FREQCON

FAT Test Protocol

20FT PCS Container

(Factory Acceptance Test)

Version	Date	Name	Description
1.0	2024-03-21	S. Laudahn	First version
2.0	2024-07-06	C. Palenzuela	Updated several sections

Table 1: Version overview

	Date	Name
Creator	21.03.2024	S. Laudahn
Tested by		
Released by		

Table 2: Release overview

Imprint

Software development
Hardware development and production
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Visit our website http://www.freqcon.com for more information about our products and solutions.

Contents

1 About this document 6
2 Responsibilities 6
2.1 Responsibilities of FREQCON GmbH 6
2.2 Responsibilities of the customer 6
3 General Arrangement 7
4 Container Inspection 7
4.1 Prerequisites 7
4.2 Container Visual Inspection (Exterior) 8
4.3 Container Visual Inspection 9
5 Employees present 10
6 Examination and authorisation 11

Identification

Product and type designation

Container type
40FT BESS

Serial No.
FRQ-53396000001

Document number
23A2007_240706_FAT_20FT_PCS_Container_EN_v2.0

Name and address of the manufacturer

Manufacturer of the product
FREQCON GmbH
Bürgerwiesenweg 5
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Original document

This document is an original document of FREQCON GmbH.

1 About this document

This acceptance report is used to assess compliance with all design and customer requirements of the tested system.

The factory acceptance test (FAT) is carried out by specialised personnel before delivery of the system and the result is checked by the customer.

2 Responsibilities

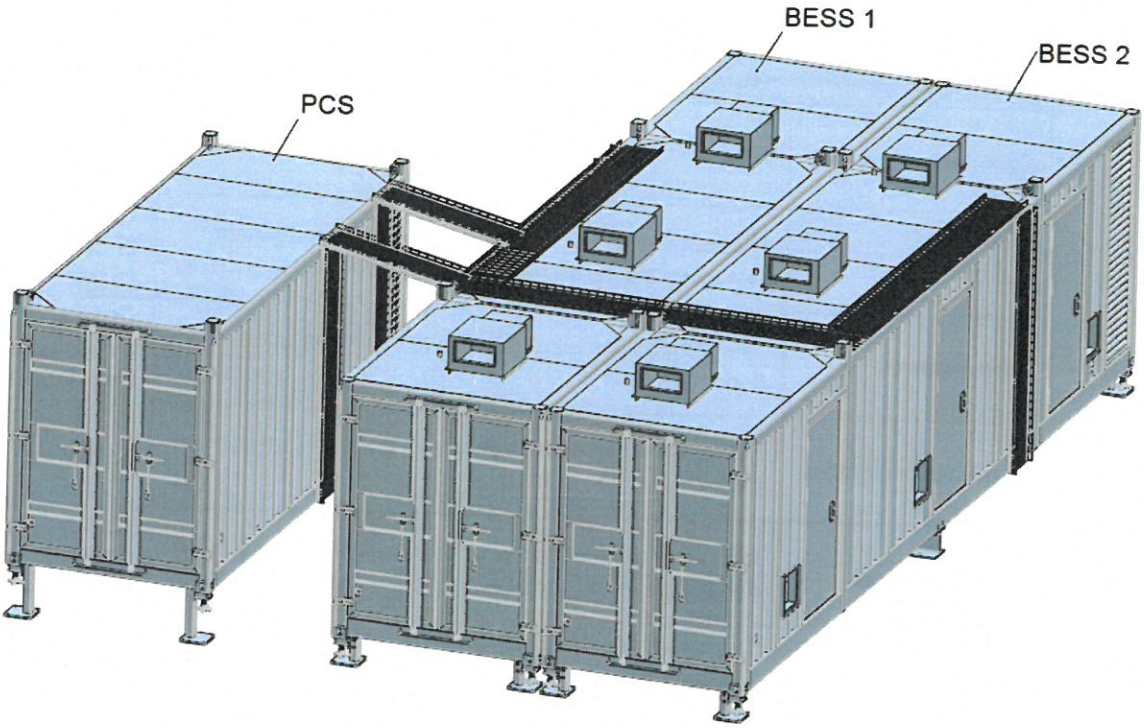
2.1 Responsibilities of FREQCON GmbH

- Preparation and review of the acceptance report
- Carrying out the acceptance test (FAT), documentation of the results
- Elimination of identified deviations
- Preparation and review of the acceptance report

2.2 Responsibilities of the customer

- Dispatch of specialised personnel to FREQCON GmbH, inspection of the acceptance results and documented data by the specialised personnel
- Confirmation of the factory acceptance report by specialised personnel

3 General Arrangement



4 Container Inspection

4.1 Prerequisites

The following documents must be available in electronic form or as a printout for the FAT:

1. CAD of containers

Remarks:

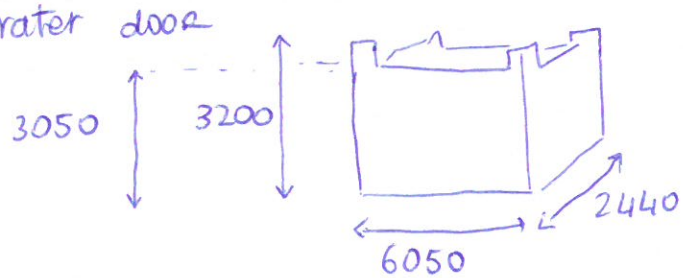
4.2 Container Visual Inspection (Exterior)

Check all system parts, including external parts, to ensure that they are in perfect condition. Document the qualification results in the following table.

Examination		Result
Container colour	Required colour/RAL colour code: 7035 (Light Grey)	☒ OK ☐ Defects ☐ N/A
Damage	The container is free of dents and unusual rust (minor rust spots, e.g. on crane eyes, are unavoidable)	☒ OK ☐ Defects ☐ N/A
Performances	The bushings correspond in size and position to the underlying CAD	☒ OK ☐ Defects ☐ N/A
Earthing connections	The earthing lugs are in the correct position (compare CAD) and are not painted	☐ OK ☒ Defects ☐ N/A
Doors/openings	Doors and other openings of the container correspond in size and position to the CAD on which they are based	☒ OK ☐ Defects ☐ N/A
Cooling niche	The cooling recess corresponds to the underlying CAD. The cooling units are in the correct position and can draw in sufficient fresh air.	☒ OK ☐ Defects ☐ N/A
Warnings	The required warning signs are located on the personnel doors	☒ OK ☐ Defects ☐ N/A

Remarks and description in case of defects:

PCS container = FRQ-5339600 0001
Minor rust spots around container feet
Earthing lugs painted
Blue ferrules on earthing cable on access door
~~Missing lock handle on door~~ closed
Missing grounding of cooling niche doors
"Push to open" inside operater door



4.3 Container Visual Inspection

Check all system parts, including external parts, to ensure that they are in perfect condition. Document the qualification results in the following table.

Examination		Result
Accessibility	The clearances in the container correspond to the CAD. All enclosure doors are in the correct position and accessible	☒ OK ☐ Defects ☐ N/A
Light/sockets	Sufficient lighting is available. There are service sockets (230 V) in the container interior. The sockets and lighting are usable and easily accessible.	☒ OK ☐ Defects ☐ N/A
Air conditioning	The air conditioning units are in the correct position and at least one control unit for the air conditioning units is present. The air conditioning units are functional and can cool the room to a satisfactory level.	☒ ☐ OK ☐ Defects ☐ N/A
Personal security	All steps in the container (if present) are marked in signal colours (yellow/black). There are no sharp edges in the container.	☐ OK ☒ Defects ☐ N/A
Installation of components and cables in the container	All components such as switch cabinets, cable trays, air conditioning units, etc. are properly installed and cannot fall or tip over.	☐ OK ☒ Defects ☐ N/A
Cable bushings	All cable ducts are present (possibly not fitted) and comply with the client's specification. Covers, cable bushings or similar are available for all openings in the container	☒ OK ☐ Defects ☐ N/A

Remarks and description in case of defects:
- Missing yellow/black marking on step entry door - Missing cable ladders on back door in transformer area for HV. AC side cables

5 Employees present

Identify each employee involved in the execution of this protocol. Document personal names, signature, name abbreviation and date in the following table:

Company Name	Employee Name	Signature	Abbreviation	Date
SHELL	ALESSANDRO IUTTO			17/07/24
CROSSWIND	MARTIN TAFLAN			17/07/24
ABL	Dominik Mähl			17.07.2024
FREQCON	CARLOS PALENZUELA			17.07.24
Fulcrum obo Crosswind	Ali Tahanwarf	Johan. Ki		17.07.24

	Yes/No
All persons involved in the factory acceptance test were documented.	☐ Y ☐ N

Remarks and description in case of defects:
SEE ALSO OVERALL PUNCH-LIST

6 Examination and authorisation

The test report becomes the factory acceptance report as soon as the individual test reports have been completed and labelled with a test date. The factory acceptance report is sent to the customer for confirmation and the results must be documented in the TR8 test report.

TR8	Examination and authorisation of execution
Checking the test results and original data. Final assessment for factory acceptance	
☒ PASSED	☐ NOT PASSED
If there are any deviations, please complete the following section.	
Evaluate whether or not the existing deviation has an influence on the final factory acceptance test.	
☐ YES	☒ NO

Remark:
SEE OVERALL PUNCH LIST

Carried out by:	C Palan FREQCON GmbH	Date:	18.07.2024 DD/MM/YYYY
Authorised by:	FAT Customer	Date:	18.07.2024 DD/MM/YYYY