

# 750V Energy buffer

# Ultracapacitor Module 2.1F

- Innovative in energy storage & Power Electronics
- Custom-made solutions
- Complete solution: storage & Power Electronics
- Design and system integration

#### **Features**

- Cold temperature performance
- High peak power capability
- Low internal resistance, high peak current
- High efficiency
- Integrated balancing and monitoring
- Integrated DC/DC converter
- Compact, rugged, fully enclosed IP65 design
- Maintenance free
- Extension battery life, downsizing main battery

### **Applications**

- Industrial, Automotive, Marine & UPS back-up
  - Peak power supply
  - Short term bridge power
  - Board net stabilization
  - Engine cranking

#### **Mechanical Data**

Length x Width x Height 650 x 665 x 200 mm Approx. 50 kg

aephybridpower.com sales@aephybridpower.com +31 (0)78 692 2100



# **Electrical Specifications**

| Symbol            | Parameter                                  | Description                   | Value       | Unit   |
|-------------------|--|-------------------------------|-------------|--------|
|                   | Capacitance                                |                               |             |        |
| Cs                | Rated capacitance                          |                               | 2,1         | F      |
|                   | Tolerance capacity                         |                               | -0 / +20    | %      |
|                   | Voltage                                    |                               |             |        |
| U <sub>NOM</sub>  | Nominal voltage                            |                               | 750         | V DC   |
| U <sub>MAX</sub>  | Max. operating voltage                     |                               | 780         | V DC   |
|                   | Surge voltage                              |                               | 825         | V DC   |
| U <sub>ISO</sub>  | Isolation voltage                          | Tested at 2,8 kV / 50Hz / 10s |             | K V DC |
|                   | Resistance                                 |                               |             |        |
| ESR <sub>DC</sub> | Internal resistance / Initial              |                               | 338         | mΩ     |
|                   | Environment                                |                               |             |        |
| TA                | Ambient temperature during operation       |                               | -25 to + 65 | °C     |
| Tstorage          | Storage temperature range / caps uncharged |                               | -40 to +70  | °C     |
|                   | Protection class                           |                               | IP65        |        |
|                   | Power                                      |                               |             |        |
| РРЕАК             | Peak power                                 | 1,5 seconds each 20 minutes   | 62          | kW     |
|                   | Energy (module)                            |                               |             |        |
| Estored           | Energy                                     | @U <sub>NOM</sub>             | 590         | kJ     |
|                   |  |                               | 164         | Wh     |
|                   | Current                                    |                               |             |        |
| lavg              | Rated continuous current                   | 120ms                         | 250         | Α      |
| I <sub>PEAK</sub> | Maximum peak current                       | 1 second                      | 120         | Α      |
| ILEAK             | Leakage current cells                      | @U <sub>MAX</sub>             |             | mA     |
| I <sub>sc</sub>   | Short circuit current                      | @Ихом                         | ≤27.900     | А      |

# **Certified Tests**

| Description / Conditions |   |  |
|--------------------------|---|--|
| IEC 61373                | Railway applications – Rolling stock equipment – shock and vibration tests – Class 1B |  |
| IP65 test                | According to EN 60529   |  |
| Temperature test         | Internal  |  |

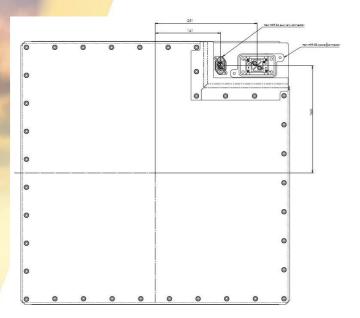


# **Mechanical Data**

Length x Width x Height: 650 x 665 x 200 mm (excluding connectors)

Weight: Approx. 50 kg

Enclosure: IP65



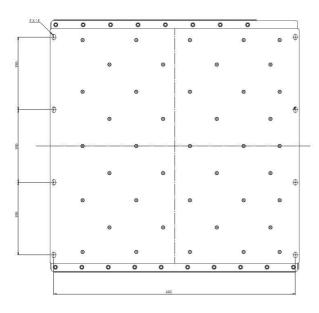


Figure 1: Top view

Figure 2: Backside view

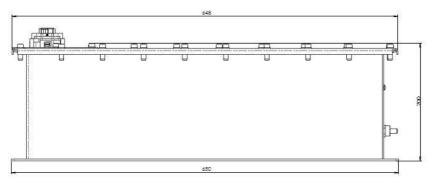


Figure 3: Side view

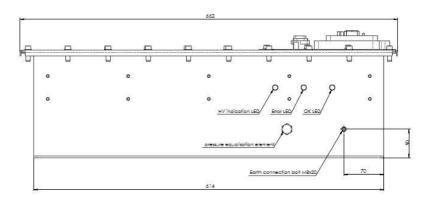


Figure 4: Front view