

# ALL IN ONE

## Inverter + Battery

ESS ONE Series 8.2KW 10.2KW



Touchable  
Screen



Customized  
Logo



Multiple  
Shell Colors



Customized  
Capacity

### Features

- Pure sine wave solar inverter(on/off Grid)
- Output power factor 1.0
- WIFI&GPRS available for IOS and Android Inverter can
- run without battery
- One-key restoration to factory Settings
- Built-in Lithium battery automatic activation
- Built-in 160A MPPT solar charger (for 8.2KW,10.2KW)
- Touch button
- Dual communication ports for Battery communication and Wifi communication
- High PV input voltage range(90~500VDC)
- Built-in anti-dust kit for harsh environment
- Smart battery charge design to optimize battery life
- Dual output
- Dual PV input
- On Off Grid Work Mode

# ESS ONE SERIES

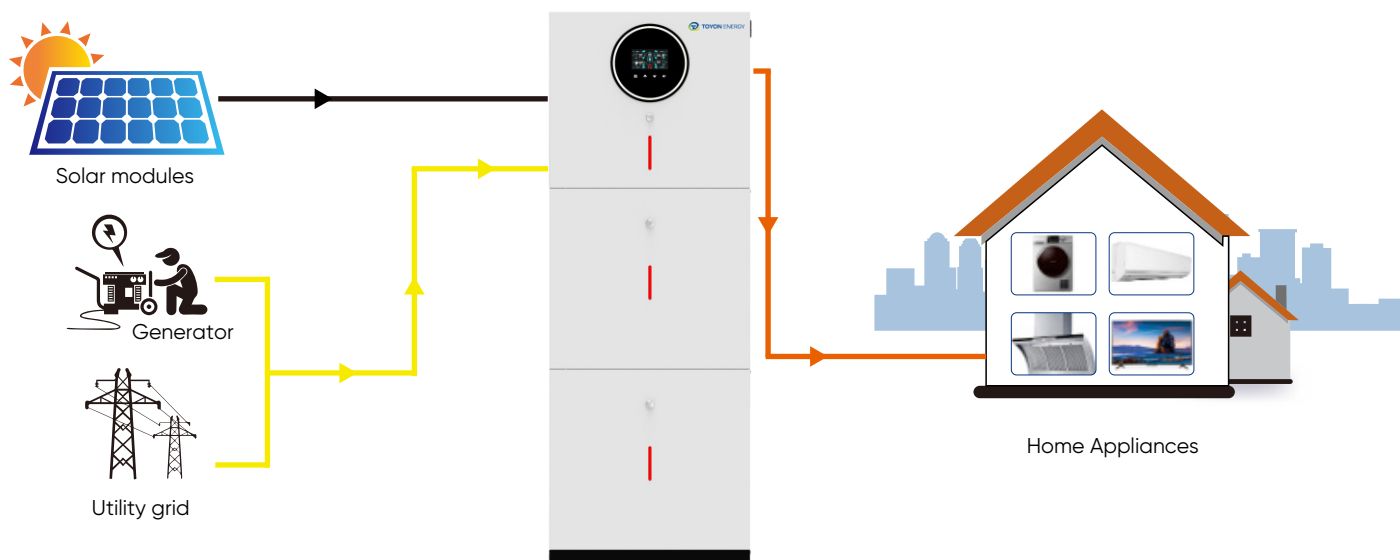
## PRODUCT DESCRIPTION

INVERTER		
MODEL	ESS ONE-8.2KW	ESS ONE-10.2KW
Phase	1-phase	
Maximum PV Input Power	5400W+5400W	
Rated Output Power	8200W/8200VA	10200W/10200VA
Maximum Solar Charging Current	160A	
<b>GRID-TIE OPERATION</b>		
<b>PV INPUT(DC)</b>		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
MPPT Voltage Range	90~450VDC	
Maximum Input Current	2/18A	
<b>GRID OUTPUT(AC)</b>		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	35.6A	44.3A
Power Factor	>0.99	
<b>EFFICIENCY</b>		
Maximum Conversion Efficiency(DC/AC)	98%	
<b>TWO LOAD OUTPUT POWER</b>		
Full Load	8200W	10200W
Maximum Main Load	8200W	10200W
Second Load Range	1640W~5740W	2040W~7140W
Maximum Load Cut Off Voltage	52VDC	
Maximum Load Return Voltage	54VDC	
<b>OFF-GRID OPERATION</b>		
<b>AC INPUT</b>		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90~280VAC or 170~280VAC	
Frequency Range	50+1Hz/60+1Hz	
Maximum AC input Current	48.2A	60A
<b>PV INPUT(DC)</b>		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	2/18A	
<b>BATTERY MODE OUTPUT(AC)</b>		
Nominal Output Voltage	220/230/240VAC	
Output Wave Form	Pure sine wave	
Efficiency (DC to AC)	94%	
<b>BATTERY&amp;CHARGER</b>		
Nominal DC Voltage	48VDC	
Maximum Solar Charging Current	160A	
Maximum AC Charging Current	140A	
Maximum Sotar+AC Charging Current	160A	
<b>HYBRID OPERATION</b>		
<b>PV INPUT(DC)</b>		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	2/18A	
<b>GRID OUTPUT(AC)</b>		
Nominal Output Voltage	220/230/240VAC	
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<b>AC INPUT</b>		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90~280VAC or 170~280VAC	
Maximum AC Input Current	48.2A	60A
Maximum Charging Current	140A	
<b>GENERAL</b>		
<b>PHYSICAL</b>		
Dimension ,H*W*D(mm)	450*510*175	
Carton Dimension,H*W*D(mm)	520*580*250	
Net Weight (kg)	25.8	26
Gross Weight(kg)	28.8	29
<b>INTERACE</b>		
Communication Port	RS232/RS485/WIFI/GPRS/LITHIUM BATTERY	
<b>ENVIRONMENT</b>		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C~50°C	
<b>STANDARD</b>		
Compliance Safety	CE	

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BATTERY			
MODEL	51.2V 100AH	51.2V 200AH	51.2V 300AH
Normal charging voltage	58.4V	58.4V	58.4V
Maximum charging current	100A	100A	100A
Discharge termination voltage	40.5V	40.5V	40.5V
Recommended discharge termination voltage	42V	42V	42V
Maximum discharge current	100A	100A	100A
Single cell charging over voltage protection	3.8V	3.8V	3.8V
Over voltage protection for the whole battery	58.4V	58.4V	58.4V
Low voltage protection for single cell discharge	2.7V	2.7V	2.7V
Low voltage protection for whole group discharge	40.5V	40.5V	40.5V
Charge over current protection	102~112A	102~112A	102~112A
Discharge over current protection	102~122A	102~122A	102~122A
BMS Features	High accuracy cell level voltage, current measuring Over-charge, over-discharge protection Short-circuit protection Self-learning intelligent SOC calculation Cell level active equalization Multiple communication type Parallel connect function		
Working temperature	-20°C ~ 65°C		
Storage temperature	-10°C ~ 50°C		
Dimension ,H*W*D(mm)	510*450*175		
Carton Dimension ,H*W*D(mm)	600*600*260		
Net Weight (kg)	46.8	46.8(2PCS)	46.8(3PCS)
Gross Weight(kg)	50	50(2PCS)	50(3PCS)

## SYSTEM DIAGRAM

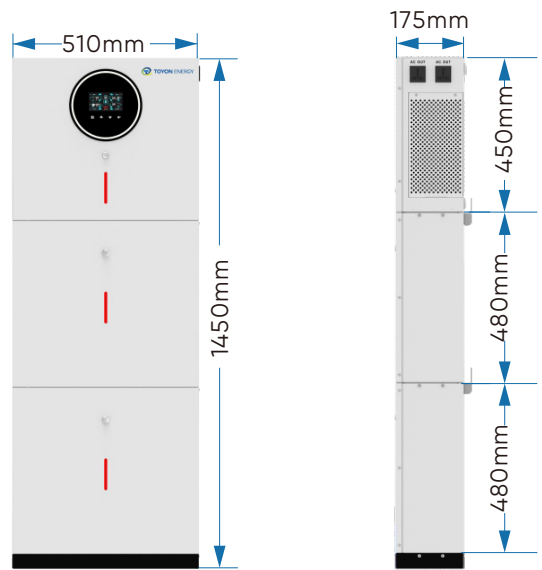


# ESS ONE SERIES

## OVERVIEW



## DIMENSION



## BACK PANEL DESCRIPTION

