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TESTED®
DEVICE

KUKA Roboter GmbH
LBR iiwa 7 R800 CR
Report No. KU 1707-925

DUPLICATE

Statement of
Qualification

Electrostatic
Resistance

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Statement of Qualification

Customer

KUKA Roboter GmbH
Zugspitzstrasse 140
86165 Augsburg
Germany

Component tested

Category: Automation Components

Subcategory: Robotics

Product name: LBR iiwa 7 R800 CR
(manufacturing date: 5/2017; serial number: 982698; payload: 7 kg; reach: 800 mm)

Electrostatic discharge measurements at representative points (resistance to earth)

Standards/Guidelines: DIN EN 61340-2-3; DIN EN 61340-5-1
The norms stated generally refer to the version valid at the time of the tests.

Test devices:
Data capture: ..... Tera-Ohm-Meter, type 6206, ... Eltex (Weil am Rhein)

Test environment parameters:
- Cleanroom Air Cleanliness Class (according to ISO 14644-1): ..... ISO 1
- Airflow velocity: ..... 0.45 m/s
- Airflow pattern: ..... vertical laminar flow
- Temperature: ..... 22 °C ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:
- Assembly state: ..... insulating base
  – Type: .... 4 x insulating feet – fully-insulated hexagonal feet with $R > 10^{14}\,\Omega$
  – Material: ..... glass-filled polyester
  – Thickness: ..... 35 mm
- Contact point: ..... metallic flange for mounting tools
- Earthing point: ..... at base of robot

Test result / Classification

The robot LBR iiwa 7 R800 CR was examined for its resistance to earth in accordance with DIN EN 61340-2-3. The test result lies below the required maximum value of 1 x $10^9\,\Omega$ according to DIN EN 61340-5-1 for ESD protective elements.

	Operating voltage [V]	Resistance [Ω]	Compliance with limit value as per DIN EN 61340-5-1
Resistance to earth	10	< 2 x 10^5	fulfilled

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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on behalf of
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