



# ZIM Float

## the large-scale floating PV system

- Solid steel mounting structure with a unique, long-term, and environmentally friendly corrosion protection coating
- System based on high density polyethylene floats
- System includes inverter boats, gangways and maintenance walkways, cable ducts and wave barriers
- All cables are protected from long-term water contact and direct sunlight which ensures the best conditions for cable strings and connectors
- High cooling effect of modules by air permeability, chimney effect and close range to the cooling water
- Easy, fast and space-saving assembly process for the solar boats

### ZIM Float Floating PV System – Technical Data

Design life	<ul style="list-style-type: none"> <li>▪ 25+ years</li> </ul>
Orientation of system	<ul style="list-style-type: none"> <li>▪ East-west with tilt of 5° to 15°</li> <li>▪ South orientation with tilt of 5°</li> </ul>
Wind speed	<ul style="list-style-type: none"> <li>▪ Average wind speed of 160 km/h with possible local gusts of 220 km/h</li> <li>▪ Option for higher wind loads by project-specific design</li> </ul>
Wave height	<ul style="list-style-type: none"> <li>▪ 0.8 m – with standard wave barrier</li> <li>▪ With special wave barrier more possible</li> </ul>
Snow load	<ul style="list-style-type: none"> <li>▪ 0.48 kN/m<sup>2</sup> to 1.00 kN/m<sup>2</sup></li> <li>▪ Option for higher snow loads by project-specific design</li> </ul>
Material of floats	<ul style="list-style-type: none"> <li>▪ HDPE with high UV protection additive</li> </ul>
Material of substructure	<ul style="list-style-type: none"> <li>▪ Steel with a unique, long-term, and environmentally friendly corrosion protection coating</li> </ul>
Floats per solar boat	<ul style="list-style-type: none"> <li>▪ 4 – 12 - depending on snow load and design</li> </ul>



## ZIM Float Floating PV System – Technical Data

<b>Field of application</b>	<ul style="list-style-type: none"> <li>Fresh water (no saltwater, brackish water depending on water analysis)</li> </ul>
<b>Modules per solar boat</b>	<ul style="list-style-type: none"> <li>12,16 or 18 panels portrait (32 or 36 with double boats)</li> </ul>
<b>Size of panels</b>	<ul style="list-style-type: none"> <li>Up to 2500x1350mm</li> <li>Option for specific modules by project-specific design</li> </ul>
<b>Risk assessment</b>	<ul style="list-style-type: none"> <li>Risk assessment for health and safety by DNV</li> </ul>
<b>Warranty statement</b>	<ul style="list-style-type: none"> <li>Standard warranty 6 years with option to extend</li> </ul>
<b>Walk- and maintenanceways</b>	<ul style="list-style-type: none"> <li>Integrated in solar- and inverter boats</li> </ul>
<b>Integration of inverters or electrical components</b>	<ul style="list-style-type: none"> <li>Installation on integrated inverter boats possible</li> </ul>
<b>Integration of transformers</b>	<ul style="list-style-type: none"> <li>Integration of floating transformer station possible</li> </ul>
<b>Cabeling</b>	<ul style="list-style-type: none"> <li>Integrated cable routing for AC and DC</li> </ul>
<b>Land consupcion</b>	<ul style="list-style-type: none"> <li>Up to 2.0 MW per hectare (dep. on modules)</li> </ul>
<b>Direct occupation of water</b>	<ul style="list-style-type: none"> <li>20 % (high light transmission under panels by glass-glass modules possible)</li> </ul>
<b>Variation of waterlevel</b>	<ul style="list-style-type: none"> <li>Depending on mooring system until minimum water level of 0,8m</li> </ul>
<b>Tests / Certification</b>	<ul style="list-style-type: none"> <li>Risk Assessment for health and safety for assembling and operation/maintenance</li> <li>Wind tunnel test</li> <li>Dynamic analysis for static calculation of substructure</li> <li>Tests according to recommended practice DNV-RP-0584 design, development and operation of floating solar photovoltaic systems</li> </ul>
<b>Mooring design and calculation</b>	<ul style="list-style-type: none"> <li>Project-specific economic solutions with bottom or shore anchoring</li> </ul>





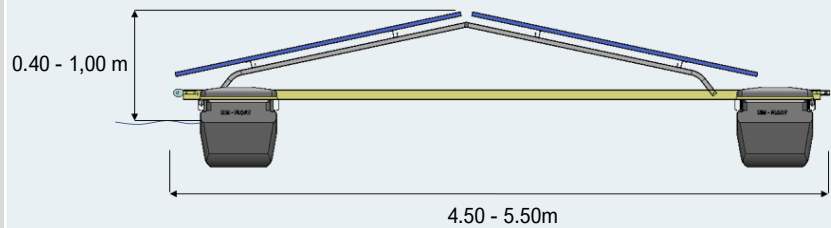
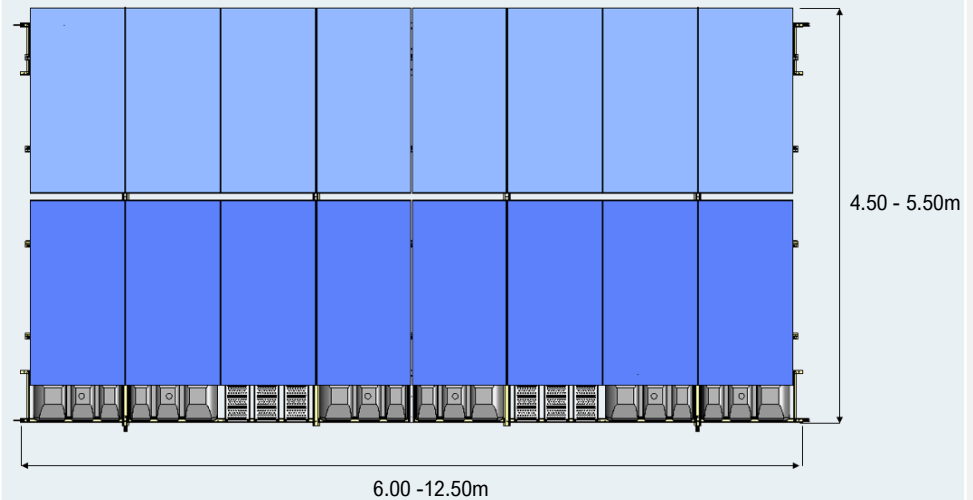
## ZIM Float Floating PV System – Technical Data

### Main Components

### Singel Solar Boat

#### Solar boat

- for 12,16 or 18 modules
- with 4 to 12 floats
- Size of boat based on module amount, module size and tilt of the modules



\*measurements can vary according project-specific requirements and conditions

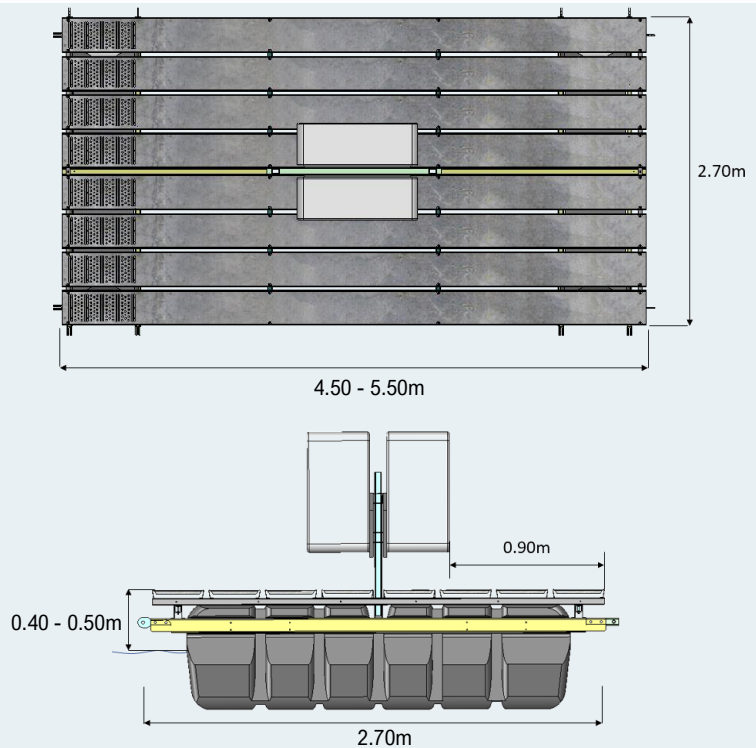


## ZIM Float Floating PV System – Technical Data

### Main Components

#### Inverter boat

- for inverters or other electrical components
- with 90cm wide stable walkway



\*measurements can vary according project-specific requirements and conditions



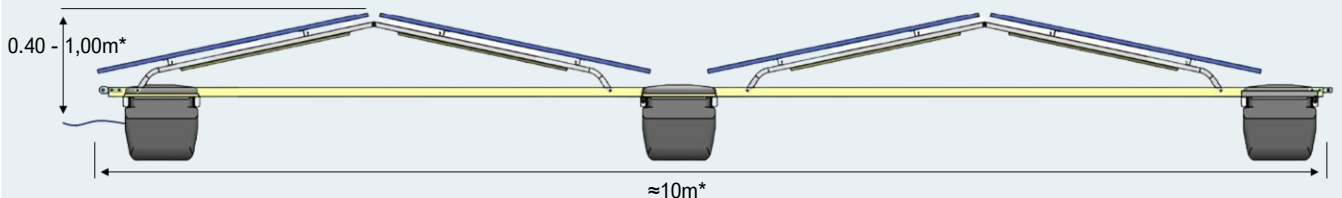
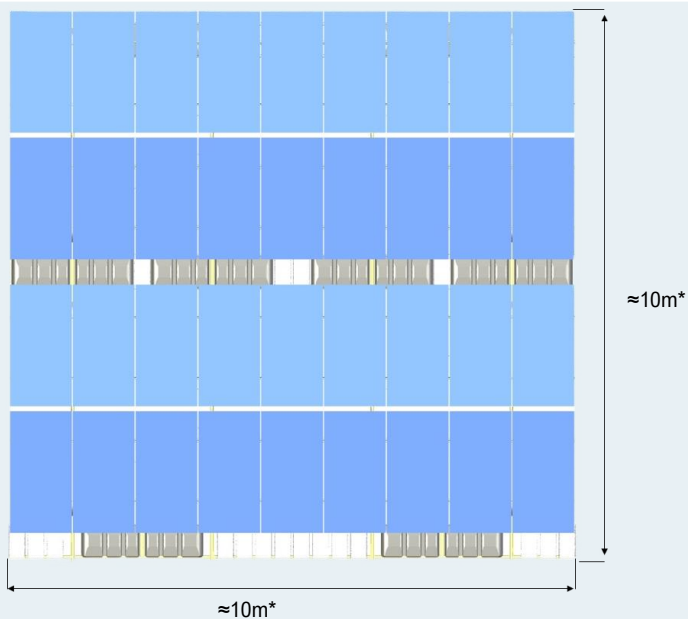


## ZIM Float Floating PV System – Technical Data

### Main Components

#### Double solar boat

- for 34 or 36 modules
- with 8 to 12 floats
- Size of boat based on module amount, module size and tilt of the modules
- **The implementation of double solar boats is only possible in special conditions (snow and wind loads, working area etc.)**



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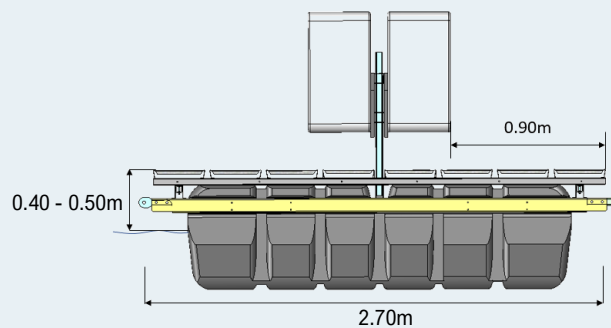
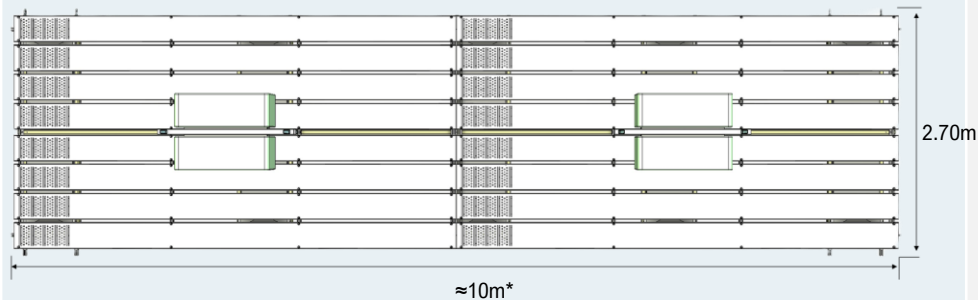


# ZIM Float Floating PV System – Technical Data

## Main Components

### Inverter boat for double boat

- for inverters or other electrical components
- with 90cm wide stable walkway



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## Contact:

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