

iGo neo CX 20 Technical Data

Autonomous low level order picker

iGo neo CX 20



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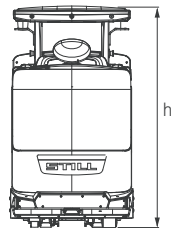
The smart way

This specification sheet, which conforms to VDI guideline 2198, provides the technical values for the standard equipment only. Different tyres, other masts, the use of accessories etc. may result in other values.

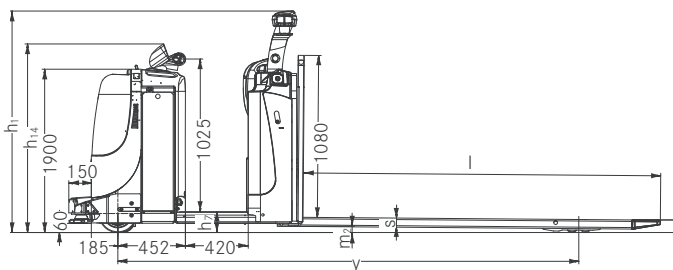


Distinguishing marks	1.1	Manufacturer			STILL		
	1.2	Manufacturer's type designation			iGo neo CX 20		
	1.3	Drive			Electric		
	1.4	Operator type			Order picker		
	1.5	Load capacity/load	Q	kg	2000		
Weights	1.6	Load centre distance	c	mm	1200		
	1.8	Load distance	x	mm	1615		
	1.9	Wheel base	y	mm	2843 ¹		
	2.1	Service weight (incl. battery)		kg	1228		
	2.2	Axle loading, laden	drive end/load end	kg	1250/1895		
Tyres/chassis	2.3	Axle loading, unladen	drive end/load end	kg	880/265		
	3.1	Tyres			Polyurethane		
	3.2	Tyre size	drive side	mm	∅ 250 x 100		
	3.3	Tyre size	load side	mm	∅ 85 x 80		
	3.4	Support castors		mm	∅ 150 x 50		
	3.5	Number of wheels (x = driven)	drive end/load end		1 x 1/4		
	3.6	Tread	drive side	b ₁₀	mm	475	
	3.7	Tread	load side	b ₁₁	mm	348	
	Dimensions	4.6	Initial lift		h ₅	mm	130
		4.8	Platform height		h ₇	mm	135
4.9		Height drawbar in driving position	min./max.	h ₁₄	mm	1165	
4.14		Overall height		h ₁	mm	1418	
4.15		Height when lowered		h ₁₃	mm	85	
4.19		Overall length		l ₁	mm	3955 ¹	
4.20		Length to face of forks		l ₂	mm	1575 ¹	
4.21		Overall width		b ₁ /b ₂	mm	832	
4.22		Fork dimensions DIN ISO 2331		s/e/l	mm	61/172/2390	
4.25		Distance between fork arms		b ₅	mm	520	
4.32		Ground clearance, centre of wheel base		m ₂	mm	24	
4.34.2		Working aisle width for pallet 800 x 2400 lengthways (b ₁₂ x l ₆)		A _{st}	mm	4277 ¹	
4.35		Turning radius		W _a	mm	3196 ¹	
Performance	5.1	Travel speed, conventional	laden/unladen	km/h	9.0/12.5		
	5.1.2	Travel speed, autonomous	laden/unladen	km/h	6.1		
	5.2	Lift speed	laden/unladen	m/s	0.13/0.20		
	5.3	Lowering speed	laden/unladen	m/s	0.12/0.09		
	5.7	Gradeability	laden/unladen	%	1.7/3.2		
	5.8	Max. gradeability	laden/unladen	%	6/6		
	5.9	Acceleration time (10 m)	laden/unladen	s	6.4/5.2		
	5.10	Service brake			Electromagnetic		
	Electric engine	6.1	Drive motor, rating S2 = 60 min		kW	3.0	
		6.2	Lift motor, rating at S3 = 15%		kW	2.2	
6.3		Battery according to DIN 43531/35/36 A, B, C, no			IEC 254 - 2; B		
6.4		Battery voltage/rated capacity K ₅		V/Ah	24/450		
6.5		Battery weight ±5% (depends on make)		kg	410		
6.6		Energy consumption according to VDI cycle		kWh/h	0.99		
Misc.	8.1	Drive control			AC control		
	8.4	Sound level at driver's ear		dB(A)	66.5		

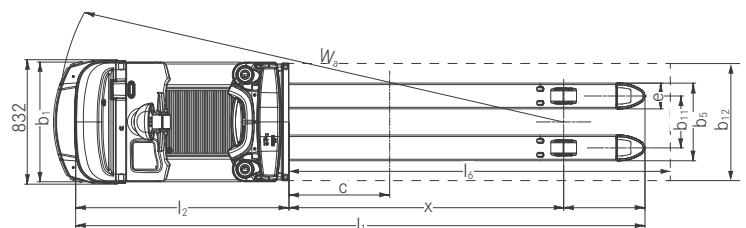
¹ With 600 Ah battery compartment: + 85 mm



iGo neo CX 20 front view



iGo neo CX 20 side view



iGo neo CX 20 top view

iGo neo CX 20 Autonomous low level order picker Detailed Photos



High-performance order picking: the operator can specify whether the truck moves to the first or second pallet position or anywhere in-between.



The LED signal shows whether the truck is in autonomous or manual operation mode.



Personalised order picking: truck can be adapted to the operator's preferences. An optical signal shows whether the truck is oriented to the left, right or centre of the rack.



Total protection: the personal safety system is encapsulated in the front part of the truck, allowing for permanent truck availability.



The perfect combination of intelligence and robust design: The entire robotics system is safely encapsulated within the confines of the truck. Optimal component protection prevents damage in narrow aisles.



Extremely high levels of safety thanks to motion tracking sensors: the autonomous truck can distinguish between the operator, other people and obstacles.

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Execution of individual order picking preferences: simply stop iGo neo CX 20 in the desired position. The truck will stop autonomously at the exact distance from the rack as specified by the operator. If a safe distance of 500 mm is not maintained, the truck will rectify this once it is restarted. The relative position of the truck to the operator and the rack orientation can be adjusted remotely, thereby reducing walking distances.



Precise handling in the event of obstacles: the iGo neo CX 20 autonomously avoids obstacles and reacts to the situation. Trucks will either drive around the obstacle, avoid it by driving in convoy, or – if the obstacle completely blocks its path – the truck will stop.



Speed is adjusted to the surroundings: if a slower truck is moving in front, or if a queue forms, the iGo neo CX 20 will intelligently adjust its speed to the situation. If the operator decides to travel on foot while the truck waits in the queue, then the truck will autonomously start driving again once the queue has resolved itself.



Process reliability – even for empty racks or crossroads: the iGo neo CX 20 recognises and passes by empty racks. Crossroads are also detected well in advance and the truck will only drive autonomously over them once the driver has checked the way is clear and has approved the onward journey.

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Autonomous system increases picking performance by up to 30%

Saves manual energy: goods only require transportation by hand over short distances

Bespoke order picking: truck adapts easily to specific operator preferences



The iGo neo CX 20 follows the operator at all times during the working cycle and will move to the first or second pallet position as desired. The truck always allows the operator to walk in front and autonomously maintains an operator-specified distance of at least 50 cm from the rack or pallet position. Because the autonomous assistance takes control of driving and steering, the operator is able to concentrate fully on the task at hand. This results in a significant increase in picking performance and avoids picking errors. Safety is ensured by the motion tracking sensors, which can differentiate between the operator, other people and obstacles.

The truck either drives around obstacles or, if the way is completely blocked, stops. If a slower truck is driving ahead or a queue forms, the speed is adjusted accordingly. Once the way is clear again, the iGo neo CX 20 will autonomously start driving. It recognises and passes by empty racks. Crossroads are only crossed autonomously after approval by the driver. The operator is free to choose whether the device should run in manual or autonomous mode. An LED signal shows whether the truck is in autonomous or manual operation mode. Another optical signal shows the orientation of the iGo neo CX 20.

Extensive Equipment

Power

- High-performance order picking: up to 30% time savings possible as the device follows the operator at all times, avoiding time-consuming mounting and dismounting
- Long operating times: lithium-ion battery available for intensive use

Precision

- Individual order picking: iGo neo CX 20 maintains the exact specified distance from the rack. The truck can be oriented to the left, right or centre of the rack
- Pallet choice options: thanks to the optimal distance from the truck to the rack, order picking can take place directly onto the pallet. When working with two pallets, the truck can also be positioned relative to the second pallet
- Full concentration: using the assistance service, the operator can focus almost entirely on the picking process. Tasks such as driving and steering are carried out autonomously
- Everything in view, all the time: intelligent motion sensors keep constant track of the operator and ensure that the truck follows the operator at all times

Ergonomics

- Smart ergonomics: for short picking distances, the operator can simply walk alongside the truck. The iGo neo CX 20 follows autonomously. The pallet always remains in an optimal picking position
- The quota can be fulfilled more quickly: achieving the same picking frequency in a shorter time allows time savings of up to 30%. In an 8-hour shift, this means two hours are freed up for other tasks
- Fatigue-free operation: 75% reduction in the number of instances of mounting and dismounting the truck increases safety. Walking distances are reduced by up to 3.2 km per shift in comparison to standard order picking processes

- Reduced journeys with a load: picking of the orders directly onto the pallet reduces walking distances

Compactness

- The perfect combination of intelligence and robust design: the entire robotics system is safely located within the truck's contour. Optimal component protection in the compact chassis prevents damage in narrow aisles
- High performance: the perfect combination of technology, robustness and design. Protected personal safety system is designed for heavy loads

Safety

- Sophisticated safety technology: 5-stage safety concept protects people, warehouse equipment and goods
- Precise handling of obstacles: truck autonomously avoids obstacles. If there is another truck in the aisle then speed is adjusted accordingly, establishing a convoy
- Safety at crossroads: crossroads are recognised well in advance and only crossed autonomously after approval by the driver
- Safety at the rack: truck remains a specified distance from the rack. If a safe distance of 500 mm is not maintained by the operator, the truck will rectify this

Environmental Responsibility

- Autonomous assistance operation ensures highest energy efficiency and low consumption
- Energy recovery when braking
- Over 95% of all materials used are recyclable

iGo neo CX 20 Autonomous low level order picker Equipment Variants

		iGo neo CX 20
Driver's cab	Driver's platform with upholstered backrest	●
	Accessories bracket on the drive side - low	○
	Adjustable DIN A4 writing pad	○
Fork dimensions	External width $b_5 = 520$ mm	●
	External width $b_5 = 560$ mm	○
	External width $b_5 = 670$ mm	○
Safety and performance	Lowering lock when driving (115 mm)	○
	Speed limited when forks are lowered	○
	Speed limited to 6 km/h	○
	Speed limited to 8 km/h	○
	Speed limited to 10 km/h	○
	Profiled drive wheel	○
	FleetManager: access authorisation	○
	FleetManager: shock detection	○
	FleetManager: reports	○
	FleetManager: OptiTruck	○
	Accident detection by means of acceleration sensor	○
	Accident detection by means of acceleration sensor with simultaneous activation of creep-speed mode	○
	Data transfer using Bluetooth	●
	Data transfer using GPRS	○
Battery system	205 Ah STILL Li-ion battery	○
	410 Ah STILL Li-ion battery	○
	Battery compartment for 345-465 Ah batteries	●
	Battery compartment for 520-620 Ah batteries	○
	Battery hood made from sheet steel for 520-620 Ah batteries	○
Additional equipment	Prongs with extendible/retractable runners	○
	Hours counter active when driving and lifting	●
	Hours counter with permanent display when driving and lifting	○

● Standard ○ Optional

STILL



STILL Materials Handling Ltd
Aston Way
Leyland Preston
PR26 7UX
Tel.: +44 (0)845 603 6827

STILL Materials Handling Ltd
Jacks Way
Hill Barton
Business Park
Clyst St. Mary
Exeter
EX5 1FG
Tel.: +44 (0)345 603 6827
info@still.co.uk
For further information please visit:
www.still.co.uk



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