

## SWIFTI™ CRB 1100

### Unleash the speedy cobot

A lightning-fast cobot that combines industrial-level performance and innovative safety. SWIFTI gets the job done faster and more accurately than you can imagine.

### Introducing SWIFTI

SWIFTI bridges the gap between collaborative and industrial robots. It enables proven safe collaborative operation to be achieved, even in applications that demand industrial-level speed and lifting capabilities.

### Collaborative safety

Combining ABB's SafeMove comprehensive safety functionality with a safety laser scanner\*, SWIFTI can be installed without physical fencing and still collaborate safely with people. If a worker is detected within its working area, SWIFTI will automatically slow down or halt to allow them to approach safely. An interaction light also provides a visual indication of SWIFTI's status. It signals human co-workers when people are inside SWIFTI's working zone.

### No experience? No problem.

Offering both lead-through programming – via a clip-on lead-through device, Wizard easy programming software, and the graphical SafeMove configurator App on the FlexPendant, SWIFTI can be configured and programmed easily and quickly.

### High-performance collaboration

SWIFTI offers a maximum Tool Center Point (TCP) speed of over 5 m/s,\*\* 5 times faster than other 4 kg cobots and comparable with industrial robots. At 0.01 mm, SWIFTI also provides up to 10 times higher position repeatability than other collaborative robots.



#### Key features:

### Collaborative safety

- Supervised by SafeMove and safety sensor
- Stop safely before contact with a human
- Interaction status light
- Safety certified Category 3, PL d

### Easy to use

- Wizard easy programming
- Intuitive robot movement programming with external lead-through device
- SafeMove configurator App on the FlexPendant

### Productivity

- With a TCP speed of over 5 m/s,\*\* it is 5 times faster than other cobots in its class
- Up to 10 times higher position repeatability 0.01 mm than most cobots in its class
- Four integrated air supplies enable vacuum picking

### Applications

- Assembly
- Insertion
- Kitting
- Material handling
- Machine tending
- Polishing
- Screw-driving
- And many more ...

\* Safety PLC is required for connection with the laser scanner

\*\* Safe collaborative speed may be lower, depending on your application layout. Always do a safety risk assessment of your cobot application.

## Specification

Robot version	Reach (m)	Payload (kg)	Armload (kg)
CRB 1100-4/0.475	0.475	4	0.5
CRB 1100-4/0.58	0.58	4	0.5
Number of axes	6		
Protection	Standard IP40.		
Mounting	Any angle		
Controller	OmniCore C30		
Integrated signal and power supply	Up to 12 signals (C1 + C2) on upper arm		
Integrated air supply	4 air on wrist (Max. 6 Bar)		
Integrated ethernet	One 1000 Base-T ethernet port (C2)		
Tool flange	Standard ISO 9409-1-31.5-4 M5		
Functional safety	SafeMove Collaborative included All safety functions certified to Category 3, PL d		

## Performance (according to ISO 9283)

	CRB 1100-4/0.475	CRB 1100-4/0.58
Max TCP Velocity	4.32 m/s	5.05 m/s
Max TCP Acceleration (normal control motion @nominal load)	82.13 m/s <sup>2</sup>	71.48 m/s <sup>2</sup>
Max TCP Acceleration (e-stop @nominal load)	144.6 m/s <sup>2</sup>	137.21 m/s <sup>2</sup>
Acceleration time 0–1m/s	0.06 s	0.12 s
Pose repeatability, RP	0.01 mm	0.01 mm
Path repeatability, RT	0.05 mm	0.05 mm
1 kg picking cycle 25 × 300 × 25 mm	0.42 s	

## Physical

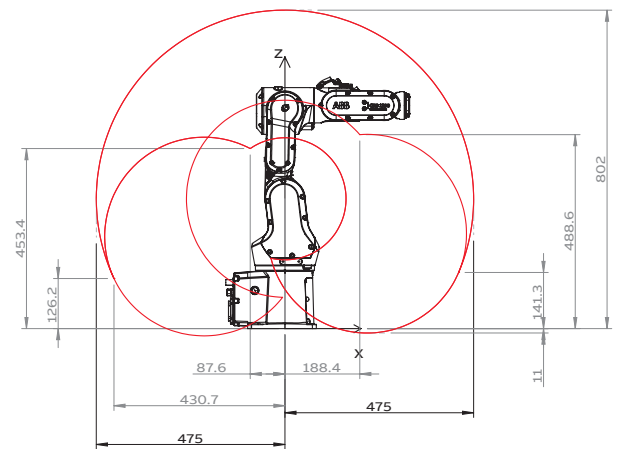
Dimensions robot type	160 × 172 mm
Weight	21 kg

## Movement

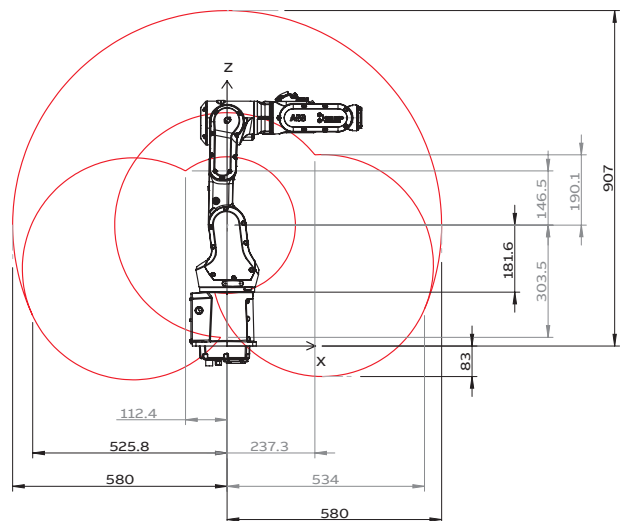
Axis movement	Working range	Max. speed CRB 1100-4/0.475	Max. speed CRB 1100-4/0.58
Axis 1 rotation	+230° to -230°	460°/s	460°/s
Axis 2 arm	+113° to -115°	380°/s	360°/s
Axis 3 arm	+55° to -205°	280°/s	280°/s
Axis 4 wrist	+230° to -230°	560°/s	560°/s
Axis 5 bend	+120° to -125°	420°/s	420°/s
Axis 6 turn	+400° to -400°	750°/s	750°/s



Working range, CRB 1100-4/0.475



Working range, CRB 1100-4/0.58



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