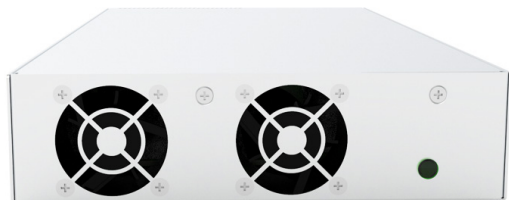


# Bidirectional Power Module Specification

TPS-BM143400SI(R) AC-DC





### Features

- AC-DC bidirectional isolation and energy flow, reliable inverter connected with grid
- Mature and excellent soft switching technology, more reliable and efficient
- High efficiency: AC to DC 91%, DC to AC 87%
- Bidirectional high PF >0.99, low THDi <5%
- Fast switching time <10ms between AC to DC mode and DC to AC mode
- Outstanding EMC characteristic, compliance with EN55023
- Strong adaptability, adapts to unstable grids and harsh environments
- Modular design, intelligent expansion, automatic parallel operation
- Comprehensive protection function
- Can pass UL, CE, TUV certification

### Applications

- Cell formation and test
- Power bidirectional test
- Energy recyclable power aging

### Profile

#### TPS-BM Single Phase LV Medium Capacity AC-DC BPM

TPS-BM low voltage medium capacity AC-DC bidirectional power module is suitable for large capacity battery cell production, testing and other testing equipments. The mature soft switching technology is also adopted, the control algorithms and production process are greatly improved, which makes the module with high performances such as high reliability, strong adaptability of grids and environments, less than 10ms of bidirectional switching, up to 91% efficiency, low THDi, high PF, intelligent and so on.

### Specification

Product Model		TPS-BM143400SI(R)	
AC To DC Direction	Rated Output Capacity		3400W
	AC Input	Wiring Mode	L+N+PE
		Rated Voltage	220/230/240VAC
		Voltage Range	176~264VAC
		Frequency Range	50/60 ± 5Hz self detection
		Input Current	≤ 22A
		THDi	<5% @220VAC, full load, power grid THDU ≤ 2%
		PF	0.99 @220VAC, full load, power grid THDU ≤ 2%
	DC Output	Rated Voltage	14VDC
		Rated Current	243A
		Voltage Accuracy	0.5%
		Ripple Voltage	500mV
Peak Efficiency		91%	

DC To AC Direction	Rated Input Capacity		2250W
	DC Input	Rated Voltage <sup>①</sup>	15VDC
		Rated Current	150A
	AC Output	Voltage Range	176~264VAC
		Frequency Range	50/60 ± 5Hz self detection
		THDi	<5% @220VAC, full load, power grid THDU ≤2%
		PF	0.99 @220VAC, full load, power grid THDU ≤2%
Peak Efficiency		87%	
Machine	System	Power Direction	Bidirectional
		Isolation Method	High frequency isolation
		Cooling System	Fan forced, intelligent control
		Air Flow	Default: from front to rear, R type: from rear to front
		Expandability	8
	Environment	Operation Temperature	-10°C~45°C full load, 45°C~55°C power derating to 90%, 55°C~60°C power derating to 80% <sup>②</sup>
		Storage Temperature	-40°C~70°C
		Relative Humidity	5-95% (No condensing)
		Operation Altitude	0-1000m; 1000m~3000m, power derating 1% per 100m risen
	Interface	Indicator Lamp	AC to DC: Blue DC to AC: Green Fault: Red
	Mechanical	Size(W*H*D)	170mm*45mm*333mm
Weight		≤3.5kg	

Note:

- ① DC side voltage exceeding 25VDC will cause power failure
- ② Shut down due to over temperature after overload

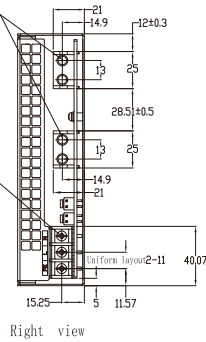


This electronic device must not be disposed of in the household waste at the end of its service life. For your return, there are free collection points for electrical appliances and, if necessary, additional points of acceptance for the reuse of the devices in your area. The addresses can be obtained from your city or communal administration. If the old electrical or electronic device contains personal data, you are responsible for deleting it before you return it. Further information: [www.elektrogesetz.de](http://www.elektrogesetz.de)

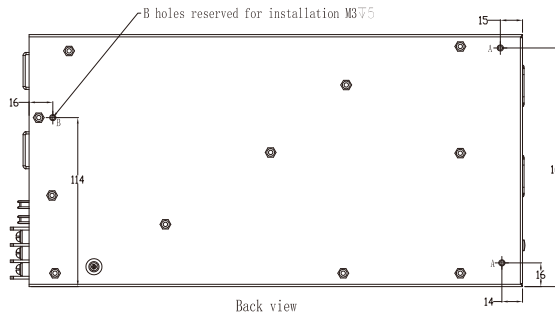
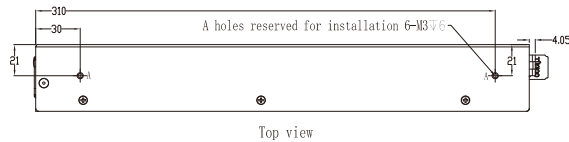
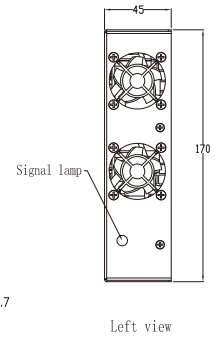
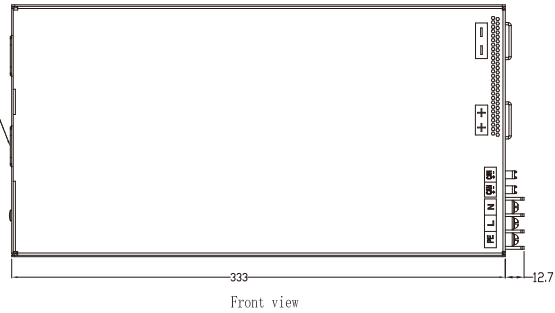
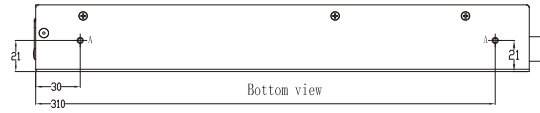
## Dimension

Cross recessed hexagon head spring flat pad combination screw  
4-M6X14 (GB9074.13-1988)

Cross recessed pan head flat pad combination screw  
3-M4X6 (GB/T 9074.1-2018)



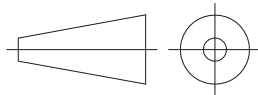
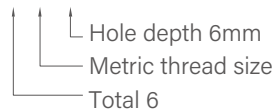
Fan guard and signal Lamp prominent plane 2 mm



### • Identification explanation

### • Identification projective

6-M3∇6



### • Notes

1. Unit (mm)
2. For parts there is no tolerance marked, please according to GB/T 1804-M.

### • Warning

1. The length of the screw shall not exceed the depth of the hole in the drawing when the screw is installed at the reserved hole position (∇). Otherwise it will cause damage to the equipment.