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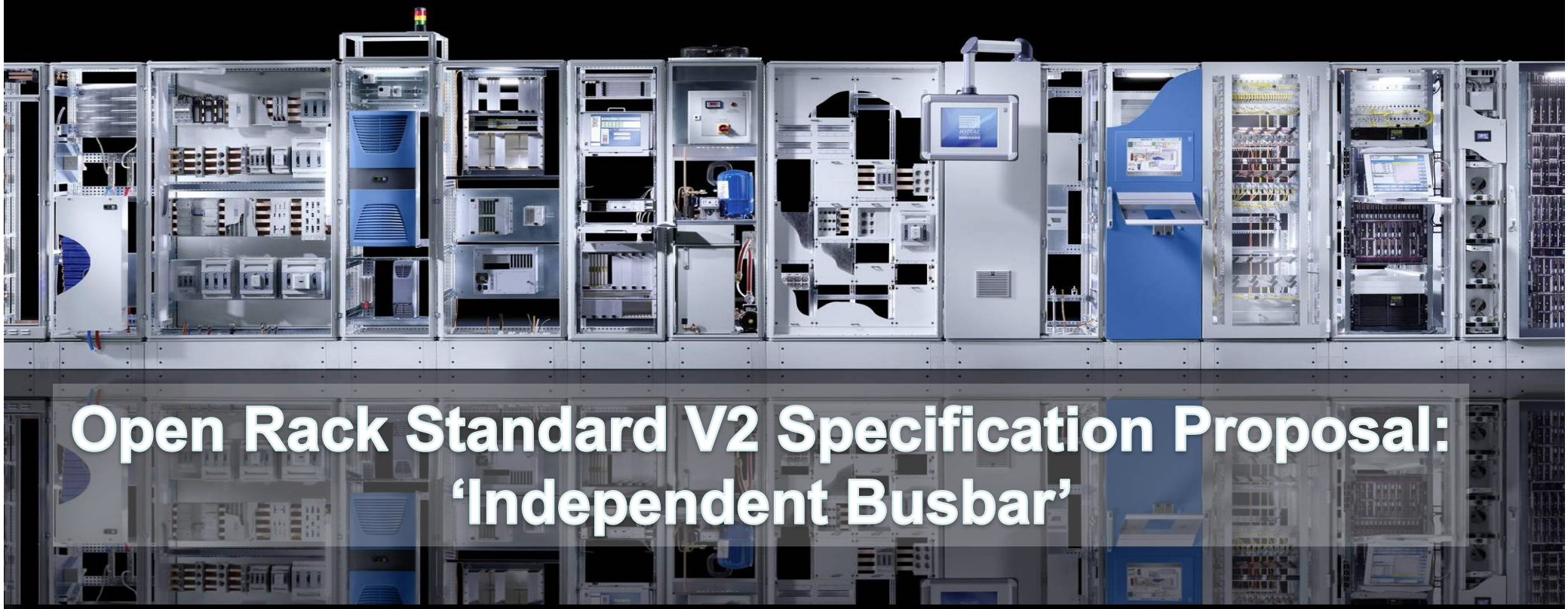


Open Rack Standard V2 Specification Proposal: ‘Independent Busbar’

ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL | IT INFRASTRUCTURE | SOFTWARE & SERVICES

FRIEDHELM LOH GROUP

OCP Specification

- Propose and discuss requirements for the addition to or creation of a specification detailing the interface between Busbar and Enclosure to standardise across the market place enabling a common approach from all suppliers and ease of adoption.
- 48V added to the Latest OCP specification
- Results in potential for 8 SKU levels
- In reality only 6 SKU in general terms.

	12VDC				48VDC			
Depth	Shallow (30”)		Deep (44”)		Shallow (30”)		Deep (44”)	
Power Rating	13.2kW	36+kW	13.2kW	36+kW	15kW	36kW	15kW	36kW
Busbar format	No perceived demand for a 12vDC system in a shallow rack		1x busbar solution	Develop the frame to add 3 x busbar systems from low power version	1x busbar solution	1x busbar solution	1x busbar solution	1x busbar solution

OCP Specification

SKU variants

12V/48V
Deep/Shallow
Hi/Low power

+

1OU Power Shelf

+ 42 Locations

12V/48V
Deep/Shallow
Hi/Low power

+

3OU Power Shelf

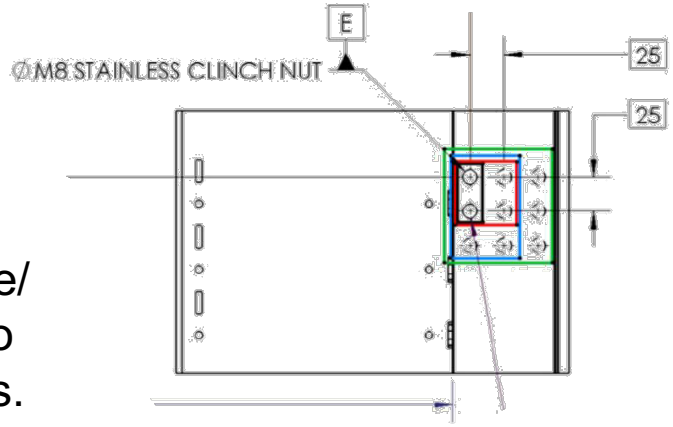
+ 14 Locations

12V potential 112 variants

48V potential 224 variants

OCP Specification

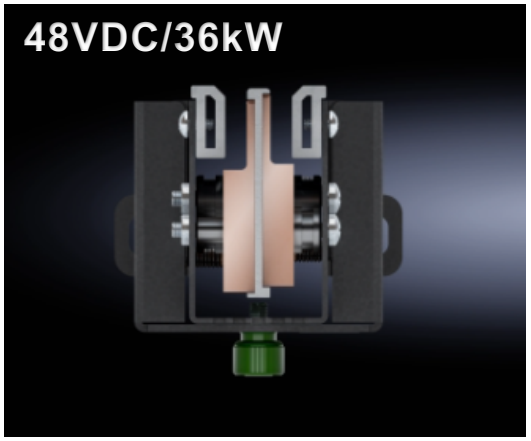
Busbar Interface

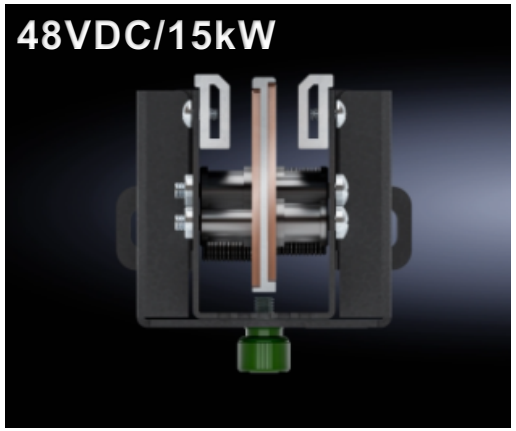


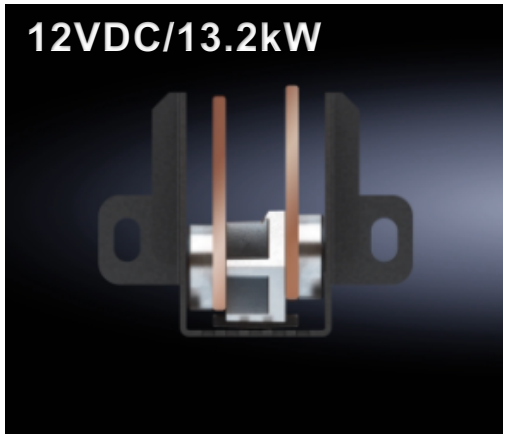
Future discussions to be had on Power shelf locations/size/ interface method to help reduce variants in manufacture to enable busbar to cope with variability of customers configs.

Busbar has potential to become independent to the rack specification.

Ensuring the Busbar to Rack interface is common across manufacturers platforms is the first step to ensuring interchangeability of hardware to help reduce variants through manufacture and offer controlled variability to the marketplace.







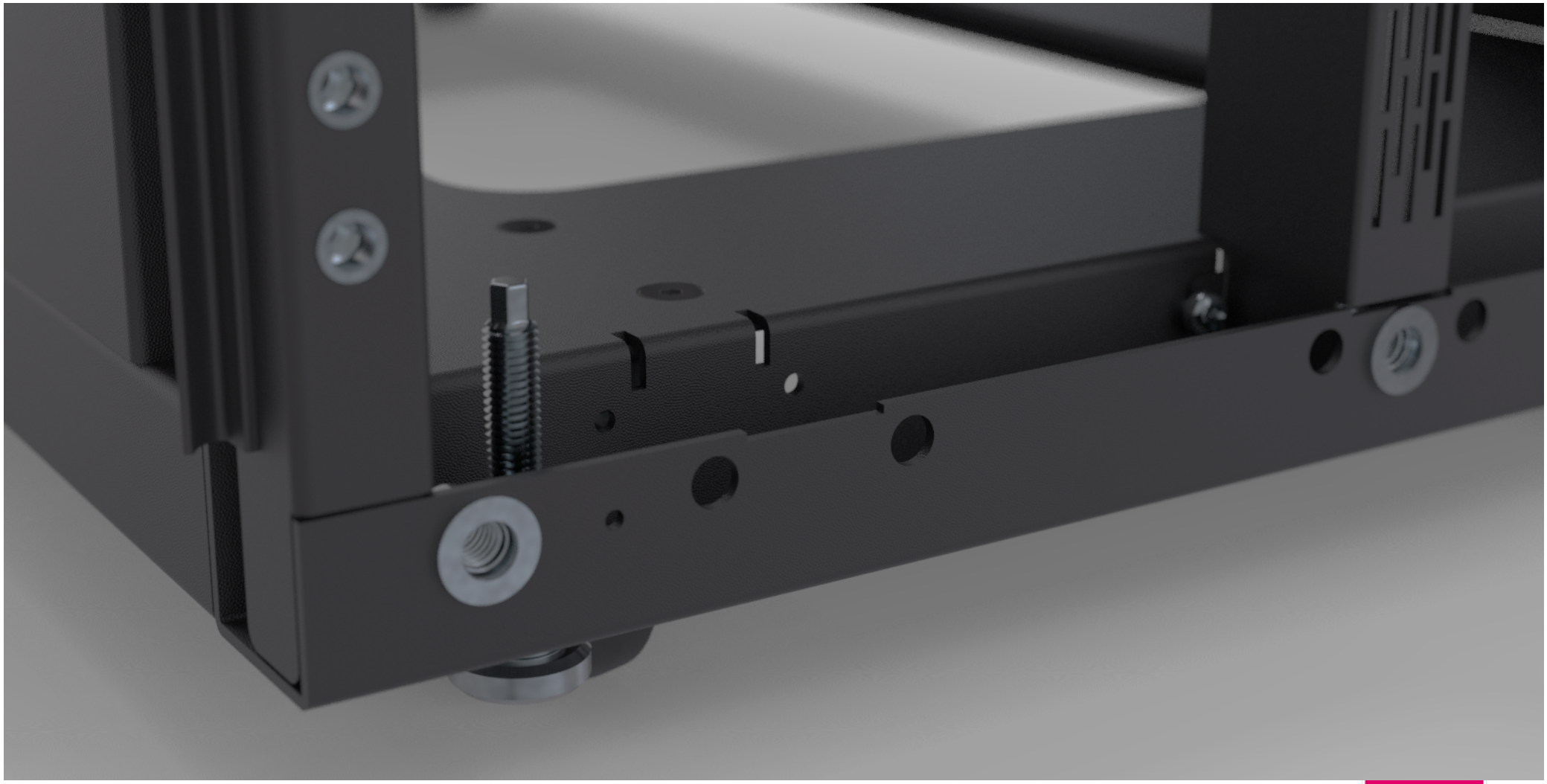
Busbar current options

OCP Specification

Busbar interchangeability

OCP Specification

Busbar Interface lower specification

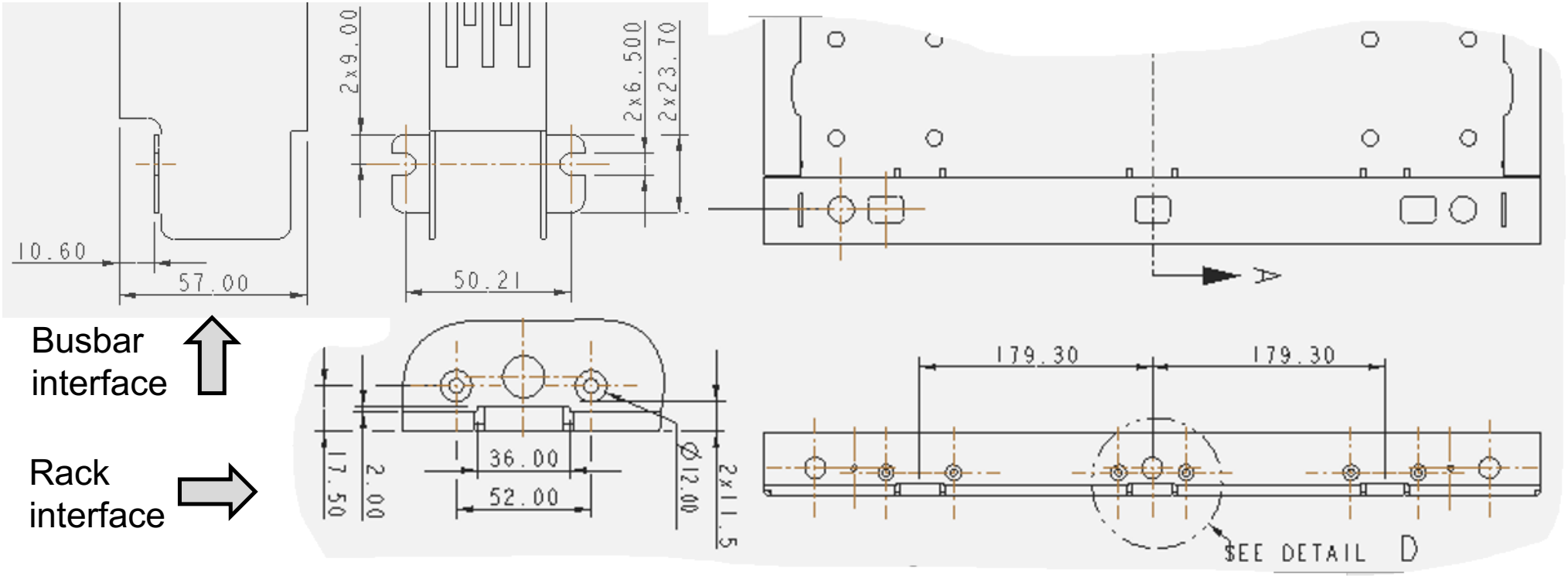


OCP Specification

Busbar Interface lower specification

Lower Busbar to Rack interface, common across manufacturers platforms, to be specified in Open Rack Standard.

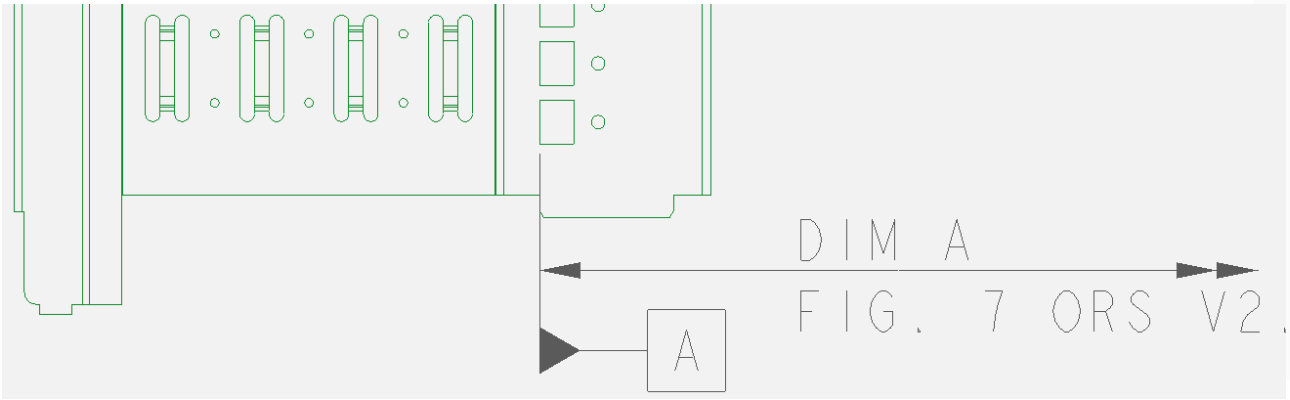
Secured in position with 2 off M6 thread forming screws @ 5Nm

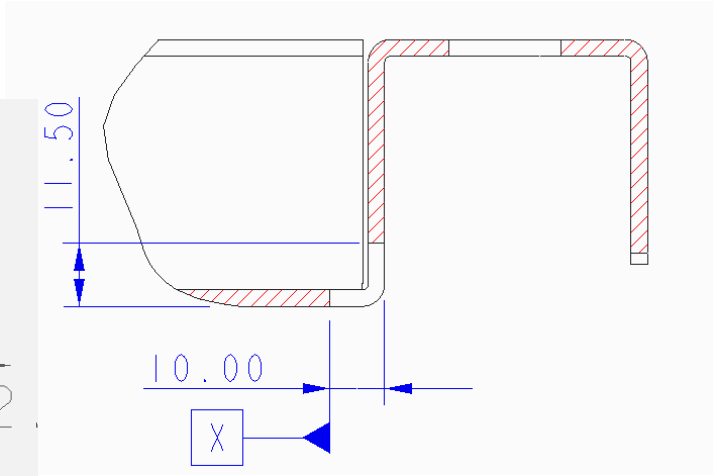


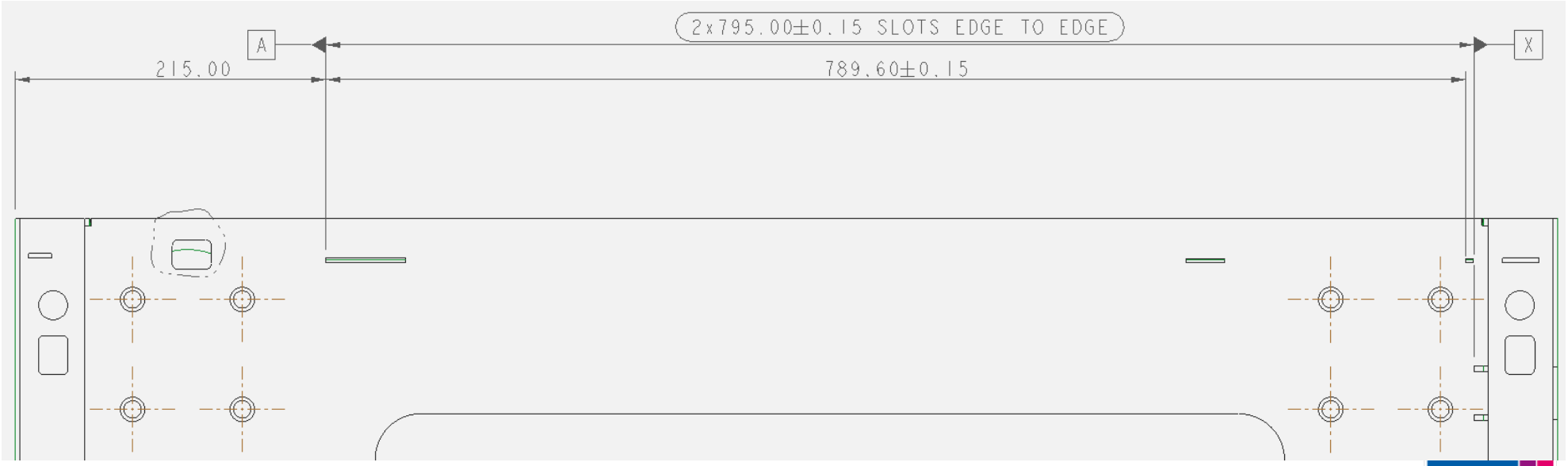
OCP Specification

Busbar Interface lower specification

Controlled by piercing







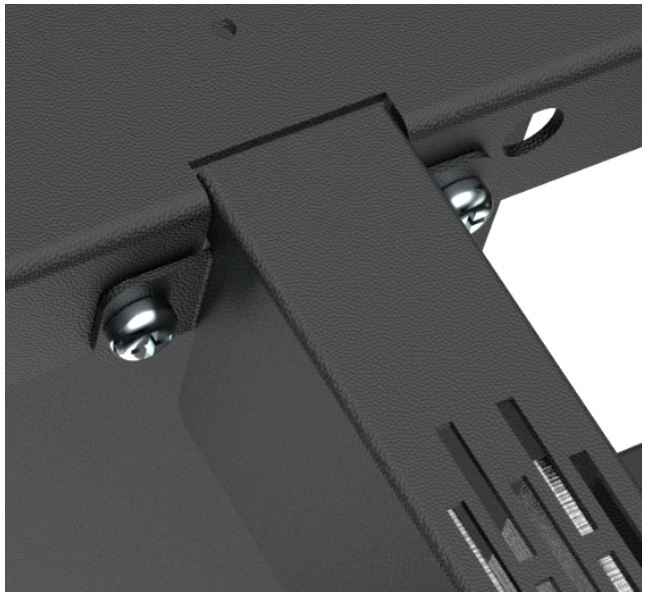
OCP Specification

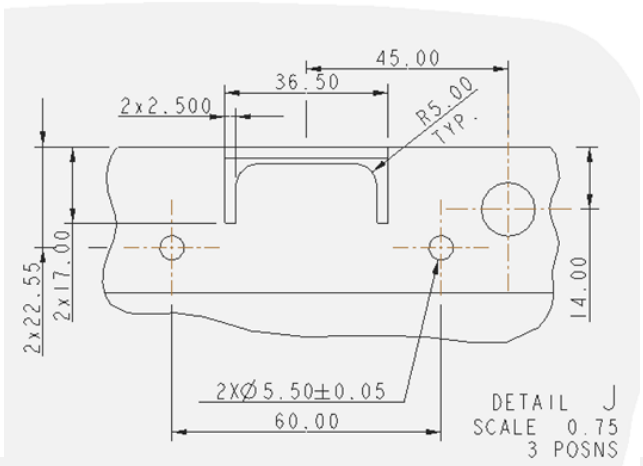
Busbar Interface upper specification

OCP Specification

Busbar Interface upper specification

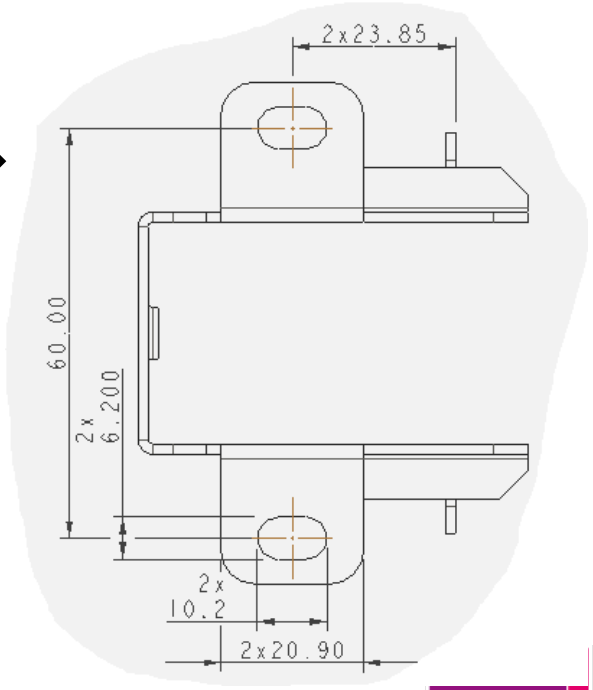
Secured in same manner as lower position, with 2 off M6 thread forming screws @ 5Nm

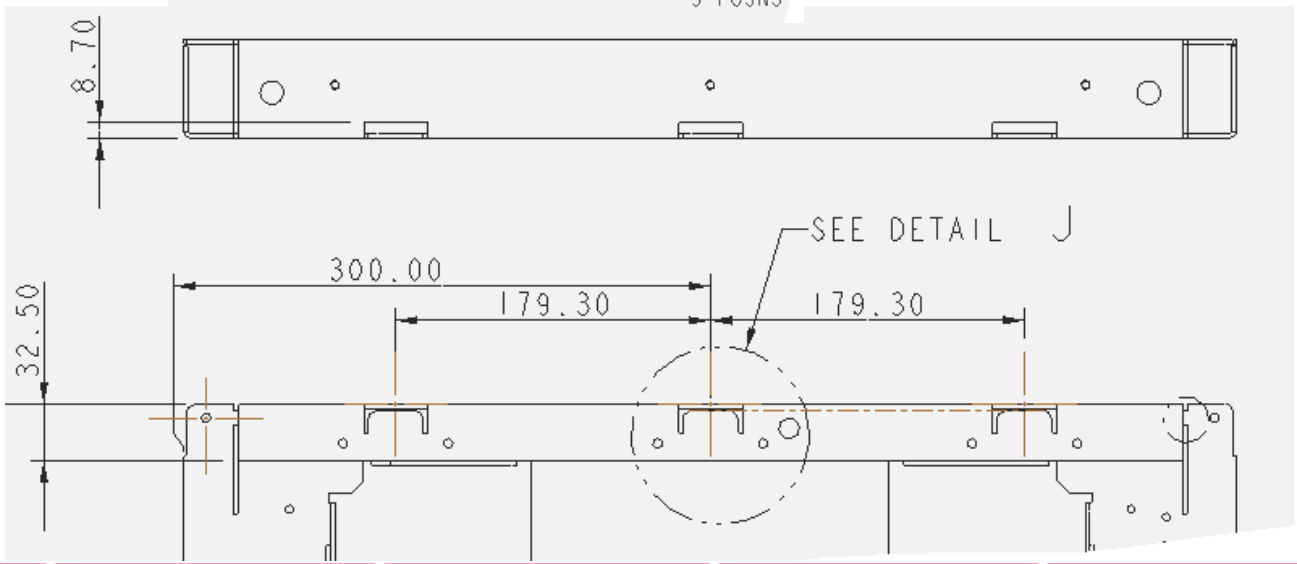




Rack interface

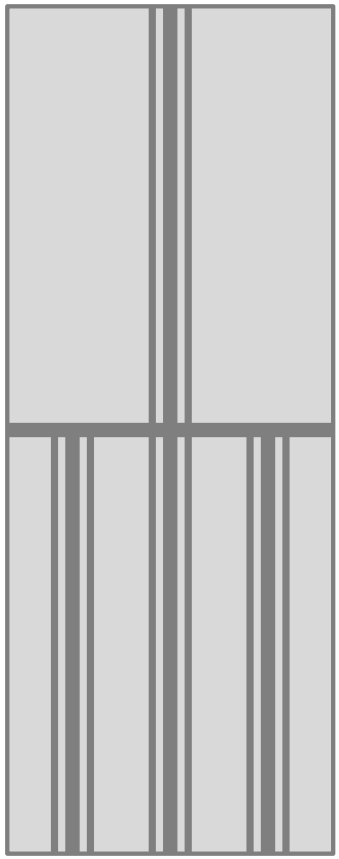
Busbar interface



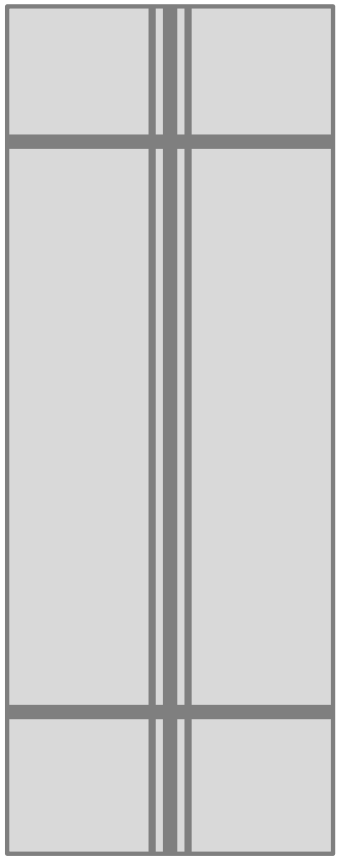


OCP Specification

Busbar Interface support members



Rack structure capable of supporting central and upper/lower braces

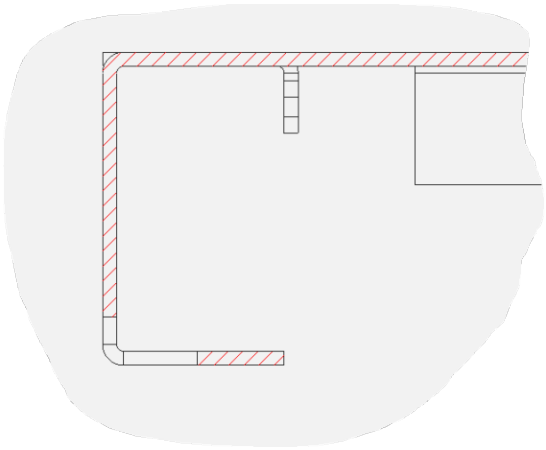


12V central support brace

48V top/btm support brace

OCP Specification

Busbar Interface upper specification
Controlled by jig.



To control Dim A at the top of the busbar becomes more difficult due to piercings being on different planes due to folded section of canopy (accumulation of tolerance).

If Busbars are always to be fitted at Rack manufacturers site and supplied as complete rack unit this poses no issue as jig will control dimension.

However if Busbars are to be complete standalone item, which can be ordered separately from the rack and therefore fitted by the end user as upgrades etc. the top fixing feature needs to eliminate this tolerance accumulation. This can be done by extending the busbar assembly so it interfaces with the same pierced plane that the frame verticals engage into.

- Busbar to be procured separately to the Rack?
- Do we envisage any need for half height Busbar?