

HYD 5-20KTL-3PH

5 / 6 / 8 / 10 / 15 / 20 kW

THREE PHASE PV HYBRID INVERTER



Product advantages

- Various operational modes for optimal performance
- Off-grid output can be connected to unbalanced load, three-phase separate output is supported
- Up to 2 MPPTs, allowing a flexible configuration
- Multiple parallel systems, more flexible system solutions
- Maximum two battery inputs
- Fully digital operation, enabling higher control accuracy



Model	HYD 5KTL-3PH	HYD 6KTL-3PH	HYD 8KTL-3PH	HYD 10KTL-3PH	HYD 10KTL-3PH-A	HYD 15KTL-3PH	HYD 20KTL-3PH
PV Input							
Recommended Max. PV Power	7500Wp	9000Wp	12000Wp	15000Wp	15000Wp	22500Wp	30000Wp
Max. Input Voltage				1000 Vd.c.			
Start-up Voltage				200 Vd.c.			
Rated Input Voltage				600 Vd.c.			
MPPT Operating Voltage Range				180-960 Vd.c.			
Number of MPPT				2			
Max. Number of Input Strings per MPPT		1/1			2/2		
Max. Input Current ^[1]		16/16 A			32/32 A		
Max. Isc ^[2]		22.5A/22.5A			45A/45A		
AC Output (Grid)							
Rated Output Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	12.1/11.6/11.1 A	15.2/14.5/13.9 A	15.2/14.5/13.9 A	22.7/21.7/20.8 A	30.3/29.0/27.8 A
Rated Output Voltage				3N~PE.380/400/415 V.a.c.			
Rated Output Frequency				50/60 Hz			
Max. Apparent Power	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA	10 kVA	16.5 kVA	22 kVA
Max. Output Current	8.3/8.0/7.6 A	10.0/9.6/9.2 A	13.3/12.8/12.2 A	16.7/15.9/15.3 A	15.2/14.5/13.9 A	25.0/23.9/22.9 A	33.3/31.9/30.6 A
THDi				<3%			
Power Factor Range				0.8 lagging-0.8 leading			
Battery							
Battery Type ^[3]				Lithium-ion & Lead-acid			
Voltage Range				180-800 Vd.c.			
Number of Battery Input Channels		1			2		
Max. Charging Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Max. Discharging Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Max. Charging Current	25 A	25 A	25 A	25/25 A	25/25 A	25/25 A	25/25 A
Max. Discharging Current	25 A	25 A	25 A	25/25 A	25/25 A	25/25 A	25/25 A
BMS Communication				CAN/RS485			
AC Output(Backup)							
Rated Output Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	12.1/11.6/11.1 A	15.2/14.5/13.9 A	15.2/14.5/13.9 A	22.7/21.7/20.8 A	30.3/29.0/27.8 A
Rated Output Voltage				3N~PE.380/400/415 V.a.c.			
Rated Output Frequency				50/60Hz			
Rated Apparent Power	5 kVA	6 kVA	8 kVA	10 kVA	10 kVA	15 kVA	20 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA	11 kVA	16.5 kVA	22 kVA
Peak Output Apparent Power	7500VA, 60s	9000VA, 60s	12000VA, 60s	15000VA, 60s	15000VA, 60s	22500VA, 60s	26000VA, 60s
Max. Output Current	8.3/8.0/7.6 A	10.0/9.6/9.2 A	13.3/12.8/12.2 A	16.7/15.9/15.3 A	16.7/15.9/15.3 A	25.0/23.9/22.9 A	33.3/31.9/30.6 A
THDv(@ Linear load)				<3%			
Switching Time				10ms default			
Efficiency							
Max. MPPT Efficiency				99.9%			
Max. Efficiency	98.0%	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%
European Efficiency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%	97.7%
Max. Efficiency of Charging/Discharging ^[4]	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	97.8%
Protection							
DC Switch				Yes			
PV Reverse Connection Protection				Yes			
Battery Reverse Connection Protection				Yes			
Output Short Circuit Protection				Yes			
Output Overcurrent Protection				Yes			
Output Overvoltage Protection				Yes			
Insulation Impedance Detection				Yes			
Residual Current Detection				Yes			
Anti-island Protection				Yes			
Surge Protection				PV, Type II, AC, Type II			
General Parameters							
Operating Temperature Range				-30℃--+60℃ (derating above +45℃)			
Relative Humidity Range				5%-95%			
Max. Operating Altitude				4000m (derating above 2000m)			
Standby Self-consumption ^[5]				<25W			
Inverter Topology				Non-Isolation			
Installation Method				Wall Mounted			
IP Rating				IP65			
Dimensions(W*H*D)				587*515*261mm			
Cooling Mode		Natural				Forced Airflow	
Weight		32kg				39.5kg	
Communication				RS485/CAN/Wi-Fi, Optional LAN/4G			
Display				LCD & APP			

[1] PV Max. Input Current may change(12.5A to 16A,25A to 32A) please refer to the label on the body. [2] PV Max. Isc may change(15A to 22.5A,30A to 45A) please refer to the label on the body.
[3] Please refer to document "SOFAR Inverter Model compatible battery list". [4] Battery-AC maximum efficiency of battery charge and discharge.
[5] Standby loss at rated input voltage. [6] If you choose the Belgian safety code, the Max. Apparent Power of HYD 5-20KTL-3PH is 10 kVA.

*All specifications are subject to change without notice.