



NovaPlus

TECHNICAL DATASHEET

HIGH-PERFORMANCE HYBRID INVERTER

PHI-16~20K-DL-US-G1

Split-Phase · LV · 16 kW – 20 kW



20 Kw

MAX. POWER

<10 ms

SWITCHOVER

400 A

BATTERY CHARGE

Type 4

PROTECTION

Technical Specifications

Models PHI-16K and PHI-20K

PHI-16~20K-DL · Hybrid Inverter · Split-Phase LV

Model	PHI-16K		PHI-20K	
DC Input (Photovoltaic Side)				
Max. PV access power	32kW		37.5kW	
Max. PV input power	32kW		40kW	
Max. PV input voltage			600V	
Nominal input voltage			360V	
MPPT working voltage range			80V–500V	
No. indep. MPPT / strings per MPPT			4/2	
Max. MPPT current			4*40A	
Start-up voltage			100V	
AC Output/Input (Grid Side)				
Nominal apparent power	16kW		20kW	
Max. apparent power	17.6kVA		22kVA	
Nominal frequency and voltage			60Hz, 2L/N/PE, 120/240V	
Nominal current	66.6A		83.3A	
Max. current	73A		91.6A	
Power factor			–0.8~+0.8 (adjustable)	
THDi			<3% (nominal output)	
Grid system			Split phase / 2-3 phases / Single-phase	
Max. AC current from grid	180A		180A	
AC Output (Backup / Back-up)				
Nominal apparent power	16kW		20kW	
Max. apparent power	17.6kVA		22kVA	
Output frequency and voltage			60Hz, 2L/N/PE, 120/240V	
Output THDV			<3%	
Automatic switchover time			<10ms	
Battery Input Data				
Battery type			Li-ion / Lead-acid	
Battery voltage range			40V–60V	
Max. charge/discharge current	320A		400A	
Li-Ion charging strategy			BMS self-adaptation	
Efficiency		Interface and Control		
Max. MPPT efficiency	99.9%	Topology		Transformerless
European efficiency	97.5%	Display		Color touchscreen + App
Max. battery-to-load eff.	94.5%	Communication		WiFi/4G/USB/CAN/RS485
General Data				
Dimensions (L/W/H)	465 × 350 × 790 mm	Weight		60 kg
Operating temp. range	–25°C ... +60°C	Dissipation mode		Intelligent cooling
Protection rating	NEMA Type 4	Nighttime consumption		<3W
Maximum altitude	4000 m			



10-year warranty

Option to extend to 15 years