

DIEHL

AKO

**3 phases –  
transformerless**

**PLATINUM**  
INVERTER TL3



**20000 TL3**  
**17000 TL3**  
**13000 TL3**  
**11000 TL3**

**Transformerless 3-phase high-performance inverters**

# PLATINUM

## INVERTER TL3

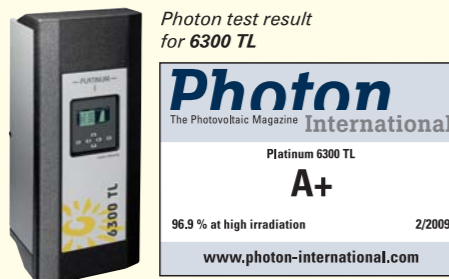


### Award-winning class PLATINUM TL3 – η 98,2 %

### 3 phases – between 11 and 20 kW

Overwhelming 3-phase efficiency – one step above compact

Based on the winning technologies that got the best results in the most thorough Photon test, a new device family featuring top-class state-of-the-art inverter technology has been designed.



PLATINUM TL3 state-of-the-art inverters with robust protector technology

- Transformerless top technology to the core. With 3-phase feed, phase imbalances are impossible.

- The new high-efficiency circuit topology provides very high degrees of efficiency throughout an extremely broad input voltage range.

- All TL3 inverters comply with the current market requirement standards „Energy Management (§6 EEG)“, the German grid code „Medium voltage directive“ and the grid code „Low voltage directive AR-N-4105“ when become effective following grid code VDE 0126-1-1.

#### Consistently PLATINUM:

- lightweight under 40 kg
- convection ventilation only
- outdoor-proof IP 65



- Superior – the integration into the PLATINUM network. The exceedingly high-capacity PLATINUM datalogger stores events, measured values, yield and performance data for up to 30 years.

- The gateway to the world – the PLATINUM network. With separately available PLATINUM monitoring devices, you can integrate the inverters in your plant monitoring system via the EIA 485 interface.



## Technical data

Model	11000 TL3	13000 TL3	17000 TL3	20000 TL3
<b>Input characteristics</b>				
Max. PV power	11,000 Wp	13,600 Wp	18,100 Wp	21,200 Wp
Max. DC power	10,300 W	12,800 W	16,900 W	19,650 W
PV voltage range, MPPT	380 V–850 V	420 V–850 V	445 V–850 V	480 V–850 V
Max. DC voltage	1000 V			
Max. input current	29.0 A	30.0 A	38.5 A	41.0 A
Number of string inputs	4		6	
Number of MPP trackers	1			
DC section switch device	DC disconnect, integrated in the device			
Reverse polarity protection	yes			
Earth leakage protection	isolation control			
<b>Output characteristics</b>				
Nominal AC power (Cos Phi=1)	10,000 W	12,400 W	16,500 W	19,200 W
Nominal AC current	14.5 A	18.0 A	23.9 A	27.8 A
Max. AC power (Cos Phi=1)	10,000 W	12,400 W	16,500 W	19,200 W
Max. AC current	18.0 A	18.0 A	29.0 A	29.0 A
Feed operation starts at	20 W			
Mains output voltage range	3 AC 400 V + N (+/-20 %)			
Internal consumption at night	lower than 2.5 W			
AC frequency	50.0 Hz/60.0 Hz (+/-5 %)			
Short-circuit proof	yes			
Cos Phi (Medium voltage directive)	0.9 i to 0.9 c			
Earth leakage protection	RCD			
<b>Interfaces</b>				
DC input	Multicontact MC4			
AC output	Phoenix plug connector (supplied)			
PLATINUM network	EIA 485, 2 x RJ45 Western Modular add. plug connector with screw terminals			
Service interface	EIA 232, SubD 9-pole socket, USB			
Potential-free relay contact	1 Change-over contact, max. 24 V <sub>AC</sub> / 2 A, plug connector with screw terminals			
<b>Appliance data</b>				
Maximum efficiency	98.0 %	98.0 %	98.2 %	98.2 %
European efficiency	97.4 %	97.5 %	97.8 %	97.8 %
Weight	39 kg		40 kg	
Dimensions	H 626 x W 543 x D 281 mm			
Working temperature range	-25 °C up to +55 °C			
Maximum temperature at nominal power	+50 °C		+40 °C	
Storage temperature	-20 °C up to +70 °C			
Protection type (except digital interface)	IP 65 according to DIN EN 60529			
Optical display	Full graphic LCD 170x76 pixels			
Integrated datalogger	Storage capacity sufficient for 30 yrs operating time			
Circuit concept	transformerless, 3-phased high-performance topology			
<b>Type designation</b>	<b>11000 TL3R</b>	<b>13000 TL3R</b>	<b>17000 TL3R</b>	<b>20000 TL3R</b>



## Diehl AKO

is an internationally leading electronics company which specializes in the development and production of industrial control and regulating systems.

As the market leader, every year we manufacture more than 2 million frequency inverters for power drive systems alone.

## Innovation & quality

**Diehl AKO** sets standards for the development of **innovative concepts** for electronic systems and appliances by established know-how, the selection of component parts and the latest technologies of excellent production and test engineering. From the electronics to the complete appliance, the manufacturing process of our products is certified according to

the **Quality and environment standards**

**ISO 9001-2000 and ISO 14000.**

All **PLATINUM string inverters** are built in excellent industrial quality. Therefore we give a standard 5-year guarantee for our string inverters. For all **S- and TL-models** we give optional even a **10-year guarantee**. For string inverters there is an optional warranty extension to 20 years.



## Environmental protection

*Environmental protection has top priority for **Diehl AKO**. In order to live up to this standard, **Diehl AKO** continually improves manufacturing processes and optimizes the use of resource-friendly materials.*

*The products are manufactured in compliance with the new RoHS standard and the environment standard DIN EN 14001. **PLATINUM string inverters** were the first appliances on the market to be produced using **lead-free** technology.*



## PLATINUM plant monitoring –

*much more than just access to your data.*



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