



FAXAFLÓAHAFNIR PORTS IN REYKJAVÍK

LOW-VOLTAGE SHORE
CONNECTIONS

LVSC according to IEC-PAS 80005-3 available in Reykjavík:

Dear recipient,

Faxaflóahafnir (FFH) has implemented a requirement that all ships must be connected to shore if a shore connection is available. As such, we would like to request that your ships dock at the pier in Faxagarður or Miðbakki Reykjavík and connect to the Low Voltage Shore Connection (LVSC) available there.

The aim of this shore connection is to provide a reliable and safe power source to ships, promoting efficient and sustainable operations.

For ordering of shore connection please refer to Faxaflóahafnir webpage: www.faxaflpahafnir.is/en/

Faxagarður pier

Miðbakki pier





Faxagarður

Faxagarður is located in (Gamla höfn - Hafnakort (faxafloahafnir.is)) the Old Harbour of Reykjavík and offers a reliable and sustainable power source to ships in accordance with the IEC PAS 80005-3 standard. This shore connection will be available for use from April 15th, 2023 and is intended to serve two ships simultaneously. It can either provide 380 V/400 V 50 Hz, 440 V 60 Hz or 690 V on either 50 or 60 Hz.

The connection will be facilitated through two connection points (see picture 1), three 350 A plugs, and four 350 A plugs, and will be managed by a cable management system called ZINUS Shore Power Compact 215/115. This system will control the tension of the cables connecting the pier and the ship. The system is equipped with a Kirk Key solution for added safety.

It's important to note that the maximum power capacity for FA1 is 1 MVA on 380 V/400 V/440 V or 1,5 MVA on 690 V. The maximum power capacity at FV1 is 0,8 MVA on 400 V/440 V and 1 MVA on 690 V.

SeadeptharoundFaxagarðurisapproximately 7,5 m. More details for the sea depth can be reviewed on the drawing following this link: Gamla-höfnin_hafnarkort_2020.pdf (faxafloahafnir.is)

Miðbakki

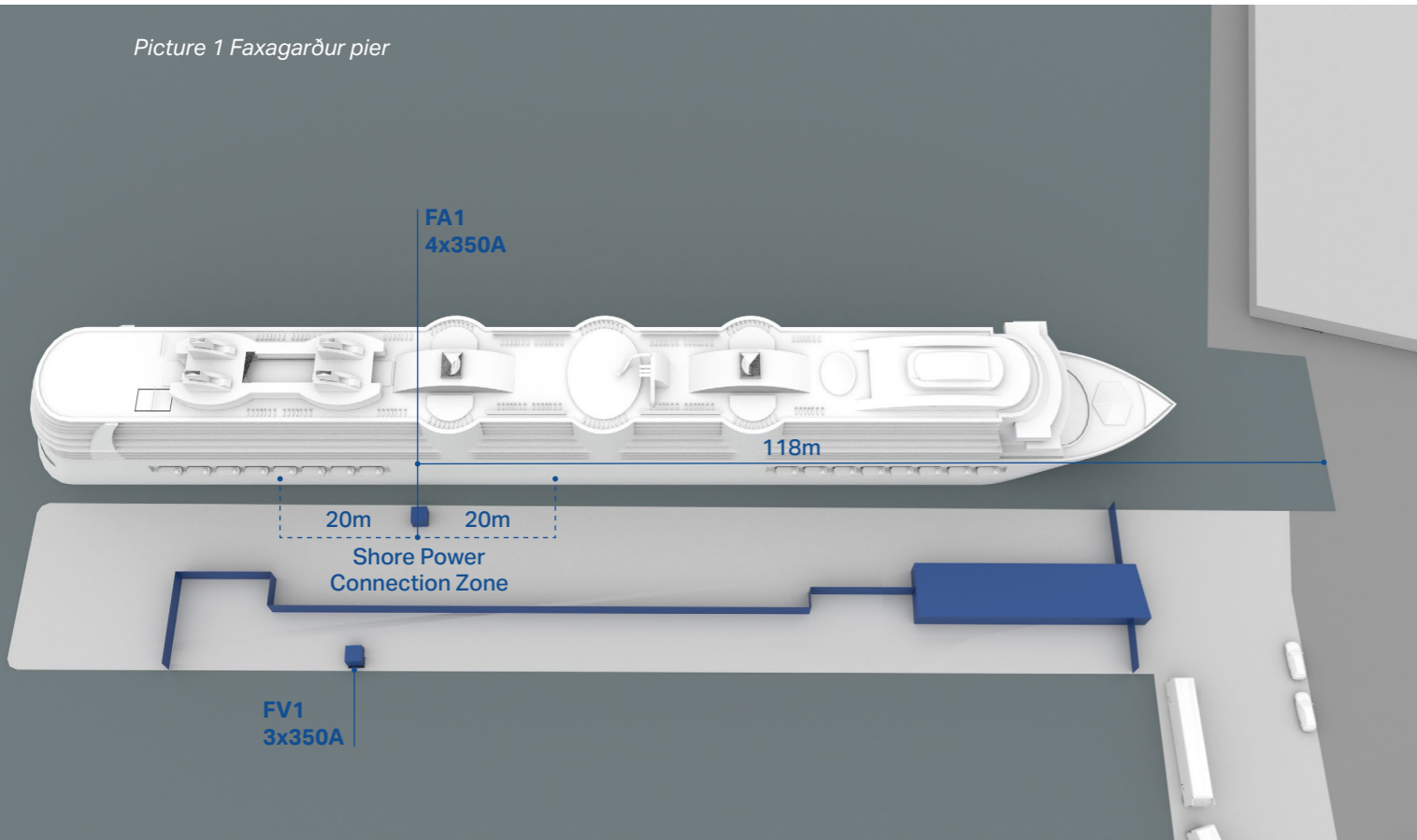
Miðbakki is located in (Gamla höfn - Hafnakort (faxafloahafnir.is)) the Old Harbour of Reykjavík and offers a reliable and sustainable power source to ships in accordance with the IEC PAS 80005-3 standard. This shore connection will be available for use from May 16th, 2024, and is intended to serve one ship. It can either provide 380 V/400 V 50 Hz, 440 V 60 Hz or 690 V on either 50 or 60 Hz.

The connection will be facilitated through one connection point with four 350 A plugs and will be managed by a cable management system called ZINUS Shore Power Compact 215/115. This system will control the tension of the cables connecting the pier and the ship. The system is equipped with a Kirk Key solution for added safety.

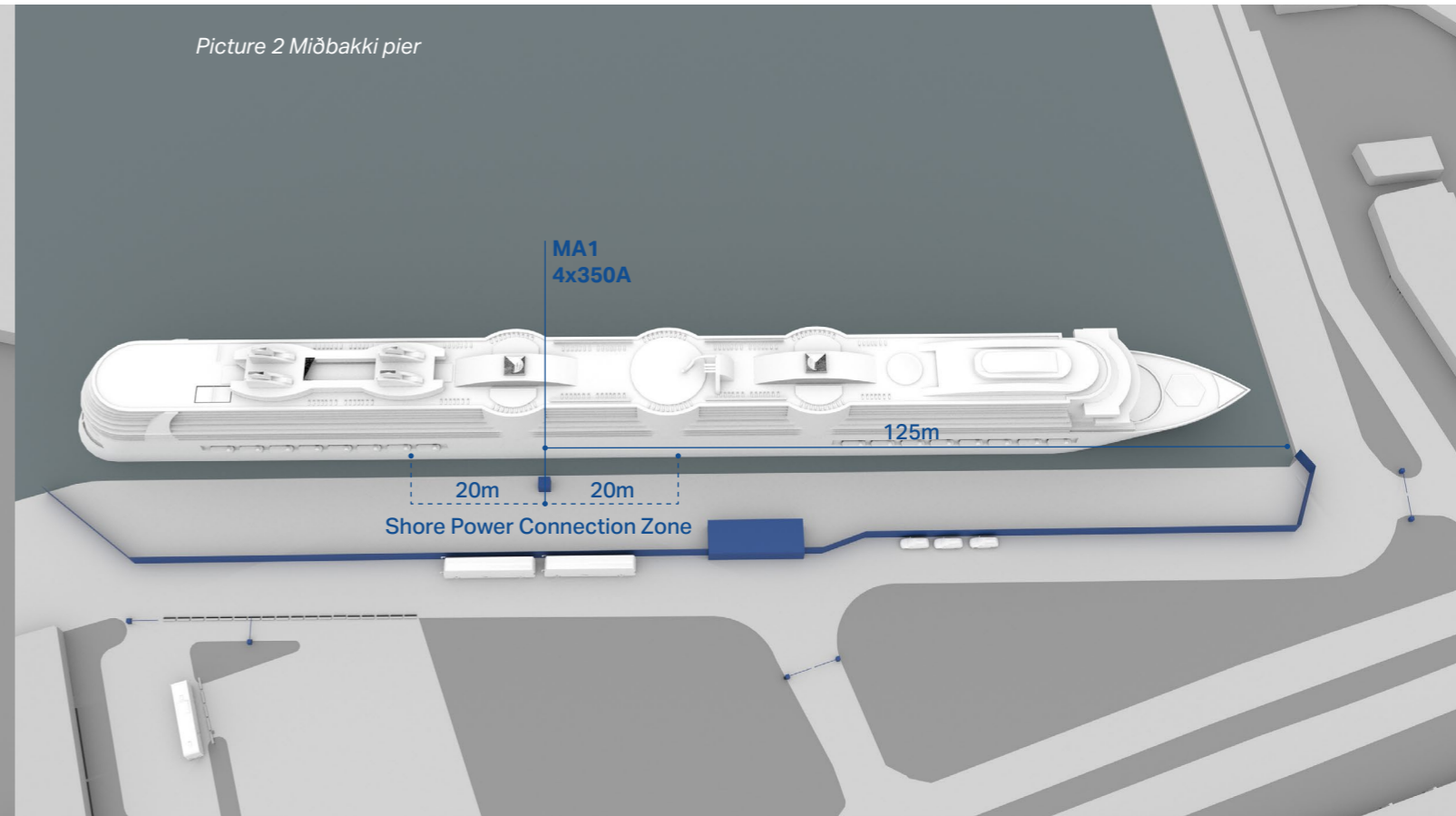
The maximum power capacity for MA1 is 1 MVA on 380 V/400 V/440 V or 1,5 MVA on 690 V.

The sea depth around Miðbakki is approximately 8,5 meters. More details for the sea depth can be reviewed on the drawing following this link: Gamla-höfnin_hafnarkort_2020.pdf (faxafloahafnir.is)

Picture 1 Faxagarður pier



Picture 2 Miðbakki pier



Reliable and sustainable power

Cable management system (CMS)

For connection of ship to shore Faxaflóahafnir uses Zinus Shore Power Compact ZPP115/215. Each ZPP is equipped with two cables, for three or four ship-to-shore connections two ZPP's is required. solution for added safety.



Picture 3 Zinus Shore Power Compact ZPP215

The ZPP is connected to the quay side cabinet via jumper cables. The length of the cables connected to the ship is 45 m. Each ZPP has two cables that are equipped with Proconnect 3PX5 350A connectors (Ref X5PF312S-70-V / 350A / 690VAC / 50/60Hz).



Picture 4 Proconnect 3PX5 350A

In accordance with IEC PAS 80005-3:2014 all shore connectors have an electrical interlock through pilot pin 1 & 3. Without this safety circuit intact, it is impossible to turn the power on.

A system is needed on the ship to be able to get the cables onboard safely.

All sharp edges and the like that can damage the cables must be protected with covers or something similar.



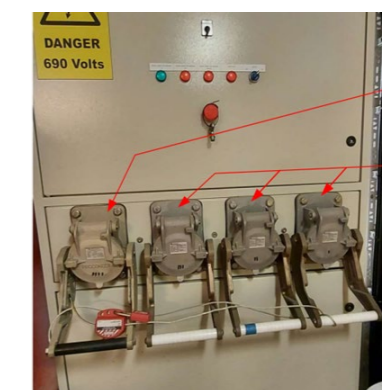
Interlock Pilot Pin 1 & 3

Picture 5 Interlock pilot pin 1 & 3

On board connector system

Proconnect 3PX5 plug is compatible with:

- Proconnect 3PX5 male (X5DM315-LV70)
- Cavotec 420A male (PC5-WX04-15024)



Proconnect
Type 3PX5
Ref X5DM315-LV70
420A 690VAC 50/60Hz

Cavotec 420A
Code: PC5-WX04-15024
Amp: Max 420A / Rec 420A
Serial: PC-20160842

Picture 6 compatible onboard connectors



APPENDIX 1

Ship request for LVSC according to IEC-PAS-80005-3

SELECT VOLTAGE

380 V	400 V	440 V	690 V	OTHER
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SELECT FREQUENCY

50 HZ	60 HZ
<input type="checkbox"/>	<input type="checkbox"/>

SELECT THE NUMBER OF PLUGS

350 A	350 A	350 A	350 A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMO NUMBER

SHIP NAME

DATE OF CONNECTION

SIGNATURE OF SHIP'S REPRESENTATIVES

PHONE NUMBER OF SHIP'S REPRESENTATIVES

Connection and disconnection process

The established protocol in accordance with IEC PAS 80005-3:2014 states that one person in charge (PIC) on the ship and one facility PIC from Faxaflóahafnir needs to be appointed.

An independent means of voice communication shall be provided between the ship and facility PIC, e.g. walkie-talkies.

A request form must be filled in and signed by the ship PIC, see appendix 1.

This form indicates desired voltage level, frequency, and number of 350A connections. The ships IMO number and name needs to be filled in as well as date of connection.

Thank you for your cooperation.
Sincerely, [Your Name]

