Three-phase Hybrid Inverter



AELIO

80kW / 99kW / 100kW / 125kW / 130kW

Flexible Configuration

- Max. PV input current 42 A
- 130kW max continuous output; up to 10 units parallel connection
- Multiple battery combinations available, supporting 2–8h system
- Optional GEN interface for precise control

Safe and Reliable

- SPD Ⅱ + Ⅱ
- 100% unbalanced output, precise feed-in power control
- Max. charging/discharging current of 200A
- 0ms Seamless Switching*

Intelligent Applications

- AI-driven energy scheduling with EMS
- Multiple operation modes supported
- Compatible with VPP, FCAS and other grid auxiliary services
- DC-Coupled Microgrid Solution for Improved System Efficiency

Easy Maintenance

- LCD Intelligent Interaction
- Remote monitoring and OTA firmware upgrade
- Auto-reverse fans for dust self-cleaning , zero manual work
- Plug-and-play design for fast wiring & installation

**Switching cabinet required for >3 units*

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V1.5 Information may be subject to modify without notice. 650.00151.00

	AEL80T	AEL99T	AEL100T	AEL125T	AEL130T
PV INPUT					
Max. recommended PV array power	120 kWp	150 kWp	150 kWp	188 kWp	195 kWp
Max. PV input voltage①	1000 d.c.V				
Rated PV input voltage	650 d.c.V				
MPPT voltage range②	160 ~ 850 d.c. V				
Start-up voltage	200 d.c. V				
No. of MPP trackers / Strings per MPP tracker	6 / (2/2/2/2/2/2)	8 / (2/2/2/2/2/2/2/2)			
Max. input current per MPPT	42/42/42/42/42/42 d.c. A	42/42/42/42/42/42/42/42 d.c. A			
Max. input short circuit current per MPPT	55/55/55/55/55/55 d.c. A	55/55/55/55/55/55/55/55 d.c. A			
AC INPUT & OUTPUT (ON-GRID)					
Rated output power	80 kW	99 kW	100 kW	125 kW	130 kW
Rated output current	121.2 a.c.A@220 a.c.V 116.0 a.c.A@230 a.c.V 111.1 a.c.A@240 a.c.V	150.0 a.c.A@220 a.c.V 143.5 a.c.A@230 a.c.V 137.5 a.c.A@240 a.c.V	151.5 a.c.A@220 a.c.V 145.0 a.c.A@230 a.c.V 138.9 a.c.A@240 a.c.V	189.4 a.c.A@220 a.c.V 181.2 a.c.A@230 a.c.V 173.6 a.c.A@240 a.c.V	197.0 a.c.A@220 a.c.V 188.4 a.c.A@230 a.c.V 180.6 a.c.A@240 a.c.V
Max. output apparent power	80kVA	99 kVA	100 kVA	125 kVA	130 kVA
Max. output continuous current	121.2 a.c.A@220 a.c.V 116.0 a.c.A@230 a.c.V 111.1 a.c.A@240 a.c.V	150.0 a.c.A@220 a.c.V 143.5 a.c.A@230 a.c.V 137.5 a.c.A@240 a.c.V	151.5 a.c.A@220 a.c.V 145.0 a.c.A@230 a.c.V 138.9 a.c.A@240 a.c.V	189.4 a.c.A@220 a.c.V 181.2 a.c.A@230 a.c.V 173.6 a.c.A@240 a.c.V	197.0 a.c.A@220 a.c.V 188.4 a.c.A@230 a.c.V 180.6 a.c.A@240 a.c.V
Rated AC voltage	3 / N / PE, 220 / 380 a.c.V 3 / PE, 220 / 380 a.c.V 3 / N / PE, 230 / 400 a.c.V 3 / PE, 230 / 400 a.c.V 3 / N / PE, 240 / 415 a.c.V 3 / PE, 240 / 415 a.c.V				
Rated AC frequency	50 Hz / 60 Hz				
AC frequency range③	50 ± 5 / 60 ± 5 Hz				
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)				
THDi (rated power)	< 3%(rated power)				
BATTERY					
Battery type	LFP				
Battery voltage range	415~ 936 V				
Max. charge / discharge current	200 A (100 A × 2)				
EPS (OFF-GRID) OUTPUT (WITH BATTERY)					
Rated EPS output voltage, frequency	3 / N / PE, 220 / 380 a.c.V 3 / PE, 220 / 380 a.c.V 3 / N / PE, 230 / 400 a.c.V 3 / PE, 230 / 400 a.c.V 3 / N / PE, 240 / 415 a.c.V 3 / PE, 240 / 415 a.c.V				
Rated EPS apparent power	80kVA	99kVA	100kVA	125kVA	130kVA
Peak EPS output power	1.2*Prated,10s				
Switchover time	0 ms				
GENERATOR④					
Rated GEN input voltage, frequency	3 / N / PE, 220 / 380 a.c. V, 50 Hz / 60 Hz 3 / N / PE, 230 / 400 a.c. V, 50 Hz / 60 Hz 3 / N / PE, 240 / 415 a.c. V, 50 Hz / 60 Hz				
Max input current	250A				
EFFICIENCY					
Max. efficiency	98.0%				
European efficiency	97.7%				
GENERAL INFORMATION					
Dimensions (W × H × D)	1150 × 790× 365mm				
Weight	170 kg				
Cooling concept	Smart air cooling				
Operating temperature range	-35 – +60°C (>+45°C derating)				
Relative humidity	0 ~ 100% RH (condensing)				
Max. operating altitude	3000 m				
Overvoltage Category	Mains: Ⅲ, Battery: Ⅱ, PV: Ⅱ				
Ingress protection	IP66				
Topology	Non-isolated				
Communication interfaces	RS485, CAN, TCP, DI/DO				
Certifications⑤	IEC62116,IEC61727,EN50549,VDE4105,VDE4110,TOR,AS4777,IRR-DCC-MV,G99,CE,RD16999,CEI-021				
PROTECTION					
Over / under voltage protection	Yes				
DC isolation protection	Yes				
DC reverse-polarity protection	Yes				
Grid monitoring	Yes				
DC injection monitoring	Yes				
Back feed current monitoring	Yes				
Residual current detection	Yes				
Over temperature protection	Yes				
Active anti-islanding method	Frequency shift				
Surge protection	DC: Type Ⅱ, AC: Type Ⅱ				
Arc-fault circuit interrupter (AFCI)	Yes				

①The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter
②Input voltage exceeding the MPPT voltage range may triggers inverter protection
③The AC frequency range may vary from different country codes
④Power interfaces GEN are available as options.
⑤The relevant certifications are currently in the process of being obtained.