Option Ruggedized for TC.GSS Series (plus TC.GXS and TC.GSX)

This document is complementary to the product datasheets for the TC.GSS series (plus TC.GXS and TC.GSX)

Features

Especially for operation in mobile applications under enhanced requirements to vibrations, shock and ever-changing environments.
Regatron AG provides different ruggedization levels for mobile applications. To be ordered separately or in combination.

- Option **S**hock **A**nd **V**ibration (SAV)
  Ruggedized against shock and vibration
- Option **Env**ironment (ENV)
  Protection against environmental influence

Ordering code
The original ordering code for the respective device is added an additional appendix, i.e. one of the following:
.1 for the option SAV
.2 for the option ENV
.3 for options SAV and ENV

e.g. TC.GSS.20.600.4WR.S(.LC)(.HMI)**.2**

Technical Data

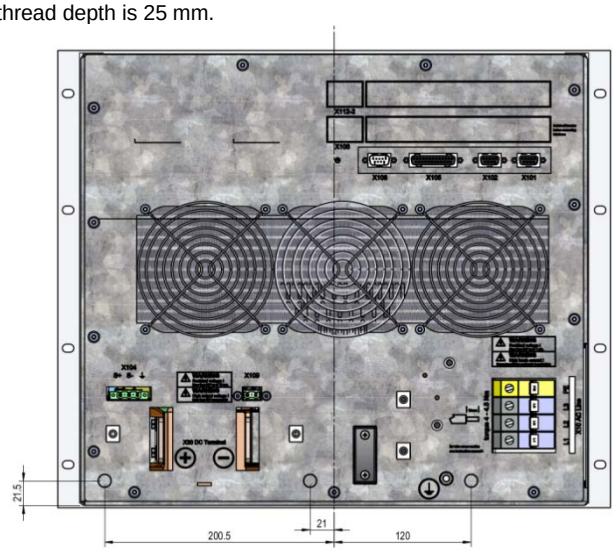
Option Environment (ENV)

All printed circuit boards (PCB) are covered with a conformal coating to provide additional protection against environmental influences such as humidity and pollution.

Ambient conditions (according to IEC 60068-2-78)
Operation
Operating temperature.....5-40°C
Relative air humidity (non-condensing).....0-95%

Option Shock And Vibration (SAV)

NOTE: The option SAV includes three fixation threads (M8) on the backside (see following drawing). The datasheet values are achieved, when the device is fixed via these threads. The usable thread depth is 25 mm.



Mechanical strengthening

Weight
Additional weight.....+15 kg

Sine vibration (according to IEC 60068-2-6)
Frequency range.....10 Hz – 150 Hz
Test time..... 150 min. / axis
Vibration direction.....X-, Y- and Z-axis
Range 10 Hz – 57 Hz (Amplitude).....± 0.15 mm
Range > 57Hz – 150 Hz (Max. acceleration).....± 2 g

Random vibration (according to IEC 60068-2-64)
Frequency range.....10 Hz – 500 Hz
Random vibration resistance (RMS).....2 g
Test time..... 30 min. / axis
Vibration direction.....X-, Y- and Z-axis

Acceleration Spectral Density:
10 Hz – 200 Hz.....0.01 g^2 / Hz
500 Hz (lin. Slope from 200 Hz to 500 Hz) ..0.005 g^2 / Hz

Shock testing inoperative unit (according to IEC 60068-2-27)
Shock acceleration (vertical).....25 g / 11 ms
Shock acceleration (horizontal).....15 g / 18 ms
Shock number and vector.....± 3 Shocks / axis
Shock direction.....X-, Y- and Z-axis

Shock testing operative unit (according to IEC 60068-2-27)
Shock acceleration (vertical).....10 g / 11 ms
Shock acceleration (horizontal).....10 g / 18 ms
Shock number and vector.....± 3 Shocks / axis
Shock direction.....X-, Y- and Z-axis

NOTE: For use with option TC.ISR, the shock acceleration (operative unit) is slightly reduced. For detailed information contact the customer support.

Option PACOB

Protection against accidental contact (only for SAV)...TC.PACOB for TC.G ruggedized

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