

# Option Ruggedized

## for TopCon Quadro Power Supply

---



TopCon Quadro 9U Power Supply with HMI option and und mechanical strengthening option.

Especially for use in mobil applications with their enhanced requirements to vibrations, shock and ever-changing environments, a modified Version of a TopCon Power Supply is necessary.

Regatron provides solutions for mobile applications and offers the following enhancements. You have the choice to order them separately or in combination.

### Ruggedized Options:

- **Mechanical strengthening**  
with high complex and constructional modifications. For example adaptations to hostile vibration conditions.
- **Adaption to rough environment conditions**  
with increased reliability at condensation

### Used testing standards:

Mechanical single shock.....IEC 60068-2-27  
Sine vibration.....IEC 60068-2-6  
Random vibration .....IEC 60068-2-64

---

### Regatron AG

Kirchstrasse 11  
CH-9400 Rorschach  
Switzerland  
Tel +41 71 846 67 67  
Fax +41 71 846 67 77  
www.regatron.com  
topcon@regatron.ch

## Device height 9U

---

### Handling mechanical strengthening

#### Shock (according to IEC 60068-2-27)

Shock acceleration..... 20 g/11 ms  
Shock number and vector .....± 3 Shocks/axis  
Shock direction .....X-, Y- and Z-axis

---

### Operational mechanical strengthening

#### Shock (according to IEC 60068-2-27)

Shock acceleration..... 2 g/11 ms  
Shock number and vector .....± 3 Shocks/axis  
Shock direction .....X-, Y- and Z-axis

#### Sine vibration (according to IEC 60068-2-6)

Frequency range..... 10 Hz – 150 Hz  
Random vibration resistance (Peak) .....2 g  
Average test time .....30 min./axis  
Vibration direction .....X-, Y- and Z-axis

#### Random vibration (according to IEC 60068-2-64)

Frequency range..... 10 Hz – 500 Hz  
Random vibration resistance (RMS) ..... 1.9 g  
Average test time .....30 min./axis  
Vibration direction .....X-, Y- and Z-axis

#### Acceleration Spectral Density:

10 Hz – 200 Hz. .... 0.01 g<sup>2</sup>/ Hz  
500 Hz (lin. slope from 200 Hz to 500 Hz) 0.003 g<sup>2</sup>/ Hz

---

### Environmental conditions

#### Condensation

Condensation during operation does not affect the functionality of TopCon Power Supply.

---

### General mass

Weight increase ..... 2 kg

### Width

Front panel.....483 mm  
Body..... (19") 444 mm

### Height

Front panel.....399 mm  
Body.....(9 U) 394 mm  
width strengthening struts .....409 mm

### Depth

with DC-bars .....570 mm  
Body.....525 mm

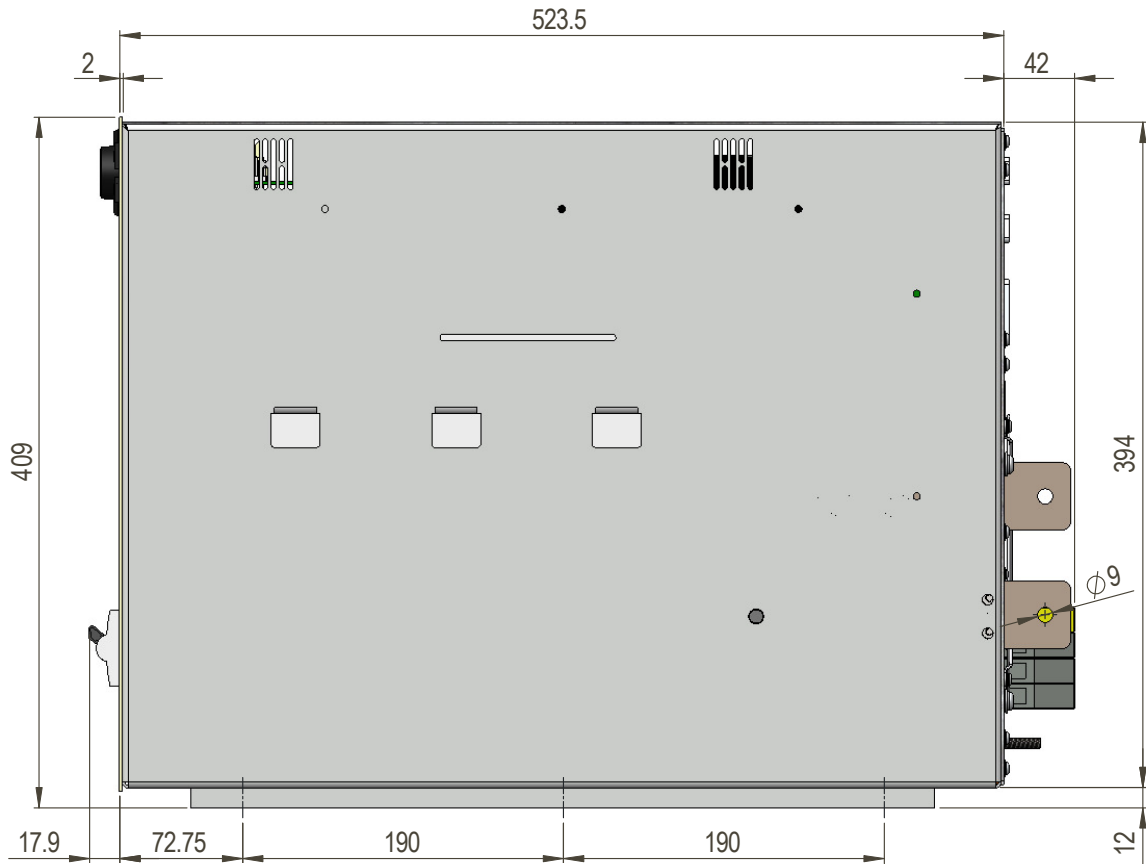
### Strengthening struts

Number ..... 2 pieces  
Number mounting holes ..... 3 pieces /strut  
Diameter mounting holes ..... M 8

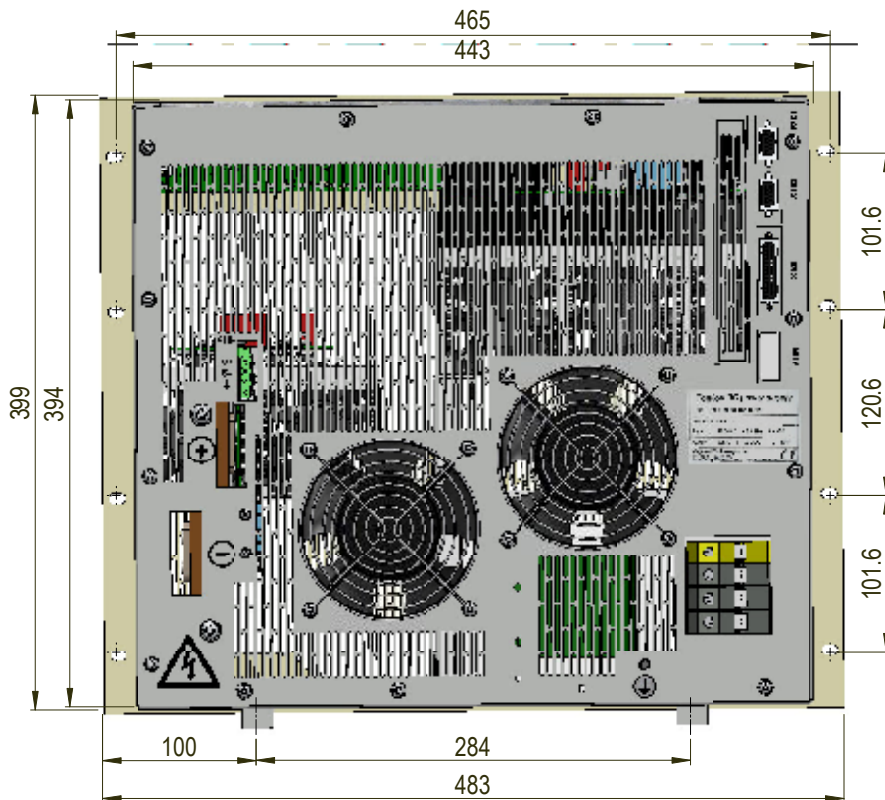
---

**Option Ruggedized – continuation**

Device dimensioning sketches



Side view: TopCon ruggedized device 9U with reinforcing struts



Rear view: TopCon ruggedized device 9U with reinforcing struts