

## PVI Series

PVI1300TL / PVI1800TL / PVI2300TL / PVI2700TL / PVI3000TL

Model	PVI1300TL	PVI1800TL	PVI2300TL	PVI2700TL	PVI3000TL
Rated AC power	1000 W	1500 W	2000 W	2500 W	2800 W
Maximum AC power	1100 W	1650 W	2200 W	2750 W	3080 W
<b>Input</b>					
Maximum input power	1300 W	1800 W	2300 W	2900 W	3200 W
Maximum DC voltage in an open circuit	450 Vdc	450 Vdc	500 Vdc	500 Vdc	500 Vdc
MPPT operating range	90 - 400 Vdc	125 - 400 Vdc	125 - 450 Vdc	125 - 450 Vdc	125 - 450 Vdc
Maximum input current	18,4 Adc	18,4 Adc	18,4 Adc	20 Adc	20 Adc
Startup voltage	60 Vdc	90 Vdc	90 Vdc	90 Vdc	90 Vdc
DC switch	optional	optional	optional	optional	optional
Initial feeding voltage	90 Vdc	150 Vdc	150 Vdc	150 Vdc	150 Vdc
Number of inputs	2	2	2	2	2
MPPT number	1	1	1	1	1
<b>Output</b>					
Operating voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
Number of grid phases	1	1	1	1	1
Voltage range	180 - 270 V				
Frequency range	50 Hz, 60 Hz / -5 Hz...+5 Hz				
Power factor	>0,99				
Maximum current	6 Aac	8,4 Aac	11,3 Aac	14 Aac	15,7 Aac
DC current injection (max.)	<20 mA	<20 mA	<20 mA	<20 mA	<20 mA
Current Harmonic Distorsion (THDi)	<1%	<1%	<1%	<1%	<1%
<b>System</b>					
Maximum efficiency	>97,1%	>97,1%	>97,1%	>97,1%	>97,1%
European efficiency	>96,5%	>96,5%	>96,5%	>96,5%	>96,5%
Switching plan	self-commutated, transformerless				
Off-grid protection	Yes	Yes	Yes	Yes	Yes
Night power consumption	<0,2 W	<0,2 W	<0,2 W	<0,2 W	<0,2 W
Detecting earth leakage	Yes	Yes	Yes	Yes	Yes
Heat dissipation	Convection	Convection	Convection	Convection	Convection
<b>Mechanical Spec.</b>					
Dimensions in mm	380 x 320 x 140				
Weight	14 Kg	14 Kg	14 Kg	14 Kg	14 Kg
Protection class	IP65				
Display	LCD 2 x 16 characters				
Function key	1				
Data interface	RS232 / RS485 / Ethernet / WiFi / GPRS				
Thermal protection	Yes				
Noise emission	<35 dB (silent operation)				
Ambient operating temp.	-20 °C - +60 °C (>45 °C derating)				

## PVI Series

PVI3200TL / PVI4000TL / PVI4600TL / PVI5400TL

Model	PVI3200TL	PVI4000TL	PVI4600TL	PVI5400TL
Rated AC power	2800 W	3650 W	4000 W	4600 W
Maximum AC power	3080 W	3650 W	4400 W	5000 W
<b>Input</b>				
Maximum input power	3200 W	4000 W	4600 W	5400 W
Maximum DC voltage in an open circuit	550 Vdc	550 Vdc	550 Vdc	550 Vdc
MPPT operating range	125 - 530 Vdc	125 - 530 Vdc	125 - 530 Vdc	125 - 530 Vdc
Maximum input current	20 Adc	20 Adc	20 Adc	20 Adc
Startup voltage	90 Vdc	90 Vdc	90 Vdc	90 Vdc
DC switch	optional	optional	optional	optional
Initial feeding voltage	150 Vdc	150 Vdc	150 Vdc	150 Vdc
Number of inputs	2	2	2	2
MPPT number	2	2	2	2
<b>Output</b>				
Operating voltage	230 Vac	230 Vac	230 Vac	230 Vac
Number of grid phases	1	1	1	1
Voltage range	180 V - 270 V			
Frequency range	50 Hz, 60 Hz / -6 Hz...+5 Hz			
Power factor	-0,95 - 0,95 controllable			
Maximum current	15,7 Aac	15,9 Aac	22,5 Aac	26 Aac
DC current injection (max.)	<20 mA	<20 mA	<20 mA	<20 mA
Current Harmonic Distorsion (THDi)	<1%	<1%	<1%	<1%
<b>System</b>				
Maximum efficiency	>97,8%	>97,8%	>97,8%	>97,8%
European efficiency	>97,3%	>97,3%	>97,3%	>97,3%
Switching plan	self-commutated, transformerless			
Off-grid protection	Yes	Yes	Yes	Yes
Night power consumption	<0,2 W	<0,2 W	<0,2 W	<0,2 W
Detecting earth leakage	Yes	Yes	Yes	Yes
Heat dissipation	Convection	Convection	Convection	Convection
<b>Mechanical Spec.</b>				
Dimensions in mm	500 x 360 x 150			
Weight	21 Kg	23 Kg	23 Kg	23.5 Kg
Protection class	IP65			
Display	LCD 2 x 16 characters			
Function key	1			
Data interface	RS232 / RS485 / Ethernet / WiFi / GPRS			
Thermal protection	Yes			
Noise emission	<40 dB (silent operation)			
Ambient operating temp.	-20 °C - +60 °C (>45 °C derating)			

## TRI Series

TRI010KTL / TRI012KTL / TRI017KTL / TRI020KTL

Model	TRI010KTL	TRI012KTL	TRI017KTL	TRI020KTL
Rated AC power	10000 W	12000 W	17000 W	20000 W
Maximum AC power	10000 VA	12000 VA	17000 VA	20000 VA
<b>Input</b>				
Maximum input power	10300 W	12400 W	17600 W	20800 W
Maximum DC voltage in an open circuit	900 Vdc	900 Vdc	900 Vdc	900 Vdc
MPP voltage range / rated input voltage	250 - 800 Vdc / 640 Vdc	250 - 800 Vdc / 640 Vdc	250 - 800 Vdc / 640 Vdc	250 - 800 Vdc / 640 Vdc
Maximum input current	12 Adc / 12 Adc	22 Adc / 11 Adc	22 Adc / 22 Adc	22 Adc / 22 Adc
Startup voltage	200 Vdc	200 Vdc	200 Vdc	200 Vdc
DC switch	integrated	integrated	integrated	integrated
Initial feeding voltage	300 Vdc	300 Vdc	300 Vdc	300 Vdc
Number of inputs	2+2	4+1	3+3	3+3
MPPT number	2	2	2	2
<b>Output</b>				
Operating voltage	230 Vac	230 Vac	230 Vac	230 Vac
Number of grid phases	3	3	3	3
Voltage range	180 - 270 V	180 - 270 V	180 - 270 V	180 - 270 V
Frequency range	50 Hz, 60 Hz / -5 Hz...+5 Hz			
Power factor	-0,9 - 0,9 controllable			
Maximum current	16 Aac	19,2 Aac	25,8 Aac	30 Aac
DC current injection (max.)	<200 mA	<200 mA	<200 mA	<200 mA
Current Harmonic Distorsion (THDi)	<3%	<3%	<3%	<3%
<b>System</b>				
Maximum efficiency	>98,1%	>98,1%	>98,1%	>98,2%
European efficiency	>97,5%	>97,5%	>97,5%	>97,8%
Switching plan	self-commutated, transformerless			
Off-grid protection	Yes	Yes	Yes	Yes
Surg protection	No	No	No	No
Night power consumption	<0,2 W / Optional	<0,2 W / Optional	<0,2 W / Optional	<0,2 W / Optional
Detecting earth leakage	Yes	Yes	Yes	Yes
Heat dissipation	Convection / Forced air			
<b>Mechanical Spec.</b>				
Dimensions in mm	520 x 170 x 700			
Weight	51 Kg	51 Kg	52 Kg	52 Kg
Protection class	IP65			
Display	LCD 3.5 Inch			
Function key	4			
Data interface	RS232 / RS485 / Ethernet / WiFi / GPRS			
Thermal protection	Yes			
Noise emission	<45dB (with fan <50dB)			
Ambient operating temp.	-20 °C - +60 °C (>45 °C derating)			
Casing	stainless steel			

## TRI Series (New Products)

TRI025KTL / TRI030KTL / TRI033KTL

Model	TRI 025KTL	TRI 030KTL	TRI 033KTL
Rated AC power	25000 W	30000 W	33000 W
Maximum AC power	25000 VA	30000 VA	33000 VA
<b>Input</b>			
Maximum input power	26000 W	32000 W	35000 W
Maximum DC voltage in an open circuit	1000 Vdc	1000 Vdc	1000 Vdc
MPP voltage range / rated input voltage	250 - 900 Vdc / 640 Vdc	250 - 900 Vdc / 640 Vdc	250 - 900 Vdc / 640 Vdc
Maximum input current	32 Adc / 32 Adc	35 Adc / 35 Adc	35 Adc / 35 Adc
Startup voltage	200 Vdc	200 Vdc	200 Vdc
DC switch	integrated	integrated	integrated
Initial feeding voltage	300 Vdc	300 Vdc	300 Vdc
Number of inputs	5+5	5+5	5+5
MPPT number	2	2	2
<b>Output</b>			
Operating voltage	230 Vac	230 Vac	230 Vac
Number of grid phases	3	3	3
Voltage range	180 - 270 V	180 - 270 V	180 - 270 V
Frequency range		50 Hz, 60 Hz / -5 Hz...+5 Hz	
Power factor		-0,9 - 0,9 controllable	
Maximum current	38 Aac	45.5 Aac	48 Aac
DC current injection (max.)	<200 mA	<200 mA	<200 mA
Current Harmonic Distorsion (THDi)	< 3%	< 3%	< 3%
<b>System</b>			
Maximum efficiency	>98,3%	>98,3%	>98,3%
European efficiency	>97,9%	>97,9%	>97,9%
Switching plan	self-commutated, transformerless		
Off-grid protection	Yes	Yes	Yes
Surg protection	Yes (Type 2)	Yes (Type 2)	Yes (Type 2)
Night power consumption	<0,2 W / Optional	<0,2 W/Optional	<0,2 W/Optional
Detecting earth leakage	Yes	Yes	Yes
Heat dissipation	Convection / Forced air		
<b>Mechanical Spec.</b>			
Dimensions in mm	580 x 250 x 800		
Weight	65 Kg		
Protection class	IP65		
Display	LCD 3.5 Inch		
Function key	4		
Data interface	RS232 / RS485 / Ethernet / WiFi / GPRS		
Thermal protection	Yes		
Noise emission	<45dB (with fan <55dB)		
Ambient operating temp	-20 °C - +60 °C (> 45 °C derating)		
Casing	stainless steel		
<b>Certifications</b>			
Certificates and approvals	CE, VDE AR-N-4105, VDE 0126-1-1+A1, G59/2, CQC, ROHS, REACH		

## HYI Series (New Products)

### HYI 3200TL / HYI 5400TL

Model	HYI 3200TL	HYI 5400TL
<b>PV Input</b>		
Maximum input power	3200 W	5400 W
Maximum DC voltage in an open circuit	550 Vdc	550 Vdc
MPP voltage range / rated input voltage	125 - 530 Vdc	125 - 530 Vdc
Maximum input current	20 Adc	20 Adc
Startup voltage	90 Vdc	90 Vdc
DC switch	optional	optional
Initial feeding voltage	150 Vdc	150 Vdc
Number of inputs	2	2
MPPT number	2	2
<b>Battery Input</b>		
Battery type	Lead-acid or Li-ion	Lead-acid or Li-ion
Battery Voltage range	120- 180 Vdc	120- 180 Vdc
Maximum charging / discharging current	26 Adc	45 Adc
Battery capacity	20~200Ah (depending requirement)	20~200Ah (depending requirement)
Battery protection	Integrated (Short-Circuit, Overcharge, Over-Discharge, Over-Temperature)	
<b>Output</b>		
Operating voltage	230 Vac	230 Vac
Number of grid phases	1	1
Voltage range	180 V - 270 V	
Frequency range	50 Hz, 60 Hz / -6 Hz ... +5 Hz	
Power factor	-0,95 - 0,95 controllable	
Maximum current	15,7 Aac	26 Aac
Current Harmonic Distorsion (THDi)	< 1%	< 1%
<b>System</b>		
Maximum efficiency (PV/BAT -> Load, PB ->BAT)	> 96,5%	> 97%
Night power consumption	< 0,2 W	< 0,2 W
Heat dissipation	Convection	Convection
<b>General Data</b>		
Dimensions in mm	600 x 560 x 295	
Weight	24 Kg	28,5 Kg
Data interface	RS232 / RS485 / Ethernet / Wifi / GPRS	
Protection class	IP65	
Display	LCD 3 Inch	
Ambient operating temp.	-20 °C - +60 °C (> 45 °C derating)	
<b>Certifications</b>		
Certificates and approvals	CE, VDE AR-N-4105, VDE 0126-1-1+A1, G83/1, G83/2, G59/2, ROHS, REACH	