

# ENCORE SINGLE PHASE INVERTER RANGE

Range Overview Specification Sheet

freedom  
WON



Encore 3K



Encore 5K



Encore 8K



Encore 10K

## Input (PV)

Max. Power [kW]	4.6	7	12	13
Max. DC Voltage [V]	550		500	
MPPT Voltage Range [V]	125-500			
Max. Input Current of Single MPPT [A]	14/14			
MPPT Tracker/Strings	2/1		4/1	

## AC Output

Rated Output Power [kVA]	3	5	8	10
Max. Output Current [A]	13	21.7	38.3	47.8
Grid Voltage/Range [V]	230/176-270		220, 230, 240	
Frequency [Hz]	50/60			
Displacement Power Factor	0.99lagging-0.99leading		0.8lagging-0.8leading	
THDi [%]	<2			

## Battery

Battery Voltage Range [V]	40-58			
Max. Charging Voltage [V]	58			
Max. Charge/Discharge Current [A]	95/62.2	95/104.2	190/190	210/210
Battery Type	Lithium/Lead-acid			
Communication Interface	CAN/RS485/WiFi/LAN/DRM			

## EPS Output

Rated Power [kVA]	3	5	8	10
Rated Output Voltage [V]	230		220, 230, 240	
Rated Output Current [A]	13	21.7	38.3	47.8
Rated Frequency [Hz]	50/60			
Automatic Switching Time [ms]	<20			
THDv [%]	<2			

DISTRIBUTORS AND RESELLERS

Contact your nearest Accredited Freedom Won Distributor or Reseller Installer for further sales and technical support.

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### General Data

Battery Charge/Discharge Efficiency [%]	95.0	
DC Max. Efficiency [%]	97.6	≥97.2
Europe Efficiency [%]	97.0	≥97.8
MPPT Efficiency [%]	99.9	
Ingress Protection	IP65	
Noise Level [dB]	<35	<38
Operating Temperature [°C]	-25 to +60°C (derating at 45°C)	
Cooling	Natural	Fan Cooling
Storage/Operation Relative Humidity	0-95% (non-condensing)	
Altitude [m]	<2 000	
Dimensions - H x W x D [mm]	515x550x200	760x460x225
Crated Dimensions - H x W x D [mm]	680x660x330	860x555x340
Weight [kg]	32	46
Night-time Consumption [W]	15-25	<25
<b>Safety Compliance</b>		
Safety Standard	IEC/EN 62109-1/-2, IEC/EN 62477-1	
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-3	
Certificates	South Africa NRS097-2-1:2017, UK G98, G99, EN 50549-1	

### Notes to Specification Sheet

1. AC/DC Protection: The inverter includes both AC and DC protection however, the installer must still adhere to SANS regulations.
2. Surge Protection: DC Type II / AC Type II.
3. Over Voltage Category: DC Type III / AC Type III.
4. Integrated Protection: PV Input Lightning Protection, Anti-Islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current protection, Output Overcurrent Protection, Output Short Circuit Protection.
5. Wifi Gateway: The inverters are equipped with a WIFI gateway that uses the Solarman monitoring platform. (WIFI only, no Ethernet).

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