

OPTONICA

THREE-PHASE HYBRID INVERTERS



- 100** 100% unbalanced output, each phase
- AC** AC couple to retrofit existing solar system
- 10** *Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 100** Max. charging/discharging current of 100A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
- Generator** Support storing energy from diesel generator

Technical Data

Model	SKU: 9443	SKU: 9444
Battery Input Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	160-800	
Max. Charging Current (A)	50+50	
Max. Discharging Current (A)	50+50	
Number of Battery Input	2	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	39000	65000
Max. DC Input Voltage (V)	1000	
Start-up Voltage (V)	180	
MPPT Range (V)	150-850	
Full Load DC Voltage Range (V)	360-850	450-850
Rated DC Input Voltage (V)		
PV Input Current (A)	36+36+36	36+36+36+36
Max. PV I _{sc} (A)	55+55+55	55+55+55+55
No. of MPP Trackers	3	4
No. of Strings per MPP Tracker	2+2+2	2+2+2+2
AC Output Data		
Rated AC Output Active Power (W)	30000	50000
Max AC Output Active Power (W)	33000	55000
AC Output Rated Current (A)	45.5/43.5	75.8/72.5
Max. AC Output Current (A)	50/47.8	83.4/79.7
Max. Three-phase Unbalanced Output Current (A)	60	83.3
Max. Continuous AC Passthrough (A)	200	
Peak Power (Off Grid)	1.5 time of rated power, 10 S	
Generator Input/Smart Load /AC Couple Current (A)	45.5 / 200 / 45.5	75.8 / 200 / 75.8
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac	
Grid Type	Three Phase	
Total Harmonics Current Distortion (THDi)	<3% (of nominal power)	
DC Current Injection	<0.5% I _n	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	99.90%	
Protection		
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection, Arc Fault Circuit Interruption (AFCI optional)	
Over Voltage Category	DC Type II/AC Type III	
Certifications and Standards		
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
General Data		
Operating Temperature Range (°C)	-40-60°C, >45°C Derating	
Cooling	Smart Cooling	
Noise (dB)	≤65 dB	
Communication with BMS	CAN	
Weight (kg)	80	
Cabinet Size (WxHxD mm)	527x894x294 (Excluding Connectors and Brackets)	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 Years (10 Years Optional)	

*Note: Parallel operation for 5 inverters is usable. Parallel operation is currently being tested for up to ten inverters. The prerequisite for parallel operation is that only Deye high-voltage inverters with the same power and Deye high-voltage storage battery can be used.