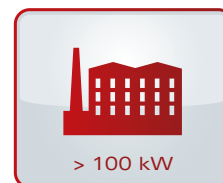
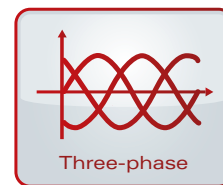
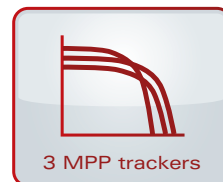


Delivering an impressive efficiency of 98 %.

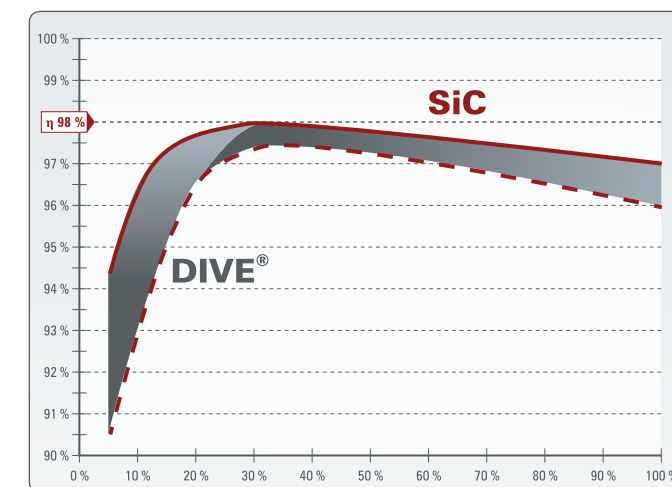
The three-phase PLATINUM® TL inverter.



The sibling of the single-phase TL inverter impresses with the same peak efficiency of 98%. This is largely down to the increase in efficiency particularly in the lower output range achieved by using of state-of-the-art SiC components in conjunction with the innovative DIVE® technology. The TL series is designed and constructed to meet the requirements of protection class IP 65 and is therefore, suitable for outdoor applications. One main advantage for users is the ease with which the system can be set into operation via the PLATINUM® network EIA 485: the inputs that are programmed at an inverter are transmitted to all networked devices. All of the key operating data can be clearly read from the graphics display – even at night. The range includes five three-phase models ranging from 13 to 22 kW.

- Efficiency of 98 %
- 3 independent MPP trackers
- Integrated datalogger provides storage capacity for 30 years worth of operating data
- Exceptionally wide DC input voltage range
- DIVE® technology for increased efficiency in the lower power output range
- RAC-MPP® technology for rapid MPP location
- 10-year free manufacturer's warranty

Maximised efficiency thanks to SiC and DIVE® technology.



SiC (silicon carbide semiconductor technology)
DIVE® (Dynamic Input Value Enhancement)



Intelligent power bundling for outdoor applications.

The PLATINUM® PowerBlock.

Specially developed for extreme outdoor weather conditions, the PLATINUM® PowerBlock system is a genuine alternative to central inverters. The com-

pact and robust housing offers optimum protection against rain, hail, sunshine etc.

All PLATINUM® TL models are compliant with the "Energy Management (§6 EEG)" market requirement specification, the "Technical Guidelines for Power Generating Plants Connected to the Medium Voltage Grid" and the "Low-voltage Directive AR-N-4105". This supersedes directive VDE 0126-1-1.

Specifications			
TL Inverter	13000 TL	16000 TL	19000 TL
DC Input			
Max. PV power	14,700 Wp	18,000 Wp	21,300 Wp
Max. DC power (@ cos phi = 1)	12,900 W	15,900 W	18,900 W
MPPT voltage range	351 V ... 710 V	349 V ... 710 V	350 V ... 710 V
Max. input voltage	880 V		
Max. MPPT input current	3 x 13.0 A	3 x 16.0 A	3 x 18.5 A
Number of string inputs	6	6	9
Number of MPP trackers	3		
DC disconnect	optional, device integrated		
Reverse polarity protection	yes		
DC short circuit current	3 x 18 A	3 x 22 A	3 x 26 A
Ground fault monitoring	isolation control		
AC Output			
Rated power (@ cos phi = 1)	12,360 W	15,000 W	18,000 W
Rated current	17.9 A	21.7 A	26.1 A
Max. apparent power	12,360 VA	15,000 VA	18,000 VA
Max. AC current	17.9 A	21.7 A	26.1 A
Power feed starts at	21 W	21 W	24 W
Mains output voltage	3AC 230 V / 400 V + N (+/-20 %)		
Feed in phases / connection phases	3 feed in phases / 3 connection phases		
Max. permitted grid impedance ^{[Z_{max}] (EN 61000-3-11)}	424 mΩ	349 mΩ	290 mΩ
Standby consumption	< 6 W		
Mains frequency	50 Hz (+/- 5 %)		
Short circuit resistance	yes		
Power factor ^(cos phi)	0.7 ind. ... 0.7 cap.		
Ground fault monitoring	RCD		
Interfaces			
DC connection	Multicontact MC4		
AC connection	spring clamp connectors		
Interfaces	PLATINUM® network EIA 485, 2 x RJ45 and screw terminals		
Alarm relay	max. 24 V _{AC} / 2 A, screw terminals		
Appliance data			
Maximum efficiency	97.7 %	97.7 %	98.0 %
European efficiency	97.4 %	97.4 %	97.5 %
Weight	81 kg	84 kg	87 kg
Dimensions	H 743 x W 972 x D 262 mm		
Operating temperature	-20 °C ... +60 °C		
Storage temperature	-25 °C ... +80 °C		
Relative humidity ^(non-condensing)	0 % ... 95 %		
Altitude at rated power	2,000 m / 6,560 ft		
Protection degree ^(except digital interface)	IP 65 according to DIN EN 60529		
Protection class / overvoltage category	I / III		
Display	graphic LCD 170 x 76 pixels		
Data logger	storage capacity sufficient for 30 years operating time		
System topology	transformerless, DIVE®, RAC-MPP® technology		
Cooling	convection cooling	fan	
Standards / grid codes	VDE 0126-1-1, VDE AR-N 4105, BDEW-2008, CEI 0-21, C10/11, G83/1, G59/2, EN 50438, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663/661, IEC 62109, AS 4777, AS 3100		
Warranty	10 years		
Type designation	13000 TLD	16000 TLD	19000 TLD

Subject to alterations. More than 45 countries are currently supported. An up-to-date type designation list can be found in the download area on our website under Certificates/Overview (as at May 2012).

Specifications		
TL Inverter	22001 TL	22000 TL
DC Input		
Max. PV power	23,000 Wp	24,000 Wp
Max. DC power (@ cos phi = 1)	20,800 W	21,600 W
MPPT voltage range	351 V ... 710 V	351 V ... 710 V
Max. input voltage	880 V	
Max. MPPT input current	3 x 20.2 A	3 x 21.0 A
Number of string inputs	9	9
Number of MPP trackers	3	
DC disconnect	optional, device integrated	
Reverse polarity protection	yes	
DC short circuit current	3 x 28 A	3 x 29 A
Ground fault monitoring	isolation control	
AC Output		
Rated power (@ cos phi = 1)	20,000 W	20,700 W
Rated current	29.0 A	30.0 A
Max. apparent power	20,000 VA	20,700 VA
Max. AC current	29.0 A	30.0 A
Power feed starts at	24 W	24 W
Mains output voltage	3AC 230 V / 400 V + N (+/-20 %)	
Feed in phases / connection phases	3 feed in phases / 3 connection phases	
Max. permitted grid impedance ^{[Z_{max}] (EN 61000-3-11)}	261 mΩ	253 mΩ
Standby consumption	< 6 W	
Mains frequency	50 Hz (+/- 5 %)	
Short circuit resistance	yes	
Power factor ^(cos phi)	0.7 ind. ... 0.7 cap.	
Ground fault monitoring	RCD	
Interfaces		
DC connection	Multicontact MC4	
AC connection	spring clamp connectors	
Interfaces	PLATINUM® network EIA 485, 2 x RJ45 and screw terminals	
Alarm relay	max. 24 V _{AC} / 2 A, screw terminals	
Appliance data		
Maximum efficiency	98.0 %	98.0 %
European efficiency	97.5 %	97.5 %
Weight	87 kg	87 kg
Dimensions	H 743 x W 972 x D 262 mm	
Operating temperature	-20 °C ... +60 °C	
Storage temperature	-25 °C ... +80 °C	
Relative humidity ^(non-condensing)	0 % ... 95 %	
Altitude at rated power	2,000 m / 6,560 ft	
Protection degree ^(except digital interface)	IP 65 according to DIN EN 60529	
Protection class / overvoltage category	I / III	
Display	graphic LCD 170 x 76 pixels	
Data logger	storage capacity sufficient for 30 years operating time	
System topology	transformerless, DIVE®, RAC-MPP® technology	
Cooling	fan	
Standards / grid codes	VDE 0126-1-1, VDE AR-N 4105, BDEW-2008, CEI 0-21, C10/11, G83/1, G59/2, EN 50438, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663/661, IEC 62109, AS 4777, AS 3100	
Warranty	10 years	
Type designation	22001 TLD	22000 TLD

Subject to alterations. More than 45 countries are currently supported. An up-to-date type designation list can be found in the download area on our website under Certificates/Overview (as at May 2012).