

Data Processing Device Swarm + Beehive

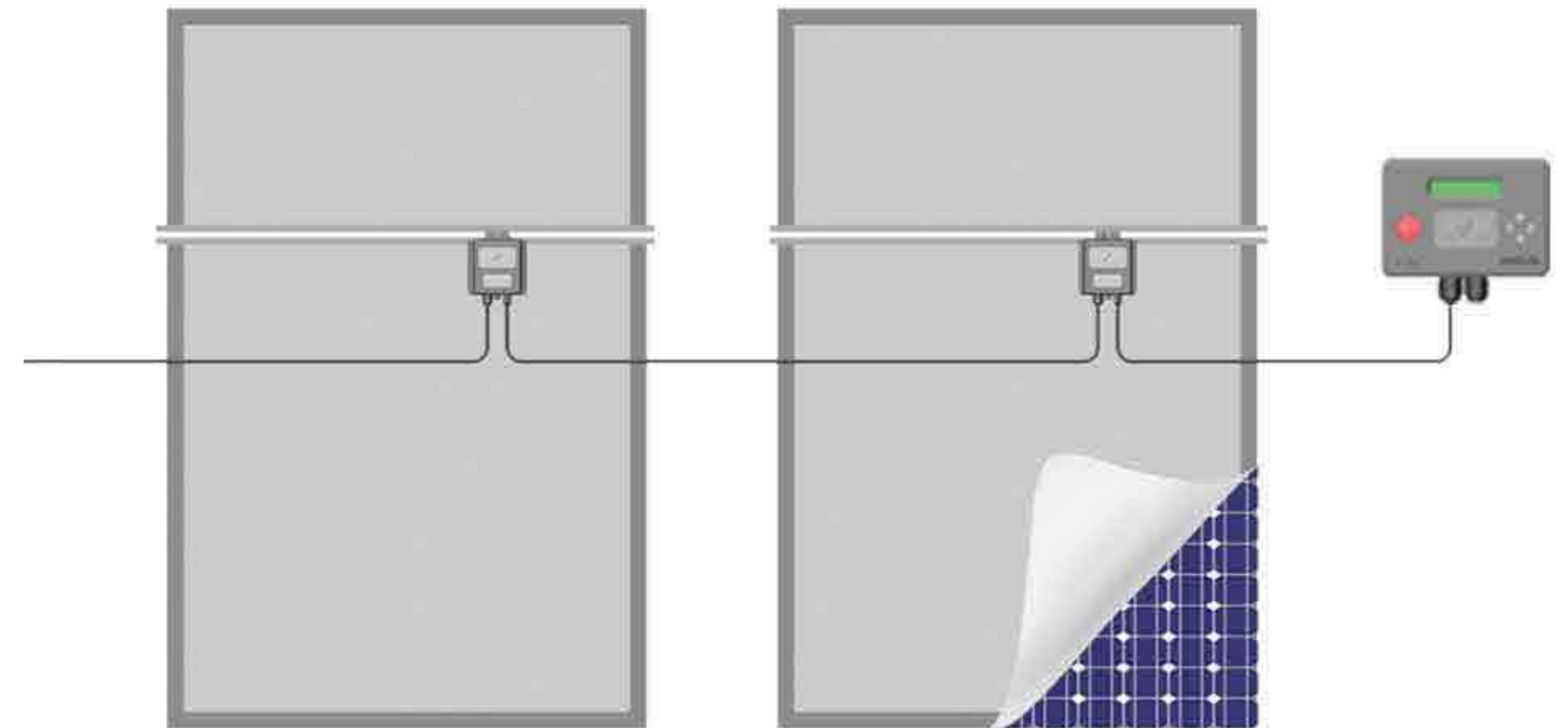
Product Picture



Data Acquisition Unit
Swarm



Data Aggregation Device
Beehive



Product features

- ⚙ Automatic dynamic networking, with self-healing function.
- ⚙ Multi communication methods.
- ⚙ Automatic primary route relay function.
- ⚙ Local or remote shutdown in emergency circumstances.

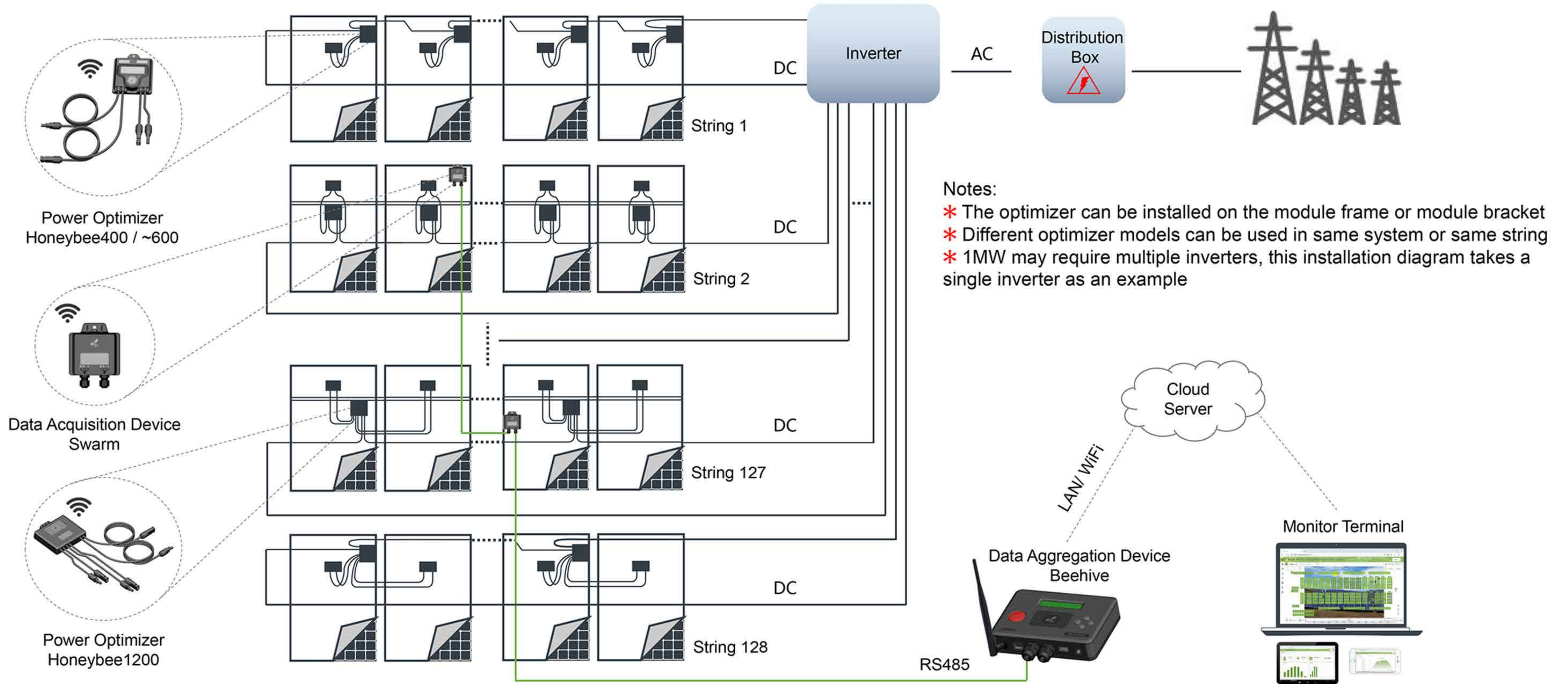
Technical Data

Product Code	Swarm
TECHNICAL DATA	
Working Voltage	12 V
Working Current	25 mA
Power Consumption	≤0.3 W
Installation Specification	
Connector	RS485*2
Wireless Range	(Swarm to Honeybee) ≤50m
Wireless Band	915 M / 2.4G Hz
Max No. of Bees	≤200 Pcs
Size	124 × 99 × 32 mm
Weight	155 g
Working Temperature	-40°C ~ 85°C
Ingress Protection	IP65

Product Code	Beehive
TECHNICAL DATA	
Working Voltage	12 V
Working Current	250 mA
Power Consumption	≤3 W
INSTALLATION SPECIFICATION	
Connector	RS485*2、RJ45、USB2.0
No. of connectable Honeybees	≤1000 Pcs
No. of connectable Swarms	≤5 Pcs
Size	158 x113 x 36.8 mm
Weight	300 g
Working Temperature	-20°C ~ 60°C
Ingress Protection	IP20

PV Module Level Optimization & Monitoring Solution (Added-on Optimizer, Wireless Communication, Medium and Large Project)

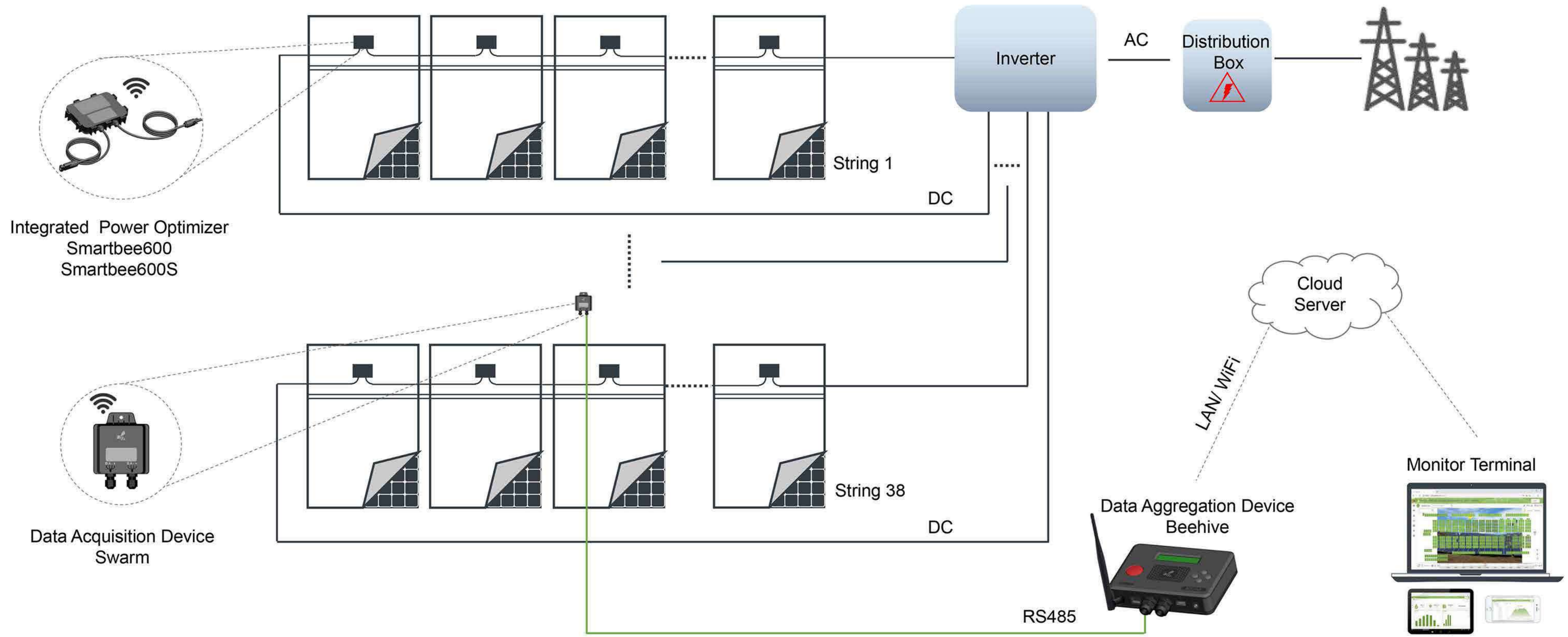
Case :
 1MW PV Station: 2560pcs 390W Panels, 20 Panels per string, 128Strings in total
 2560pcs Honeybee400 / ~600 or 1280pcs Honeybee1200 + 13pcs Swarm + 3pcs Beehive



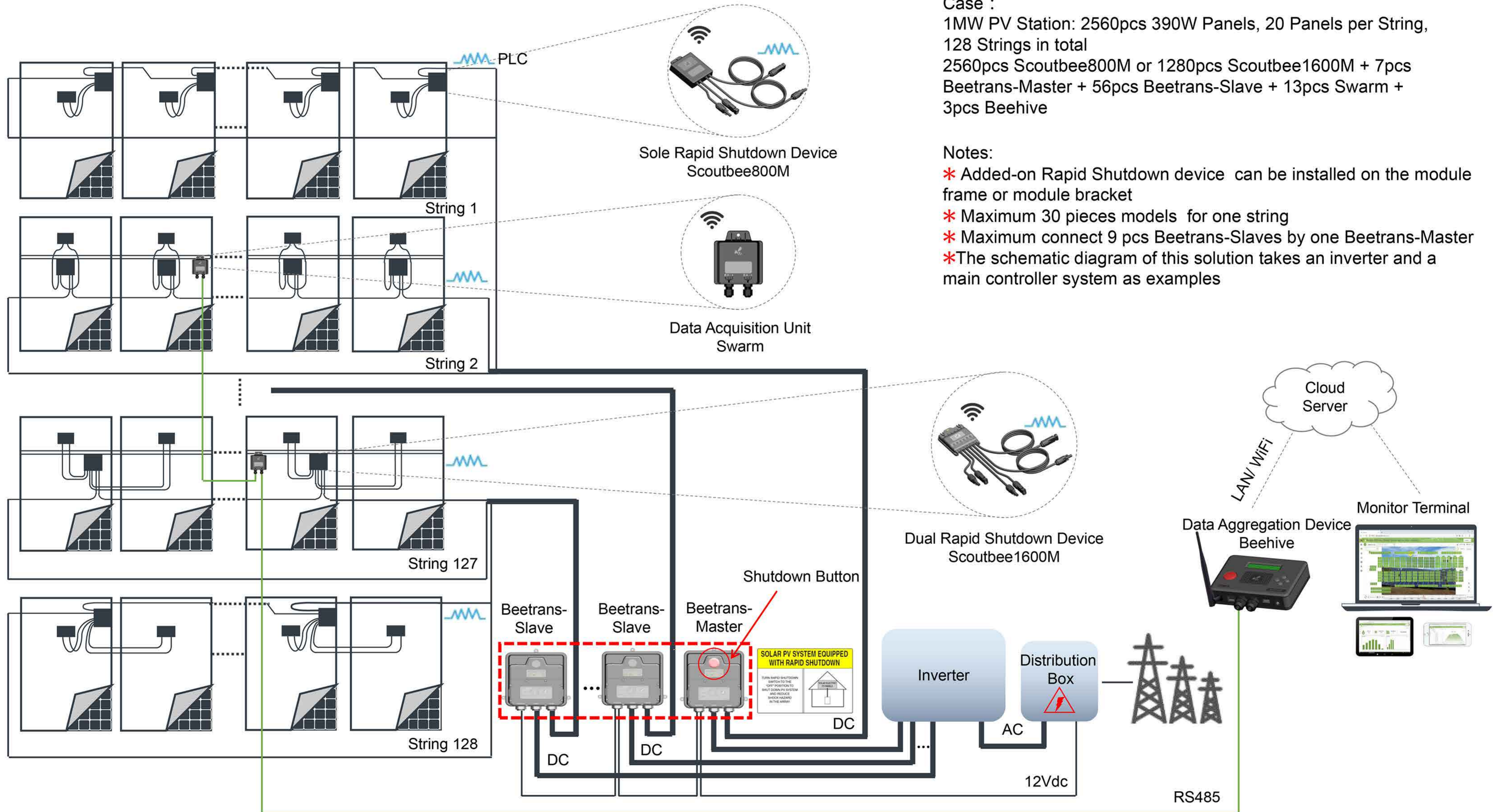
- Notes:
- * The optimizer can be installed on the module frame or module bracket
 - * Different optimizer models can be used in same system or same string
 - * 1MW may require multiple inverters, this installation diagram takes a single inverter as an example

PV Module Level Optimization & Monitoring Solution (Integrated Optimizer, Wireless Communication)

Case :
300KW PV Station: 760pcs 390W Panels, 38 Strings
760pcs Smartbee600 or 760pcs Smartbee600S+ 4pcs Swarm + 1pcs Beehive



PV Rapid Shutdown & Monitoring Solution (Added-on Rapid Shutdown device, RF+PLC Communication)



Rapid Shutdown & Monitoring Solution (Added-on Rapid Shutdown Device, RF+PLC Communication)

Case :

10MW PV Installation: 25600pcs 390W Modules , 20 Panels per String, 1250 Strings in total

25600pcs Scoutbee800M or 12800pcs Scoutbee1600M + 79pcs Beetrans-Max + 128pcs Swarm + 26pcs Beehive

Notes:

- * Added-on Rapid Shutdown device can be installed on the module frame or module bracket
- * Maximum 30 pieces models for one string
- * Take 1 shutdown box , 1 combination box , 1 inverter as an example
- * DC Switch, Shutdown all modules connected to that rapid shutdown box
- * AC Switch, Shutdown all rapid shutdown boxes and all modulus that connected to it

