

Hybrid Inverter 25-50kW

DL HDT-25/30/36/40/50K

30A

Max. PV Input Current

100%

Unbalanced Output

100A

Max. Charge/Discharge

Commercial | Three Phase | HV Battery | 4 MPPTS



Maximized Energy Harvesting

- 100% unbalanced output enhances self-consumption
- 100A charging/discharging for efficient energy transfer
- Continuous 110% AC overloading sustains power
- Starts at 135V for more generation time
- Smooth transition to backup power ensures continuity during power outages



Engineered for Versatility

- Max. 10 pcs parallel for on-grid operation and max. 4 pcs parallel for off-grid operation
- 120% max backup @60s handles overloads
- IP65 protects both indoors and outdoors



Intelligent Energy Dynamics

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency
- Supports diesel generators for diverse energy sourcing



Simplified Interaction

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control
- The newly enhanced Solinteg EMS platform for peak intelligent energy management

Integ HDT Series

The Power Master

Hybrid Inverter 25-50kW

Model		HDT-25K-100	HDT-30K-100	HDT-36K-100	HDT-40K-100	HDT-50K-100
PV Input						
Recommended Max. Input Power	[kW]	37.50	45.00	54.00	60.00	75.00
Start-up Voltage	[V]	135	135	135	135	135
Max. DC Input Voltage*	[V]	1000*	1000*	1000*	1000*	1000*
Rated DC Input Voltage	[V]	620	620	620	620	620
MPPT Voltage Range*	[V]	200-850*	200-850*	200-850*	200-850*	200-850*
No. of MPP Trackers		4	4	4	4	4
No. of DC Inputs per MPPT		2	2	2	2	2
Max. Input Current	[A]	30x4	30x4	30x4	30x4	30x4
Max. Short-circuit Current	[A]	40x4	40x4	40x4	40x4	40x4
Battery Side						
Battery Type		Lithium Battery (with BMS)				
Battery Voltage Range	[V]	135-750				
Maximum Charging/Discharge Current	[A]	100/100				
Grid Side						
Rated Output Power	[kW]	25.00	30.00	36.00	40.00	50.00
Max. Output Apparent Power	[kVA]	27.50	33.00 ¹⁾	39.60	44.00	55.00
Max. Input Apparent Power**	[kVA]	30.00	36.00	43.50	48.00	60.00
Max. Charging Power of Battery	[kW]	25.00	30.00	36.00	40.00	50.00
Rated AC Voltage	[V]	3L/N/PE; 220/380V;230/400V;240/415V				
Rated AC Frequency	[Hz]	50/60				
Max. Output Current	[A]	42.00	50.00 ²⁾	60.00	66.00	83.00
Power Factor		0.8 leading ...0.8 lagging				
Max. Total Harmonic Distortion		<3% @Rated output power				
DCI		<0.5%In				
Back-up Side						
Rated Output Power	[kW]	25.00	30.00	36.00	40.00	50.00
Max. Output Apparent Power	[kVA]	27.50	33.00	39.60	44.00	55.00
Max. Output Current	[A]	42.00	50.00	60.00	66.00	83.00
On/Off-grid Switching Time	[ms]	<20ms				
Rated Output Voltage	[V]	3L/N/PE; 220/380V;230/400V;240/415V				
Rated Output Frequency	[Hz]	50/60				
Voltage Harmonic Distortion		<3% @Linear load				
Generator Side						
Max. Input Apparent Power**	[kVA]	30.00	36.00	43.50	48.00	60.00
Max. Charging Power of Battery	[kW]	25.00	30.00	36.00	40.00	50.00
Rated AC Voltage	[V]	3L/N/PE; 220/380V;230/400V;240/415V				
Rated AC Frequency	[Hz]	50/60				
Max. Input Current	[A]	43.50	52.20	63.00	69.60	87.00
Efficiency						
Max. Efficiency		98.8%	98.8%	98.8%	98.8%	98.8%
European Efficiency		98.3%	98.3%	98.3%	98.3%	98.3%
Protection						
Integrated Protection		DC reverse polarity protection / Battery input reverse connection protection / Insulation resistance protection / Surge protection / Over-temperature protection / Residual current protection / Islanding protection / AC over-voltage protection / Overload protection / AC short-circuit protection				
General Data						
Over Voltage Category		PV: II Main: III				
Dimensions	[W×H×D mm]	800×620×300				
Weight	[KG]	72				
Protection Degree		IP65				
Standby Self-Consumption	[W]	<15				
Topology		Transformerless				
Operating Temperature Range	[°C]	-30~60				
Relative Humidity	[%]	0~100				
Operating Altitude	[m]	3000 (>3000m Derating)				
Cooling		Smart fan				
Noise Level	[dB]	<50				
Display		OLED & LED				
Communication		CAN, RS485, WiFi/LAN (Optional)				

* PV Max. Input voltage is 850V, otherwise inverter will be waiting;

** Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery;

1) AS 4777.2, VDE-AR-N 4105: 30.0kVA; 2) AS 4777.2, VDE-AR-N 4105: 43.5A