FREQCON

FAT Test Protocol

40FT BESS Container 1

(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

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Tested by		
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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.

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Identification

Product and type designation

Container type
40FT BESS

Serial No.
FRQ-53406000001

Document number
23A2007_240706_FAT_40FT_BESS_Container_1_EN_v2.0

Name and address of the manufacturer

Manufacturer of the product
FREQCON GmbH
Bürgerwiesenweg 5
D-27336 Rethem, Germany

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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

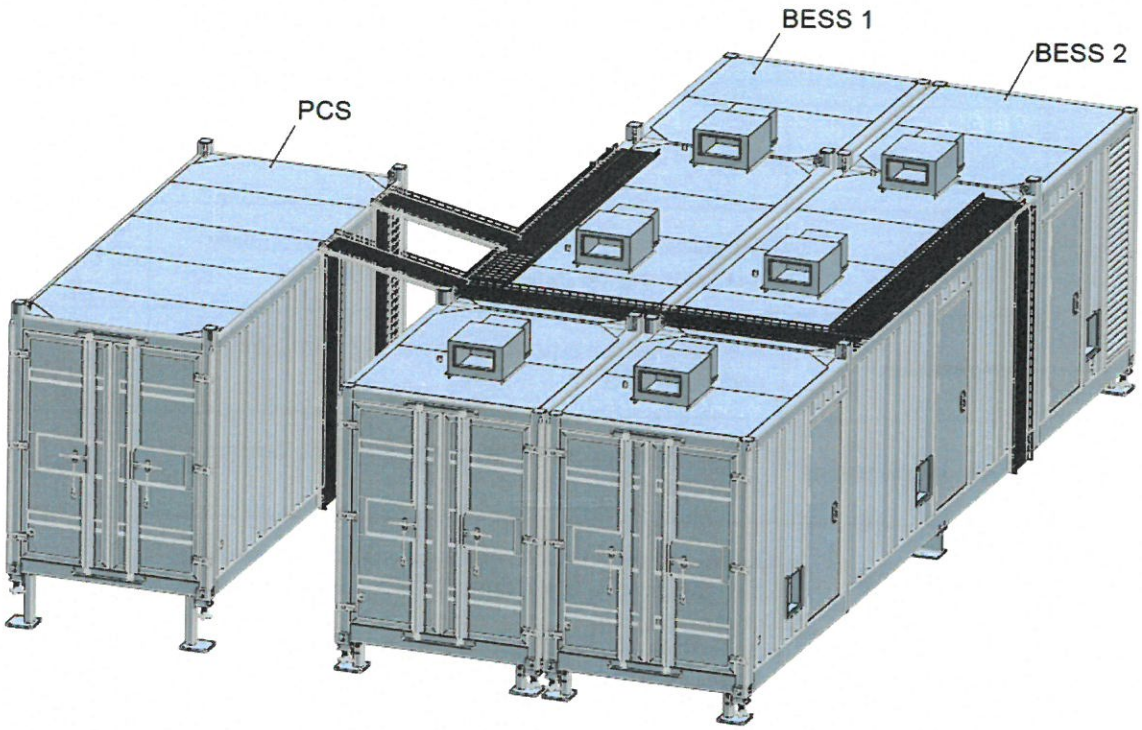
2.1 Responsibilities of FREQCON GmbH

- 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:
- BESS 1 = FRQ-5341200001 - COG should be marked & should be visible on all sides for lifting operations - finalize mounting cable tray cover on cooling niche - Earthing point on external is painted over - Earthing of cooling niche doors



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:
Gaskets on emergency doors → to be checked Sealing might be partial "push to open" sticker inside the access doors

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 CROSSWIND	ALESSANDRO SUTTO			17/07/24
Fulkrum on behalf of crosswind	Mi Tahannazif	Tahan Jt		17.04.24
ABL	Dominik Mähl			17.07.2024
CROSSWIND	MARTIN TAYLOR			17/07/24
FREQCON	CARLOS PALENZUELA			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 CONSOLIDATED 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 PUNCHLIST

Carried out by:	CARLOS PALENZUELA	Date:	18.07.2024
	FREQCON GmbH		DD/MM/YYYY
Authorised by:	[signature]	Date:	18.07.2024
	Customer		DD/MM/YYYY