

IRB 660

Taking palletizing to new heights



Thanks to its state-of-the-art 4-axes design, customers can look forward to a speedy machine that combines a 3.15 meter reach with a 250 kg payload, making it ideal for palletizing bags, boxes, crates, bottles and more. In fact, ABB is set to reinforce its position as the sole global supplier of complete robot-based packaging line automation.

Pushing the working envelope

The IRB 660 is a dedicated palletizer that blends speed, reach and payload like no other robot on the market. This is an exceptionally fast 4-axis machine that combines a 3.15 meter reach with a 250 kg payload, making it ideal for palletizing bags, boxes, crates, bottles and more.

The IRB 660 is considerably faster than its predecessor. Its optimized motor power and motion performance ensure significantly shorter cycle times than competing products. The new palletizer comes in a high-speed version capable of handling 180 kg payloads at full speed, and as a 250 kg version for high throughput.

The robot's impressive reach means it can service up to four in-feed conveyors, two pallet stacks, one slip-sheet stack and four palletizing out-feeding lines. In fact, the IRB 660 has the versatility, reach and handling capacity to meet the demands of just about any palletizing applications.

The IRB 660 is easy to come to grips with. ABB's multi-functional controllers and comprehensive packaging line software, PickMaster, house all the key functions for quick, easy programming and intuitive operation on the shop floor. Furthermore, the robot's rugged design and IP 67 tightness make for steady performance in even the toughest environments. As well as ensuring those extra lengthy service intervals.

Powered by OmniCore

OmniCore controller offers best-in-class motion control, 20 percent energy savings, security, and scalable functions. Faster performance and enhanced flexibility enable improved productivity and ability to respond to changing market demands.

Main applications

- Material handling
- Palletizing
- Assembly

Specification

Robot version	Reach (m)	Handling capacity (kg)	Cycles per hour
IRB 660-180/3.15	3.15	180	1570
IRB 660-250/3.15	3.15	250	1360
Number of axes	4		
Protection	IP 67		
Mounting	Floor		
Controller	IRC5 Single Cabinet, OmniCore V250XT, V400XT		

Performance (according to ISO 9283)

	Position repeatability	Path repeatability
IRB 660-180/3.15	0.05 mm	0.23 mm
IRB 660-250/3.15	0.05 mm	0.17 mm

Technical information

Electrical Connections

Supply voltage	200-600 V, 50/60 Hz
Power consumption	ISO cube 2.7 kW, Normal movements 3.2 kW

Physical

Robot base	1136 x 850 mm
Robot weight	1650 kg

Environment

Ambient temperature for mechanical unit	
During operation	+0 °C (32 °F) to +50 °C (122 °F)
During transportation and storage	-25 °C (-13 °F) to +55 °C (131 °F)
During short periods (max. 24 h)	+70 °C (158 °F)
Relative humidity	Max. 95%
Noise level	Max. 73 dB (A)
Safety	Double circuits with supervisions, emergency stops and safety functions. 3-position enable device
Emission	EMC/EMI shielded

Data and dimensions may be changed without notice.

Movement

Axis movement	Working range	Max. velocity -180/3.15-250/3.15	
Axis 1 rotation	+180° to -180° Option: +220° to -220°	130°/s	95°/s
Axis 2 arm	+85° to -42°	130°/s	95°/s
Axis 3 arm	+120° to -20°	130°/s	95°/s
Axis 6 turn	Default: +300° to -300° Max. rev: +150 to -150	300°/s	240°/s

Working range

