

## Replus-1000TL Replus-1500TL Replus-2000TL

Specifications are subject to change without further notification.

ReneSola Replus serial inverters take reliability, efficiency, and ease of installation to a whole new level. Replus inverters are perfect for system integrators and end users who require high performance PV inverters for small and medium size solar PV project in industrial, commercial and residential applications. Replus inverters are available in sizes of 1.5 kW to 20 kW, and optimized for cost-efficiency in megawatt size power plants.



Transformerless design,  
high efficiency (Max.97.5%, Euro.96.6%)



High Maximum Power Point Tracking (MPPT)  
accuracy (>99.9%)



Wide DC input range (120-500Vdc), compatible  
with different PV module technologies



Easy wiring, installation, and operation



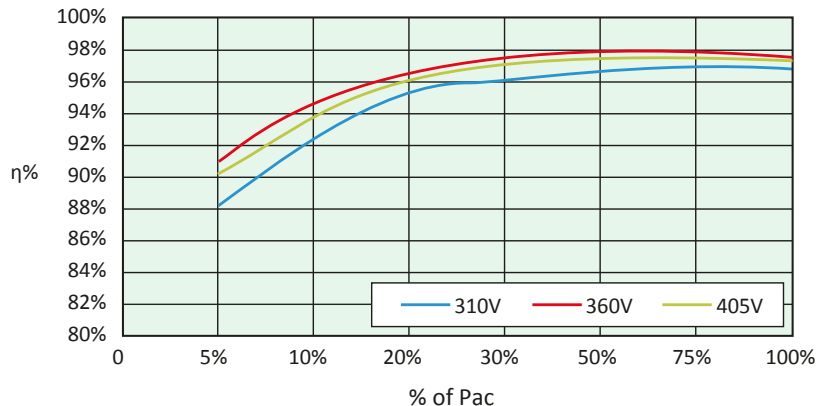
IP 65 design, suitable for indoor  
and outdoor installation



5 years standard warranty  
(Optional 10~25 years warranty available)



Efficiency Curve for Replus-2000TL



**ENEL Guide RD1663 EN50438**

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Input (DC)	Replus-1000TL	Replus-1500TL	Replus-2000TL
Max. PV-Generator Power [Wp]	1300	1750	2300
Max DC Voltage [V]		500	
MPPT DC Voltage Range: [V]	80~300	120~450	120~450
Turn off DC Voltage [V]	80	120	120
Max. DC Current [A]	16	18	18
Nominal DC Current [A]	8.5	14	16.5
Number of DC Connections		1	
DC-Connection		MC4	
Number of MPP trackers		1	
Turn on Power [W]		10	

Output (AC)	Replus-1000TL	Replus-1500TL	Replus-2000TL
Max. AC Power [W]	1100	1650	2200
Nominal AC Power [W]	1000	1500	2000
Max. AC Current [A]	5.8	9.0	12.0
Nominal AC Current [A]	4.3	6.5	8.5
Power Connection	Single phase		
Grid Voltage Range	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777		
Grid Frequency Range	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777		
Power Factor	0.99 (>30% of Full Load)		
Harmonic Distortion (THD) at Normal Output	<2%		
AC Connector	Plug-in connector		

## Efficiency

Max. Efficiency (at 360VDC)	97.5%
Euro Efficiency (at 360VDC)	96.6%
MPPT Efficiency	99.9%

## Power Consumption

Own Consumption in Operation [W]	30
Power Consumption at Night [W]	0
Power Consumption at Standby [W]	6

## Safety and Protection

Internal Overvoltage Protection	Yes
DC Insulation Monitoring	Yes
Earth Fault Protection	Yes
Grid Monitoring	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777
Earth Fault Current Monitoring	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777
DC Current Monitoring	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777
Islanding Protection	According to VDE 0126-1-1, RD1663, G83/1, AS4777

## Normative Reference

CE- Compliant According to	EN62109, EN61000-6-1, EN61000-6-3, EN61000-6-2, EN61000-6-4 EN61000-3-2, EN61000-3-3, EN61000-3-12, EN61000-3-11
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## Dimensions and Weight

Dimensions (WxHxD)	330*425*130mm / 13.0*16.7*5.1inch
Weight	13kg /28.7lbs

## Environmental Limits

IP Protection Type	IP 65 according to IEC 60529
Operating Temperature Range	-20°C to +60°C
Relative Humidity	0% to 98%, no condensation
Maximum Altitude (above sea level) [m]	2000
Noise Level [dBA]	<40

## General Data

Isolation Type	Transformerless
Cooling Concept	Convection
Housing	Ironhousing for inside or outside installation
Mounting Information	Wall bracket
LED Display	3
LCD Display	16*2 Character LCD with backlight
Data Logger Data Communication Interfaces	RS485, Optional (Wi-Fi, GPRS, Ethernet)
Computer Communication	RS232 as Option
Standard Warranty	5 Years (Optional 10~25 years)

## Replus-3000TL Replus-4000TL Replus-5000TL

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Transformerless design,  
high efficiency (Max.97.6%, Euro.97%)



Multi MPPT Tracker



High Maximum Power Point Tracking (MPPT)  
accuracy (>99.9%)



Wide DC input range (120-590Vdc),  
compatible with different module technologies



Easy wiring, installation, and operation



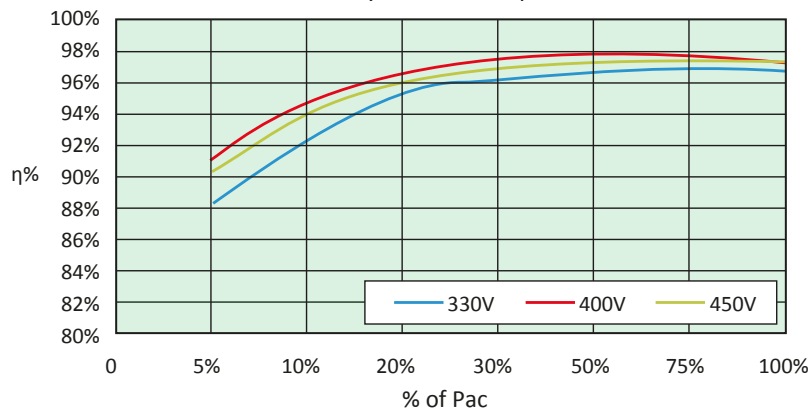
IP 65 design, suitable for indoor  
and outdoor installation



5 years standard warranty  
(Optional 10~25 years warranty available)



Efficiency Curve for Replus-4000TL



**ENEL Guide RD1663 EN50438**

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Input (DC)	Replus-3000TL	Replus-4000TL	Replus-5000TL
Max. PV-Generator Power [Wp]	3400	4500	5000
Max DC Voltage [V]		590	
MPPT DC Voltage Range [V]		120~500	
Turn off DC Voltage [V]		120	
Max. DC Current [A]		36	
Nominal DC Current [A]	28	33	33
Number of DC Connections		2	
DC-Connection		MC4	
Number of MPP trackers		2	
Turn on Power [W]		10	

Output (AC)	Replus-3000TL	Replus-4000TL	Replus-5000TL
Max. AC Power [W]	3300	4400	4800
Nominal AC Power [W]	3000	4000	4600
Max. AC Current [A]	14.4	19.0	21.0
Nominal AC Current [A]	13	17.4	20
Power Connection		Single phase	
Grid Voltage Range	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777, EN50438		
Grid Frequency Range	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777, EN50438		
Power Factor		0.99 (>30% of Full Load)	
Harmonic Distortion (THD) at Normal Output		<2%	
AC Connector		Plug-in connector	

Efficiency	Replus-3000TL	Replus-4000TL	Replus-5000TL
Max. Efficiency (at 360VDC)	97.5%	97.6%	97.6%
Euro Efficiency (at 360VDC)	96.6%	97.0%	97.0%
MPPT Efficiency		99.9%	

Power Consumption	Replus-3000TL	Replus-4000TL	Replus-5000TL
Own Consumption in Operation [W]	45	50	50
Power Consumption at Night [W]		0	
Power Consumption at Standby [W]		6	

Dimensions and Weight	Replus-3000TL	Replus-4000TL	Replus-5000TL
Dimensions (WxHxD)	367*526*163mm / 14.4*20.7*6.4 inch		
Weight	20kg/44.1lbs	21kg/46.3lbs	21kg/46.3lbs

Safety and Protection	
Internal Overvoltage Protection	Yes
DC Insulation Monitoring	Yes
Earth Fault Protection	Yes
Grid Monitoring	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777, EN50438
Earth Fault Current Monitoring	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777, EN50438
DC Current Monitoring	According to VDE 0126-1-1, RD1663, ENEL2010, C10/11, G83/1, AS4777, EN50438
Islanding Protection	According to VDE 0126-1-1, RD1663, G83/1, AS4777

Normative Reference	
CE- Compliant According to	EN62109, EN61000-6-1, EN61000-6-3, EN61000-6-2, EN61000-6-4 EN61000-3-2, EN61000-3-3, EN61000-3-12, EN61000-3-11

Environmental Limits	
IP Protection Type	IP 65 according to IEC 60529
Operating Temperature Range	-20°C to +60°C
Relative Humidity	0% to 98%, no condensation
Maximum Altitude (above sea level) [m]	2000
Noise Level [dBA]	<40

General Data	
Isolation Type	Transformerless
Cooling Concept	Natural Convection
Housing	Ironhousing for inside and outside installation
Mounting Information	Wall bracket
LED Display	3
LCD Display	16*2 Character LCD with backlight
Data Logger Data Communication Interfaces	RS485, Optional(Wi-Fi,GPRS, Ethernet)
Computer Communication	RS232 as Option
Warranty	5 Years(Optional 10~25 years)

## Replus-13000TL Replus-17000TL Replus-20000TL

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ReneSola Replus serial inverters take reliability, efficiency, and ease of installation to a whole new level. Replus inverters are perfect for system integrators and end users who require high performance PV inverters for small and medium size solar PV project in industrial, commercial and residential applications. Replus inverters are available in sizes of 1.5 kW to 20 kW, and optimized for cost-efficiency in megawatt size power plants.



Comply with European, Asia-Pacific, and Oceania safety regulations



Transformerless design and high power density, offer lighter and more convenient installation



Double MPPT Tracker, MPPT tracking accuracy up to 99.9%



5 years standard warranty (Optional 10~25 years warranty available)



Max. Efficiency 98.2%, European Efficiency 97.8%



Strong AC output power overload capability



Professional radiating design, protection Level IP65, performs well in harsh conditions



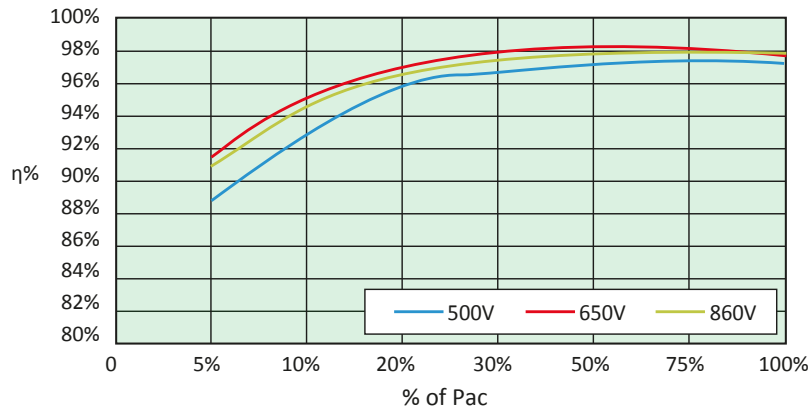
Integrated DC Switch for added safety protection



Flexible input and output connections support RS485, Ethernet, and USB



Efficiency Curve for Replus-20000TL



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Input (DC)	Replus-13000TL	Replus-17000TL	Replus-20000TL
Max. PV-Generator Power[Wp]	13500	17600	21200
Max DC Voltage [V]		1000	
MPPT DC Voltage Range [V]	400~800	440~800	480~800
Nominal DC Voltage[V]		640	
Max.DC Current(A/B)[A]	22/11	22/22	22/22
Number of MPP Trackers		2	
DC Connection per MPPT		A:3/B:3	

Output (AC)	Replus-13000TL	Replus-17000TL	Replus-20000TL
Nominal AC Voltage		3/N/PE, 230/400V	
Frequency[Hz]		50, 60	
Grid Voltage Range	According to CE, VDE 0126-1-1, Enel-GUIDE, G59, AS4777, C10/C11, IEC 61727		
Max. AC Power[W]	13000	17000	19200
Nominal AC Power[W]	13000	17000	19200
Nominal AC Current[A]	18.8	24.6	28
Max. AC Current[A]	20	26	29
Power Factor (cos)		0.9i ... 1 ... 0.9c	
Harmonic Distortion(THD)		<2%	
Power Consumption at Night[W]		<0.6	
Power Consumption at Standby[W]		<12	

Efficiency	Replus-13000TL	Replus-17000TL	Replus-20000TL
Max. Efficiency	98%	98.1%	98.2%
Euro Efficiency	97.5%	97.6%	97.8%
MPPT Efficiency		99.9%	

Environmental Limits	Replus-13000TL	Replus-17000TL	Replus-20000TL
Operating Temperature Range [°C]	-20°C~60°C	-20°C~60°C (>55°C derating)	-20°C~60°C (>45°C derating)
Relative Humidity		0%~98% ( no condensation)	
Altitude[m]		0~2000m	
Noise Level[dB]		<45dB (with fan<50dB)	

Safety and Protection	
DC Surge Protection	Type III
DC Insulation Monitoring	Yes
Earth Fault Protection	Yes
Grid Monitoring	According to VDE 0126-1-1, RD1699, ENEL, G59, AS4777
Earth Fault Current Monitoring	According to VDE 0126-1-1, RD1699, ENEL, G59, AS4777
DC Current Monitoring	According to VDE 0126-1-1, RD1699, ENEL, G59, AS4777
Electricity Fuse Protection	Yes
DC Switch	Yes

Normative Reference	
CE Compliant According to	IEC62109, EN61000-6-2, EN61000-6-3, EN61000-3-12, EN61000-3-11

Dimensions and Weight	
Dimensions (WxHxD)	575*650*240mm / 22.6*25.6*9.4 inch
Weight	45kg / 99lbs
Mounting Information	Wall Bracket
IP Protection Type	IP65 (EN 60529)
Cooling Concept	Convection and Fan cooling

Communication	
Monitoring Connection	RS485, Ethernet
Software Upgrade	RS232(USB)
LCD Display	800*480 TFT Graphic Display
Standard Warranty	5 years(Optional 10~25 years)