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 Va.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 Va.c.						
Rated Output Frequency	50/60Hz						
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°C~+60°C (derating above +45°C)						
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 tothe 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.