



# OPTONICA

## THREE-PHASE HYBRID INVERTERS



- 100** 100% unbalanced output, each phase
-  AC couple to retrofit existing solar system
- 10** \*Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 50** Max. charging/discharging current of 50A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

### Technical Data

Model		SKU: 9442
<b>Battery Input Data</b>		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	160~700	
Max. Charging Current (A)	37	
Max. Discharging Current (A)	37	
Number of Battery Input	1	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
<b>PV String Input Data</b>		
Max. DC Input Power (W)	26000	
Max. DC Input Voltage (V)	1000	
Start-up Voltage (V)	180	
MPPT Range (V)	150-850	
Full Load DC Voltage Range (V)	500-850	
Rated DC Input Voltage (V)	600	
PV Input Current (A)	26+26	
Max. PV I <sub>sc</sub> (A)	39+39	
No. of MPP Trackers	2	
No. of Strings per MPP Tracker	2+2	
<b>AC Output Data</b>		
Rated AC Output and UPS Power (W)	20000	
Max. AC Output Active Power (W)	22000	
AC Output Rated Current (A)	30.4/29	
Max. AC Output Current (A)	33.4/31.9	
Max. Three-phase Unbalanced Output Current (A)	35	
Max. Continuous AC Passthrough (A)	80	
Peak Power (off grid)	1.5 time of rated power, 10 S	
Generator Input/Smart Load /AC Couple Current (A)	30.4/80/30.4	
Power Factor	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 <sub>n</sub>	
<b>Efficiency</b>		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	99.90%	
<b>Protection</b>		
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	
<b>Certifications and Standards</b>		
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	
<b>General Data</b>		
Operating Temperature Range (°C)	-40~60°C , >45°C Derating	
Cooling	Smart Cooling	
Noise (dB)	≤55 dB	
Communication with BMS	CAN	
Weight (kg)	30.5	
Cabinet Size (WxHxD mm)	408x638x237 (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.