

Baar, 7. December 2021

## Cleaning Guideline

### Scope

This guideline covers hermetically sealed board mounted Traco converters. We do not recommend washing insert moulded products, where it is difficult to get them dry inside. Please check also, if there is an additional comment about washing in the datasheet or application note of the concerned product.

Note: We do generally not recommend washing or cleaning electronic components. You should avoid it, if it is not absolutely necessary. It may reduce the reliability of the involved components in your application.

### Board cooling prior to cleaning process

Converters and their associated application PCB assemblies should not be wash-cleaned after soldering until they had the opportunity to cool within the cleaning solution temperature. This will prevent vacuum absorption of the cleaning liquid into the module between the pins and the potting during cooling.

### Cleaning agents

Cleaning method	Classification	Cleaning agents
Ultrasonic wave	Water type	Deionized water
	Solvent type	IPA

Note: In general, the liquid temperature shall be less than 60°C.

### Cleaning process

In aqueous cleaning, it is preferred to have an in-line cleaner system consisting of several cleaning stages (pre-wash, wash, rinse, final rinse, and drying). Deionised (DI) water is recommended for aqueous cleaning; the minimum resistivity level is 1M $\Omega$ -cm. Tap-water quality varies per region in terms of hardness, chloride, and solid contents. Therefore, the use of tap water is not recommended for aqueous cleaning.

Note: The total time of ultrasonic wave shall be less than 3 minutes.

### Drying

After cleaning, assure that everything will be dry enough, that the moisture and other potential contaminants will not be present anymore. Use an air circulating chamber (e.g. 0.5-0.7 m<sup>3</sup>/s) and thermal oven at 100°C ( $\pm$ 10°C) (during 20-120min; depending on assembling, structure and components longer times might be necessary). Handheld air guns are not recommended. It is on customer's own responsibility to ensure all components are dry.

### Product post-wash external appearance

The marking or date-code may fade or disappear after cleaning. That does not concern the performance of the converter.

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