



GELA series



GELA-WVC295

DC input voltage range : 22-50VDC

AC output voltage range : 80-160VAC/180-260VAC

AC output power : 260W

AC frequency range : 50Hz/60Hz

G.W. : 0.88KG

Size : 245mm*200mm*30mm

Enquiry

Description

GELA-WVC295 Series Micro Inverter



Output Power:260W;For Home Station,*MW Station,Low Cost,Easy Intallation,For Monocrystalline Silicon & Polycrystalline Silicon

Product Description

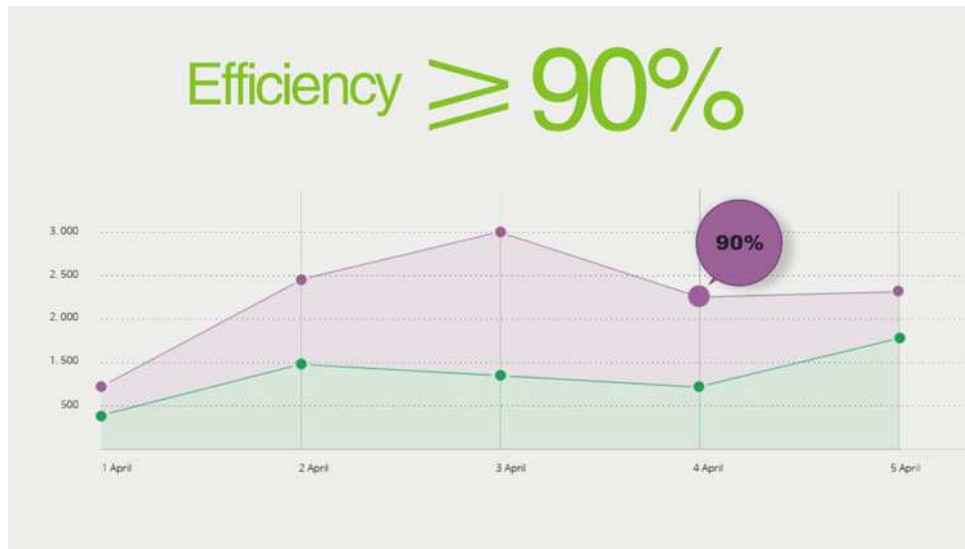


GELA-WVC295 Series Using IP67 waterproof streamline design, Can effectively prevent rainwater on the surface erosion, Built-in high-performance Maximum Power Point Tracking(MPPT)Function,Better able to track changes in the solar luminosity and control different output power, Effectively capture and collect sunlight. AC electric power transmission using the reverse transmission technology, Is one of our patented technology, The inverter output power can provide load priority use, Extra electricity to the grid, Efficient use of the inverter to the power emitted, Electricity transmission rate of up to 99%.

Product Features

<p>Pure Sine Wave Output</p>	<p>High performance Maximum Power Point Tracking (MPPT)</p>	<p>Power Automatically Locked (APL)</p>	<p>Reverse power transmission</p>
<p>High-Frequency High Conversion Rate</p>	<p>Anti-Islanding Protect</p>	<p>Input /output is fully isolated to protect the electrical safety</p>	<p>Multiple parallel stacking</p>
<p>Power Line Communications</p>	<p>IP67 WaterProof</p>	<p>Intelligent Monitoring Systems</p>	<p>Smaller Size & Lighter Weight</p>
<p>The Leading Patent Technology</p>	<p>Flexible Installation</p>	<p>Simplify maintenance (user serviceable)</p>	<p>Installation and maintenance costs low</p>

High Efficiency & Best Cost-Effectiveness

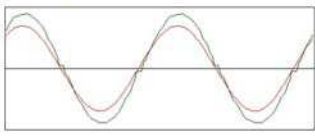
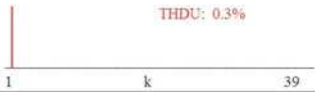
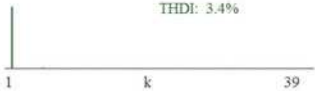


Intelligent MPPT & Weak Light Tracking Algorithm

From W/m2	To W/m2	Delta W/m2	Waiting time setting (S)
100	500	400	60

MPPT efficiency (%)
100.00%

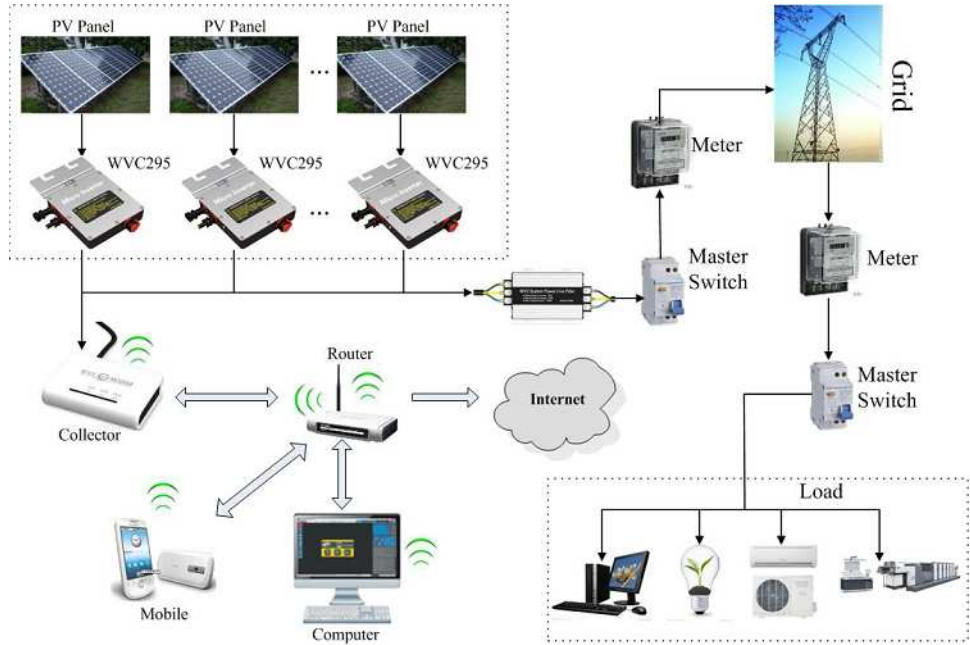
Met The Grid Products Certification Standard
UL2010 Measure Report

Urms (V) 224.8	Irms (A) 0.303	P (W) 67.7	PF 0.994	Freq (Hz) 50.00																																																																																																																														
		<table border="1"> <thead> <tr> <th>spectrum k</th> <th>voltage %</th> <th>current %</th> <th>spectrum k</th> <th>voltage %</th> <th>current %</th> </tr> </thead> <tbody> <tr><td>0</td><td>0.0</td><td>0.0</td><td>1</td><td>100.0</td><td>100.0</td></tr> <tr><td>2</td><td>0.0</td><td>0.2</td><td>3</td><td>0.2</td><td>1.1</td></tr> <tr><td>4</td><td>0.0</td><td>0.1</td><td>5</td><td>0.1</td><td>1.5</td></tr> <tr><td>6</td><td>0.0</td><td>0.0</td><td>7</td><td>0.0</td><td>0.9</td></tr> <tr><td>8</td><td>0.0</td><td>0.1</td><td>9</td><td>0.0</td><td>1.0</td></tr> <tr><td>10</td><td>0.0</td><td>0.1</td><td>11</td><td>0.0</td><td>0.8</td></tr> <tr><td>12</td><td>0.0</td><td>0.1</td><td>13</td><td>0.0</td><td>0.9</td></tr> <tr><td>14</td><td>0.0</td><td>0.0</td><td>15</td><td>0.1</td><td>1.2</td></tr> <tr><td>16</td><td>0.0</td><td>0.0</td><td>17</td><td>0.0</td><td>1.0</td></tr> <tr><td>18</td><td>0.0</td><td>0.0</td><td>19</td><td>0.0</td><td>0.7</td></tr> <tr><td>20</td><td>0.0</td><td>0.0</td><td>21</td><td>0.0</td><td>0.4</td></tr> <tr><td>22</td><td>0.0</td><td>0.0</td><td>23</td><td>0.0</td><td>0.5</td></tr> <tr><td>24</td><td>0.0</td><td>0.0</td><td>25</td><td>0.1</td><td>0.7</td></tr> <tr><td>26</td><td>0.0</td><td>0.0</td><td>27</td><td>0.0</td><td>0.7</td></tr> <tr><td>28</td><td>0.0</td><td>0.0</td><td>29</td><td>0.0</td><td>0.4</td></tr> <tr><td>30</td><td>0.0</td><td>0.0</td><td>31</td><td>0.0</td><td>0.3</td></tr> <tr><td>32</td><td>0.0</td><td>0.0</td><td>33</td><td>0.1</td><td>0.1</td></tr> <tr><td>34</td><td>0.0</td><td>0.0</td><td>35</td><td>0.0</td><td>0.1</td></tr> <tr><td>36</td><td>0.0</td><td>0.1</td><td>37</td><td>0.0</td><td>0.2</td></tr> <tr><td>38</td><td>0.0</td><td>0.0</td><td>39</td><td>0.0</td><td>0.3</td></tr> </tbody> </table>	spectrum k	voltage %	current %	spectrum k	voltage %	current %	0	0.0	0.0	1	100.0	100.0	2	0.0	0.2	3	0.2	1.1	4	0.0	0.1	5	0.1	1.5	6	0.0	0.0	7	0.0	0.9	8	0.0	0.1	9	0.0	1.0	10	0.0	0.1	11	0.0	0.8	12	0.0	0.1	13	0.0	0.9	14	0.0	0.0	15	0.1	1.2	16	0.0	0.0	17	0.0	1.0	18	0.0	0.0	19	0.0	0.7	20	0.0	0.0	21	0.0	0.4	22	0.0	0.0	23	0.0	0.5	24	0.0	0.0	25	0.1	0.7	26	0.0	0.0	27	0.0	0.7	28	0.0	0.0	29	0.0	0.4	30	0.0	0.0	31	0.0	0.3	32	0.0	0.0	33	0.1	0.1	34	0.0	0.0	35	0.0	0.1	36	0.0	0.1	37	0.0	0.2	38	0.0	0.0	39	0.0	0.3		
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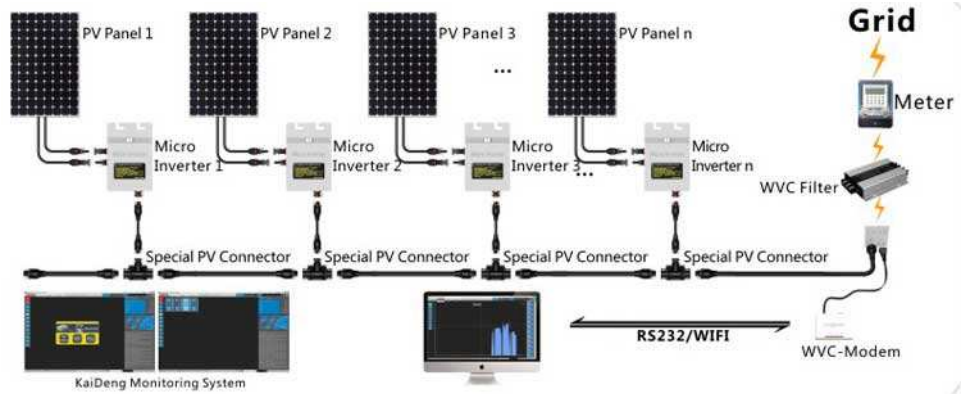
Product Parameters/Details

Input Data	GELA-WVC295-120VAC/230VAC	
Recommended input power	200-300Watt	
Recommend the use of PV modules	300W/Vmp>34V/Voc<50V	
Maximum input DC voltage	50V	
Peak power tracking voltage	25-40V	
Operating Voltage Range	17-50V	
Min / Max start voltage	22-50V	
Maximum DC short current	15A	
Maximum Input Current	9.8A	
Output Data	@120VAC	@230VAC
Peak power output	260Watt	260Watt
Rated output power	250Watt	250Watt
Rated output current	2.08A	0.92A
Rated voltage range	80-160VAC	180-260VAC
Rated frequency range	57-62.5Hz	47-52.5Hz
Power factor	>96%	>96%
Maximum units per branch circuit	15PCS(Single-phase)	30PCS(Single-phase)
Output Efficiency	@120VAC	@230VAC
Static MPPT efficiency	99.5%	99.5%
Maximum output efficiency	94.6%	94.6%
Night time power consumption	<50mW Max	<70mW Max
THDI	<5%	<5%
Exterior		
Ambient temperature	-40°C to +60°C	
Operating temperature range (inverter inside)	-40°C to +82°C	
Dimensions (WxHxD)	195mm*130mm*32mm	
Weight	0.65kg	
Waterproof Rating	IP67	
Cooling	Self-cooling	
Feature		
Communication Mode	Power Line	
Power transmission mode	Reverse transfer, load priority	
Monitoring System	Lifetime free	
Electromagnetic compatibility	EN50081.part1EN50082.part1	
Grid disturbance	EN61000-3-2 Safety EN62109	
Grid detection	DIN VDE 1026 UL1741	
Certificate	CEC,CE National patent technology	

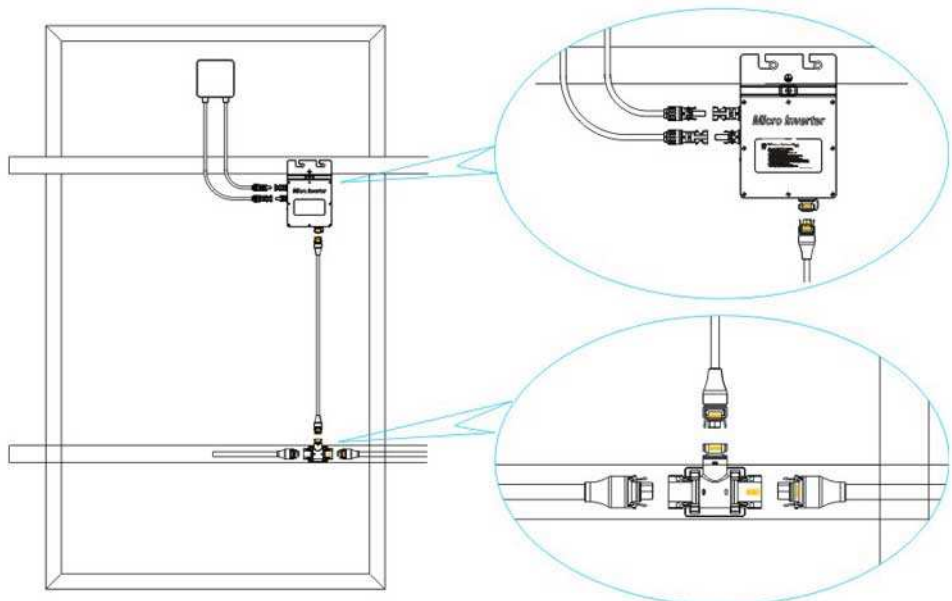
System Block Diagram & Application



In order to achieve higher power, we can use this inverter in stack. For example: 10 pcs of 260W grid tie inverter used in stack can achieve 2600W. And the stacking number is unlimited.

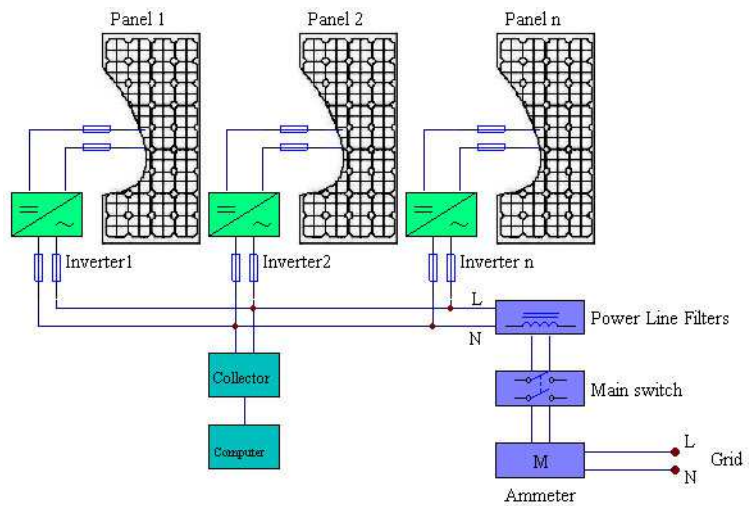


Easy Installation

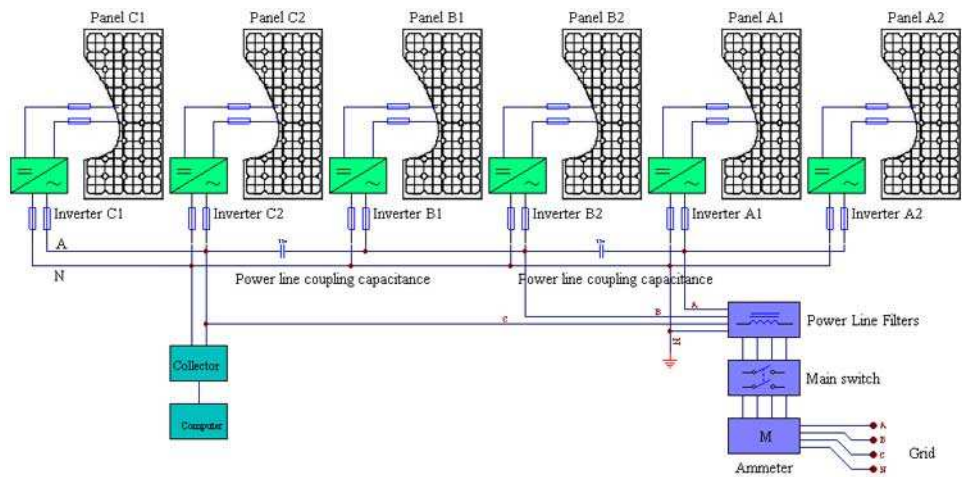




Single-Phase & Three-Phase Electrical Schematics



Single-Phase



Three-Phase

Notes

- Please install the inverters according to the user manual and connnet the groud safety.
- Forbid opening the shell with non-professional person ,only qualified maintenance person can repair the product .
- The inverter should be installed in the low humidity and well ventilated place,and remove the flammable things surrounding the inverter for avoiding overheating .
- Avoid children play when the inverter is working.
- Ensure the DC input and AC output when connect with PV.
- The Vmp and Voc of PV should be fuit for the prodcut for get output max.

Why Is The Micro Inverter

1. The transition from a centralized to a distributed inverter optimizes energy collection.
2. The converter module integrated into the solar panels can reduce installation costs.
3. Soft switch technology to replace hard-switching technology can improve efficiency and reduce heat dissipation.
4. From cottage industry to mass production, standardized design (hardware and software) to improve reliability and reduce costs.
5. Using a special capacitor (due to the high failure rate). Design requires a higher voltage to reduce the current, we use a special electrolytic capacitors.
6. The converter can be connected to the grid to eliminate the need for many battery applications. The high price of batteries, require maintenance, life expectancy is shorter.
7. Work required micro-inverter power increasingly smaller (only a few hundred watts), which can reduce the internal temperature and improve reliability.
8. Micro-inverter solar inverter system needs to deal with a lot of a particular power level, in order to increase production, thereby reducing costs.

Any Question,Please Feel Free To Contact Us.



GELA WVC series



GELA-WVC600

DC input voltage range : 22-50VDC

AC output voltage range : 80-160VAC/180-260VAC

AC output power : 600Wp

AC frequency range : 50Hz/60Hz

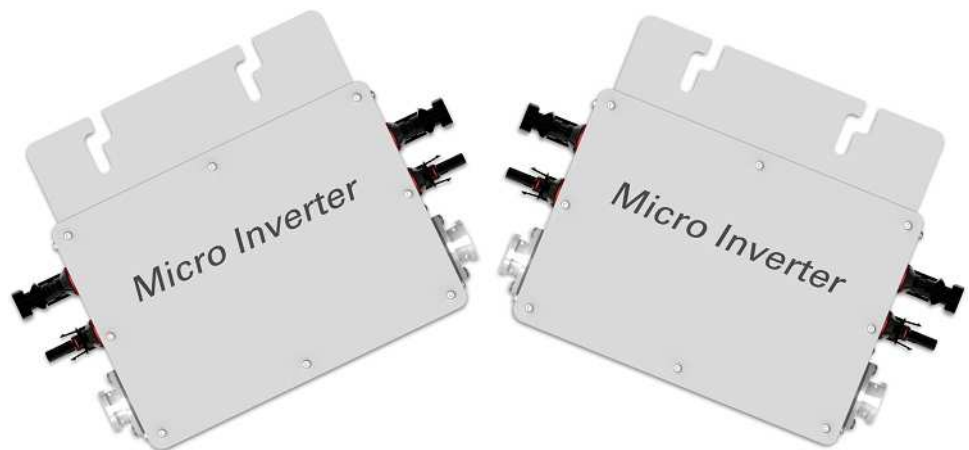
G.W. : 2.85kg

Size : 289mm*200mm*38mm

Enquiry

Description

GELA-WVC600 Series Micro Inverter



Output Power:600W;For Home Station,*MW Station,Low Cost,Easy Intallation,For Monocrystalline Silicon & Polycrystalline Silicon

Product Description

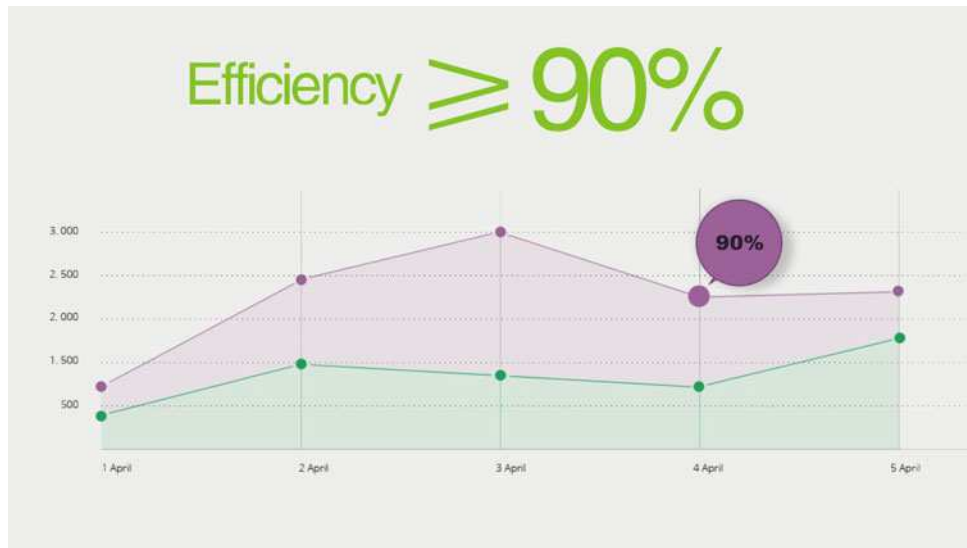


GELA-WVC600 Series Using IP65 waterproof streamline design, Can effectively prevent rainwater on the surface erosion, Built-in high-performance Maximum Power Point Tracking(MPPT)Function,Better able to track changes in the solar luminosity and control different output power, Effectively capture and collect sunlight. AC electric power transmission using the reverse transmission technology, Is one of our patented technology, The inverter output power can provide load priority use, Extra electricity to the grid, Efficient use of the inverter to the power emitted, Electricity transmission rate of up to 99%.

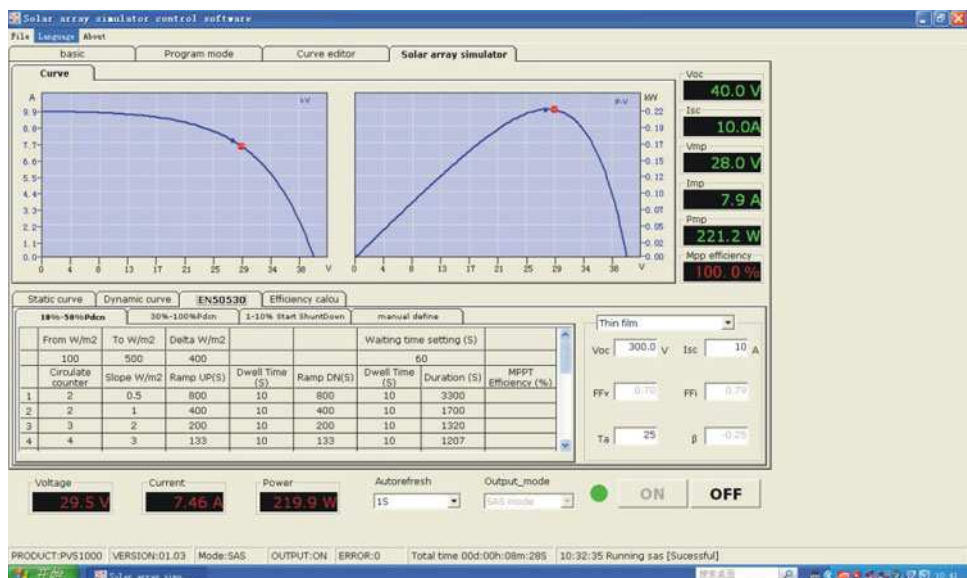
Product Features

- | | | | |
|-------------------------------------|--|--|--|
| Pure Sine Wave Output | High performance Maximum Power Point Tracking (MPPT) | Power Automatically Locked(APL) | Reverse power transmission |
| High-Frequency High Conversion Rate | Anti-Islanding Protect | Input /output is fully isolated to protect the electrical safety | Multiple parallel stacking |
| Power Line Communications | IP65 WaterProof | Intelligent Monitoring Systems | Smaller Size & Lighter Weight |
| The Leading Patent Technology | Flexible Installation | Simplify maintenance (user serviceable) | Installation and maintenance costs low |

High Efficiency & Best Cost-Effectiveness



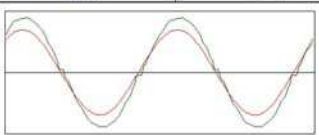
Intelligent MPPT & Weak Light Tracking Algorithm



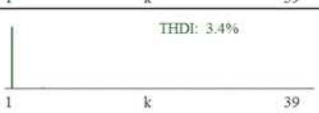
Met The Grid Products Certification Standard
 UI2010 Measure Report

Urms (V)	Irms (A)	P (W)	PF	Freq (Hz)
224.8	0.303	67.7	0.994	50.00

spectrum k	voltage %	current %	spectrum k	voltage %	current %
0	0.0	0.0	1	100.0	100.0
2	0.0	0.2	3	0.2	1.1
4	0.0	0.1	5	0.1	1.5
6	0.0	0.0	7	0.0	0.9
8	0.0	0.1	9	0.0	1.0
10	0.0	0.1	11	0.0	0.8
12	0.0	0.1	13	0.0	0.9
14	0.0	0.0	15	0.1	1.2
16	0.0	0.0	17	0.0	1.0
18	0.0	0.0	19	0.0	0.7
20	0.0	0.0	21	0.0	0.4
22	0.0	0.0	23	0.0	0.5
24	0.0	0.0	25	0.1	0.7
26	0.0	0.0	27	0.0	0.7
28	0.0	0.0	29	0.0	0.4
30	0.0	0.0	31	0.0	0.3
32	0.0	0.0	33	0.1	0.1
34	0.0	0.0	35	0.0	0.1
36	0.0	0.1	37	0.0	0.2
38	0.0	0.0	39	0.0	0.3



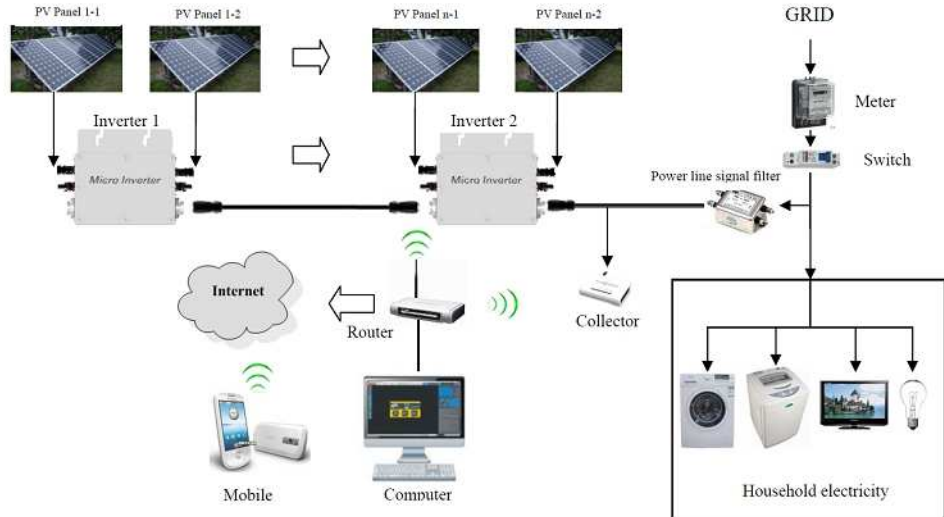
THDU: 0.3%



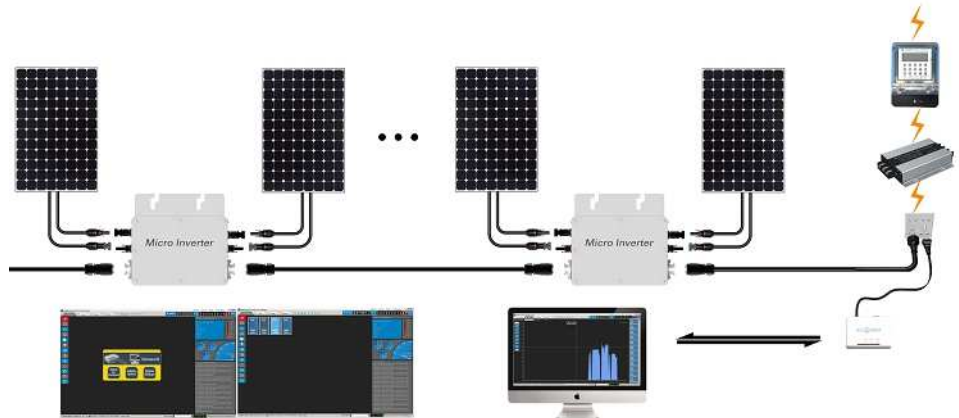
THDI: 3.4%

Product Parameters/Details

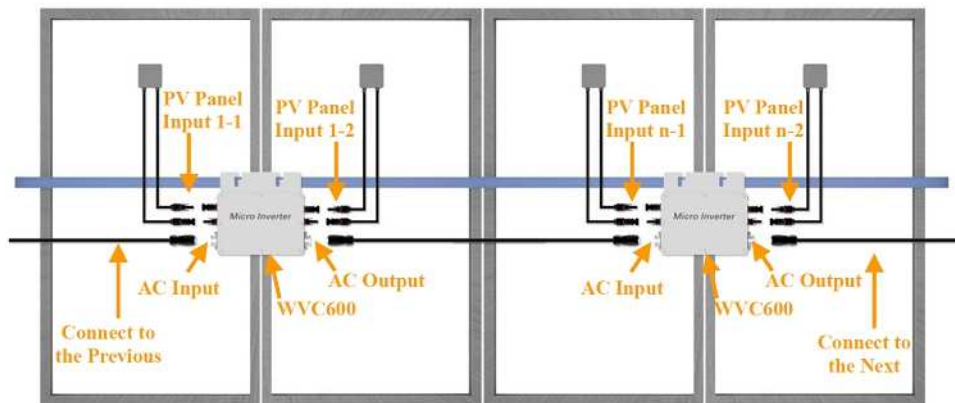
Input Data	GELA-WVC600-120VAC/230VAC	
Recommended input power	600Watt	
Recommend the use of PV modules	600W/Vmp>34V/Voc<50V	
Maximum input DC voltage	50V	
Peak power tracking voltage	22-45V	
Operating Voltage Range	17-50V	
Min / Max start voltage	22-50V	
Maximum DC short current	40A	
Maximum Input Current	25A	
Output Data	@120VAC	@230VAC
Peak power output	600Watt	600Watt
Rated output power	550Watt	550Watt
Rated output current	4.58A	2.3A
Rated voltage range	80-160VAC	180-260VAC
Rated frequency range	57-62.5Hz	47-52.5Hz
Power factor	>98%	>98%
Maximum units per branch circuit	6PCS(Single-phase)	12PCS(Single-phase)
Output Efficiency	@120VAC	@230VAC
Static MPPT efficiency	99.5%	99.5%
Maximum output efficiency	90%	90%
The average efficiency	88%	88%
Night time power consumption	<50mW Max	<70mW Max
THDI	<5%	<5%
Exterior		
Ambient temperature	-40°C to +60°C	
Operating temperature range (inverter inside)	-40°C to +82°C	
Dimensions (WxHxD)	289mm*200mm*38mm	
Weight	1.53kg	
Waterproof Rating	IP65	
Cooling	Self-cooling	
Feature		
Communication Mode	Power Line	
Power transmission mode	Reverse transfer, load priority	
Monitoring System	Lifetime free	
Electromagnetic compatibility	EN50081.part1EN50082.part1	
Grid disturbance	EN61000-3-2 Safety EN62109	
Grid detection	DIN VDE 1026 UL1741	
Certificate	CEC,CE National patent technology	



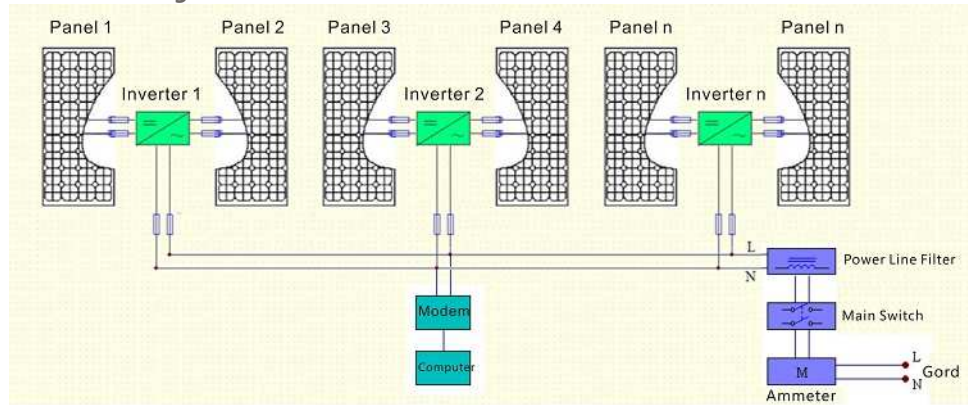
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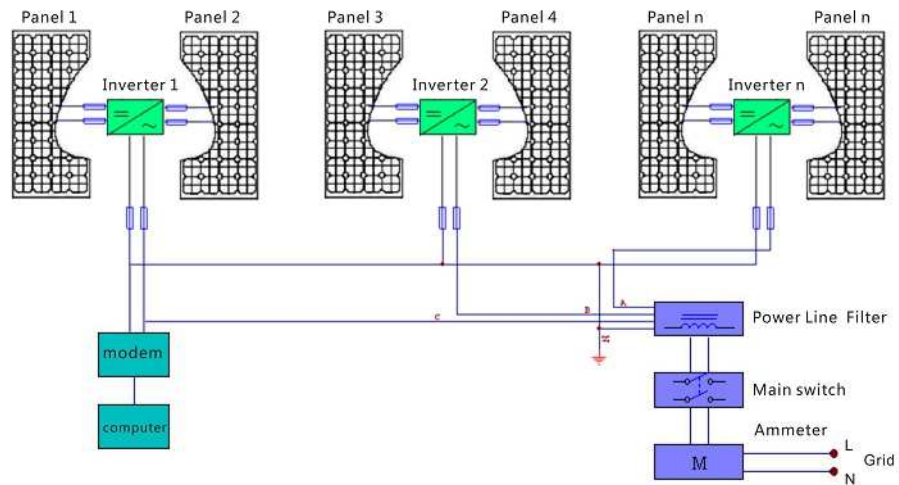
Easy Installation



Single-Phase & Three-Phase Electrical Schematics



Single-Phase



Three-Phase

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GELA WVC series



GELA KD-WVC1200

DC input voltage range : 22-50VDC

AC output voltage range : 80-160VAC/180-260VAC

AC output power : 1200Wp

AC frequency range : 50Hz/60Hz

G.W. : 4.2KG

Size : 370MM*305MM*38MM

Enquiry

Description

GELA KD-WVC1200 Series Micro Inverter



Output Power:1200W;For Home Station,*MW Station,Low Cost,Easy Intallation,For Monocrystalline Silicon & Polycrystalline Silicon

Product Description



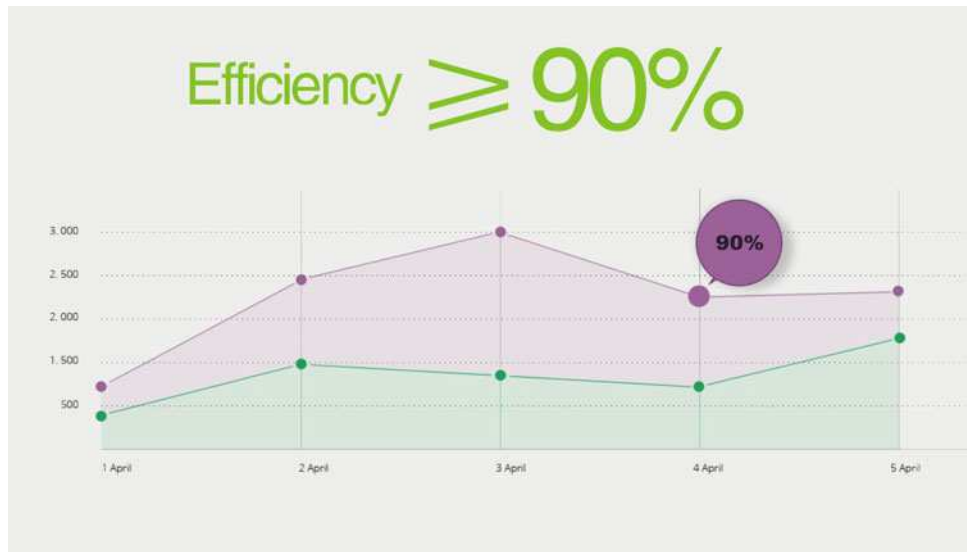
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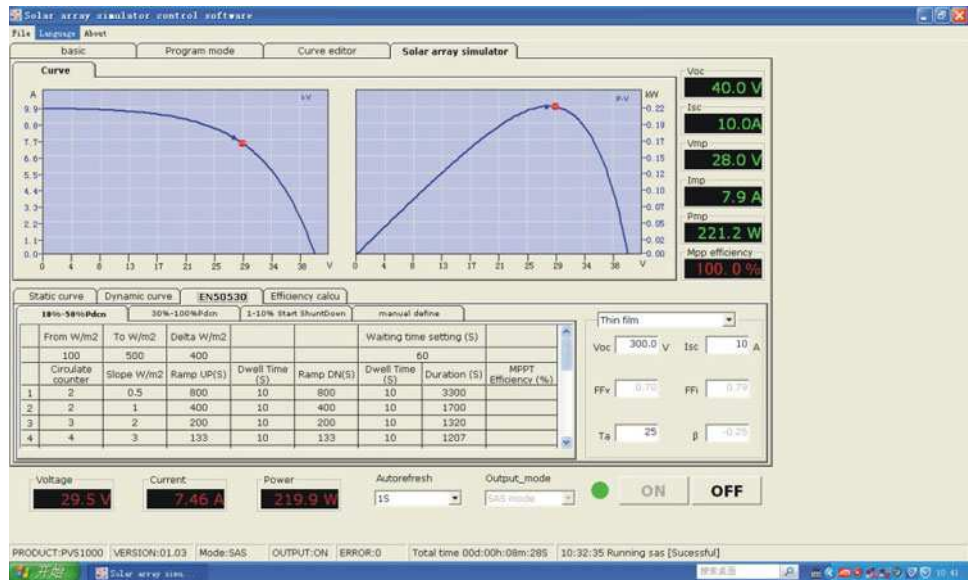
Product Features

Pure Sine Wave Output	High performance Maximum Power Point Tracking (MPPT)	Power Automatically Locked(APL)	Reverse power transmission
High-Frequency High Conversion Rate	Anti-Islanding Protect	Input /output is fully isolated to protect the electrical safety	Multiple parallel stacking
Power Line Communications	IP65 WaterProof	Intelligent Monitoring Systems	Smaller Size & Lighter Weight
The Leading Patent Technology	Flexible Installation	Simplify maintenance (user serviceable)	Installation and maintenance costs low

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Intelligent MPPT & Weak Light Tracking Algorithm



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8	0.0	0.1	9	0.0	1.0
10	0.0	0.1	11	0.0	0.8
12	0.0	0.1	13	0.0	0.9
14	0.0	0.0	15	0.1	1.2
16	0.0	0.0	17	0.0	1.0
18	0.0	0.0	19	0.0	0.7
20	0.0	0.0	21	0.0	0.4
22	0.0	0.0	23	0.0	0.5
24	0.0	0.0	25	0.1	0.7
26	0.0	0.0	27	0.0	0.7
28	0.0	0.0	29	0.0	0.4
30	0.0	0.0	31	0.0	0.3
32	0.0	0.0	33	0.1	0.1
34	0.0	0.0	35	0.0	0.1
36	0.0	0.1	37	0.0	0.2
38	0.0	0.0	39	0.0	0.3

THDU: 0.3%

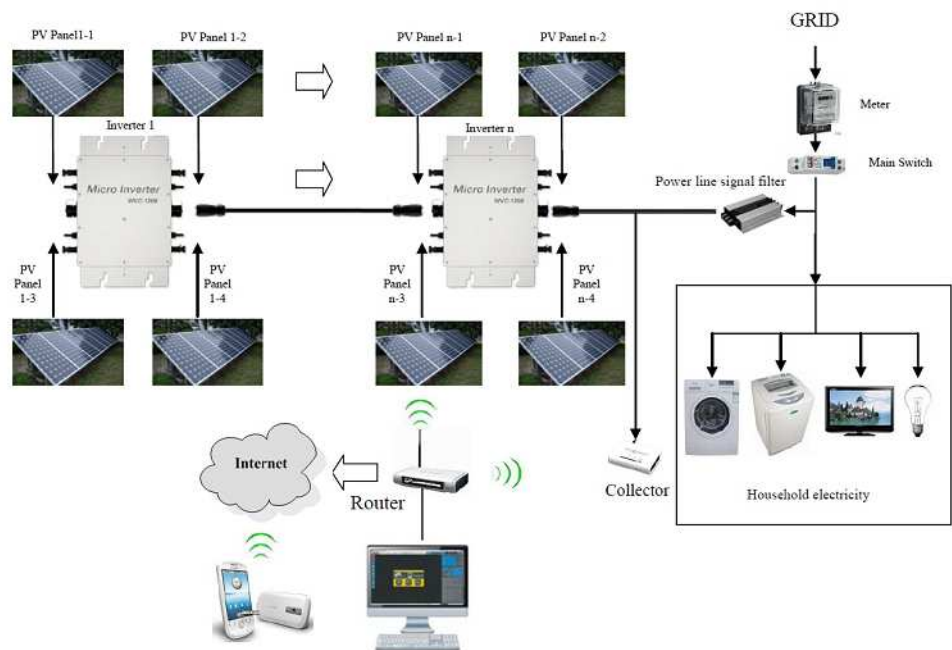
THDI: 3.4%

Product Parameters/Details

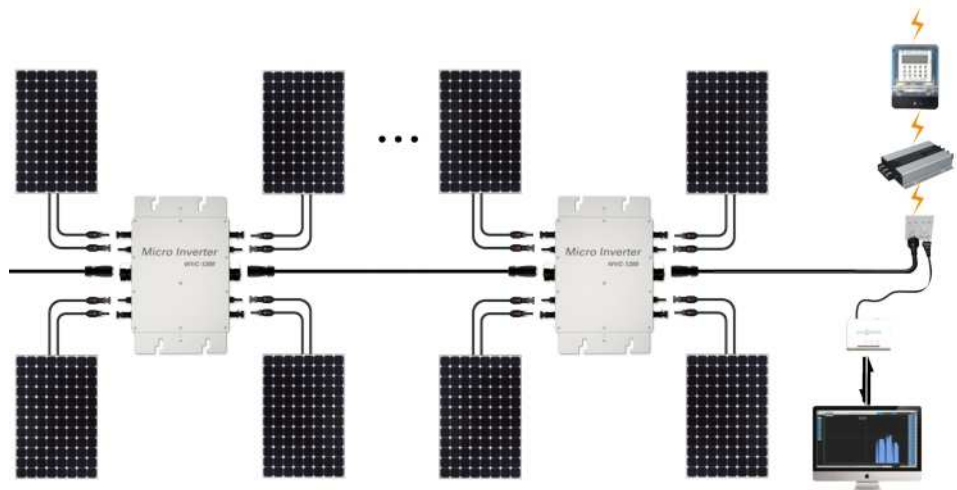
Input Data	GELA KD-WVC1200-120VAC/230VAC	
Recommended input power	1200Watt	
Recommend the use of PV modules	4*300W/Vmp>34V/Voc<50V	
Maximum input DC voltage	50V	
Peak power tracking voltage	25-40V	
Operating Voltage Range	17-50V	
Min / Max start voltage	22-50V	
Maximum DC short current	80A	
Maximum Input Current	54.4A	
Output Data	@120VAC	@230VAC
Peak power output	1200Watt	1200Watt
Rated output power	1150Watt	1150Watt
Rated output current	9.58A	5A
Rated voltage range	80-160VAC	180-260VAC
Rated frequency range	57-62.5Hz	47-52.5Hz
Power factor	>98%	>98%
Maximum units per branch circuit	3PCS(Single-phase)	5PCS(Single-phase)
Output Efficiency	@120VAC	@230VAC
Static MPPT efficiency	99.5%	99.5%
Maximum output efficiency	92%	92%
Night time power consumption	<50mW Max	<70mW Max

THDI	<5%	<5%
Exterior		
Ambient temperature	-40°C to +60°C	
Operating temperature range (inverter inside)	-40°C to +82°C	
Dimensions (WxHxD)	370mm*305mm*38mm	
Weight	2.85kg	
Waterproof Rating	IP65	
Cooling	Self-cooling	
Feature		
Communication Mode	Power Line	
Power transmission mode	Reverse transfer, load priority	
Monitoring System	Lifetime free	
Electromagnetic compatibility	EN50081.part1EN50082.part1	
Grid disturbance	EN61000-3-2 Safety EN62109	
Grid detection	DIN VDE 1026 UL1741	
Certificate	CEC,CE National patent technology	

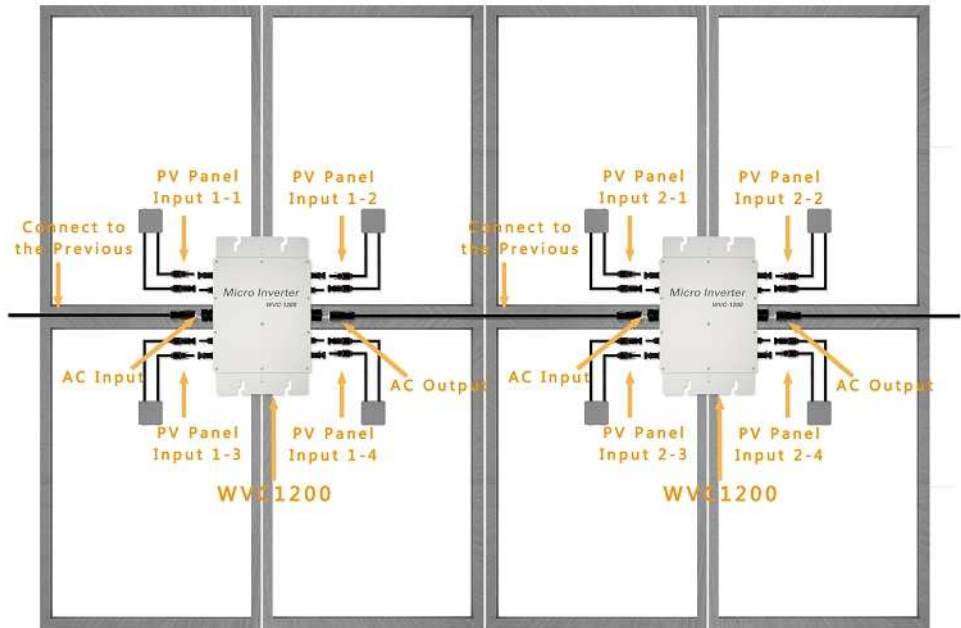
System Block Diagram & Application



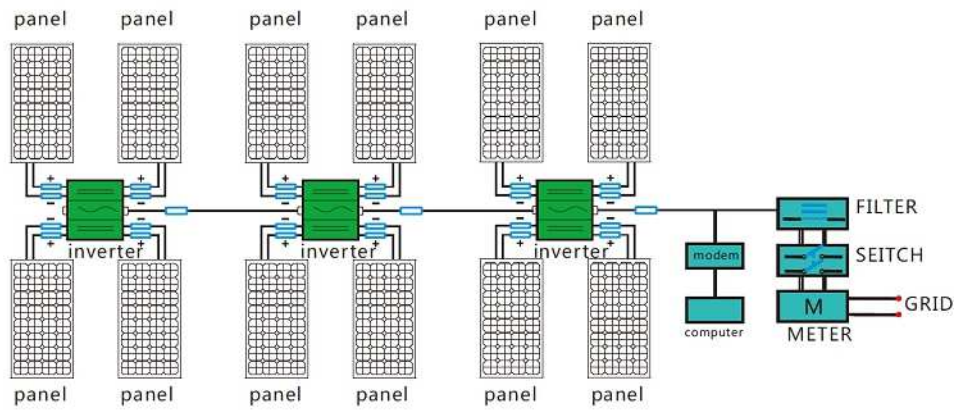
In order to achieve higher power, we can use this inverter in stack. For example: 10 pcs of WVC1200 grid tie inverter used in stack can achieve 12000W. And the stacking number is unlimited.



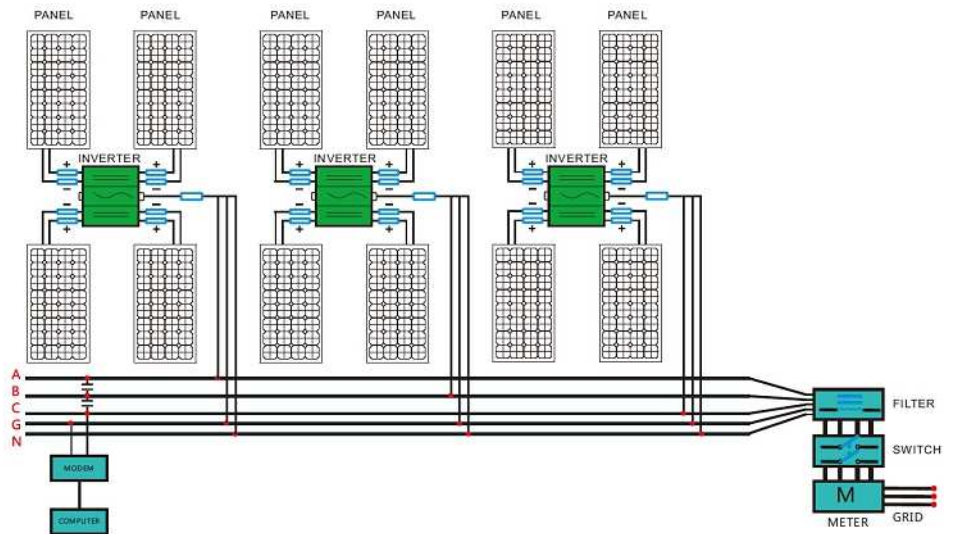
Easy Installation



Single-Phase & Three-Phase Electrical Schematics



Single-Phase



Three-Phase

Notes

- Please install the inverters according to the user manual and connect to ground safely.
- Forbid opening the shell with non-professional person, only qualified maintenance person can repair the product.
- The inverter should be installed in a low humidity and well-ventilated place, and remove flammable things surrounding the inverter to avoid overheating.
- Avoid children playing when the inverter is working.
- Ensure the DC input and AC output when connecting with PV.
- The Vmp and Voc of PV should be suitable for the product to get maximum output.

Why Is The Micro Inverter

1. The transition from a centralized to a distributed inverter optimizes energy collection.
 2. The converter module integrated into the solar panels can reduce installation costs.
 3. Soft switch technology to replace hard-switching technology can improve efficiency and reduce heat dissipation.
 4. From cottage industry to mass production, standardized design (hardware and software) to improve reliability and reduce costs.
 - i. Using a special capacitor (due to the high failure rate). Design requires a higher voltage to reduce the current, we use special electrolytic capacitors.
 - ii. The converter can be connected to the grid to eliminate the need for many battery applications. The high price of batteries, require maintenance, life expectancy is shorter.
 - iii. Work required micro-inverter power increasingly smaller (only a few hundred watts), which can reduce the internal temperature and improve reliability.
 - iv. Micro-inverter solar inverter system needs to deal with a lot of a particular power level, in order to increase production, thereby reducing costs.
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