



10 kWh Model



20 kWh Model

## Residential Energy Storage System

The Kohler® Power Reserve energy storage system can maintain power to critical items such as refrigerators, computers, TVs, lights, and garage doors when the grid goes down or for autonomous off-grid applications. The system can also provide automated cost saving through energy rate arbitrage and system power flow control.

### Models

- KOH10DC-7600
- KOH10AC-7600
- KOH15DC-7600
- KOH15AC-7600
- KOH20DC-7600
- KOH20AC-7600

### Standard Features

- LiFePO<sub>4</sub> battery chemistry
- Up to 11.4 kW solar DC input, 80- 500 VDC. 4 MPPTs
- Up to 7.6 kW of continuous power output off- grid
- Outdoor-rated NEMA 3R rated enclosures
- Always connected, cellular (included) and WiFi
- 10-Year limited warranty, industry best throughput, 70% SOC

### Operating Modes

- Backup
- Time- of- Use
- Self- Supply

### Communication

- WiFi, LTE- M

## Performance Specifications, AC Models

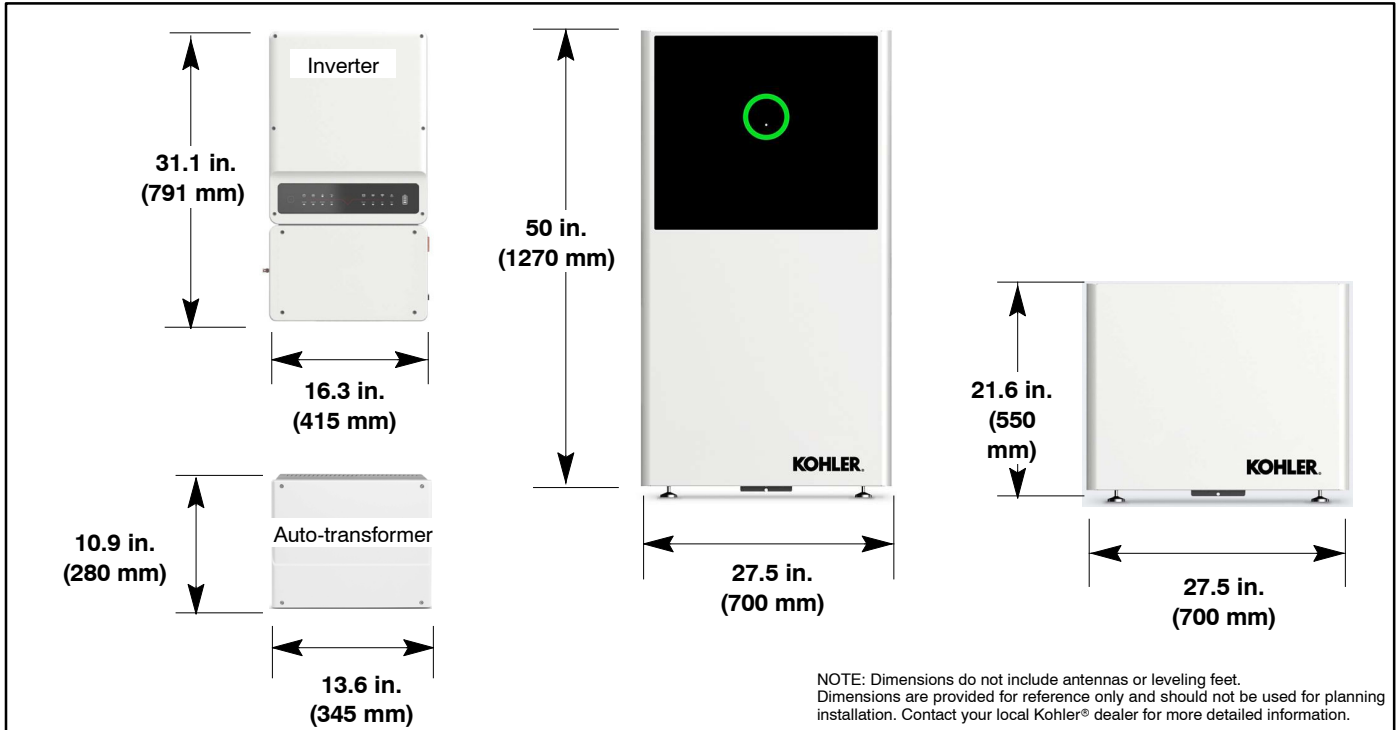
Model	KOH10AC	KOH15AC	KOH20AC
<b>Battery Input Data</b>			
Usable Capacity(kWh)	10	15	20
Battery Type	LiFePO <sub>4</sub> (LFP)		
Battery Voltage Range (V)	102.4 (89.6- 115.2)	153.6 (134.4- 172.8)	204.8 (179.2- 230.4)
Max. Charging Current (A)	50		
Max. Discharging Current (A)	50		
<b>AC Output Data (On- Grid)</b>			
Output Voltage Range (VAC)	211 to 264 @ 240		
Nominal Output Frequency (Hz)	60		
Max Output to Grid (W)	5760	7600	7600
Max Output from Grid (W)	5760	9120	9120
Continuous Output @240V (W)	5120	7600	7600
Continuous Output to Grid (A)	20.8	31.7	31.7
<b>AC Output Data (Back-Up)</b>			
Nominal Output Voltage	120/240		
Continuous Output @240V (W)	5760	7600	7600
Peak Output @240V (W)	5760, 60 sec.	8460, 60 sec.	9120, 60 sec.
<b>PV String Input Data</b>			
Max AC Input Power (W)	7600		
<b>Efficiency</b>			
PV Max. Efficiency	97.6%		
CEC Efficiency	96.1%		
Battery Charged by PV, Max. Efficiency	98.1%		
Battery Charge/Discharge to AC, Max. Efficiency	96.6%		
<b>General Data</b>			
Operating Temperature Range	- 20° to 55° C (- 4° to 131° F)		
Relative Humidity Operating	0- 95%		
Altitude	3000m		
Noise (dB)	<45		
Operating Modes	Backup, TOU, Self- Supply		
Rating	NEMA 3R		
Standby Self- Consumption (W)	<20		
Communication Protocol	Modbus / CAN		
Cycle Life	6,000 at 100% DOD		
DC Protection	Main Contactor / Fuse		
Mounting	Wall and Floor Mount (battery enclosure feet must rest on the floor)		
† MPPT = Maximum Power Point Tracking			

## Performance Specifications, DC Models

Model	KOH10DC	KOH15DC	KOH20DC
<b>Battery Input Data</b>			
Usable Capacity(kWh)	10	15	20
Battery Type	LiFePO <sub>4</sub> (LFP)		
Battery Voltage Range (V)	102.4 VDC (89.6- 115.2 VDC)	153.6 VDC (134.4- 172.8 VDC)	204.8 VDC (179.2- 230.4 VDC)
Max. Charging Current (A)	50		
Max. Discharging Current (A)	50		
<b>AC Output Data (On- Grid)</b>			
Output Voltage Range (VAC)	211 to 264 @ 240		
Nominal Output Frequency (Hz)	60		
Max Output to Grid (W)	7600 *	7600	7600
Max Output from Grid (W)	9120 *	9120	9120
Continuous Output to Grid (A)	20.8	31.7	31.7
<b>AC Output Data (Back-Up)</b>			
Nominal Output Voltage, L- N, L1- L2 (VAC)	120/240		
Continuous Output @240V (W)	5120	7600	7600
Peak Output @240V (W)	5760, 60 sec	8640, 60 sec	9120, 60 sec
<b>PV String Input Data</b>			
Max DC Input Power (W)	11400		
Max DC Input Voltage (V)	600		
MPPT Range (V) †	80- 550		
Start- up Voltage (V)	95		
MPPT Range for Full Load (V) †	230- 500		
Nominal DC Input Voltage (V)	380		
Max. Input Current (A)	12.5		
Max. Short Current (A)	15.2		
MPP Trackers (quantity) †	4		
<b>Efficiency</b>			
PV Max. Efficiency	97.6%		
PV CEC Efficiency	97.2%		
Battery Charged by PV, Max. Efficiency	98.1%		
Battery Charge/Discharge to AC, Max. Efficiency	96.6%		
<b>General Data</b>			
Operating Temperature Range	- 20° to 55° C (- 4° to 131° F)		
Relative Humidity Operating	0- 95%		
Altitude	3000m		
Noise (dB)	<45		
Communication (Built- in)	4G Cellular Communication, WiFi		
Operating Modes	Backup, TOU, Self- Supply		
Rating	NEMA 3R		
Standby Self- Consumption (W)	<20		
Communication Protocol	Modbus / CAN		
Cycle Life	6,000 at 100% DOD		
DC Protection	Main Contactor / Fuse		
Mounting	Wall and Floor Mount (battery enclosure feet must rest on the floor)		
* For the DC10 model, limits without PV (nighttime) are equal to the limits shown for AC10.			
† MPPT = Maximum Power Point Tracking			

## Product Specifications

Weights and Dimensions (AC and DC)			
Model, kWh	10	15	20
Weight	240 kg (530 lb)	329 kg (725 lb)	420 kg (925 lb)
Size, Battery Enclosure	700 x 1270 x 230 mm (27.5 x 50 x 9 in.)	1524 x 1270 x 230 mm (60 x 50 x 9 in.)	1524 x 1270 x 230 mm (60 x 50 x 9 in.)
Size, Inverter	415 x 791 x 175 mm (16.3 x 31.1 x 6.9 in.)		
Size, Auto-transformer	345 x 275 x 175 mm (13.6 x 10.9 x 6.9 in.)		



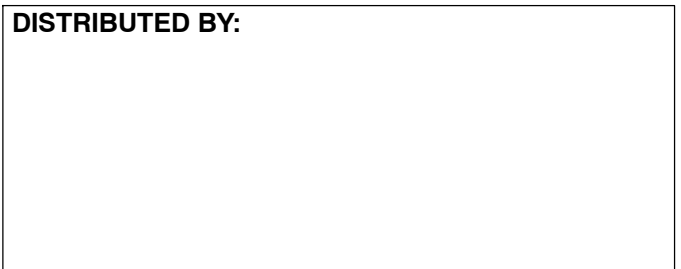
## Compliance

Inverter	
Grid Regulation	UL1741 SA (CA Rule 21), UL9540, HECO Rule 14, IEEE 1547, IEEE 1547.1, CSA 22.2
Safety Regulation	UL 1741, CSA 22.2 No. 107-01, UL 1998, UL1699B
EMC	FCC Part 15 Class B
Battery	
Battery	UL 1973, UL 1642
Energy Storage System	UL9540
Communication Protocol	Open ADR 2.0b, Open ADR

## Battery Performance Specifications

Battery Input Data	
Usable Capacity	10, 15, 20 kWh
Initial Capacity (nominal)	2.56 kWh per pack
Battery Chemistry	LiFePO4 (LFP)
Max Charge Current	50 A
Max Discharge Current	50 A
Efficiency	
Battery Charged by PV Efficiency	98.10%
Battery Round Trip Efficiency	96.60%

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