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DEVICE

Atlas Copco IT AB
Screwdriver QMC41-150-I06
Report No. AT 1605-823

Statement of
Qualification

Particle Emission

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Statement of Qualification

Customer

Atlas Copco Industrial Technique AB
105 23 Stockholm
Sweden

Component tested

Category: Working Place and Operator

Subcategory: Work Equipment

Product name: Fixtured electric motor unit QMC41-150-I06
(manufacturing date: 7/9/2015; color: black; serial number: A7731058)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines: VDI 2083-9.1; ISO 14644-1
The norms stated generally refer to the version valid at the time of the tests.

Test devices: Optical particle counter:
LasAir II 110 and LasAir III 110 with measuring ranges ≥ 0.1 µm, ≥ 0.2 µm, ≥ 0.3 µm, ≥ 0.5 µm, ≥ 1.0 µm and ≥ 5.0 µm

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:

- Load: ..... none
- Installation position: ..... horizontal
- Speed: ..... 500 rpm
- Rotation angle: ..... 10000 °
- Cycles per minute: 11

Test result / Classification

When operated under the specified test conditions, the fixtured electric motor unit QMC41-150-I06 is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
Load = none Installation position = horizontal Speed = 500 rpm Rotation angle = 10000 ° Cycles per minute = 11	6
Overall result	**6**

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

Department of Ultraclean Technology and Micromanufacturing

Nobelstrasse 12
70569 Stuttgart
Germany

Stuttgart, July 11, 2016
Place, date of first document issued

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Place, current date

on behalf of
Frank Bürger, Project Manager Fraunhofer IPA

This document only applies to the named product in an unchanged state and is valid from the date of issue for a period of 5 years. The document can be verified under **www.tested-device.com**.

DUPLICATE

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