

TPLV 12-20

IGNACORE

Energy Storage System



Flexible Adaptability

10-unit parallel, On/Off-grid, Generator input integrated, 30A high current PV input



Safe and Secure

Battery terminal temperature monitoring, IP65 protection, Type II AC/DC SPDs, optional AFCI protection



Efficient Management

Smart load management via cloud platform & LCD screen, UPS-level switchover <6 ms (single unit)



High Performance

160% PV oversizing, 110% AC output, 200% EPS peak power (10s), 290A high-current charge/discharge, 80V low start-up voltage

Model	TPLV 12-20
PV Input	
Recommended Max.input power(kW)	19.2
Start-up voltage(V)	160
Max.DC input voltage(V)	800
Rated DC input voltage(V)	550
MPPT voltage range(V)	200 ~ 700
No.of MPPT trackers	2
No.of DC inputs per MPPT	2 + 2
Max.input current(A)	30 + 30
Max.short-circuit current(A)	36 + 36
Grid Side	
Rated output power(kW)	12
Max.output apparent power(kVA)	13.2
Max.input apparent power(kVA)	13.2
Max.charging power of battery(kW)	12
Rated AC voltage	220 / 380 , 230 / 400 , 3 L / N / PE
Rated AC frequency(Hz)	50/60
Max.output current(A)	19.2
Power factor	-0.8 lagging ~ 0.8 leading
Max.total harmonic distortion	< 3% (of nominal power)
Back-up Side	
Rated output power(kW)	12
Max.output current(A)	19.2
UPS switching time(ms)	< 6
Rated output voltage	220 / 380 , 230 / 400 , 3 L / N / PE
Rated output frequency(Hz)	50/60

Voltage harmonic distortion	< 3% (of nominal power)
Efficiency	
Max.efficiency(%)	97.6
European efficiency(%)	96.5
Protection	
Integration	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault, Current Monitoring, Arc Fault Circuit Interrupter, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current Detection(RCD), Rapid Shutdown, RSD(Optional)
Over voltage category	PV:II Main:III

Battery	
Nominal voltage (Vdc)	51.2
Rated capacity (Ah)	400
Energy (Wh)	20480
Battery impedance (mΩ)	≤50
Charging cut-off voltage (V)	56.16
Discharge cut-off voltage (V)	44.8
Recommend charge current	0.5C 200A
Scalable	Up to 15 units
Max charge current (A)	400
Max continue discharge current	400A, -20°C~60°C, ≤65±20%RH
Operating temperature range (°C)	-20~60
Environment	Outdoor / Indoor
Installation	Wall mounted / Floor stand
Cell technology	Lithium-iron phosphate (LiFePO4)

Life cycle	6000 times @80% DOD
Cooling	Natural convection

General Data	
Dimensions [W×H×D(mm)]	Inverter: 440×660×282 Battery: (590×800×142)x2
Weight(kg)	Inverter: 38.5 Battery: 96.5x2
Protection degree	IP65
Topology	Transformerless for PV Side / HF for Battery Side
Operating Temperature Range(°C)	-25 ~ +60(>45 derating)
Relative Humidity(%)	5 ~ 95 (No condensation)
Operating Altitude(m)	< 3000
Cooling	Intelligent Redundant Fan Cooling
Noise Level(dB)	≤ 55
Display	LED+LCD
Communication	RS485/CAN/WIFI / (4G, LAN Optional)
Safety Certification	IEC 62109, IEC 61000
Grid Connection Certification	EN 50549-1/10, IEC 61683, IEC 61727, IEC62116

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