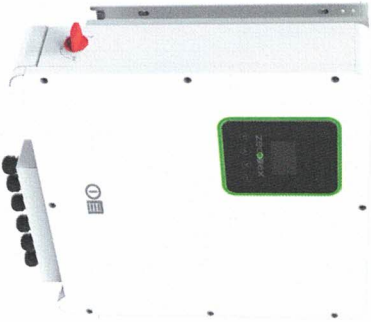


## Three phase ESS hybrid inverter - IP65 -8.8KW & 11KW & 13.2KW

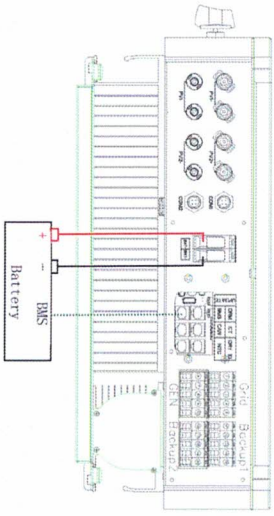
KH3 High Voltage Series(Max.Voc: 1000V, Rated input voltage: 360~440V)



### Performance characteristics

- Compatible with lead-acid and lithium-ion batteries;
- Support diesel generator input source;
- IP65 protection, low noise < 35dB;
- Battery reverse connection protection, anti-power control function
- Input power source priority can be set by users;
- Support full power discharge, automatic management of battery charge and discharge.

### Product characteristics



Function	Label	Description
PV string 1 input port	PV1+	PV string 1 positive input
PV string 1 negative input	PV1-	PV string 1 negative input
PV string 2 input port	PV2+	PV string 2 positive input
PV string 2 negative input	PV2-	PV string 2 negative input
Communication interface	COM1	GPRS port(optional)
	COM2	WiFi port(optional)
BAT Port	BAT+	Battery Positive input
	BAT-	Battery negative input
	UPDATE	Upgrading software Ports
	DRM1	Function temporarily retained
	CT	Connect to CT (current transformer)
Signal line interface	DRY IO	Dry contact
	BMS	BMS communication to Battery
	CAN	CAN Communication
	NTC	NTC detection

	①	Grid line A phase	⑪	Backup1 line A phase
	②	Grid line B phase	⑫	Backup1 line B phase
	③	Grid line C phase	⑬	Backup1 line C phase
	④	Grid line null line	⑭	Backup1 line null line
	⑤	Grid line ground electrode	⑮	Backup1 line ground electrode
	⑥	A phase	⑯	Backup2 line A phase
	⑦	B phase	⑰	Backup2 line B phase
	⑧	C phase	⑱	Backup2 line C phase
	⑨	Null line	⑲	Backup2 line Null line
	⑩	Ground electrode	⑳	Backup2 line Ground electrode

### Parameters

Technical specification	ZECO-RH3K3	ZECO-R13K3	ZECO-R13K3
<b>Input (PV)</b>			
Max. power(kW)	10.4	13	15.6
Max. DC voltage(V)	1,000	1,000	1,000
MPPT voltage range(V)	180-860	180-860	180-860
Max. input current of single MPPT(A)	12.5	12.5	12.5
MPPT Trackers/strings	2/1	2/1	2/1
<b>AC output</b>			
Rated output power(kVA)	8.8	11	13.2
Max. output current(A)	12.7	15.9	19.1
Grid voltage/range(V)	400/360~440	400/360~440	400/360~440
Frequency (Hz)	50/60	50/60	50/60
Power factor	0.99lagging-0.99leading	0.99lagging-0.99leading	0.99lagging-0.99leading
THDI	<3%	<3%	<3%
<b>AC output topology</b>	3W+N+PE	3W+N+PE	3W+N+PE
<b>Battery</b>			
Battery voltage range(V)	125-600	125-600	125-600
Max. charging voltage(V)	210	270	290
Full battery voltage(V)	210	270	290
Max. charge/discharge current(A)	40	40	50
Battery type	Lithium Lead-acid	Lithium Lead-acid	Lithium Lead-acid
Communication interface	CAN/RS485	CAN/RS485	CAN/RS485
<b>EPS output</b>			
Rated power(kVA)	8.8	11	13.2
Rated output voltage(V)	400	400	400
Max. output current(A)	12.7	15.9	19.1
Rated frequency(Hz)	50/60	50/60	50/60
Automatic switching time(ms)	<20	<20	<20
THDU	<2%	<2%	<2%
<b>Overload capacity</b>			
	110%, 30S/120%, 10S/150%, 0.02S	110%, 30S/120%, 10S/150%, 0.02S	110%, 30S/120%, 10S/150%, 0.02S
<b>General data</b>			
Battery charge/discharge efficiency	96.6%	96.7%	96.6%
DC Max. efficiency	97.5%	98.2%	98.2%
Europe efficiency	97.2%	97.5%	97.5%
MPPT efficiency	99.5%	99.5%	99.5%
Ingress protection	IP65	IP65	IP65
Noise emission(dB)	<35	<35	<35
<b>Operation temperature</b>			
Cooling	Natural	Natural	Natural
Operation temperature	-25℃ ~ 80℃	-25℃ ~ 80℃	-25℃ ~ 80℃
Relative Humidity	0 ~ 95% (non-condensing)	0 ~ 95% (non-condensing)	0 ~ 95% (non-condensing)
Altitude	2000m (<2000 Derating)	2000m (<2000 Derating)	2000m (<2000 Derating)
Dimensions W*D*H(mm)	530*200*600	530*200*600	530*200*600
Weight(kg)	29	29	29
Isolation transformer	No	No	No
Self-consumption(W)	<3	<3	<3
<b>Display and communication</b>			
Display	LCD	LCD	LCD
Interface:RS485/WiFi/4G	Yes	Op/Op/ Yes	Yes
CAN/DM	Yes	Op/Op/ Yes	Yes
Safety standard	IEC/EN62108-1;2, IEC/EN62471-1	IEC/EN62108-1;2, IEC/EN62471-1	IEC/EN62108-1;2, IEC/EN62471-1
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-3	IEC/EN 61000-6-1, IEC/EN 61000-6-3	IEC/EN 61000-6-1, IEC/EN 61000-6-3
Or-Prod	Europe: EN60549-1, Germany: VDE4105/0124, UK: G99, South Africa: NRS097-2-1:2017	Europe: EN60549-1, Germany: VDE4105/0124, UK: G99, South Africa: NRS097-2-1:2017	Europe: EN60549-1, Germany: VDE4105/0124, UK: G99, South Africa: NRS097-2-1:2017