

GRID TIE SOLAR INVERTER

Summarize

Like all inverters, a grid-tie or grid-interactive inverter converts the direct current (DC) power from your renewable energy source into the alternating current (AC) used in homes and businesses. These inverters are intended specifically for grid-tied applications where they will be tied into the utility grid.



Features

- ❖ High efficiency in energy conversion(over 96%)
- ❖ Advanced technology for maximum power point tracking(MPPT)
- ❖ Wide range of input DC power
- ❖ Complete protection features ensures greater reliability of the system
- ❖ Multiple communication interfaces
- ❖ Ease of installation to save time and money
- ❖ Multi-lingual LCD display feature enables free-setting functions
- ❖ User-friendly interface enables setting various operating parameters by pressing a button
- ❖ Minimized size and weight

Application

- ❖ Commercial solar power plants
- ❖ Houses and buildings connected to grid

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浙江特雷斯电子科技有限公司

Technical Data (1-4kw 1phase)

Model		TLS1KTS	TLS1.5KTS	TLS2KTS	TLS3KTS	TLS4KTS
Input	MPPT voltage range	DC 100~500V				
	Rated voltage	DC 360V				
	Control system	MPPT				
Output	Power	1000W	1500W	2000W	3000W	4000W
	Voltage range	Single phase AC 185 ~ 264V (Can adjust)				
	Rated voltage	220VAC				
	Frequency	Grid frequency 50/60Hz (can adjust)				
	Phase	Single phase				
	Power factor	0.95				
	Max current	4.5A	6.8A	9A	13.6A	18A
	THD	At rated power and the sine wave <3.5%				
Efficiency	97% (Euro efficiency:96.4%)					
Structure	Protection degree	IP65/NEMA 4X				
	Cooling method	Natural cooling				
	Noise	<50dB				
	Data interface	External RS 232C				
Protection	Inverter	Input over voltage, output short circuit, overload overheat				
	Grid	Anti-islanding(IEEE 1547),over/under voltage of grid, over/under frequency of grid				
Environment	Operation temperature range	-10℃~40℃ (50℃)				
	Stored temperature	-25℃~60℃				
	Relative humidity	0~100%				
	Environment	Have no corrosion gas, flammable gas, oil mist,dust etc.				
	Standby power consumption	<25.0mW				
Elevation	6600feet (2000m)					
Size	W*H*D	415*360*155mm				
Weight	KG	17	17	18	19	21

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Technical Data (5-9kw 1phase)

Model		TLS5KTS	TLS6KTS	TLS7KTS	TLS8KTS	TLS9KTS
Input	MPPT voltage range	DC 100~500V				
	Rated voltage	DC 360V				
	Control system	MPPT				
Output	Power	5000W	6000W	7000W	8000W	9000W
	Voltage range	Single phase AC 185 ~ 264V (Can adjust)				
	Rated voltage	220VAC				
	Frequency	Grid frequency 50/60Hz (can adjust)				
	Phase	Single phase				
	Power factor	0.95				
	Max current	22.7A	27A	31A	36A	41A
	THD	At rated power and the sine wave <3.5%				
	Efficiency	97% (Euro efficiency:96.4%)				
Structure	Protection degree	IP65/NEMA 4X				
	Cooling method	Natural cooling				
	Noise	<50dB				
	Data interface	External RS 232C				
Protection	Inverter	Input over voltage, output short circuit, overload overheat				
	Grid	Anti-islanding(IEEE 1547),over/under voltage of grid, over/under frequency of grid				
Environment	Operation temperature range	-10℃~40℃ (50℃)				
	Stored temperature	-25℃~60℃				
	Relative humidity	0~100%				
	Environment	Have no corrosion gas, flammable gas, oil mist,dust etc.				
	Standby power consumption	<25.0mW				
	Elevation	6600feet (2000m)				
Size	W*H*D	610*420*160mm/410*640*840mm				
Weight	KG	33.5	34	34.5	62	63

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Technical Data (5-9kw 3phase)

Model		TLS5KTS	TLS6KTS	TLS7KTS	TLS8KTS	TLS9KTS
Input	MPPT voltage range	DC 100~500V				
	Rated voltage	DC 360V				
	Control system	MPPT				
Output	Power	5000W	6000W	7000W	8000W	9000W
	Voltage range	Three Phase AC 380±10%V (Can adjust)				
	Rated voltage	380VAC				
	Frequency	Grid frequency50/60Hz (can adjust)				
	Phase	Three phase				
	Power factor	0.95				
	Max current	7.5A*3	9A*3	11A*3	12A*3	13.6A*3
	THD	At rated power and the sine wave <3.5%				
Structure	Efficiency	97% (Euro efficiency:96.4%)				
	Protection degree	IP20				
	Cooling method	Fan cooling				
	Noise	<50dB				
Protection	Data interface	External RS 232C				
	Inverter	Input over voltage, output short circuit, overload overheat				
Environment	Grid	Anti-islanding(IEEE 1547),over/under voltage of grid, over/under frequency of grid				
	Operation temperature range	-10℃~40℃ (50℃)				
	Stored temperature	-25℃~60℃				
	Relative humidity	0~100%				
	Environment	Have no corrosion gas, flammable gas, oil mist,dust etc.				
	Standby power consumption	<25.0mW				
Size	Elevation	6600feet (2000m)				
	W*H*D	410*640*840mm				
Weight	KG	62	62	62	62	63

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Technical Data (10-16kw 3phase)

Name of Type:		10KW	11KW	12KW	13KW	14KW	15KW	16kw
Input	Max. Open Circuit Voltage	850 Vdc						
	Range of MPPT Voltage	400 ~ 850 Vdc						
	(Run) Starting Voltage	400 Vdc						
	Rated input Voltage	620 Vdc						
	Max. Open Circuit Current	30A	33A	36A	40A	42A	45A	48A
	Method of Control	Max. Power Point Tracking Control (MPPT Control)						
Output	Rated Output Capacity	10.5kw	11kW	12kW	13kW	14KW	15KW	16kW
	Rated Voltage	System Voltage (AC 380±38V)						
	Perturbed Rate of Frequency	System Frequency(60Hz±0.2Hz/50Hz±0.2Hz)						
	Constant	3 Phase &3 Lines Type (Non-transformer Type) (Option:Transformer)						
	Power Factor	Above 0.95						
	Current Distorted Rate (Current THD)	Total Below 5%						
		Below 3% for Each Difference						
	Method of Control	PWM METHOD						
	Prevention of Independent Operation	Within 0.5 Seconds						
	Over-load	Within 10 minute at 110% load						
	Efficiency	Above 95%						
Structure	Cooling Method	Forced Air-cooling Type(AC Fan)						
	Protective Structure	IP 20						
	Noise of Equipment	Below 60 dB						
Outer Interface		RS 232C/RS485						

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Technical Data (20kw-50kw 3phase)

Name of Type:		20KW	25KW	30KW	35KW	40KW	45KW	50KW
Input	Max. Open Circuit Voltage	850 Vdc						
	Range of MPPT Voltage	400 ~ 850 Vdc						
	(Run) Starting Voltage	400 Vdc						
	Rated input Voltage	620 Vdc						
	Max. Open Circuit Current	60A	75A	90A	106A	120A	136A	150A
	Method of Control	Max. Power Point Tracking Control (MPPT Control)						
Output	Rated Output Capacity	20kW	25kW	30kW	35kW	40KW	45KW	50kW
	Rated Voltage	System Voltage (AC 380±38V)						
	Perturbed Rate of Frequency	System Frequency(60Hz±0.2Hz/50Hz±0.2Hz)						
	Constant	3 Phase &3 Lines Type (Non-transformer Type) (Option:Transformer)						
	Power Factor	Above 0.95						
	Current Distorted Rate (Current THD)	Total Below 5%						
	Method of Control	PWM METHOD						
	Prevention of Independent Operation	Within 0.5 Seconds						
	Over-load	Within 10 minute at 110% load						
	Efficiency	Above 95%						
Structure	Cooling Method	Forced Air-cooling Type(AC Fan)						
	Protective Structure	IP 20						
	Noise of Equipment	Below 60 dB						
Outer Interface		RS 232C/RS485						

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Technical Data (55kw-85kw 3phase)

Name of Type:		55KW	60KW	65KW	70KW	75KW	80KW	85KW
Input	Max. Open Circuit Voltage	850 Vdc						
	Range of MPPT Voltage	400 ~ 850 Vdc						
	(Run) Starting Voltage	400 Vdc						
	Rated input Voltage	620 Vdc						
	Max. Open Circuit Current	166A	180A	196A	210A	227A	240A	257A
	Method of Control	Max. Power Point Tracking Control (MPPT Control)						
Output	Rated Output Capacity	55kW	60kW	65kW	70kW	75KW	80KW	85kW
	Rated Voltage	System Voltage (AC 380±38V)						
	Perturbed Rate of Frequency	System Frequency(60Hz±0.2Hz/50Hz±0.2Hz)						
	Constant	3 Phase &3 Lines Type (Non-transformer Type) (Option:Transformer)						
	Power Factor	Above 0.95						
	Current Distorted Rate (Current THD)	Total Below 5%						
	Method of Control	PWM METHOD						
	Prevention of Independent Operation	Within 0.5 Seconds						
	Over-load	Within 10 minute at 110% load						
	Efficiency	Above 95%						
Structure	Cooling Method	Forced Air-cooling Type(AC Fan)						
	Protective Structure	IP 20						
	Noise of Equipment	Below 60 dB						
Outer Interface		RS 232C/RS485						

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Technical Data (90kw-500kw 3phase)

Name of Type:		90KW	95KW	100K W	200K W	300K W	400K W	500K W
Input	Max. Open Circuit Voltage	850 Vdc						
	Range of MPPT Voltage	400 ~ 850 Vdc						
	(Run) Starting Voltage	400 Vdc						
	Rated input Voltage	620 Vdc						
	Max. Open Circuit Current	270A	287A	300A	600A	900A	1200A	1500A
	Method of Control	Max. Power Point Tracking Control (MPPT Control)						
Output	Rated Output Capacity	90KW	95KW	100K W	200K W	300K W	400K W	500K W
	Rated Voltage	System Voltage (AC 380±38V)						
	Perturbed Rate of Frequency	System Frequency(60Hz±0.2Hz/50Hz±0.2Hz)						
	Constant	3 Phase & 3 Lines Type (Non-transformer Type) (Option:Transformer)						
	Power Factor	Above 0.95						
	Current Distorted Rate (Current THD)	Total Below 5%						
	Method of Control	PWM METHOD						
	Prevention of Independent Operation	Within 0.5 Seconds						
	Over-load	Within 10 minute at 110% load						
	Efficiency	Above 95%						
Structure	Cooling Method	Forced Air-cooling Type(AC Fan)						
	Protective Structure	IP 20						
	Noise of Equipment	Below 60 dB						
Outer Interface		RS 232C/RS485						