

# Regenerative bidirectional AC/DC Converter Module type

## A renewed model offering a flexible series-parallel configuration while maintaining high accuracy performance

- Thanks to the embedded proprietary SiC module, we achieve the highest performance for size, efficiency and response speed within the industry
- Besides greatest direct connection (2000V with 4 units), we have best-in-class large capacity and high voltage
- Embedded standard features such as breakers and touch panel greatly improve daily operation
- Perfect for all kinds of battery testing, converter, inverter, FCV, EV, etc.

### Our original SiC Module

#### 「Techno Block<sup>※3</sup>」



Achieves small footprint and excellent heat dissipation in inverters and power supplies for the industry

## S·Loop

Logo combining the [S] of SanRex and the loop representing the regenerative power



6 modules configuration:  
2 units in direct connection  
and 3 in parallel (former design)

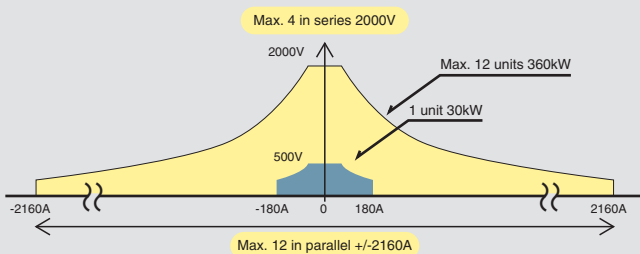


※1,2 As of April 2022, in the 30kW class modules of power supply for evaluation  
※3 Our original semiconductor package uses transfer molding and both side solder process, achieving small footprint and excellent heat dissipation

## Features

### ■ Various output currents and voltages

Several power modules can be connected in parallel or directly for a maximum output of respectively 2160 A (12 units) or 2000 V (4 units).  
(Max. 12 units connected = 360kW)



### ■ Small footprint and high efficiency

In addition to embedding 3LEVEL and DAB<sup>※4</sup> circuits and our proprietary SiC modules, the unit fits a 19" rack size promising over 93.5% efficiency (at 500V, 60A output).

※4 DAB : Dual Active Bridge

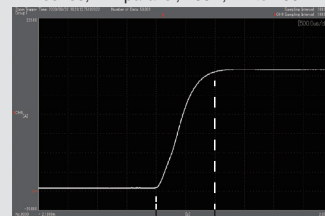
### ■ High precision and fast response

During ramp up or ramp down of max 1 msec while in series-parallel, the setting accuracy is: constant voltage max. 0.05% (F.S.), constant current max. 0.1% (F.S.), constant power max. 0.3% (F.S.).

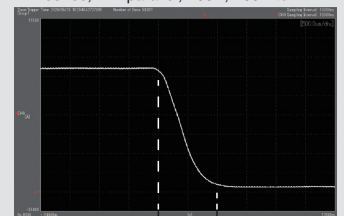
#### Current response waveform (excessive response)

2 in series and 2 in parallel, under in-house test conditions

2 in series, 2 in parallel, 700V, 4A to 160A



2 in series, 2 in parallel, 700V, 160A to 4A



### ■ Communication with a host system

Communication with a host system via Ethernet is possible.

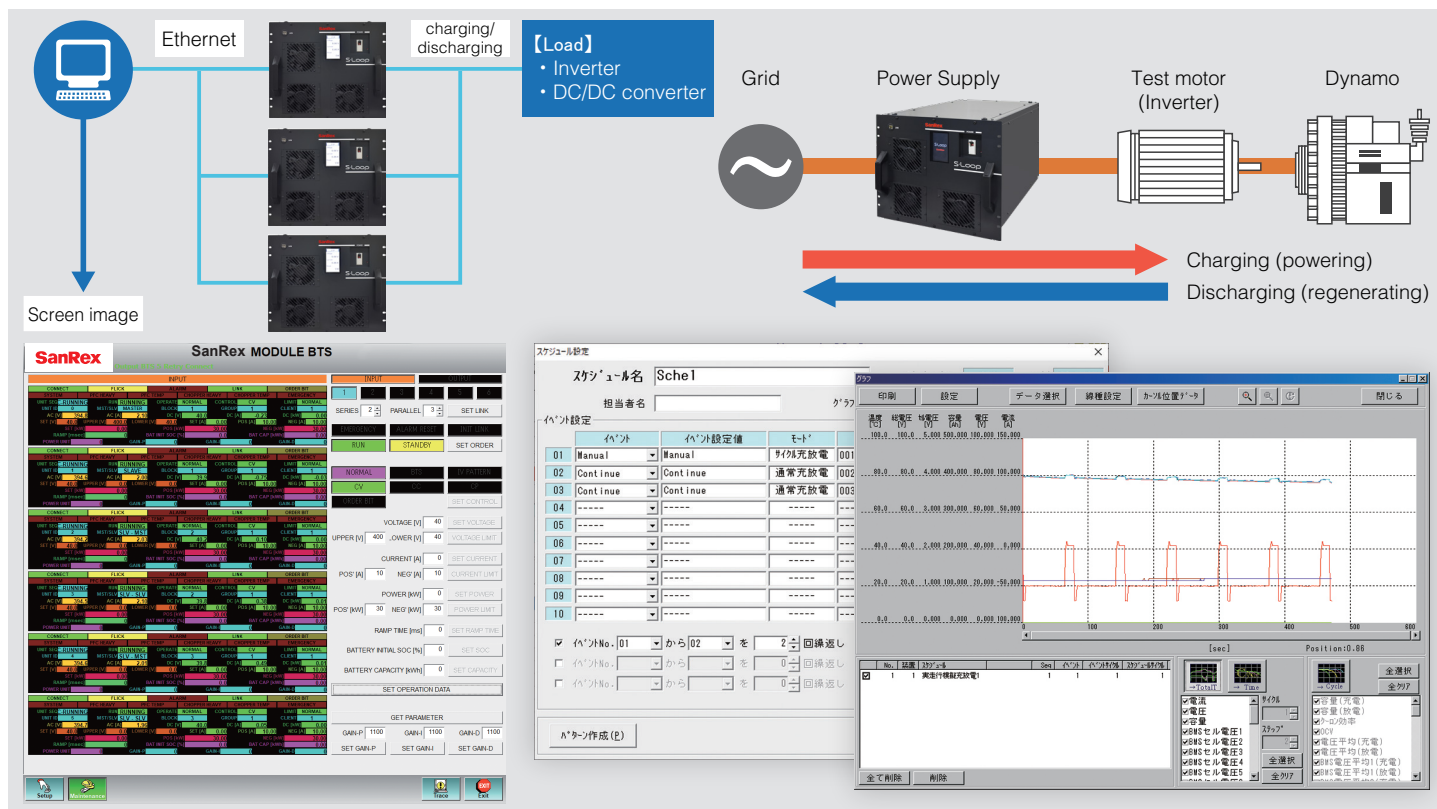
\*Please contact our sales staff for details.

# Regenerative bidirectional DC power supply - Module type

## Example of configuration

Possibility to set CV/CC/CP from a host computer via included software.

You can perform optimal evaluation by setting various characteristics of FC, PV or storage batteries with the optional software.

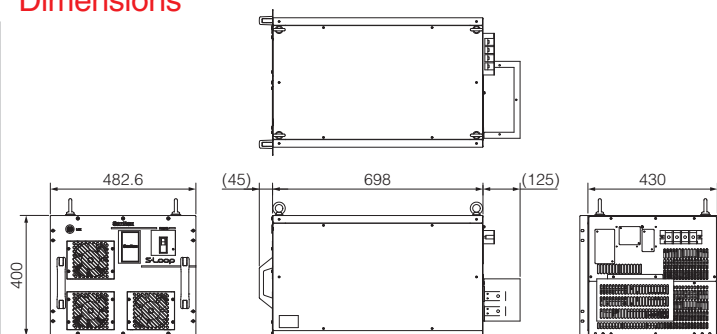


## Specifications

<b>Power Source Voltage</b>	AC voltage 380V to 440V (3-phase 3-wire)	
<b>Rated output voltage</b>	500V	
<b>Rated output current</b>	±180A	
<b>Rated output power</b>	±30kW	
<b>Setting and measurement accuracy</b>	Constant current	Within ±0.1% (F.S.)
	Constant voltage	Within ±0.05% (F.S.)
	Constant power	Within ±0.3% (F.S.)
<b>Rise time</b>	1msec or less (constant current: 10→90% of setting for both power and regeneration) Overshoot: within 1% of rated current	
<b>Efficiency</b>	93.5% or more (at 500V, 60A)	
<b>Dimensions</b>	482.6mm(W) × 400mm(H) × 698mm(D)	
<b>Other</b>	Capable of up to 4 series and 12 parallel operations (Maximum number of units connected: 12 (360 kW))	

\*Various types of power supplies are available for evaluation purposes, including power supplies with other capacities. We can also manufacture power supplies to custom specifications.

## Dimensions



## Attention

Read and understand the entire Operating Manual and your employer's safety practices before installing, or using the equipment. Do not install the equipment in an area where water, high humid, steam, dust or oil are located. It may cause damage to the equipment or result in a fire or electrical shock.

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