9 Datasheet

- The following parameters may change without notice, please refer to the User Manual and Datasheet on our website.

Technical Data	HYD-5K-LT1	HYD-6K-LT1	HYD-6.5K-LT1	HYD-8K-LT1	HYD-9.9K-LT1-A	HYD-10K-LT1
Battery Parameters						
Battery type	Lithium-ion and Lead-acid					
Number of Battery Input Channels	1					
Battery voltage range	40-60 Vd.c.					
Max charging power	12 kW					
Max. Discharging Power	5 kW	6 kW	6.5 kW	8kW	9.9kW	10 kW
Maximum charging current	240 A					
Maximum discharging current	120 A	135 A	145 A	190 A	205 A	210 A
BMS Communication	RS-485/CAN					
PV Input						
Recommended Max. PV input power (Wp)	10 kWp	12 kWp	13 kWp	16 kWp	20 kWp	20 kWp
Max. input voltage	1000 Vd.c.					
Rated input voltage	600 Vd.c.					
Start-up voltage	200 Vd.c.					
MPPT voltage range	160-950 Vd.c.					
Number of MPPT	2					
Max. Number of Input Strings per MPPT	2/2					
Max. Input Current	40/40 A					
Max. Isc	50/50 A					
AC Grid						
Rated Output Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	9.9/9.4/9.0 A	12.1/11.6/11.1 A	15.0/14.3/13.8 A	15.2/14.5/13.9 A
Rated Apparent Power	5 kW	6 kVA	6.5 kVA	8 kVA	9.9 kVA	10 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.15 kVA	8.8 kVA	9.9 kVA	11 kVA
Max. Output Current	8.3/8.0/7.6 A	10/9.6/9.2 A	10.9/10.3/9.9 A	13.3/12.8/12.2 A	15.0/14.3/13.8 A	16.7/15.9/15.3 A

Technical Data	HYD-5K-LT1	HYD-6K-LT1	HYD-6.5K-LT1	HYD-8K-LT1	HYD-9.9K-LT1-A	HYD-10K-LT1
Max. Input Current	35 A			40 A		
Rated Output Voltage	3N~+PE,380/400/415 Va.c.					
Rated Output Frequency	50/60 Hz					
Power Factor Range	0.8 lagging-0.8 leading					
THDi	<3%					
AC Backup						
Rated Output Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	9.9/9.4/9.0 A	12.1/11.6/11.1 A	15.0/14.3/13.8 A	15.2/14.5/13.9 A
Rated Apparent Power	5 kVA	6 kVA	6.5 kVA	8 kVA	9.9 kVA	10 kVA
Max. Apparent power	5.5 kVA	6.6 kVA	7.15 kVA	8.8 kVA	9.9 kVA	11 kVA
Max. output current	8.3/8.0/7.6 A	10/9.6/9.2 A	10.9/10.3/9.9 A	13.3/12.8/12.2 A	15.0/14.3/13.8 A	16.7/15.9/15.3 A
Peak Output Apparent Power	2 times of rated power, 10s					
Rated Output Voltage	3N~+PE,380/400/415 Va.c.					
Rated Output Frequency	50/60 Hz					
THDv (@Liner load)	<3%					
Switch time	4 ms(default)					
AC Smartload/Generator						
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.					
Rated Output Frequency	50/60 Hz					
Rated Output Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	9.9/9.4/9.0 A	12.1/11.6/11.1 A	15.0/14.3/13.8 A	15.2/14.5/13.9A
Rated Apparent Power	5 kVA	6 kVA	6.5 kVA	8 kVA	9.9 kVA	10 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.15 kVA	8.8 kVA	9.9 kVA	11 kVA
Max. Output Current	8.3/8.0/7.6 A	10/9.6/9.2 A	10.9/10.3/9.9 A	13.3/12.8/12.2 A	15.0/14.3/13.8 A	16.7/15.9/15.3 A
Efficiency And Protection						
Max. MPPT Efficiency	99.9%					
Max. Efficiency	97.6%					
European Efficiency	97.0%					
Max. Efficiency of Charging/Discharging	95.0%					
Protection						

Technical Data	HYD-5K-LT1	HYD-6K-LT1	HYD-6.5K-LT1	HYD-8K-LT1	HYD-9.9K-LT1-A	HYD-10K-LT1
DC Switch	Yes					
PV Reverse Connection Protection	Yes					
Output Short Circuit Protection	Yes					
Output Over current Protection	Yes					
Output Overvoltage Protection	Yes					
Insulation Impedance Detection	Yes					
Residual Current Detection	Yes					
Anti-island Protection	Yes					
Surge Protect-ion	PV: Type II, AC: Type II					
General Data						
Dimensions(W*H*D)	485×690×290 mm					
Weight	52 kg					
Inverter Topology	Non-Isolation					
Protective Class	Class I					
Standby Self consumption	<15 W					
Operating Temperature Range	-30℃ to +60℃ (derating above +45℃)					
Relative Humidity Range	5%~95%					
Max. Operating Altitude	4000 m (derating above 2000 m)					
Cooling Mode	Intelligent Airflow					
IP Rating	IP66					
Overvoltage Category	AC III, DC II					
Installation Method	Wall Mounted					
Display	LCD & APP					
Communication	RS485, Optional: Wi-Fi/4G/LAN					

Technical Data	HYD-12K-LT1	HYD-15K-LT1	HYD-20K-LT1
Battery Parameters			
Battery type	Lithium-ion and Lead-acid		
Number of Battery Input Channels	1		
Battery voltage range	40-60 Vd.c.		
Max charging power	20 kW		
Max. Discharging Power	12 kW	15 kW	20kW
Maximum charging current	240 A	350 A	
Maximum discharging current	240 A	300 A	350A
BMS Communication	RS-485/CAN		
PV Input			
Recommended Max. PV input power (Wp)	24 kWp	30 kWp	40kWp
Max. input voltage	1000 Vd.c.		
Rated input voltage	600 Vd.c.		
Start-up voltage	200 Vd.c.		
MPPT voltage range	160-950 Vd.c.		
Number of MPPT	2		
Max. Number of Input Strings per MPPT	2/2		
Max. Input Current	40/40 A		
Max. Isc	50/50 A		
AC Grid			
Rated Output Power	12 kW	15 kW	20 kW
Rated Output Current	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Apparent Power	12 kVA	15 kVA	20 kVA
Max. Apparent Power	13.2 kVA	16.5 kVA	22 kVA
Max. Output Current	20.0/19.1/18.3 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A
Max. Input Current	45 A	50 A	60 A
Rated Output Voltage	3N~+PE,380/400/415 Va.c.		
Rated Output Frequency	50/60 Hz		
Power Factor Range	0.8 lagging-0.8 leading		
THDi	<3%		
AC Backup			

Technical Data	HYD-12K-LT1	HYD-15K-LT1	HYD-20K-LT1
Rated Output Power	12 kW	15 kW	20 kW
Rated Output Current	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Apparent Power	12 kVA	15 kVA	20 kVA
Max. Apparent power	13.2 kVA	16.5 kVA	22 kVA
Max. output current	20.0/19.1/18.3 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A
Peak Output Apparent Power	2 times of rated power, 10s		
Rated Output Voltage	3N~+PE,380/400/415 Va.c.		
Rated Output Frequency	50/60 Hz		
THDv (@Liner load)	<3%		
Switch time	4 ms(default)		
AC Smartload/Generator			
Rated Output Voltage	12 kW	15 kW	20 kW
Rated Output Frequency	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Output Power	12 kVA	15 kVA	20 kVA
Rated Output Current	13.2 kVA	16.5 kVA	22 kVA
Rated Apparent Power	20.0/19.1/18.3 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A
Max. Apparent Power	12 kW	15 kW	20 kW
Max. Output Current	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Output Voltage	12 kVA	15 kVA	20 kVA
Efficiency And Protection			
Max. MPPT Efficiency	99.90%		
European Efficiency	97.00%		
Max. Efficiency	97.60%		
Max. Efficiency of Charging/Discharging	95.00%		
Protection			
DC Switch	Yes		
PV Reverse Connection Protection	Yes		
Output Short Circuit Protection	Yes		
Output Over current Protection	Yes		
Output Overvoltage Protection	Yes		
Insulation Impedance Detection	Yes		

Technical Data	HYD-12K-LT1	HYD-15K-LT1	HYD-20K-LT1
Residual Current Detection	Yes		
Anti-island Protection	Yes		
Surge Protect-ion	PV: Type II, AC: Type II		
General Data			
Dimensions(W*H*D)	485×690×290 mm		
Weight	52 kg		
Inverter Topology	Non-Isolation		
Protective Class	Class I		
Standby Self consumption	<15 W		
Operating Temperature Range	-30℃ to +60℃ (derating above +45℃)		
Relative Humidity Range	5%~95%		
Max. Operating Altitude	4000 m (derating above 2000 m)		
Cooling Mode	Intelligent Airflow		
IP Rating	IP66		
Overvoltage Category	AC III, DC II		
Installation Method	Wall Mounted		
Display	LCD & APP		
Communication	RS485, Optional: Wi-Fi/4G/LAN		