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Standardisation of the Rack to Busbar Interface

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Introduction

Rittal have recently had their Busbar specification contribution accepted for adoption by the Open Compute Community, a specification detailing the interface between the Rack and Busbar to standardise across platforms. This presentation looks to summarise this specification.
Standardization of the Rack to Busbar Interface

Problems

- The rack equipment interface is defined within the Open Rack specification, however manufacturers can interpret how to build the rack to accommodate these features differently.

- In regard to the Busbar, an interchangeable part which can be replaced to meet rack configuration/power demand, the number possible differences make it difficult for the end user to source solutions.
Standardization of the Rack to Busbar Interface
Solution

- Introducing a common interface across all vendor platforms and a generic part number system for all Busbars

- The end user can now source upgrades or variants from an Open market place, ensuring a robust supply chain, confident in the knowledge that the new Busbar will fit to their rack as long as they comply to this new specification

- The introduction of this Busbar to Rack Interface Specification will enable this to happen.
Standardization of the Rack to Busbar Interface
The Details: Part Number

BFOCP-12-AAA-BBBB-CCCC-DD-PSEEFF

F: Full height
H: Half height

Constant

Constant

Power rating per Zone

Constant

Distance between rack interfaces

Busbar support brace positions

Constant

Rack brace height (distance between OU spacing)

Power shelf location in OU

Second Power shelf location
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The Details: Part Number

Configured part number:  
**BFOCP-12-007-2059-1900-28-PS0928**

Is available as an orderable SKU from Rittal:  
Article number **7844404**  
Available from 1st August.
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The Details: Rack interface bottom
Standardization of the Rack to Busbar Interface

The Details: Busbar interface bottom
Standardization of the Rack to Busbar Interface

The Details: Rack interface top
Standardization of the Rack to Busbar Interface
The Details: Busbar interface top

Full details defining busbar interface and height constraints are detailed in Open_Compute_Specification_Busbar_Interface.doc Rev 4.
Standardization of the Rack to Busbar Interface
Conformance to OCP Tenets

**EFFICIENCY**
- Standard Interface across all supply
- The adoption of this specification will ensure all Busbars regardless of their source will be able to be fitted to an OCP rack supplied by any vendor conforming to this spec. Thus enabling the client freedom to source from any provider.

**SCALABILITY**
- Ability to consistently meet OCP specification
- Designed with DFMA in mind, ensuring all rated Busbars from any source can be fitted to the rack ensuring the OCP specification for placement tolerance is met.

**OPENNESS**
- Specification submitted
- Full detailed specification has been contributed to the community.

**IMPACT**
- Open supply
- Enabling multiple suppliers to submit solutions conforming to spec, thus creating a robust supply chain.
Let’s make things easier for everyone by adopting this simple and effective design solution.
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