

IRB 7600

Power Robot

MAIN APPLICATIONS

Machine tending
Material handling
Press tending
Spot welding



Introducing the Power Robot

A new world of possibilities opens up with ABB's new power robot family. It comes in three versions, 500 kg, 400 kg, and 150 kg handling capacities. The IRB 7600 is ideal for weighty applications, regardless of industry. Typical areas can be handling of heavy fixtures, turning car bodies, lifting engines, handling heavy parts in foundries or forges, loading and unloading of machine cells, alternatively handling large and heavy pallet layers.

A safe investment

A major concern with robots handling payloads of up to 500 kg will be to safeguard your personnel in the unlikely event of an accident, as well as to protect the robot itself and your investment. We have therefore added a range of software products all falling under the umbrella designator of Active Safety.

SERVICE INFORMATION

A Built-in Service Information system monitors the motion and load of the machine and optimizes service requirements by itself.

ACTIVE SAFETY FEATURES

Collision detection reduces the collision force substantially.

Electronically Stabilized Path will ensure that the robot will maintain its planned path to its best capability considering acceleration, drag, gravity and inertia.

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

Self-tuning performance enables the robot to adapt to true payload, for optimized performance.

PASSIVE SAFETY FEATURES

These features include options like load identification, moveable mechanical stops, and double-safe limit switches.



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TECHNICAL DATA, IRB 7600 POWER ROBOT

SPECIFICATION

Robot versions	Reach	Handling capacity	Center of gravity	Wrist torque
IRB 7600-500	2.30	500 kg	360 mm	3010 Nm
IRB 7600-400	2.55	400 kg	512 mm	3010 Nm
IRB 7600-150	3.50	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
Protection:	complete robot IP 67
Mounting	Floor mounted

PERFORMANCE

Axis working range

Axis 1 Rotation	+180°	to	-180°
Axis 2 Arm	+80°	to	-60°
Axis 3 Arm	+60°	to	-180°
Axis 4 Wrist	+300°	to	-300°
Axis 5 Bend	+100°	to	-100°
Axis 6 Turn	+300°	to	-300°

Axis max speed, °/s

Axis 1	137°/s
Axis 2	72°/s
Axis 3	72°/s
Axis 4	118°/s
Axis 5	118°/s
Axis 6	244°/s

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

ELECTRICAL CONNECTIONS

Supply voltage	200–600 V, 50/60 Hz
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PHYSICAL

Dimensions robot base	1206.5 × 1200 mm
Weight (all versions)	2,500 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%
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Noise level	Max 70 dB (A)
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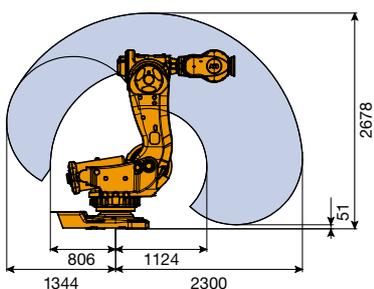
Safety	Double circuits with supervision, emergency stops and safety functions, 3-positions enable device.
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Emmission	EMC/EMI-shielded
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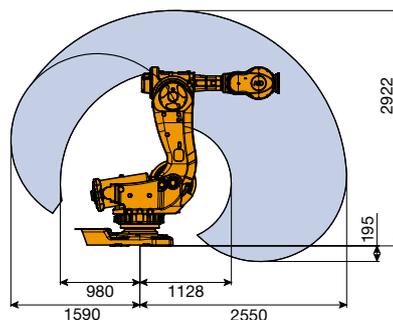
Data and dimensions may be changed without notice.

WORKING RANGE

IRB 7600-500/2.30



IRB 7600-400/2.55



IRB 7600-150/3.50

