

IRB 7600

A world of possibilities opens up with ABB's power robot family. It is available in five variants: 500 kg, 400 kg, 340 kg and 150 kg handling capacities.

The IRB 7600 is ideal for heavy applications, regardless of industry. Typical uses include the handling of heavy fixtures and parts, turning car bodies, lifting engines, in foundries or forges, loading and unloading of machine cells. It can also be used to lift large, heavy pallet layers.

With all these applications the moment of inertia is very high which allows the IRB 7600 to handle heavy and wide parts.

A safe investment

A major concern with robots handling payloads of up to 500 kg is protecting personnel and the robot in the unlikely event of an accident. As a result, ABB has added a range of software products all falling under the umbrella of Active and Passive Safety.



Active safety features

The function **Collision Detection** reduces collision force substantially.

An **Electronically Stabilized Path** will ensure that the robot maintains its planned path at maximum capacity while taking acceleration, drag, gravity and inertia into consideration. This feature is secured through our TrueMove.

Active Brake System controls the braking while ensuring the robot maintains its path.

To achieve optimum performance, the robot adapts to true payloads through its **Self-tuning Performance**. This feature is based on QuickMove.

Passive safety features

These features include options like load identification, moveable mechanical stops and electronic position switches.

Specification

Robot versions IRB	Reach	Handling capacity	Center of gravity	Max. wrist torque
IRB 7600-500	2.55 m	500 kg	360 mm	3010 Nm
IRB 7600-400	2.55 m	400 kg	512 mm	3010 Nm
IRB 7600-340	2.8 m	340 kg	360 mm	2750 Nm
IRB 7600-325	3.1 m	325 kg	360 mm	2680 Nm
IRB 7600-150	3.5 m	150 kg	360 mm	1880 Nm

(IRB 7600-150 loaded with 100 kg 1660 mm)

Extra loads can be mounted on all variants

50 kg on upper arm and 550 kg on frame of axis 1.

Number of axes:

6

IRC5 controller variants:

Single cabinet, PMC

Performance

Axis working range

Axis 1 Rotation +180° to -180°

Axis 2 Arm +85° to -60°

Axis 3 Arm +60° to -180°

Axis 4 Wrist +300° to -300°

Axis 5 Bend +100° to -100°

Axis 6 Turn +360° to -360°

Axis max speed

	325/500kg	400 kg	340 kg	150 kg
Axis 1	75°/s	75°/s	75°/s	100°/s
Axis 2	50°/s	60°/s	60°/s	60°/s
Axis 3	55°/s	60°/s	60°/s	60°/s
Axis 4	100°/s	100°/s	100°/s	100°/s
Axis 5	100°/s	100°/s	100°/s	100°/s
Axis 6	160°/s	160°/s	160°/s	190°/s

A supervision function prevents overheating in applications with intense and frequent movements.

Electrical connections

Supply voltage 200-600 V, 50/60 Hz

Physical

Dimensions robot base 1206.5 x 791 mm

Weight 2.400-2.450 kg

Environment

Ambient temperature for mechanical unit

During operation +5 °C (41 °F) up to +50 °C (122 °F)

During transportation & storage for short periods (max 24 h) -25 °C (13 °F) up to +55 °C (131 °F) up to +70 °C (158 °F)

Relative humidity Max 95%

Degree of protection

Manipulator Standard: IP67, Option: Foundry Plus 2

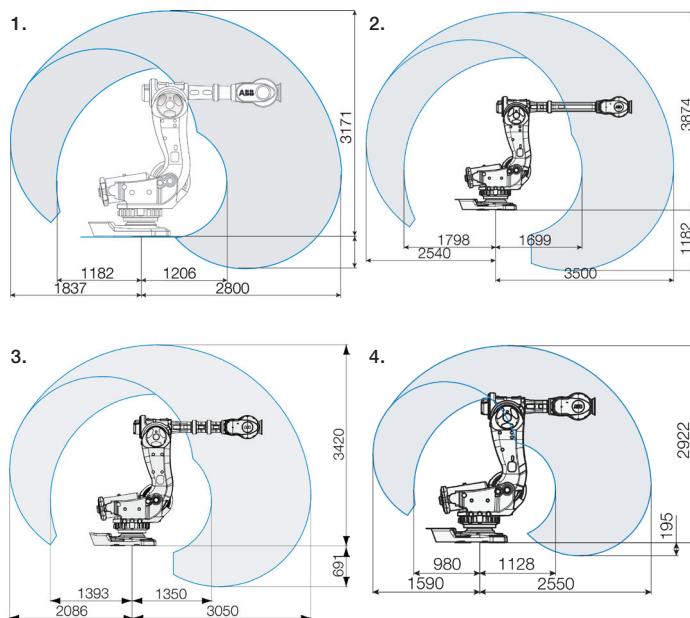
Controller Air cooled

Noise level Max 73 dB (A)

Safety Double circuits with supervision, emergency stops and safety functions, 3-positions enable device.

Emission EMC/EMI-shielded

Data and dimensions may be changed without notice



1. IRB 7600-340/2.8 | 2. IRB 7600-150/3.5 | 3. IRB 7600-325/3.1 |
4. IRB 7600-400/2.55 / IRB 7600-500/2.55

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