



NovaPlus

DATASHEET

HIGH-PERFORMANCE HYBRID INVERTER

PHI-5~12K-DL-US-G1

Split-Phase · LV · Up to 12 kW



10+

YEARS
WARRANTY

12 Kw

MAX. POWER

<10 ms

TRANSFER TIME

240 A

BATTERY CHARGE

IP66

PROTECTION

Technical Specifications

PHI-5~12K-DL · Hybrid Inverter · Split-Phase LV

Full range PHI-5K to PHI-12K

Model	PHI-5K	PHI-6K	PHI-8K	PHI-10K	PHI-12K
DC Input (PV Side)					
Max. PV access power	10kW	12kW	16kW	20kW	24kW
Max. PV input power	8kW	9.6kW	12.8kW	16kW	19.2kW
Max. PV input voltage	600V				
Nominal input voltage	360V				
MPPT operating voltage range	80V–500V				
No. indep. MPPT / strings per MPPT	2/1	2/1	4/1	4/1	4/1
Max. MPPT current	2*20A	2*20A	4*20A	4*20A	4*20A
Start-up voltage	100V				
AC Output/Input (Grid Side)					
Nominal apparent power	5kW	6kW	8kW	10kW	12kW
Max. apparent power	5.5kVA	6.6kVA	8.8kVA	11kVA	13.2kVA
Nominal frequency and voltage	50Hz/60Hz, 2L/N/PE, 120/240V				
Nominal current	20.8A	25A	33.3A	41.6A	50A
Max. current	22.8A	27.5A	36.6A	45.7A	55A
Power factor	–0.8~+0.8 (adjustable)				
THDi	<3% (nominal output)				
Grid system	Split phase (single-phase two-wire)				
Max. AC current from grid	100A				
AC Output (Backup)					
Nominal apparent power	5kVA	6kVA	8kVA	10kVA	12kVA
Max. apparent power	5.5kVA	6.6kVA	8.8kVA	11kVA	13.2kVA
Output frequency and voltage	50Hz/60Hz, 2L/N/PE, 120/240V				
Output THDV	<3%				
Automatic transfer time	<10ms				
Battery Input Data					
Battery type	Li-ion / Lead-acid				
Battery voltage range	40V–60V				
Max. charge/discharge current	120A	135A	190A	210A	240A
Li-Ion charging strategy	Self-adapting to BMS				
Efficiency		Interface and Control			
Max. MPPT efficiency	99.9%	Topology		Transformerless	
European efficiency	97.5%	Display		LCD and App	
Max. batt. to load efficiency	94.5%	Communication		WiFi/4G/USB/CAN/RS485	
General Data					
Dimensions (L/W/H)	425 × 290 × 660 mm		Weight		48.5 kg
Operating temp. range	–25°C ... +60°C		Dissipation mode		Smart cooling
Protection degree	IP66		Night consumption		<3W
Max. altitude	4000 m				



10-year warranty

Option to extend to 15 years