



# PowerHub

## Home Energy Storage System

### **FLEXIBLE**

USE WITH NEW OR  
EXISTING PV SYSTEM

### **EXPANDABLE**

MODULAR DESIGN  
AVAILABLE IN 2 SIZES

### **STACKABLE**

CONNECT UP TO 4 UNITS  
ACHIEVE UP TO 80KWH

The greenworks® PowerHUB™ is a compact modular Energy Storage System with a powerful Lithium-Ion (LFP) battery and hybrid inverter. PowerHub can be integrated with the utility grid, solar panels, and even a generator to provide reliable energy in all conditions.

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[greenworkspower.com](http://greenworkspower.com)

## An intuitive mobile app

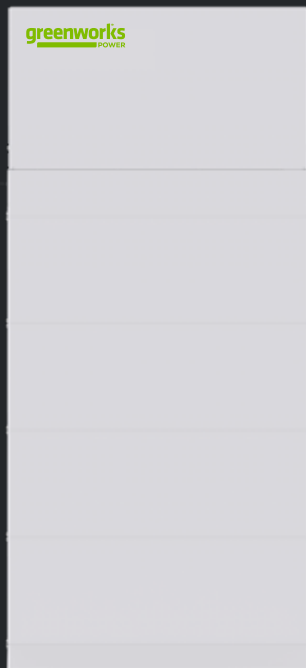
Monitor & manage your energy from anywhere.



## Expandable Modular Design

For growing energy needs and easier installation.

Available in 10kWh or 20kWh, peak inverter efficiency 98%, includes integrated arc fault protection, and rapid shutdown transmitter.



### Power Hub

- Stack up to four 5 kWh batteries for 20kWh per unit
- Modular design for easier & faster installation
- Floor or wall mounted
- Long life & Safe LFP battery



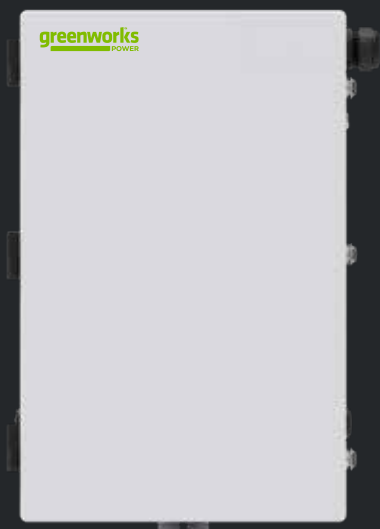
### Smart Switch

- Supports up to 5 circuits
- Real-time load monitoring
- Auto control of high amp loads for quicker black-start recovery



### 7.6 kW Hybrid Inverter

- Up to 200% PV oversizing
- 3 MPPTs
- Maximum 16A PV input current
- Microgrid Supported



### Backup Interface

- Supports 200A main panel
- 64A generator support
- Built-in energy management meter

### Best-In-Class Power Output\*

Delivers up to 7.6 kW continuous backup power.

### Supports DC and AC input

Suitable for new and existing PV systems.

### Allows up to 15.2 kW of solar input

3 Maximum Power Point Trackers (MPPT) for higher yields of solar power.

### Integrated Transmitter

Enables easy installation of rapid shut down devices for safe PV array connections

### Compact And Sleek Design

Can be installed indoors or outdoors, wall mounted or floor mounted

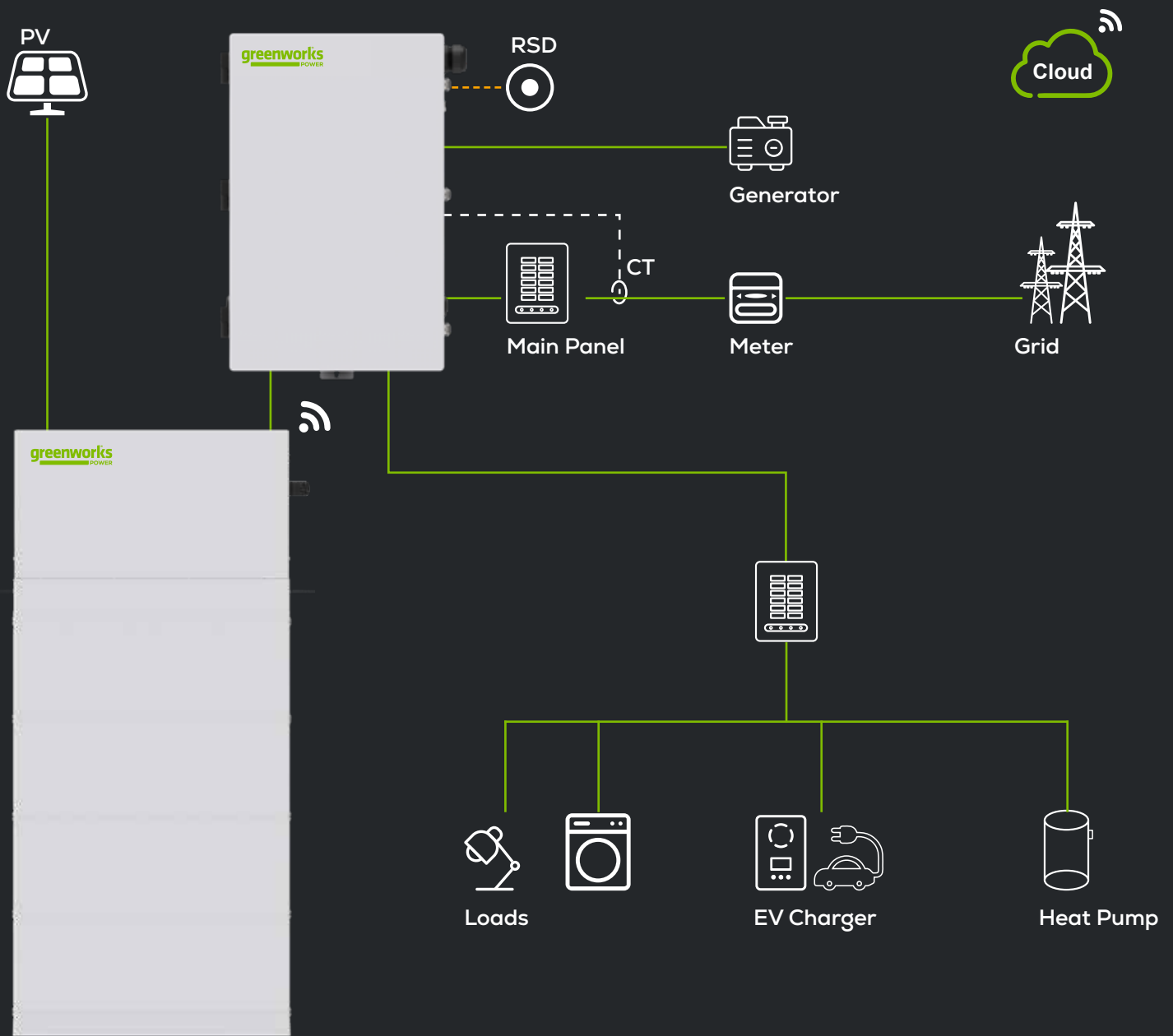
### Stackable

Connect up to four units together to achieve up to 80kWh of usable storage capacity for whole-home power.

\*During grid outages vs. competing models.

# Flexible Home

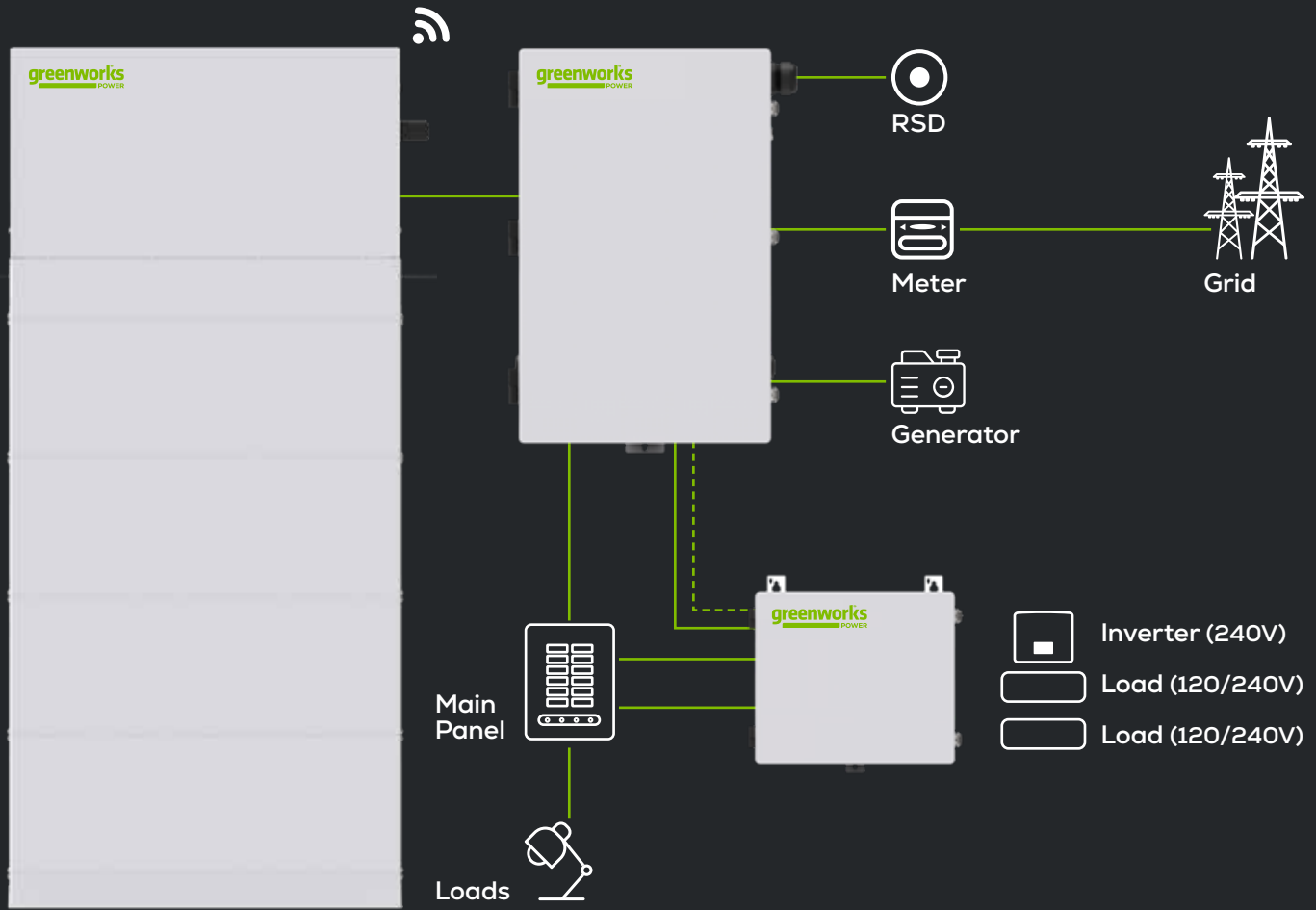
## Backup Solution



Power Cable —————  
Control Cable - - - - -

# Smart Home Circuit Control

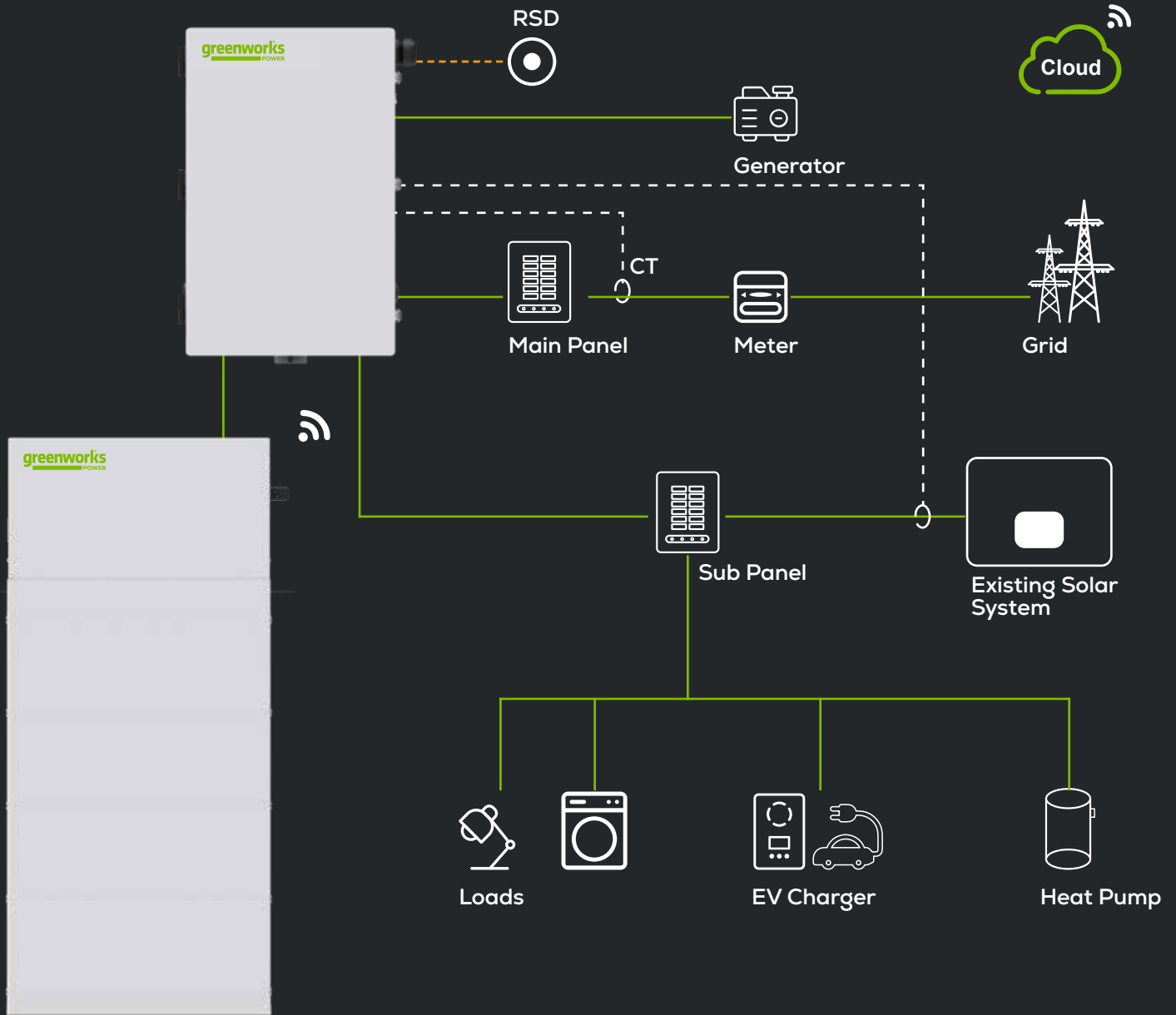
3x 240V / 1x 240V, 4x 120V



Power Cable ————  
Control Cable - - - - -

# Flexible Home

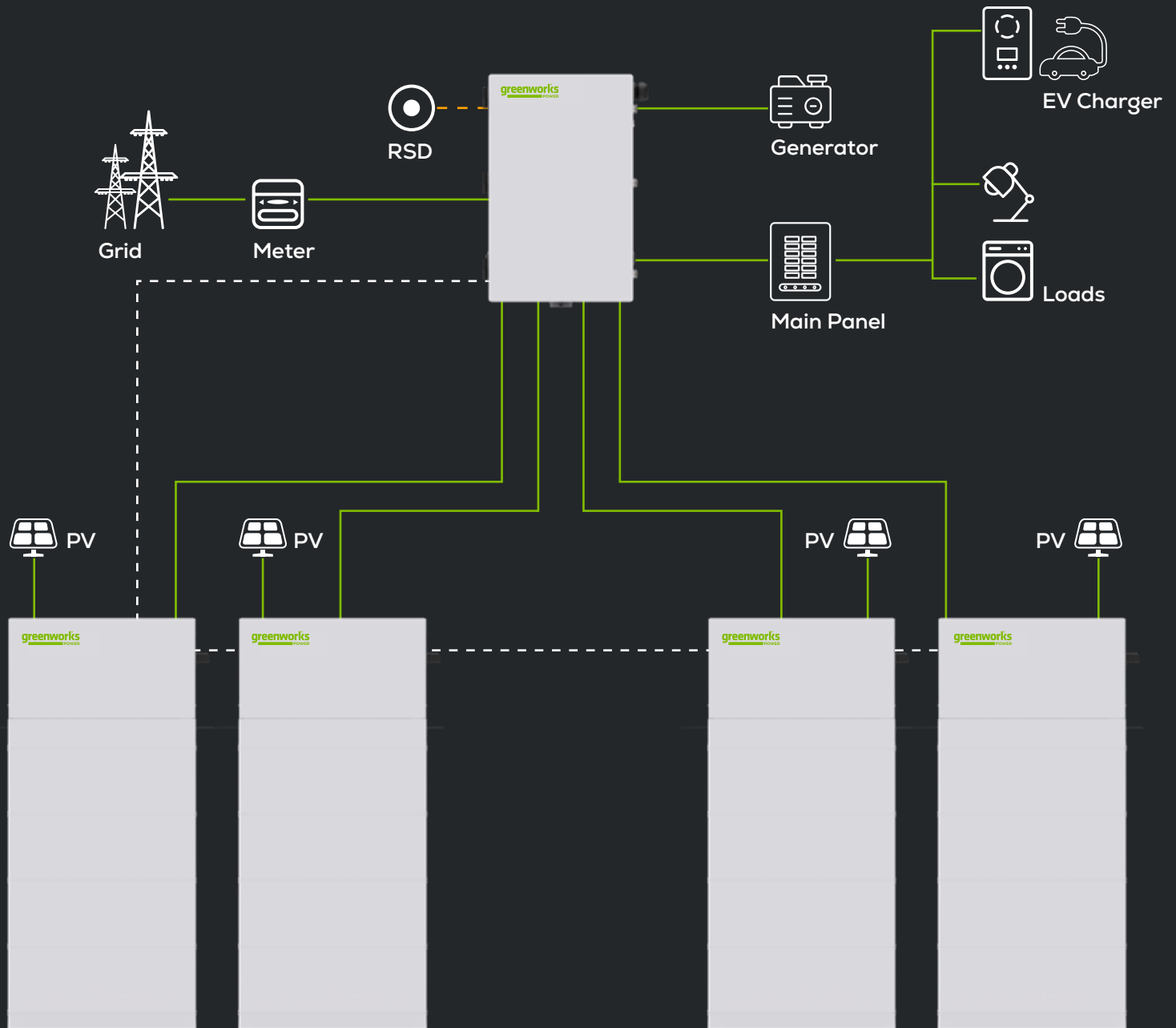
## Backup Solution AC Coupled



Power Cable ———  
Control Cable - - - - -

# Energy Storage System

## Parallel Operation



Power Cable —————

Control Cable - - - - -

# PowerHub Hybrid Inverter

## GWU-HYB-7.6TH

### INPUT PV

Maximum recommended PV power [W]	15200
Maximum DC voltage [V] 550	550
Nominal DC operating voltage [V]	360
Maximum input current [A]	A: 16 / B: 16 / C: 16
Maximum short circuit current [A]	A: 20 / B: 20 / C: 20
MPPT voltage range [V]	90-500
Start input voltage [V]	120
No. of MPP trackers, Strings per MPP tracker	3, 1 / 1 / 1
DC disconnection switch	YES

### INPUT/OUTPUT AC

Nominal / Maximum apparent AC power [VA]	7608 / 7608
Peak apparent AC power [VA] (10s, o -grid/backup)	13680 / 13680
Nominal AC voltage [V] / Nominal AC frequency [Hz]	240 / 50 , 60
Nominal AC current [A]	31.7
Displacement power factor	0.8 leading to 0.8 lagging
Total harmonic distortion (THD, rated power)	< 3%

### INPUT/OUTPUT BAT

Maximum output power [W]	7600
Maximum charge / discharge current [A]	54
Reverse-polarity protection	YES

### ADDITIONAL FEATURES

AFCI	YES
Revenue Grade Metering, ANSI C12.20	Optional
Rapid shutdown transmitter	Integrated PLC controller to RSD

### EFFICIENCY

CEC weighted efficiency	97.50%
Maximum inverter efficiency	98.00%

### POWER CONSUMPTION

Nighttime power consumption [W]	< 3
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### STANDARD

Safety	UL1741 SA, UL1741 SB, UL1699B, CSA - C22.2 No. 107.1-01, Canadian AFCI according to T.I.L. M-07
Emissions	FCC Part 15 Class B
Grid connection standards	IEEE1547, Rule 21, Rule 14, SRD V2.0 (HI)

### INSTALLATION SPECIFICATIONS

Protection class	NEMA 4X
Operating temperature range [°F / °C]	-13 to +140 / -25 to +60
De-rating start temperature [°F / °C]	113 / 45 or above
Storage temperature range [°F / °C]	-13 to +167 / -25 to +75
Relative humidity [%]	0 to 95
Typical noise emission [dBA]	< 30
Over voltage category	IV (electric supply side), II (PV side)

### GENERAL

Dimensions (W x H x D) [in / mm]	33.5 x 17.9 x 5.8 / 850 x 455 x 148
Weight [lb / Kg]	75 / 34
Communication interfaces	RS485, CAN, WIFI (optional) / 4G (optional), Dry Contact

# PowerHub LFP Battery

## GWU-BAT-5.0H

	T-BAT H 10.0	T-BAT H 20.0
<b>MODEL</b>		
Battery type	100Ah Lithium (LFP)	
Component	TBMS-MCS60060 + 2*TP-HS50	TBMS-MCS60060 + 4*TP-HS50
<b>NOMINAL CHARACTER (10/20kWh)</b>		
Voltage [V]	102.4	204.8
Operating voltage range [V]	90 - 116	180 - 232
Total energy [kWh]	10	20
Usable energy [kWh]	9	18
Maximum power [kWh]	5.5	11.1
Battery round-trip efficiency %	95%	
Maximum charge / discharge current [A]	54	
Cycle life (90% DOD)	6000 cycles	
Warranty (Details refer to greenworks Power warranty statement.)		
<b>INSTALLATION SPECIFICATIONS</b>		
Charge temperature range IF / °C	Charge: 32 to 127.4 / 0 to 53,	
Discharge temperature range IF / °C	Discharge: 14 to 127.4 / -10 to 53	
Storage temperature range IF / °C (3 months)	4 to 122 / -20 to 50	
Storage temperature range IF / °C (1 year)	32 to 104 / 0 to 40	
Relative humidity [%]	0 to 100	
<b>STANDARD</b>		
Certification	UN38.3, UL1973, UL9540, UL9540A	
Hazardous materials classification	Class 9	
<b>GENERAL</b>		
Dimensions (W x H x D) [in / mm]		
TBMS-MC60060 (BMS)	33.5 x 5.2 x 5.8 / 850 x 133 x 148	
TP-HS50 (BAT)	33.5 x 23.6 x 5.8 / 850 x 600 x 148	33.5 x 47.2 x 5.8 / 850 x 1200 x 148
Base	33.5 x 2.2 x 5.8 / 850 x 55 x 148	
Weight [lb / kg]	238 lb / 108 kg	476 lb / 216 kg



# PowerHub Backup Interface

## GWU-BI-1.0

### GRID INPUT

Nominal AC input voltage [V]	120 / 240
Nominal AC frequency [Hz]	50 / 60
Maximum continuous AC input current [A]	160

### OUTPUT TO MAIN PANEL IN GRID TIED OPERATION

Nominal AC output voltage [V]	120 / 240
Maximum AC input current [A]	160

### OUTPUT TO MAIN PANEL IN BACKUP OPERATION

Nominal AC output voltage [V]	120 / 240
Imbalance compensation in backup operation [VA]	5000
Split phase imbalance output current [A]	41.7

### INPUT FROM INVERTER

Maximum AC power [W]	7600
Maximum continuous input current @240V [A]	31.7
Maximum inverter input AC circuit breaker [A]	40 (optional)

### GENERATOR

Maximum AC power [W]	15000
Maximum continuous input current [A]	63
Auto generator start	Yes

### GENERAL

Dimensions (H * W * D) [in / mm]	27.8 * 17.7 * 5.9 / 706 * 450 * 151
Weight [lb / kg]	69.4 / 31.5
Energy meter accuracy	1%
Communication interfaces	RS485, CAN, Dry Contact
Cooling	Fan
Warranty	12 years

### STANDARD

Safety	UL1741, CSA 22.2 NO.107
Emissions	FCC part 15 Class B

### INSTALLATION SPECIFICATIONS

Altitude [ft / m]	9843 / 3000 MAX
Operating temperature range [°F / °C]	-13 to +140 / -25 to +60
Protection class	NEMA 3R
Typical noise emission [dB]	< 50

# Smart Switch

## GWU-SW-1.0

### INPUT AC (Grid)

Nominal voltage [V]	120 / 240
Frequency [Hz]	60
Maximum number of input [240V + 120V / 240V]	5 / 3
Maximum overcurrent protection device [A]	80
Maximum continuous output current rating [A]	64

### OUTPUT AC (Load)

Nominal voltage [V]	120 / 240
Frequency [Hz]	60
Maximum number of output [240V + 120V / 240V]	5 / 3
Maximum continuous output current rating [A]	64 / 32

### STANDARD

Safety	UL1741, CSA - C22.2 No. 107.1-01
EMC	FCC part15 class B ICES003

### ENVIRONMENT LIMIT

Protection class	NEMA 3R
Operating temperature range [ °F (°C) ]	-13 to +113 (-25 to +45)
Storage temperature range [ °F (°C) ]	-13 to +167 (-25 to +75)
Relative humidity	0% - 95%
Altitude [ft (m) ]	9843 (3000) MAX
Noise emission (typical) [dB]	< 30
Mounting options	Wall mount (Indoors / Outdoors)

### GENERAL

Dimensions with safety switch (W × H × D) [in / mm]	15.2 × 13.1 × 5.5 / 387 × 334 × 140
Weight with safety switch [lb / Kg]	15.2 / 6.9
Warranty [Years]	5