

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
- Generator** Support storing energy from diesel generator

Technical Data

Model		SKU: 9441
Battery Input Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	40-60	
Max. Charging Current (A)	240	
Max. Discharging Current (A)	240	
External Temperature Sensor	Yes	
Charging Curve	3 Stages / Equalization	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	15600	
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)	26+13	
Max. PV I _{SC} (A)	34+17	
No. of MPP Trackers	2	
No. of Strings per MPP Tracker	2+1	
AC Output Data		
Rated AC Output Active Power (W)	12000	
Max AC Output Active Power (W)	13200	
AC Output Rated Current (A)	18.2/17.4	
Max AC Output Current (A)	20/19.1	
Max. Three-phase Unbalanced Output Current (A)	27.3/26.1	
Max Output short circuit current (A)	75	
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 _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	
Over Voltage Category	DC Type II/AC Type III	
Certifications and Standards		
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	
General Data		
Operating Temperature Range (°C)	-40-60 , >45 derating	
Cooling	Smart Cooling	
Noise (dB)	≤45 dB	
Communication with BMS	RS485; CAN	
Weight (kg)	33.6	
Size (mm)	422W x 702H x 281D	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 Years (10 Years Optional)	