DIEHL
Controls

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	2100 S	2800 S	3100 S	3800 S	4300 S	4301 S	4600 S	4601 S
DC Input								
Max. PV power	2,300 Wp	3,200 Wp	3,450 Wp	4,200 Wp	4,800 Wp	4,800 Wp	5,100 Wp	5,100 Wp
Max. DC power (@ cos phi = 1)	2,100 W	2,800 W	3,100 W	3,800 W	4,300 W	4,300 W	4,600 W	4,600 W
MPPT voltage range	206 V ... 390 V	313 V ... 630 V	314 V ... 630 V	315 V ... 630 V	320 V ... 630 V	277 V ... 470 V	320 V ... 630 V	278 V ... 470 V
Max. input voltage	480 V	780 V	780 V	780 V	780 V	580 V	780 V	580 V
Max. MPPT input current	9.0 A	9.0 A	9.0 A	12.0 A	12.5 A	15.0 A	13.0 A	16.0 A
Number of string inputs	1	1	1	2	2	2	2	2
Number of MPP trackers	1				1			
DC disconnect	optional, device integrated				optional, device integrated			
Reverse polarity protection	yes				yes			
DC short circuit current	13 A	13 A	13 A	17 A	18 A	21 A	18 A	22 A
Ground fault monitoring	isolation control (can be activated)				isolation control (can be activated)			
AC Output								
Rated power (@ cos phi = 1)	1,750 W	2,400 W	2,550 W	3,300 W	3,680 W	3,680 W	3,800 W	3,800 W
Rated current	7.6 A	10.4 A	11.1 A	14.3 A	16.0 A	16.0 A	16.5 A	16.5 A
Max. apparent power	1,900 VA	2,600 VA	2,800 VA	3,600 VA	4,050 VA	4,050 VA	4,200 VA	4,200 VA
Max. AC current	8.3 A	11.3 A	12.2 A	15.7 A	17.6 A	17.6 A	18.3 A	18.3 A
Power feed starts at	13 W	14 W	14 W	18 W	18 W	17 W	18 W	17 W
Mains output voltage	230 V (+/-20 %)				230 V (+/-20 %)			
Feed in phases / connection phases	1 feed in phase / 1 or 3 connection phases				1 feed in phase / 1 or 3 connection phases			
Max. permitted grid impedance $\lvert Z_{max} \rvert$ (EN 61000-3-11)	n/a				n/a		460 mΩ	460 mΩ
Standby consumption	< 2.5 W				< 2.5 W			
Mains frequency	50 Hz (+/-5 %)				50 Hz (+/-5 %)			
Short circuit resistance	yes				yes			
Power factor (cos phi)	1				1			
Ground fault monitoring	-				-			
Interfaces								
DC connection	Multicontact MC4				Multicontact MC4			
AC connection	Wieland RST 3i / 5i				Wieland RST 3i / 5i			
Interfaces	PLATINUM® network EIA 485, 2 x RJ45 and screw terminals				PLATINUM® network EIA 485, 2 x RJ45 and screw terminals			
Alarm relay	max. 24 V_{AC} / 2 A, screw terminals				max. 24 V_{AC} / 2 A, screw terminals			
Appliance data								
Maximum efficiency	94.7 %	95.3 %	95.3 %	95.6 %	95.6 %	94.6 %	95.6 %	94.6 %
European efficiency	93.7 %	94.4 %	94.4 %	94.6 %	94.7 %	93.9 %	94.8 %	93.8 %
Weight	30 kg	35 kg	35 kg	42 kg	42 kg	43 kg	42 kg	43 kg
Dimensions	H 720 x W 320 x D 250 mm				H 720 x W 320 x D 250 mm			
Operating temperature	-20 °C ... +60 °C				-20 °C ... +60 °C			
Storage temperature	-25 °C ... +80 °C				-25 °C ... +80 °C			
Relative humidity (non-condensing)	0 % ... 95 %				0 % ... 95 %			
Altitude at rated power	2,000 m / 6,560 ft				2,000 m / 6,560 ft			
Protection degree (except digital interface)	IP 54 according to DIN EN 60529				IP 54 according to DIN EN 60529			
Protection class / overvoltage category	I / III				I / III			
Display	graphic LCD 170 x 76 pixels				graphic LCD 170 x 76 pixels			
Data logger	storage capacity sufficient for 30 years operating time				storage capacity sufficient for 30 years operating time			
System topology	LF transformer, RAC-MPP® technology				LF transformer, RAC-MPP® technology			
Cooling	convection cooling	fan			fan			
Standards / grid codes	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				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			
Warranty	10 years				10 years			
Type designation	**2100 S**	**2800 S**	**3100 S**	**3800 S**	**4300 S**	**4301 S**	**4600 S**	**4601 S**

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

Subject to alterations.
As at 30 April 2012

S inverters

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TL3 inverters

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

Specifications

Inverter	2100 H	3000 H	4000 H	4600 H
DC Input				
Max. PV power	2,350 Wp	3,450 Wp	4,450 Wp	5,150 Wp
Max. DC power (@ cos phi = 1)	2,100 W	3,000 W	4,000 W	4,600 W
MPPT voltage range	230 V ... 480 V		230 V ... 480 V	
Max. input voltage	600 V		600 V	
Max. MPPT input current	9.5 A	13.5 A	18.0 A	21.0 A
Number of string inputs	3		3	
Number of MPP trackers	1		1	
DC disconnect	optional, device integrated		optional, device integrated	
Reverse polarity protection	yes		yes	
DC short circuit current	14.2 A	20.2 A	27 A	31.5 A
Ground fault monitoring	isolation control		isolation control	
AC Output				
Rated power (@ cos phi = 1)	2,000 W	2,900 W	3,800 W	4,400 W
Rated current	9.0 A	13.0 A	17.0 A (16.0 A*)	20.0 A (16.0 A*)
Max. apparent power	2,000 VA	2,900 VA	3,800 VA	4,400 VA
Max. AC current	10.5 A	15.2 A	19.7 A	23.0 A
Power feed starts at	7 W		7 W	
Mains output voltage	230 V (+/-20 %)		230 V (+/-20 %)	
Feed in phases / connection phases	1 feed in phase / 1 connection phase		1 feed in phase / 1 connection phase	
Max. permitted grid impedance |Zmax| (EN 61000-3-11)	n/a		446 mΩ	379 mΩ
Standby consumption	< 1 W		< 1 W	
Mains frequency	50 Hz (+/-10 %)		50 Hz (+/-10 %)	
Short circuit resistance	yes		yes	
Power factor (cos phi)	0.9 ind. ... 0.9 cap.		0.9 ind. ... 0.9 cap.	
Ground fault monitoring	-		-	
Interfaces				
DC connection	Multicontact MC4		Multicontact MC4	
AC connection	screw terminals		screw terminals	
Interfaces	Ethernet / CAN		Ethernet / CAN	
Alarm relay	-		-	
Appliance data				
Maximum efficiency	96.9 %	97.0 %	97.2 %	97.3 %
European efficiency	96.0 %	96.2 %	96.6 %	96.9 %
Weight	19 kg	19 kg	21 kg	21 kg
Dimensions	H 610 x W 353 x D 154 mm		H 610 x W 353 x D 154 mm	
Operating temperature	-25 °C ... +65 °C		-25 °C ... +65 °C	
Storage temperature	-30 °C ... +80 °C		-30 °C ... +80 °C	
Relative humidity (non-condensing)	4 % ... 99 %		4 % ... 99 %	
Altitude at rated power	2,000 m / 6,560 ft		2,000 m / 6,560 ft	
Protection degree (except digital interface)	IP 65 according to DIN EN 60529 (incl. digital interface)		IP 65 according to DIN EN 60529 (incl. digital interface)	
Protection class / overvoltage category	I / III		I / III	
Display	graphic color LCD, three LEDs for visual status indication		graphic color LCD, three LEDs for visual status indication	
Data logger	storage capacity sufficient for 20 years operating time / integrated webserver		storage capacity sufficient for 20 years operating time / integrated webserver	
System topology	HF transformer with galvanic isolation		HF transformer with galvanic isolation	
Cooling	convection 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		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		10 years	
Type designation	**2100 H**	**3000 H**	**4000 H**	**4600 H**

Subject to alterations.

***UK and Denmark: Adjustable current limit of 16 A**
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As at 30 April 2012

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Specifications

Inverter	3801 TL	3800 TL	4300 TL	4800 TL	5300 TL	6300 TL	7200 TL
DC Input							
Max. PV power	4,000 Wp	4,300 Wp	4,900 Wp	5,400 Wp	6,000 Wp	7,100 Wp	8,000 Wp
Max. DC power (@ cos phi = 1)	3,480 W	3,800 W	4,300 W	4,800 W	5,300 W	6,300 W	7,200 W
MPPT voltage range	349 V ... 710 V	350 V ... 710 V	351 V ... 710 V	348 V ... 710 V	349 V ... 710 V	350 V ... 710 V	351 V ... 710 V
Max. input voltage	880 V				880 V		
Max. MPPT input current	10.5 A	11.5 A	13.0 A	14.5 A	16.0 A	18.5 A	21.0 A
Number of string inputs	2	2	2	2	2	3	3
Number of MPP trackers	1				1		
DC disconnect	optional, device integrated				optional, device integrated		
Reverse polarity protection	yes				yes		
DC short circuit current	15 A	16 A	18 A	20 A	22 A	26 A	29 A
Ground fault monitoring	isolation control				isolation control		
AC Output							
Rated power (@ cos phi = 1)	3,330 W	3,680 W	4,120 W	4,600 W	5,000 W	6,000 W	6,900 W
Rated current	14.5 A	16.0 A	17.9 A	20.0 A	21.7 A	26.1 A	30.0 A
Max. apparent power	3,330 VA	3,680 VA	4,120 VA	4,600 VA	5,000 VA	6,000 VA	6,900 VA
Max. AC current	14.5 A	16.0 A	17.9 A	20.0 A	21.7 A	26.1 A	30.0 A
Power feed starts at	7 W	7 W	7 W	7 W	7 W	8 W	8 W
Mains output voltage	230 V (+/-20 %)				230 V (+/-20 %)		
Feed in phases / connection phases	1 feed in phase / 1 or 3 connection phases				1 feed in phase / 1 or 3 connection phases		
Max. permitted grid impedance [Zmax] (EN 61000-3-11)	n/a		424 mΩ	379 mΩ	349 mΩ	290 mΩ	253 mΩ
Standby consumption	< 2 W				< 2 W		
Mains frequency	50 Hz (+/- 5 %)				50 Hz (+/- 5 %)		
Short circuit resistance	yes				yes		
Power factor (cos phi)	0.7 ind. ... 0.7 cap.				0.7 ind. ... 0.7 cap.		
Ground fault monitoring	RCD				RCD		
Interfaces							
DC connection	Multicontact MC4				Multicontact MC4		
AC connection	spring clamp connectors				spring clamp connectors		
Interfaces	PLATINUM® network EIA 485, 2 x RJ45 and screw terminals				PLATINUM® network EIA 485, 2 x RJ45 and screw terminals		
Alarm relay	max. 24 V_{AC} / 2 A, screw terminals				max. 24 V_{AC} / 2 A, screw terminals		
Appliance data							
Maximum efficiency	97.7 %	97.7 %	97.7 %	97.7 %	97.7 %	98.0 %	98.0 %
European efficiency	97.4 %	97.4 %	97.4 %	97.4 %	97.4 %	97.5 %	97.5 %
Weight	27 kg	27 kg	27 kg	28 kg	28 kg	29 kg	29 kg
Dimensions	H 720 x W 320 x D 250 mm				H 720 x W 320 x D 250 mm		
Operating temperature	-20 °C ... +60 °C				-20 °C ... +60 °C		
Storage temperature	-25 °C ... +80 °C				-25 °C ... +80 °C		
Relative humidity (non-condensing)	0 % ... 95 %				0 % ... 95 %		
Altitude at rated power	2,000 m / 6,560 ft				2,000 m / 6,560 ft		
Protection degree (except digital interface)	IP 66 according to DIN EN 60529				IP 66 according to DIN EN 60529		
Protection class / overvoltage category	I / III				I / III		
Display	graphic LCD 170 x 76 pixels				graphic LCD 170 x 76 pixels		
Data logger	storage capacity sufficient for 30 years operating time				storage capacity sufficient for 30 years operating time		
System topology	transformerless, DIVE®, RAC-MPP® technology				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, IC 62109, AS 4777, AS 3100				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, IC 62109, AS 4777, AS 3100		
Warranty	10 years				10 years		
Type designation	**3801 TLD**	**3800 TLD**	**4300 TLD**	**4800 TLD**	**5300 TLD**	**6300 TLD**	**7200 TLD**

Subject to alterations.

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

Specifications

Inverter	13000 TL	16000 TL	19000 TL	22001 TL	22000 TL
DC Input					
Max. PV power	14,700 Wp	18,000 Wp	21,300 Wp	23,000 Wp	24,000 Wp
Max. DC power (@ cos phi = 1)	12,900 W	15,900 W	18,900 W	20,800 W	21,600 W
MPPT voltage range	351 V ... 710 V	349 V ... 710 V	350 V ... 710 V	351 V ... 710 V	351 V ... 710 V
Max. input voltage	880 V			880 V	
Max. MPPT input current	3 x 13.0 A	3 x 16.0 A	3 x 18.5 A	3 x 20.2 A	3 x 21.0 A
Number of string inputs	6	6	9	9	9
Number of MPP trackers	3			3	
DC disconnect	optional, device integrated			optional, device integrated	
Reverse polarity protection	yes			yes	
DC short circuit current	3 x 18 A	3 x 22 A	3 x 26 A	3 x 28 A	3 x 29 A
Ground fault monitoring	isolation control			isolation control	
AC Output					
Rated power (@ cos phi = 1)	12,360 W	15,000 W	18,000 W	20,000 W	20,700 W
Rated current	17.9 A	21.7 A	26.1 A	29.0 A	30.0 A
Max. apparent power	12,360 VA	15,000 VA	18,000 VA	20,000 VA	20,700 VA
Max. AC current	17.9 A	21.7 A	26.1 A	29.0 A	30.0 A
Power feed starts at	21 W	21 W	24 W	24 W	24 W
Mains output voltage	3AC 230 V / 400 V + N (+/-20 %)			3AC 230 V / 400 V + N (+/-20 %)	
Feed in phases / connection phases	3 feed in phases / 3 connection phases			3 feed in phases / 3 connection phases	
Max. permitted grid impedance (Zmax) (EN 61000-3-11)	424 mΩ	349 mΩ	290 mΩ	261 mΩ	253 mΩ
Standby consumption	< 6 W			< 6 W	
Mains frequency	50 Hz (+/- 5 %)			50 Hz (+/- 5 %)	
Short circuit resistance	yes			yes	
Power factor (cos phi)	0.7 ind. ... 0.7 cap.			0.7 ind. ... 0.7 cap.	
Ground fault monitoring	RCD			RCD	
Interfaces					
DC connection	Multicontact MC4			Multicontact MC4	
AC connection	spring clamp connectors			spring clamp connectors	
Interfaces	PLATINUM® network EIA 485, 2 x RJ45 and screw terminals			PLATINUM® network EIA 485, 2 x RJ45 and screw terminals	
Alarm relay	max. 24 V_{AC} / 2 A, screw terminals			max. 24 V_{AC} / 2 A, screw terminals	
Appliance data					
Maximum efficiency	97.7 %	97.7 %	98.0 %	98.0 %	98.0 %
European efficiency	97.4 %	97.4 %	97.5 %	97.5 %	97.5 %
Weight	81 kg	84 kg	87 kg	87 kg	87 kg
Dimensions	H 743 x W 972 x D 262 mm			H 743 x W 972 x D 262 mm	
Operating temperature	-20 °C ... +60 °C			-20 °C ... +60 °C	
Storage temperature	-25 °C ... +80 °C			-25 °C ... +80 °C	
Relative humidity (non-condensing)	0 % ... 95 %			0 % ... 95 %	
Altitude at rated power	2,000 m / 6,560 ft			2,000 m / 6,560 ft	
Protection degree (except digital interface)	IP 65 according to DIN EN 60529			IP 65 according to DIN EN 60529	
Protection class / overvoltage category	I / III			I / III	
Display	graphic LCD 170 x 76 pixels			graphic LCD 170 x 76 pixels	
Data logger	storage capacity sufficient for 30 years operating time			storage capacity sufficient for 30 years operating time	
System topology	transformerless, DIVE®, RAC-MPP® technology			transformerless, DIVE®, RAC-MPP® technology	
Cooling	convection cooling	fan		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, IC 62109, AS 4777, AS 3100			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, IC 62109, AS 4777, AS 3100	
Warranty	10 years			10 years	
Type designation	**13000 TLD**	**16000 TLD**	**19000 TLD**	**22001 TLD**	**22000 TLD**

Subject to alterations.

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Specifications

Inverter	7000 R3	9000 R3	11000 R3	14000 R3	16000 R3
DC Input					
Max. PV power	6,700 Wp	9,000 Wp	11,200 Wp	14,600 Wp	16,900 Wp
Max. DC power (@ cos phi = 1)	6,100 W	8,200 W	10,200 W	13,300 W	15,350 W
MPPT voltage range	350 V ... 720 V				
Max. input voltage	900 V				
Max. MPPT input current	2 x 10 A	2 x 13 A	2 x 16 A	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	14 A	18 A	22 A	29 A	33 A
Ground fault monitoring	isolation control				
AC Output					
Rated power (@ cos phi = 1)	6,000 W	8,000 W	10,000 W	13,000 W	15,000 W
Rated current	8.7 A	11.6 A	14.5 A	18.9 A	22.0 A
Max. apparent power	6,000 VA	8,000 VA	10,000 VA	13,000 VA	15,000 VA
Max. AC current	11.2 A	14.8 A	18.5 A	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 |Zmax| (EN 61000-3-11)	n/a			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	-				
Appliance data					
Maximum efficiency	98.4 %	98.4 %	98.4 %	98.4 %	98.4 %
European efficiency	97.7 %	97.8 %	97.9 %	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 65 according to DIN EN 60529 (incl. digital interfaces)				
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				
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**	**14000 R3-MDX**	**16000 R3-MDX**

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Specifications

Inverter	11000 TL3	13000 TL3	17000 TL3	20000 TL3
DC Input				
Max. PV power	11,000 Wp	13,600 Wp	18,100 Wp	21,200 Wp
Max. DC power (@ cos phi = 1)	10,300 W	12,800 W	16,900 W	19,650 W
MPPT voltage range	380 V ... 850 V	420 V ... 850 V	445 V ... 850 V	480 V ... 850 V
Max. input voltage	1000 V		1000 V	
Max. MPPT 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		1	
DC disconnect	integrated in the device		integrated in the device	
Reverse polarity protection	yes		yes	
DC short circuit current	50 A		50 A	
Ground fault monitoring	isolation control		isolation control	
AC Output				
Rated power (@ cos phi = 1)	10,000 W	12,400 W	16,500 W	19,200 W
Rated current	14.5 A	18.0 A	23.9 A	27.8 A
Max. apparent power	10,000 VA	12,400 VA	16,500 VA	19,200 VA
Max. AC current	18.0 A	18.0 A	29.0 A	29.0 A
Power feed starts at	20 W		20 W	
Mains output voltage	3AC 400 V + N (+/-20 %)		3AC 400 V + N (+/-20 %)	
Feed in phases / connection phases	3 feed in phases / 3 connection phases		3 feed in phases / 3 connection phases	
Max. permitted grid impedance [Zmax] (EN 61000-3-11)	n/a	422 mΩ	318 mΩ	273 mΩ
Standby consumption	< 2.5 W		< 2.5 W	
Mains frequency	50 Hz / 60 Hz (+/-5 %)		50 Hz / 60 Hz (+/-5 %)	
Short circuit resistance	yes		yes	
Power factor (cos phi)	0.9 ind. ... 0.9 cap.		0.9 ind. ... 0.9 cap.	
Ground fault monitoring	RCD		RCD	
Interfaces				
DC connection	Multicontact MC4		Multicontact MC4	
AC connection	Phoenix plug connector (supplied)		Phoenix plug connector (supplied)	
Interfaces	PLATINUM® network EIA 485, 2 x RJ45 and screw terminals		PLATINUM® network EIA 485, 2 x RJ45 and screw terminals	
Alarm relay	max. 24 V_{AC} / 2 A, screw terminals		max. 24 V_{AC} / 2 A, screw terminals	
Appliance data				
Maximum efficiency	98.0 %	98.0 %	98.2 %	98.2 %
European efficiency	97.4 %	97.5 %	97.8 %	97.8 %
Weight	39 kg	39 kg	40 kg	40 kg
Dimensions	H 626 x W 543 x D 281 mm		H 626 x W 543 x D 281 mm	
Operating temperature	-25 °C ... +55 °C		-25 °C ... +55 °C	
Storage temperature	-20 °C ... +70 °C		-20 °C ... +70 °C	
Relative humidity (non-condensing)	0 % ... 93 %		0 % ... 93 %	
Altitude at rated power	2,000 m / 6,560 ft		2,000 m / 6,560 ft	
Protection degree (except digital interface)	IP 65 according to DIN EN 60529		IP 65 according to DIN EN 60529	
Protection class / overvoltage category	I / III		I / III	
Display	graphic LCD 170 x 76 pixels		graphic LCD 170 x 76 pixels	
Data logger	storage capacity sufficient for 30 years operating time		storage capacity sufficient for 30 years operating time	
System topology	transformerless, 3-phase high-performance topology		transformerless, 3-phase high-performance topology	
Cooling	convection 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.		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		5 years	
Type designation	**11000 TL3**	**13000 TL3**	**17000 TL3**	**20000 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.

Subject to alterations.
As at 30 April 2012

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Setting standards for insulated string inverters.

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TL3 inverters

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

Specifications

Inverter	100 CS
DC Input	
Max. PV power	130 kWp
Max. DC power (@ cos phi = 1)	115.8 kW
MPPT voltage range	405 V ... 750 V
Max. input voltage	900 V
Max. MPPT input current	260 A
Number of string inputs	4
Number of MPP trackers	1
DC disconnect	yes
Reverse polarity protection	yes
DC short circuit current	260 A
Ground fault monitoring	isolation control
AC Output	
Rated power (@ cos phi = 1)	100 kW
Rated current	144 A
Max. apparent power	110 kVA
Max. AC current	161 A
Power feed starts at	600 W
Mains output voltage	3AC 400 V (+10 %/-15 %)
Feed in phases / connection phases	3 feed in phases / 3 connection phases
Max. permitted grid impedance |Zmax| (EN 61000-3-11)	52 mΩ
Standby consumption	< 3 W
Mains frequency	50 Hz (+2/-4 %)
Short circuit resistance	yes
Power factor (cos phi)	0.9 ind. ... 0.9 cap.
Ground fault monitoring	RCD
Interfaces	
DC connection	screw terminals
AC connection	screw terminals
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	96.8 %
European efficiency	95.7 %
Weight	1,162 kg
Dimensions	H 1800 x W 1000 x D 800 mm
Operating temperature	-10 °C ... +65 °C
Storage temperature	-10 °C ... +65 °C
Relative humidity (non-condensing)	0 % ... 95 %
Altitude at rated power	2,000 m / 6,560 ft
Protection degree (except digital interface)	IP 20 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	LF transformer
Cooling	fan
Standards / grid codes	VDE 0126-1-1, EN 50438, RD 663/2007, EN 50178
Warranty	5 years
Type designation	**100 CS**

Subject to alterations.

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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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