

# ECH3~6K-SML-EU

## Single Phase Residential Hybrid Inverter



### High Return

- Max efficiency 97.4%, Battery efficiency 95.1%
- 5 basic modes to meet the needs of various scenarios
- Smart TOU mode, further increasing revenue

### High Capability

- Up to 12kW output power in backup port with grid supply
- Save cost of separating loads, freedom of electricity in case of power failure
- Supports SG Ready heat pump and smart load control

### High Protection

- Standard AFCI to protect your home
- Built-in Type II SPD on DC side
- IP66 protection for challenging environments

Model	ECH3K-SML-EU	ECH3.6K-SML-EU	ECH4.6K-SML-EU	ECH5K-SML-EU	ECH6K-SML-EU
<b>Efficiency</b>					
Max. Efficiency (PV to Grid)	97.40%	97.40%	97.40%	97.40%	97.40%
Eur.Efficiency (PV to Grid)	96.50%	96.50%	96.80%	96.80%	96.70%
Max. Efficiency (Battery to Load)	95.10%	95.10%	95.10%	95.10%	95.10%
<b>PV</b>					
Rated Input Voltage	360V	360V	360V	360V	360V
Max. Input Voltage	600V	600V	600V	600V	600V
Max. Input Power	9.00kW	9.68kW	10.60kW	10.80kW	10.80kW
Max. Input Current per MPPT	16/16A	16/16A	16/16A	16/16A	16/16A
Max.Short Circuit Current per MPPT	20/20A	20/20A	20/20A	20/20A	20/20A
No. of MPPTs	2	2	2	2	2
No. of Strings per MPPT	1	1	1	1	1
Start Input Voltage	100V	100V	100V	100V	100V
PV Operating Voltage Range	80-550V	80-550V	80-550V	80-550V	80-550V
<b>Battery</b>					
Battery Type	Lithium-ion/Lead-Acid				
Battery Voltage Range	40-60V	40-60V	40-60V	40-60V	40-60V
Max. Charge/Discharge Current	120/60A	120/75A	120/95A	120/120A	120/120A
Max. Charge/Discharge Power	6.0/3.0kW	6.0/3.6kW	6.0/4.6kW	6.0/5.0kW	6.0/6.0kW
<b>Grid</b>					
Max. Input Current	54.6A	54.6A	54.6A	54.6A	54.6A
Max. Input Apparent Power from Utility Grid	12.0kVA	12.0kVA	12.0kVA	12.0kVA	12.0kVA
Rated Output Apparent Power	3.00kVA	3.68kVA	4.60kVA	5.00kVA	6.00kVA
Max. Output Apparent Power	3.3kVA	4.0kVA	4.6kVA	5.5kVA	6.0kVA
Rated Output Voltage	L/N/PE~220/230V				
AC Voltage Range	176-276V(Adjustable)				
Rated Grid Frequency	50Hz/60Hz				
THDI	<3%(Rated Power)				
Power Factor	> 0.99 Rated power (Adjustable 0.8 Leading - 0.8Lagging)				
<b>Backup Port</b>					
Max. Output Current On Grid	54.6A	54.6A	54.6A	54.6A	54.6A
Max. Output Apparent Power On Grid	12.0kVA	12.0kVA	12.0kVA	12.0kVA	12.0kVA
Peak Output Apparent Power	4.5kVA @60s	5.4kVA @60s	6.9kVA @60s	7.5kVA @60s	9kVA @60s
Rated Output Apparent Power Off Grid	3.00kVA	3.68kVA	4.60kVA	5.00kVA	6.00kVA
Max. Output Apparent Power Off Grid	3.3kVA	4.0kVA	4.6kVA	5.5kVA	6.0kVA
Rated Output Voltage	220/230V	220/230V	220/230V	220/230V	220/230V
Rated Output Frequency	50Hz/60Hz				
THDV	<2%(Linear load)				
Switching Time	10ms				
<b>Protection</b>					
DC Switch	Support	Support	Support	Support	Support
Anti-islanding Protection	Support	Support	Support	Support	Support
AC Overcurrent Protection	Support	Support	Support	Support	Support
AC Overvoltage Protection	Support	Support	Support	Support	Support
PV String Reverse Protection	Support	Support	Support	Support	Support
Surge Protection	AC Type II, DC Type II				
Insulation Detection	Support	Support	Support	Support	Support
Leakage Current Protection	Support	Support	Support	Support	Support
AFCI	Support	Support	Support	Support	Support
RSD Function	Option	Option	Option	Option	Option
<b>General</b>					
Topology	High Frequency Isolation (Battery)				
IP Rating	IP66	IP66	IP66	IP66	IP66
Cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling
Operating Temperature Range	-25°C-60°C	-25°C-60°C	-25°C-60°C	-25°C-60°C	-25°C-60°C
Relative Humidity Range	0-100%	0-100%	0-100%	0-100%	0-100%
Max. Operating Altitude	4000m				
Noise (Typical)	<35dB	<35dB	<35dB	<35dB	<35dB
Dimensions (W*H*D)	460*460*203mm	460*460*203mm	460*460*203mm	460*460*203mm	460*460*203mm
Weight	26kg	26kg	26kg	26kg	26kg
Display	LED&APP	LED&APP	LED&APP	LED&APP	LED&APP
Communication	RS485,CAN, WIFI/4G(optional)				
<b>Certification</b>					
Safety	IEC/EN62109-1&2, IEC/EN62477-1, IEC/EN61727 / 62116, IEC/EN61000-6-1/2/3, IEC 61683, IEC63027				
Grid Code	VDE 4105, CEI 0-21, EN 50549-1, PTPIREE+NCRfG, NTS 2.1, 217001, 217002				

\* The certificates are for reference only. Please consult the local sales staff for detailed certification.