



# Innovate for a Green Future

2024



Location: Suzhou, China



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# INNOVATE FOR A GREEN FUTURE



## ABOUT DUNEXT

Dunext is a leading technology company dedicated to PV & energy storage industry, offering innovative solutions for distributed PV & storage solution. Our team has over a decade's experience of global market development and 15 years of expertise in key technological fields, including power electronics, digital technology, energy storage, and thermal design. Committed to core innovation and worldwide service capabilities, Dunext provides secure, reliable, one-stop solutions and services, aiming to become the premier partner in the new energy sector.

## BUSINESS DEVELOPMENT LAYOUT



HQ

Suzhou, China

EMEA

UK / Netherland  
Germany / Poland

Asia

Singapore  
Pakistan

America

USA (TBE)  
Brazil (TBE)

# RESIDENTIAL SOLUTION

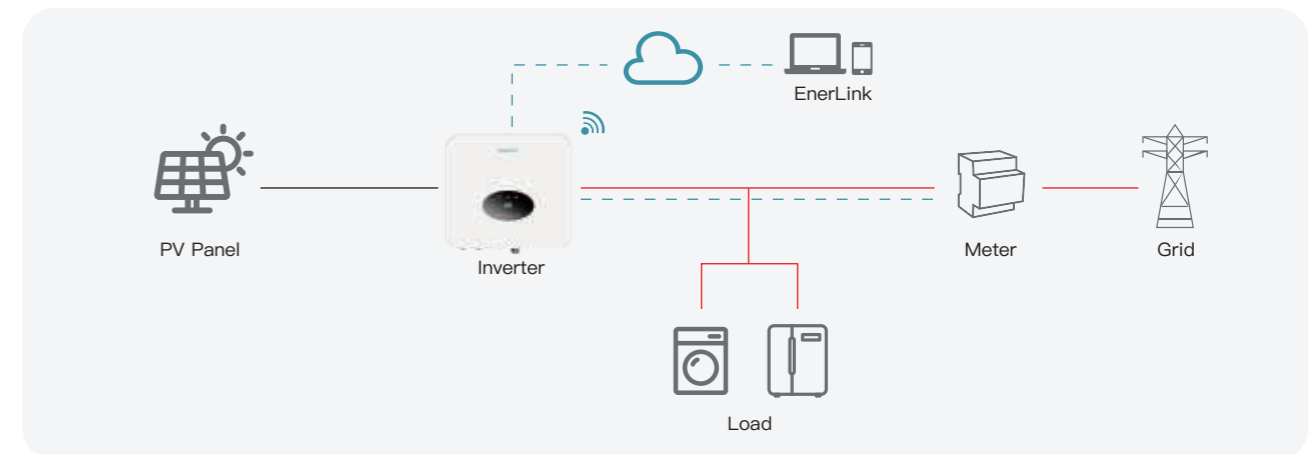
Residential Solar PV Solution

Residential Solar PV + ESS + Charger Solution

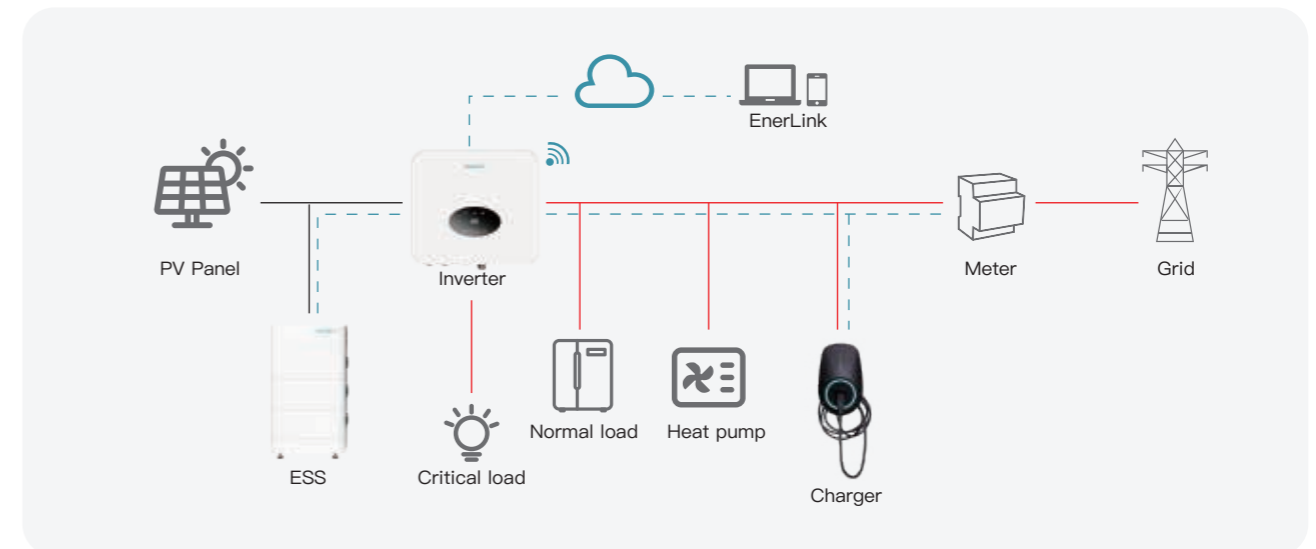
Pure Off-Grid PV +ESS Solution



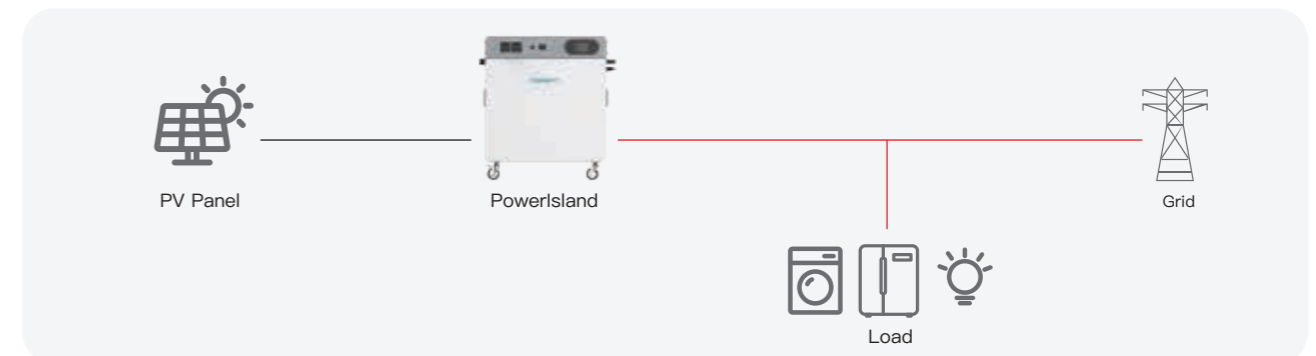
## Residential Solar PV Solution



## Residential Solar PV + ESS + Charger Solution



## Pure Off-Grid PV + ESS Solution



— DC

— AC

- - - Communication

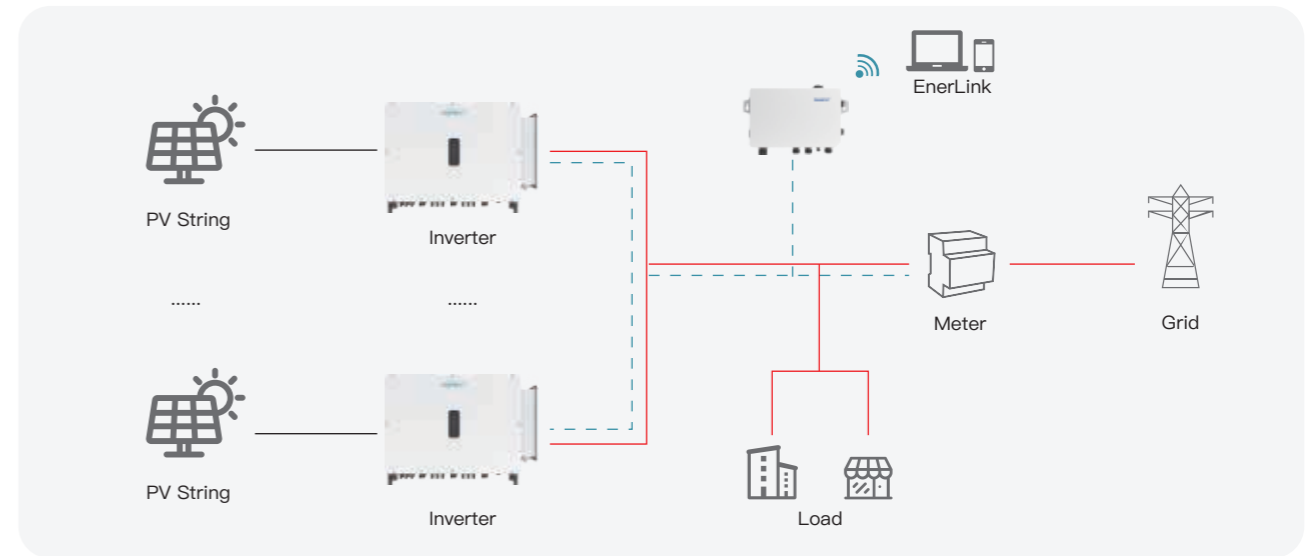
# C&I SOLUTION

Commercial & Industrial Solar PV Solution

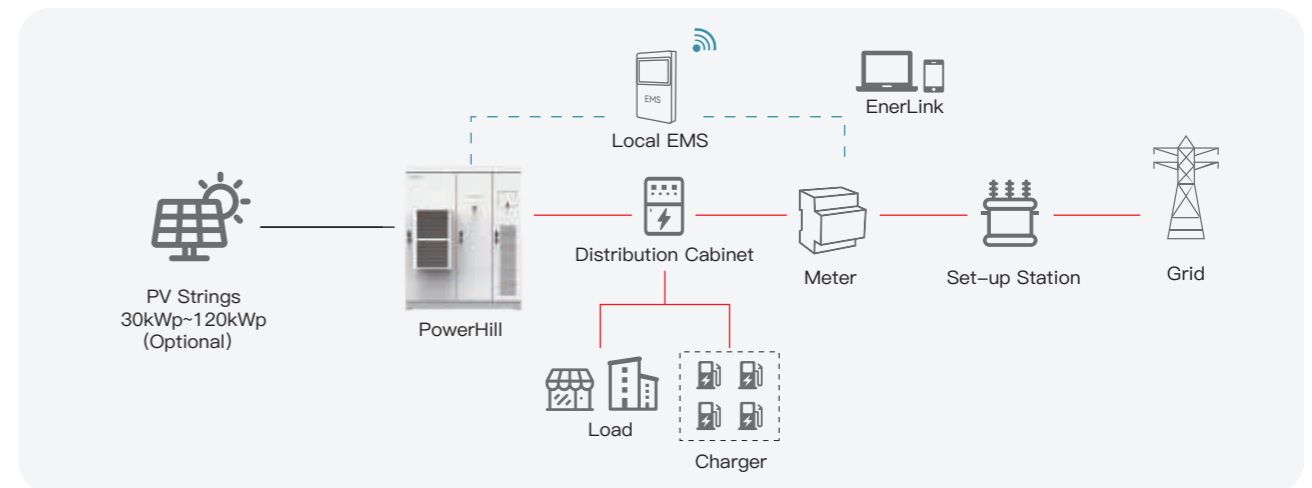
Commercial & Industrial PV+ESS Solution

Utility Scale ESS Solution

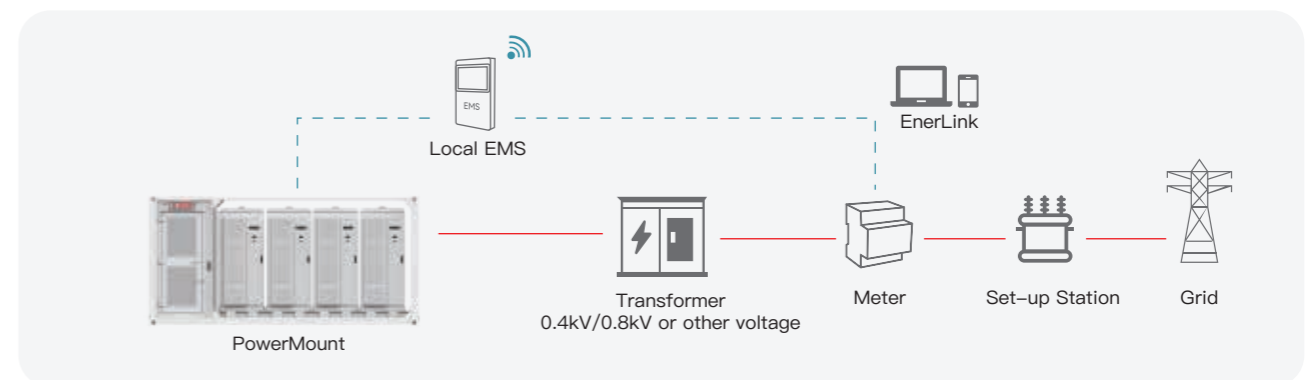
## Commercial & Industrial Solar PV Solution



## Commercial & Industrial PV + ESS Solution



## Utility Scale ESS Solution



— DC      — AC      - - - - Communication

# SINGLE PHASE HYBRID INVERTER



## DN1H Series (3-6KTL)

- 150% DC input oversizing
- Up to 6000W charging / discharging
- Charging / discharging efficiency >97%

- Remote firmware upgrade & work mode setting
- Support VPP / FFR function
- EU standard certified by TÜV rheinland

## Single Phase Hybrid Inverter

DN1H Series (3-6KTL)







Model	DN1H-3KTL	DN1H-3.68KTL	DN1H-5KTL	DN1H-6KTL
PV Input				
Max. Recommended PV Power [Wp]	4500	5500	7500	9000
Max. PV Input Voltage [V]	600			
MPPT Voltage Range [V]	120 ~ 550			
Rated PV Input Voltage [V]	360			
Start-Up Voltage [V]	150			
No. of MPP Trackers	2			
No. of Input Strings per Tracker	1			
Max. Input Current per MPPT [A]	13.5 / 13.5			
Max. Short-Circuit Current per MPPT [A]	17/17			
DC Switch	Integrated			
AC Output (On-Grid)				
Max. Apparent Power [VA]	3000	3680	5000 <sup>[1]</sup>	6000
Rated AC Power [W]	3000	3680	5000 <sup>[1]</sup>	6000
Rated AC Current [A]	13	16	21.7 <sup>[1]</sup>	26.1
Rated AC Voltage [V]	220 / 230			
Grid Frequency [Hz]	50 / 60			
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging			
Output THDi [@Rated Output]	< 2%			
Battery				
Battery Type	Lithium			
Battery Voltage Range [V]	80 ~ 450			
Max. Charging / Discharging Current [A]	25			
Communication Interface	CAN			
AC Output (EPS <sup>[2]</sup> With Battery)				
Rated AC Power [W]	3000	3680	5000	6000
Rated AC Voltage [V]	220/230			
Rated Frequency [Hz]	50 / 60			
Rated Current [A]	13	16	21.7	26.1
Output THDi [@Rated Output]	< 3%			
Automatic Switch Time [ms]	< 0.5			
Peak Apparent Power, Duration [VA, s]	4500, 10	5520, 10	7500, 10	9000, 10
Efficiency				
Max. Efficiency	97.4%	97.5%	97.5%	97.5%
European Efficiency	97.2%	97.2%	97.2%	97.2%
Protection				
DC Insulation Monitoring	Yes			
DC Reverse Polarity Protection	Yes			
Anti-Islanding Protection	Yes			
Residual Current Monitoring	Yes			
Over-Heat Protection	Yes			
AC Overcurrent Protection	Yes			
AC Short-Circuit Protection	Yes			
DC Surge Protection	Yes (Type III)			
AC Surge Protection	Yes (Type III)			
AC Overvoltage Protection	Yes			
General Data				
Dimension [W * H * D] [mm]	520 * 412 * 172			
Weight [kg]	20			
Display	LED + OLED			
Communication	RS485 and USB (Standard), Wifi (Standard), 4G or Ethernet (Optional)			
Ambient Temperature Range [°C]	-30 ~ +60			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	≤ 2000			
Standby Self Consumption [W]	< 15			
Topology	Transformerless			
Cooling	Natural			
Degree of Protection	IP65			
Noise [dB]	< 35			
Certifications & Standards				
Grid Connection Standards	AS 4777, EN 50549-1, IEC 61727, CEI 0-21, IEC 62116, C10/C11, VDE0126, ORDINANCE 140, G99			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN/IEC 61000-6-1, EN/IEC 61000-6-3			

[1] The AC output power for VDE-AR-N 4105, VDE 0126 and NRS 097-2-1 is limited to 4600VA&20A, for AS / NZS 477.2 is limited to 4999VA & 21.7A.  
[2] EPS: Emergency Power Supply

# THREE PHASE HYBRID INVERTER



## DN3H Series (5-10KTL)

-  Compatible with 600W+ PV modules
-  Remote firmware upgrade & work mode setting
-  Support 100% unbalanced loads
-  Support VPP / FFR function
-  ≤10ms backup power switching
-  Support up to 10 units parallel connections

## Three Phase Hybrid Inverter

DN3H Series (5-10KTL)

Model	DN3H-5KTL	DN3H-6KTL	DN3H-8KTL	DN3H-10KTL-A	DN3H-10KTL
PV Input					
Max. Recommended PV Power [Wp]	7500	9000	12000	15000	15000
Max. PV Input Voltage [V]	1000				
MPPT Voltage Range [V]	160 ~ 950				
Rated PV Input Voltage [V]	600				
Start-Up Voltage [V]	160				
No. of MPP Trackers	2				
No. of Input Strings per Tracker	1				
Max. Input Current per MPPT [A]	18 / 18				
Max. Short-Circuit Current per MPPT [A]	23 / 23				
DC Switch	Integrated				
AC Output (On-Grid)					
Max. Apparent Power [VA]	5500	6600	8800	10000	11000
Rated AC Power [W]	5000	6000	8000	10000	10000
Rated AC Current [A]	7.2	8.7	11.5	14.4	14.4
Max. AC Current [A]	7.6	9.1	12.2	14.4	15.2
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400				
Grid Frequency [Hz]	50 / 60				
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging				
Output THDi [@Rated Output]	< 3%				
AC Input					
Max. Apparent AC Power [VA]	10000	12000	16000	20000	20000
Max. AC Current [A]	15.2	18.2	24.3	28.8	30.4
Rated AC Voltage / Range [V]	3 / N / PE, 220 / 380, 230 / 400; ± 20%				
Grid Frequency / Range [Hz]	50 / 60				
Battery					
Battery Type	Lithium				
Battery Voltage Range [V]	160 ~ 700				
Max. Charging / Discharging Current [A]	30 / 30				
Communication Interface	CAN				
AC Output (EPS <sup>[1]</sup> With Battery)					
Rated AC Power [W]	5000	6000	8000	10000	10000
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400				
Rated Frequency [Hz]	50 / 60				
Rated Current [A]	7.6	9.1	12.2	14.4	15.2
Output THDi [@Rated Output]	< 3%				
Automatic Switch Time [ms]	≤ 20				
Peak Apparent Power, Duration [VA, s]	7500, 60	9000, 60	12000, 60	15000, 60	15000, 60
Efficiency					
Max. Efficiency	98.0%	98.0%	98.0%	98.0%	98.0%
European Efficiency	97.7%	97.7%	97.7%	97.7%	97.7%
Protection					
DC Insulation Monitoring	Yes				
DC Reverse Polarity Protection	Yes				
Anti-Islanding Protection	Yes				
Residual Current Monitoring	Yes				
Over-Heat Protection	Yes				
AC Overcurrent Protection	Yes				
AC Short-Circuit Protection	Yes				
DC Surge Protection	Yes (Type II)				
AC Surge Protection	Yes (Type II)				
AC Overvoltage Protection	Yes				
General Data					
Dimension [W * H * D] [mm]	520 * 412 * 186				
Weight [kg]	27				
Display	LED + OLED				
Communication	RS485 and USB (Standard), Wifi or 4G or Ethernet(Optional)				
Ambient Temperature Range [°C]	-25 ~ +60				
Relative Humidity	0 ~ 100%				
Operating Altitude [m]	≤ 2000				
Standby Self Consumption [W]	< 15				
Topology	Transformerless				
Cooling	Natural				
Degree of Protection	IP65				
Noise [dB]	< 35				
Certifications & Standards					
Grid Connection Standards	VDE-AR-N 4105, EN 50549-1, VDE 0126, CEI 0-21, EN 50549-GR, OVE / ÖNORM E 8001-4-712, AS 4777, UNE 217002, G99				
Safety Regulation	IEC 62109-1, IEC 62109-2				
EMC	EN / IEC 61000-6-1, EN / IEC 61000-6-3				






[1] EPS: Emergency Power Supply



# THREE PHASE HYBRID INVERTER



## DN3H Series (15-30KTL)

-  Compatible with high current PV modules
-  Support 100% unbalanced loads
-  Remote firmware upgrade & work mode setting
-  Optional AFCI & RSD function
-  Support up to 5 units parallel connections

## Three Phase Hybrid Inverter







DN3H Series (15-30KTL)

Model	DN3H-15KTL	DN3H-19.9KTL	DN3H-20KTL	DN3H-25KTL	DN3H-30KTL
PV Input					
Max. Recommended PV Power [Wp]	22500	30000	30000	37500	45000
Max. PV Input Voltage [V]	1000				
MPPT Voltage Range [V]	180 ~ 960				
Rated PV Input Voltage [V]	700				
Start-Up Voltage [V]	200				
No. of MPP Trackers	3				
No. of Input Strings per Tracker	2 / 2 / 2				
Max. Input Current per MPPT [A]	36 / 36 / 36				
Max. Short-Circuit Current per MPPT [A]	46 / 46 / 46				
DC Switch	Integrated				
AC Output (On-Grid)					
Max. Apparent Power [VA]	16500	19900	22000	27500	33000
Rated AC Power [W]	15000	19900	20000	25000	30000
Rated AC Current [A]	22.8	30.2	30.3	37.9	45.5
Max. AC Current [A]	25	30.2	33.4	41.7	50
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400				
Grid Frequency [Hz]	50 / 60				
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging				
Output THDi [@Rated Output]	< 3%				
AC Input					
Max. Apparent AC Power [VA]	30000	40000	40000	41500	41500
Max. AC Current [A]	45.5	60.6	60.6	63.0	63.0
Rated AC Voltage / Range [V]	3 / N / PE, 220 / 380, 230 / 400				
Grid Frequency / Range [Hz]	50 / 60				
Battery					
Battery Type	Lithium				
Battery Voltage Range [V]	180 ~ 800				
Max. Charging / Discharging Current [A]	50 / 50				
Max. Charging / Discharging Power [W]	30000/15000	30000/19900	30000/20000	30000/25000	30000/30000
Communication Interface	CAN				
AC Output (With Battery)					
Rated AC Power [W]	15000	19900	20000	25000	30000
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400				
Rated Frequency [Hz]	50 / 60				
Rated Current [A]	22.8	30.2	30.3	37.9	45.5
Output THDi [@Rated Output]	< 3%				
Automatic Switch Time [ms]	< 10				
Peak Apparent Power, Duration [VA,s]	22500, 10	30000, 10	30000, 10	37500, 10	45000, 10
Efficiency					
Max. Efficiency	98.1%	98.1%	98.1%	98.1%	98.1%
European Efficiency	97.7%	97.7%	97.7%	97.7%	97.7%
Max. Battery Charge / Discharge Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%
Protection					
DC Insulation Monitoring	Yes				
DC Reverse Polarity Protection	Yes				
Anti-Islanding Protection	Yes				
Residual Current Monitoring	Yes				
Over-Heat Protection	Yes				
AC Overcurrent Protection	Yes				
AC Short-Circuit Protection	Yes				
AC Overvoltage Protection	Yes				
DC Surge Protection	Integrated (Typell)				
AC Surge Protection	Integrated (Typell)				
RSD	Optional ( With Optimizer)				
AFCI Protection	Optional				
General Data					
Dimension [W * H * D] [mm]	620 * 500 * 220				
Weight [kg]	48				
Display	LED+LCD				
Communication	RS485, USB Upgrade, 4xDI, 2xD0 WIFI or 4G or Ethernet (Optional)				
Ambient Temperature Range [°C]	-30 ~ +60				
Relative Humidity	0 ~ 100%				
Operating Altitude [m]	≤ 2000				
Night Self Consumption [W]	< 15				
Topology	Transformerless				
Cooling	Natural			Air cooling	
Degree of Protection	IP66				
Certifications & Standards					
EMC	N50549 IEC62116 IEC61727 EN50549-1-CZ, CE-EMC, CE-LVD				

# THREE PHASE HYBRID INVERTER



## DN3H Series(40–50KTL)

-  100A high charge/discharge current support 1C solution
-  Low operating noise <50dB
-  Support 100% unbalanced loads
-  Low start-up voltage 135V for more generation time
-  Max. 120% back-up output overloading @60s
-  Support diesel generators for diverse energy sourcing

## Three Phase Hybrid Inverter

DN3H Series(40–50KTL)

Model	DN3H-40KTL	DN3H-50KTL
	PV Input	
Max. Recommended PV Power [Wp]	60000	75000
Max. PV Input Voltage [V] <sup>[1]</sup>	1000	1000
Rated PV Input Voltage [V]	620	620
Start-Up Voltage [V]	135	135
No. of MPP Trackers	4	4
No. of Input Strings per Tracker	2	2
MPPT Voltage Range [V] <sup>[1]</sup>	200–850	200–850
Max. Input Current per MPPT [A]	30	30
Max. Short-Circuit Current per MPPT [A]	40	40
	AC Input / Output (On-Grid)	
Rated AC Power [W]	40000	50000
Max. Output Apparent Power [VA]	44000	55000
Max. Input Apparent Power [VA] <sup>[2]</sup>	48000	60000
Max. AC Current [A]	66	83
Rated AC Voltage [V]	3L / N / PE; 220 / 380; 230 / 400	
Rated Frequency [Hz]	50 / 60	
Output THDi [@Rated Output]	< 3%	
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging	
DCI	< 0.5%In	
	AC Output (Off-Grid)	
Rated AC Power [W]	40000	50000
Max. Output Apparent Power [VA]	44000	55000
Max. Output Current [A]	66	83
Rated AC Voltage [V]	3L / N / PE; 220 / 380; 230 / 400	
Rated Frequency [Hz]	50 / 60	
Automatic Switch Time [ms]	< 20	
Output THDv	< 3%@Linear Load	
	Generator Input	
Max. Input Apparent Power [VA] <sup>[2]</sup>	48000	60000
Max. Charging Power of Battery [W]	40000	50000
Rated AC Voltage [V]	3L / N / PE; 220 / 380; 230 / 400	
Rated AC Frequency [Hz]	50 / 60	
Max. Input Current [A]	69.6	87.0
	Battery	
Battery Type	Lithium (with BMS)	
Battery Voltage Range [V]	135 – 750	
Max. Charging / Discharging Current [A]	100 / 100	
	Efficiency	
Max. Efficiency	98.8%	98.8%
European Efficiency	98.3%	98.3%
	Protection	
DC Reverse Polarity Protection	Yes	
Battery Input Reverse Connection Protection	Yes	
Insulation Resistance Protection	Yes	
Surge Protection	Yes	
Over-Temperature Protection	Yes	
Residual Current Protection	Yes	
Anti-Islanding Protection	Yes	
AC Over-Voltage Protection	Yes	
Overload Protection	Yes	
AC Short-Circuit Protection	Yes	
	General Data	
Dimension [W * H * D] [mm]	800 * 620 * 300	
Weight [kg]	72	
Over Voltage Category	PV: II Main: III	
Operating Temperature [°C]	-30 ~ 60	
Operating Altitude [m]	3000 <sup>[3]</sup>	
Relative Humidity [%]	0 ~ 100	
Topology	Transformerless	
Cooling	Fan	
Degree of Protection	IP65	
Standby Self-Consumption [W]	< 15	
Noise Level [dB] <sup>[1]</sup>	< 50	
Display	OLED & LED	
Communication	CAN, RS485, WiFi / LAN (Optional)	
	Certifications & Standards	
Grid Connection Standards	EN IEC 61000, EN IEC 62109, EN 50549-1, CEI-021	





[1] PV Max. Input voltage is 850V, otherwise inverter will be waiting;

[2] Max. apparent power from the grid refers to the highest power imported from the utility grid, utilized for supporting backup loads and charging the battery;

[3] The system will be derated when the altitude is above 3000m.

# RESIDENTIAL STACKABLE ESS

## PowerHome-H2 (7-21kWh)

-  Modular & "Plug-Play" design
-  Easy installation, stackable design
-  Remote upgrade available
-  Up to 12 units in parallel
-  IP54 outdoor design
-  Real-time monitoring

## Residential Stackable ESS

PowerHome-H2 (7-21kWh)

Model	PowerHome 7-H2	PowerHome 10-H2	PowerHome 14-H2	PowerHome 17-H2	PowerHome 21-H2
Electrical Parameters					
Cell Type	LiFePO4				
Number of Modules	2	3	4	5	6
Nominal Energy Usable Capacity [kWh]	7.1	10.66	14.21	17.76	21.31
Nominal Voltage [V]	192	288	384	480	576
Voltage Range [V]	168 ~ 219	252 ~ 328	336 ~ 438	420 ~ 547	504 ~ 657
Max. Charging / Discharging Power [kW]	4.26	6.39	8.52	10.65	12.78
Depth of Discharge	95%				
General Data					
Dimensions [W * D * H] [mm]	504*380*700	504*380*900	504*380*1100	504*380*1300	504*380*1500
Weight [kg]	105	146	187	228	269
Degree of Protection	IP54				
Operating Temperature Range <sup>[1]</sup> [°C]	-10 ~ 50				
Communication	CAN / RS485 / RS232				
Protection	Overcharge / Overdischarge / Overcurrent / Overtemperature / Short Circuit				
Certifications					
Certifications	UN38.3 / CE-EMC / IEC62040 / IEC62619 / IEC62477 / IEC60730 / IEC63056 / UKCA / VDE2510-50				







[1] Ambient temperature charging (0 ~ 50°C), discharging (-10 ~ 50°C)



# SINGLE PHASE LOW VOLTAGE HYBRID INVERTER



## DN1H-L Series (4-6KTL)

-  Compatible with 600W+PV modules
-  Remote firmware upgrade
-  Support storing energy from diesel generator
-  <10ms backup power switching
-  150% DC input oversizing
-  Support up to 6 units parallel connections

## Single Phase Low Voltage Hybrid Inverter







DN1H-L Series (4-6KTL)

Model	DN1H-4KTL-L2	DN1H-4.6KTL-L2	DN1H-5KTL-L2	DN1H-6KTL-L2
<b>PV Input</b>				
Max. Recommended PV Power [Wp]	6000	7000	7500	9000
Max. PV Power for Single MPPT [Wp]	3000	3500	3750	4500
Max. PV Input Voltage [V]	500			
Rated PV Input Voltage [V]	300			
Start-Up Voltage [V]	120			
No. of MPP Trackers	2			
No. of Input Strings per Tracker	1/1			
MPPT Voltage Range [V]	120 ~ 450			
Max. Input Current per MPPT [A]	16 / 16			
Max. Short-Circuit Current per MPPT [A]	27 / 27			
<b>AC Output (On-Grid)</b>				
Rated AC Power [W]	4000	4600	5000	6000
Max. Apparent Power [VA]	4000	4600	5000	6000
Rated AC Current [A]	17.4	20	21.7	26
Max. AC Current [A]	17.4	20	21.7	26
Rated AC Voltage [V]	220 / 230			
Grid Frequency [Hz]	50 / 60			
Output THDi [ @Rated Output]	< 3%			
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging			
<b>AC Input</b>				
Rated AC Voltage [V]	220 / 230			
Input Voltage Range [V]	90 ~ 280			
Bypass Overload Current [A]	40			
Grid Frequency [Hz]	50 / 60			
<b>AC Output (Off-Grid)</b>				
Rated AC Power [W]	4000	4600	5000	6000
Rated Current [A]	17.4	20	21.7	26
Rated Output Voltage [V]	230			
Rated Frequency [Hz]	50 / 60			
Load Capacity of Motors	3HP	3HP	3HP	4HP
Automatic Switch Time [ms]	10			
Output THDi [ @Rated Output]	< 3%			
Peak Apparent Power, Duration [VA, s]	8000, 5	9200, 5	10000, 5	12000, 5
<b>Battery</b>				
Battery Type	Lithium-ion & Lead-acid			
Rated Battery Voltage [V]	48 (Min. start-up voltage 44V)			
Battery Voltage Range [V]	40 ~ 60			
Max. Charging / Discharging Current [A]	100			
<b>Efficiency</b>				
Max. Efficiency	97.5%	97.5%	97.5%	97.5%
European Efficiency	97.0%	97.0%	97.0%	97.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
<b>Protection</b>				
DC Insulation Monitoring	Yes			
DC Reverse Polarity Protection	Yes			
Anti-island Protection	Yes			
Residual Current Monitoring	Yes			
Over-Heat Protection	Yes			
AC Overcurrent Protection	Yes			
AC Short-circuit Protection	Yes			
Surge Protection	DC Type II/ AC Type II			
Over Voltage Category	DC Type II/ AC Type III			
<b>General Data</b>				
Dimension [W * H * D] [mm]	556 * 345 * 182			
Weight [kg]	22.1			
Operating Temperature [°C]	-25 ~ +60 (Above 45°C Derating)			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	< 2000			
Topology	Transformerless			
Cooling	Fan			
Noise [dB]	< 60			
Degree of Protection	IP65			
Display	LED + LCD			
Standby Self-consumption [W]	< 100			
Communication	RS485 / CAN / USB / Dry contact (Optional) / WiFi / GPRS			
<b>Certifications &amp; Standards</b>				
Grid Connection Standards	EN50549-1, G99, CEI 0-21			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN 61000-6-1, EN 61000-6-3			

# SINGLE PHASE LOW VOLTAGE HYBRID INVERTER



## DN1H-L Series (8-12KTL)

-  Compatible with 600W+PV modules
-  Remote firmware upgrade
-  IP65 outdoor design
-  <10ms backup power switching
-  Support storing energy from diesel generator
-  Support up to 6 units parallel connections

## Single Phase Low Voltage Hybrid Inverter







DN1H-L Series (8-12KTL)

Model	DN1H-8KTL-L2	DN1H-10KTL-L2	DN1H-12KTL-L2
<b>PV Input</b>			
Max. Recommended PV Power [Wp]	11000	11000	13200
Max. PV Power for Single MPPT [Wp]	5500	5500	6600
Max. PV Input Voltage [V]	500		
Rated PV Input Voltage [V]	300		
Start-Up Voltage [V]	125		
No. of MPP Trackers	2		
No. of Input Strings per Tracker	1/1		
MPPT Voltage Range [V]	125 ~ 425		
Max. Input Current per MPPT [A]	22 / 22		
Max. Short-Circuit Current per MPPT [A]	37 / 37		
<b>AC Output (On-Grid)</b>			
Rated AC Power [W]	8800	10000	12000
Max. Apparent Power [VA]	8800	10000	12000
Rated AC Current [A]	38.2	43.5	52.2
Max. AC Current [A]	38.2	43.5	52.2
Rated AC Voltage [V]	220 / 230		
Grid Frequency [Hz]	50 / 60		
Output THDi [ @Rated Output]	< 3%		
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging		
<b>AC Input</b>			
Rated AC Voltage [V]	220 / 230		
Input Voltage Range [V]	90 ~ 280		
Bypass Overload Current [A]	63		
Grid Frequency [Hz]	50 / 60		
<b>AC Output (Off-Grid)</b>			
Rated AC Power [W]	8000	10000	12000
Rated Current [A]	38.2	43.7	52.1
Rated Output Voltage [V]	230		
Rated Frequency [Hz]	50 / 60		
Load Capacity of Motors	5HP	6HP	6HP
Automatic Switch Time [ms]	10		
Output THDi [ @Rated Output]	< 3%		
Peak Apparent Power, Duration [VA, s]	13200, 5	15000, 5	18000, 5
<b>Battery</b>			
Battery Type	Lithium-ion & Lead-acid		
Rated Battery Voltage [V]	48 (Min. start-up voltage 44V)		
Battery Voltage Range [V]	40 ~ 60		
Max. Charging / Discharging Current [A]	200		
<b>Efficiency</b>			
Max. Efficiency	97.5%	97.5%	97.5%
European Efficiency	97.0%	97.0%	97.0%
MPPT Efficiency	99.9%	99.9%	99.9%
<b>Protection</b>			
DC Insulation Monitoring	Yes		
DC Reverse Polarity Protection	Yes		
Anti-island Protection	Yes		
Residual Current Monitoring	Yes		
Over-Heat Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short-circuit Protection	Yes		
Surge Protection	DC Type II / AC Type II		
Over Voltage Category	DC Type II / AC Type III		
DC Switch	Yes		
<b>General Data</b>			
Dimension [W * H * D] [mm]	670 * 440 * 240		
Weight [kg]	37		
Operating Temperature [°C]	-25 ~ +60 (Above 45°C Derating)		
Relative Humidity	0 ~ 100%		
Operating Altitude [m]	< 2000		
Topology	Transformerless		
Cooling	Fan		
Noise [dB]	< 60		
Degree of Protection	IP65		
Display	LED + OLED		
Standby Self-consumption [W]	< 100		
Communication	RS485 / CAN / USB / Dry contact (Optional) / WiFi / GPRS		
No. of Parallel [units]	1 ~ 6		
<b>Certifications &amp; Standards</b>			
Grid Connection Standards	EN50549-1, G99		
Safety Regulation	IEC 62109-1, IEC 62109-2		
EMC	EN 61000-6-1, EN 61000-6-3		

# THREE PHASE LOW VOLTAGE HYBRID INVERTER



## DN3H-L Series (8-12KTL)

-  Compatible with 600W+PV modules
-  Remote firmware upgrade
-  IP65 outdoor design
-  <10ms backup power switching
-  Support storing energy from diesel generator
-  Support up to 6 units parallel connections

## Three Phase Low Voltage Hybrid Inverter


DN3H-L Series (8-12KTL)


Model	DN3H-8KTL-L1	DN3H-10KTL-L1	DN3H-12KTL-L1
<b>PV Input</b>			
Max. Recommended PV Power [Wp]	12000	15000	18000
Max. PV Power for Single MPPT [Wp]	6000	7500	9000
Max. PV Input Voltage [V]	800		
Start-Up Voltage [V]	200		
No. of MPP Trackers	2		
No. of Input Strings per Tracker	1/1		
MPPT Voltage Range [V]	200 ~ 650		
Max. Input Current per MPPT [A]	22 / 22		
Max. Short-Circuit Current per MPPT [A]	37 / 37		
<b>AC Output (On-Grid)</b>			
Rated AC Power [W]	8000	10000	12000
Max. Apparent Power [VA]	8000	10000	12000
Rated AC Current [A]	11.6	14.5	17.4
Max. AC Current [A]	11.6	14.5	17.4
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400		
Grid Frequency [Hz]	50 / 60		
Output THDi [@Rated Output]	< 3%		
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging		
<b>AC Input</b>			
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400		
Input Voltage Range [V]	170 ~ 280		
Bypass Overload Current [A]	23.2	29	35
Grid Frequency [Hz]	50 / 60		
<b>AC Output (Off-Grid)</b>			
Rated AC Power [W]	8800	10000	12000
Rated Current [A]	11.6	14.5	17.4
Rated Output Voltage [V]	3 / N / PE, 220 / 380, 230 / 400		
Rated Frequency [Hz]	50 / 60		
Load Capacity of Motors	5HP	6HP	6HP
Automatic Switch Time [ms]	10		
Output THDi [@Rated Output]	< 3%		
Peak Apparent Power, Duration [VA, s]	16000, 10	20000, 10	24000, 10
<b>Battery</b>			
Battery Type	Lithium-ion & Lead-acid		
Rated Battery Voltage [V]	48 (Min. start-up voltage 44V)		
Battery Voltage Range [V]	40 ~ 60		
Max. Charging / Discharging Current [A]	200		
<b>Efficiency</b>			
Max. Efficiency	97.5%	97.5%	97.5%
European Efficiency	97.2%	97.5%	97.5%
MPPT Efficiency	99.9%	99.9%	99.9%
<b>Protection</b>			
DC Insulation Monitoring	Yes		
DC Reverse Polarity Protection	Yes		
Anti-island Protection	Yes		
Residual Current Monitoring	Yes		
Over-Heat Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short-circuit Protection	Yes		
Surge Protection	DC Type II / AC Type II		
Over Voltage Category	DC Type II / AC Type III		
DC Switch	Yes		
<b>General Data</b>			
Dimension [W * H * D] [mm]	700 * 440 * 260		
Weight [kg]	39.2		
Operating Temperature [°C]	-25 ~ +60 (Above 45°C Derating)		
Relative Humidity	0 ~ 100%		
Operating Altitude [m]	< 4000		
Topology	Transformerless		
Cooling	Fan		
Noise [dB]	< 60		
Degree of Protection	IP65		
Display	LED + LCD		
Standby Self-consumption [W]	< 130		
Communication	RS485 / CAN / USB / Dry contact (Optional) / WiFi / GPRS		
No. of Parallel [units]	1 ~ 6		
<b>Certifications &amp; Standards</b>			
Grid Connection Standards	EN 50549-1		
Safety Regulation	IEC 62109-1, IEC 62109-2		
EMC	EN 61000-6-1, EN 61000-6-3		


# RESIDENTIAL LOW VOLTAGE ESS



PowerHome-2.4-L1

 Modular design

 High safety

 Easy installation

 High flexibility, matching with leading inverters

## Residential Low Voltage ESS

PowerHome-2.4-L1


Model	PowerHome-2.4-L1
	Electrical Parameters
Nominal Energy Usable Capacity [kWh]	2.4
Nominal Voltage [V]	48
Voltage Range [V]	42 ~ 54.75
Recommended Charge / Discharge Current [A]	25
Max. Power Charging / Discharging Current [A]	50
Peak Power Charge / Discharge Current [A]	55 (Protect)
Depth of Discharge	90%
	General Data
Battery Technology	LiFePO4
Dimensions [W * H * D] [mm]	480 * 405 * 90
Weight [kg]	22
No. of Modules in parallel	Up to 40 Units in Parallel
Degree of Protection	IP20
Charging Temp. Range [°C]	0 ~ 55
Discharging Temp. Range [°C]	-20 ~ 55
Communication	CAN / RS485
	Certifications
Certifications	UN38.3 / CE-EMC / IEC62619 / IEC62040 / CEC Accredited / CEI-021 / UL1973 / REACH / ROHS / UKCA / GOST-R


# RESIDENTIAL LOW VOLTAGE ESS



PowerHome-5.12-L1

 Modular design

 High safety

 Easy installation

 High flexibility, matching with leading inverters

## Residential Low Voltage ESS

PowerHome-5.12-L1


Model	PowerHome-5.12-L1
	Electrical Parameters
Nominal Energy Usable Capacity [kWh]	5.12
Nominal Voltage [V]	51.2
Voltage Range [V]	44.8 ~ 57.6
Max. Continuous Charge Current [A]	75
Max. Continuous Discharge Current [A]	100
Peak Charge / Discharge Current [A]	110 ( Protec)
Depth of Discharge	95%
	General Data
Battery Technology	LiFePO4
Dimensions [W * H * D] [mm]	481 * 535 * 140
Weight [kg]	44
No. of Modules in Parallel	Up to 50 Units in Parallel
Degree of Protection	IP20
Charging Temp. Range	0 ~ 55°C
Discharging Temp. Range	-20 ~ 55°C
Communication	CAN / RS485 / RS232
	Certification
Certification	UN38.3 / CE-EMC / IEC62619




# RESIDENTIAL LOW VOLTAGE ESS




PowerHome-5.12-L1-Pro

 Modular design

 High safety

 Easy installation

 Maximum charge rate 1C

## Residential Low Voltage ESS




PowerHome-5.12-L1-Pro



Model	PowerHome-5.12-L1-Pro
<b>Electrical Parameters</b>	
Nominal Energy Usable Capacity [kWh]	5.12
Nominal Voltage [V]	51.2
Voltage Range [V]	44.8 ~ 57.6
Max. Discharge C Rate	1C
Max. Power Charge / Discharge Current [A]	75(Charge); 100 (Discharge)
Peak Power Charge / Discharge Current [A]	110 (15s)
Depth of Discharge	95%
<b>General Data</b>	
Battery Technology	LiFePO4
Dimensions [W * H * D] [mm]	558 * 545 * 150
Weight [kg]	54
No. of Modules in Parallel	Up to 50 Units in Parallel
Degree of Protection	IP20
Charging Temp. Range	0 ~ 55°C
Discharging Temp. Range	-20 ~ 55°C
Communication	CAN / RS485 / RS232
<b>Certifications</b>	
Certifications	UN38.3 / CE-EMC / IEC62619 / CEI-021

# OFF-GRID ALL-IN-ONE ESS



PowerIsland (2.4–4.8kWh)

-  All-in-one design
-  Dual MPPT design
-  LCD display

-  UPS level switching time < 20ms
-  2 sockets output

## Off-Grid All-In-One ESS







PowerIsland (2.4–4.8kWh)

Model	PowerIsland-2.4	PowerIsland-4.8
<b>Battery</b>		
Cell Type	Li-Ion	
System Capacity [kWh]	2.4	4.8
Rated Voltage [V]	48	
Max. AC Charging Power [W]	1200	1680
Max. AC Continuous Charging Current [A]	30	
Max. PV Charging Power [W]	1200	2400
Max. PV Continuous Charging Current [A]	50	
<b>PV Input</b>		
Max. Input Power [W]	1200	2400
Max. Input Voltage [V]	65	
Max. Input Current [A]	28	
Number of PV Input	4	
No. of MPP Trackers	2	
MPPT Range [V]	18 ~ 60	
<b>Off-Grid Output</b>		
Nominal Output Voltage [V]	230	
Nominal Output Power [W]	2400	
Nominal Output Frequency [Hz]	50 / 60	
Max. Efficiency	92%	
THDi [@Rated Power]	< 3%	
<b>AC Input</b>		
Input Voltage Range [V]	180 ~ 264	
Nominal AC Frequency [Hz]	50 / 60	
Max. AC Input Current [A]	10	
On-Grid to Off-Grid Switching Time [ms]	≤ 20	
Off-Grid to On-Grid Switching Time [ms]	≤ 10	
<b>Protection</b>		
Over Voltage Protection	Yes	
Short Circuit Protection	Yes	
Over Temperature Protection	Yes	
<b>General Parameters</b>		
Dimensions [W * H * D] [mm]	540 * 560 * 252	
Weight [kg]	43.5	65.5
Degree of Protection	IP20	
Cooling	Fan	
Display	LCD	
Communication	CAN	

# EV CHARGER



## DNEV Series (7-22kW)

-  Smart and efficient operations via APP
-  Remote firmware upgrade & work mode setting
-  Support dynamic load balance function
-  Compatible with all EV brands
-  IP65 outdoor design for plug version
-  Support intelligent valley price charging

## EV Charger

### DNEV Series (7-22kW)

Model	DNEV AC1P-7kW	DNEV AC1S-7kW	DNEV AC3P-11kW	DNEV AC3S-11kW	DNEV AC3P-22kW	DNEV AC3S-22kW
AC Input						
Nominal Input Voltage [V]	230, L / N / PE		400, 3L / N / PE		400, 3L / N / PE	
Nominal AC Grid Frequency [Hz]	50 / 60					
AC Output						
Nominal Output Power [W]	7000		11000		22000	
Nominal Output Voltage [V]	230		400		400	
Max. AC Output Current [A]	32		16		32	
Nominal Output Frequency [Hz]	50 / 60					
Connection	Plug	Socket	Plug	Socket	Plug	Socket
Protection						
AC Overvoltage Protection	Yes					
AC Undervoltage Protection	Yes					
AC Overcurrent Protection	Yes					
Surge Protection	Yes					
Grounding Protection	Yes					
Current Leakage Protection	Yes					
Over Temperature Protection	Yes					
RCD	Type A + 6mA DC Fault Current Protection (Equivalent to Type B)					
Interface						
Ethernet	Optional (OCPP1.6)					
RS485	Yes					
WiFi, Bluetooth and RFID	Optional					
CT Clamps	Yes					
Meter	Optional					
General Data						
Dimensions [W * H * D] [mm]	248 * 400 * 135					
Weight [kg]	3.92	2.36	5.0	2.6	5.0	2.6
Cable Length [m]	5 / 7.5	/	5 / 7.5	/	5 / 7.5	/
Charging Interface Type	IEC 62196-2, Type 2					
Ambient Temperature Range [°C]	-20 ~ +50					
Relative Humidity	0 ~ 95%					
Operating Altitude [m]	≤ 2000					
Cooling	Natural					
Degree of Protection	IP65	IP54	IP65	IP54	IP65	IP54
Certifications						
Certifications	EN / IEC 61851-1, EN300328, EN300330, EN301489-1, EN301489-3, EN301489-17, EN IEC 61851-21-2					

# SINGLE PHASE ON-GRID INVERTER



## DN1 Series (3.68-6KTL)

-  Compatible with 500W+ PV modules
-  150% DC input oversizing
-  Remote firmware upgrade
-  Built-in zero injection function
-  Type II SPD for both DC and AC

## Single Phase On-Grid Inverter


DN1 Series (3.68-6KTL)

Model	DN1-3.68KTL	DN1-4KTL	DN1-5KTL	DN1-6KTL
PV Input				
Max. Recommended PV Power [Wp]	5500	6000	7500	9000
Max. PV Input Voltage [V]	600			
MPPT Voltage Range [V]	80 ~ 550			
Rated Input Voltage [V]	360			
Start-Up Voltage [V]	100			
No. of MPP Trackers	2			
No. of Input Strings per Tracker	1 / 1			
Max. PV Input Current [A]	16 / 16			
Max. Short-Circuit Current per MPPT [A]	20 / 20			
AC Output				
Rated AC Power [W]	3680	4000	5000	6000
Max. Apparent Power [VA]	3680	4400	5500	6000
Max. AC Current [A]	16	20	25	27.3
Rated AC Voltage [V]	L / N / PE, 220 / 230			
Grid Frequency [Hz]	50 / 60			
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging			
Output THDi [@Rated Output]	< 3%			
Efficiency				
Max. Efficiency	97.9%	97.9%	97.9%	97.9%
European Efficiency	97.2%	97.2%	97.2%	97.2%
Protection				
DC Insulation Monitoring	Yes			
Input Reverse Polarity Protection	Yes			
Anti-Island Protection	Yes			
Residual Current Monitoring	Yes			
AC Overcurrent Protection	Yes			
AC Short-Circuit Protection	Yes			
DC Surge Protection	Yes (Type II)			
AC Surge Protection	Yes (Type II)			
AFCI Protection	Optional			
DC Switch	Optional			
General Data				
Dimension [W * H * D] [mm]	353 * 320 * 150			
Weight [kg]	10			
Display	LED + OLED			
Communication	RS485 and USB (Standard), Wifi (Standard), 4G or Ethernet (Optional)			
Ambient Temperature Range [°C]	-25 ~ +60			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	≤ 2000			
Standby Self Consumption [W]	< 1			
Topology	Transformerless			
Cooling	Natural			
Degree of Protection	IP65			
Noise [dB]	< 25			
Certifications & Standards				
Grid Connection Standards	VDE 0126-1-1, ORDINANCE140, G99			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	IEC 61000-6-1, IEC 61000-6-3			

# SINGLE PHASE ON-GRID INVERTER



## DN1 Series (8-10.5KTL)

-  Compatible with 500W+ PV modules
-  150% DC input oversizing
-  Remote firmware upgrade
-  Built-in zero injection function
-  Type II SPD for both DC and AC

## Single Phase On-Grid Inverter







DN1 Series (8-10.5KTL)

Model	DN1-8KTL	DN1-10KTL	DN1-10.5KTL
PV Input			
Max. Recommended PV Power [Wp]	12000	15000	16000
Max. PV Input Voltage [V]		600	
MPPT Voltage Range [V]		80 ~ 550	
Rated Input Voltage [V]		360	
Start-Up Voltage [V]		100	
No. of MPP Trackers	2	2	2
No. of Input Strings per Tracker	2 / 2	2 / 2	2 / 2
Max. PV Input Current [A]	32 / 32	32 / 32	32 / 32
Max. Short-Circuit Current per MPPT [A]	40 / 40	40 / 40	40 / 40
AC Output			
Rated AC Power [W]	8000	10000	10500
Max. Apparent Power [VA]	8800	10000	10500
Max. AC Current [A]	40	45.5	45.5
Rated AC Voltage [V]		L / N / PE, 220 / 230	
Grid Frequency [Hz]		50 / 60	
Adjustable Power Factor [cos φ]		0.8 leading ... 0.8 lagging	
Output THDi [@Rated Output]		< 3%	
Efficiency			
Max. Efficiency	98.1%	98.1%	98.1%
European Efficiency	97.5%	97.5%	97.5%
Protection			
DC Insulation Monitoring		Yes	
Input Reverse Polarity Protection		Yes	
Anti-Island Protection		Yes	
Residual Current Monitoring		Yes	
AC Overcurrent Protection		Yes	
AC Short-Circuit Protection		Yes	
DC Surge Protection		Yes (Type II)	
AC Surge Protection		Yes (Type II)	
AFCI Protection		Optional	
DC Switch		Optional	
General Data			
Size [W * H * D] [mm]		428 * 385 * 185	
Weight [kg]		17	
Display		LED + OLED	
Communication		RS485 and USB (Standard), Wifi (Standard), 4G or Ethernet (Optional)	
Ambient Temperature Range [°C]		-30 ~ +60	
Relative Humidity		0 ~ 100%	
Operating Altitude [m]		≤ 2000	
Standby Self Consumption [W]		< 1	
Topology		Transformerless	
Cooling		Natural	
Degree of Protection		IP65	
Noise [dB]		< 25	
Certifications & Standards			
Grid Connection Standards	VDE 0126-1-1, C10 / 11, G99, PEA, MEA, AS 4777, EN 50549, CEI 0-21, IEC 61727, IEC 62116, IEC 60068, IEC 61683, ABNT NBR 16150		
Safety Regulation	IEC 62109-1, IEC 62109-2		
EMC	EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 61000-6-2, EN 61000-6-3, IEC 61000-4-16, IEC 61000-4-18, IEC 61000-4-29		

# THREE PHASE ON-GRID INVERTER



## DN3 Series (4-12KTL)

-  Natural cooling for mute operation
-  Wider MPPT voltage range (140 ~ 1000V)
-  Remote firmware upgrade
-  IP65 outdoor design
-  150% DC input oversizing
-  Built-in zero injection function

## Three Phase On-Grid Inverter







## DN3 Series (4-12KTL)

Model	DN3-4KTL	DN3-5KTL	DN3-6KTL	DN3-8KTL	DN3-10KTL-A	DN3-10KTL	DN3-12KTL
PV Input							
Max. Recommended PV Power [Wp]	6000	7500	9000	12000	15000	15000	18000
Max. PV Input Voltage [V]	1100						
MPPT Voltage Range [V]	140 ~ 1000						
Rated Input Voltage [V]	600						
Start-Up Voltage [V]	160						
No. of MPP Trackers	2						
No. of Input Strings per Tracker	1 / 1						
Max. PV Input Current [A]	16 / 16						
Max. Short-Circuit Current per MPPT [A]	20 / 20						
AC Output							
Rated AC Power [W]	4000	5000	6000	8000	10000	10000	12000
Max. Apparent Power [VA]	4400	5500	6600	8800	10000	11000	13200
Max. AC Current [A]	6.7	8.4	10	13.4	15.2	16.7	20
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400						
Grid Frequency [Hz]	50 / 60						
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging						
Output THDi [@Rated Output]	< 3%						
Efficiency							
Max. Efficiency	98.4%	98.4%	98.4%	98.5%	98.5%	98.5%	98.5%
European Efficiency	97.5%	97.5%	97.5%	98.0%	98.0%	98.0%	98.0%
Protection							
DC Insulation Monitoring	Yes						
Input Reverse Polarity Protection	Yes						
Anti-Island Protection	Yes						
Residual Current Monitoring	Yes						
AC Overcurrent Protection	Yes						
AC Short-Circuit Protection	Yes						
DC Surge Protection	Yes (Type II)						
AC Surge Protection	Yes (Type II)						
AFCI Protection	Optional						
PID Function	Optional						
DC Switch	Yes						
General Data							
Dimension [W * H * D] [mm]	428 * 385 * 185						
Weight [kg]	15						
Display	LED + OLED						
Communication	RS485 and USB (Standard), Wifi (Standard), 4G or Ethernet (Optional)						
Ambient Temperature Range [°C]	-25 ~ +60						
Relative Humidity	0 ~ 100%						
Operating Altitude [m]	≤ 2000						
Standby Self Consumption [W]	< 1						
Topology	Transformerless						
Cooling	Natural						
Degree of Protection	IP65						
Noise [dB]	< 35						
Certifications & Standards							
Grid Connection Standards	NB / T32004-2018, EN 50549-1, IEC 61727, IEC 62116						
Safety Regulation	IEC 62109-1, IEC 62109-2						
EMC	EN / IEC 61000-6-1, EN / IEC 61000-6-3						

# THREE PHASE ON-GRID INVERTER



## DN3 Series (15–25KTL)

-  Compatible with 600W+ PV modules
-  Remote firmware upgrade
-  Wider MPPT voltage range (180 ~ 1000V)
-  150% DC input oversizing
-  Maximum DC input voltage 1100V
-  Built-in zero injection function

## Three Phase On-Grid Inverter







DN3 Series (15–25KTL)

Model	DN3-15KTL	DN3-17KTL	DN3-20KTL	DN3-25KTL
PV Input				
Max. Recommended PV Power [Wp]	22500	22500	30000	37500
Max. PV Input Voltage [V]	1100			
MPPT Voltage Range [V]	180 ~ 1000			
Rated Input Voltage [V]	600			
Start-Up Voltage [V]	200			
No. of MPP Trackers	2			
No. of Input Strings per Tracker	2 / 2			
Max. PV Input Current [A]	40 / 40			
Max. Short-Circuit Current per MPPT [A]	50 / 50			
AC Output				
Rated AC Power [W]	15000	17000	20000	25000
Max. Apparent Power [VA]	16500	18700	22000	27500
Max. AC Current [A]	25	28.3	33.4	41.7
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400			
Grid Frequency [Hz]	50 / 60			
Adjustable Power Factor [cos φ]	0.8 leading ...0.8 lagging			
Output THDi [@Rated Output]	< 3%			
Efficiency				
Max. Efficiency	98.6%	98.6%	98.6%	98.6%
European Efficiency	98.2%	98.2%	98.2%	98.2%
Protection				
DC Insulation Monitoring	Yes			
Input Reverse Polarity Protection	Yes			
Anti-Island Protection	Yes			
PID Recovery Function	Yes			
Residual Current Monitoring	Yes			
AC Overcurrent Protection	Yes			
AC Short-Circuit Protection	Yes			
DC Surge Protection	Yes (Type II)			
AC Surge Protection	Yes (Type II)			
AFCI Protection	Optional			
PID Function	Optional			
DC Switch	Yes			
General Data				
Dimension [W * H * D] [mm]	520 * 412 * 200			
Weight [kg]	22			
Display	LED + OLED			
Communication	RS485 and USB (Standard), Wifi (Standard), 4G or Ethernet (Optional)			
Ambient Temperature Range [°C]	-25 ~ +60			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	≤ 2000			
Standby Self Consumption [W]	< 1			
Topology	Transformerless			
Cooling	Air Cooling			
Degree of Protection	IP65			
Noise [dB]	< 45			
Certifications & Standards				
Grid Connection Standards	NB / T 32004-2018, ABNT NBR 16149, ABNT NBR 16150, ABNT NBR 62116, EN 50549-1, IEC 61727, IEC 62116, ORDINANCE No.140, IEC 62891			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN 61000-1, EN 61000-2, EN 61000-3, EN 61000-4			

# THREE PHASE ON-GRID INVERTER



## DN3 Series (30-50KTL)

-  Compatible with 600W+ PV modules
-  150% DC input oversizing & 110% AC overloading
-  Remote firmware upgrade
-  Optional AFCI & smart PID recovery function
-  Low start-up voltage at 200V
-  Type II SPD for both DC and AC

### Three Phase On-Grid Inverter

### DN3 Series (30-50KTL)

Model	DN3-30KTL	DN3-36KTL	DN3-40KTL	DN3-50KTL
PV Input				
Max. Recommended PV Power [Wp]	45000	54000	60000	75000
Max. PV Input Voltage [V]	1100			
MPPT Voltage Range [V]	180 ~ 1000			
Rated Input Voltage [V]	600			
Start-Up Voltage [V]	200			
No. of MPP Trackers	3	3	4	4
No. of Input Strings per Tracker	2 / 2 / 2	2 / 2 / 2	2 / 2 / 2 / 2	2 / 2 / 2 / 2
Max. PV Input Current [A]	40 / 40 / 40	40 / 40 / 40	40 / 40 / 40 / 40	40 / 40 / 40 / 40
Max. Short-Circuit Current per MPPT [A]	50 / 50 / 50	50 / 50 / 50	50 / 50 / 50 / 50	50 / 50 / 50 / 50
AC Output				
Rated AC Power [W]	30000	36000	40000	50000
Max. Apparent Power [VA]	33000	39600	44000	55000
Max. AC Current [A]	50	60	66.6	83.3
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400			
Grid Frequency [Hz]	50 / 60			
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging			
Output THDi [@Rated Output]	< 3%			
Efficiency				
Max. Efficiency	98.6%	98.7%	98.8%	98.8%
European Efficiency	97.8%	98.0%	98.0%	98.0%
Protection				
DC Insulation Monitoring	Yes			
Input Reverse Polarity Protection	Yes			
Anti-Island Protection	Yes			
Residual Current Monitoring	Yes			
AC Overcurrent Protection	Yes			
AC Short-Circuit Protection	Yes			
DC Surge Protection	Yes (Type II)			
AC Surge Protection	Yes (Type II)			
AFCI Protection	Optional			
PID Function	Optional			
DC Switch	Yes			
General Data				
Dimension [W * H * D] [mm]	585 * 480 * 220			
Weight [kg]	37			
Display	LED + OLED			
Communication	RS485 and USB (Standard), Wifi (Standard), 4G or Ethernet (Optional)			
Ambient Temperature Range [°C]	-25 ~ +60			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	≤ 2000			
Standby Self Consumption without PID [W]	< 1			
Topology	Transformerless			
Cooling	Air Cooling			
Degree of Protection	IP65			
Certifications & Standards				
Grid Connection Standards	NB/T32004, ORDINANCE140, VDE4105, VDE0126, VDE-AR-N 4105, UNE217002, EN 50549-1, EN 62920, G99			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN / IEC 61000-6-1, EN IEC 61000-6-4, EN / IEC 61000-6-3, EN IEC 61000-6-2, EN IEC 61000-3-11, EN 61000-3-12			



# THREE PHASE ON-GRID INVERTER



## DN3 Series (50-80KTL)

-  150% DC input oversizing
-  Optional smart PID recovery function
-  Remote firmware upgrade
-  IP66 outdoor design
-  Wide range of MPPT voltage
-  Compatible with repowering scenario

### Three Phase On-Grid Inverter

### DN3 Series (50-80KTL)

Model	DN3-50KTL-G2	DN3-60KTL	DN3-80KTL
PV Input			
Max. Recommended PV Power [Wp]	75000	90000	120000
Max. PV Input Voltage [V]	1100		
MPPT Voltage Range [V]	200 ~ 1000		
Rated Input Voltage [V]	650		
Start-Up Voltage [V]	180		
No. of MPP Trackers	4		
No. of Input Strings per Tracker	2 / 2 / 2 / 2	2 / 2 / 2 / 2	3 / 3 / 3 / 3
Max. PV Input Current [A]	32 / 32 / 32 / 32	32 / 32 / 32 / 32	45 / 45 / 45 / 45
Max. Short-Circuit Current per MPPT [A]	48 / 48 / 48 / 48	48 / 48 / 48 / 48	60 / 60 / 60 / 60
AC Output			
Rated AC Power [W]	50000	60000	80000
Max. Apparent Power [VA]	55000	66000	88000
Max. AC Current [A]	83.3	100	127.5
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400		
Grid Frequency [Hz]	50 / 60		
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging		
Output THDi [@Rated Output]	< 3%		
Efficiency			
Max. Efficiency	98.97%	98.97%	99.04%
European Efficiency	98.43%	98.43%	98.46%
Protection			
DC Insulation Monitoring	Yes		
Input Reverse Polarity Protection	Yes		
Anti-Island Protection	Yes		
Residual Current Monitoring	Yes		
AC Overcurrent Protection	Yes		
String Current Monitoring	Yes		
AC Short-Circuit Protection	Yes		
DC Surge Protection	Yes (Type II)		
AC Surge Protection	Yes (Type II)		
PID Function	Optional		
DC Switch	Yes		
General Data			
Dimension [W * H * D] [mm]	548 * 540 * 289		
Weight [kg]	51	51	55
Display	LED		
Communication	RS485 , WiFi		
Ambient Temperature Range [°C]	-25 ~ +60		
Relative Humidity	0 ~ 100%		
Operating Altitude [m]	≤ 4000		
Standby Self Consumption without PID [W]	< 1		
Topology	Transformerless		
Cooling	Fan		
Degree of Protection	IP66		
Certifications & Standards			
Grid Connection Standards	EN50549-1; VDE-AR-N-4105; CEI0-21; C10 / C11; G99		
Safety Regulation	EN / IEC62109-1; EN / IEC62109-2		
EMC	IEC / EN 61000-6-1; IEC / EN 61000-6-3; IEC / EN61000-6-2; IEC / EN61000-6-4		

# THREE PHASE ON-GRID INVERTER



## DN3 Series (100-125KTL)

-  150% DC input oversizing
-  Remote firmware upgrade
-  Wide range of MPPT voltage
-  Optional smart PID recovery function
-  IP66 outdoor design
-  Compatible with repowering scenario

## Three Phase On-Grid Inverter







## DN3 Series (100-125KTL)

Model	DN3-100KTL	DN3-110KTL	DN3-110KTL-G2	DN3-125KTL	DN3-125KTL-G2
<b>PV Input</b>					
Max. Recommended PV Power [Wp]	150000	165000	165000	187500	187500
Max. PV Input Voltage [V]	1100				
MPPT Voltage Range [V]	200 ~ 1000				
Rated Input Voltage [V]	650				
Start-Up Voltage [V]	200				
No. of MPP Trackers	9	9	8	9	8
No. of Input Strings per Tracker	2	2	2	2	2
Max. PV Input Current [A]	32	32	45	32	45
Max. Short-Circuit Current per MPPT [A]	48	48	60	48	60
<b>AC Output</b>					
Rated AC Power [W]	100000	110000	110000	125000	125000
Max. Apparent Power [VA]	110000	121000	121000	137500	137500
Max. AC Current [A]	159.4	175.4	175.4	181.2	181.2
Rated AC Voltage [V]	3 / N / PE, 220 / 380, 230 / 400				
Grid Frequency [Hz]	50 / 60				
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging				
Output THDi [@Rated Output]	< 3%				
<b>Efficiency</b>					
Max. Efficiency	98.7%	98.7%	98.7%	98.7%	98.7%
European Efficiency	98.3%	98.3%	98.3%	98.3%	98.3%
<b>Protection</b>					
DC Insulation Monitoring	Yes				
Input Reverse Polarity Protection	Yes				
Anti-Island Protection	Yes				
Residual Current Monitoring	Yes				
AC Overcurrent Protection	Yes				
AC Short-Circuit Protection	Yes				
String Current Monitoring	Yes				
DC Surge Protection	Yes				
AC Surge Protection	Yes				
PID Function	Optional				
DC Switch	Yes				
<b>General Data</b>					
Dimension [W * H * D] [mm]	965 * 700 * 355				
Weight [kg]	88	88	86	88	86
Display	LED				
Communication	RS485 (Standard), WiFi				
Ambient Temperature Range [°C]	-30 ~ +60				
Relative Humidity	0 ~ 100%				
Operating Altitude [m]	≤ 4000				
Standby Self Consumption without PID [W]	< 1				
Topology	Transformerless				
Cooling	Fan				
Degree of Protection	IP66				
<b>Certifications &amp; Standards</b>					
Grid Connection Standards	IEC 62116, IEC 61727				
Safety Regulation	IEC 62109-1, IEC 62109-2, EN 62109-1, EN 62109-2				
EMC	EN 61000-3-11, EN 61000-3-12, EN 61000-6-2, EN 61000-3-4				

# INDOOR RACK-MOUNTED ESS



## PowerRack 0.5C Series

-  Wide voltage range
-  High safety LFP & smart BMS
-  Expandable, capacity up to 76.8kWh per cluster
-  Modular design, easy installation
-  High system efficiency
-  Adaptive for various commercial scenarios

### Indoor Rack-Mounted ESS

### PowerRack 0.5C Series

Model	PowerPack-5.12HV
<b>Electrical Parameters</b>	
Battery Type	LiFePO4
Nominal Battery Energy [kWh]	5.12
Nominal Capacity [Ah]	100
Nominal Voltage [V]	51.2
<b>General Data</b>	
Net Weight [kg]	43.5
Dimension [W * D * H] [mm]	481 * 535 * 140
Charging Temperature Range [°C]	0 ~ 55
Discharging Temperature Range [°C]	-10 ~ 55
Communication	CAN
Cycle Life <sup>[1]</sup>	> 6000 Cycles
Degree of Protection	IP20
Expansion	Up to 15 Units in Series
Certification & Safety Standard	UN38.3 / CE-EMC

[1] Test conditions: 0.2C Charging / Discharging, @25°C, 95% DOD







Model	PowerRack 0.5C Series		
<b>Electrical Parameters</b>			
Rack Type	PowerRack-35.8kWh	PowerRack-51.2kWh	PowerRack-56.32kWh
Battery Module Type	PowerPack-5.12HV	PowerPack-5.12HV	PowerPack-5.12HV
Nominal Battery Energy [kWh]	35.84	51.2	56.32
Nominal Capacity [Ah]	100	100	100
Nominal Voltage [V]	358.4	512	563.2
Operating Voltage Range [V]	313.6 ~ 403.2	448 ~ 576	492.8 ~ 633.6
Nominal Power Output [kW]	21.5	30.72	33.79
Max.Power Output [kW]	35.84	51.2	56.32
Recommend Charging Current [A]	50	50	50
Recommend Discharging Current [A]	50	50	50
<b>General Data</b>			
Battery Module Quantity	7 units	10 units	11 units
Net Weight [kg]	397.5	593	646.5
Dimension [W * D * H] [mm]	548 * 568 * 1412	548 * 568 * 2012	548 * 568 * 2012
Rack System Control Unit Type <sup>[1]</sup>	BDU-200	BDU-200	BDU-200
Module Quantity and Configuration	7 Units in series	10 Units in series	11 Units in series

[1] PowerPack-5.12HV battery module need to be used with BDU-200 control unit

# INDOOR RACK-MOUNTED ESS



## PowerRack 1C Series

-  Wide voltage range
-  High safety LFP & smart BMS
-  Expandable, capacity up to 76.8kWh per cluster
-  Modular design, easy installation
-  High system efficiency
-  Adaptive for various commercial scenarios

### Indoor Rack-Mounted ESS

### PowerRack 1C Series

Model	PowerPack-5.12HV-Pro
<b>Electrical Parameters</b>	
Battery Type	LiFePO4
Nominal Battery Energy [kWh]	5.12
Nominal Capacity [Ah]	100
Nominal Voltage [V]	51.2
<b>General Data</b>	
Net Weight [kg]	47
Dimension [W * D * H] [mm]	548 * 554 * 152.8
Charging Temperature Range [°C]	0 ~ 55
Discharging Temperature Range [°C]	-10 ~ 55
Communication	CAN / RS485
Cycle Life <sup>[1]</sup>	> 6000 Cycles
Degree of Protection	IP20
Cooling	Fan
Certification & Safety Standard	UN38.3

[1] Test conditions: 0.2C Charging / Discharging, @25°C, 95% DOD

Model	PowerRack 1C Series		
<b>Electrical Parameters</b>			
Rack Type	PowerRack-40.96kWh-Pro	PowerRack-51.2kWh-Pro	PowerRack-56.32kWh-Pro
Battery Module Type	PowerPack-5.12HV-Pro	PowerPack-5.12HV-Pro	PowerPack-5.12HV-Pro
Nominal Battery Energy [kWh]	40.96	51.2	56.32
Nominal Capacity [Ah]	100	100	100
Nominal Voltage [V]	409.6	512	563.2
Operating Voltage Range [V]	358.4 ~ 460.8	448 ~ 576	492.8 ~ 633.6
Nominal Power Output [kW]	40.96	51.2	56.32
Max. Power Output [kW]	40.96	51.2	56.32
Recommend Charging Current [A]	100	100	100
Recommend Discharging Current [A]	100	100	100
<b>General Data</b>			
Battery Module Quantity	8 units	10 units	11 units
Net Weight [kg]	501	595	642
Dimension [W * D * H] [mm]	594 * 558 * 1663	594 * 558 * 2152	594 * 558 * 2152
Rack System Control Unit Type <sup>[1]</sup>	BDU-201	BDU-201	BDU-201
Module Quantity and Configuration	8 Units in series	10 Units in series	11 Units in series

[1] PowerPack-5.12HV-Pro battery module need to be used with BDU-201 control unit

# POWERHILL (143kWh–215kWh)



## Integrated Outdoor Battery Energy Storage Cabinet

PowerHill (143kWh–215kWh)

Model	PowerHill P30-143kWh	PowerHill P30-179kWh	PowerHill P60-143kWh	PowerHill P60-161kWh	PowerHill P60-179kWh	PowerHill P60-215kWh	PowerHill P100-215kWh
<b>Battery</b>							
Cell Type	LiFePO4-280Ah						
Pack Configuration	1P20S						
Battery Capacity [kWh]	143.36	179.2	143.36	161.2	179.2	215.04	215.04
<b>AC Output</b>							
Connection Type	3P4W						
Charging / Discharging Power [kW]	30			60			100
Rated Grid Voltage [V]	220 / 380; 230 / 400						
Frequency [Hz]	50 / 60						
Rated AC Output Current [A]	43			86			144
Adjustable Power Factor Range	0.8 Leading ... 0.8 Lagging						
Output THDi [@Rated Output]	≤ 3%						
<b>Backup Output (Off Grid)</b>							
Connection Type	3P4W						
Rated Output Power [kW]	30			60			100
Rated Output Voltage [V]	220 / 380; 230 / 400						
Output Frequency [Hz]	50 / 60						
Rated Current [A]	43			86			144
Frequency Accuracy [Hz]	0.2						
<b>General Parameters</b>							
Dimensions [W * H * D] [mm]	1686 * 2093 * 1354						
Weight [kg]	2500						
Display	HMI						
Degree of Protection	IP55 (Battery Cabinet), IP54 (Electrical Cabinet)						
Cooling	Battery Cabinet (Air Conditioner)						
Fire Suppression System	Combustible Gas Detection + Novec1230 + Water Fire Protection						
Anti-Corrosion Grade	C3						
Relative Humidity	0 ~ 95% (Non - Condensing)						
Operating Temperature <sup>[1]</sup> [°C]	-20 ~ 50						
Altitude <sup>[2]</sup> [m]	< 2000						
Noise Level [dB]	≤ 75						
Communication Interface	RS485, Ethernet						
Communication Protocol	Modbus RTU, Modbus TCP / IP						
<b>PV Side Parameters (Optional)</b>							
Max. PV Input Power [kW]	30 / 60			30 / 60 / 90 / 120			
MPPT Voltage Range [V]	200 ~ 850						
Number of MPPTs	1 / 1			1 / 1 / 2 / 2			
Number of PV Inputs	1 / 1			1 / 1 / 2 / 2			
Max. Input Current [A]	100 / 200			100 / 200 / 300 / 400			
<b>Certifications &amp; Standards</b>							
System	CE (IEC 61000, IEC 62477), IEC 62109, IEC 62619, UN 3480, CEI0-21, CEI0-16, VDE 2510						
Converter	G99, VDE 4105, EN50549, CE (IEC61000, IEC62477), IEC62109, NC RfG, VDE4110						
PACK	UN38.3						
Cell	IEC62619, UL1973, UL1642, UL9540A						

[1] The system will be derated when the ambient temperature exceeds 45°C.

[2] The system will be derated when the altitude is above 2000m.







## Integrated Outdoor Battery Energy Storage Cabinet

- Plug-and-play, all-in-one design
- Support solar, generator, wind turbine accessing
- Up to 100% unbalanced loads operation
- Multi grid auxiliary service application
- 5 layers safety design
- Higher availability with modular design & O&M cloud platform

# POWERMOUNT (860kWh–1720kWh)



## Containerized Battery Energy Storage System

-  Plug-and-play, all-in-one design
-  Standard 20HQ container
-  Support solar, generator, wind turbine accessing
-  Multi grid auxiliary service application
-  5 layers safety design
-  Higher availability with modular design & O&M cloud platform

## Containerized Battery Energy Storage System

PowerMount (860kWh–1720kWh)

Model	PowerMount P400–860kWh	PowerMount P500–1075kWh	PowerMount P600–1290kWh	PowerMount P700–1505kWh	PowerMount P800–1720kWh
<b>Battery</b>					
Cell Type	LiFePO4 – 280Ah				
Pack Configuration	1P20S				
System Configuration	4 * 1P240S	5 * 1P240S	6 * 1P240S	7 * 1P240S	8 * 1P240S
Battery Capacity [kWh]	860	1075	1290	1505	1720
<b>AC Output</b>					
Connection Type	3P4W+PE				
Charging / Discharging Power [kW]	400	500	600	700	800
Grid Voltage [V]	400				
Frequency [Hz]	50 / 60				
Rated AC Output Current [A]	577	722	866	1010	1155
Harmonics	< 3% (@Rated power)				
Overload Capacity	110%@10min; 120%@60s				
<b>General Parameters</b>					
Isolation Transformer	No				
Degree of Protection	Outdoor Installation (Battery Cabinet: IP55, Electrical Cabinet: IP34)				
Container Anti-Corrosion Grade	C3				
Operation Temperature <sup>[1]</sup> [°C]	-20 ~ 50				
Relative Humidity	0 ~ 95% (Non-condensing)				
Permissible Altitude <sup>[2]</sup> [m]	≤ 2000				
Cooling Method	Battery Cabinet: HVAC, Electrical Room: Forced Air Cooling				
Fire Fighting System	FAS & FM200 / Novec1230				
Noise Emission [dB]	≤ 75				
Dimension [W*D*H] [mm]	20HQ Container (6058 * 2438 * 2896)				
Weight [kg]	24500				
Communication Interface	Ethernet				
Communication Protocol	Modbus TCP / IP				
<b>Certifications &amp; Standards</b>					
Certifications	System: UN3536, LVD, EMC, RoHS				
	Cell: IEC62619, UL1973, UL9540A				
	PACK: UN38.3 PCS: G99, EN50549, AS4777.2, VDE4105				

[1] The system will be derated when the ambient temperature exceeds 45°C.

[2] The system will be derated when the altitude is above 2000m.

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4