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TESTED®
DEVICE

Atlas Copco IT AB
QMC41-250-I06
Report No. AT 2108-1250

Statement of
Qualification

Single product
Particle Emission

Fraunhofer
IPA

Statement of Qualification · Single product

Customer

Atlas Copco Industrial Technique AB
Sickla Industriväg 19
13154 Stockholm
Sweden

Component tested

Category: Working Place and Operator

Subcategory: Work Equipment

Product name: Current Controlled Screwdriver QMC41-250-I06
(manufacturing date: week 28/2021; article number: 8432084464; serial number: B3600311)
in combination with:
- Control and drive unit MT FOCUS 6000
  (manufacturing date: week 14/2017; article number: 8432 0851 00; serial number: B9480028)
- MT Power Supply (MT PS 180W-36V)
  (manufacturing date: week 26/2018; article number: 8432 0840 02; serial number: B0600263)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines: ISO 14644-1, -14
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:
- Installation position: horizontal
- Velocity: 750 rpm
- Interval: movement: 15 s; break: 5 s

Test result / Classification

When operated under the specified test conditions, the Current Controlled Screwdriver QMC41-250-I06 in combination with MT FOCUS 6000 and MT PS 180W-36V is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Screwdriver: • Installation position: horizontal • Velocity: 750 rpm • Movement: 15 s; break: 5 s	7
Controller	2
Power Supply	1
Overall result	**7**

Please note: Transport damages, incorrect installation, oil leakage, aging behavior, etc. can influence the test result.

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.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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on behalf of
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