

Product Line: UPS 1P and 3P  
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## Subject: Conformal Coating of UPS

### What is Conformal Coating?

Conformal coating is a formulated thin polymeric coating applied to printed circuit boards to act as a protection against elements in the air that are deemed harmful to electrical/electronic components. These elements that include dust, moisture, chemicals, and temperature extremes, could contribute to the damaging of components, affecting their functionality, and hence causing premature product failure. Conformal coating can be done to different levels, offering different degrees of protection.

### Benefit:

UPS that are conformally coated will have a longer MTBF compared to UPS that are not if deployed in the exact same harsh environment, with other factors remain constant. Typically, conformal coating inhibits current leakage, corrosion, and arcing. The treated boards will have improved fatigue resistance, mechanical support, and resistance to fluids. This subsequently means that your equipment will be protected by a more resilient UPS system.

### Applications:

UPS are designed to be deployed in a controlled environment, much like a secured IT/server room with minimal personnel access, controlled temperature, humidity, and air filtering. In some cases where a controlled environment is not economically viable to be provided, UPS with conformal coated boards are a suitable solution. Some environment to consider a conformally coated UPS are:

- Marine, or UPS deployed near the sea
- Mining applications
- Rail applications
- UPS deployed in offices with no dedicated rooms

The above is a non exhaustive list for applications that may require conformal coating, please consult with your Eaton sales representative for any site assessment requirements.



**How to order?**

Eaton have created parts to include additional layers of conformal coating on PCB boards of some fast moving UPS products. They are listed on the price list as below part numbers:

Part Number	Description
9PX1000IRT2UANZ-CC	9PX Rack/Tower 2RU Online 1kVA UPS conformally Coated
9PX1500IRT2UANZ-CC	9PX Rack/Tower 2RU Online 1.5kVA UPS conformally Coated
9PX2000IRTAU-CC	9PX Rack/Tower 2RU Online 2kVA UPS conformally Coated
9PX2200IRT2UANZ-CC	9PX Rack/Tower 2RU Online 2.2kVA UPS conformally Coated
9PX2200IRT3UANZ-CC	9PX Rack/Tower 3RU Online 2.2kVA UPS conformally Coated
9PX3000IRT2UANZ-CC	9PX Rack/Tower 2RU Online 3kVA UPS conformally Coated
9PX3000IRT3UANZ-CC	9PX Rack/Tower 3RU Online 3kVA UPS conformally Coated
9PX5Ki-CC	9PX Rack/Tower 3RU Online 5kVA UPS conformally Coated
9PX6Ki-CC	9PX Rack/Tower 3RU Online 6kVA UPS conformally Coated
9PX8KiPM-CC	9PX Rack/Tower 3RU Online 8kVA Power Module conformally Coated
9PX11KiPM-CC	9PX Rack/Tower 3RU Online 11kVA Power Module conformally Coated
PW9130G1500T-XLAUCC	9130 Tower Online 1.5kVA UPS Conformally Coated
PW9130G2000T-XLAUCC	9131 Tower Online 2kVA UPS Conformally Coated
PW9130G3000T-XLAUCC	9132 Tower Online 3kVA UPS Conformally Coated
PW9130G6000T-XLAUCC	9133 Tower Online 6kVA UPS Conformally Coated

Some other UPS that include custom conformal coating are: Marine UPS, 9PHD, and some 9155 and 93PS that have IP42 conformal coating modification. Other UPS that are not listed on this bulletin can have additional conformal coating applied to them with an engineering request. Please contact your Eaton sales representative to initiate the process of any conformal coating request.

Custom conformally coated UPS are non-stocked items as they go through additional engineering manufacturing processes, hence will have a longer lead time compared to their standard UPS counterpart.



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