



## INTEGM SERIES

The Power Master

Hybrid Inverter

Single-phase 3-8kW Three-phase 4-12kW Three-phase 10-20kW Three-phase 25-50kW





#### **Powering Innovation: The Solinteg MORE Platform**

The Solinteg MORE platform represents an advanced inverter development platform, embodying a unified concept of modularized hardware and firmware design. This methodology facilitates rapid product development and iteration, maintaining high consistency in performance. Inverters developed through this platform are characterized by four key features: Modular, Optional, Reliable, and Extensible. Through leveraging these principles, the Solinteg MORE platform stands at the forefront of innovative inverter technology, enhancing adaptability and efficiency across various applications.

#### Modular

Common building block (CBB) design for both hardware and structure

#### **Optional**

Modular design of firmware allows easy functional configurations

#### Reliable

Stable performance by shared knowledge and validation techniques

#### **Extensible**

Offers flexibility and feasibility for functional expansions





# Integ M

The Power Master **Hybrid Inverter** 

# MORE Product Portfolio



Integ O

The Power Operator

On-grid Inverter



Integ R

The Power Reader EMS Device





Integ E

The Power Extender **Battery** 

#### **Experience the Integ M Hybrid Inverter**

Comprehensive Power Coverage for Every Distributed Solar Storage Need



#### Integ M 3-8kW

Single-phase Hybrid Inverter

MHS-3K-30 MHS-3.6K-30 MHS-4.2K-30 MHS-5K-30 MHS-6K-30 MHS-8K-30



Location: Schwabmünchen, Germany Completed: Jul, 2023 PV System: 8.7kW Storage Capacity: 10kWh



#### Integ M 4-12kW

Three-phase Hybrid Inverter

MHT-4K-25 MHT-5K-25 MHT-6K-25 MHT-8K-25 MHT-10K-25 MHT-12K-25



Location: Ukraine Completed: Feb, 2023 PV System: 10kW Storage Capacity: 10kWh



#### Integ M 10-20kW

Three-phase Hybrid Inverter

MHT-10K-40 MHT-12K-40 MHT-15K-40 MHT-<u>20K-40</u>



Location: Brno, Czech Completed: Apr, 2023 PV System: 120kW Storage Capacity: 60kWh



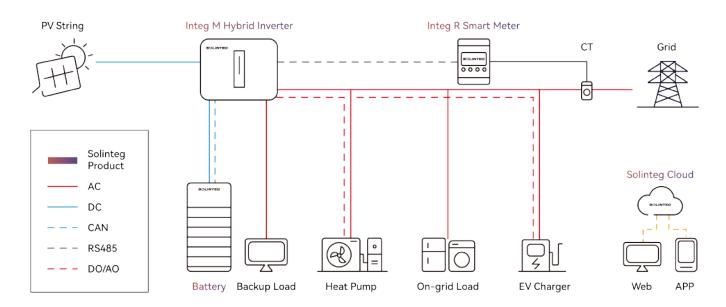
#### Integ M 25-50kW

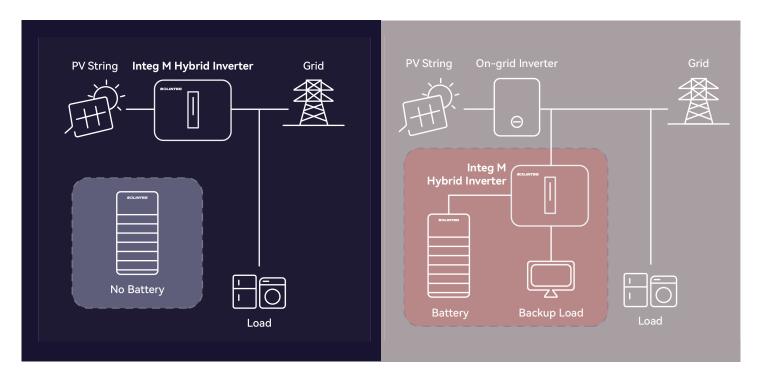
Three-phase Hybrid Inverter

MHT-25K-100 MHT-30K-100 MHT-36K-100 MHT-40K-100 MHT-50K-100







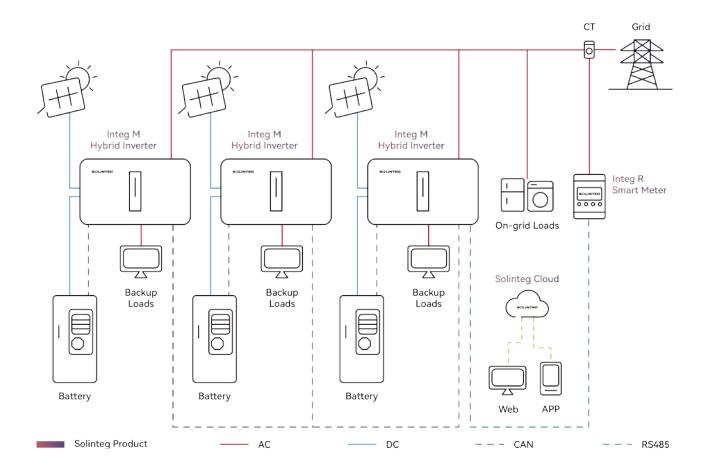


**Battery Ready Scenario** 

**AC Retrofit Scenario** 

#### **Embrace the Future with Solinteg ParkOne Solution**

**Decentralized Power, Centralized Intelligence for Commercial and Industrial Solar Storage** 









## 3-8kW **Hybrid Inverter**

MHS-3/3.6/4.2/5/6/8K-30 Single Phase | HV Battery



Maximized Energy

Harvesting

- 160% DC oversizing boosts solar capture
- Starts at 80V for more generation time
- Continuous 110% AC overloading sustains
- 10ms UPS-level switch secures supply



Engineered for

Versatility

- Wide 85-450V range fits diverse batteries
- IP65 protects both indoors and outdoors
- Silent 25dB operation for comfort



Simplified

- Interaction
- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control



Intelligent Energy **Dynamics** 

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency

#### Integ M 3-8kW

Model		MHS-3K-30	MHS-3.6K-30	MHS-4.2K-30	MHS-5K-30	MHS-6K-30	MHS-8K-30
PV Input							
Recommended Max. input power	[kW]	4.80	5.76	6.72	8.00	9.60	12.80
Start-up voltage	[V]	80	80	80	80	80	80
Max. DC input voltage*	[V]	600*	600*	600*	600*	600*	600*
Rated DC input voltage	[V]	360	360	360	360	360	360
MPPT voltage range*	[V]	100-550*	100-550*	100-550*	100-550*	100-550*	100-550*
No. of MPP trackers		1	1	2	2	2	2
No. of DC inputs per MPPT		1	1	1/1	1/1	1/1	1/1
Max. input current	[A]	15	15	15/15	15/15	15/15	15/15
Max. short-circuit current	[A]	20	20	20/20	20/20	20/20	20/20
Battery Side							
Battery type				Lithium Batte	ry (with BMS)		
Battery voltage range	[V]			85-4	450		
Maximum charging/discharge currer	nt [A]			30/	30		
Grid Side							
Rated output power	[kW]	3.00	3.60	4.20	5.003)	6.00	8.00
Max. output apparent power	[kVA]	3.30	3.961)	4.60	5.50 <sup>4)</sup>	6.60	8.00
Max. input apparent power**	[kVA]	6.00	7.20	8.40	10.00	10.00	12.00
Max. charging power of battery	[kW]	3.00	3.60	4.20	5.00	6.00	8.00
Rated AC voltage				L/N/PE; 220	)/230/240V		
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Max. output current	[A]	15.00	18.00 <sup>2)</sup>	21.00	25.005)	28.70	36.30
Power factor				0.8 leading	0.8 lagging		
Max. total harmonic distortion				<3% @Rated	output power		
DCI		<0.5%ln	<0.5%In	<0.5%ln	<0.5%ln	<0.5%ln	<0.5%In
Back-up Side							
Rated output power	[kW]	3.00	3.60	4.20	5.00	6.00	8.00
Max. output apparent power	[kVA]	3.30	3.96	4.60	5.50	6.60	8.00
Max. output current	[A]	15.00	18.00	21.00	25.00	28.70	36.30
UPS switching time		<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Rated output voltage				L/N/PE; 220	)/230/240V		
Rated output frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Voltage harmonic distortion				<3% @Lir	near load		
Efficiency							
Max. efficiency		97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
European efficiency		97.0%	97.0%	97.0%	97.0%	97.0%	97.0%
Protection							
DC reverse polarity protection				Integr	rated		
Battery input reverse connection pro	otection			Integr	rated		
Insulation resistance protection				Integ	rated		
Surge protection				Integr	rated		
Over-temperature protection				Integ	rated		
Residual current protection				Integr	rated		
Islanding protection				Integr	rated		
AC over-voltage protection				Integ			
Overload protection		Integrated					
AC short-circuit protection				Integr			
General Data							
Over voltage category				PV: II N	1ain: III		
	[W×H×D mm]			534×41	8×210		
Weight	[KG]			27	.0		
Protection degree				IPa			
Standby self-consumption	[W]			<1			
Topology				Transfor			
Operating Temperature Range	[°C]			-30			
Relative Humidity	[%]			0~1			
Operating Altitude	[m]			3000 (>3000			
Cooling	į.i.g			Natural Co			
Noise Level	[dB]			<2			
Display	[05]			OLED :			
Communication				CAN, RS485, WiF			
- Communication				O/ 114, 110400, VVII	" = " (Obtional)		

<sup>\*</sup> PV Max. Input voltage is 550V without battery, or 500V with battery, otherwise inverter will be waiting; \*\* Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery;

<sup>1)</sup> G98: 3.68kVA; 2) G98: 16.00A; 3) AS 4777.2: 5.0kW, VDE-AR-N 4105: 4.6kW; 4) AS 4777.2: 5.0kVA, VDE-AR-N 4105: 4.60kVA, C10/11: 5.0kVA; 5) AS 4777.2: 21.7A, VDE-AR-N 4105: 21.0A, C10/11: 21.7A;





## 4-12kW Hybrid Inverter

MHT-4/5/6/8/10/12K-25
Three Phase | HV Battery | 2 MPPTs



Maximized Energy : Harvesting

- 150% DC oversizing boosts solar capture
- 110% unbalanced output enhances self-
- Continuous 110% AC overloading sustains power
- 10ms UPS-level switch secures supply



Engineered for Versatility

- Wide 135-750V range fits diverse batteries
  - 200% max backup @60s handles overloads
- IP65 protects both indoors and outdoors
- Silent 25dB operation for comfort



Simplified Interaction

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control



Intelligent Energy

Dynamics

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency

#### Integ M 4-12kW

Model		MHT-4K-25	MHT-5K-25	MHT-6K-25	MHT-8K-25	MHT-10K-25	MHT-12K-25
PV Input Recommended Max. input power	[kW]	6.0	7.5	9.0	12.0	15.0	18.0
Start-up voltage	[V]	135	135	135	135	135	135
Max. DC input voltage*	[V]	1000*	1000*	1000*	1000*	1000*	1000*
Rated DC input voltage	[V]	620	620	620	620	620	620
		120-950*	120-950*	120-950*	200-950*	200-950*	200-950*
MPPT voltage range*	[V]						
No. of MPP trackers		2	2	2	2	2	2
No. of DC inputs per MPPT	F.4.7	1/1	1/1	1/1	1/1	1/1	1/1
Max. input current	[A]	15/15	15/15	15/15	15/15	15/15	15/15
Max. short-circuit current	[A]	20/20	20/20	20/20	20/20	20/20	20/20
Battery Side				1311 5 0	( ::1 5) (6)		
Battery type	5.0				ery (with BMS)		
Battery voltage range	[V]				-750		
Maximum charging/discharge curr	ent [A]			25	/25		
Grid Side	Fi. v. C					40.0	10.0
Rated output power	[kW]	4.0	5.0	6.0	8.0	10.0	12.0
Max. output apparent power	[kVA]	4.4	5.5	6.6	8.8	11.0 <sup>1)</sup>	13.2
Max. input apparent power**	[kVA]	8.0	10.0	12.0	16.0	16.5	16.5
Max. charging power of battery	[kW]	4.0	5.0	6.0	8.0	10.0	12.0
Rated AC voltage				3L/N/PE; 220/380V;			
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Max. output current	[A]	6.7	8.3	10.0	13.3	16.5 <sup>2)</sup>	20.0
Power factor				0.8 leading .	0.8 lagging		
Max. total harmonic distortion				<3% @Rated	output power		
DCI		<0.5%In	<0.5%In	<0.5%In	<0.5%In	<0.5%In	<0.5%In
Back-up Side							
Rated output power	[kW]	4.0	5.0	6.0	8.0	10.0	12.0
Max. output apparent power	[kVA]	4.4	5.5	6.6	8.8	11.0	13.2
Max. output current	[A]	6.7	8.3	10.0	13.3	16.5	20.0
UPS switching time		<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Rated output voltage		101110		3L/N/PE; 220/380V;			
Rated output frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Voltage harmonic distortion	[, , <u></u> ]	00/00	00/00		near load	00/00	00/00
Efficiency				.570 @EI	ricur iouu		
Max. efficiency		98.1%	98.1%	98.1%	98.2%	98.2%	98.2%
European efficiency		97.3%	97.3%	97.3%	97.4%	97.4%	97.4%
Protection	_	77.576	77.576	77.576	77.470	77.470	77.470
DC reverse polarity protection				Intoo	rated		
Battery input reverse connection p	protection				rated		
Insulation resistance protection	DIOLECTION				rated		
Surge protection					rated		
• '							
Over-temperature protection					rated		
Residual current protection Islanding protection					rated rated		
0.1							
AC over-voltage protection					rated		
Overload protection				-	rated		
AC short-circuit protection				Integ	rated		
General Data					4 : 111		
Over voltage category					Main: III		
	[W×H×D mm]				18×210		
Weight	[KG]				5.0		
Protection degree					65		
Standby self-consumption	[W]				15		
Topology					rmerless		
Operating Temperature Range	[°C]			-30	l~60		
Relative Humidity	[%]			0~	100		
Operating Altitude	[m]			3000 (>3000	Om derating)		
Cooling				Natural C	onvection		
Noise Level	[dB]			<	25		
Display				OLED	& LED		
Communication			CAN, RS485, WiFi/LAN (Optional)				
				· · · · · ·			

<sup>\*</sup> PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise inverter will be waiting; \*\* Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery;





## 10-20kW Hybrid Inverter

MHT-10/12/15/20K-40
Three Phase | HV Battery | 2 MPPTs



Maximized Energy •

Harvesting

- 110% unbalanced output enhances selfconsumption
- 40A charging/discharging for efficient energy transfer
- Continuous 110% AC overloading sustains
   power
- 10ms UPS-level switch secures supply



Engineered for

Versatility

- Wide 135-750V range fits diverse batteries
  - 200% max backup @60s handles overloads
- IP65 protects both indoors and outdoors



Simplified

Interaction

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control



Intelligent Energy

**Dynamics** 

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency

#### Integ M 10-20kW

Model		MHT-10K-40	MHT-12K-40	MHT-15K-40	MHT-20K-40
PV Input	FLACT	45.0	40.0	00.5	20.0
Recommended Max. input power	[kW]	15.0	18.0	22.5	30.0
Start-up voltage	[V]	135	135	135	135
Max. DC input voltage*	[V]	1000*	1000*	1000*	1000*
Rated DC input voltage	[V]	620	620	620	620
MPPT voltage range*	[V]	200-950*	200-950*	200-950*	200-950*
No. of MPP trackers		2	2	2	2
No. of DC inputs per MPPT		2/2	2/2	2/2	2/2
Max. input current	[A]	30/30	30/30	30/30	30/30
Max. short-circuit current	[A]	40/40	40/40	40/40	40/40
Battery Side					
Battery type			Lithium Batte	ery (with BMS)	
Battery voltage range	[V]			-750	
Maximum charging/discharge curi				/40	
Grid Side	rent [/tj			7-10	
Rated output power	[kW]	10.0	12.0	15.0	20.0
		11.01)		16.53)	
Aax. output apparent power	[kVA]		13.2		22.0
Max. input apparent power**	[kVA]	20.0	24.0	30.0	30.0
Max. charging power of battery	[kW]	10.0	12.0	15.0	20.0
Rated AC voltage				230/400V;240/415V	
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60
lax. output current	[A]	16.5 <sup>2)</sup>	20.0	25.0 <sup>4)</sup>	33.5
Power factor			0.8 leading .	0.8 lagging	
Max. total harmonic distortion				output power	
OCI		<0.5%In	<0.5%In	<0.5%ln	<0.5%ln
Back-up Side					2.070
Rated output power	[kW]	10.0	12.0	15.0	20.0
lax. output apparent power	[kVA]	11.0	13.2	16.5	22.0
Max. output current	[A]	16.5	20.0	25.0	33.5
JPS switching time	[/-]	<10.5	<10ms	<10ms	<10ms
•		<10IIIS			< 10111S
Rated output voltage				230/400V;240/415V	
Rated output frequency	[Hz]	50/60	50/60	50/60	50/60
/oltage harmonic distortion			<3% @Li	near load	
Efficiency					
Max. efficiency		98.4%	98.4%	98.4%	98.4%
European efficiency		97.5%	97.5%	97.5%	97.5%
Protection					
OC reverse polarity protection			Integ	rated	
Battery input reverse connection	protection		Integ	rated	
nsulation resistance protection				rated	
Surge protection				rated	
Over-temperature protection				rated	
Residual current protection				rated	
slanding protection				rated	
AC over-voltage protection				rated	
Overload protection				rated	
AC short-circuit protection			Integ	rated	
General Data					
Over voltage category				Main: III	
	[W×H×D mm]			18×210	
Veight	[KG]		28.0 (10-12kW)	/ 31.0 (15-20kW)	
rotection degree			IP	65	
tandby self-consumption	[W]		<	15	
opology				rmerless	
Operating Temperature Range	[°C]			1~60	
Relative Humidity	[%]			100	
Operating Altitude	[m]			Om derating)	
-	[III]				
Cooling	[-ID]			rt fan	
Noise Level	[dB]			40	
Display				& LED	
Communication			CAN, RS485, Wif	Fi/LAN (Optional)	

<sup>\*</sup> PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise inverter will be waiting; \*\* Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery;



98.8%

100%

20<sub>ms</sub>

Max Efficiency

Unbalanced Output UPS-Level Switching



### 25-50kW **Hybrid Inverter**

MHT-25/30/36/40/50K-100 Three Phase | HV Battery | 4 MPPTs



Maximized Energy .

Harvesting

- 100% unbalanced output enhances self-
- 100A charging/discharging for efficient energy transfer
- Continuous 110% AC overloading sustains
- Starts at 135V for more generation time



Engineered for

Versatility

- 120% max backup @60s handles overloads
  - IP65 protects both indoors and outdoors
- Parallel up to 10 devices for scalable system expansion



Simplified

Interaction

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control



Intelligent Energy · **Dynamics** 

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency
- Supports diesel generators for diverse energy sourcing

#### Integ M 25-50kW

Model		MHT-25K-100	MHT-30K-100	MHT-36K-100	MHT-40K-100	MHT-50K-100
PV Input						
Recommended Max. input power	[kW]	37.5	45.0	54.0	60.0	75.0
Start-up voltage	[V]	135	135	135	135	135
Max. DC input voltage*	[V]	1000*	1000*	1000*	1000*	1000*
Rated DC input voltage	[V]	620	620	620	620	620
MPPT voltage range* No. of MPP trackers	[V]	200-850* 4	200-850* 4	200-850* 4	200-850*	200-850*
No. of DC inputs per MPPT		2	2	2	2	2
Max. input current	[A]	30×4	30×4	30×4	30×4	30×4
Max. short-circuit current	[A]	40×4	40×4	40×4	40×4	40×4
Battery Side						
Battery type				_ithium Battery (with BMS	3)	
Battery voltage range	[V]			135-750		
Maximum charging/discharge current	[A]			100/100		
Grid Side						
Rated output power	[kW]	25.0	30.0	36.0	40.0	50.0
Max. output apparent power	[kVA]	27.5	33.01)	39.6	44.0	55.0
Max. input apparent power**	[kVA]	30.0	36.0	43.5	48.0	60.0
Max. charging power of battery	[kW]	25.0	30.0	36.0	40.0	50.0
Rated AC voltage			3L/N/F	E; 220/380V;230/400V;24	0/415V	
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60	50/60
Max. output current	[A]	42.0	50.02)	60.0	66.0	83.0
Power factor	<i>D</i> G	.2.0		0.8 leading0.8 lagging		00.0
Max. total harmonic distortion		-O F0/1		<3% @Rated output powers.		0.50/1
DCI		<0.5%In	<0.5%ln	<0.5%In	<0.5%In	<0.5%ln
Back-up Side						
Rated output power	[kW]	25.0	30.0	36.0	40.0	50.0
Max. output apparent power	[kVA]	27.5	33.0	39.6	44.0	55.0
Max. output current	[A]	42.0	50.0	60.0	66.0	83.0
JPS switching time		<20ms	<20ms	<20ms	<20ms	<20ms
Rated output voltage		201110		E; 220/380V;230/400V;24		201110
Rated output voltage Rated output frequency	[Hz]	50/60	50/60	50/60	50/60	50/60
, , ,	[HZ]	30/00	30/00		30/00	30/00
Voltage harmonic distortion				<3% @Linear load		
Generator Side						
Max. intput apparent power**	[kVA]	30.0	36.0	43.5	48.0	60.0
Max. charging power of battery	[kW]	25.0	30.0	36.0	40.0	50.0
Rated AC voltage			3L/N/F	E; 220/380V;230/400V;24	-0/415V	
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60	50/60
Max. input current	[A]	43.5	52.2	63.0	69.6	87.0
Efficiency	2.3	10.0	02.L	00.0	07.0	07.0
	_	00.00/	00.00/	00.00/	00.00/	00.00/
Max. efficiency		98.8%	98.8%	98.8%	98.8%	98.8%
European efficiency		98.3%	98.3%	98.3%	98.3%	98.3%
Protection						
OC reverse polarity protection				Integrated		
Battery input reverse connection protect	ion			Integrated		
nsulation resistance protection				Integrated		
Surge protection				Integrated		
Over-temperature protection				Integrated		
•						
Residual current protection				Integrated		
slanding protection				Integrated		
AC over-voltage protection				Integrated		
Overload protection				Integrated		
AC short-circuit protection				Integrated		
General Data						
Over voltage category				PV: II Main: III		
	H×D mm]			800×620×300		
Weight	[KG]			72.0		
<del>-</del>	[KG]					
Protection degree	D.C			IP65		
Standby self-consumption	[W]			<15		
「opology				Transformerless		
Operating Temperature Range	[°C]			-30~60		
Relative Humidity	[%]			0~100		
Operating Altitude	[m]			3000 (>3000m derating)		
1 3	L			Smart fan		
Cooling						
•	[מא]			< FU		
Cooling Noise Level	[dB]			<50		
•	[dB]			<50 OLED & LED N, RS485, WiFi/LAN (Option		

<sup>\*</sup> PV Max. Input voltage is 850V, otherwise inverter will be waiting;
\*\* Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery;

## INTEGRATE SOLAR INTELLIGENTLY