

Inverters.
The product range.



PLATINUM[®]
Brings more sun to the grid.

Energy efficiency as a philosophy. What drives the company.

Diehl Controls, a division of the Diehl Group, is home to the Diehl AKO®, PLATINUM® and Diehl Smart Home® brands. Whether for household appliances or photovoltaics – the main aim of all our products is the efficient use of energy. To achieve this, Diehl Controls offers practical solutions that promote the sustainable use of resources, thereby making an active contribution to protecting the environment and preserving our habitats. We are also motivated by the local area of outstanding natural beauty of the Allgäu and Lake Constance region. These values are integrated in our processes, production plants and products.

Under the PLATINUM® brand, which was founded in 2004, the company develops, manufactures and markets solar inverters that offer maximum performance.



One employee, one product. Individualised manufacturing.

A highly sophisticated manufacturing process is the basis for the outstanding PLATINUM® quality. We work according to the following principle: "One employee manufactures one device." After all, if you follow a workpiece through all of the production steps to create 'your own' product, you identify with it and so handle it in a highly responsible and quality-conscious manner.

Quality-conscious employees, automatic quality control and system monitoring of the entire PLATINUM® production process help to achieve the required level of excellence. Another benefit of the one-piece-flow principle is that it allows products to be developed on an individual basis, which means that we can deliver customised device variants.



Specifications	
Inverter	
DC Input	
Max. PV power	
Max. DC power (@ cos phi = 1)	
MPPT voltage range	
Max. input voltage	
Max. MPPT input current	
Number of string inputs	
Number of MPP trackers	
DC disconnect	
Reverse polarity protection	
DC short circuit current	
Ground fault monitoring	
AC Output	
Rated power (@ cos phi = 1)	
Rated current	
Max. apparent power	
Max. AC current	
Power feed starts at	
Mains output voltage	
Feed in phases / connection phases	
Max. permitted grid impedance [Z _{max}] (EN 61000-3-11)	
Standby consumption	
Mains frequency	
Short circuit resistance	
Power factor (cos phi)	
Ground fault monitoring	
Interfaces	
DC connection	
AC connection	
Interfaces	
Alarm relay	
Appliance data	
Maximum efficiency	
European efficiency	
Weight	
Dimensions	
Operating temperature	
Storage temperature	
Relative humidity (non-condensing)	
Altitude at rated power	
Protection degree (except digital interface)	
Protection class / overvoltage conductor	
Display	
Data logger	
System topology	
Cooling	
Standards / grid codes	
Warranty	
Type designation	

Subject to alterations.

	2100 S	2800 S	3100 S	3800 S
2100 S				
2,300 Wp	3,200 Wp	3,450 Wp	4,200 Wp	
2,100 W	2,800 W	3,100 W	3,800 W	
206 V ... 390 V	313 V ... 630 V	314 V ... 630 V	315 V ... 630 V	
480 V	780 V	780 V	780 V	
9.0 A	9.0 A	9.0 A	12.0 A	
1	1	1	2	
1				
optional, device integrated				
yes				
13 A	13 A	13 A	17 A	
isolation control (can be activated)				
1,750 W				
7.6 A	10.4 A	11.1 A	14.3 A	
1,900 VA	2,600 VA	2,800 VA	3,600 VA	
8.3 A	11.3 A	12.2 A	15.7 A	
13 W	14 W	14 W	18 W	
230 V (+/-20 %)				
1 feed in phase / 1 or 3 connection phases				
n/a				
<2.5 W				
50 Hz (+/-5 %)				
yes				
1				
-				
Multicontact MC4				
Wieland RST 3i / 5i				
PLATINUM® network EIA 485, 2 x RJ45 and screw terminals				
max. 24 V _{AC} / 2 A, screw terminals				
94.7 %	95.3 %	95.3 %	95.6 %	
93.7 %	94.4 %	94.4 %	94.6 %	
30 kg	35 kg	35 kg	42 kg	
H 720 x W 320 x D 250 mm				
-20 °C ... +60 °C				
-25 °C ... +80 °C				
0 % ... 95 %				
2,000 m / 6,560 ft				
IP 54 according to DIN EN 60529				
I / III				
graphic LCD 170 x 76 pixels				
storage capacity sufficient for 30 years operating time				
LF transformer, RAC-MPP® technology				
convection cooling	fan			
VDE 0126-1-1, C10/11, G83/1, G59/2, EN 50438, EN 50178, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663, AS 4777, AS 3100				
10 years				
2100 S	2800 S	3100 S	3800 S	

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 30 April 2012). Due to legal guidelines, this model is no longer approved for the German market.

	4300 S	4301 S	4600 S	4601 S
4300 S				
4,800 Wp	4,800 Wp	5,100 Wp	5,100 Wp	
4,300 W	4,300 W	4,600 W	4,600 W	
320 V ... 630 V	277 V ... 470 V	320 V ... 630 V	278 V ... 470 V	
780 V	580 V	780 V	580 V	
12.5 A	15.0 A	13.0 A	16.0 A	
2	2	2	2	
1				
optional, device integrated				
yes				
18 A	21 A	18 A	22 A	
isolation control (can be activated)				
3,680 W				
16.0 A	16.0 A	16.5 A	16.5 A	
4,050 VA	4,050 VA	4,200 VA	4,200 VA	
17.6 A	17.6 A	18.3 A	18.3 A	
18 W	17 W	18 W	17 W	
230 V (+/-20 %)				
1 feed in phase / 1 or 3 connection phases				
n/a	460 mΩ	460 mΩ		
<2.5 W				
50 Hz (+/-5 %)				
yes				
1				
-				
Multicontact MC4				
Wieland RST 3i / 5i				
PLATINUM® network EIA 485, 2 x RJ45 and screw terminals				
max. 24 V _{AC} / 2 A, screw terminals				
95.6 %	94.6 %	95.6 %	94.6 %	
94.7 %	93.9 %	94.8 %	93.8 %	
42 kg	43 kg	42 kg	43 kg	
H 720 x W 320 x D 250 mm				
-20 °C ... +60 °C				
-25 °C ... +80 °C				
0 % ... 95 %				
2,000 m / 6,560 ft				
IP 54 according to DIN EN 60529				
I / III				
graphic LCD 170 x 76 pixels				
storage capacity sufficient for 30 years operating time				
LF transformer, RAC-MPP® technology				
fan				
VDE 0126-1-1, C10/11, G83/1, G59/2, EN 50438, EN 50178, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663, AS 4777, AS 3100				
10 years				
4300 S	4301 S	4600 S	4601 S	

Subject to alterations.
As at 30 April 2012



S inverters

Maximum reliability. Even under difficult conditions.



H inverters

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Scores with maximum performance – three-phase from 11 to 20 kW.

Specifications	
Inverter	
DC Input	
Max. PV power	
Max. DC power (@ cos phi = 1)	
MPPT voltage range	
Max. input voltage	
Max. MPPT input current	
Number of string inputs	
Number of MPP trackers	
DC disconnect	
Reverse polarity protection	
DC short circuit current	
Ground fault monitoring	
AC Output	
Rated power (@ cos phi = 1)	
Rated current	
Max. apparent power	
Max. AC current	
Power feed starts at	
Mains output voltage	
Feed in phases / connection phases	
Max. permitted grid impedance [Z _{max}] (EN 61000-3-11)	
Standby consumption	
Mains frequency	
Short circuit resistance	
Power factor (cos phi)	
Ground fault monitoring	
Interfaces	
DC connection	
AC connection	
Interfaces	
Alarm relay	
Appliance data	
Maximum efficiency	
European efficiency	
Weight	
Dimensions	
Operating temperature	
Storage temperature	
Relative humidity (non-condensing)	
Altitude at rated power	
Protection degree (except digital interface)	
Protection class / overvoltage conductor	
Display	
Data logger	
System topology	
Cooling	
Standards / grid codes	
Warranty	
Type designation	

	2100 H	3000 H
Max. PV power	2,350 Wp	3,450 Wp
Max. DC power (@ cos phi = 1)	2,100 W	3,000 W
MPPT voltage range	230 V ... 480 V	
Max. input voltage	600 V	
Max. MPPT input current	9.5 A	13.5 A
Number of string inputs	3	
Number of MPP trackers	1	
DC disconnect	optional, device integrated	
Reverse polarity protection	yes	
DC short circuit current	14.2 A	20.2 A
Ground fault monitoring	isolation control	
Rated power (@ cos phi = 1)	2,000 W	2,900 W
Rated current	9.0 A	13.0 A
Max. apparent power	2,000 VA	2,900 VA
Max. AC current	10.5 A	15.2 A
Power feed starts at	7 W	
Mains output voltage	230 V (+/-20 %)	
Feed in phases / connection phases	1 feed in phase / 1 connection phase	
Max. permitted grid impedance [Z _{max}] (EN 61000-3-11)	n/a	
Standby consumption	< 1 W	
Mains frequency	50 Hz (+/-10 %)	
Short circuit resistance	yes	
Power factor (cos phi)	0.9 ind. ... 0.9 cap.	
Ground fault monitoring	-	
Interfaces		
DC connection	Multicontact MC4	
AC connection	screw terminals	
Interfaces	Ethernet / CAN	
Alarm relay	-	
Maximum efficiency	96.9 %	97.0 %
European efficiency	96.0 %	96.2 %
Weight	19 kg	19 kg
Dimensions	H 610 x W 353 x D 154 mm	
Operating temperature	-25 °C ... +65 °C	
Storage temperature	-30 °C ... +80 °C	
Relative humidity (non-condensing)	4 % ... 99 %	
Altitude at rated power	2,000 m / 6,560 ft	
Protection degree (except digital interface)	IP 65 according to DIN EN 60529 (incl. digital interface)	
Protection class / overvoltage conductor	I / III	
Display	graphic color LCD, three LEDs for visual status indication	
Data logger	storage capacity sufficient for 20 years operating time / integrated webserver	
System topology	HF transformer with galvanic isolation	
Cooling	convection cooling	
Standards / grid codes	VDE 0126-1-1, VDE AR-N 4105, CEI 0-21, C10/11, G83/1, EN 50438, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663, IEC 62109	
Warranty	10 years	
Type designation	2100 H	3000 H

*UK and Denmark: Adjustable current limit of 16 A
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	4000 H	4600 H
Max. PV power	4,450 Wp	5,150 Wp
Max. DC power (@ cos phi = 1)	4,000 W	4,600 W
MPPT voltage range	230 V ... 480 V	
Max. input voltage	600 V	
Max. MPPT input current	18.0 A	21.0 A
Number of string inputs	3	
Number of MPP trackers	1	
DC disconnect	optional, device integrated	
Reverse polarity protection	yes	
DC short circuit current	27 A	31.5 A
Ground fault monitoring	isolation control	
Rated power (@ cos phi = 1)	3,800 W	4,400 W
Rated current	17.0 A (16.0 A*)	20.0 A (16.0 A*)
Max. apparent power	3,800 VA	4,400 VA
Max. AC current	19.7 A	23.0 A
Power feed starts at	7 W	
Mains output voltage	230 V (+/-20 %)	
Feed in phases / connection phases	1 feed in phase / 1 connection phase	
Max. permitted grid impedance [Z _{max}] (EN 61000-3-11)	446 mΩ	379 mΩ
Standby consumption	< 1 W	
Mains frequency	50 Hz (+/-10 %)	
Short circuit resistance	yes	
Power factor (cos phi)	0.9 ind. ... 0.9 cap.	
Ground fault monitoring	-	
Interfaces		
DC connection	Multicontact MC4	
AC connection	screw terminals	
Interfaces	Ethernet / CAN	
Alarm relay	-	
Maximum efficiency	97.2 %	97.3 %
European efficiency	96.6 %	96.9 %
Weight	21 kg	21 kg
Dimensions	H 610 x W 353 x D 154 mm	
Operating temperature	-25 °C ... +65 °C	
Storage temperature	-30 °C ... +80 °C	
Relative humidity (non-condensing)	4 % ... 99 %	
Altitude at rated power	2,000 m / 6,560 ft	
Protection degree (except digital interface)	IP 65 according to DIN EN 60529 (incl. digital interface)	
Protection class / overvoltage conductor	I / III	
Display	graphic color LCD, three LEDs for visual status indication	
Data logger	storage capacity sufficient for 20 years operating time / integrated webserver	
System topology	HF transformer with galvanic isolation	
Cooling	convection cooling	
Standards / grid codes	VDE 0126-1-1, VDE AR-N 4105, CEI 0-21, C10/11, G83/1, EN 50438, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663, IEC 62109	
Warranty	10 years	
Type designation	4000 H	4600 H

Subject to alterations.
 As at 30 April 2012



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Specifications	
Inverter	
DC Input	
Max. PV power	
Max. DC power (@ cos phi = 1)	
MPPT voltage range	
Max. input voltage	
Max. MPPT input current	
Number of string inputs	
Number of MPP trackers	
DC disconnect	
Reverse polarity protection	
DC short circuit current	
Ground fault monitoring	
AC Output	
Rated power (@ cos phi = 1)	
Rated current	
Max. apparent power	
Max. AC current	
Power feed starts at	
Mains output voltage	
Feed in phases / connection phases	
Max. permitted grid impedance $[Z_{max}]$ (EN 61000-3-11)	
Standby consumption	
Mains frequency	
Short circuit resistance	
Power factor (cos phi)	
Ground fault monitoring	
Interfaces	
DC connection	
AC connection	
Interfaces	
Alarm relay	
Appliance data	
Maximum efficiency	
European efficiency	
Weight	
Dimensions	
Operating temperature	
Storage temperature	
Relative humidity (non-condensing)	
Altitude at rated power	
Protection degree (except digital interface)	
Protection class / overvoltage conductor	
Display	
Data logger	
System topology	
Cooling	
Standards / grid codes	
Warranty	
Type designation	

	3801 TL	3800 TL	4300 TL	4800 TL
Max. PV power	4,000 Wp	4,300 Wp	4,900 Wp	5,400 Wp
Max. DC power (@ cos phi = 1)	3,480 W	3,800 W	4,300 W	4,800 W
MPPT voltage range	349 V ... 710 V	350 V ... 710 V	351 V ... 710 V	348 V ... 710 V
Max. input voltage	880 V			
Max. MPPT input current	10.5 A	11.5 A	13.0 A	14.5 A
Number of string inputs	2	2	2	2
Number of MPP trackers	1			
DC disconnect	optional, device integrated			
Reverse polarity protection	yes			
DC short circuit current	15 A	16 A	18 A	20 A
Ground fault monitoring	isolation control			
Rated power (@ cos phi = 1)	3,330 W	3,680 W	4,120 W	4,600 W
Rated current	14.5 A	16.0 A	17.9 A	20.0 A
Max. apparent power	3,330 VA	3,680 VA	4,120 VA	4,600 VA
Max. AC current	14.5 A	16.0 A	17.9 A	20.0 A
Power feed starts at	7 W	7 W	7 W	7 W
Mains output voltage	230 V (+/-20 %)			
Feed in phases / connection phases	1 feed in phase / 1 or 3 connection phases			
Max. permitted grid impedance $[Z_{max}]$ (EN 61000-3-11)	n/a		424 mΩ	379 mΩ
Standby consumption	< 2 W			
Mains frequency	50 Hz (+/- 5 %)			
Short circuit resistance	yes			
Power factor (cos phi)	0.7 ind. ... 0.7 cap.			
Ground fault monitoring	RCD			
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			
Maximum efficiency	97.7 %	97.7 %	97.7 %	97.7 %
European efficiency	97.4 %	97.4 %	97.4 %	97.4 %
Weight	27 kg	27 kg	27 kg	28 kg
Dimensions	H 720 x W 320 x D 250 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 66 according to DIN EN 60529			
Protection class / overvoltage conductor	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			
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	3801 TLD	3800 TLD	4300 TLD	4800 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.

	5300 TL	6300 TL	7200 TL
Max. PV power	6,000 Wp	7,100 Wp	8,000 Wp
Max. DC power (@ cos phi = 1)	5,300 W	6,300 W	7,200 W
MPPT voltage range	349 V ... 710 V	350 V ... 710 V	351 V ... 710 V
Max. input voltage	880 V		
Max. MPPT input current	16.0 A	18.5 A	21.0 A
Number of string inputs	2	3	3
Number of MPP trackers	1		
DC disconnect	optional, device integrated		
Reverse polarity protection	yes		
DC short circuit current	22 A	26 A	29 A
Ground fault monitoring	isolation control		
Rated power (@ cos phi = 1)	5,000 W	6,000 W	6,900 W
Rated current	21.7 A	26.1 A	30.0 A
Max. apparent power	5,000 VA	6,000 VA	6,900 VA
Max. AC current	21.7 A	26.1 A	30.0 A
Power feed starts at	7 W	8 W	8 W
Mains output voltage	230 V (+/-20 %)		
Feed in phases / connection phases	1 feed in phase / 1 or 3 connection phases		
Max. permitted grid impedance $[Z_{max}]$ (EN 61000-3-11)	349 mΩ	290 mΩ	253 mΩ
Standby consumption	< 2 W		
Mains frequency	50 Hz (+/- 5 %)		
Short circuit resistance	yes		
Power factor (cos phi)	0.7 ind. ... 0.7 cap.		
Ground fault monitoring	RCD		
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		
Maximum efficiency	97.7 %	98.0 %	98.0 %
European efficiency	97.4 %	97.5 %	97.5 %
Weight	28 kg	29 kg	29 kg
Dimensions	H 720 x W 320 x D 250 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 66 according to DIN EN 60529		
Protection class / overvoltage conductor	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	5300 TLD	6300 TLD	7200 TLD

Subject to alterations. As at 30 April 2012



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Specifications	
Inverter	
DC Input	
Max. PV power	
Max. DC power (@ cos phi = 1)	
MPPT voltage range	
Max. input voltage	
Max. MPPT input current	
Number of string inputs	
Number of MPP trackers	
DC disconnect	
Reverse polarity protection	
DC short circuit current	
Ground fault monitoring	
AC Output	
Rated power (@ cos phi = 1)	
Rated current	
Max. apparent power	
Max. AC current	
Power feed starts at	
Mains output voltage	
Feed in phases / connection phases	
Max. permitted grid impedance [Z _{max}] (EN 61000-3-11)	
Standby consumption	
Mains frequency	
Short circuit resistance	
Power factor (cos phi)	
Ground fault monitoring	
Interfaces	
DC connection	
AC connection	
Interfaces	
Alarm relay	
Appliance data	
Maximum efficiency	
European efficiency	
Weight	
Dimensions	
Operating temperature	
Storage temperature	
Relative humidity (non-condensing)	
Altitude at rated power	
Protection degree (except digital interface)	
Protection class / overvoltage conductor	
Display	
Data logger	
System topology	
Cooling	
Standards / grid codes	
Warranty	
Type designation	

	13000 TL	16000 TL	19000 TL
13000 TL			
16000 TL			
19000 TL			
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 conductor	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		
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.

	22001 TL	22000 TL
22001 TL		
22000 TL		
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 conductor	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	
22001 TLD		
22000 TLD		

Subject to alterations. As at 30 April 2012



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Scores with maximum performance – three-phase from 11 to 20 kW.

Specifications	
Inverter	
DC Input	
Max. PV power	
Max. DC power (@ cos phi = 1)	
MPPT voltage range	
Max. input voltage	
Max. MPPT input current	
Number of string inputs	
Number of MPP trackers	
DC disconnect	
Reverse polarity protection	
DC short circuit current	
Ground fault monitoring	
AC Output	
Rated power (@ cos phi = 1)	
Rated current	
Max. apparent power	
Max. AC current	
Power feed starts at	
Mains output voltage	
Feed in phases / connection phases	
Max. permitted grid impedance [Z _{max}] (EN 61000-3-11)	
Standby consumption	
Mains frequency	
Short circuit resistance	
Power factor (cos phi)	
Ground fault monitoring	
Interfaces	
DC connection	
AC connection	
Interfaces	
Alarm relay	
Appliance data	
Maximum efficiency	
European efficiency	
Weight	
Dimensions	
Operating temperature	
Storage temperature	
Relative humidity (non-condensing)	
Altitude at rated power	
Protection degree (except digital interface)	
Protection class / overvoltage conductor	
Display	
Data logger	
System topology	
Cooling	
Standards / grid codes	
Warranty	
Type designation	

	7000 R3-M	9000 R3	11000 R3
Max. PV power	6,700 Wp	9,000 Wp	11,200 Wp
Max. DC power (@ cos phi = 1)	6,100 W	8,200 W	10,200 W
MPPT voltage range	350 V ... 720 V		
Max. input voltage	900 V		
Max. MPPT input current	1 x 10 A	2 x 13 A	2 x 16 A
Number of string inputs	1 + 1	2 + 2	
Number of MPP trackers	1		
DC disconnect	yes		
Reverse polarity protection	yes		
DC short circuit current	14 A	18 A	22 A
Ground fault monitoring	isolation control		
Rated power (@ cos phi = 1)	6,000 W	8,000 W	10,000 W
Rated current	8.7 A	11.6 A	14.5 A
Max. apparent power	6,000 VA	8,000 VA	10,000 VA
Max. AC current	11.2 A	14.8 A	18.5 A
Power feed starts at	20 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)	n/a		
Standby consumption	< 2 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	-		
Maximum efficiency	98.4 %	98.4 %	98.4 %
European efficiency	97.7 %	97.8 %	97.9 %
Weight	45 kg		
Dimensions	H 626 x W 547 x D 290 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 66 according to DIN EN 60529 (incl. digital interfaces)		
Protection class / overvoltage conductor	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		
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	7000 R3-MDX	9000 R3-MDX	11000 R3-MDX

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.

	14000 R3	16000 R3
Max. PV power	14,600 Wp	16,900 Wp
Max. DC power (@ cos phi = 1)	13,300 W	15,350 W
MPPT voltage range	350 V ... 720 V	
Max. input voltage	900 V	
Max. MPPT input current	2 x 21 A	2 x 24 A
Number of string inputs	2 + 2	
Number of MPP trackers	1	
DC disconnect	yes	
Reverse polarity protection	yes	
DC short circuit current	29 A	33 A
Ground fault monitoring	isolation control	
Rated power (@ cos phi = 1)	13,000 W	15,000 W
Rated current	18.9 A	22.0 A
Max. apparent power	13,000 VA	15,000 VA
Max. AC current	22.0 A	22.0 A
Power feed starts at	20 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)	402 mΩ	345 mΩ
Standby consumption	< 2 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	-	
Maximum efficiency	98.4 %	98.4 %
European efficiency	98.0 %	98.0 %
Weight	45 kg	
Dimensions	H 626 x W 547 x D 290 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 66 according to DIN EN 60529 (incl. digital interfaces)	
Protection class / overvoltage conductor	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	
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	14000 R3-MDX	16000 R3-MDX

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Specifications

Inverter		
DC Input		
Max. PV power		
Max. DC power (@ cos phi = 1)		
MPPT voltage range		
Max. input voltage	1000 V	
Max. MPPT input current	29.0 A	30.0 A
Number of string inputs	4	
Number of MPP trackers	1	
DC disconnect	integrated in the device	
Reverse polarity protection	yes	
DC short circuit current	50 A	
Ground fault monitoring	isolation control	
AC Output		
Rated power (@ cos phi = 1)	10,000 W	12,400 W
Rated current	14.5 A	18.0 A
Max. apparent power	10,000 VA	12,400 VA
Max. AC current	18.0 A	18.0 A
Power feed starts at	20 W	
Mains output voltage	3AC 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)	n/a	422 mΩ
Standby consumption	< 2.5 W	
Mains frequency	50 Hz / 60 Hz (+/-5 %)	
Short circuit resistance	yes	
Power factor (cos phi)	0.9 ind. ... 0.9 cap.	
Ground fault monitoring	RCD	
Interfaces		
DC connection	Multicontact MC4	
AC connection	Phoenix plug connector (supplied)	
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	97.4 %	97.5 %
Weight	39 kg	39 kg
Dimensions	H 626 x W 543 x D 281 mm	
Operating temperature	-25 °C ... +55 °C	
Storage temperature	-20 °C ... +70 °C	
Relative humidity (non-condensing)	0 % ... 93 %	
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 conductor	I / III	
Display	graphic LCD 170 x 76 pixels	
Data logger	storage capacity sufficient for 30 years operating time	
System topology	transformerless, 3-phase high-performance topology	
Cooling	convection cooling	
Standards / grid codes	VDE 0126-1-1, VDE AR-N 4105, BDEW-2008, CEI 0-21, C10/11, G59/2, EN 50438, ÖNORM E8001-4-712, UTE C 15-712-1, RD 1663/661, IEC 62109, AS 4777.	
Warranty	5 years	
Type designation	11000 TL3	13000 TL3

Subject to alterations.

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.

	17000 TL3	20000 TL3
DC Input		
Max. PV power	18,100 Wp	21,200 Wp
Max. DC power (@ cos phi = 1)	16,900 W	19,650 W
MPPT voltage range	445 V ... 850 V	480 V ... 850 V
Max. input voltage	1000 V	
Max. MPPT input current	38.5 A	41.0 A
Number of string inputs	6	
Number of MPP trackers	1	
DC disconnect	integrated in the device	
Reverse polarity protection	yes	
DC short circuit current	50 A	
Ground fault monitoring	isolation control	
AC Output		
Rated power (@ cos phi = 1)	16,500 W	19,200 W
Rated current	23.9 A	27.8 A
Max. apparent power	16,500 VA	19,200 VA
Max. AC current	29.0 A	29.0 A
Power feed starts at	20 W	
Mains output voltage	3AC 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)	318 mΩ	273 mΩ
Standby consumption	< 2.5 W	
Mains frequency	50 Hz / 60 Hz (+/-5 %)	
Short circuit resistance	yes	
Power factor (cos phi)	0.9 ind. ... 0.9 cap.	
Ground fault monitoring	RCD	
Interfaces		
DC connection	Multicontact MC4	
AC connection	Phoenix plug connector (supplied)	
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	98.2 %	98.2 %
European efficiency	97.8 %	97.8 %
Weight	40 kg	40 kg
Dimensions	H 626 x W 543 x D 281 mm	
Operating temperature	-25 °C ... +55 °C	
Storage temperature	-20 °C ... +70 °C	
Relative humidity (non-condensing)	0 % ... 93 %	
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 conductor	I / III	
Display	graphic LCD 170 x 76 pixels	
Data logger	storage capacity sufficient for 30 years operating time	
System topology	transformerless, 3-phase high-performance topology	
Cooling	convection cooling	
Standards / grid codes	VDE 0126-1-1, VDE AR-N 4105, BDEW-2008, CEI 0-21, C10/11, G59/2, EN 50438, ÖNORM E8001-4-712, UTE C15-712-1, RD 1663/661, IEC 62109, AS 4777.	
Warranty	5 years	
Type designation	17000 TL3	20000 TL3

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100 CS

130 kWp

115.8 kW

405 V ... 750 V

900 V

260 A

4

1

yes

yes

260 A

isolation control

100 kW

144 A

110 kVA

161 A

600 W

3AC 400 V (+10 %/-15 %)

3 feed in phases / 3 connection phases

52 mΩ

< 3 W

50 Hz (+2/-4 %)

yes

0.9 ind. ... 0.9 cap.

RCD

screw terminals

screw terminals

PLATINUM® network EIA 485, 2 x RJ45 and screw terminals

max. 24 V_{AC} / 2 A, screw terminals

96.8 %

95.7 %

1,162 kg

H 1800 x W 1000 x D 800 mm

-10 °C ... +65 °C

-10 °C ... +65 °C

0 % ... 95 %

2,000 m / 6,560 ft

IP 20 according to DIN EN 60529

I / III

graphic LCD 170 x 76 pixels

storage capacity sufficient for 30 years operating time

LF transformer

fan

VDE 0126-1-1, EN 50438, RD 663/2007, EN 50178

5 years

100 CS

Delivers excellent values for environmental management too. Production, packaging and return of PLATINUM® products.

For any company that develops technology promoting the sustainable use of resources, responsible practices are an essential part of the corporate culture. Diehl Controls is properly certified and the PLATINUM® brand fulfils all the key environmental directives. The photovoltaics area uses an environmental management system and is certified to ISO 14001.

PLATINUM® fulfils the key environmental directives:

RoHS directive:

Our products comply with the RoHS directive. This means that they do not contain hazardous substances such as lead or mercury.

Regulation on packaging:

To ensure that the packaging we use for our products can also be disposed of in an environmentally friendly manner and recycled, we take part in the dual waste disposal system and comply with the requirements of the regulation on packaging.

Return of used electrical and electronic goods:

To ensure that returned products are disposed of in an environmentally friendly manner, we are registered in accordance with the Waste Electrical and Electronic Equipment Directive (WEEE) under the registration number DE 46602949.



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