.6	3	9.84 x 2.36 x 5.12	16270552
i510-C4.0/400-3	7.5		9.8	3	9.84 x 2.36 x 5.12	16270554
i510-C5.5/400-3	10		13.2	5.1	9.84 x 3.54 x 5.12	16172533
i510-C7.5/400-3	15		18.3	8.2	10.86 x 4.72 x 5.12	16172532
i510-C11/400-3	20		25.2	8.2	10.86 x 4.72 x 5.12	16165855

Mains choke is generally prescribed for Light Duty with 20 hp.

The basic i510 cabinet variants listed here are equipped with the basic I/O.

i510 cabinet
0.33 ... 20 hp

After selection via the technical data, the frequency inverter type can be easily specified. The basic variant with basic I/O has the following inputs and outputs:

- 5 digital inputs, 1 digital output, 2 analog inputs, 1 analog output

This inverter can be ordered directly and delivered quickly.

Does not fit? The inverter can be adapted to the application with integrable options and external accessories:

Connections

Terminal connection

Terminal connection

Motor shield plate

Communication

CANopen

Modbus RTU

Diagnostics

Keypad

WLAN module

USB module

Blanking cover

Functional Safety

Accessories

Mains choke

RFI filter

Memory module copier

Memory module

Mounting set - DIN rail

External keypad

Options	
Communication	
CANopen	CANopen communication protocol Connection via screw terminals
Modbus RTU	Serial Modbus RTU communication protocol Connection via screw terminals

Accessories		Material number
Motor connection		
Motor shield plate	1 x shield mounting 0.33 ... 4.0 hp	13560530
	5 x shield mounting 0.33 ... 4.0 hp	13560529
	1 x shield mounting 5.0 ... 7.5 hp	13481481
	5 x shield mounting 5.0 ... 7.5 hp	13481482
	1 x shield mounting 11 ... 15 hp	13481483
	5 x shield mounting 11 ... 15 hp	13481484
Diagnostics		
Keypad	Parameterization and diagnostics of the inverter Parameters and actual values are shown on the easy-to-read display.	13549150
WLAN module	Parameterization and diagnostics of the inverter Commissioning via WLAN connection with engineering tools	13547172
USB module	Parameterization and diagnostics of the inverter Commissioning via USB connection with engineering tools	13516238
USB cable	3 m cable for laptop/USB module connection	13501172
	5 m cable for laptop/USB module connection	13501173
Blanking cover	Protective cover when no diagnostic module is plugged on	13502341
Accessories		
Mains choke	See brochure	
RFI filter	See brochure	
DIN rail mounting set	Mounting set for inverters up to 1 hp, 1 x 230 V	13566907
	Mounting set for inverters 1 ... 7.5 hp	13566908
Memory module copier	Duplication of the data of the memory module	13559235
Memory module	12 replacement modules for the inverter, directly pluggable	13481882
External keypad	Keypad holder for mounting in the control cabinet door	13550210
	Keypad holder with 118 in connection cable	13550222
	Keypad holder with 196 in connection cable	13550223

i550 cabinet frequency inverter

Connection to 120 V mains and 230 V mains

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 250 Open Type (IP20)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (14 ... 140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above 113 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
EMC category C1	Max. 120 in up to 3 hp, above that RFI filter
EMC category C2	Max. 800 in (up to 0.5 hp 600 in), above that RFI filter
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	m	H x W x D	Material number
	[hp]	[V]	[A]	[lb]	[in]	Basic variant
1-phase mains connection 120 V without integrated RFI filter						
i550-C0.25/120-1	0.33	1/N/PE AC 90 V ... 132 V 45 ... 65 Hz	1.7	2.2	7.08 x 2.36 x 5.12	16066023
i550-C0.37/120-1	0.5		2.4	2.2	7.08 x 2.36 x 5.12	16064433
i550-C0.75/120-1	1		4.2	3	9.84 x 2.36 x 5.12	16066011
i550-C1.1/120-1	1.5		6	3	9.84 x 2.36 x 5.12	16064779
1-phase mains connection 230 V with integrated RFI filter						
i550-C0.25/230-1	0.33	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	1.7	1.8	6.10 x 2.36 x 5.12	16139664
i550-C0.37/230-1	0.5		2.4	1.8	6.10 x 2.36 x 5.12	16067221
i550-C0.55/230-1	0.75		3.2	2.2	7.08 x 2.36 x 5.12	16069088
i550-C0.75/230-1	1		4.2	2.2	7.08 x 2.36 x 5.12	16069325
i550-C1.1/230-1	1.5		6	3	9.84 x 2.36 x 5.12	16215720
i550-C1.5/230-1	2		7	3	9.84 x 2.36 x 5.12	16093320
i550-C2.2/230-1	3		9.6	3	9.84 x 2.36 x 5.12	16080945
1-phase mains connection 230 V without integrated RFI filter						
i550-C0.25/230-2	0.33	1/N/PE A 170 V ... 264 V 45 ... 65 Hz	1.7	1.8	6.10 x 2.36 x 5.12	16116977
i550-C0.37/230-2	0.5		2.4	1.8	6.10 x 2.36 x 5.12	16090651
i550-C0.55/230-2	0.75		3.2	2.2	7.08 x 2.36 x 5.12	16100730
i550-C0.75/230-2	1		4.2	2.2	7.08 x 2.36 x 5.12	16094146
i550-C1.1/230-2	1.5		6	3	9.84 x 2.36 x 5.12	16175770
i550-C1.5/230-2	2		7	3	9.84 x 2.36 x 5.12	16080497
i550-C2.2/230-2	3		9.6	3	9.84 x 2.36 x 5.12	16080946
3-phase mains connection 230 V without integrated RFI filter						
i550-C0.25/230-2	0.33	3/PE AC 170 V ... 264 V 45 ... 65 Hz	1.7	1.8	6.10 x 2.36 x 5.12	16116977
i550-C0.37/230-2	0.5		2.4	1.8	6.10 x 2.36 x 5.12	16090651
i550-C0.55/230-2	0.75		3.2	2.2	7.08 x 2.36 x 5.12	16100730
i550-C0.75/230-2	1		4.2	2.2	7.08 x 2.36 x 5.12	16094146
i550-C1.1/230-2	1.5		6	3	9.84 x 2.36 x 5.12	16175770
i550-C1.5/230-2	2		7	3	9.84 x 2.36 x 5.12	16080497
i550-C2.2/230-2	3		9.6	3	9.84 x 2.36 x 5.12	16080946
i550-C4.0/230-3	5		16.5	4.6	9.84 x 3.54 x 5.12	16070330
i550-C5.5/230-3	7.5		23	4.6	9.84 x 3.54 x 5.12	16068824

The basic i550 cabinet variants listed here are equipped with the standard I/O. The alternatively available basic product with application I/O can be found on the Internet.

i550 cabinet frequency inverter

Connection to 480 V mains

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 250 Open Type (IP20)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (14 ... 140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above 113 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures, < 1.5 hp: with mains chok
EN 61000-3-12	> 16 A mains current with mains choke
EMC category C1	Max. 120 in up to 3 hp, above that RFI filter
EMC category C2	Max. 800 in (up to 0.5 hp 600 in), above that RFI filter
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	m	H x W x D	Material number
	[hp]	[V]	[A]	[lb]	[in]	Basic variant
3-phase mains connection 480 V – Heavy Duty with integrated RFI filter						
i550-C0.37/400-3	0.5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	1.1	1.8	6.10 x 2.36 x 5.12	16083264
i550-C0.55/400-3	0.75		1.6	2.2	7.08 x 2.36 x 5.12	16069616
i550-C0.75/400-3	1		2.1	2.2	7.08 x 2.36 x 5.12	16064346
i550-C1.1/400-3	1.5		3	3	9.84 x 2.36 x 5.12	16073139
i550-C1.5/400-3	2		3.5	3	9.84 x 2.36 x 5.12	16064437
i550-C2.2/400-3	3		4.8	3	9.84 x 2.36 x 5.12	16069617
i550-C3.0/400-3	4		6.3	3	9.84 x 2.36 x 5.12	16270956
i550-C4.0/400-3	5		8.2	3	9.84 x 2.36 x 5.12	16270975
i550-C5.5/400-3	7.5		11	5.1	9.84 x 3.54 x 5.12	16066880
i550-C7.5/400-3	10		14	8.2	10.86 x 4.72 x 5.12	16066318
i550-C11/400-3	15		21	8.2	10.86 x 4.72 x 5.12	16069880
i550-C15/400-3	20		27	17.6	13.46 x 7.1 x 6.5	in preparation
i550-C18/400-3	25		34	17.6	13.46 x 7.1 x 6.5	in preparation
i550-C22/400-3	30		40.4	17.6	13.46 x 7.1 x 6.5	in preparation
i550-C30/400-3	40		52	17.6	13.46 x 7.1 x 6.5	in preparation
i550-C.37/400-3	50		65	37.9	17.71 x 9.84 x 9.05	16064452
i550-C45/400-3	60		77	37.9	17.71 x 9.84 x 9.05	16109788
i550-C55/400-3	75		96	52.9	21.09 x 9.84 x 10.43	16066939
i550-C75/400-3	100		124	52.9	21.09 x 9.84 x 10.43	16064888
i550-C90/400-3	125		156	78.5	26.96 x 11.22 x 11.96	16140399
i550-C110/400-3	150		162	78.5	26.96 x 11.22 x 11.96	16111878
3-phase mains connection 480 V – Light Duty with integrated RFI filter						
i550-C3.0/400-3	5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	7.6	3	9.84 x 2.36 x 5.12	16270956
i550-C4.0/400-3	7.5		9.8	3	9.84 x 2.36 x 5.12	16270975
i550-C5.5/400-3	10		13.2	5.1	9.84 x 3.54 x 5.12	16066880
i550-C7.5/400-3	15		18.3	8.2	10.86 x 4.72 x 5.12	16066318
i550-C11/400-3	20		25.2	8.2	10.86 x 4.72 x 5.12	16069880
i550-C15/400-3	25		32.4	17.6	13.46 x 7.1 x 6.5	16648863
i550-C18/400-3	30		40.8	17.6	13.46 x 7.1 x 6.5	16648864
i550-C22/400-3	40		48.5	17.6	13.46 x 7.1 x 6.5	16648865
i550-C30/400-3	50		62.4	17.6	13.46 x 7.1 x 6.5	16648866
i550-C37/400-3	60		78	37.9	17.71 x 9.84 x 9.05	16064452
i550-C45/400-3	75		92.4	37.9	17.71 x 9.84 x 9.05	16109788
i550-C55/400-3	100		115	52.9	21.09 x 9.84 x 10.43	16066939
i550-C75/400-3	125		149	52.9	21.09 x 9.84 x 10.43	16064888
i550-C90/400-3	150		187	78.5	26.96 x 11.22 x 11.96	16140399
i550-C110/400-3	180		216	78.5	26.96 x 11.22 x 11.96	16111878

Mains choke is generally prescribed from 30 hp (for Light Duty from 20 hp).

The basic i550 cabinet variants listed here are equipped with the standard I/O. The alternatively available basic product with application I/O can be found on the Internet.

i550 cabinet
0.33 ... 175 hp

After selection via the technical data, the frequency inverter type can be easily specified. The basic variant with standard I/O has the following inputs and outputs:

- 5 digital inputs, 1 digital output, 2 analog inputs, 1 analog output

This inverter can be ordered directly and delivered quickly.

Does not fit? The inverter can be adapted to the application with integrable options and external accessories:

Connections


Terminal connection


Application I/O

IO-Link device


Terminal con-nection


Motor shield plate

Communication

CANopen

EtherCAT

EtherNet/IP

IO-Link

Modbus RTU

Modbus TCP

Powerlink

PROFIBUS

PROFINET

Diagnostics


Keypad


WLAN module


USB module


Blanking cover

Functional Safety


Basic Safety STO

Accessories


Brake resistor


Mains choke


RFI filter


Memory module copier


Memory module


Mounting set - DIN rail


External keypad

Options	
Connections	
IO-Link	IO-Link device Connection via screw terminals
Application I/O	2 digital inputs, a digital output and an analog output in addition
Communication	
CANopen	CANopen communication protocol Connection via screw terminals
EtherCAT	Ethernet-based fieldbus system EtherCAT. Connection via standardized RJ45 connectors
EtherNet/IP	Ethernet-based fieldbus system EtherNet/IP Connection via standardized RJ45 connectors
Modbus RTU	Serial Modbus RTU communication protocol Connection via screw terminals
Modbus TCP	Ethernet-based fieldbus system Modbus TCP Connection via standardized RJ45 connectors
Powerlink	Ethernet-based fieldbus system Powerlink Connection via standardized RJ45 connectors
PROFIBUS	PROFIBUS communication protocol Connection via standardized RJ45 connectors
PROFINET	Ethernet-based fieldbus system PROFINET Connection via standardized RJ45 connectors
Functional safety	
Basic safety STO	Functional safety function “Safe Torque Off (STO)” This function corresponds to a “Stop 0” according to EN 60204

Accessories		Material number
Motor connection		
Motor shield plate	1 x shield mounting 0.33 ... 4.0 hp	13560530
	5 x shield mounting 0.33 ... 4.0 hp	13560529
	1 x shield mounting 5.0 ... 7.5 hp	13481481
	5 x shield mounting 5.0 ... 7.5 hp	13481482
	1 x shield mounting 11 ... 15 hp	13481483
	5 x shield mounting 11 ... 15 hp	13481484
	10 x shield mounting 20 ... 30 hp	13433061
	10 x shield mounting 40 ... 100 hp	13433062
Diagnostics		
Keypad	Parameterization and diagnostics of the inverter. Parameters and actual values are shown on the easy-to-read display	13549150
WLAN module	Parameterization and diagnostics of the inverter Commissioning via WLAN connection with engineering tools	13547172
USB module	Parameterization and diagnostics of the inverter Commissioning via USB connection with engineering tools	13516238
USB cable	118 in cable for laptop/USB module connection	13501172
	196 in cable for laptop/USB module connection	13501173
Blanking cover	Protective cover when no diagnostic module is plugged on	13502341
Accessories		
Mains choke	See brochure	
RFI filter	See brochure	
Brake resistor	See brochure	
DIN rail mounting set	Mounting set for inverters up to 1 hp, 1 x 230 V	13566907
	Mounting set for inverters 1 ... 7.5 hp	13566908
Memory module copier	Duplication of the data of the memory module	13559235
Memory module	12 replacement modules for the inverter, directly pluggable	13481882
External keypad	Keypad holder for mounting in the control cabinet door	13550210
	Keypad holder with 118 in connection cable	13550222
	Keypad holder with 196 in connection cable	13550223

i510 protec frequency inverter

Connection to 120 V mains and 230 V mains with NEMA 1 (IP20) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 1 (IP20)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
EMC category C1	
EMC category C2	
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
1-phase mains connection 120 V – Heavy Duty without integrated RFI filter							
i510-P0.37/120-1	0.5	1/N/PE AC 90 V ... 132 V 45 ... 65 Hz	2.4	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559175
i510-P0.75/120-1	1		4.2	NEMA 1 (IP20)	3.5	7.87 x 3.94 x 4.09	16504265
1-phase mains connection 230 V – Heavy Duty without integrated RFI filter							
i510-P0.37/230-2	0.5	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559477
i510-P0.75/230-2	1		4.2	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559481
i510-P1.1/230-2	1.5		6	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559484
i510-P1.5/230-2	2		7	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559488
i510-P2.2/230-2	3		9.6	NEMA 1 (IP20)	3.3	9.05 x 3.94 x 4.09	16519462
1-phase mains connection 230 V – Light Duty without integrated RFI filter							
i510-P0.37/230-2	0.75	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	2.9	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559477
i510-P0.75/230-2	1.5		5	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559481
i510-P1.1/230-2	2		7.2	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559484
i510-P1.5/230-2	3		8.4	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559488
i510-P2.2/230-2	4		11.5	NEMA 1 (IP20)	3.3	9.05 x 3.94 x 4.09	16519462
3-phase mains connection 230 V – Heavy Duty without integrated RFI filter							
i510-P0.37/230-2	0.5	3/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559477
i510-P0.75/230-2	1		4.2	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559481
i510-P1.1/230-2	1.5		6	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559484
i510-P1.5/230-2	2		7	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559488
i510-P2.2/230-2	3		9.6	NEMA 1 (IP20)	3.3	9.05 x 3.94 x 4.09	16519462
i510-P3.0/230-3	4		12	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16559231
i510-P4.0/230-3	5		16.5	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16519463
3-phase mains connection 230 V – Light Duty without integrated RFI filter							
i510-P0.37/230-2	0.75	3/PE AC 170 V ... 264 V 45 ... 65 Hz	2.9	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559477
i510-P0.75/230-2	1.5		5	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16559481
i510-P1.1/230-2	2		7.2	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559484
i510-P1.5/230-2	3		8.4	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559488
i510-P2.2/230-2	4		11.5	NEMA 1 (IP20)	3.3	9.05 x 3.94 x 4.09	16519462
i510-P3.0/230-3	5		14.4	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16559231
i510-P4.0/230-3	7.5		19.8	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16519463

The basic i510 protec variants listed here are equipped with the basic I/O described above.

i510 protec frequency inverter

Connection to 480 V mains with NEMA 1 (IP20) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 1 (IP20)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
EMC category C1	
EMC category C2	
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
3-phase mains connection 480 V – Heavy Duty without integrated RFI filter							
i510-P0.75/400-3	1	3/PE AC 340 V ... 528 V 45 ... 65 Hz	2.1	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16515111
i510-P1.1/400-3	1.5		5	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559456
i510-P1.5/400-3	2		3.5	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16515212
i510-P2.2/400-3	3		4.8	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16515213
i510-P3/400-3	4		6.3	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16559467
i510-P4/400-3	5		8.2	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16533303
i510-P5.5/400-3	7.5		11	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16559473
3-phase mains connection 480 V – Light Duty without integrated RFI filter							
i510-P0.75/400-3	1.5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	2.5	NEMA 1 (IP20)	3.1	7.87 x 3.94 x 4.09	16515111
i510-P1.1/400-3	2		3.6	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16559456
i510-P1.5/400-3	3		4.2	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16515212
i510-P2.2/400-3	4		5.8	NEMA 1 (IP20)	3.3	7.87 x 3.94 x 4.09	16515213
i510-P3/400-3	5		7.6	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16559467
i510-P4/400-3	7.5		9.8	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16533303
i510-P5.5/400-3	10		13.2	NEMA 1 (IP20)	3.5	9.05 x 3.94 x 4.09	16559473

The basic i510 protec variants listed here are equipped with the basic I/O described above.

i510 protec
0.5 ... 10 hp

After selection via the technical data, the frequency inverter type can be easily specified. The basic variant with basic I/O has the following inputs and outputs:

- 5 digital inputs, 1 digital output, 2 analog inputs, 1 analog output

This inverter can be ordered directly and delivered quickly.

Does not fit? The inverter can be adapted to the application with integrable options and external accessories:

Connections

Terminal connection

Terminal connection

Communication

CANopen

Modbus RTU

Diagnostics

Keypad

WLAN module

USB module

Functional Safety

Accessories

Memory module copier

Memory module

Options	
Communication	
CANopen	CANopen communication protocol Connection via screw terminals
Modbus RTU	Serial Modbus RTU communication protocol Connection via screw terminals
Diagnostics	
Keypad	Parameterization and diagnostics of the inverter Parameters and actual values are shown on the easy-to-read display
WLAN module	Parameterization and diagnostics of the inverter Commissioning via WLAN connection with engineering tools
USB module	Parameterization and diagnostics of the inverter Commissioning via USB connection with engineering tools

Accessories		Material number		
Accessories				
Memory module copier	Duplication of the data of the memory module	13559235	i	
Memory module	12 replacement modules for the inverter, directly pluggable	13481882	i	

i550 protec frequency inverter

Connection to 120 V mains and 1 x 230 V mains with NEMA 1 (IP31) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 1 (IP31)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
	From 40 hp mains choke integrated
EMC category C1	Max. 120 in up to 3 hp
EMC category C2	Max. 800 in up to 15 hp > 15 hp 600 in
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
1-phase mains connection 120 V – Heavy Duty without integrated RFI filter							
i550-P0.37/120-1	0.5	1/N/PE AC 90 V ... 132 V 45 ... 65 Hz	2.4	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289100
i550-P0.75/120-1	1		4.2	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289101
i550-P1.1/120-1	1.5		6	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289172
1-phase mains connection 230 V – Heavy Duty without integrated RFI filter							
i550-P0.37/230-2	0.5	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289463
i550-P0.55/230-2	0.75		3.2	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289464
i550-P0.75/230-2	1		4.2	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289465
i550-P1.1/230-2	1.5		6	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289466
i550-P1.5/230-2	2		7	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289467
i550-P2.2/230-2	3		9.6	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289468
1-phase mains connection 230 V – Light Duty without integrated RFI filter							
i550-P0.37/230-2	0.75	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	2.9	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289463
i550-P0.55/230-2	1		3.8	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289464
i550-P0.75/230-2	1.5		5	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289465
i550-P1.1/230-2	2		7.2	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289466
i550-P1.5/230-2	3		8.4	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289467
i550-P2.2/230-2	4		11.5	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289468

The basic i550 protec variants listed here are equipped with the standard I/O described above. The alternatively available basic product with application I/O can be found on the Internet.

i550 protec frequency inverter

Connection to 3 x 230 V mains with NEMA 1 (IP31) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 1 (IP31)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
	From 40 hp mains choke integrated
EMC category C1	Max. 120 in up to 3 hp
EMC category C2	Max. 800 in up to 15 hp > 15 hp 600 in
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
3-phase mains connection 230 V – Heavy Duty without integrated RFI filter							
i550-P0.37/230-2	0.5	3/N/PE AC 195 V ... 264 V 45 ... 65 Hz	2.4	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289463
i550-P0.55/230-2	0.75		3.2	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289464
i550-P0.75/230-2	1		4.2	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289465
i550-P1.1/230-2	1.5		6	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289466
i550-P1.5/230-2	2		7	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289467
i550-P2.2/230-2	3		9.6	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289468
i550-P3.0/230-3	4		12	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438129
i550-P4.0/230-3	5		16.5	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438143
i550-P5.5/230-3	7.5		23	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438157
i550-P7.5/230-3	10		29	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438167
i550-P11/230-3	15		42	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438193
i550-P15/230-3	20		54	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482612
i550-P18/230-3	25		68	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482679
3-phase mains connection 230 V – Light Duty without integrated RFI filter							
i550-P0.37/230-2	0.75	3/N/PE AC 195 V ... 264 V 45 ... 65 Hz	2.9	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289463
i550-P0.55/230-2	1		3.8	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289464
i550-P0.75/230-2	1.5		5	NEMA 1 (IP31)	3.5	7.48 x 5.51 x 4.60	16289465
i550-P1.1/230-2	2		7.2	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289466
i550-P1.5/230-2	3		8.4	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289467
i550-P2.2/230-2	4		11.5	NEMA 1 (IP31)	5.5	8.07 x 5.51 x 5.51	16289468
i550-P3.0/230-3	5		14.4	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438129
i550-P4.0/230-3	7.5		19.8	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438143
i550-P5.5/230-3	10		27.6	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438157
i550-P7.5/230-3	15		34.8	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438167
i550-P15/230-3	25		64.8	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482612
i550-P18/230-3	30		81.6	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482679

The basic i550 protec variants listed here are equipped with the standard I/O described above. The alternatively available basic product with application I/O can be found on the Internet.

i550 protec frequency inverter

Connection to 480 V mains with NEMA 1 (IP31) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 1 (IP31)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
	From 40 hp mains choke integrated
EMC category C1	Max. 120 in up to 3 hp
EMC category C2	Max. 800 in up to 15 hp > 15 hp 600 in
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number	
	[hp]	[V]	[A]		[lb]	[in]	Basic variant	
3-phase mains connection 480 V – Heavy Duty with integrated RFI filter								
i550-P0.37/400-3	0.5	3/N/PE AC 340 V ... 528 V 45 ... 65 Hz	1.1	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289546	
i550-P0.55/400-3	0.75		1.6	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289548	
i550-P0.75/400-3	1		2.1	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289549	
i550-P1.1/400-3	1.5		3	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289550	
i550-P1.5/400-3	2		3.5	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289551	
i550-P2.2/400-3	3		4.8	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289552	
i550-P3.0/400-3	4		6.3	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438179	
i550-P4.0/400-3	5		8.2	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438188	
i550-P5.5/400-3	7.5		11	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438235	
i550-P7.5/400-3	10		14	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438244	
i550-P11/400-3	15		21	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438110	
i550-P15/400-3	20		27	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482599	
i550-P18/400-3	25		34	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482696	
i550-P22/400-3	30		40.4	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482774	
3-phase mains connection 480 V – Light Duty with integrated RFI filter								
i550-P0.37/400-3	0.75	3/N/PE AC 340 V ... 528 V 45 ... 65 Hz	1.3	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289546	
i550-P0.55/400-3	1		1.9	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289548	
i550-P0.75/400-3	1.5		2.5	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16289549	
i550-P1.1/400-3	2		3.6	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289550	
i550-P1.5/400-3	3		4.2	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289551	
i550-P2.2/400-3	4		5.8	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16289552	
i550-P3.0/400-3	5		7.6	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438179	
i550-P4.0/400-3	7.5		9.8	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438188	
i550-P5.5/400-3	10		13.2	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16438235	
i550-P7.5/400-3	15		18.3	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438244	
i550-P11/400-3	20		25.2	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16438110	
i550-P15/400-3	25		32.4	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482599	
i550-P18/400-3	30		40.8	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482696	
i550-P22/400-3	40		48.5	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	16482774	

The basic i550 protec variants listed here are equipped with the standard I/O described above. The alternatively available basic product with application I/O can be found on the Internet.

i550 protec frequency inverter

Connection to 3 x 600 V mains with NEMA 1 (IP31) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 1 (IP31)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
	From 40 hp mains choke integrated
EMC category C1	Max. 120 in up to 3 hp
EMC category C2	Max. 800 in up to 15 hp > 15 hp 600 in
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
3-phase mains connection 600 V – Heavy Duty without integrated RFI filter							
i550-P0.75/600-3	1	3/PE AC 425 ... 660 V 45 ... 65 Hz	1.7	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16482538
i550-P1.5/600-3	2		2.7	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16482541
i550-P2.2/600-3	3		3.9	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16482565
i550-P4.0/600-3	5		6.1	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16655500
i550-P5.5/600-3	7.5		9	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16675408
i550-P7.5/600-3	10		11	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16678541
i550-P11/600-3	15		17	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16655499
i550-P15/600-3	20		22	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	in preparation
i550-P18/600-3	25		27	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	in preparation
i550-P22/600-3	30		32	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	in preparation
3-phase mains connection 600 V – Light Duty without integrated RFI filter							
i550-P0.75/600-3	1.5	3/PE AC 425 ... 660 V 45 ... 65 Hz	2	NEMA 1 (IP31)	3.7	7.48 x 5.51 x 4.60	16482538
i550-P1.5/600-3	3		3.2	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16482541
i550-P2.2/600-3	4		4.7	NEMA 1 (IP31)	5.7	8.07 x 5.51 x 5.51	16482565
i550-P4.0/600-3	7.5		7.9	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16655500
i550-P5.5/600-3	10		10.8	NEMA 1 (IP31)	10.6	9.84 x 7.09 x 6.61	16675408
i550-P7.5/600-3	15		13.2	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16678541
i550-P11/600-3	20		22	NEMA 1 (IP31)	11	11.42 x 7.09 x 6.81	16655499
i550-P15/600-3	25		27	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	in preparation
i550-P18/600-3	30		32.4	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	in preparation
i550-P22/600-3	40		41	NEMA 1 (IP31)	22.3	15.94 x 9.06 x 7.36	in preparation

The basic i550 protec variants listed here are equipped with the standard I/O described above. The alternatively available basic product with application I/O can be found on the Internet.

i550 protec frequency inverter

Connection to 120 V mains and 230 V mains with NEMA 4X (IP66) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 12/4X (IP55/66)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
	From 40 hp mains choke integrated
EMC category C1	Max. 120 in up to 3 hp
EMC category C2	Max. 800 in up to 15 hp > 15 hp 600 in
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
1-phase mains connection 120 V – Heavy Duty without integrated RFI filter							
i550-P0.37/120-1	0.5	1/N/PE AC 90 V ... 132 V 45 ... 65 Hz	2.4	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16289615
i550-P0.75/120-1	1		4.2	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16289616
i550-P1.1/120-1	1.5		6	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16289617
1-phase mains connection 230 V – Heavy Duty with integrated RFI filter							
i550-P0.37/230-1	0.5	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16289805
i550-P0.55/230-1	0.75		3.2	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16289806
i550-P0.75/230-1	1		4.2	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16289807
i550-P1.1/230-1	1.5		6	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16289808
i550-P1.5/230-1	2		7	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16289809
i550-P2.2/230-1	3		9.6	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16289810
1-phase mains connection 230 V - Heavy Duty without integrated RFI filter							
i550-P0.37/230-2	0.5	1/N/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 4X (IP66)	3.7	7.48 x 5.51 x 4.60	16289896
i550-P0.55/230-2	0.75		3.2	NEMA 4X (IP66)	3.7	7.48 x 5.51 x 4.60	16289897
i550-P0.75/230-2	1		4.2	NEMA 4X (IP66)	3.7	7.48 x 5.51 x 4.60	16289898
i550-P1.1/230-2	1.5		6	NEMA 4X (IP66)	5.7	8.07 x 5.51 x 5.51	16289899
i550-P1.5/230-2	2		7	NEMA 4X (IP66)	5.7	8.07 x 5.51 x 5.51	16289900
i550-P2.2/230-2	3		9.6	NEMA 4X (IP66)	5.7	8.07 x 5.51 x 5.51	16289912
3-phase mains connection 230 V – Heavy Duty without integrated RFI filter							
i550-P0.37/230-2	0.5	3/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 4X (IP66)	3.7	7.48 x 5.51 x 4.60	16289896
i550-P0.55/230-2	0.75		3.2	NEMA 4X (IP66)	3.7	7.48 x 5.51 x 4.60	16289897
i550-P0.75/230-2	1		4.2	NEMA 4X (IP66)	3.7	7.48 x 5.51 x 4.60	16289898
i550-P1.1/230-2	1.5		6	NEMA 4X (IP66)	5.7	8.07 x 5.51 x 5.51	16289899
i550-P1.5/230-2	2		7	NEMA 4X (IP66)	5.7	8.07 x 5.51 x 5.51	16289900
i550-P2.2/230-2	3		9.6	NEMA 4X (IP66)	5.7	8.07 x 5.51 x 5.51	16289912
i550-P3.0/230-3	4		12	NEMA 4X (IP66)	10.8	9.84 x 7.08 x 6.61	16438365
i550-P4.0/230-3	5		16.5	NEMA 4X (IP66)	10.8	9.84 x 7.08 x 6.61	16438369
i550-P5.5/230-3	7.5		23	NEMA 4X (IP66)	10.8	9.84 x 7.08 x 6.61	16438390
i550-P7.5/230-3	10		29	NEMA 4X (IP66)	11.2	11.41 x 7.08 x 6.81	16438405
i550-P11/230-3	15		42	NEMA 4X (IP66)	11.2	11.41 x 7.08 x 6.81	16438121
i550-P15/230-3	20		54	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	16482632
i550-P18/230-3	25		68	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	16482707
i550-P30/230-3	40		89	NEMA 12 (IP55)	101.4	30.64 x 11.74 x 11.24	16609245
i550-P45/230-3	60		150	NEMA 12 (IP55)	116.8	30.64 x 11.74 x 14.86	16609293

The basic i550 protec variants listed here are equipped with the standard I/O.

i550 protec frequency inverter

Connection to 480 V and 600 V mains with NEMA 4X (IP66) protection

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-2
Degree of protection	
	NEMA 12/4X (IP55/66)
Overload behavior	
	200% for 3s; 150% for 60s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	> 1.5 hp up to 16 A: no additional measures < 1.5 hp: with mains choke
EN 61000-3-12	> 16 A mains current with mains choke
	From 40 hp mains choke integrated
EMC category C1	Max. 120 in up to 3 hp
EMC category C2	Max. 800 in up to 15 hp > 15 hp 600 in
RCD operation	
	Up to 15 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
3-phase mains connection 480 V – Heavy Duty with integrated RFI filter							
i550-P0.37/400-3	0.5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	1.1	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16290085
i550-P0.55/400-3	0.75		1.6	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16290086
i550-P0.75/400-3	1		2.1	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16290087
i550-P1.1/400-3	1.5		3	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16290088
i550-P1.5/400-3	2		3.5	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16290089
i550-P2.2/400-3	3		4.8	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16290090
i550-P3.0/400-3	4		6.3	NEMA 4X (IP66)	10.8	9.84 x 7.08 x 6.61	16438411
i550-P4.0/400-3	5		8.2	NEMA 4X (IP66)	10.8	9.84 x 7.08 x 6.61	16438436
i550-P5.5/400-3	7.5		11	NEMA 4X (IP66)	10.8	9.84 x 7.08 x 6.61	16438445
i550-P7.5/400-3	10		14	NEMA 4X (IP66)	11.2	11.41 x 7.08 x 6.81	16438378
i550-P11/400-3	15		21	NEMA 4X (IP66)	11.2	11.41 x 7.08 x 6.81	16438381
i550-P15/400-3	20		27	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	16482637
i550-P18/400-3	25		34	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	16482719
i550-P22/400-3	30		40.4	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	16482780
i550-P30/400-3	40		52	NEMA 12 (IP55)	101.4	30.64 x 11.74 x 11.24	16609352
i550-P37/400-3	50		65	NEMA 12 (IP55)	101.4	30.64 x 11.74 x 11.24	16609416
i550-P45/400-3	60		77	NEMA 12 (IP55)	101.4	30.64 x 11.74 x 11.24	16609480
i550-P55/400-3	75		96	NEMA 12 (IP55)	116.8	30.64 x 11.74 x 14.86	16609544
i550-P75/400-3	100		124	NEMA 12 (IP55)	116.8	30.64 x 11.74 x 14.86	16609609
3-phase mains connection 600 V – Heavy Duty without integrated RFI filter							
i550-P0.75/600-3	1	3/PE AC 425 V ... 660 V 45 Hz ... 65 Hz	1.7	NEMA 4X (IP66)	4	7.48 x 5.51 x 4.60	16482580
i550-P1.5/600-3	2		2.7	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16482585
i550-P2.2/600-3	3		3.9	NEMA 4X (IP66)	6	8.07 x 5.51 x 5.51	16482593
i550-P4.0/600-3	5		6.1	NEMA 4X (IP66)	10.8	9.84 x 7.09 x 6.61	16678329
i550-P5.5/600-3	7.5		9	NEMA 4X (IP66)	10.8	9.84 x 7.09 x 6.61	16675227
i550-P7.5/600-3	10		11	NEMA 4X (IP66)	11.2	11.42 x 7.09 x 6.81	16655533
i550-P11/600-3	15		17	NEMA 4X (IP66)	11.2	11.42 x 7.09 x 6.81	16675409
i550-P15/600-3	20		22	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	in preparation
i550-P18/600-3	25		27	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	in preparation
i550-P22/600-3	30		32	NEMA 4X (IP66)	22.5	15.94 x 9.06 x 7.36	in preparation

The basic i550 protec variants listed here are equipped with the standard I/O.

i550 protec
0.5 … 100 hp

After selection via the technical data, the design of the frequency inverter can be easily specified. The basic version with standard I/O has the following inputs and outputs:

- 5 digital inputs, 1 digital output, 2 analog inputs, 1 analog output

This inverter can be ordered directly and delivered quickly.

Does not fit? The inverter can be adapted to the application with integrable options and external accessories:

Connections


Terminal connection


QUICKON connector (male)


Cable gland sets


RJ45 cable gland

IO-Link device

Motor connection/extension box


Terminal connection


Empty


Cable gland Membrane set


Switch/ potentiometer set


Pushbutton set


Signal lamp set


Connection set

Communication

CANopen

EtherCAT

EtherNet/IP

Modbus RTU

Modbus TCP

Powerlink

PROFINET

Diagnostics


Keypad


WLAN module


USB module

Functional Safety


Basic Safety STO

Accessories


Brake resistor


Memory module copier


Memory module


QUICKON-T distributor (1 x male, 2 x female)


QUICKON-H distributor (1 x male, 3 x female)


RJ45 connector

Options	
Connections	
IO-Link	IO-Link device Connection via screw terminals
Communication	
CANopen	CANopen communication protocol Connection via screw terminals
EtherCAT	Ethernet-based fieldbus system EtherCAT Connection via standardized RJ45 connectors
EtherNet/IP	Ethernet-based fieldbus system EtherNet/IP Connection via standardized RJ45 connectors
Modbus RTU	Serial Modbus RTU communication protocol Connection via screw terminals
Modbus TCP	Ethernet-based fieldbus system Modbus TCP Connection via standardized RJ45 connectors
PROFINET	Ethernet-based fieldbus system PROFINET Connection via standardized RJ45 connectors
Diagnostics	
Keypad	Parameterization and diagnostics of the inverter Parameters and actual values are shown on the easy-to-read display
WLAN module	Parameterization and diagnostics of the inverter Commissioning via WLAN connection with engineering tools
USB module	Parameterization and diagnostics of the inverter Commissioning via USB connection with engineering tools
Extensions	
Functional safety STO	Functional safety function "Safe Torque Off (STO)" This function corresponds to a "Stop 0" according to EN 60204
Extension box - for switching elements (see below "When using the extension box")	
Empty	0.5 ... 3 hp, additional length: 5.51 in
	4.0 ... 7.5 hp, additional length: 5.75 in
	11 ... 15 hp, additional length: 7.12 in
	20 ... 30 hp, additional length: 8.14 in
With disconnect switch	0.5 ... 3 hp, additional length: 5.51 in
	4.0 ... 7.5 hp, additional length: 5.75 in
	11 ... 15 hp, additional length: 7.12 in
	20 ... 30 hp, additional length: 8.14 in

Accessories		Material number		
Connections				
QUICKON connector (male)	QUICKON connector (male) for the mains connection 0.5 ... 5.0 hp (AWG 18 ... AWG 14) with wall bushing	13591613		
PG cable gland set	5-fold PG cable gland set for devices 0.5 ... 3.0 hp	13584557		
	5-fold PG cable gland set for devices 4 ... 15 hp	13584558		
	5-fold PG cable gland set for devices 20... 30 hp	13584559		
Membrane set	5 x M12 cable glands to avoid condensation water	13584561		
RJ45 cable gland	1 x RJ45 cable gland for easy network connection	13584560		
Accessories				
Brake resistor	See brochure			
Memory module copier	Duplication of the data of the memory modules	13559235		
Memory module	12 replacement modules for the inverter, directly pluggable	13481882		
QUICKON-T distributor	Distributor for QUICKON wiring of several inverters, T-piece, AWG 18 ... AWG 14	13566790		
	Distributor for QUICKON wiring of several inverters, T-piece, AWG 14 ... AWG 10	13566824		
QUICKON-H distributor	Distributor for QUICKON wiring of several inverters, H-piece, AWG 18 ... AWG 14	13566789		
	Distributor for QUICKON wiring of several inverters, H-piece, AWG 14 ... AWG 10	13566823		
RJ45 connector	Angled RJ45 connector for simplified connection for EtherCAT, EtherNet/IP, Modbus TCP and PROFINET networks	13598644		
When using the extension box				
Switch/potentiometer set	1 x selector switch and labeling field, 1 x potentiometer 10 kOhm	13592391		
	10 x selector switch and labeling field	13604743		
	5 x potentiometer 10 kOhm	13604744		
Pushbutton set	10 x black pushbutton with labeling field	13604711		
	10 x red pushbutton with labeling field	13604742		
Signal lamp set	10 x blue signal lamp	13606251		
	10 x green signal lamp	13606443		
	10 x red signal lamp	13606442		
Connection set	5 x DIN rail, 7pol. terminal block incl. PE	13593846		

i550 motec frequency inverter

Motor mounting, connection to 3 x 230 V mains and 3 x 480 V mains

Market approvals	
Approval	CE, UKCA, UL, CSA
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-4
Degree of protection	
	NEMA 4X (IP66)
Overload behavior	
	200 % for 3 s; 150 % for 60 s 3 x 230 V, 25 hp and 30 hp: 120 % for 60 s 3 x 400 V, 50 hp and 60 hp: 120 % for 60 s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	No additional measures
EN 61000-3-12	
EMC category C1	–
EMC category C2	Max. 400 in
RCD operation	
	Up to 60 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
3-phase mains connection 230 V – with integrated RFI filter							
i550-M0.37/230-3	0.5	3/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 4X (IP66)	6.4	6.31 x 10.43 x 4.96	16776528
i550-M0.55/230-3	0.75		3.2	NEMA 4X (IP66)	6.4	6.31 x 10.43 x 4.96	16776530
i550-M0.75/230-3	1		4.2	NEMA 4X (IP66)	6.4	6.31 x 10.43 x 4.96	16776532
i550-M1.1/230-3	1.5		6	NEMA 4X (IP66)	6.4	6.31 x 10.43 x 4.96	16776535
i550-M1.5/230-3	2		7	NEMA 4X (IP66)	7.5	6.31 x 10.43 x 5.51	16776578
i550-M2.2/230-3	3		9.6	NEMA 4X (IP66)	7.5	6.31 x 10.43 x 5.51	16776579
i550-M3.0/230-3	4		12	NEMA 4X (IP66)	7.5	6.31 x 10.43 x 5.51	16776537
i550-M4.0/230-3	5.5		16.5	NEMA 4X (IP66)	11.9	8.30 x 14.11 x 6.46	
i550-M5.5/230-3	7.5		23	NEMA 4X (IP66)	11.9	8.30 x 14.11 x 6.46	
i550-M7.5/230-3	10		29	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M11/230-3	15		42	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M15/230-3	20		54	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M18/230-3	25		68	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M22/230-3	30		80	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
3-phase mains connection 480 V – with integrated RFI filter							
i550-M0.37/400-3	0.5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	1.1	NEMA 4X (IP66)	7.0	6.31 x 10.43 x 4.96	16776539
i550-M0.55/400-3	0.75		1.6	NEMA 4X (IP66)	7.0	6.31 x 10.43 x 4.96	16776541
i550-M0.75/400-3	1		2.1	NEMA 4X (IP66)	7.0	6.31 x 10.43 x 4.96	16776543
i550-M1.1/400-3	1.5		3	NEMA 4X (IP66)	7.0	6.31 x 10.43 x 4.96	16776545
i550-M1.5/400-3	2		3.5	NEMA 4X (IP66)	7.0	6.31 x 10.43 x 4.96	16776547
i550-M2.2/400-3	3		4.8	NEMA 4X (IP66)	7.0	6.31 x 10.43 x 4.96	16776549
i550-M3.0/400-3	4		6.3	NEMA 4X (IP66)	8.4	6.31 x 10.43 x 5.51	16776551
i550-M4.0/400-3	5		8.2	NEMA 4X (IP66)	8.4	6.31 x 10.43 x 5.51	16776553
i550-M5.5/400-3	7.5		11	NEMA 4X (IP66)	8.4	6.31 x 10.43 x 5.51	16776555
i550-M7.5/400-3	10		14	NEMA 4X (IP66)	11.9	8.30 x 14.11 x 6.46	
i550-M11/400-3	15		21	NEMA 4X (IP66)	11.9	8.30 x 14.11 x 6.46	
i550-M15/400-3	20		27	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M18/400-3	25		34	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M22/400-3	30		40.4	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M30/400-3	40		52	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M37/400-3	50		65	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	
i550-M45/400-3	60		77	NEMA 4X (IP66)	27.6	11.02 x 17.44 x 8.50	

The basic i550 motec variants listed here are equipped with the standard I/O.

i550 motec frequency inverter

Wall mounting, connection to 3 x 230 V mains and 3 x 480 V mains

Market approvals	
Approval	CE, UKCA, UL, CSA, CCC, UKSepro
Environment	RoHS
Energy efficiency	IE2 according to EN IEC 61800-9-4
Degree of protection	
	IP66 (NEMA 4X)
Overload behavior	
	200 % for 3 s; 150 % for 60 s 3 x 230 V, 25 hp and 30 hp: 120 % for 60 s 3 x 400 V, 50 hp and 60 hp: 120 % for 60 s
Cooling	
	Ambient operating temperature: 3K3 (-22 ... +140 °F) EN IEC 60721-3-3 (derating of 2.5 %/°C above +104 °F)
Operating conditions	
EN 61000-3-2	No additional measures
EN 61000-3-12	
EMC category C1	–
EMC category C2	Max. 400 in
RCD operation	
	Up to 60 hp: 30 mA

	P_{rated}	U_{mains}	I_{rated}	Degree of protection	m	H x W x D	Material number
	[hp]	[V]	[A]		[lb]	[in]	Basic variant
3-phase mains connection 230 V – with integrated RFI filter							
i550-M0.37/230-3	0.5	3/PE AC 170 V ... 264 V 45 ... 65 Hz	2.4	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776404
i550-M0.55/230-3	0.75		3.2	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776407
i550-M0.75/230-3	1		4.2	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776408
i550-M1.1/230-3	1.5		6	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776411
i550-M1.5/230-3	2		7	NEMA 4X (IP66)	8.4	7.95 x 10.43 x 6.00	16776413
i550-M2.2/230-3	3		9.6	NEMA 4X (IP66)	8.4	7.95 x 10.43 x 6.00	16776414
i550-M3.0/230-3	4		12	NEMA 4X (IP66)	8.4	7.95 x 10.43 x 6.00	16776417
i550-M4.0/230-3	5.5		16.5	NEMA 4X (IP66)	13.2	10.12 x 14.11 x 6.63	
i550-M5.5/230-3	7.5		23	NEMA 4X (IP66)	13.2	10.12 x 14.11 x 6.63	
i550-M7.5/230-3	10		29	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M11/230-3	15		42	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M15/230-3	20		54	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M18/230-3	25		68	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M22/230-3	30		80	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
3-phase mains connection 480 V – with integrated RFI filter							
i550-M0.37/400-3	0.5	3/PE AC 340 V ... 528 V 45 ... 65 Hz	1.1	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776418
i550-M0.55/400-3	0.75		1.6	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776421
i550-M0.75/400-3	1		2.1	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776422
i550-M1.1/400-3	1.5		3	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776424
i550-M1.5/400-3	2		3.5	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776426
i550-M2.2/400-3	3		4.8	NEMA 4X (IP66)	7.0	7.95 x 10.43 x 5.05	16776428
i550-M3.0/400-3	4		6.3	NEMA 4X (IP66)	8.4	7.95 x 10.43 x 6.00	16776430
i550-M4.0/400-3	5		8.2	NEMA 4X (IP66)	8.4	7.95 x 10.43 x 6.00	16776432
i550-M5.5/400-3	7.5		11	NEMA 4X (IP66)	8.4	7.95 x 10.43 x 6.00	16776435
i550-M7.5/400-3	10		14	NEMA 4X (IP66)	13.2	10.12 x 14.11 x 6.63	
i550-M11/400-3	15		21	NEMA 4X (IP66)	13.2	10.12 x 14.11 x 6.63	
i550-M15/400-3	20		27	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M18/400-3	25		34	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M22/400-3	30		40.4	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M30/400-3	40		52	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M37/400-3	50		65	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	
i550-M45/400-3	60		77	NEMA 4X (IP66)	29.3	13.39 x 17.44 x 8.23	

The basic i550 motec variants listed here are equipped with the standard I/O.

i550 motec
0.5 ... 60 hp

After selection via the technical data, the frequency inverter type can be easily specified. The basic variant with standard I/O has the following inputs and outputs:

- 4 digital inputs, 1 or 2 of which can be parameterized as digital outputs

This inverter can be ordered directly and delivered quickly.

Does not fit? The inverter can be adapted to the application with integrable options and external accessories:

Connections


Han Q4/2 connector (male)


Han Q4/2 connector (female)


Application I/O

IO-Link
IO-Link master

Motor connection


Terminal connection


Han Q8 connector


M23 circular connector


Extension box


g500-H helical geared motor


g500-S shaft-mounted helical geared motor


g500-B bevel geared motor


m550 three-phase motor

Communication

EtherCAT

EtherNet/IP

Modbus TCP

PROFINET

Diagnostics

RFID
(in preparation)


USB connection

Functional Safety


Basic Safety STO

Accessories


Mains cable

Options		
Connections		
Main	Han Q4/2 connector (male) for mains connection up to 15 hp	
	Han Q4/2 connector (female) for looping through the mains up to 15 hp	
Application I/O	4 IO-Link ports, 8 digital inputs oder 4 digital inputs/4 digital outputs (configurable) Connection via 4 x 4-pole M12 connector, A coded	
IO-Link master	For an intelligent integration of IO-Link sensors and actuators	
Motor	Terminal	
	Han Q8 connector	
	M23 connector	
Communication		
EtherCAT	Ethernet-based fieldbus system EtherCAT can be activated via parameterization Connection via 4-pole M12 connector, D coded	
EtherNet/IP	Ethernet-based fieldbus system EtherNet/IP can be activated via parameterization Connection via 4-pole M12 connector, D coded	
Modbus TCP	Ethernet-based fieldbus system Modbus TCP can be activated via parameterization Connection via 4-pole M12 connector, D coded	
PROFINET	Ethernet-based fieldbus system PROFINET can be activated via parameterization Connection via 4-pole M12 connector, D coded	
Diagnostics - RFID and WLAN		
RFID	Parameterization of the inverter Commissioning via RFID with engineering tools	in preparation
WLAN option	Parameterization and diagnostics of the inverter Commissioning via WLAN connection with engineering tools	in preparation
USB connection	Parameterization and diagnostics of the inverter Commissioning via USB connection with engineering tools	
Functional safety		
Basic safety STO	Functional safety function “Safe Torque Off (STO)” This function corresponds to a “Stop 0” according to EN 60204	
Extension box - wall mounting (up to 15 hp in preparation)		
With disconnect switch	Disconnect switch 3 x 230 V: 0.5 ... 1.5 hp, 3 x 400 V: 0.5 ... 3.0 hp, additional width: 5.3 in	
	Disconnect switch 3 x 230 V: 2.0 ... 4.0 hp, 3 x 400 V: 4.0 ... 7.5 hp, additional width: 5.3 in	
	Disconnect switch with status feedback 3 x 230 V: 0.5 ... 1.5 hp, 3 x 400 V: 0.5 ... 3.0 hp, additional width: 5.3 in	
	Disconnect switch with status feedback 3 x 230 V: 2.0 ... 4.0 hp, 3 x 400 V: 4.0 ... 7.5 hp, additional width: 5.3 in	
With disconnect switch and 2 operating elements	Disconnect switch with status feedback Operation element 1: forward/reverse/stop Operation element 2: local control/network control 3 x 230 V: 0.5 ... 1.5 hp, 3 x 400 V: 0.5 ... 3.0 hp, additional width: 5.3 in	
	Disconnect switch with status feedback Operating element 1: forward/reverse/stop Operating element 2: local control/network control 3 x 230 V: 2.0 ... 4.0 hp, 3 x 400 V: 4.0 ... 7.5 hp, additional width: 5.3 in	
With disconnect switch, operating element and potentiometer	Disconnect switch with status feedback Operating element 1: forward/reverse/stop Potentiometer: output speed 3 x 230 V: 0.5 ... 1.5 hp, 3 x 400 V: 0.5 ... 3.0 hp, additional width: 5.3 in	
	Disconnect switch with status feedback Operating element 1: forward/reverse/stop Potentiometer: output speed 3 x 230 V: 2.0 ... 4.0 hp, 3 x 400 V: 4.0 ... 7.5 hp, additional width: 5.3 in	

Accessories of the basic variant	
Accessories	
Mains cables	planned

Service

Accessories

By simply selecting the accessories, the operation of the inverter can be optimally adapted. In this way, a modern drive solution can be safely achieved.

The scalable concept allows easy selection, well thought-out accessories save space and time during installation, and energy-efficient requirements can be optimally solved. Your benefits from this are more productivity and functional safety as well as sustainability and reliability.

For information on accessories, refer to the Accessories brochure.