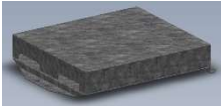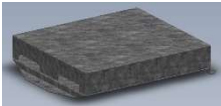# TECHNICAL DATA

NEW GREENROCK DIGITAL COMBINER BOX

The all new digital GREENROCK Combiner Box, designed and manufactured by BlueSky Energy. Connecting our Saltwater batteries has never been easier or smarter.

Connect up to 12 of our GREENROCK battery stacks to a single combiner panel. The combiner panel contains single stack fuses and monitors the power on stack. In addition, three peripheral devices (battery inverter and/or charge controllers) can be directly connected to the new panel. Installing multiple battery stacks is easier than ever.

Several combiner boxes can be set-up in a cluster. Up to 4 combiner boxes per cluster. Each combiner box contains single-stack protection and can be connected to a common DC bus on site. The Combiner Box simplifies assembling and saves valuable time for installation.

But that's not all. The new GREENROCK digital combiner box also measures and records SOC (state of charge). This smart panel offers accurate SOC calculations based on real-time performance data. Each stack is independently monitored and measured by the integrated SOC board. The Combiner Box includes a LAN connection allowing remote access to assess status and diagnose. System software is updated regularly to improve or add functionality. Our new digital Combiner Box offers easy and quick access for analyzing performance and diagnosing potential system issues. Only from BlueSky Energy.

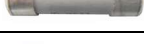| Figures	Order Number / Component	Description
	9001 0018 01 GREENROCK Combiner Box 48V-12	GREENROCK Combiner Box for up to 12 pcs. of 48 V Stacks. Including metal casing, combiner board, SOC board, router and 12 pcs. tube fuses, Connection cable not included
	9001 0019 01 GREENROCK Combiner Box 24V-10	GREENROCK Combiner Box for up to 10 pcs. of 24 V Stacks. Including metal casing, combiner board, SOC board, router and 10 pcs. tube fuses, Connection cable not included

TECHNICAL DATA

Max. operating voltage	60V DC
Max. DC current	320A DC
Connecting 24V stacks	Up to 10 stacks
Connecting 48V stacks	Up to 12 stacks
Connection battery	max. 4mm², tool-free mounting with push in terminal
Resilience battery connection	32A per connection
Peripheral port	3 pairs (pos. neg.), M8 ring cable lug max. 95mm²
Resilience Peripherial port	320A total
Temperatur control	On board with PT1000 temperature sensor
Communication	LAN, Modbus TCP
Measures Combiner Box	width/height/depth in mm 360 x 490 x 85
Weight	about 15 kg
Assembly / Installation	Indoor, Wall mounting
Protection category / ambient conditions	IP21 / temp. -5°C - +50°C / humidity 95% (not condensing)

Fornacher Straße 12
4870 Vöcklamarkt
Austria

Tel. 0043 720 010 188
E-Mail: office@bluesky-energy.eu
www.bluesky-energy.eu

12 February 2019 / greenrock_combiner box_technische daten_v01_multilang.docx 1

IN THE BOX

- 1 pcs. Combiner Box
- 1 pcs. GREENROCK Router
- 12 pcs. Pipe fuses (full assembly on the board)

Battery cable not included. Typically 2-3 m cable length. Cable 4.0 mm² black, design battery side: MC4 plug, other end open wire for push-in technology. Can be ordered separately from GREENROCK.
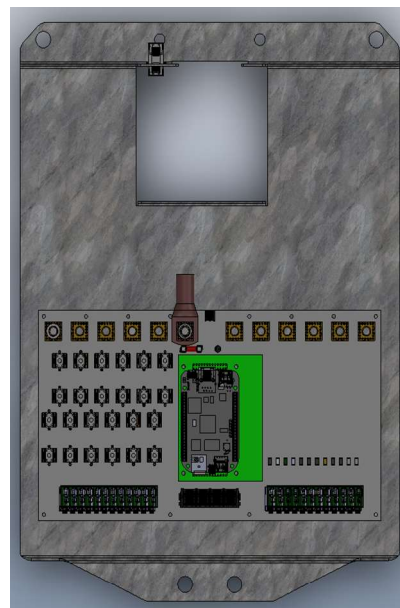
Accessories Combiner Box

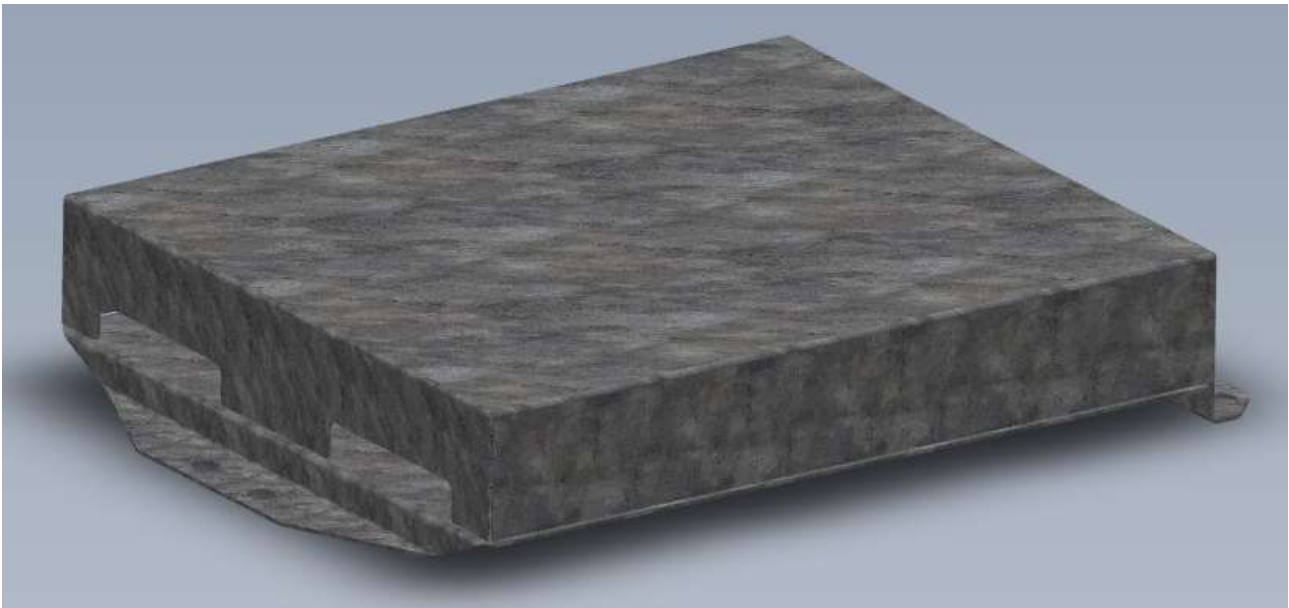|		
	1011 0001 01 Connection cable negative 2 m	Cabel NSGAFöu 4,0mm² 1,8/3 KV black (short-circuit and earth-proof line), Lenght: 2 meters, on battery side MC4 plug-in, other side 4mm² wire end ferrule
	1011 0002 01 Connection cable positive 2 m	Cabel NSGAFöu 4,0mm² 1,8/3 KV black (short-circuit and earth-proof line), Lenght: 2 meters, on battery side MC4 plug-in, other side 4mm² wire end ferrule
	1011 0028 01 Connection cable negative 3 m	Cabel NSGAFöu 4,0mm² 1,8/3 KV black (short-circuit and earth-proof line), Lenght: 3 meters, on battery side MC4 plug-in, other side 4mm² wire end ferrule
	1011 0029 01 Connection cable positive 3 m	Cabel NSGAFöu 4,0mm² 1,8/3 KV black (short-circuit and earth-proof line), Lenght: 3 meters, on battery side MC4 plug-in, other side 4mm² wire end ferrule
	1001 0107 01 20A fuse for 48V Stack	Spare fuse: Cylindrical fuse, 10x38, 20A, characteristic gG
	1001 0184 01 32A fuse for 24V Stack	Spare fuse: Cylindrical fuse, 10x38, 32A, characteristic gG

FIGURES
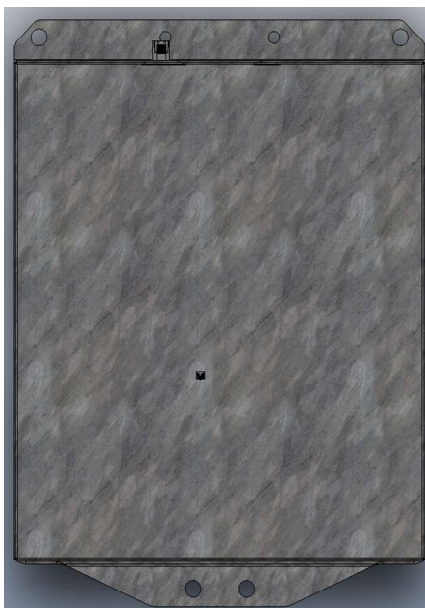
Combiner Box from the back side, schematic representation

Combiner Box inside, schematic representation

Fornacher Straße 12
4870 Vöcklamarkt
Austria

Tel. 0043 720 010 188
E-Mail: office@bluesky-energy.eu
www.bluesky-energy.eu

12 February 2019 / greenrock_combiner box_technische daten_v01_multilang.docx   2

Combiner Box outside view, schematic representation

Combiner board

Fornacher Straße 12
4870 Vöcklamarkt
Austria

Tel. 0043 720 010 188
E-Mail: office@bluesky-energy.eu
www.bluesky-energy.eu

12 February 2019 / greenrock_combiner box_technische daten_v01_multilang.docx   3