

PV Module-Level Rapid Shutdown & Monitoring Solutions



GNE New Energy

GNETEK

COMPANY PROFILE ≫

Jiangsu GNE New Energy Technology Co., Ltd (GNE) was founded in 2013, It has been focusing on the R&D, production and sales of PV Module-Level Power Optimization Systems, Module-Level Rapid Shutdown Systems and Intelligent Monitoring Systems, and is committed to providing global customers with complete solutions for MLPE (Module-Level Power Electronics) applications.

GNE has obtained more than 40 domestic and foreign inventions and patents, and has rich technical accumulation and practical experience in the field of PV power optimization and intelligent management. Our products include, but are not limited to, PV power optimizers, rapid shutdown devices, module monitors, smart junction boxes, data processing equipment, and more. It has been widely used in China, Europe, Japan, the United States and other mainstream PV markets in the world, and has become a high-tech enterprise with international influence.



GNE Rapid Shutdown & Monitoring Solutions

Safety Regulations: Meets the requirements of NEC 2017 & 2020 (690.12).

Emergency Shutdown: Each module will be shut down and the string voltage will drop to the safe voltage range (< 30V) within 30 seconds after pressing the emergency button to prevent the risk of electric shock.</p>

► **Remote Monitoring:** Module-level monitoring and accurate failure positioning for convenient maintenance and operation.

Rapid Shutdown and Monitoring Solutions LAN/ WiFi Cloud Scoutbee800M (Sole RSD) RS485 Beetrans-S4 (Shutdown Controller) Swarm(Data Acquisition Unit) Beehive **Data Aggregation** Inverter Device Scoutbee1600M Honepot (Dual RSD) **GNE** Monitoring

Flexible Configuration Easy Networking Remote Monitoring





Sole Rapid Shutdown Device

Product features

► **Module-level Rapid Shutdown:** Reduce and eliminate the risk of electric shock, improve the safety of the power station

▶ Safe and reliable: With functions of overcurrent, overvoltage, and overheating protection

► Automatic Shutdown: The default shutdown state to ensure the personal safety of installation and maintenance personnel

► **Convenient Installation:** It can be directly connected to the existing PV power system without changing the original line

▶ Ultra-long Life: 25-year lifespan, matching PV modules

Model	Scoutbee800	Scoutbee800M	
	INF	PUT	
Max. Input Power	800W		
Max. Input Voltage	80V		
Operating Voltage Range	12~80V		
Max. Input Current	20	A	
	OUTPUT		
Voltage Range	12~80V		
Max. Output Current	20A		
Max. Output Power	800W		
Shutdown Voltage	0.8~1V		
Efficiency	>99.8%		
Default Working State	Shutdown		
ShutdownTime	15 S		
	COMMUNICATION		
Rapid Shutdown	PLC (Power Line Communication)		
Real-time Monitoring	NO	Wireless (868/915M/2.4G)	
	OTHERS		
Temperature range	-40 ~ +85 °C		
Relative humidity range	0~100 %		
Ingress Protection	IP68		
Protective Class			
INSTALLATION SPECIFICATION			
Max. No. of Modules per String	30 pcs		
Input Cable Length	200mm		
Output Cable Length	1000mm		
Size	107×82×20mm		
Weight	360g		
Connector (Input/Output)	Compatible with MC4		
	STANDARD / CERTIFICATION		
Regulations	NEC 2017 (690.12)		
Safety	IEC/EN 62109-1:2010 the Low Voltage Directive(2014/35/EU)		
EMC	EN IEC 61000-6-2:2019 EN 61000-6-3:2007	/+A1:2011 the EMC Directive(2014/30/EU)	
Certification	c	E	



Dual Rapid Shutdown Device

Product features

► Module-level Rapid Shutdown: Reduce and eliminate the risk of electric shock, improve the safety of the power station

► Safe and reliable: With functions of overcurrent, overvoltage, and overheating protection

► Automatic Shutdown: The default shutdown state to ensure the personal safety of installation and maintenance personnel

► **Convenient Installation:** It can be directly connected to the existing PV power system without changing the original line

▶ Ultra-long Life: 25-year lifespan, matching PV modules

Model	Scoutbee1600	Scoutbee1600M	
	INPUT		
Number Of Module	2 pcs		
Max. Input Power	800W / 800W		
Max. Input Voltage	80V / 80V		
Operating Voltage Range	12~80V / 12~80V		
Max. Input Current	20A / 20A		
	OUTPUT		
Voltage Range	0~160V		
Max. Output Current	20A		
Max. Output Power	1600W		
Shutdown Voltage	1.6~2V		
Efficiency	>99.8%		
Default Working State	Shutdown		
Shutdown Time	15 S		
	COMMUNICATION		
Rapid Shutdown	PLC(Power Line	Communication)	
Real-time Monitoring	NO	Wireless (868M/915M/2.4G)	
	OTHERS		
Temperature range	-40 ~ +85 °C		
Relative humidity range	0~100 %		
Ingress Protection	IP68		
Protective Class	II		
	INSTALLATION SPECIFICATION		
Max. No. of Modules per String	30 pcs		
Input Cable Length	200mm / 300mm		
Output Cable Length	1600mm		
Size	121×86×20mm		
Weight	530g		
Connector (Input/Output)	Compatible with MC4		
	STANDARD / CERTIFICATION		
Regulations	NEC 2017 (690.12)		
Safety	IEC/EN 62109-1:2010 the Low	Voltage Directive(2014/35/EU)	
EMC	EN IEC 61000-6-2:2019 EN 61000-6-3:2007	/+A1:2011 the EMC Directive(2014/30/EU)	
Certification	CE		



Shutdown Controller

Product features

► **Support up to 4 Strings:** A single controller supports 2 or 4 strings to meet the installation needs of small rooftop power stations

Supports up to 10 cascaded devices: The Beetrans series can be cascaded up to 10 units to support medium and large PV power stations

Safe and Reliable: Real time detection of string voltage to make PV system safer

Remote Monitoring: Easy to realize module-level monitoring and management with GNE monitoring kit

Model	Beetrans-S4	Beebox-S		
INPUT				
Maximum Input Current Per String	20A			
Support Strings	4 Strings	2 Strings		
Cascada control	YES	NO		
Maximum number of cascading	10	NO		
Maximum System Voltage	1000 V / 1500 V			
Voltage & Frequency	12Vdc	100~240Vac; 50/60Hz; 1Aac		
INSTALLATION SPECIFICATION				
Connector	Compatible with MC4			
Size	140 x 99 x 50.4 mm	220 x 210 x 65 mm		
Weight	504 g	880 g		
Working Temperature	- 40 ~ +85°C			
Ingress Protection	IP65			
	FUNCTION			
Default Internet Access	NO	LAN+WIFI		
Local Rapid Shutdown Function	YE	ES		
Remote Rapid Shutdown Function	Optional	YES		
Open Circuit Voltage	YES			
Automatic Shutdown After Power Failure	YES			
DC arc Detection Function	NO	YES		
Support Production Models	Scoutbee800/800M/1600/1600M			
Data Transmission Frequency	NO	5 Min(PV Status)		
	STANDARD/CERTIFICATION			
Regulations	NEC 2017/2020 690.12	NEC 2017 690.12		
Safety	IEC/EN 62109-1:2010 the Low Voltage Directive(2014/34/EU) UL1741,UL3741,CSA C22.2,UL1703	IEC/EN 62109-1:2010 the Low Voltage Directive(2014/35/EU)		
EMC	EN IEC 61000-6-2:2019 EN 61000-6-3:2007/+A1:2011 the EMC Directive(2014/30/EU)			
Certification	LE			

Cases



50KW PV Station in Ibaraki, Japan



5MW Water-Floating PV Station in Bangkok, Thailand



13.2kW Rooftop PV Station in Burlington, Canada



1MW Ground PV Station in Shanxi, China





6KW Rooftop PV Station in California, USA

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