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PV ONE-STOP SOLUTION

Core Technology

apex solar hybrid inverter 3-50kW with 208/230/240/400Vac



4	Automatic switching time 4ms
6	6 time periods for battery charging/discharging
16	V/f droop control, Max. 16pcs in parallel
24	Supports using diesel generator to charge battery directly, ensuring system energy supply 7* 24H
95.5	Max. conversion efficiency of 97.6%; Max. battery charge efficiency of 95.5%
240	Max. charging/discharging current of 240A

Core Features

apex solar grid-connected inverter 1-110kW

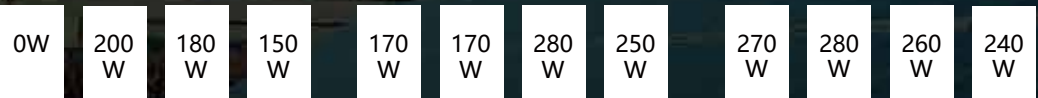
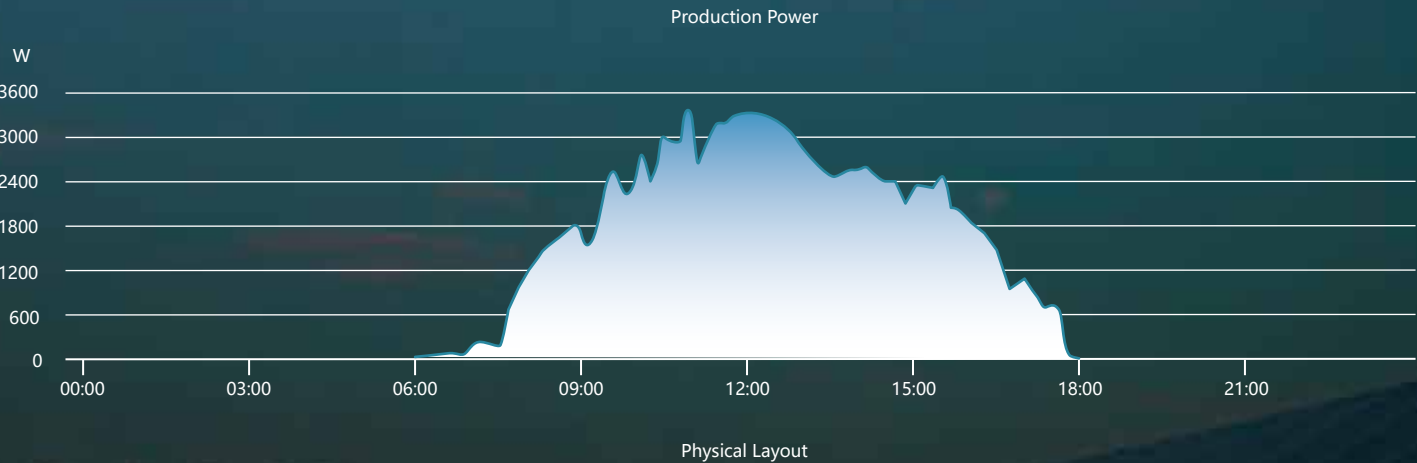
- ✓ Max. 8 MPP trackers, Max. efficiency up to 98.9%
- ✓ High DC/AC ratio 1.5 times for more yields
- ✓ Wide output voltage range 277-520Vac
- ✓ Zero export application, response speed within 0.5S
- ✓ T-type three-level topology and enhanced SVPWM
- ✓ Type II DC / AC SPD, frequency droop control technology
- ✓ Max. DC input current of 16A/string, adpat to 600W solar panel
- ✓ String intelligent monitoring (optional), Ani-PID function (Optional)



Main Highlights

apex solar microinverter 300-2000W

- ◆ Support reactive power compensation, comply with UL code.
- ◆ Module level monitoring, Max. 4 MPPTs design
- ◆ Max. DC input current 13A, adapt to 600W PV module
- ◆ Rapid shutdown function, safe and reliable
- ◆ PLC, Zigbee or WIFI communication
- ◆ IP67 protection degree, 10 years warranty



World-Class Components Suppliers

apex solar chooses world-class suppliers to ensure the high quality of its products.

MOSFET, IGBT



IC



Capacitor, Inductor



Diode



Relay



FAN



APEX Inverter Portfolio



Three Phase
String Inverter (LV)



Single Phase
Hybrid Inverter



Microinverter



Single Phase
String Inverter



Three Phase
String Inverter



Three Phase
Hybrid Inverter



Accessory &
monitoring

Single Phase String Inverter



APEX-P1-1/1.5/2/2.5/3/3.6/4K



1 MPP trackers, Max. efficiency up to 97.5%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Low start-up voltage of 80V

Technical Data

Model	APEX -P1-1000	APEX -P1-1500	APEX -P1-2000	APEX -P1-2500	APEX -P1-3000	APEX -P1-3600	APEX -P1-4000
Input Side							
Max. DC Input Power (kW)	1.3	2	2.6	3.3	3.9	4.7	5.2
Max. DC Input Voltage (V)	550						
Start-up DC Input Voltage (V)	80						
MPPT Operating Range (V)	70~500						
Max. DC Input Current (A)	13						
Max. Short Circuit Current (A)	19.5						
No.of MPP Trackers	1						
No.of Strings per MPP Tracker	1						
Output Side							
Rated Output Power (kW)	1	1.5	2	2.5	3	3.6	4
Max. Active Power (kW)	1.1	1.65	2.2	2.75	3.3	3.96	4.4
Nominal Output Voltage / Range (V)	L/N/PE 220/230V (Optional)						
Rated Grid Frequency (Hz)	50 / 60 (Optional)						
Operating Phase	Single phase						
Rated AC Grid Output Current (A)	4.5/4.3	6.8/6.5	9.1/8.7	11.4/10.9	13.6/13	16.4/15.7	18.2/17.4
Max. AC Output Current (A)	5/4.8	7.5/7.2	10/9.6	12.5/12	15/14.3	18/17.2	20/19.1
Output Power Factor	0.8 leading to 0.8 lagging						
Grid Current THD	<3%						
DC Injection Current (mA)	<0.5%						
Grid Frequency Range	47~52 or 57~62 (Optional)						
Efficiency							
Max. Efficiency	97.3%	97.3%	97.3%	97.3%	97.5%	97.5%	97.5%
Euro Efficiency	97.1%	97.1%	97.1%	97.1%	97.3%	97.3%	97.3%
MPPT Efficiency	>99%						
Protection							
DC Reverse-Polarity Protection	Yes						
AC Short Circuit Protection	Yes						
AC Output Overcurrent Protection	Yes						
Output Overvoltage Protection	Yes						
Insulation Resistance Protection	Yes						
Ground Fault Monitoring	Yes						
Anti-islanding Protection	Yes						
Temperature Protection	Yes						
Integrated DC Switch	Yes						
Remote software upload	Yes						
Remote change of operating parameters	Yes						
Surge protection	DC Type II / AC Type II						
General Data							
Size (mm)	280W×272.5H×184D						
Weight (kg)	4.8						
Topology	Transformerless						
Internal Consumption	<1W (Night)						
Running Temperature	-25~65℃, >45℃ derating						
Ingress Protection	IP65						
Noise Emission (Typical)	≤35 dB						
Cooling Concept	Natural cooling						
Max. Operating Altitude Without Derating	2000m						
Warranty	5 years						
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150						
Operating Surroundings Humidity	0-100%						
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						
Features							
DC Connection	MC-4 mateable						
AC Connection	IP65 rated plug						
Display	LCD1602						
Interface	RS485/RS232/Wifi/LAN						

Single Phase String Inverter



APEX-P1-3.6/4/4.6/5/6K

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2 MPP trackers, Max. efficiency up to 97.5%
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Zero export application, VSG application
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String intelligent monitoring (optional)
- 

Wide output voltage range
- 

Anti-PID function (Optional)
- 

Low start-up voltage of 80V

Technical Data

Model	APEX-P1-3600		APEX-P1-4000		APEX-P1-4600		APEX-P1-5000		APEX-P1-6000	
Input Side										
Max. DC Input Power (kW)	4.7		5.2		5.98		6.5		7.8	
Max. DC Input Voltage (V)	550									
Start-up DC Input Voltage (V)	80									
MPPT Operating Range (V)	70~500									
Max. DC Input Current (A)	13+13									
Max. Short Circuit Current (A)	19.5+19.5									
No.of MPP Trackers	2									
No.of Strings per MPP Tracker	1									
Output Side										
Rated Output Power (kW)	3.6		4		4.6		5		6	
Max. Active Power (kW)	3.96		4.4		5.06		5.5		6.6	
Nominal Output Voltage / Range (V)	L/N/PE 220/230V (Optional)									
Rated Grid Frequency (Hz)	50 / 60 (Optional)									
Operating Phase	Single phase									
Rated AC Grid Output Current (A)	16.4/15.7		18.2/17.4		20.9/20		22.7/21.7		27.3/26.1	
Max. AC Output Current (A)	18/17.2		20/19.1		23/22		25/23.9		30/28.7	
Output Power Factor	0.8 leading to 0.8 lagging									
Grid Current THD	<3%									
DC Injection Current (mA)	<0.5%									
Grid Frequency Range	47~52 or 57~62 (Optional)									
Efficiency										
Max. Efficiency	97.3%		97.5%		97.5%		97.5%		97.5%	
Euro Efficiency	97.1%		97.3%		97.3%		97.3%		97.3%	
MPPT Efficiency	>99%									
Protection										
DC Reverse-Polarity Protection	Yes									
AC Short Circuit Protection	Yes									
AC Output Overcurrent Protection	Yes									
Output Overvoltage Protection	Yes									
Insulation Resistance Protection	Yes									
Ground Fault Monitoring	Yes									
Anti-islanding Protection	Yes									
Temperature Protection	Yes									
Integrated DC Switch	Yes									
Remote software upload	Yes									
Remote change of operating parameters	Yes									
Surge protection	DC Type II / AC Type II									
General Data										
Size (mm)	330W×323H×190D									
Weight (kg)	7.5									
Topology	Transformerless									
Internal Consumption	<1W (Night)									
Running Temperature	-25~65°C, >45°C derating									
Ingress Protection	IP65									
Noise Emission (Typical)	≤35 dB									
Cooling Concept	Natural cooling									
Max. Operating Altitude Without Derating	2000m									
Warranty	5 years									
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150									
Operating Surroundings Humidity	0-100%									
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2									
Features										
DC Connection	MC-4 mateable									
AC Connection	IP65 rated plug									
Display	LCD1602									
Interface	RS485/RS232/Wifi/LAN									

Single Phase String Inverter



APEX-P1-7/7.5/8/9/10/10.5K



2 MPP trackers, Max. efficiency up to 97.7%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Low start-up voltage of 80V

Technical Data

Model	APEX-P1-7000		APEX-P1-7500		APEX-P1-8000		APEX-P1-9000		APEX-P1-10K		APEX-P1-10.5K	
Input Side												
Max. DC Input Power (kW)	9.1		9.8		10.4		11.7		13		13.7	
Max. DC Input Voltage (V)	550											
Start-up DC Input Voltage (V)	80											
MPPT Operating Range (V)	70~500											
Max. DC Input Current (A)	13+26						26+26					
Max. Short Circuit Current (A)	19.5+39						39+39					
No.of MPP Trackers	2											
No.of Strings per MPP Tracker	1+2						2					
Output Side												
Rated Output Power (kW)	7		7.5		8		9		10		10.5	
Max. Active Power (kW)	7.7		8.25		8.8		9.9		11		11.55	
Nominal Output Voltage / Range (V)	L/N/PE 220/230V (Optional)											
Rated Grid Frequency (Hz)	50 / 60 (Optional)											
Operating Phase	Single phase											
Rated AC Grid Output Current (A)	31.8/30.4		34.1/32.6		36.4/34.8		40.9/39.1		45.5/43.5		47.7/45.7	
Max. AC Output Current (A)	35/33.5		37.5/35.9		40/38.3		45/43		50/47.8		52.5/50.2	
Output Power Factor	0.8 leading to 0.8 lagging											
Grid Current THD	<3%											
DC Injection Current (mA)	<0.5%											
Grid Frequency Range	47~52 or 57~62 (Optional)											
Efficiency												
Max. Efficiency	97.7%											
Euro Efficiency	97.5%											
MPPT Efficiency	>99%											
Protection												
DC Reverse-Polarity Protection	Yes											
AC Short Circuit Protection	Yes											
AC Output Overcurrent Protection	Yes											
Output Overvoltage Protection	Yes											
Insulation Resistance Protection	Yes											
Ground Fault Monitoring	Yes											
Anti-islanding Protection	Yes											
Temperature Protection	Yes											
Integrated DC Switch	Yes											
Remote software upload	Yes											
Remote change of operating parameters	Yes											
Surge protection	DC Type II / AC Type II											
General Data												
Size (mm)	330W×410H×198.5D											
Weight (kg)	15.7											
Topology	Transformerless											
Internal Consumption	<1W (Night)											
Running Temperature	-25~65℃, >45℃ derating											
Ingress Protection	IP65											
Noise Emission (Typical)	≤35 dB											
Cooling Concept	Natural cooling											
Max. Operating Altitude Without Derating	2000m											
Warranty	5 years											
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150											
Operating Surroundings Humidity	0-100%											
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2											
Features												
DC Connection	MC-4 mateable											
AC Connection	IP65 rated plug											
Display	LCD1602											
Interface	RS485/RS232/Wifi/LAN											

Three Phase String Inverter



APEX-P3-4/5/6/7/8/10/12K

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2 MPP trackers, Max. efficiency up to 98.3%
- 

Zero export application, VSG application
- 

String intelligent monitoring (optional)
- 

Wide output voltage range
- 

Anti-PID function (Optional)

Technical Data

Model	APEX-P3-4000		APEX-P3-5000		APEX-P3-6000		APEX-P3-7000		APEX-P3-8000		APEX-P3-10K		APEX-P3-12K	
Input Side														
Max. DC Input Power (kW)	5.2		6.5		7.8		9.1		10.4		13		15.6	
Max. DC Input Voltage (V)	1000													
Start-up DC Input Voltage (V)	140												250	
MPPT Operating Range (V)	120~850												200~850	
Max. DC Input Current (A)	13+13													
Max. Short Circuit Current (A)	19.5+19.5													
No.of MPP Trackers	2													
No.of Strings per MPP Tracker	1													
Output Side														
Rated Output Power (kW)	4		5		6		7		8		10		12	
Max. Active Power (kW)	4.4		5.5		6.6		7.7		8.8		11		13.2	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V													
Rated Grid Frequency (Hz)	50 / 60 (Optional)													
Operating Phase	Three phase													
Rated AC Grid Output Current (A)	6.1/5.8		7.6/7.2		9.1/8.7		10.6/10.1		12.1/11.6		15.2/14.5		18.2/17.4	
Max. AC Output Current (A)	6.7/6.4		8.3/8		10/9.6		11.7/11.1		13.3/12.8		16.7/15.9		20/19.1	
Output Power Factor	0.8 leading to 0.8 lagging													
Grid Current THD	<3%													
DC Injection Current (mA)	<0.5%													
Grid Frequency Range	47~52 or 57~62 (Optional)													
Efficiency														
Max. Efficiency	98.3%													
Euro Efficiency	97.5%													
MPPT Efficiency	>99%													
Protection														
DC Reverse-Polarity Protection	Yes													
AC Short Circuit Protection	Yes													
AC Output Overcurrent Protection	Yes													
Output Overvoltage Protection	Yes													
Insulation Resistance Protection	Yes													
Ground Fault Monitoring	Yes													
Anti-islanding Protection	Yes													
Temperature Protection	Yes													
Integrated DC Switch	Yes													
Remote software upload	Yes													
Remote change of operating parameters	Yes													
Surge protection	DC Type II / AC Type II													
General Data														
Size (mm)	330W×457H×185D												330×457×205	
Weight (kg)	10												11	
Topology	Transformerless													
Internal Consumption	<1W (Night)													
Running Temperature	-25~-65℃, >45℃ derating													
Ingress Protection	IP65													
Noise Emission (Typical)	≤30 dB													
Cooling Concept	Natural cooling													
Max. Operating Altitude Without Derating	2000m													
Warranty	5 years													
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150													
Operating Surroundings Humidity	0-100%													
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2													
Features														
DC Connection	MC-4 mateable													
AC Connection	IP65 rated plug													
Display	LCD1602													
Interface	RS485/RS232/Wifi/LAN													

Three Phase String Inverter



APEX-P3-4/5/6/7/8/10/12K-G



2 MPP trackers, Max. efficiency up to 98.3%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)

Technical Data

Model	APEX-P3-4000-G		APEX-P3-5000-G		APEX-P3-6000-G		APEX-P3-7000-G		APEX-P3-8000-G		APEX-P3-10K-G		APEX-P3-12K-G	
Input Side														
Max. DC Input Power (kW)	5.2		6.5		7.8		9.1		10.4		13		15.6	
Max. DC Input Voltage (V)	1000													
Start-up DC Input Voltage (V)	140												250	
MPPT Operating Range (V)	120~850												200~850	
Max. DC Input Current (A)	20+20													
Max. Short Circuit Current (A)	30+30													
No.of MPP Trackers	2													
No.of Strings per MPP Tracker	1													
Output Side														
Rated Output Power (kW)	4		5		6		7		8		10		12	
Max. Active Power (kW)	4.4		5.5		6.6		7.7		8.8		11		13.2	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V													
Rated Grid Frequency (Hz)	50 / 60 (Optional)													
Operating Phase	Three phase													
Rated AC Grid Output Current (A)	6.1/5.8		7.6/7.2		9.1/8.7		10.6/10.1		12.1/11.6		15.2/14.5		18.2/17.4	
Max. AC Output Current (A)	6.7/6.4		8.3/8		10/9.6		11.7/11.1		13.3/12.8		16.7/15.9		20/19.1	
Output Power Factor	0.8 leading to 0.8 lagging													
Grid Current THD	<3%													
DC Injection Current (mA)	<0.5%													
Grid Frequency Range	47~52 or 57~62 (Optional)													
Efficiency														
Max. Efficiency	98.3%													
Euro Efficiency	97.5%													
MPPT Efficiency	>99%													
Protection														
DC Reverse-Polarity Protection	Yes													
AC Short Circuit Protection	Yes													
AC Output Overcurrent Protection	Yes													
Output Overvoltage Protection	Yes													
Insulation Resistance Protection	Yes													
Ground Fault Monitoring	Yes													
Anti-islanding Protection	Yes													
Temperature Protection	Yes													
Integrated DC Switch	Yes													
Remote software upload	Yes													
Remote change of operating parameters	Yes													
Surge protection	DC Type II / AC Type II													
General Data														
Size (mm)	330W×457H×185D												330×457×205	
Weight (kg)	10												11	
Topology	Transformerless													
Internal Consumption	<1W (Night)													
Running Temperature	-25~65℃, >45℃ derating													
Ingress Protection	IP65													
Noise Emission (Typical)	≤30 dB													
Cooling Concept	Natural cooling													
Max. Operating Altitude Without Derating	2000m													
Warranty	5 years													
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150													
Operating Surroundings Humidity	0-100%													
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2													
Features														
DC Connection	MC-4 mateable													
AC Connection	IP65 rated plug													
Display	LCD1602													
Interface	RS485/RS232/Wifi/LAN													

Three Phase String Inverter



APEX-P3-15/17K

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2 MPP trackers, Max. efficiency up to 98.5%
- 

Zero export application, VSG application
- 

String intelligent monitoring (optional)
- 

Wide output voltage range
- 

Anti-PID function (Optional)

Technical Data

Model	APEX-P3-15K		APEX-P3-17K	
Input Side				
Max. DC Input Power (kW)	19.5		22.1	
Max. DC Input Voltage (V)	1000			
Start-up DC Input Voltage (V)	250			
MPPT Operating Range (V)	200~850			
Max. DC Input Current (A)	13+26			
Max. Short Circuit Current (A)	19.5+39			
No.of MPP Trackers	2			
No.of Strings per MPP Tracker	1+2			
Output Side				
Rated Output Power (kW)	15		17	
Max. Active Power (kW)	16.5		18.7	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V			
Rated Grid Frequency (Hz)	50 / 60 (Optional)			
Operating Phase	Three phase			
Rated AC Grid Output Current (A)	22.7/21.7		25.8/24.6	
Max. AC Output Current (A)	25/23.9		28.3/27.1	
Output Power Factor	0.8 leading to 0.8 lagging			
Grid Current THD	<3%			
DC Injection Current (mA)	<0.5%			
Grid Frequency Range	47~52 or 57~62 (Optional)			
Efficiency				
Max. Efficiency	98.5%			
Euro Efficiency	97.5%			
MPPT Efficiency	>99%			
Protection				
DC Reverse-Polarity Protection	Yes			
AC Short Circuit Protection	Yes			
AC Output Overcurrent Protection	Yes			
Output Overvoltage Protection	Yes			
Insulation Resistance Protection	Yes			
Ground Fault Monitoring	Yes			
Anti-islanding Protection	Yes			
Temperature Protection	Yes			
Integrated DC Switch	Yes			
Remote software upload	Yes			
Remote change of operating parameters	Yes			
Surge protection	DC Type II / AC Type II			
General Data				
Size (mm)	333W×472H×202D			
Weight (kg)	15			
Topology	Transformerless			
Internal Consumption	<1W (Night)			
Running Temperature	-25~65℃, >45℃ derating			
Ingress Protection	IP65			
Noise Emission (Typical)	≤40 dB			
Cooling Concept	Smart cooling			
Max. Operating Altitude Without Derating	2000m			
Warranty	5 years			
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150			
Operating Surroundings Humidity	0-100%			
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			
Features				
DC Connection	MC-4 mateable			
AC Connection	IP65 rated plug			
Display	LCD1602			
Interface	RS485/RS232/Wifi/LAN			

Three Phase String Inverter



APEX-P3-18/20/25K



2 MPP trackers, Max. efficiency up to 98.6%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)

Technical Data

Model	APEX-P3-18K		APEX-P3-20K		APEX-P3-25K		APEX-P3-18K		APEX-P3-20K		APEX-P3-25K	
Input Side												
Max. DC Input Power (kW)	23.4		26		32.5		23.4		26		32.5	
Max. DC Input Voltage (V)	1000											
Start-up DC Input Voltage (V)	250											
MPPT Operating Range (V)	200~850											
Max. DC Input Current (A)	32+32						26+26					
Max. Short Circuit Current (A)	48+48						39+39					
No.of MPP Trackers	2											
No.of Strings per MPP Tracker	3						2					
Output Side												
Rated Output Power (kW)	18		20		25		18		20		25	
Max. Active Power (kW)	19.8		22		27.5		19.8		22		27.5	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V											
Rated Grid Frequency (Hz)	50 / 60 (Optional)											
Operating Phase	Three phase											
Rated AC Grid Output Current (A)	27.3/26.1		30.3/29		37.9/36.2		27.3/26.1		30.3/29		37.9/36.2	
Max. AC Output Current (A)	30/28.7		33.3/31.9		41.7/39.8		30/28.7		33.3/31.9		41.7/39.8	
Output Power Factor	0.8 leading to 0.8 lagging											
Grid Current THD	<3%											
DC Injection Current (mA)	<0.5%											
Grid Frequency Range	47~52 or 57~62 (Optional)											
Efficiency												
Max. Efficiency	98.6%											
Euro Efficiency	97.8%											
MPPT Efficiency	>99%											
Protection												
DC Reverse-Polarity Protection	Yes											
AC Short Circuit Protection	Yes											
AC Output Overcurrent Protection	Yes											
Output Overvoltage Protection	Yes											
Insulation Resistance Protection	Yes											
Ground Fault Monitoring	Yes											
Anti-islanding Protection	Yes											
Temperature Protection	Yes											
Integrated DC Switch	Yes											
Remote software upload	Yes											
Remote change of operating parameters	Yes											
Surge protection	DC Type II / AC Type II											
General Data												
Size (mm)	330W×508H×206D						362W×527H×220D					
Weight (kg)	20.8						20					
Topology	Transformerless											
Internal Consumption	<1W (Night)											
Running Temperature	-25~65℃, >45℃ derating											
Ingress Protection	IP65											
Noise Emission (Typical)	≤40 dB											
Cooling Concept	Smart cooling											
Max. Operating Altitude Without Derating	2000m											
Warranty	5 years											
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150											
Operating Surroundings Humidity	0-100%											
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2											
Features												
DC Connection	MC-4 mateable											
AC Connection	IP65 rated plug											
Display	LCD1602											
Interface	RS485/RS232/Wifi/LAN											

Three Phase String Inverter



APEX-P3-30/33/35/36K

- 

2 MPP trackers, Max. efficiency up to 98.6%
- 

Zero export application, VSG application
- 

String intelligent monitoring (optional)
- 

Wide output voltage range
- 

Anti-PID function (Optional)

Technical Data

Model	APEX-P3-30K		APEX-P3-33K		APEX-P3-35K		APEX-P3-36K	
Input Side								
Max. DC Input Power (kW)	39		42.9		45.5		46.8	
Max. DC Input Voltage (V)	1000							
Start-up DC Input Voltage (V)	250							
MPPT Operating Range (V)	200~850							
Max. DC Input Current (A)	40+40							
Max. Short Circuit Current (A)	60+60							
No.of MPP Trackers	2							
No.of Strings per MPP Tracker	3							
Output Side								
Rated Output Power (kW)	30		33		35		36	
Max. Active Power (kW)	33		36.3		38.5		39.6	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V							
Rated Grid Frequency (Hz)	50 / 60 (Optional)							
Operating Phase	Three phase							
Rated AC Grid Output Current (A)	45.5/43.5		50/47.8		53/50.7		54.5/52.2	
Max. AC Output Current (A)	50/47.9		55/52.6		58.3/55.8		60/57.4	
Output Power Factor	0.8 leading to 0.8 lagging							
Grid Current THD	<3%							
DC Injection Current (mA)	<0.5%							
Grid Frequency Range	47~52 or 57~62 (Optional)							
Efficiency								
Max. Efficiency	98.6%							
Euro Efficiency	97.8%							
MPPT Efficiency	>99%							
Protection								
DC Reverse-Polarity Protection	Yes							
AC Short Circuit Protection	Yes							
AC Output Overcurrent Protection	Yes							
Output Overvoltage Protection	Yes							
Insulation Resistance Protection	Yes							
Ground Fault Monitoring	Yes							
Anti-islanding Protection	Yes							
Temperature Protection	Yes							
Integrated DC Switch	Yes							
Remote software upload	Yes							
Remote change of operating parameters	Yes							
Surge protection	DC Type II / AC Type II							
General Data								
Size (mm)	362W×577H×215D							
Weight (kg)	25.5							
Topology	Transformerless							
Internal Consumption	<1W (Night)							
Running Temperature	-25~65℃, >45℃ derating							
Ingress Protection	IP65							
Noise Emission (Typical)	≤50 dB							
Cooling Concept	Smart cooling							
Max. Operating Altitude Without Derating	2000m							
Warranty	5 years							
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150							
Operating Surroundings Humidity	0-100%							
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2							
Features								
DC Connection	MC-4 mateable							
AC Connection	IP65 rated plug							
Display	LCD1602							
Interface	RS485/RS232/Wifi/LAN							

Three Phase String Inverter



APEX-P3-30/33/35/40/50/60K

- 

Max. 4 MPP trackers,Max.efficiency up to 98.7%
- 

Zero export application, VSG application
- 

String intelligent monitoring (optional)
- 

Wide output voltage range
- 

Anti-PID function (Optional)

Technical Data

Model	APEX-P3-30K		APEX-P3-33K		APEX-P3-35K		APEX-P3-40K		APEX-P3-50K		APEX-P3-60K	
Input Side												
Max. DC Input Power (kW)	39		42.9		45.5		52		65		78	
Max. DC Input Voltage (V)	1000											
Start-up DC Input Voltage (V)	250											
MPPT Operating Range (V)	200~850											
Max. DC Input Current (A)	40+40		40+40+40					40+40+40+40				
Max. Short Circuit Current (A)	60+60		60+60+60					60+60+60+60				
No.of MPP Trackers	2		3					4				
No.of Strings per MPP Tracker	3											
Output Side												
Rated Output Power (kW)	30		33		35		40		50		60	
Max. Active Power (kW)	33		36.3		38.5		44		55		66	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V											
Rated Grid Frequency (Hz)	50 / 60 (Optional)											
Operating Phase	Three phase											
Rated AC Grid Output Current (A)	45.5/43.5		50/47.8		53/50.7		60.6/58		75.8/72.5		90.9/87	
Max. AC Output Current (A)	50/47.9		55/52.6		58.3/55.8		66.7/63.8		83.3/79.7		100/95.7	
Output Power Factor	0.8 leading to 0.8 lagging											
Grid Current THD	<3%											
DC Injection Current (mA)	<0.5%											
Grid Frequency Range	47~52 or 57~62 (Optional)											
Efficiency												
Max. Efficiency	98.7%											
Euro Efficiency	98%											
MPPT Efficiency	>99%											
Protection												
DC Reverse-Polarity Protection	Yes											
AC Short Circuit Protection	Yes											
AC Output Overcurrent Protection	Yes											
Output Overvoltage Protection	Yes											
Insulation Resistance Protection	Yes											
Ground Fault Monitoring	Yes											
Anti-islanding Protection	Yes											
Temperature Protection	Yes											
Integrated DC Switch	Yes											
Remote software upload	Yes											
Remote change of operating parameters	Yes											
Surge protection	DC Type II / AC Type II											
General Data												
Size (mm)	647.5W×537H×303.5D											
Weight (kg)	44.5											
Topology	Transformerless											
Internal Consumption	<1W (Night)											
Running Temperature	-25~65℃, >45℃ derating											
Ingress Protection	IP65											
Noise Emission (Typical)	≤50 dB											
Cooling Concept	Smart cooling											
Max. Operating Altitude Without Derating	2000m											
Warranty	5 years											
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150											
Operating Surroundings Humidity	0-100%											
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2											
Features												
DC Connection	MC-4 mateable											
AC Connection	IP65 rated plug											
Display	LCD 240 × 160											
Interface	RS485/RS232/Wifi/LAN											

Three Phase String Inverter



APEX-P3-60/70/75/80K



4 MPP trackers, Max. efficiency up to 98.7%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Type II DC/AC SPD

Technical Data

Model	APEX-P3-60K		APEX-P3-70K		APEX-P3-75K		APEX-P3-80K	
Input Side								
Max. DC Input Power (kW)	78		91		97.5		104	
Max. DC Input Voltage (V)	1000							
Start-up DC Input Voltage (V)	250							
MPPT Operating Range (V)	200~850							
Max. DC Input Current (A)	40+40+40+40							
Max. Short Circuit Current (A)	60+60+60+60							
No.of MPP Trackers	4							
No.of Strings per MPP Tracker	3		4					
Output Side								
Rated Output Power (kW)	60		70		75		80	
Max. Active Power (kW)	66		77		82.5		88	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V							
Rated Grid Frequency (Hz)	50 / 60 (Optional)							
Operating Phase	Three phase							
Rated AC Grid Output Current (A)	90.9/87		106.1/101.5		113.6/108.7		121.2/115.9	
Max. AC Output Current (A)	100/95.7		116.7/111.6		125/119.6		133.3/127.5	
Output Power Factor	0.8 leading to 0.8 lagging							
Grid Current THD	<3%							
DC Injection Current (mA)	<0.5%							
Grid Frequency Range	47~52 or 57~62 (Optional)							
Efficiency								
Max. Efficiency	98.7%							
Euro Efficiency	98.3%							
MPPT Efficiency	>99%							
Protection								
DC Reverse-Polarity Protection	Yes							
AC Short Circuit Protection	Yes							
AC Output Overcurrent Protection	Yes							
Output Overvoltage Protection	Yes							
Insulation Resistance Protection	Yes							
Ground Fault Monitoring	Yes							
Anti-islanding Protection	Yes							
Temperature Protection	Yes							
Integrated DC Switch	Yes							
Remote software upload	Yes							
Remote change of operating parameters	Yes							
Surge protection	DC Type II / AC Type II							
General Data								
Size (mm)	700W×575H×297D							
Weight (kg)	60							
Topology	Transformerless							
Internal Consumption	<1W (Night)							
Running Temperature	-25~65°C, >45°C derating							
Ingress Protection	IP65							
Noise Emission (Typical)	≤50 dB		≤55 dB					
Cooling Concept	Smart cooling							
Max. Operating Altitude Without Derating	2000m							
Warranty	5 years							
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150							
Operating Surroundings Humidity	0~100%							
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2							
Features								
DC Connection	MC-4 mateable							
AC Connection	IP65 rated plug							
Display	LCD 240 × 160							
Interface	RS485/RS232/Wifi/LAN							

Three Phase String Inverter



APEX-P3-70/75/80/90/100/110K



Max.6 MPPT trackers,Max. efficiency up to 98.8%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Type II DC/AC SPD

Technical Data

Model	APEX-P3-70K		APEX-P3-75K		APEX-P3-80K		APEX-P3-90K		APEX-P3-100K		APEX-P3-110K	
Input Side												
Max. DC Input Power (kW)	91		97.5		104		135		150		150	
Max. DC Input Voltage (V)	1000											
Start-up DC Input Voltage (V)	250											
MPPT Operating Range (V)	200~850											
Max. DC Input Current (A)	40+40+40+40						40+40+40+40+40+40					
Max. Short Circuit Current (A)	60+60+60+60						60+60+60+60+60+60					
No.of MPP Trackers	4						6					
No.of Strings per MPP Tracker	4											
Output Side												
Rated Output Power (kW)	70		75		80		90		100		110	
Max. Active Power (kW)	77		82.5		88		99		110		121	
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V											
Rated Grid Frequency (Hz)	50 / 60 (Optional)											
Operating Phase	Three phase											
Rated AC Grid Output Current (A)	106.1/101.5		113.6/108.7		121.2/115.9		136.4/130.4		151.5/144.9		166.7/159.4	
Max. AC Output Current (A)	116.7/111.6		125/119.6		133.3/127.5		150/143.5		166.7/159.4		183.3/175.4	
Output Power Factor	0.8 leading to 0.8 lagging											
Grid Current THD	<3%											
DC Injection Current (mA)	<0.5%											
Grid Frequency Range	47~52 or 57~62 (Optional)											
Efficiency												
Max. Efficiency	98.8%											
Euro Efficiency	98.3%											
MPPT Efficiency	>99%											
Protection												
DC Reverse-Polarity Protection	Yes											
AC Short Circuit Protection	Yes											
AC Output Overcurrent Protection	Yes											
Output Overvoltage Protection	Yes											
Insulation Resistance Protection	Yes											
Ground Fault Monitoring	Yes											
Anti-islanding Protection	Yes											
Temperature Protection	Yes											
Integrated DC Switch	Yes											
Remote software upload	Yes											
Remote change of operating parameters	Yes											
Surge protection	DC Type II / AC Type II											
General Data												
Size (mm)	838W×568H×324D										838W×568H×346D	
Weight (kg)	81											
Topology	Transformerless											
Internal Consumption	<1W (Night)											
Running Temperature	-25~-65℃, >45℃ derating											
Ingress Protection	IP65											
Noise Emission (Typical)	≤55 dB											
Cooling Concept	Smart cooling											
Max. Operating Altitude Without Derating	2000m											
Warranty	5 years											
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150											
Operating Surroundings Humidity	0-100%											
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2											
Features												
DC Connection	MC-4 mateable											
AC Connection	IP65 rated plug											
Display	LCD 240 × 160											
Interface	RS485/RS232/Wifi/LAN											

Hybrid Inverter



APEX-E-P1-3.6/5/6/7.6/8KL

- 

Colorful touch LCD, IP65 protection degree
- 

DC couple and AC couple to retrofit existing solar system
- 

Max.16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 

Max.charging/discharging current of 190A
- 

6 time periods for battery charging/discharging
- 

Support storing energy from diesel generator

Technical Data

Model	APEX-E -P1-3.6KL	APEX-E -P1-5KL	APEX-E -P1-6KL	APEX-E -P1-7.6KL	APEX-E -P1-8KL
Battery Input Data					
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)	40~60				
Max. Charging Current (A)	90	120	135	190	190
Max. Discharging Current (A)	90	120	135	190	190
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	4680	6500	7800	9880	10400
Rated PV Input Voltage (V)	370 (125~500)				
Start-up Voltage (V)	125				
MPPT Voltage Range (V)	150-425				
Full Load DC Voltage Range (V)	300-425			200-425	
PV Input Current (A)	13+13			26+26	
Max. PV I _{SC} (A)	17+17			34+34	
No.of MPP Trackers	2				
No.of Strings per MPP Tracker	1			2	
AC Output Data					
Rated AC Output and UPS Power (W)	3600	5000	6000	7600	8000
Max. AC Output Power (W)	3690	5500	6600	8360	8800
AC Output Rated Current (A)	16.4/15.7	22.7/21.7	27.3/26.1	34.5/33	36.4/34.8
Max. AC Current (A)	18/17.2	25/23.9	30/28.7	38/36.3	40/38.3
Max. Continuous AC Passthrough (A)	35		40	50	
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)				
Grid Type	Single Phase				
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	96.50%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-40~60°C, >45°C derating				
Cooling	Natural cooling				
Noise (dB)	<30 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	24				
Size (mm)	330W x 580H x232D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

Three Phase Hybrid Inverter



APEX-E-P3-5/6/8/10/12KL

- 100

100% unbalanced output, each phase; Max. output up to **50%** rated power
- 10

Max.10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 48

48V low voltage battery, transformer isolation design
- 6

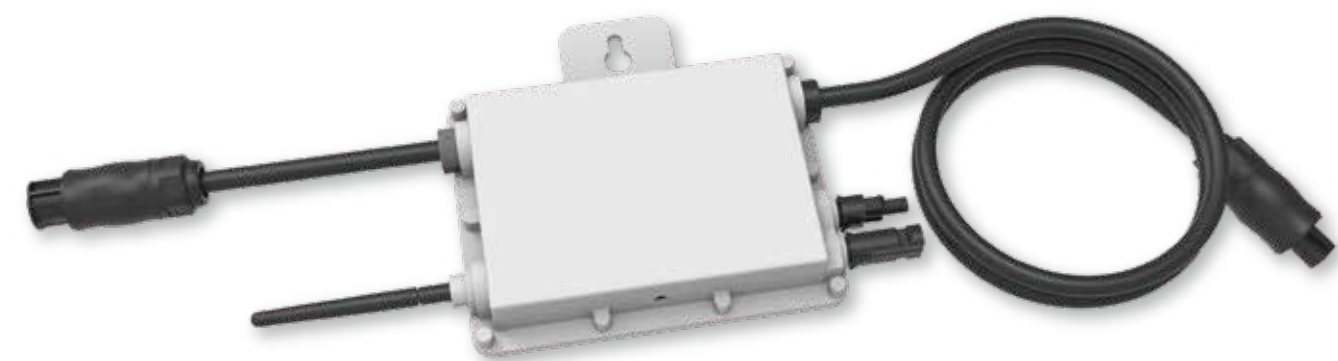
6 time periods for battery charging/discharging
- 240

Max.charging/discharging current of 240A
- DC couple and AC couple to retrofit existing solar system
- Support storing energy from diesel generator

Technical Data

Model	APEX-E-P3-5KL	APEX-E-P3-6KL	APEX-E-P3-8KL	APEX-E-P3-10KL	APEX-E-P3-12KL
Battery Input Data					
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)			40~60		
Max. Charging Current (A)	120	150	190	210	240
Max. Discharging Current (A)	120	150	190	210	240
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	6500	7800	10400	13000	15600
Rated PV Input Voltage (V)	550 (160~800)				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	200-650				
Full Load DC Voltage Range (V)	350-650				
PV Input Current (A)	13+13			26+13	
Max. PV I _{SC} (A)	17+17			34+17	
No.of MPP Trackers	2				
No.of Strings per MPP Tracker	1			2+1	
AC Output Data					
Rated AC Output and UPS Power (W)	5000	6000	8000	10000	12000
Max. AC Output Power (W)	5500	6600	8800	11000	13200
AC Output Rated Current (A)	7.6/7.2	9.1/8.7	12.1/11.6	15.2/14.5	18.2/17.4
Max. AC Current (A)	11.4/10.9	13.6/13	18.2/17.4	22.7/21.7	27.3/26.1
Max. Continuous AC Passthrough (A)	45				
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-40~60°C, >45°C derating				
Cooling	Smart cooling				
Noise (dB)	<45 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	33.6				
Size (mm)	422W x 699.3H x279D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

Microinverter



APEX-M-300 /500

- Support reactive power compensation
- IP67 protection degree, 10 years warranty
- 1 MPP tracker, module level monitoring
- PLC, Zigbee or WIFI communication
- Rapid shutdown function

Technical Data

Model	APEX-M-300		APEX-M-500	
Input Data (DC)				
Recommended input Power (STC)	210~400W (1 Piece)		210~600W (1 Piece)	
Maximum input DC Voltage	60V			
MPPT Voltage Range	25~55V			
Full Load DC Voltage Range (V)	24.5~55V		40~55V	
Max. DC Short Circuit Current	19.5A			
Max. input Current	13A			
No.of MPP Trackers	1			
No.of Strings per MPP Tracker	1			
Output Data (AC)				
Rated output Power	300W		500W	
Rated output Current	1.4A	1.3A	2.3A	2.2A
Nominal Voltage / Range (this may vary with grid standards)	220V/0.85Un-1.1Un	230V/0.85Un-1.1Un	220V/0.85Un-1.1Un	230V/0.85Un-1.1Un
Nominal Frequency / Range	50 / 60Hz			
Extended Frequency / Range	45~55Hz / 55~65Hz			
Power Factor	>0.99			
Maximum units per branch	17		10	
Efficiency				
CEC Weighted Efficiency	95%			
Peak Inverter Efficiency	96.5%			
Static MPPT Efficiency	99%			
Night Time Power Consumption	50mW			
Mechanical Data				
Ambient Temperature Range	-40~65°C			
Size (mm)	189W×184H×31.5D (Without mounting bracket and cable)			
Weight (kg)	2.15			
Cooling	Natural cooling			
Enclosure Environmental Rating	IP67			
Features				
Compatibility	Compatible with 60~72 cell PV modules			
Communication	Power line / WIFI / Zigbee			
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150			
Safety EMC / Standard	UL 1741, IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-2, IEC61000-3-3			
Warranty	10 years			

Microinverter



APEX-M-600/800/1000



Support reactive power compensation



IP67 protection degree, 10 years warranty



2 MPP tracker, module level monitoring



PLC, Zigbee or WIFI communication



Rapid shutdown function

Technical Data

Model	APEX-M- 600		APEX-M-800		APEX-M-1000	
Input Data (DC)						
Recommended input Power (STC)	210~400W (2 Pieces)		210~500W (2 Pieces)		210~600W (2 Pieces)	
Maximum input DC Voltage	60V					
MPPT Voltage Range	25~55V					
Full Load DC Voltage Range (V)	24.5~55V		33~55V		40~55V	
Max. DC Short Circuit Current	2×19.5A					
Max. input Current	2×13A					
No.of MPP Trackers	2					
No.of Strings per MPP Tracker	1					
Output Data (AC)						
Rated output Power	600W		800W		1000W	
Rated output Current	2.7A	2.6A	3.6A	3.5A	4.5A	4.4A
Nominal Voltage / Range (this may vary with grid standards)	220V/ 0.85Un-1.1Un	230V/ 0.85Un-1.1Un	220V/ 0.85Un-1.1Un	230V/ 0.85Un-1.1Un	220V/ 0.85Un-1.1Un	230V/ 0.85Un-1.1Un
Nominal Frequency / Range	50 / 60Hz					
Extended Frequency / Range	45~55Hz / 55~65Hz					
Power Factor	>0.99					
Maximum units per branch	8		6		5	
Efficiency						
CEC Weighted Efficiency	95%					
Peak Inverter Efficiency	96.5%					
Static MPPT Efficiency	99%					
Night Time Power Consumption	50mW					
Mechanical Data						
Ambient Temperature Range	-40~65℃					
Size (mm)	212W×230H×40D (Without mounting bracket and cable)					
Weight (kg)	3.15					
Cooling	Natural cooling					
Enclosure Environmental Rating	IP67					
Features						
Compatibility	Compatible with 60~72 cell PV modules					
Communication	Power line / WIFI / Zigbee					
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150					
Safety EMC / Standard	UL 1741, IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-2, IEC61000-3-3					
Warranty	10 years					

Microinverter



APEX-M-1300/1600 /2000

- Support reactive power compensation
- IP67 protection degree, 10 years warranty
- 4 MPP tracker, module level monitoring
- PLC, Zigbee or WIFI communication
- Rapid shutdown function
- Max. DC input current of 13A, adapt to 600WPV module

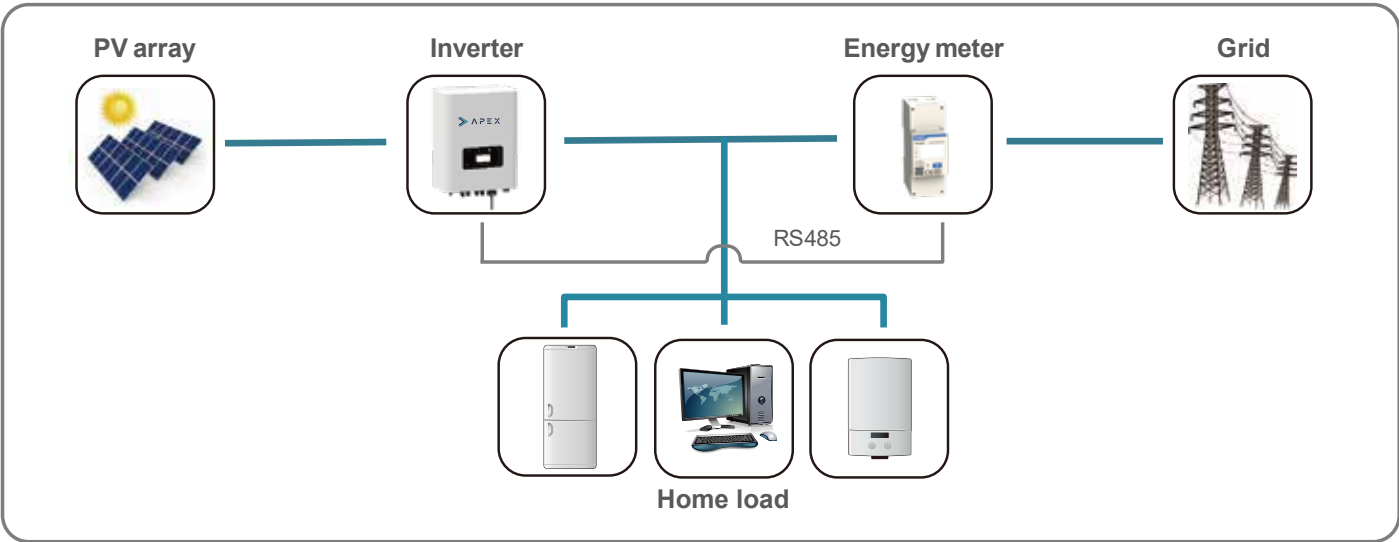
Technical Data

Model	APEX-M-1300		APEX-M-1600		APEX-M-2000	
Input Data (DC)						
Recommended input Power (STC)	210~400W (4 Pieces)		210~500W (4 Pieces)		210~600W (4 Pieces)	
Maximum input DC Voltage	60V					
MPPT Voltage Range	25~55V					
Full Load DC Voltage Range (V)	26.5~55V		33~55V		40~55V	
Max. DC Short Circuit Current	4×19.5A					
Max. input Current	4×13A					
No.of MPP Trackers	4					
No.of Strings per MPP Tracker	1					
Output Data (AC)						
Rated output Power	1300W		1600W		2000W	
Rated output Current	5.9A	5.7A	7.3A	7A	9.1A	8.7A
Nominal Voltage / Range (this may vary with grid standards)	220V/ 0.85Un-1.1Un	230V/ 0.85Un-1.1Un	220V/ 0.85Un-1.1Un	230V/ 0.85Un-1.1Un	220V/ 0.85Un-1.1Un	230V/ 0.85Un-1.1Un
Nominal Frequency / Range	50 / 60Hz					
Extended Frequency / Range	45~55Hz / 55~65Hz					
Power Factor	>0.99					
Maximum units per branch	4		4		3	
Efficiency						
CEC Weighted Efficiency	95%					
Peak Inverter Efficiency	96.5%					
Static MPPT Efficiency	99%					
Night Time Power Consumption	50mW					
Mechanical Data						
Ambient Temperature Range	-40~65°C					
Size (mm)	267W×300H×42D (Without mounting bracket and cable)					
Weight (kg)	5.2					
Cooling	Natural cooling					
Enclosure Environmental Rating	IP67					
Features						
Compatibility	Compatible with 60~72 cell PV modules					
Communication	Power line / WIFI / Zigbee					
Grid Connection Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150					
Safety EMC / Standard	UL 1741, IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-2, IEC61000-3-3					
Warranty	10 years					

Energy Meter



Typical Application Diagram



Technical Data

Model	CHNT DDSU666	CHNT DTSU666	EASTRON SDM 230 Modbus	EASTRON SDM 630-Modbus V2	EASTRON SDM 630 MCT
Battery Data					
Max. direct current measurement (A)	60	80	100	100	1-9999A (with CT)
Direct Voltage measurement between phases	/	176-458V	/	147-480V	50-950V
					50-550V
Direct measurement between phase and neutral	176~264V	100-265V	176~276V	85~480V	20-550V
Accuracy Class					
Active power	Class1				
Reactive power	Class2				
Power Supply					
Power consumption	≤1W / 8VA	≤1.5W / 6VA	≤2W / 10VA	≤2W / 10VA	≤2W / 10VA
AC power supply input voltage	176-264V	100-265V	176-276V	85-480V	85-275V / 120-380V
AC power supply input frequency	50/60Hz		50Hz	50/60Hz ±2%	50/60Hz ±2%
Generation Specifications					
Dimenstions (L/H/W) in mm	36×85×66	100×72×66	36×99×63	72×100×66	72×94.5×65
Weight (kg)	0.21	0.44	0.21	0.42	0.29
Mounting options	DIN Rail				
Degree of protection	IP51				
Display	LCD				
Communication interface	RS485				
Max. number of devices to connect	32				
Regulated working temperature range	-25℃~+55℃	-10℃~+45℃	-25℃~+55℃		
Limited working temperature range	-40℃~+70℃	25℃~+75℃	/		
Humidity	≤75%		0~95%, non-Condensing		
Warranty	1.5 years				

MECD



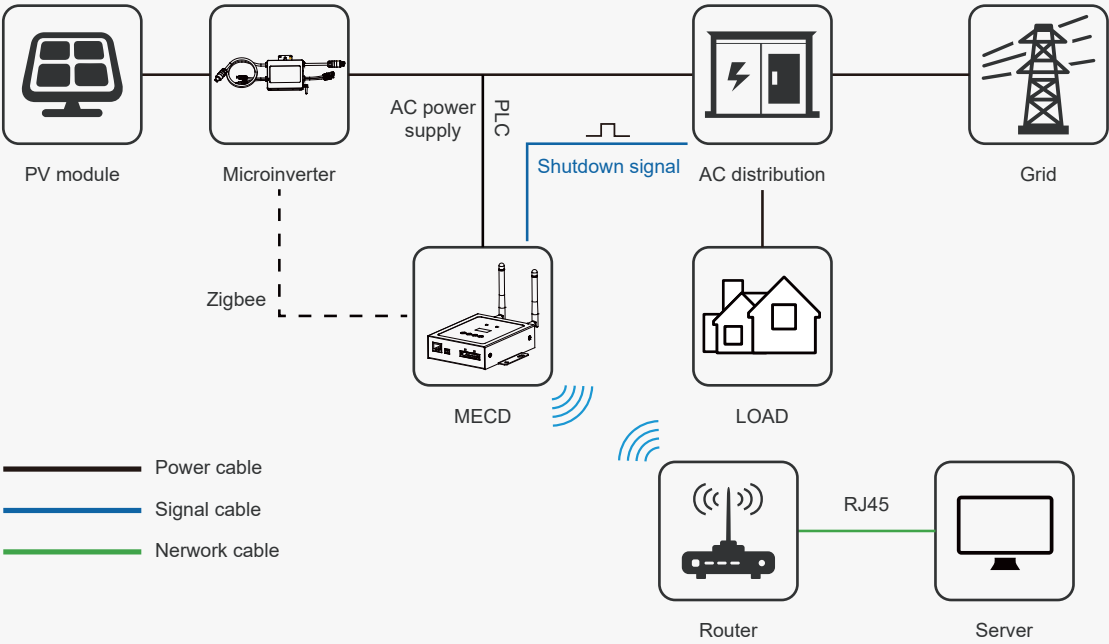
- ◆ Built-in Zigbee, PLC and WIFI modular.
 - ◆ Suitable for single-phase and three-phase applications.
 - ◆ Enables remotely monitoring and management.
- ◆ OLED display and buttons, easy operation.
 - ◆ Compact design and light in weight.
- ◆ Support quick shutdown remotely.
 - ◆ Robust design, 3 years warranty.

The MECD communications gateway collects and delivers modular performance data in real time, for comprehensive monitor and manage of your solar system, optimizing the performance of your solar system. With built- in quick shutdown application, the MECD is able to control the microinverter connected shutdown immediately when the dry contact is activated.

Technical Data

Model	MECD
Communication interface	
Communication method	Zigbee, PLC
Max. number of inverters connected	5、 10、 20、 32 (Max.)
Communication to router	WIFI
WIFI wireless security	WEP, WPA2-PSK
RS485	Reserved
Max. distance (free space)	PLC 300m; Zigbee 100m (Max. straight-line distance)
Power Supply	
AC power supply	100 to 240V AC, 50/60Hz
Power consumption	5W typical, 10W Maximum
Mechanical Data	
Dimenstions (L/H/W) in mm	133.6×132×35.5 mm
Weight (kg)	0.3
Operation temperature range	-20~+50℃
Mounting method	Wall-mounted
Display	OLED and LED indicators
Features	
Grid type	Single phase / three phase
Digital Input	Control device connection
Other	
Compliance	IEC60950, IEC61000-6-2, FCC Part15 Class B / Class C
Warranty	3 years

Typical Application



Stick Logger



GPRS / WIFI / 4G / Ethernet

Monitor your system anywhere in the world.

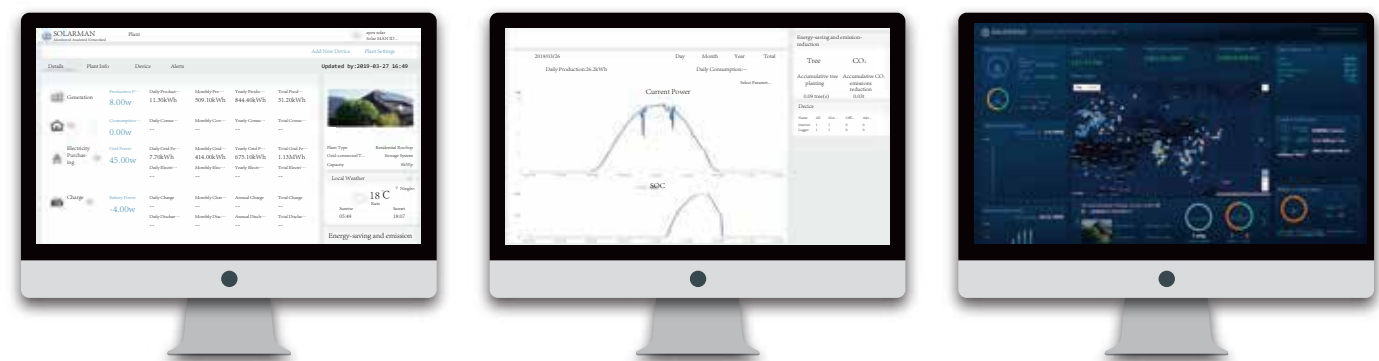
- ◆ External light indicator, logging status at a glance;
- ◆ Plug & play, pick power within inverter, no external power needed, easy to install;
- ◆ Independent from inverter to protect parts inside inverter, eliminate potential problems;
- ◆ IP65 water-proof design, resistant to bad weather, enhance stability;
- ◆ External design, easier to replace faulty equipment;
- ◆ End-user can monitor yields at any time with SOLARMAN APP.

Technical Data

Product Model	LSG-3	LSG-4	LSW-3	LS4G-3	LSE-3
Remote Communication Interface	GPRS	GPRS	WiFi	4G	LAN
Working Frequency	GSM850 / EGSM900 / DCS1800 / PCS 1900MHz	GSM850 / EGSM900 / DCS1800 / PCS 1900MHz	2.142GHz~2.484GHz	704MHZ-960MHZ 1710MHZ-2690MHZ	Adaptive Network; 10M / 100M
Satellite Positioning	/	GPS / Beidou < 15m	/	/	/
Antenna	External GPRS Stick Antenna	External GPRS Stick Antenna	External WiFi Stick Antenna	External 4G Stick Antenna	/
Data Interface	RS485 / RS232 / TTL				
Working Voltage	DC4.7V~DC15V				
Working Power	3W	3W	1.5W	5W	1W
SIM Card	Chip Card / MicroSIM	Chip Card / MicroSIM	/	MicroSIM	/
Memory	2M Flash (2M-16M Optional)				
Working Temperature	-40℃~+85℃				
Working Humidity	< 90% (No Condensing)				
No.of Connections	One				
Serial Communication Rate	bps (1200-115200bps Configurable)				
Data Acquisition Interval	Default 5min (1-15min Configurable)				
User Configuration	AT+InstructionSet				
	Remote Server				
	Bluetooth		APP / Web	Local Serial Port	Web
Firmware Upgrade	Remote Upgrade				
Others	Real-time Control, Data resuming				

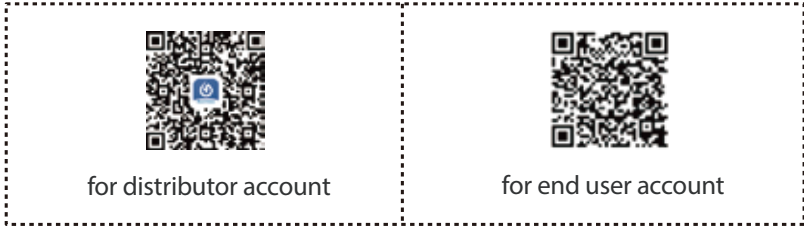
Stick logger supports GPRS,WIFI, 4G, Ethernet and other communication modes. Its bluetooth function enables localdebugging configuration to collect operation and power generation data from inverters. It pairs with solarman professional platform toenable remote PV system monitoring and to realize distributed power stationmanagement with lower cost and higher efficiency.

Smart PV Management Platform



apex solar residential monitoring solution takes great care to ensure that your PV system is in excellent operation throughout its entire life-cycle. This monitoring solution offers you detailed information of your power generating plant including Today energy, Monthly energy, yearly energy, total energy etc, through wireless communication with your router to the internet by a smartwifi plug. User can easily access to the monitoring page via PC web or phone APP.

Maximum your energy output while minimizing your costs. Scan the QR code to build your power station !

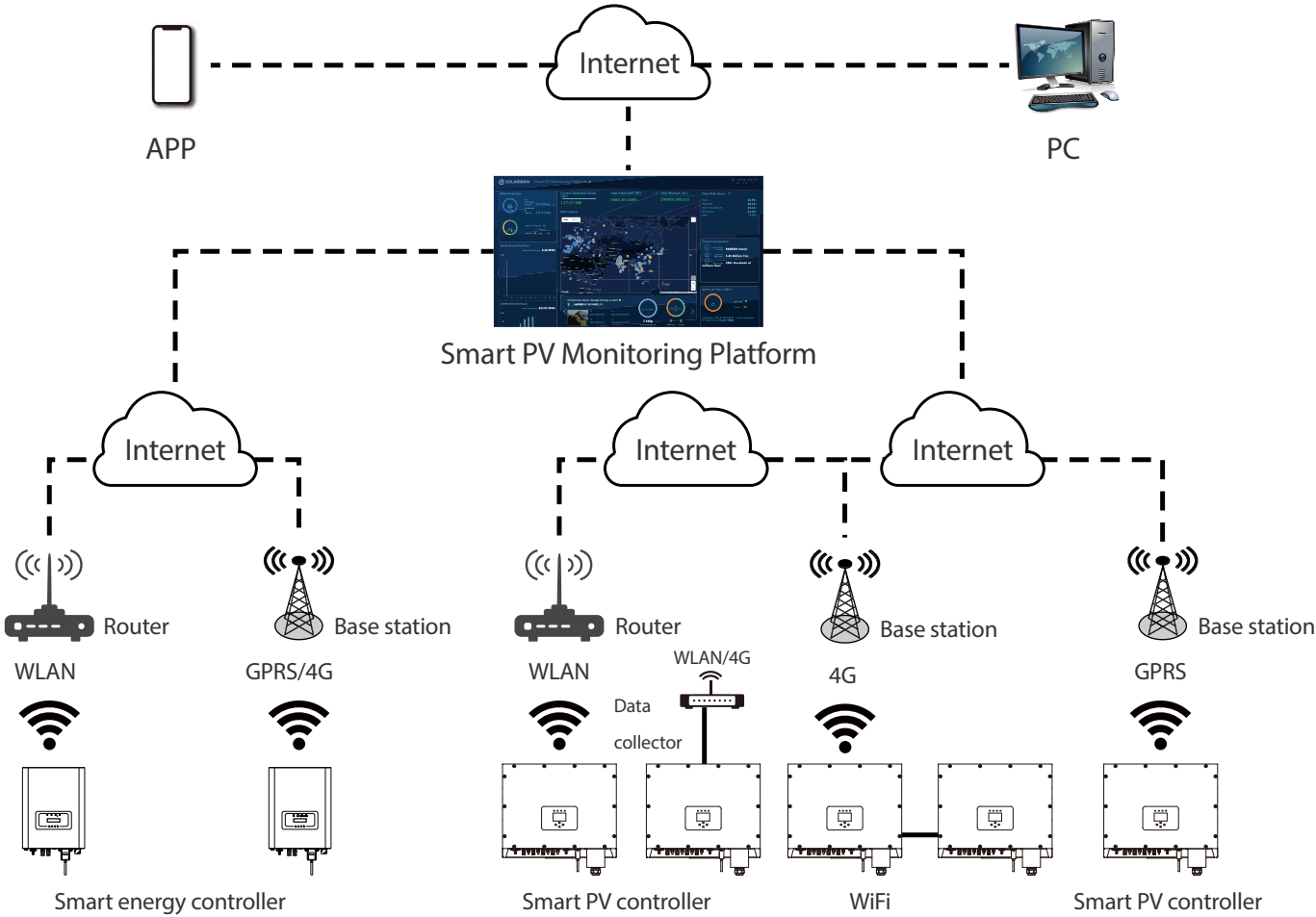


Efficiency

- Open station supports one-click installation and registration;
- Problem support one-click dispatch and navigation.

Safe

- Safe operation, traceable logs, etc;
- Support full lifecycle data storage to ensure data security and reliability.





- ▶ 5KW
- ▶ Germany
- ▶ APEX-5K



- ▶ 20KW
- ▶ Netherlands
- ▶ APEX-10K



- ▶ 50KW
- ▶ poland
- ▶ APEX-25K

Project cases



- ▶ 200KW
- ▶ London
- ▶ APEX-50K



- ▶ 200KW
- ▶ Vietnam
- ▶ APEX-50K