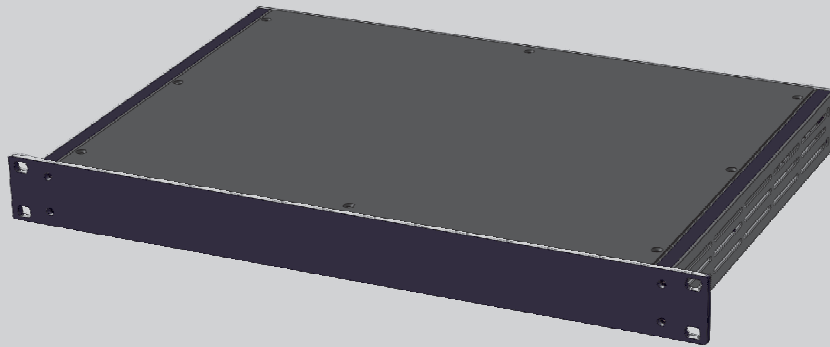




Frontpanels and Enclosures

V1.4



 **Bedienungsanleitung**
19" Gehäusesystem

 **Manual**
19" Enclosure System

On the following sites you'll see the available options for this enclosure system.

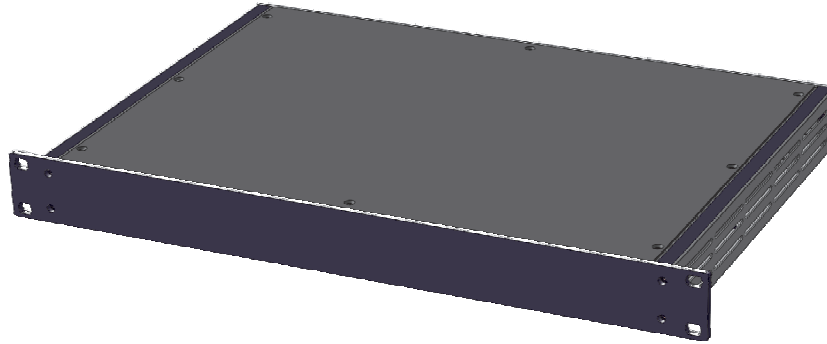
English language 

- Page 3: Features
- Page 4: Dimensions and Infos
- Page 5: Earthing System and Safety instructions
- Page 6: Mounting rail
- Page 7: API500 / 51X
- Page 8: 90° Brackets
- Page 9: Handles
- Page 10: Fixation Panel
- Page 11: 1U Drawing
- Page 12: 2U Drawing
- Page 13: 3U Drawing

Deutschsprachig 

- Page 15: Merkmale und Funktionen
- Page 16: Abmessungen und Informationen
- Page 17: Erdungssystem und Sicherheitsanweisungen
- Page 18: Montageschne
- Page 19: API500 / 51X Modulbauweise
- Page 20: 90° Befestigungswinkel
- Page 21: Gehäusegriffe
- Page 22: Befestigungsplatte
- Page 23: 1HE Gehäusezeichnung
- Page 24: 2HE Gehäusezeichnung
- Page 25: 3HE Gehäusezeichnung

The most flexible 19" enclosure system on earth



- ✓ **No heat problems!**
...because the ventilation holes are at the SIDE of the enclosure, where they should be
- ✓ **More space for your stuff!**
These enclosures have the most possible height and width for 19" enclosures available on the market.
- ✓ **It's save!**
Universal Ground Lugs at the rear part of the side panel... or just turn the side panel by 180° if you need them at the front.
- ✓ **It's conductive!**
The side panels and the top/bottom panels do have conductive areas to give the best shielding possible.
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You can stack the side parts on top of each other to get any needed enclosure height. (2x 3U side panels will make a 6U enclosure)
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Fix pcbs to mounting bars without drilling holes yourselfs, use the slots at the sidepanels to fix transformers or psu pcbs.
- ✓ **It's quality!**
Designed and manufactured in germany. Heavy duty powder coating, thread inserts
- ✓ **Customizable!**
You can get holes, countersinks, threads, text at any position on the front, rear, top and bottom panels.
- ✓ **Options, options, options!**
Handles, Brackets and mounting bars, ready made mono or stereo rearpanels, xlr's and iec connectors..

The story...

There are a lot of 19" enclosures available in the market.
But they all have the same problems.

Most of them have front and rearpanels made out of steel, so drilling and cutting is not a good idea - as the drilled holes will corrode after some time. Our top/bottom covers, front and rearpanels are made out of **aluminum**. Also easy to drill yourselfs.

If enclosure have ventilation slots, they're mostly at the top of the case. So they will be covered by another 19" unit which goes above it. Too bad! Our enclosures have ventilation holes at the side, which at the same time act as slots to fix parts, like transformers.
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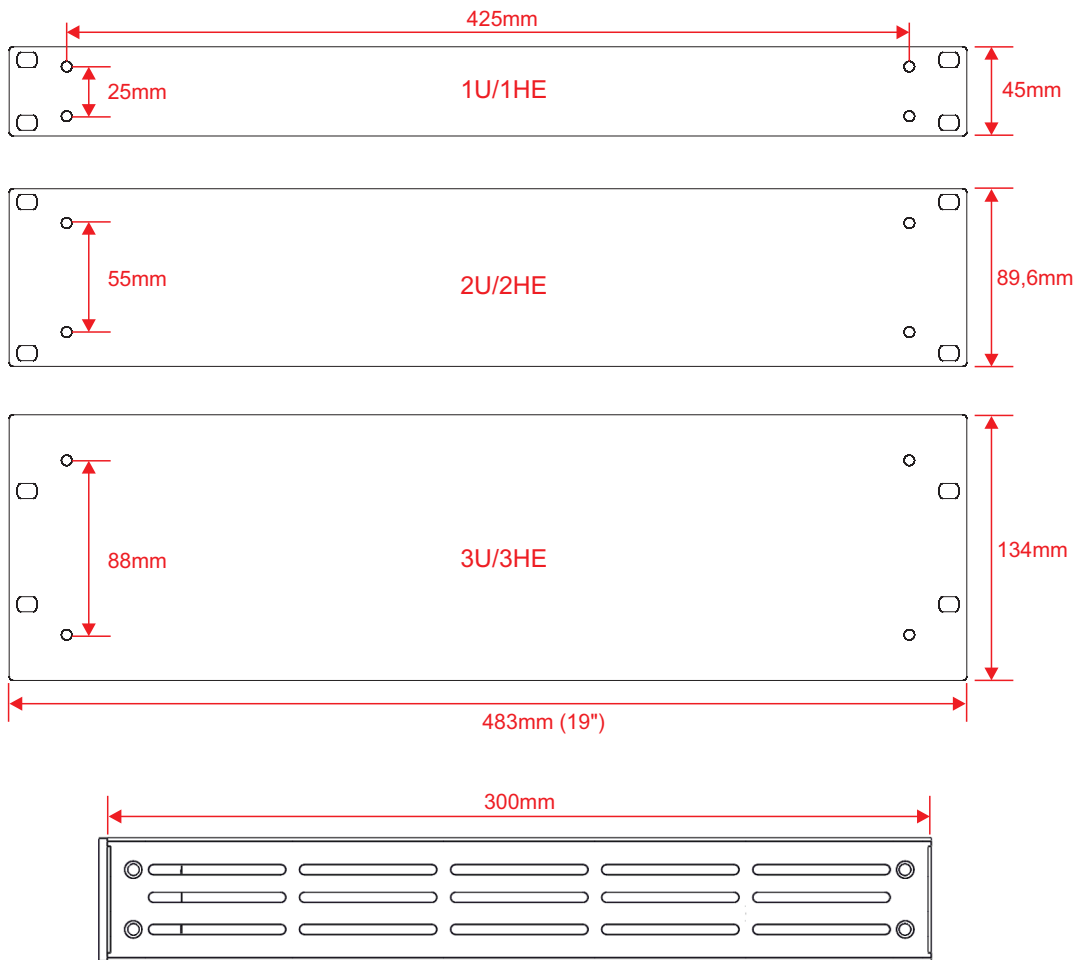
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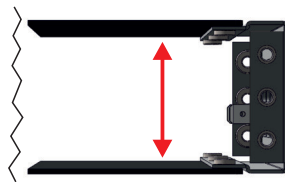
Also you can order any parts as spareparts separately. So if you accidentally drilled wrong holes into the bottom panel you don't need to buy a full new enclosure like with all other manufacturers. Just buy the individual spare parts!

Dimensions



300mm enclosure depth

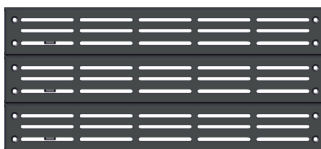
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maximum usable height

Maximum of usable height

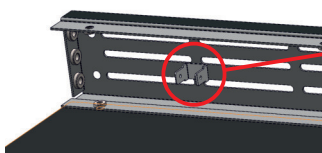
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1
2
3
...

Stackable side panels

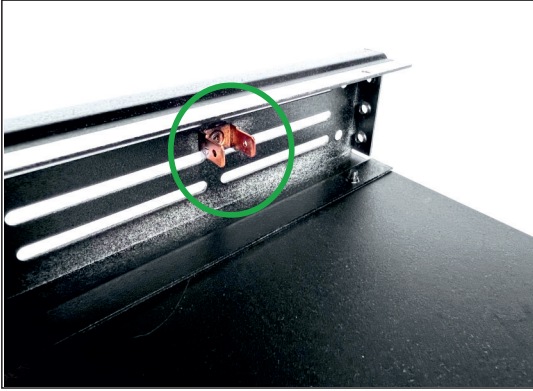
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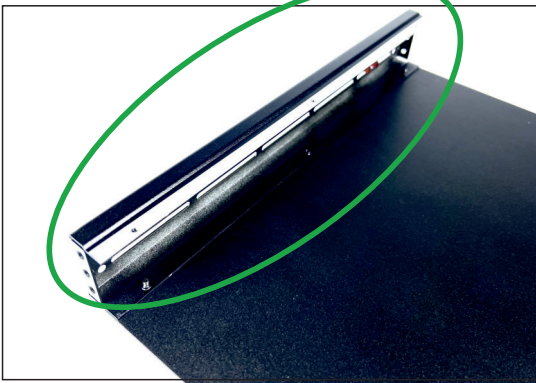
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Earthing system/safety connections



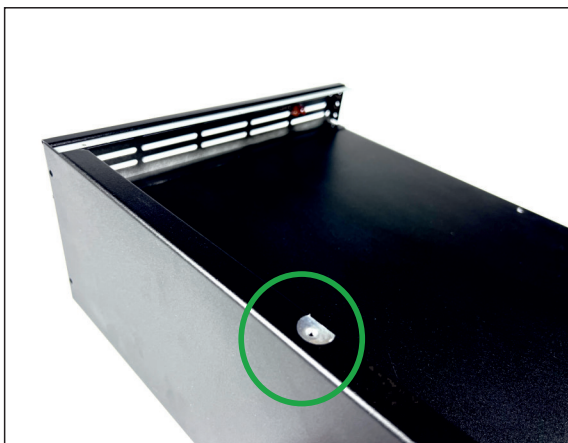
- ✓ Ground-Lugs are welded to the side panels
- ✓ By rotating the side panel you can choose if you want to have the ground lugs at the more to the rear or more at the front
- ✓ 4 Ground lugs in total (two on each side panel)



- ✓ Side panels had been taped before powder-coating to make an electrical connection between all enclosure parts



- ✓ Top and bottom panels had been taped before powder-coating to make an electrical connection between all enclosure parts

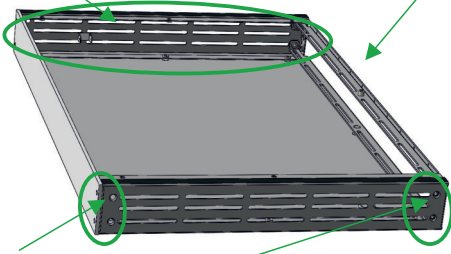


- ✓ Rearpanels had been taped before powder-coating, to make an electrical connection between all enclosure parts

The mounting rail



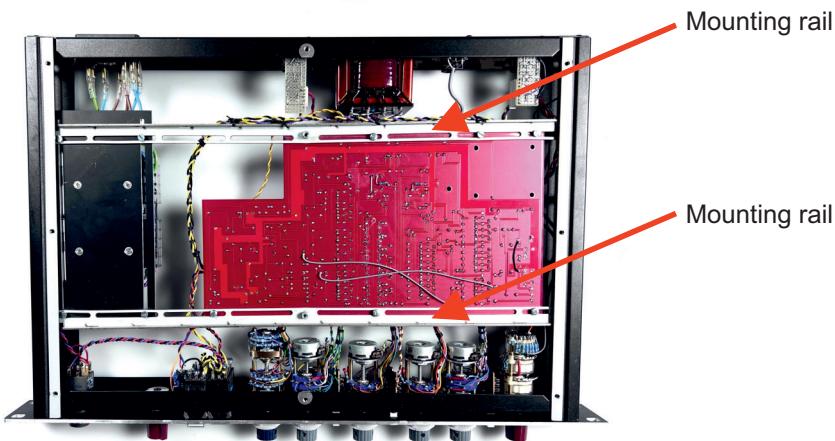
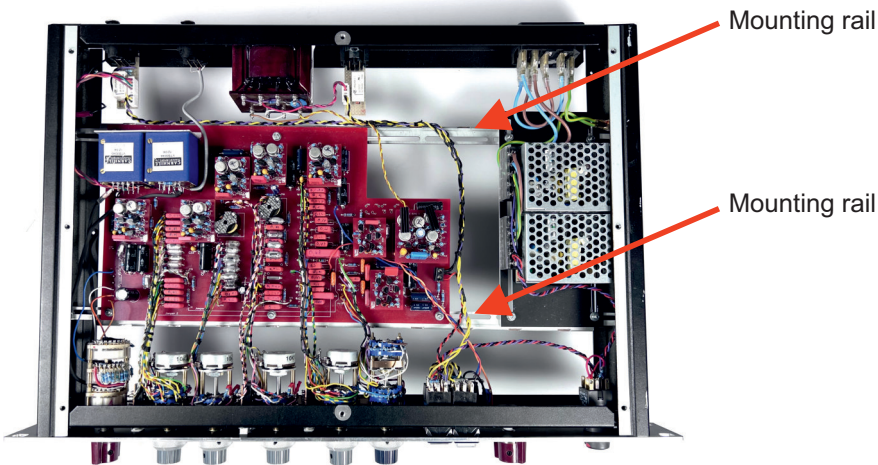
mounting rails can be placed to any other position because of the slots in the side panels



mounting rails can be placed at the front, at the rear, at the top, at the bottom

- ✓ Can be fixed at any position in the enclosure
- ✓ Usable to fix pcbs or to stabilize the top/bottom cover
- ✓ Service friendly

While the potentiometers are connected to the frontpanel, and the xlr's are connected at the rearpanel you're still able to measure and solder at the top and the bottom of the pcb



The mounting rail to make an API500/51X Rack

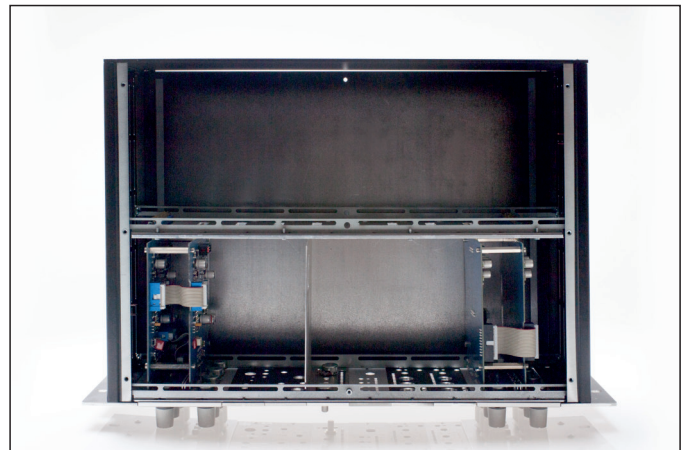
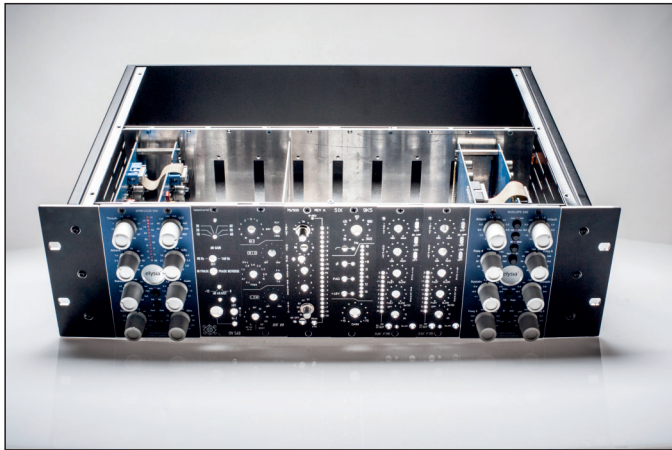
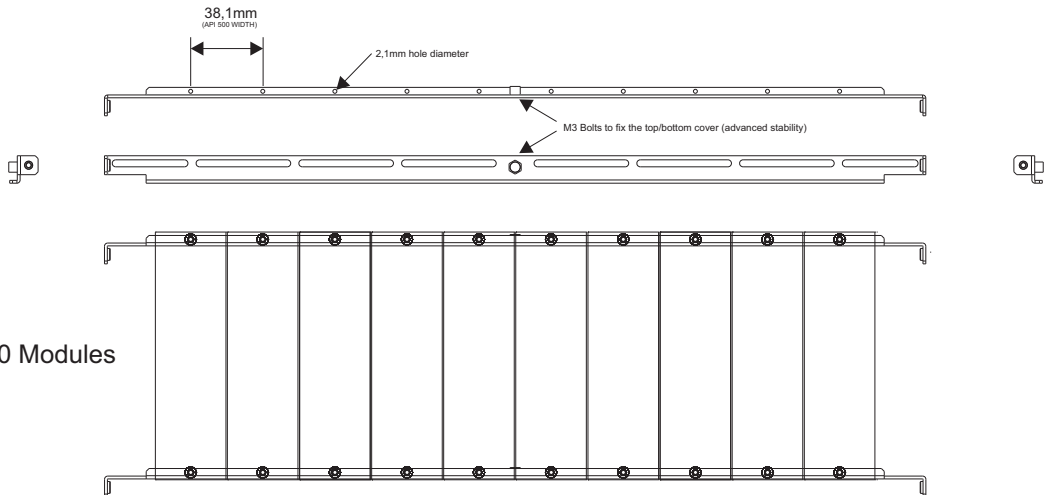


Can be used to make an API RACK



Options for screws

There are two version available in the shop.
The standard version has holes to fix the modules with sheet metal screws,
The threaded version already has M3 threads as holes.



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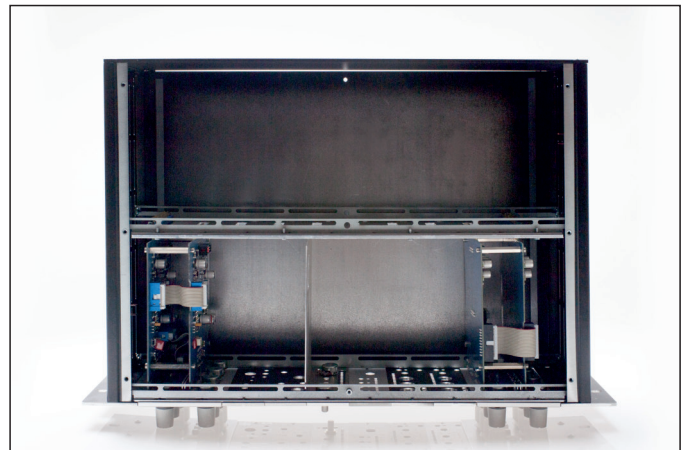
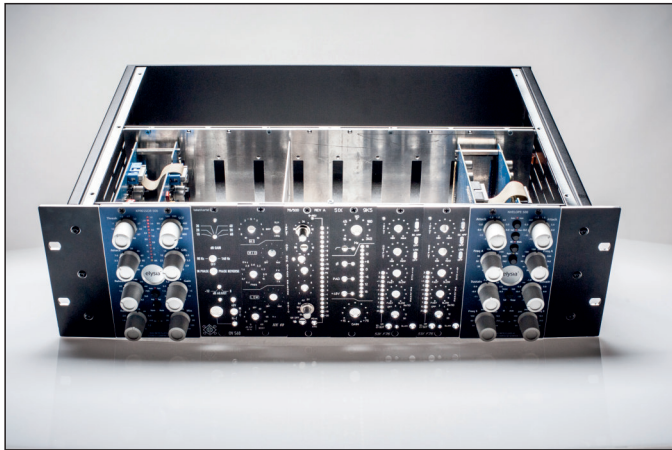
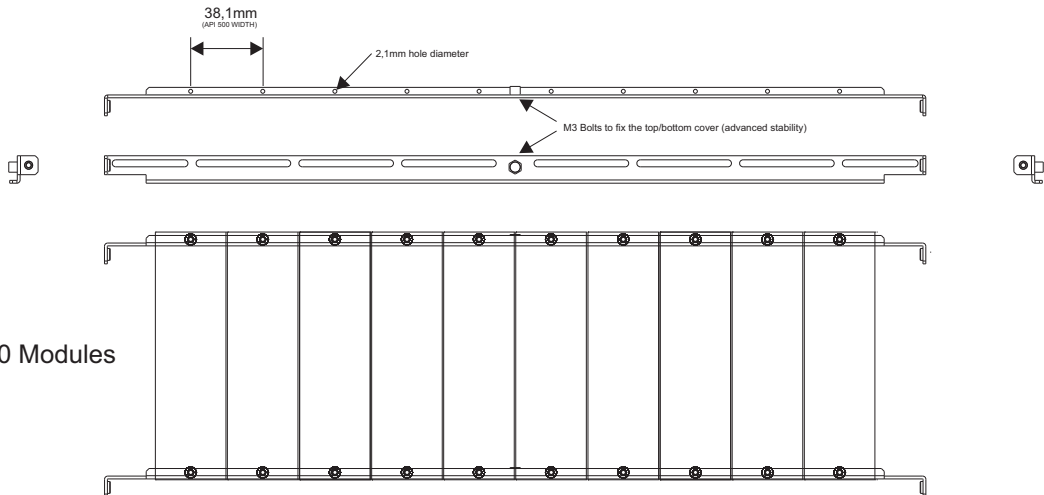


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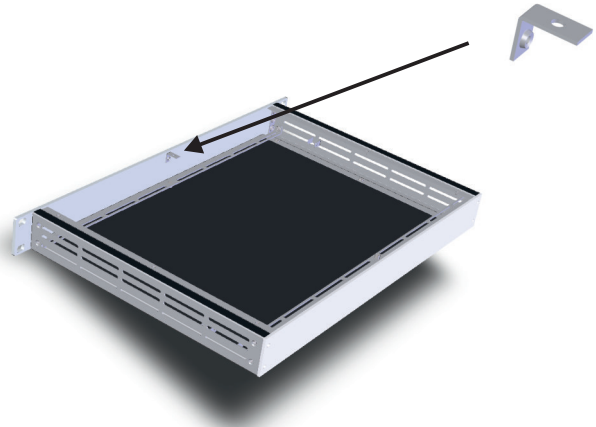
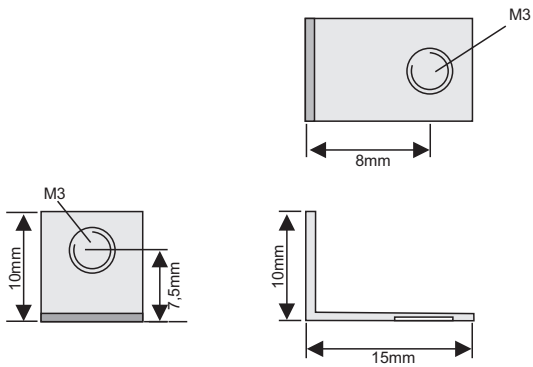


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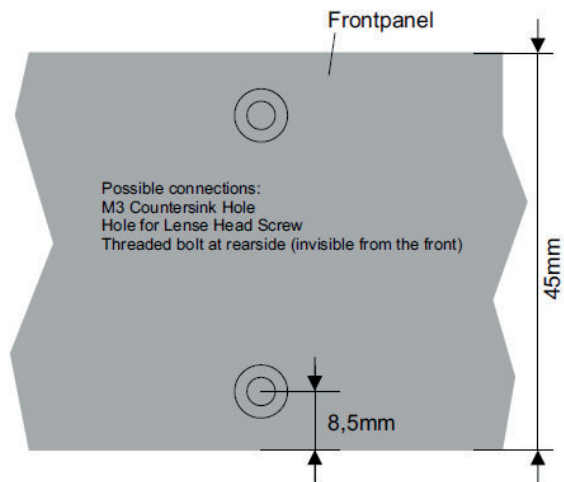
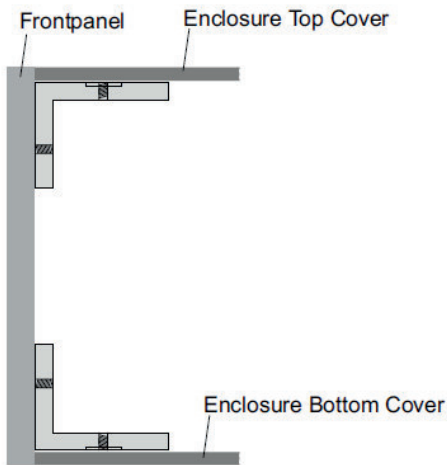
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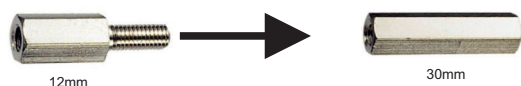
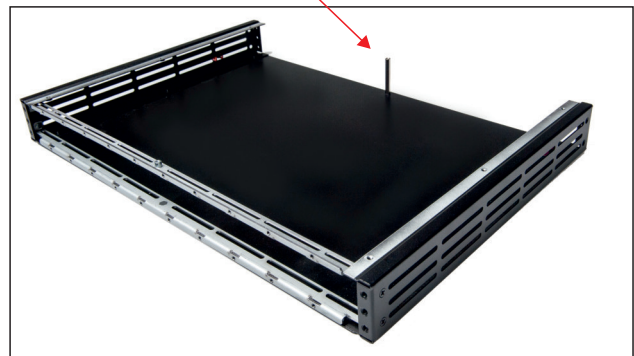
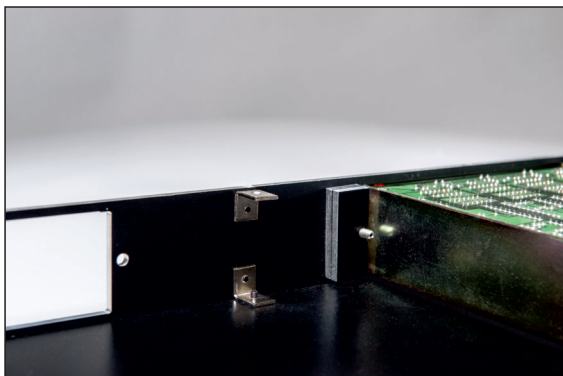
90° Brackets



- ✓ 90° brackets to stabilize the enclosure/frontpanel
- ✓ brackets can also be installed „invisible“ by adding a pocket thread to the rearpanel = no visible screws from the front
- ✓ 90° brackets can be placed at the top and/or bottom



A distance can be used to connect the top and bottom panel (you can use standard bolts with 30mm + 12mm to make on 42mm bolt)



Enclosure handles



- ✓ Handles can be added to all enclosures
- ✓ Handles available in black and silver
- ✓ To add handles, just drill the holes



Seperate 19" rack ears

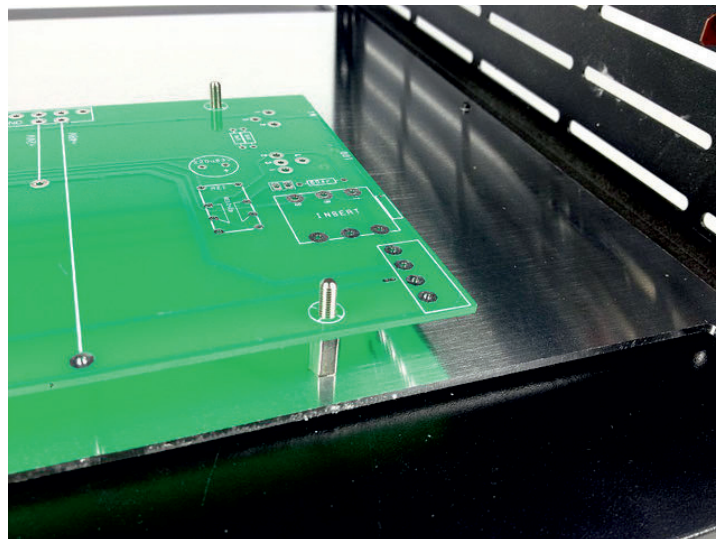
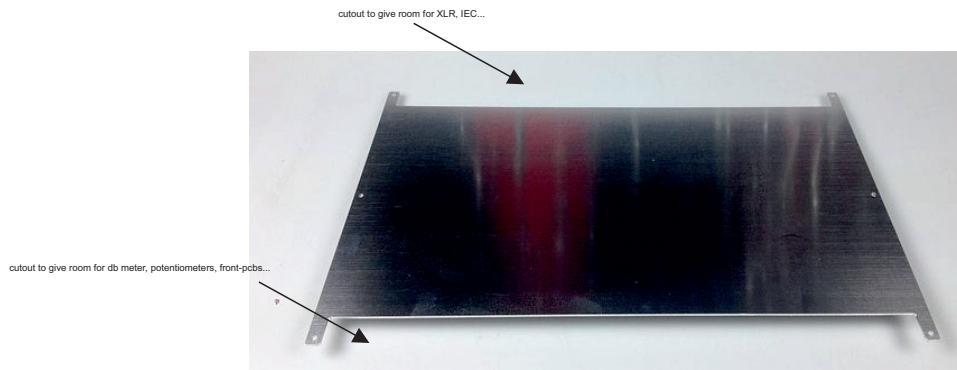
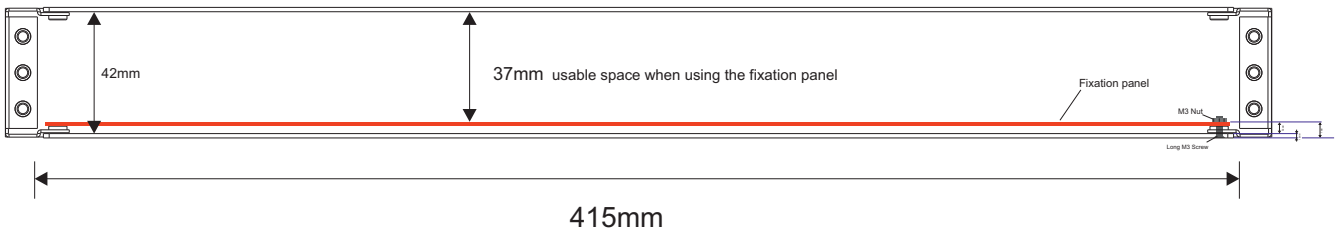


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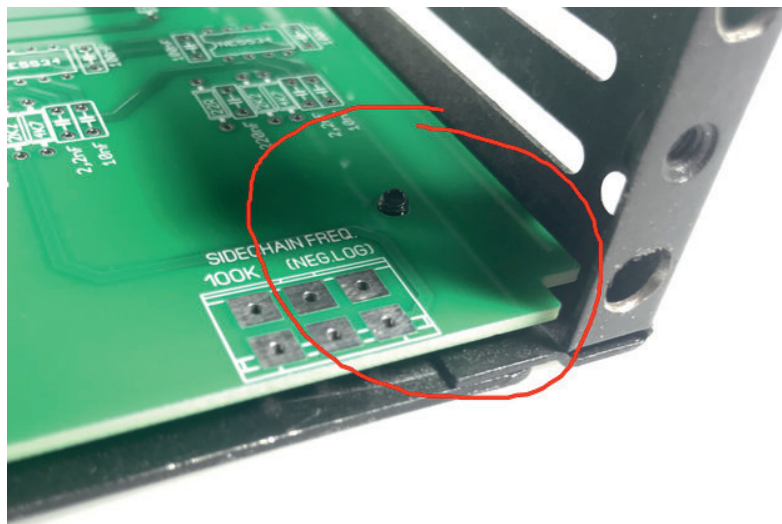


Fixation panel

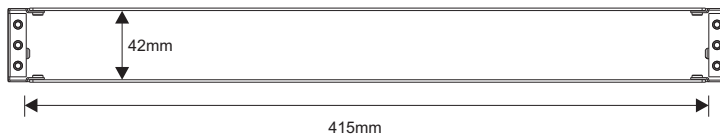
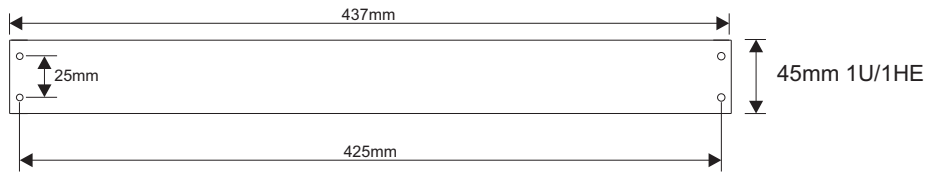
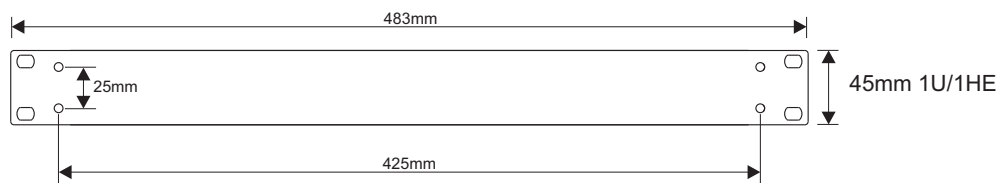
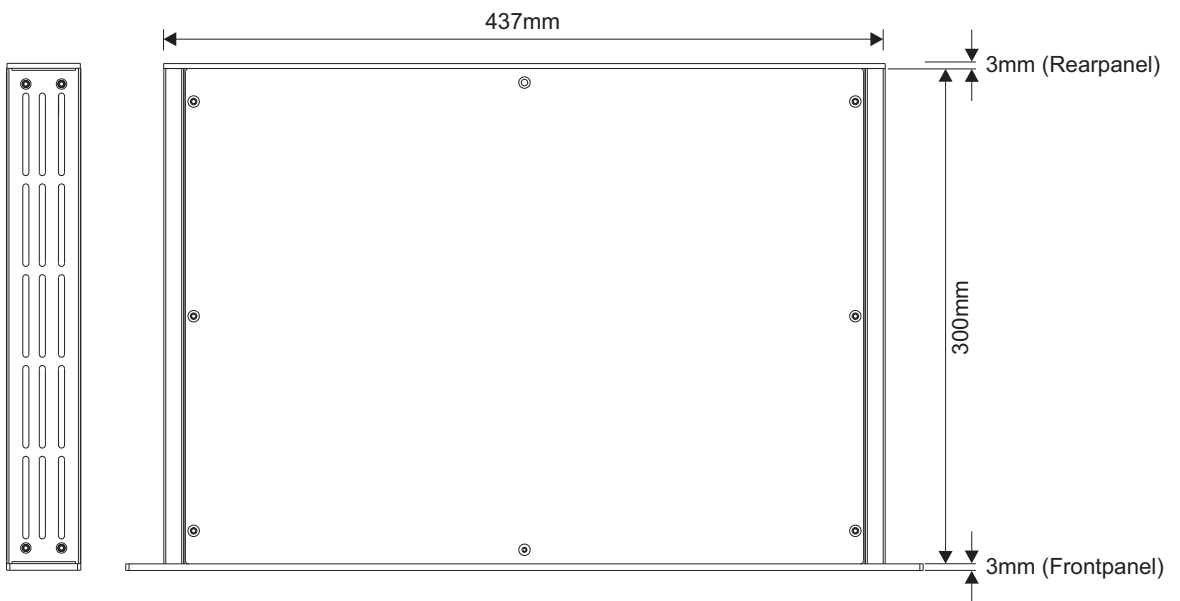
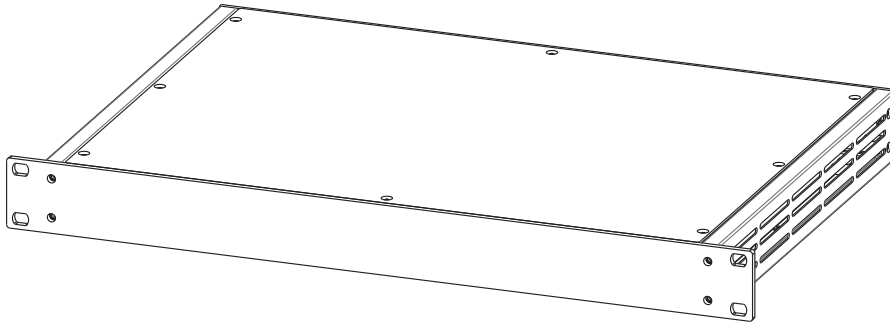
The fixation panel is a „second floor“ which can be fixed inside the case.
You can drill into this panel and the „real“ bottom panel will not have holes visibly.



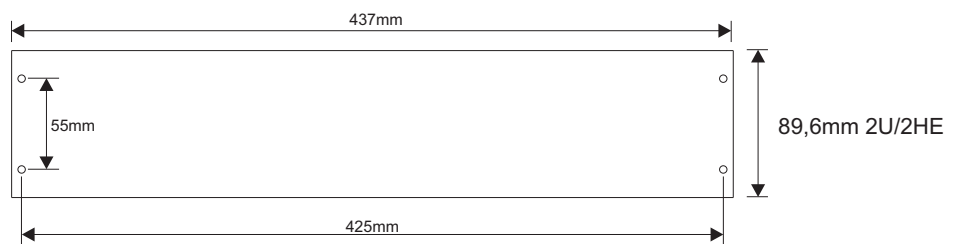
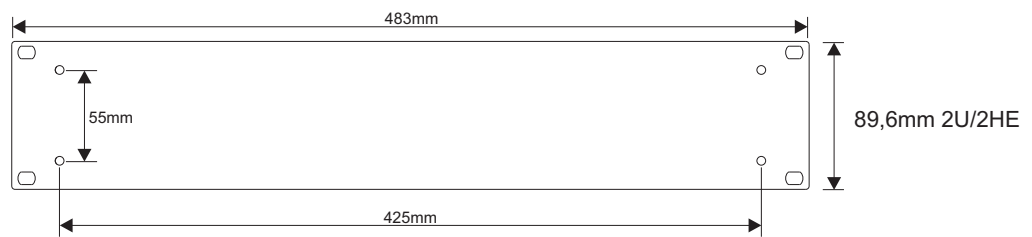
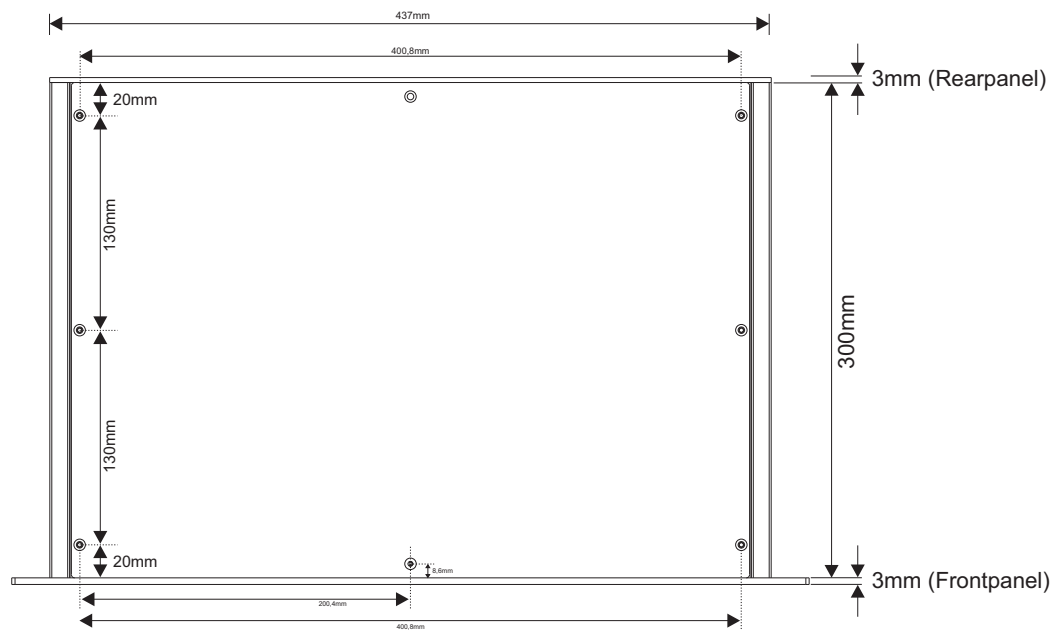
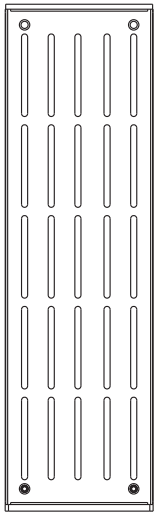
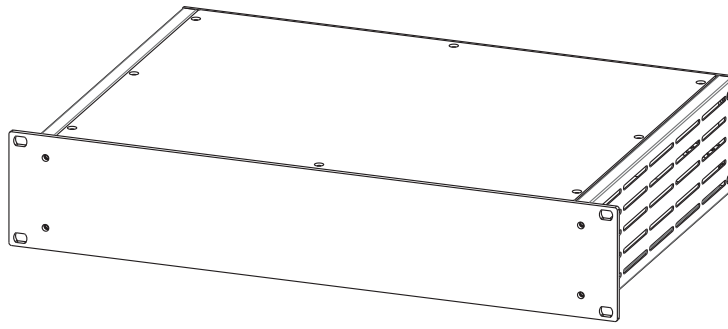
Tip: If you design the pcb yourself you can just fix the pcb at the positions where the 6 screws will fix the bottom panel to the enclosure. This way you will not need any additional fixation panel. Additional fixation points in the middle of the pcb can be made with self adhesive plastic distance holders.



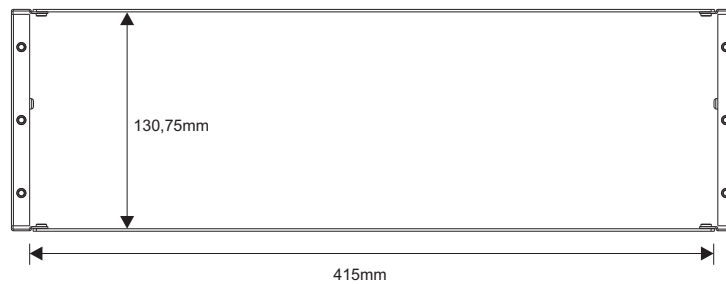
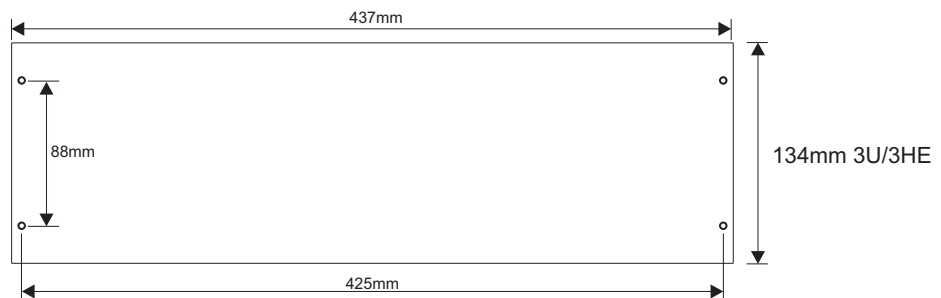
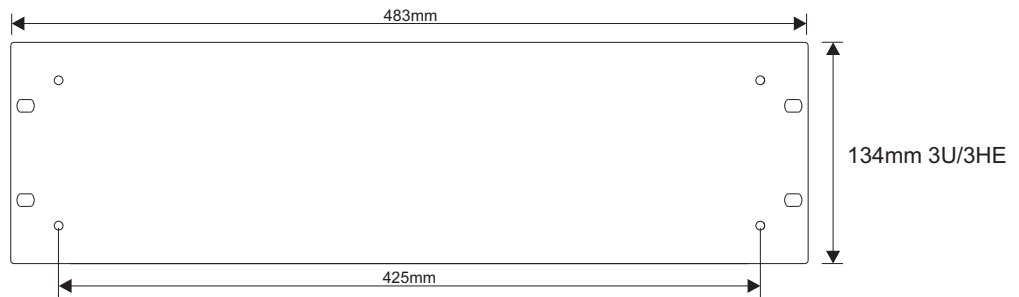
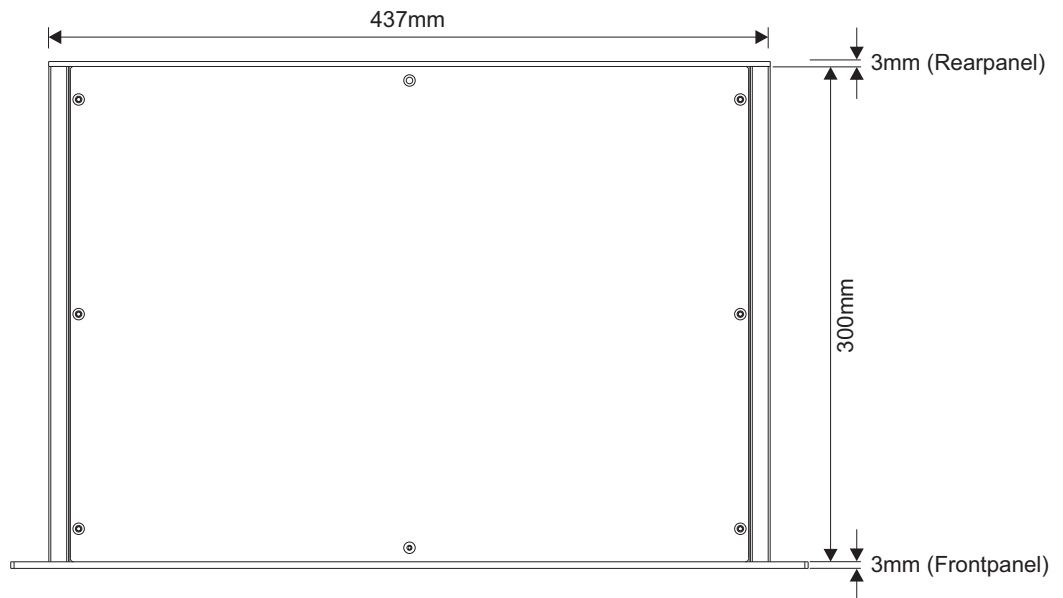
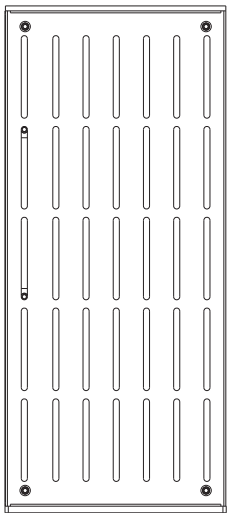
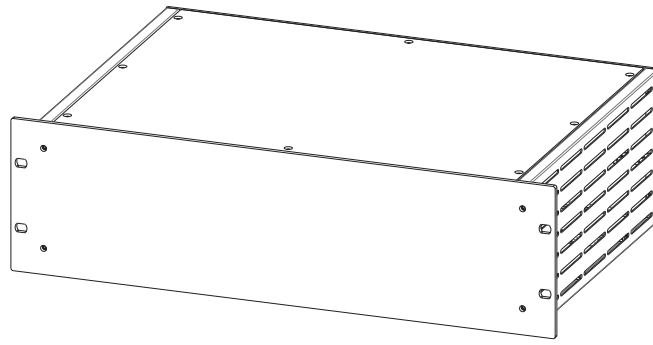
1U ENCLOSURE



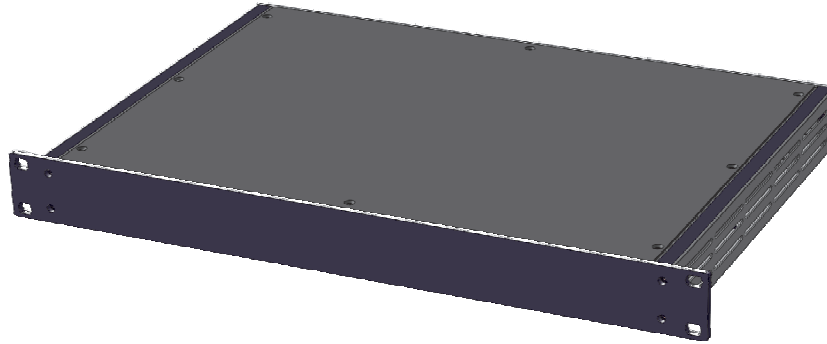
2U ENCLOSURE



3U ENCLOSURE



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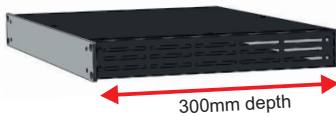
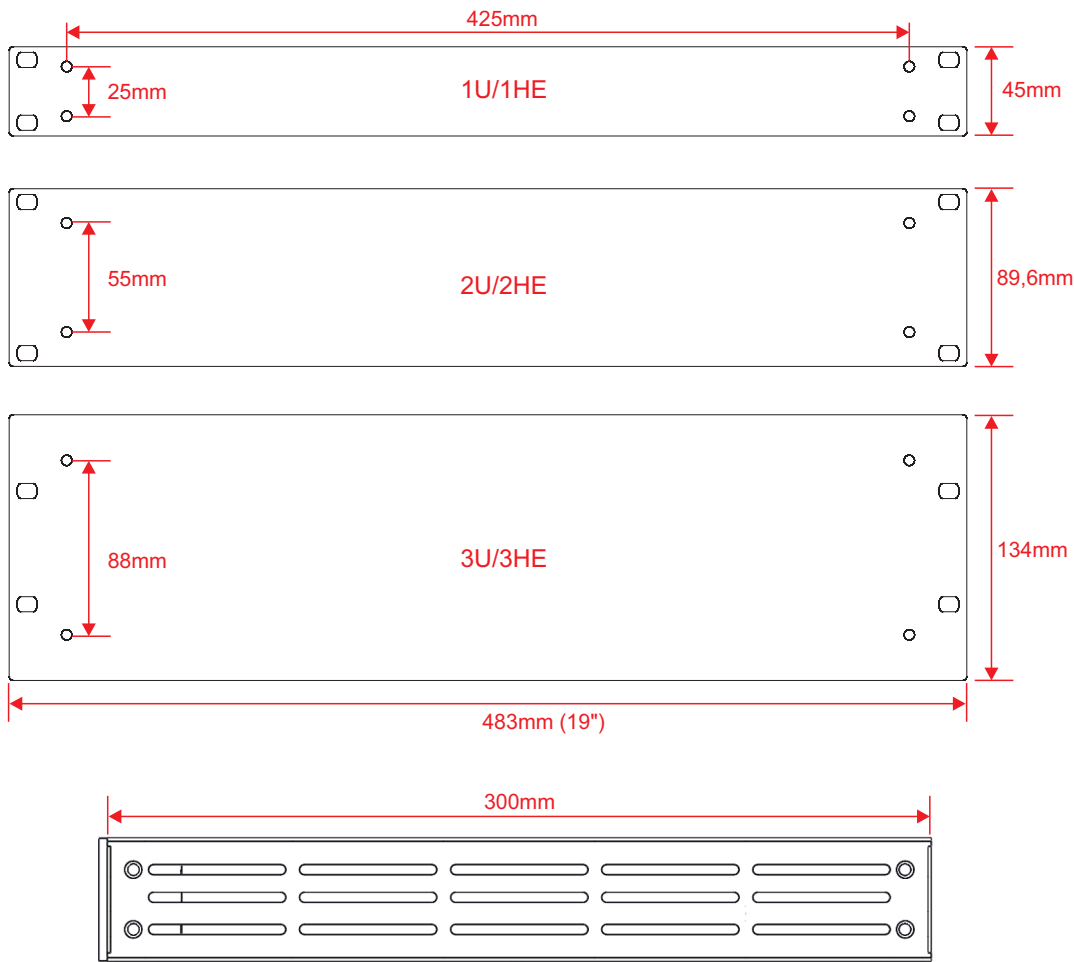
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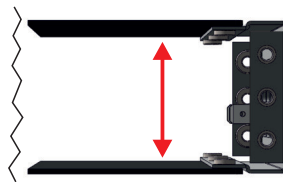
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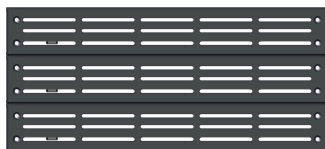
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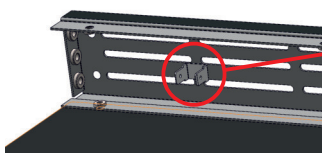
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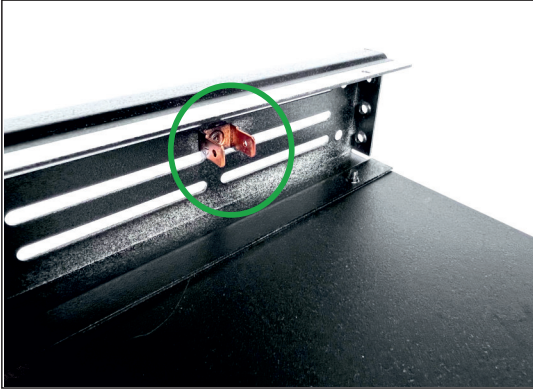
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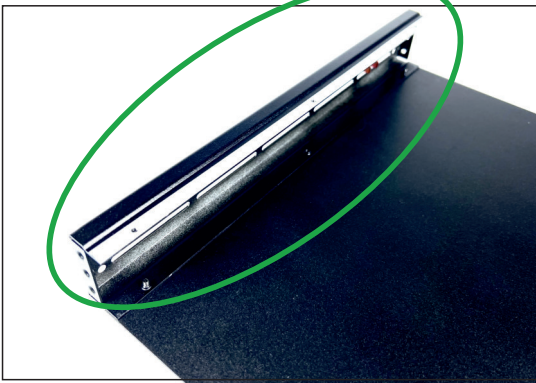
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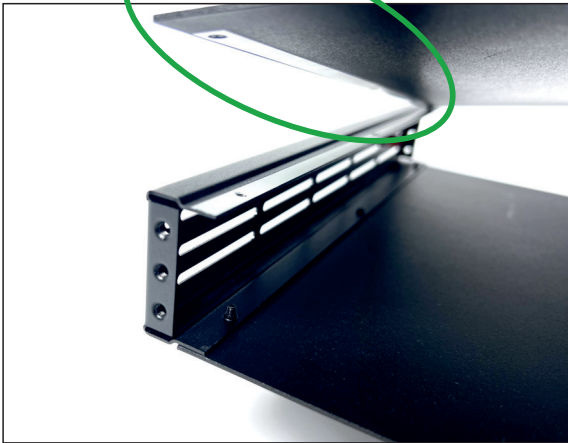
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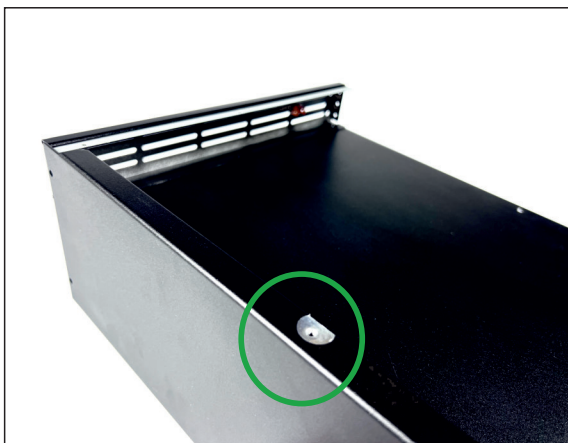
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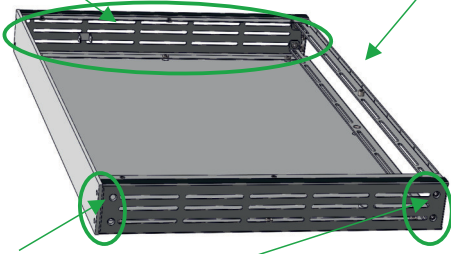


- ✓ Rearpanels had been taped before powder-coating, to make an electrical connection between all enclosure parts

The mounting rail



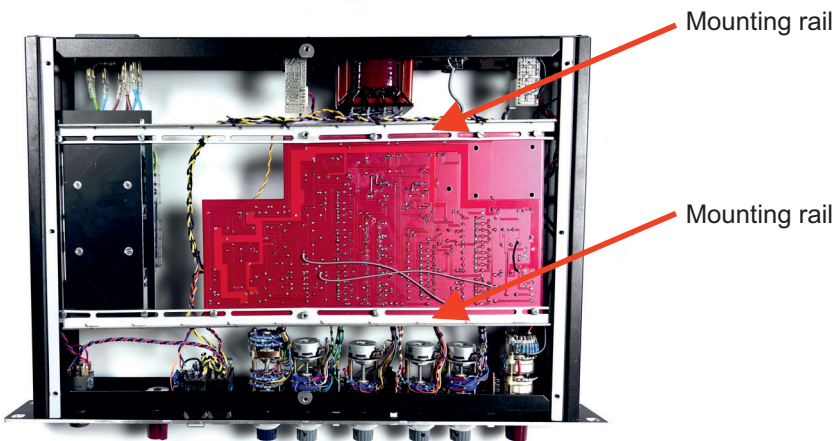
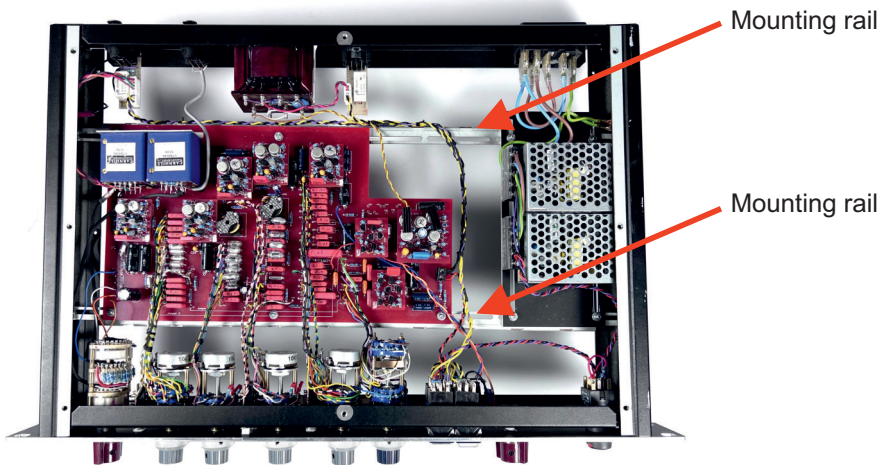
mounting rails can be placed to any other position because of the slots in the side panels



mounting rails can be placed at the front, at the rear, at the top, at the bottom

- ✓ Can be fixed at any position in the enclosure
- ✓ Usable to fix pcbs or to stabilize the top/bottom cover
- ✓ Service friendly

While the potentiometers are connected to the frontpanel, and the xlr's are connected at the rearpanel you're still able to measure and solder at the top and the bottom of the pcb



The mounting rail to make an API500/51X Rack

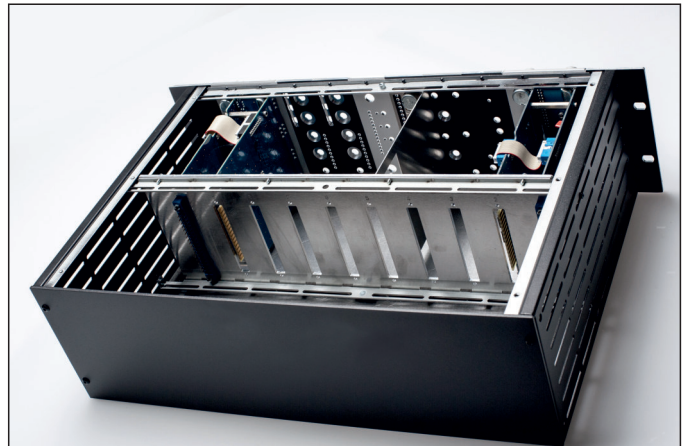
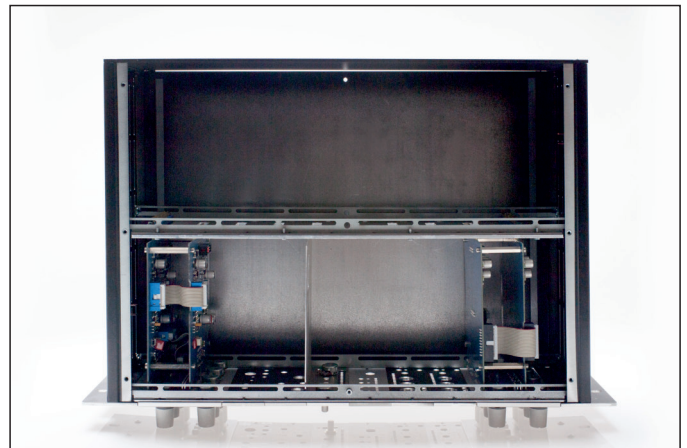
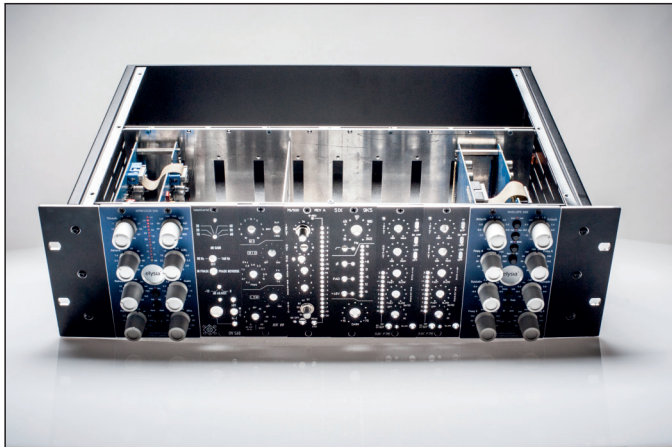
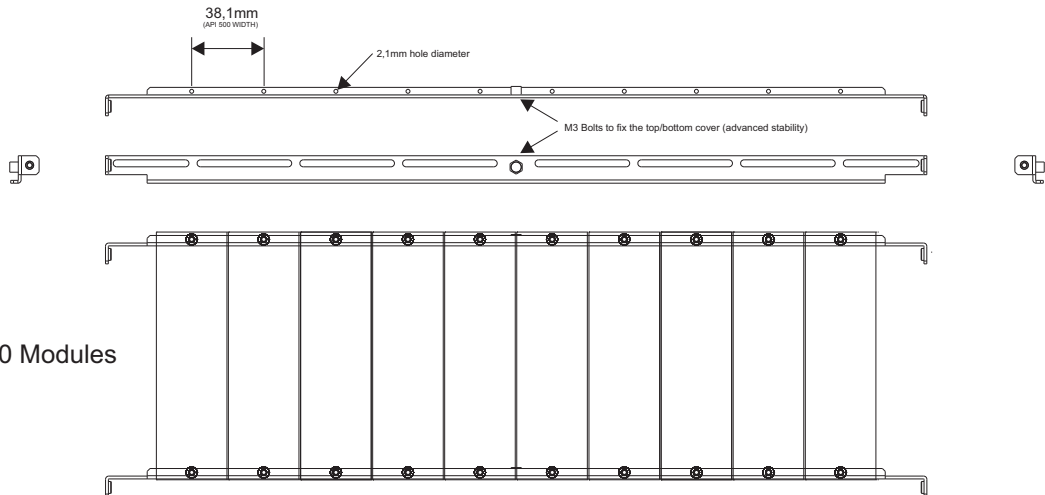


Can be used to make an API RACK

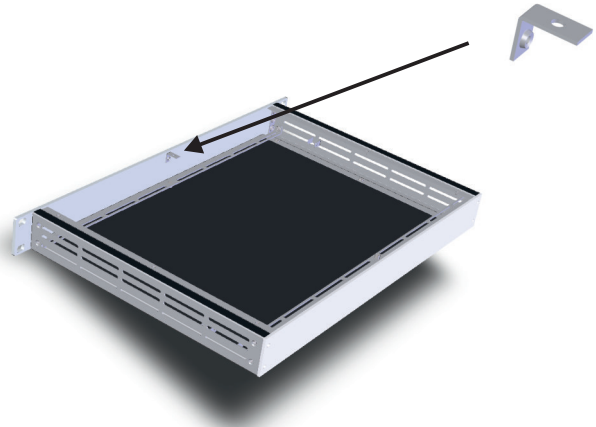
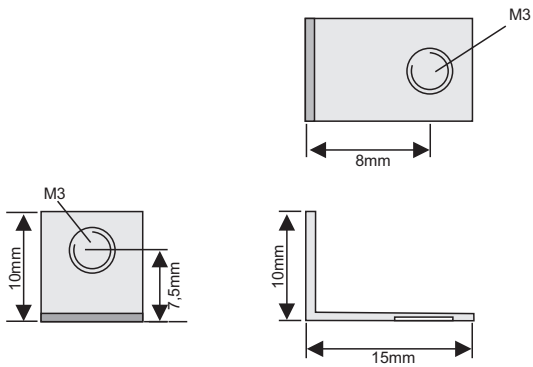


Options for screws

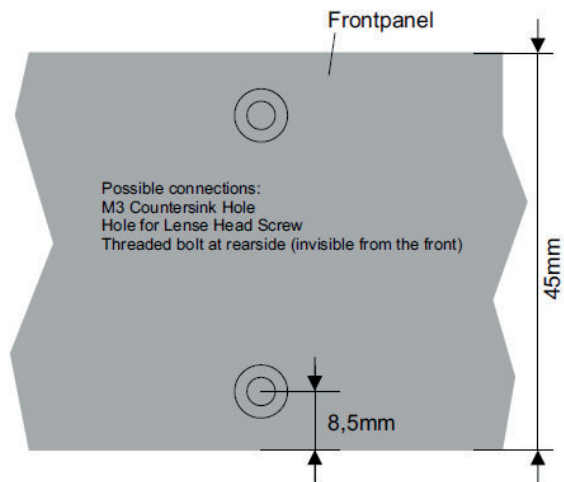
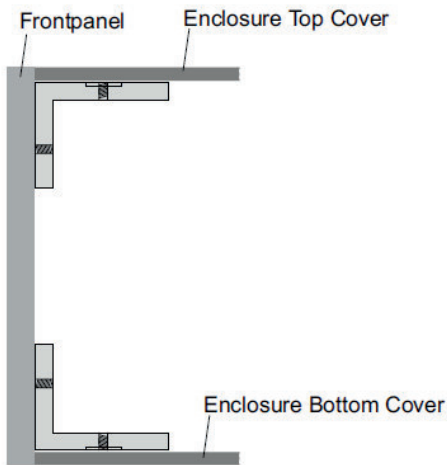
There are two version available in the shop.
The standard version has holes to fix the modules with sheet metal screws,
The threaded version already has M3 threads as holes.



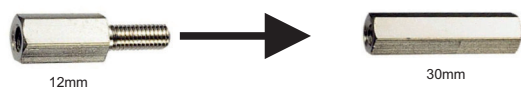
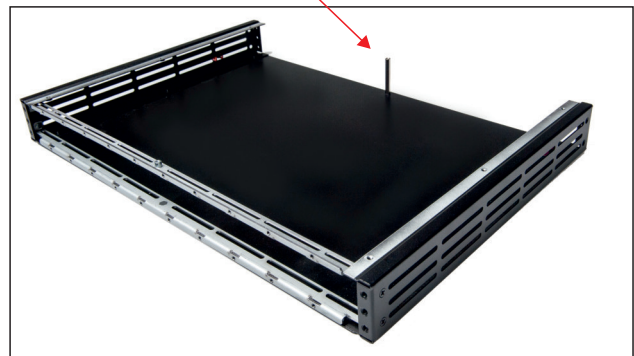
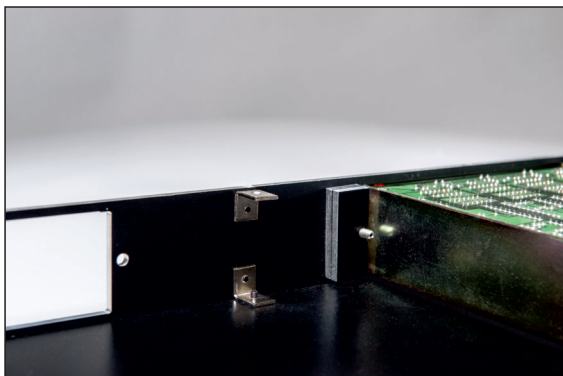
90° Brackets



- ✓ 90° brackets to stabilize the enclosure/frontpanel
- ✓ brackets can also be installed „invisible“ by adding a pocket thread to the rearpanel = no visible screws from the front
- ✓ 90° brackets can be placed at the top and/or bottom



A distance can be used to connect the top and bottom panel (you can use standard bolts with 30mm + 12mm to make on 42mm bolt)



Enclosure handles

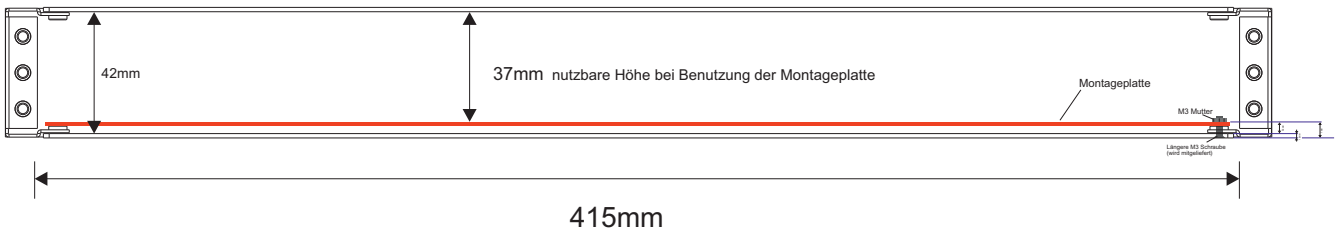


- ✓ Handles can be added to all enclosures
- ✓ Handles available in black and silver
- ✓ To add handles, just drill the holes

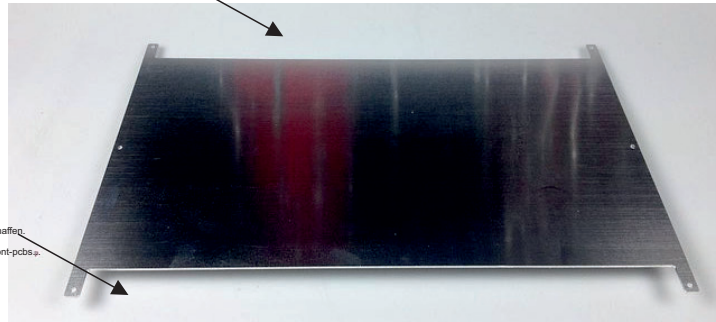


Montageplatte (Fixation panel)

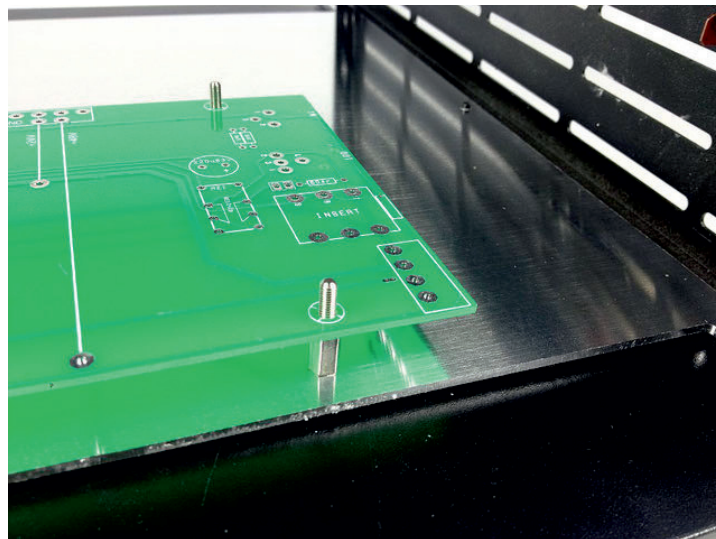
Die Montageplatte dient als „doppelten Boden“ und wird im Gehäuse befestigte. Bohrungen die man in diese Platte macht sind später von außen nicht mehr sichtbar. Auf diese Weise hat man von außen keine störenden Schraubenköpfe und auch nicht benutzte Bohrlöcher sind nicht sichtbar.



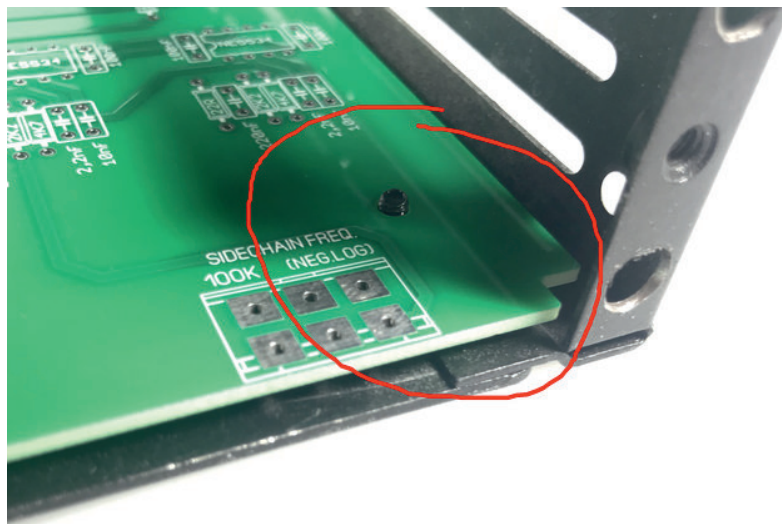
Aussparung an der Rückseite um Platz für XLR/IEC Stecker zu haben



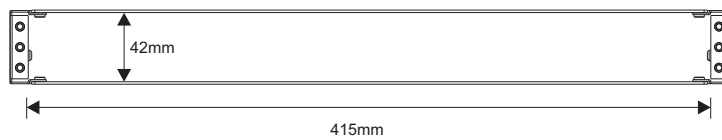
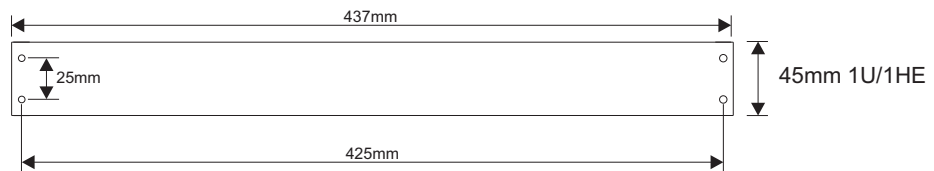
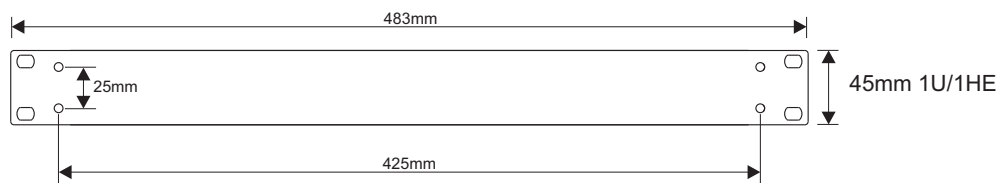
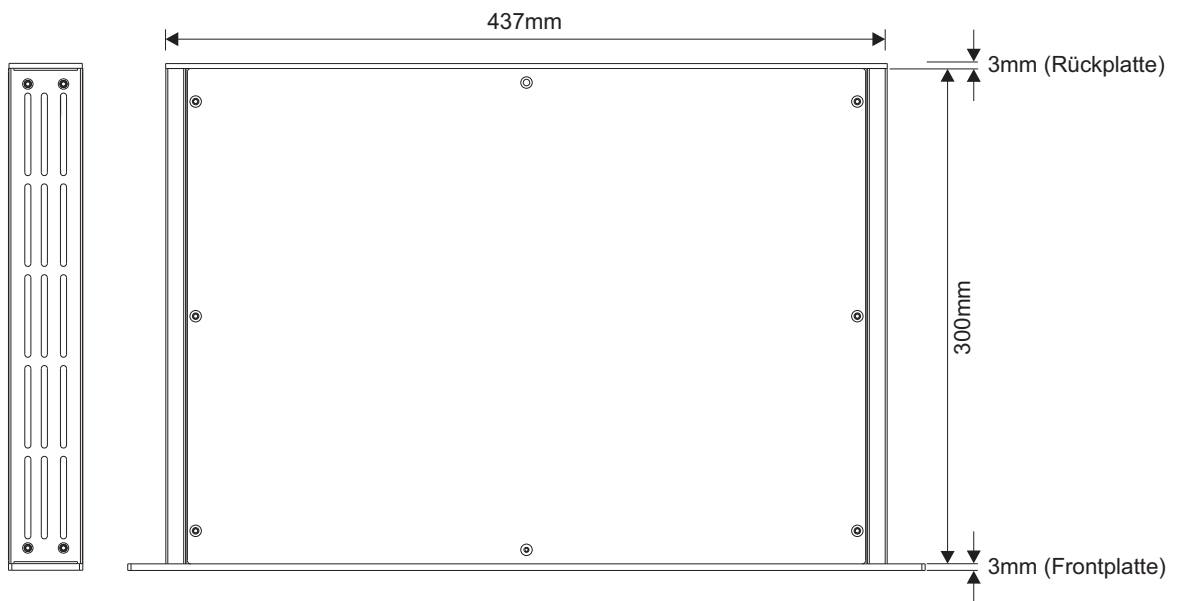
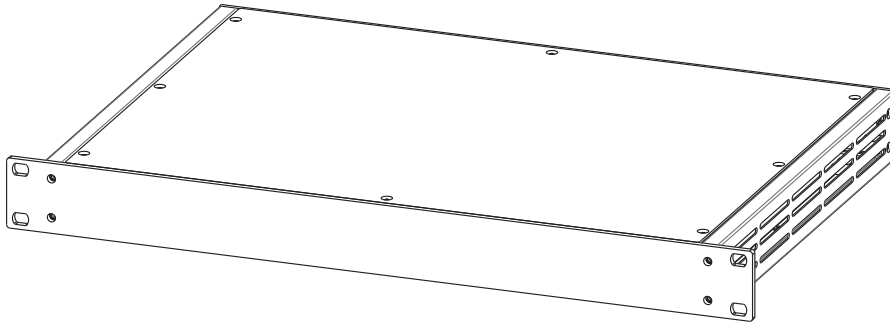
Aussparung an der Frontseite um Platz für VU-Meter, Potentiometer, Schalter, Platinen an der Front... zu schaffen
60cutout to give room for db meter, potentiometers, front-pcbs»



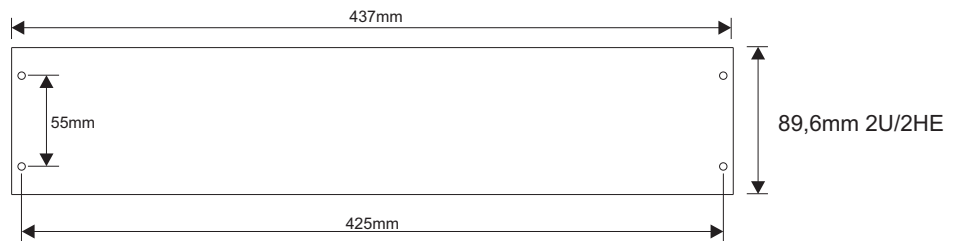
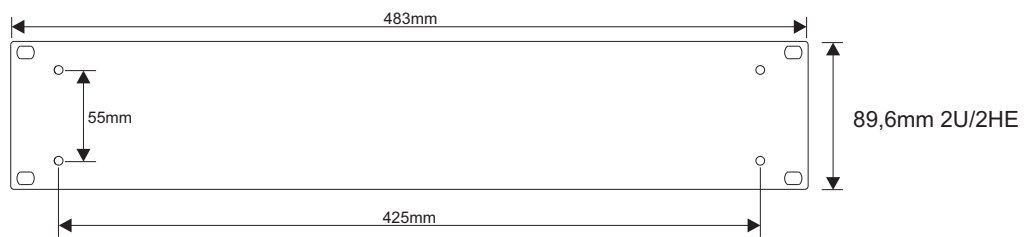
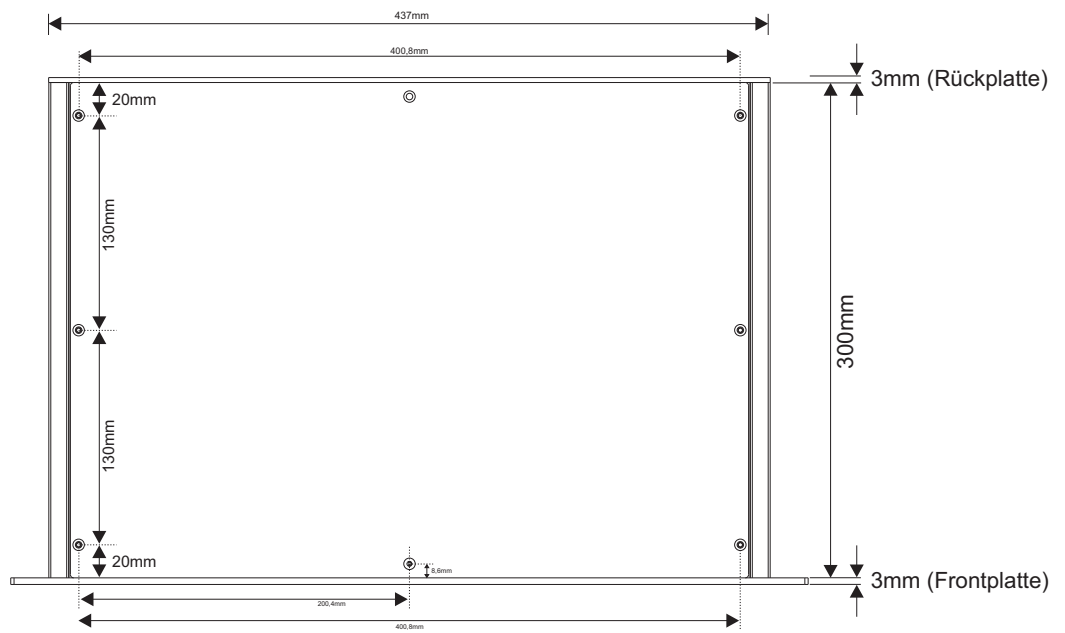
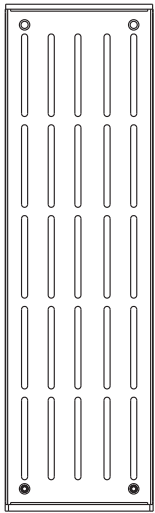
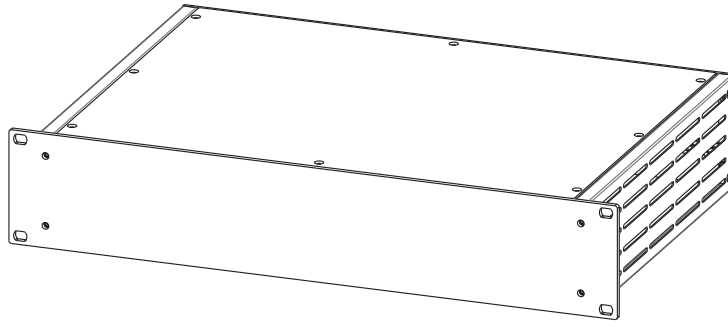
Tip: If you design the pcb yourself you can just fix the pcb at the positions where the 6 screws will fix the bottom panel to the enclosure. This way you will not need any additional fixation panel. Additional fixation points in the middle of the pcb can be made with self adhesive plastic distance holders.



1U GEHÄUSE



2U GEHÄUSE



3U GEHÄUSE

