

RENAC



Renac Power

Smart Energy for Life

2020 All-in-One Datasheet

Renac Power Technology Co.,Ltd.

+ www.renacpower.com

+ info@renacpower.com



R1 Baby Series

(SINGLE PHASE ON-GRID INVERTER)

R1-1K1-SS/R1-1K6-SS/R1-2K2-SS/R1-2K7-SS/R1-3K3-SS/R1-3K7-SS

Model	R1-1K1-SS	R1-1K6-SS	R1-2K2-SS	R1-2K7-SS	R1-3K3-SS	R1-3K7-SS
DC Input Data						
Max. Recommended PV Power	1300 Wp	1900 Wp	2600 Wp	3250 Wp	3900 Wp	4800 Wp
Maximum DC Input Voltage	500 V			550 V		
MPPT Voltage Range	50 ~ 500 V			50 ~ 550 V		
Start-up Voltage	70 V					
No. of MPP Trackers	1					
No. of Input Strings per Tracker	1					
Max. DC Input Current	12.5 A					
DC Switch	Optional					
AC Output Data						
Rated AC Power	1100 W	1600 W	2200 W	2700 W	3300 W	3680 W
Max.output Power	1100 VA	1600 VA	2200 VA	2700 VA	3300 VA	3680 VA
Maximum Output Current	4.8 A	7.2 A	9.6 A	12 A	14.4 A	16 A
Rated AC Voltage/Range	220V/230V; 160-290V					
Grid Frequency/Range	50Hz/60Hz ; ±5Hz					
Adjustable Power Factor[cos φ]	0.8leading ~0.8lagging					
Output THDi(@Rated Output)	≤2%					
Efficiency						
Max.Efficiency	97.0%	97.1%	97.1%	97.3%	97.3%	97.3%
Euro Efficiency	96.5%	96.6%	96.6%	96.8%	96.8%	96.8%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Protection						
DC Insulation Monitoring	Integrated					
Input Reverse Polarity Protection	Integrated					
Anti-island Protection	Integrated					
Residual Current Monitoring	Integrated					
Over-heat Protection	Integrated					
AC Overcurrent Protection	Integrated					
AC Short-circuit Protection	Integrated					
AC Overvoltage Protection	Integrated					
DC Surge Protection	Integrated(Type III)					
AC Surge Protection	Integrated(Type III)					
General Data						
Size(W×H×D)	295*260*115 mm					335*260*120mm
Weight	3.4 kg	3.4 kg	3.4 kg	3.4 kg	3.4 kg	3.7 kg
User Interface	LCD					
Communication	RS485 or WIFI or GPRS					
Ambient Temperature Range	-25 °C ~ 60 °C					
Relative Humidity	0~100%					
Operating Altitude	≤4000m					
Standby Self Consumption	<0.2W					
Topology	Transformerless					
Cooling	Natural Convection					
Protection Grades	IP65					
Noise	< 30 dB					
Warranty	5 /7/10 years					
Certifications	VDE-AR-N-4105, VDE 0126-1-1, G98, EN50549, PEA, AS4777 ,CEI0-21,IEC61727,IEC62116,IEC60068,IEC61683 IEC 62109-1, IEC 62109-2 EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-4-16, EN 61000-4-18, EN 61000-4-29					

R1 Kiddy Series

(SINGLE PHASE ON-GRID INVERTER)

NAC4K-DS/NAC5K-DS/NAC6K-DS/NAC7K-DS/NAC8K-DS



Model	NAC4K-DS	NAC5K-DS	NAC6K-DS	NAC7K-DS	NAC8K-DS
DC Input Data					
Max. Recommended PV Power	5200 Wp	6500 Wp	7800 Wp	9100 Wp	10400 Wp
Maximum DC Input Voltage	600 V				
MPPT Voltage Range	100 ~ 550 V				
Start-up Voltage	120 V				
No. of MPP Trackers	2				
No. of Input Strings Per Tracker	1/1			2/1	
Max. DC Input Current	10 A / 10 A	10 A / 10 A	10 A / 10 A	20 A / 10 A	20 A / 10 A
DC Switch	Optional				
AC Output Data					
Rated AC Power	4000 W	5000 W	6000 W	7000 W	8000 W
Max.output Power	4400 VA	5500 VA	6600 VA	7700 VA	8000 VA
Maximum Output Current	19.2 A	24 A	28.7 A	33.5 A	34.8 A
Rated AC Voltage/Range	220V/230V; 160-290V				
Grid Frequency/Range	50Hz/60Hz ; ±5Hz				
Adjustable Power Factor[cos φ]	0.8leading ~0.8lagging				
Output THDi(@Rated Output)	≤2%				
Efficiency					
Max.Efficiency	97.8%	97.8%	97.8%	98.1%	98.1%
Euro Efficiency	97.2%	97.2%	97.2%	97.5%	97.5%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
Protection					
DC Insulation Monitoring	Integrated				
Input Reverse Polarity Protection	Integrated				
Anti-island Protection	Integrated				
Residual Current Monitoring	Integrated				
Over-heat Protection	Integrated				
AC Overcurrent Protection	Integrated				
AC Short-circuit Protection	Integrated				
AC Overvoltage Protection	Integrated				
DC Surge Protection	Integrated(Type III)				
AC Surge Protection	Integrated(Type III)				
General Data					
Size(W×H×D)	395*330*185 mm				
Weight	14 kg	15 kg	15 kg	16 kg	16 kg
User Interface	LCD				
Communication	RS485(Standard), Wifi or GPRS				
Ambient Temperature Range	-25 °C ~ 60 °C				
Relative Humidity	0~100%				
Operating Altitude	≤4000m				
Standby Self Consumption	<0.2W				
Topology	transformerless				
Cooling	Natural Convection				
Protection Grades	IP65				
Noise	< 30 dB				
Warranty	5 /7/10 years				
Certifications	VDE-AR-N-4105, VDE 0126-1-1, G98, EN50549, PEA, AS4777, CEI0-21,IEC61727,IEC62116,IEC60068,IEC61683 IEC 62109-1, IEC 62109-2 EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-4-16, EN 61000-4-18, EN 61000-4-29				



R3 Micro Series

(THREE PHASE ON-GRID INVERTER)

R3-4K-DT/R3-5K-DT/R3-6K-DT/R3-8K-DT/R3-10K-DT/R3-12K-DT/R3-15K-DT

Model	R3-4K-DT	R3-5K-DT	R3-6K-DT	R3-8K-DT	R3-10K-DT	R3-12K-DT	R3-15K-DT
DC Input Data							
Max. Recommended PV Power	5200 Wp	6500 Wp	7800 Wp	10400 Wp	13000 Wp	15600 Wp	19500 Wp
Maximum DC Input Voltage	1000 V						
MPPT Voltage Range	160 ~ 950 V			250 ~ 950 V			
Start-up Voltage	160 V			200 V			
No. of MPP Trackers	2						
No. of Input Strings Per Tracker	1/1						2/1
Max. DC Input Current	12.5 A /12.5 A						20A /12.5 A
DC Switch	Integrated						
AC Output Data							
Rated AC Power	4000 W	5000 W	6000 W	8000 W	10000 W	12000 W	15000 W
Max.output Power	4400 VA	5500 VA	6600 VA	8800 VA	11000 VA	13200 VA	16500 VA
Maximum Output Current	6.4 A	8 A	9.6 A	12.8 A	16.0 A	19.2 A	24.0 A
Rated AC Voltage/Range	3/PE 380, 400;+/-10%; 3/N/PE 380, 400;+/-10%;						
Grid Frequency/Range	50Hz/60Hz ; ±5Hz						
Adjustable Power Factor[cos φ]	0.8leading ~0.8lagging						
Output THDi(@Rated Output)	<3%						
Efficiency							
Max.Efficiency	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%
Euro Efficiency	97.6%	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Protection							
DC Insulation Monitoring	Integrated						
Input Reverse Polarity Protection	Integrated						
Anti-island Protection	Integrated						
Residual Current Monitoring	Integrated						
Over-heat Protection	Integrated						
AC Overcurrent Protection	Integrated						
AC Short-circuit Protection	Integrated						
AC Overvoltage Protection	Integrated						
DC Surge Protection	Integrated(Type III)						
AC Surge Protection	Integrated(Type III)						
General Data							
Size(W×H×D)	455*390*160 mm			455*390*175 mm			455*390*190 mm
Weight	16.3 kg	16.3 kg	16.3 kg	18.3 kg	18.3 kg	18.3 kg	21.6 kg
User Interface	LCD						
Communication	RS485(Standard), Wifi or GPRS						
Ambient Temperature Range	-25 °C ~ 60 °C						
Relative Humidity	0~100%						
Operating Altitude	≤4000m						
Standby Self Consumption	<0.2W						
Topology	Transformerless						
Cooling	Natural Convection						
Protection Grades	IP65						
Noise	< 30 dB						
Warranty	5 /7/10 years						
Certifications	VDE-AR-N-4105, VDE 0126-1-1, G98, EN50549, PEA, AS4777 ,CEI0-21,IEC61727,IEC62116,IEC60068,IEC61683 IEC 62109-1, IEC 62109-2 EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-4-16, EN 61000-4-18, EN 61000-4-29						



R3 Pro Series

(THREE PHASE ON-GRID INVERTER)

NAC20K-DT/NAC25K-DT/NAC30K-DT/NAC33K-DT

Model	NAC20K-DT	NAC25K-DT	NAC30K-DT	NAC33K-DT
DC Input Data				
Max. Recommended PV Power	26000 Wp	32500 Wp	39000 Wp	42900 Wp
Maximum DC Input Voltage	1000 V			
MPPT Voltage Range	250 ~ 950 V			
Start-up voltage	350 V			
No. of MPP Trackers	2			
No. of Input Strings Per Tracker	2/2	2/3	3/3	3/3
Max. DC Input Current	20 A / 20 A	20 A / 30 A	30 A / 30 A	30 A / 30 A
DC Switch	Integrated			
AC Output Data				
Rated AC Power	20000 W	25000 W	30000 W	33000 W
Max.output Power	22000 VA	27600 VA	30000 VA	33000 VA
Maximum Output Current	32 A	40 A	43 A	48 A
Rated AC Voltage/Range	3/PE 380, 400;+/-10%; 3/N/PE 380, 400;+/-10%;			
Grid Frequency/Range	50Hz/60Hz ; ±5Hz			
Adjustable Power Factor[cos φ]	0.8leading ~0.8lagging			
Output THDi(@Rated Output)	<3%			
Efficiency				
Max.Efficiency	98.3%	98.4%	98.5%	98.5%
Euro Efficiency	98.0%	98.1%	98.2%	98.2%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
Protection				
DC Insulation Monitoring	Integrated			
Input Reverse Polarity Protection	Integrated			
Anti-island Protection	Integrated			
Residual Current Monitoring	Integrated			
Over-heat Protection	Integrated			
AC Overcurrent Protection	Integrated			
AC Short-circuit Protection	Integrated			
AC Overvoltage Protection	Integrated			
DC Surge Protection	Integrated(Type II)			
AC Surge Protection	Integrated(Type II)			
General Data				
Size(W×H×D)	660*460*255 mm			
Weight	38 kg			
User Interface	LCD			
Communication	RS485(Standard), Wifi or GPRS			
Ambient Temperature Range	-25 C ~ 60 C			
Relative Humidity	0~100%			
Operating Altitude	≤4000m			
Standby Self Consumption	<0.2W			
Topology	transformerless			
Cooling	Natural Convection	Natural Convection	Natural Convection	Fan Cooling
Protection Grades	IP65			
Noise	< 35 dB			
Warranty	5 /7/10 years			
Certifications	VDE-AR-N-4105, VDE 0126-1-1, G98, EN50549, PEA, AS4777 ,CEI0-21,IEC61727,IEC62116,IEC60068,IEC61683 IEC 62109-1, IEC 62109-2 EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-4-16, EN 61000-4-18, EN 61000-4-29			



R3 Plus Series

(THREE PHASE ON-GRID INVERTER)

NAC60K /NAC70K /NAC80K

Model	NAC60K	NAC70K	NAC80K
DC Input Data			
Max. Recommended PV Power	78000 Wp	91000 Wp	104000 Wp
Maximum DC Input Voltage	1100 V		
MPPT Voltage Range	200 - 1000 V		
Start-up Voltage	250 V		
No. of MPP Trackers	4		
No. of Input Strings Per Tracker	3/3/3/3	3/3/3/3	4/4/3/3
Max. DC Input Current	33A/33A/33A/33A	33A/33A/33A/33A	44A/44A/33A/33A
DC Switch	Integrated		
AC Output Data			
Rated AC Power	60000 W	70000 W	80000 W
Max.output Power	66000 VA	77000 VA	88000 VA
Maximum Output Current	95.3 A	111.1 A	127 A
Rated AC Voltage/Range	3/PE 380, 400;+/-10%; 3/N/PE 380, 400;+/-10%;		
Grid Frequency/Range	50Hz/60Hz ; ±5Hz		
Adjustable Power Factor[cos φ]	0.8leading -0.8lagging		
Output THDi(@Rated Output)	<3%		
Efficiency			
Max.Efficiency	98.6%	99.0%	99.0%
Euro Efficiency	98.2%	98.5%	98.5%
MPPT Efficiency	99.9%	99.9%	99.9%
Protection			
DC Insulation Monitoring	Integrated		
Input Reverse Polarity Protection	Integrated		
Anti-island Protection	Integrated		
Residual Current Monitoring	Integrated		
Over-heat Protection	Integrated		
AC Overcurrent Protection	Integrated		
AC Short-circuit Protection	Integrated		
AC Overvoltage Protection	Integrated		
DC Surge Protection	Integrated		
AC Surge Protection	Integrated		
General Data			
Size(W×H×D)	640*841*285 mm		
Weight	76 kg	76 kg	79 kg
User Interface	LCD		
Communication	RS485(Standard), Wifi or GPRS		
Ambient Temperature Range	-25 °C ~ 60 °C		
Relative Humidity	0~100%		
Operating Altitude	≤4000m		
Standby Self Consumption	<1W		
Topology	transformerless		
Cooling	Fan Cooling		
Protection Grades	IP65		
Noise	< 60 dB		
Warranty	5 /7/10 years		
Certifications	VDE-AR-N-4105, VDE 0126-1-1, G98, EN50549, PEA, AS4777, CEI0-21,IEC61727,IEC62116,IEC60068,IEC61683 IEC 62109-1, IEC 62109-2 EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-4-16, EN 61000-4-18, EN 61000-4-29		



N1 HL Series

(Hybrid Inverter Compatible with 48V battery)

ESC3000-DS / ESC3680-DS / ESC5000-DS

Model	ESC3000-DS	ESC3680-DS	ESC5000-DS
DC Input Data			
Max. Recommended PV Power	3300 Wp	4000 Wp	5500 Wp
Max.DC Input Voltage		580V	
MPPT Voltage Range		100~550V	
Start-up Voltage		110 V	
Max. DC Input Current		12A /12A	
No. of MPP Trackers		2	
No. of Input Strings Per Tracker		1	
DC Switch		Integrated	
AC Output data(On-grid)			
Rated AC Power	3000 W	3680 W	4600 W
Max.output Power	3000 VA	3680 VA	4600 VA
Max. AC Current	13 A	16 A	21.7 A
Rated AC Voltage/ Range		220V/230V; 180-270V	
Grid Frequency/ Range		50HZ/60HZ ; ±5Hz	
Adjustable Power Factor[cos φ]		0.8leading ~0.8lagging	
Output THDi(@Rated Output)		<3%	
EPS Output(With Battery)			
EPS Rated Power		3000 W	
EPS Rated Voltage		220V/230V	
EPS Rated Frequency		50 / 60 Hz	
EPS Rated Current		13 A	
Output THDi(@Rated Output)		<3%	
Automatic Switch Time		<5s	
Peak Power,Duration		4500W,10 s	
Ourput DC(Battery)			
Battery Type		Lead-acid battery/lithium battery	
Recommended Battery Voltage		48 V	
Battery Voltage Range		40~60 V	
Max. Charging/Discharging Power		3000W	
Max.Charging/Discharging Current		60 A	
Communciation Interface		CAN	
E ciency			
Max. Efficiency	97.60%	97.60%	97.60%
Euro Efficiency	97.00%	97.00%	97.00%
MPPT Efficiency	99.90%	99.90%	99.90%
Battery Charge/Discharge Efficiency	94.00%	94.00%	94.00%
Protection			
DC Insulation Monitoring		Integrated	
Input Reverse Polarity Protection		Integrated	
Anti-island Protection		Integrated	
Residual Current Monitoring		Integrated	
Over-heat Protection		Integrated	
AC Overcurrent Protection		Integrated	
AC Short-circuit Protection		Integrated	
AC Overvoltage Protection		Integrated	
DC Surge Protection		Integrated(Type III)	
AC Surge Protection		Integrated(Type III)	
General data			
Size(W×H×D)		526*528*178 mm	
Weight		29.5 kg	
User Interface		LCD	
Communication		Ethernet(standard), RS485 or Wifi or GPRS	
Ambient Temperature Range		-25 C ~ 60 C	
Relative Humidity		0-100%	
Operating Altitude		≤4000m	
Standby Self Consumption		<1W	
Topology		transformerless	
Cooling		Natural Convection	
Protection Grades		IP65	
Noise		<35db	
Warranty		5 /7/10 years	
Certifications			



PowerCase

(LFP Battery)

PC-3.58 / PC-7.16 / PC-10.74 / PC-14.32

Model	PC-3.58	PC-7.16	PC-10.74	PC-14.32
Battery Type	LiFePO4			
Battery Module	1 Module	2 Modules	3 Modules	4 Modules
Nominal Characteristics				
Nominal Voltage	51.2V			
Battery Capacity	70Ah	140Ah	210Ah	280Ah
Nominal Battery Energy	3.58kWH	7.16kWH	10.74kWH	14.32kWH
Electrical Specification				
Voltage Range	43.2V-57.6V			
Max.Charging Current	50A	100A	100A	100A
Max.Discharging Current	50A	100A	100A	100A
Mechanical Specifications				
Net Weight	59kg	94kg	59kg+94kg	94kg+94kg
Demension	536*170*1037mm			
Ingress Rating	IP65			
Color	White(Customizable)			
Cooling	Natural Convection			
Communication Specification				
Communication Port	CAN			
Operation Conditions				
Operation Temperature Range	0-55 C			
Operation Humidity	< 100%			
Altitude	< 2000m			
Calender Life	>6000 Cycles, 25 C			
Protection				
Over Charge/Discharge Protection	Integrated			
OverCurrent Protection	Integrated			
Overtemperature Protection	Integrated			
Short Circuit Protection	Integrated			
Certi cation				
Safety	CE/EN62619			
EMC	EN61000			
Transport	UN38.3			
Environment	ROHS			

