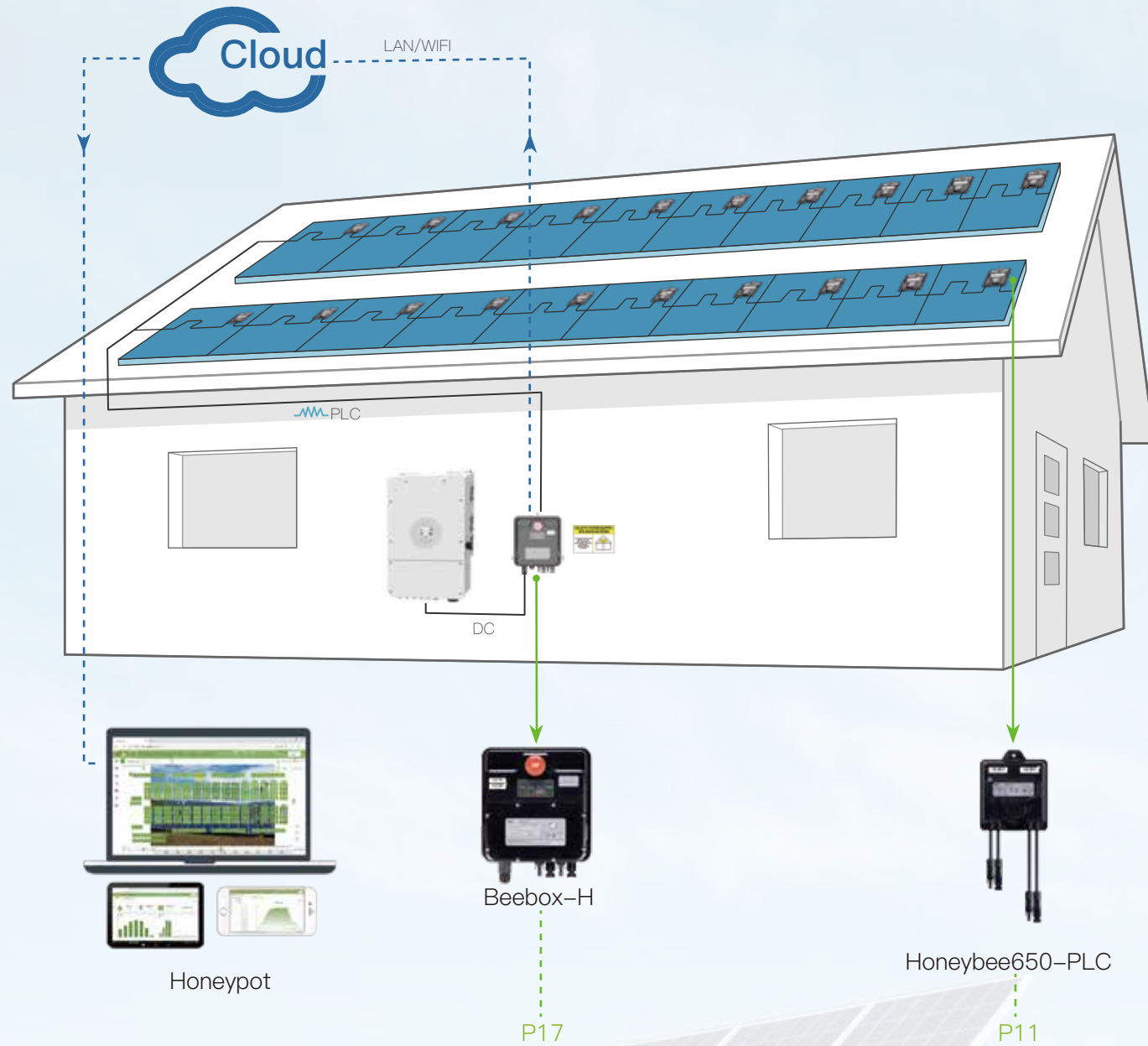


PLC Optimizer System Diagram



- Optimize power generation: Optimizer tracking maximum power point in input of each module and adjust maximum output to boost energy yield. Perfectly solve the power loss cause by module shading, module variances and modules mismatch.
- Real-time module-level monitoring: Optimizer collects current, voltage and temperature of each module in real-time and displays in monitoring system.
- Rapid shutdown(PLC): This solution complies with NEC 2014, 2017, and 2020 690.12 requirements. The PLC optimizer is on standby mode, activated after receive "operate" signal from Beebox-H. Rapid shutdown entire system by stop sending "operate" signal after press emerge button on Beebox-H to prevent shock hazard.

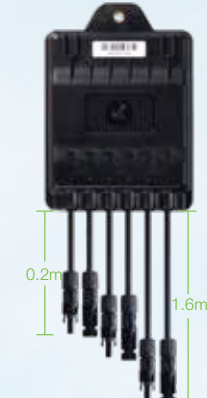
Rapid Shutdown (RSD)

Rapid Shutdown Device Introduction



Scoutbee800 (~M)

Sole Rapid Shutdown Device



Scoutbee1600 (~M)

Dual Rapid Shutdown Device



Beebox-S

Shutdown Initiator (EUR)



Beetrans

Shutdown Initiator (US)

Beetrans/Beebox-S

Shutdown Initiator



Product Features

- ⚙ Support two PV strings, suitable for most roof station
- ⚙ Cascade connection with Max. 10Pcs, suitable for large scale roof station
- ⚙ PLC Communications, no need additional communication cable, easy to install
- ⚙ String detection to ensure shutdown system more secure and reliable

Product Code	Beetrans	Beebox-S
INPUT		
Maximum input Current Per String	15A	20A
Support Strings	2Strings	
Cascade control	YES	N/A
Maximum number of cascading	9	N/A
Maximum System Voltage	1000V / 1500V	
Voltage & Frequency	12Vdc	100~240Vac; 50/60Hz; 1Aac
INSTALLATION SPECIFICATION		
Connector	Compatible with 3/4 Inch EMT 3pcs	Compatible with MC4
Size	220 x 210 x 65 mm	
Weight	880g	
Working Temperature	-20 ~ +60 °C	
Ingress Protection	IP65	
FUNCTION		
Default Internet Access	N/A	LAN+WIFI
Local Rapid Shutdown Function	YES	
Remote Rapid Shutdown Function	YES	
Open Circuit Voltage	YES	
Automatic Shutdown After Power Failure	YES	
DC arc Detection Function	NO	YES
Support Production Models	Scoutbee800/800M, Scoutbee1600/1600M, Scoutbox450	
Data Transmission Frequency	N/A	5 Minutes(PV Status)
STANDARD/ CERTIFICATION		
Regulations	NEC 2017 690.12	
Safety	UL1741,CSA C22.2 No. 330,UL 1703,ULC1703-01	IEC/EN 62109-1:2010 the Low Voltage Directive(2014/35/EU)
EMC	FCC Part15 ClassB IEC61000-6-2 / IEC61000-6-3 EN61000-6-2 / EN61000-6-3	EN IEC 61000-6-2:2019 EN 61000-6-3:2007/+A1:2011 the EMC Directive(2014/30/EU)
Certification	CSA	CE