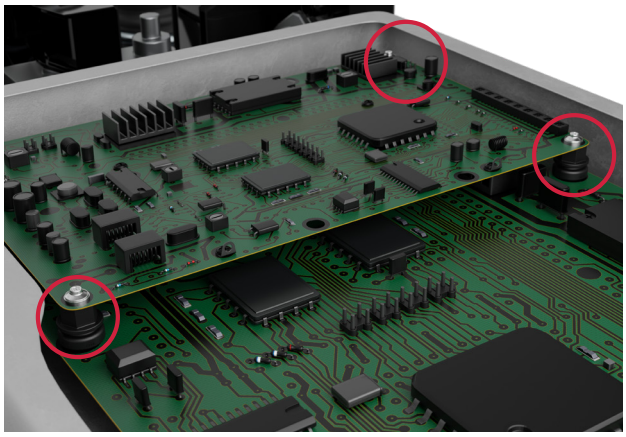
VOLTtec® PCB Spacer

For assembling of stacked circuit boards

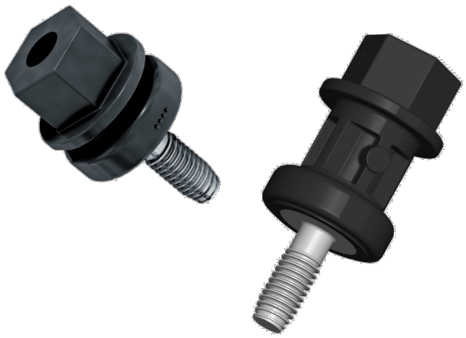
In power electronic systems, printed circuit boards are often stacked to accommodate all components within a limited package. In this context, sufficient clearance between components must be maintained to prevent destructive sparking or arcing. Electrical decoupling and dielectric strength (insulation against voltage breakdown) are of paramount importance. For this reason, insulating materials with the necessary properties are used – combined with a special design.

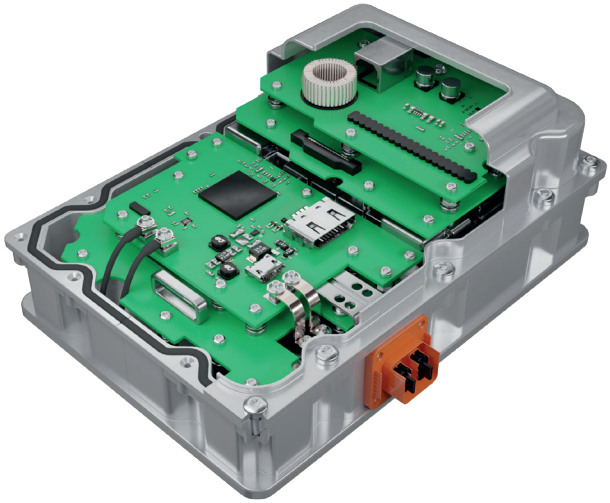
The VOLTtec® PCB Spacer ensures simple and straightforward assembly, as well as sufficient spacing between components to prevent spark-overs or arcing. Equipped with a self-tapping ALtracs® thread, the PCB Spacer enable the direct mounting of a printed circuit board to a die-cast aluminum housing. The insulating plastic overmolding defines the correct spacing to the upper board, which is secured via the PCB Spacers end-face bore using a self-tapping EVO PT® screw.



Application

> PCB Spacer for assembling stacked circuit boards





Advantages

> Available from stock – Short time to market
> No additional investment in tooling and automation
> 100 % dielectric strength test with 4 kV
> Self-tapping fastening in aluminum and plastic

Technical specifications

> Thread ALtracs® Plus 30
> Distance 10 mm and 15 mm
> Material plastic head PPS GF
> Screw boss for self-tapping screw EVO PT® 30
> Drive SW7

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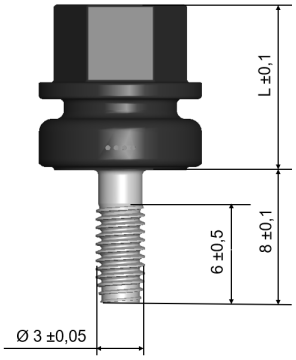
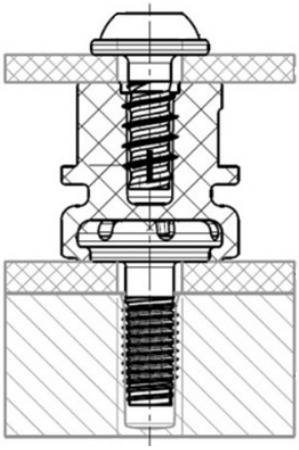
Dimensions

Name	Distance L [mm]	Screw thread	Screw-in length / Thread length	Hole diameter for EVO PT®	Screw drive	Material insulation
PCB Spacer 10 mm	10	ALtracs® Plus 30	8/6	EVO PT® 30	SW 7	PPA GF
PCB Spacer 15 mm	15	ALtracs® Plus 30	8/6	EVO PT® 30	SW 7	PPA GF



Technical specifications

Mechanical properties		
Name	**Value**	**Note**
Pull out force	300 N	min.
Compression load	1500 N	min. 10 s
Breaking torque	1.9 Nm	min.
Tightening torque ALtracs® Plus 30	2.00 Nm ±5%	Recommendation for aluminium
Tightening torque EVO PT® 30	0.8 Nm ±5%	Recommendation for plastic material PPA GF40



Electrical properties		
Name	**Value**	**Note**
CTI	175 min.	PPA GF40
Dielectrical strength	7 kV / min. 60 s	PPA GF40, approved during design validation
Dielectrical strength	4.3 kV / min. 2 s	PPA GF40, 100 % test series production test after injection molding process before coating and finest cleaning

Thermal properties		
Name	**Value**	**Note**
Thermal shock test K-05	T. min. = -40 °C T. min. = 105 °C	According to DIN EN 60068-2-14 Na; approved during design validation

Design recommendations

Please refer to ALtracs® Plus and EVO PT® data sheet.
You can download the sheets from the corresponding product page on our website.

More information at www.ejot.com/industry or please contact
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07.26/PDF 07.26 Subject to technical changes.