

# OPTONICA

## THREE-PHASE HYBRID INVERTERS



- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 240** Max. charging/discharging current of 240A
- 48** 48V low voltage battery, transformer isolation design
- 6** 6 time periods for battery charging/discharging
- EG** Support storing energy from diesel generator

### Technical Data

Model	SKU: 9436	SKU: 9435
<b>Battery Input Data</b>		
Battery Type	Lead-acid or Li-Ion	
Battery Voltage Range (V)	40~60	
Max. Charging Current (A)	190	210
Max. Discharging Current (A)	190	210
External Temperature Sensor	Yes	
Charging Curve	3 Stages / Equalization	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
<b>PV String Input Data</b>		
Max. DC Input Power (W)	10400	13000
Rated PV Input Voltage (V)	550 (160~800)	
Start-up Voltage (V)	160	
MPPT Voltage Range (V)	200-650	
Full Load DC Voltage Range (V)	350-650	
PV Input Current (A)	13+13	26+13
Max. PV I <sub>SC</sub> (A)	17+17	34+17
No. of MPP Trackers	2	
No. of Strings per MPP Tracker	1	2+1
<b>AC Output Data</b>		
Rated AC Output and UPS Power (W)	8000	10000
Max. AC Output Power (W)	8800	11000
AC Output Rated Current (A)	12.1/11.6	15.2/14.5
Max. AC Current (A)	18.2/17.4	22.7/21.7
Max. Continuous AC Passthrough (A)	45	
Peak Power (off grid)	2 time of rated power, 10 S	
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 Harmonic Distortion (THD)	<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	PV Input Lightning Protection, 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	
Output Over Voltage Protection	DC Type II/AC Type III	
<b>Certifications and Standards</b>		
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150	
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)	<45 dB	
Communication with BMS	RS485; CAN	
Weight (kg)	33.6	
Size (mm)	422W x 699.3H x 279D	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	10 years	