IPT Series

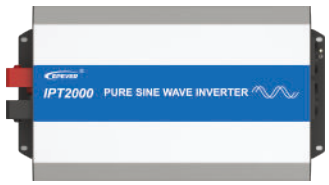
Pure sine wave inverter

Overview

The IPT series, a high-frequency sine wave inverter, adopts a fully digital intelligent design and voltage-current dual closed-loop control algorithm. Featured with fast response, high conversion efficiency, low Total Harmonic Distortion(THD), and high reliability running, the IPT series can be widely used in the DC-AC off-grid systems (such as vehicle systems, security monitoring systems, emergency lighting systems, household power systems, field power systems, and other systems requiring higher power quality).

Features

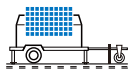
- Pure sine wave output
- Input to output electrical isolation
- Output power factor up to 1
- Input Protection: Low-voltage, Over-voltage
- Output Protection: Overload, Short circuit, Overheating
- RS485 com. port to realize remote monitoring
- External switch design, matched with EPEVER products, to expand inverter control function and reduce power consumption
- Diversified AC output sockets
- EN/IEC62109-1/2, EN61000-6-2/4, and FCC approved



Solar Car

Solar Home

Solar Boat



Solar Power Generator

Technical Specifications

Parameter	IPT350-12	IPT350-22	IPT500-12	IPT500-22	IPT1000-12	IPT1000-22	IPT1000-42
Continuous output power	350W@35℃@ Rated input voltage		500W@35℃@Rated input voltage		1000W@35℃@Rated input voltage		
Surge power	700W@5S		1000W@5S		2000W@5S		
Surge current when power on①	< 30A		< 50A		< 100A		< 35A
Output voltage	220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)				220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)		220VAC/230VAC/ 240VAC(±3%)
Output frequency	50/60Hz ± 0.2%				50/60Hz ± 0.2%		
Output wave	Pure Sine Wave				Pure Sine Wave		
Output distortion THD	THD ⩽ 3% (Resistive load)				THD ⩽ 3% (Resistive load)		
Load power factor	0.2 ~ 1 (Load power ⩽ Continuous output power)				0.2 ~ 1 (Load power ⩽ Continuous output power)		
Rated input voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	48VDC
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32VDC	10.8 ~ 16.0VDC	21.6 ~ 32VDC	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC
Rated output efficiency②	> 89.0%	> 90.0%	> 89.5%	> 91.5%	> 89.0%	> 90.0%	> 92.0%
Max. output efficiency③	> 90.0% (70% loads)	> 91.5% (70% loads)	> 91.0% (40% loads)	> 92.0% (40% loads)	> 93.0% (40% loads)	> 93.0% (30% loads)	> 93.0% (40% loads)
Idle current	< 0.15A	< 0.10A	< 0.15A	< 0.10A	< 0.2A	< 0.15A	< 0.1A
No-load current	< 0.9A	< 0.4A	< 0.9A	< 0.6A	< 1.1A	< 0.9A	< 0.4A
RS485 com. port	5VDC/200mA				5VDC/200mA		
Mechanical parameters							
Input terminal	M6				M6		
Dimension (L x W x H)	229 × 160 × 73mm		286 × 160 × 73mm		371 × 228 × 118mm		332×228×118mm
Mounting size (L x W)	205 × 75mm		262 × 75mm		345 × 145mm		306×145mm
Mounting hole size	Φ5mm		Φ5mm		Φ6mm		Φ6mm
Net Weight	1.5kg		2.3kg		4.8kg		4.5Kg
AC output Interface*	 T-Terminal	 C China	 E Europe	 A Australia	 UK UK	 F France	

① The "Surge current when power on" parameter is for the customized products with an anti-surge function (whose product model has "S"). For other products, the actual surge current prevails.

② It means the rated output efficiency when the load power equals the "continuous output power" under the rated DC input voltage.

③ It means the max. output efficiency when the inverter is connected with different loads under the rated DC input voltage.

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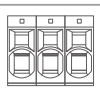
Technical Specifications

Parameter	IPT1500-12	IPT1500-22	IPT1500-42	IPT2000-12	IPT2000-22	IPT2000-42
Continuous output power	1500W@35℃@Rated input voltage			2000W@35℃@Rated input voltage		
Surge power	3000W@5S			4000W@5S		
Surge current when power on①	< 100A	< 100A	< 50A	< 100A	< 100A	< 50A
Output voltage	220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)			220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)		
Output frequency	50/60Hz ± 0.2%			50/60Hz ± 0.2%		
Output wave	Pure Sine Wave			Pure Sine Wave		
Output distortion THD	THD ⩽ 3% (Resistive load)			THD ⩽ 3% (Resistive load)		
Load power factor	0.2 ~ 1 (Load power ⩽ Continuous output power)			0.2 ~ 1 (Load power ⩽ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC	12VDC	24VDC	48VDC
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC
Rated output efficiency②	> 89.0%	> 90.0%	> 92.5%	> 88.0%	> 90.0%	> 92.5%
Max. output efficiency③	> 93.0% (30% loads)	> 93.5% (30% loads)	> 94.0% (30% loads)	> 94.0% (30% loads)	> 93.0% (30% loads)	> 94.5% (30% loads)
Idle current	< 0.2A	< 0.15A	< 0.1A	< 0.2A	< 0.15A	< 0.1A
No-load current	< 1.2A	< 0.9A	< 0.5A	< 1.2A	< 1.0A	< 0.5A
RS485 com. port	5VDC/200mA			5VDC/200mA		
Mechanical parameters						
Input terminal	M6	M6	M6	M10	M6	
Dimension (L x W x H)	387 × 228 × 118mm	387 × 228 × 118mm	387 × 228 × 118mm	420 × 228 × 118mm	421 × 228 × 118mm	
Mounting size (L x W)	361 × 145mm	361 × 145mm	361 × 145mm	395 × 145mm	395 × 145mm	
Mounting hole size	Φ6mm	Φ6mm	Φ6mm	Φ6mm	Φ6mm	
Net Weight	6.0kg	5.5kg	5.2kg	7.0kg	5.8kg	
AC output Interface*	 T-Terminal	 C China	 E Europe	 A Australia	 UK UK	 F France

① The "Surge current when power on" parameter is for the customized products with an anti-surge function (whose product model has "S"). For other products, the actual surge current prevails.

② It means the rated output efficiency when the load power equals the "continuous output power" under the rated DC input voltage.

③ It means the max. output efficiency when the inverter is connected with different loads under the rated DC input voltage.

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Technical Specifications

Parameter	IPT3000-12	IPT3000-22	IPT3000-42	IPT4000-42	IPT5000-42
Continuous output power	3000W@35℃@Rated input voltage			4000W@35℃@Rated input voltage	5000W@35℃@Rated input voltage
Surge power	6000W@5S			8000W@5S	
Surge current when power on①	< 100A	< 100A	< 65A	< 65A	
Output voltage	220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)				
Output frequency	50/60Hz ± 0.2%				
Output wave	Pure Sine Wave				
Output distortion THD	THD ⩽ 3% (Resistive load)				
Load power factor	0.2 ~ 1 (Load power ⩽ Continuous output power)				
Rated input voltage	12VDC	24VDC	48VDC	48VDC	
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC	43.2 ~ 64.0VDC	
Rated output efficiency②	> 87.0%	> 90.0%	> 92.5%	> 91.0%	
Max. output efficiency③	> 94.0% (30% loads)	> 94.0% (30% loads)	> 94.5% (30% loads)	> 94.0%(30% loads)	
Idle current	< 0.2A	< 0.15A	< 0.1A	< 0.1A	< 0.1A
No-load current	< 1.6A	< 1.0A	< 0.5A	< 0.6A	< 0.8A
RS485 com. port	5VDC/200mA				
Mechanical parameters					
Input terminal	M10	M6	M6	M6	M6
Dimension (L x W x H)	557 × 228 × 118mm	521 × 270 × 143mm	491 × 228 × 118mm	516 × 228 × 118mm	531 × 228 × 118mm
Mounting size (L x W)	532 × 145mm	495 × 145mm	465 × 145mm	490 × 145mm	505 × 145mm
Mounting hole size	Φ6mm				
Net Weight	9.5kg	8.5kg	6.8kg	7.8kg	8.5kg
AC output Interface*	 T-Terminal  C China  E Europe  A Australia  UK UK  F France				

① The "Surge current when power on" parameter is for the customized products with an anti-surge function (whose product model has "S"). For other products, the actual surge current prevails.

② It means the rated output efficiency when the load power equals the "continuous output power" under the rated DC input voltage.

③ It means the max. output efficiency when the inverter is connected with different loads under the rated DC input voltage.

Environment parameters		Certification	
Environment temperature	-20℃ ~ +60℃ (Refer to the Derating Curve)	Safety	EN/IEC62109-1, UL458 (Products with 12/24V input voltage support), CSA C22.2#107.1
Storage temperature	-35℃ ~ +70℃	EMC(Electromagnetic compatibility)	EN61000-6-2/EN61000-6-4,FCC 47 CFR Part 15, Subpart A
Relative humidity	⩽ 95% (N.C.)	RoHS	IEC62321-3-1
Enclosure	IP20	–	
Altitude	< 5000m (If the altitude exceeds 1000 meters, the rated power will be reduced according to IEC62040.)		

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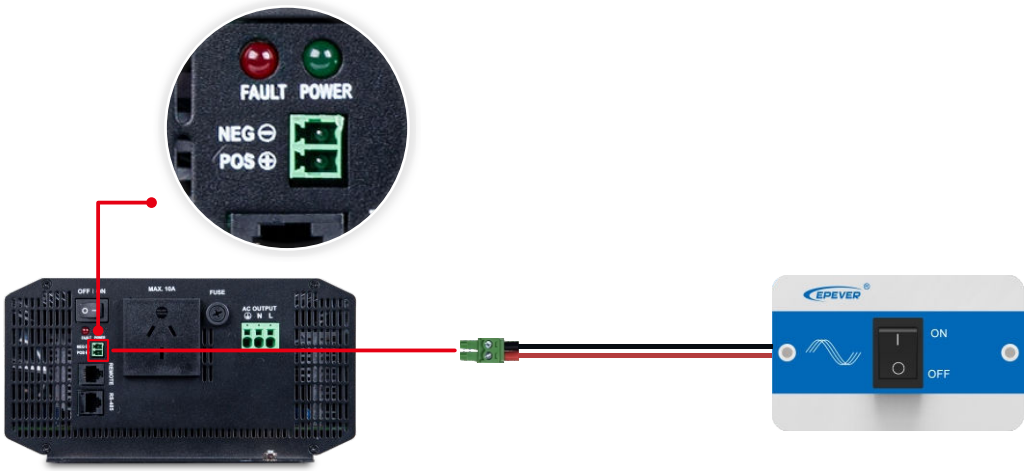
Remote switch (optional accessory)

This remote switch enables you to remotely power the inverter on/off. It comes with a standard 6-meter switch cable and is compatible with IPT series products.



Connect the 3.81-2P green socket on the remote switch cable to the 3.81-2P green base on the product's side. Turn off the local toggle switch, and the remote switch will control the inverter's on/off.