



# R1 Baby Series ( SINGLE PHASE GRID ON )

NAC1K-SS/NAC1K5-SS/NAC2K-SS/NAC2K5-SS/NAC3K-SS

Model	NAC1K-SS	NAC1K5-SS	NAC2K-SS	NAC2K5-SS	NAC3K-SS
Rated AC power	1000 W	1500 W	2000 W	2500 W	3000 W
Maximum AC power	1100 VA	1650 VA	2200 VA	2750 VA	3200 VA
<b>Input</b>					
Maximum input power	1200 W	1800 W	2400 W	3000 W	3400 W
Maximum DC input voltage	500 V				
MPPT operating voltage range	90 ~ 500 V				
Startup voltage	150 V				
Min. DC Voltage	70 V				
Number of MPPT	1				
Maximum input current	11 A	11 A	11 A	11 A	11 A
Number of DC Connection Sets per MPPT	1				
DC terminal type	MC4				
<b>Output</b>					
Rated output current	4.4 A	6.6 A	8.7 A	10.9 A	13.0 A
Maximum output current	4.8 A	7.2 A	9.6 A	12 A	14 A
Rated power grid voltage	230V/160-290V ; L + N + PE				
Grid frequency/ range	50HZ/60HZ 45-55HZ/55-65HZ				
AC voltage Range	160 ~ 290 V (May vary as per corresponding country's grid standard)				
power factor	0.8leading ~0.8lagging ( full load)				
DC current injection	< 0.25%				
THDi	< 2%				
<b>Efficiency</b>					
Maximum efficiency	97.2%	97.2%	97.2%	97.2%	97.2%
European efficiency	96.4%	96.6%	96.6%	96.6%	96.6%
MPPT Accuracy	99.9%	99.9%	99.9%	99.9%	99.9%
<b>Protect</b>					
DC Switch	Optional				
Insulation monitoring	Integrated				
DC reverse-polarity protection	Integrated				
AC over current protection	Integrated				
Anti-Islanding protection	Integrated				
Residual current detection	Integrated				
Thermal protection	Integrated				
<b>General Parameters</b>					
Dimensions(W×H×D)	283 x 343 x 119 mm				
Weight	6.5 kg	6.5 kg	7 kg	8 kg	8 kg
Installation method	Wall mounted installation				
Display	2 x 16 character LCD				
Communication	WiFi				
Ambient temperature range	-25 °C ~ 60 °C				
Relative humidity	0~100% (no condensation)				
Operating altitude	≤4000m				
Standby Self Consumption	0				
Topology	transformerless				
Heat dissipation	Natural air cooling				
Protection degree	IP65				
Noise emission	< 30 dB				
Warranty	Standard 5 years 10/15/20/25 years extension optional				
Certifications	IEC 62109-1, IEC 62109-2, EN 61000-2, EN 61000-3, AS/NZS 3100,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, VDE-AR-N-4105, VDE 0126-1-1+A1, CE, G83/2, UTE C15-712-1, MEA, PEA, AS4777, NB/T 32004-2013, IEC60068, IEC61683, IEC61727,IEC62116,EN50438				



# R1 Kiddy Series ( SINGLE PHASE GRID ON )

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

Model	NAC4K-DS	NAC5K-DS	NAC6K-DS	NAC7K-DS	NAC8K-DS
Rated AC power	4000 W	5000 W	6000 W	7000 W	8000 W
Maximum AC power	4400 VA	5500 VA	6600 VA	7700 VA	8000 VA
<b>Input</b>					
Maximum input power	4700 W	5800 W	7000 W	8100 W	8600 W
Maximum DC input voltage	600 V				
MPPT operating voltage range	100 ~ 550 V				
Startup voltage	120 V				
Min. DC Voltage	70 V				
Number of MPPT	2				
Maximum input current	10 A / 10 A	10 A / 10 A	10 A / 10 A	20 A / 10 A	20 A / 10 A
Number of DC Connection Sets per MPPT	1 / 1			2 / 1	
DC terminal type	MC4				
<b>Output</b>					
Rated output current	17.4 A	21.8 A	26.1 A	30.5 A	34.8 A
Maximum output current	19.2 A	24 A	28.7 A	33.5 A	34.8 A
Rated power grid voltage	230 V ; L + N + PE				
Rated power grid frequency	50 Hz / 60 Hz				
AC voltage Range	160 ~ 290 V(May vary as per corresponding country's grid standard)				
Frequency range	45-55HZ / 55-60HZ				
power factor	>0.99 , -0.8~ 0.8 controllable				
DC current injection	< 0.25%				
THDi	< 2%				
<b>Efficiency</b>					
Maximum efficiency	97.8%	97.8%	97.8%	98.1%	98.1%
European efficiency	97.2%	97.2%	97.2%	97.5%	97.5%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%	99.5%
<b>Protect</b>					
DC Switch	Optional				
Insulation monitoring	Integrated				
DC reverse-polarity protection	Integrated				
AC over current protection	Integrated				
Anti-Islanding protection	Integrated				
Residual current detection	Integrated				
Thermal protection	Integrated				
SPD	MOV UL: E327997/CSA: 246579/VDE: 40027827				
<b>General Parameters</b>					
Dimensions(W×H×D)	395 x 330 x 185 mm				
Weight	14 kg	15 kg	15 kg	16 kg	16 kg
Installation method	Wall mounted installation				
Display	LCD				
Communication	Wifi				
Ambient temperature range	-25 °C ~ 60 °C				
Relative humidity	0~98% (no condensation)				
Operating altitude	≤4000m				
Standby Self Consumption	<0.2W				
Topology	transformerless				
Heat dissipation	Natural	Natural	Natural	Fan	Fan
Protection degree	IP65				
Noise emission	< 30 dB				
Warranty	Standard 5 years 10/15/20/25 years extension optional				
Certifications	IEC 62109-1, IEC 62109-2, EN 61000-2, EN 61000-3, AS/NZS 3100, 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, VDE-AR-N-4105, VDE 0126-1-1+A1, CE, GB3/2, UTE C15-712-1, MEA, PEA, AS4777, NB/T 32004-2013, IEC60068, IEC61683, IEC61727, IEC62116, EN50438				



# R3 Micro Series ( THREE PHASE GRID ON )

NAC6K-DT/NAC8K-DT/NAC10K-DT/NAC12K-DT/NAC15K-DT

Model	NAC6K-DT	NAC8K-DT	NAC10K-DT	NAC12K-DT	NAC15K-DT
Rated AC power	6000 W	8000 W	10000 W	12000 W	15000 W
Maximum AC power	6600 VA	8800 VA	11000 VA	13200 VA	16500 VA
<b>Input</b>					
Maximum input power	7200 W	9600 W	12000 W	14000 W	18000 W
Maximum DC input voltage	1000 V				
MPPT operating voltage range	250 ~ 950 V				
Startup voltage	250 V				
Min. DC Voltage	200 V				
Number of MPPT	1	2			
Maximum input current	12.5 A	12.5 A/12.5A	12.5 A/12.5A	12.5 A/12.5A	20 A/12.5A
No. of Input Strings per Tracker	1	1 / 1	1 / 1	1 / 1	2 / 1
DC terminal type	MC4				
<b>Output</b>					
Rated output current	8.7 A	11.6 A	14.5 A	17.4 A	21.8 A
Maximum output current	9.6 A	12.8 A	16.0 A	19.2 A	24.0 A
Rated power grid voltage	400V/320-480V; 3+N+PE,3+PE				
Grid frequency/ range	50 Hz / 60 Hz 45 ~ 55 Hz / 55 ~ 65 Hz				
AC voltage Range	320 ~ 480 V (May vary as per corresponding country's grid standard)				
power factor	0.8leading ~0.8lagging ( full load)				
THDi	< 3%				
<b>Efficiency</b>					
Maximum efficiency	98.3%	98.3%	98.3%	98.3%	98.3%
European efficiency	97.6%	97.6%	97.8%	97.8%	97.8%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
<b>Protect</b>					
DC Switch	Integrated				
Insulation monitoring	Integrated				
DC reverse-polarity protection	Integrated				
AC over current protection	Integrated				
Anti-Islanding protection	Integrated				
Residual current detection	Integrated				
SPD	MOV UL: E327997/CSA: 246579/VDE: 40027827				
<b>General Parameters</b>					
Dimensions(W×H×D)	455 x 390 x 190 mm				
Weight	16 kg	16 kg	18 kg	18 kg	21 kg
Installation method	Wall mounted installation				
Display	3.5 inches character LCD				
Communication	RS485(optional)/WIFI (optional)/GPRS(optional)				
Ambient temperature range	-25 °C ~ 60 °C				
Relative humidity	0~98%( no condensation)				
Operating altitude	≤4000m				
Standby Self Consumption	< 0.2 W				
Topology	transformerless				
Heat dissipation	Natural	Natural	Natural	Fan	Fan
Protection degree	IP65				
Noise emission	< 30 dB				
Warranty	Standard 5 years 10/15/20/25 years extension optional				
Certifications	IEC 62109-1, IEC 62109-2, EN 61000-2, EN 61000-3, AS/NZS 3100,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 VDE-AR-N-4105, VDE 0126-1-1+A1, CE, G83/2, UTE C15-712-1, MEA, PEA, AS4777, NB/T 32004-2013, IEC60068, IEC61683, IEC61727,IEC62116,EN50438				

# R3 Pro Series (THREE PHASE GRID ON)

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



Model	NAC20K-DT	NAC25K-DT	NAC30K-DT	NAC33K-DT
Rated AC power	20000 W	25000 W	30000 W	33000 W
Maximum AC power	22000 VA	27600 VA	30000 VA	33000 VA
<b>Input</b>				
Maximum input power	26000 W	32500 W	37000 W	39000 W
Maximum DC input voltage	1000 V			
MPPT operating voltage range	250 ~ 950 V			
Startup voltage	350 V			
Min. DC Voltage	200 V			
Number of MPPT	2			
Maximum input current	20 A / 20 A	20 A / 30 A	30 A / 30 A	30 A / 30 A
Number of DC Connection Sets per MPPT	2 / 2	2 / 3	3 / 3	3 / 3
DC terminal type	MC4			
<b>Output</b>				
Rated output current	29 A	36.5 A	43 A	48 A
Maximum output current	32 A	40 A	43 A	48 A
Rated power grid voltage	400 V; 3+N+PE, 3+PE			
Rated power grid frequency	50HZ/60HZ 45~55HZ/55~65HZ			
AC voltage Range	320 ~ 480 V ( May vary as per corresponding country's grid standard )			
power factor	0.8leading ~0.8lagging ( full load)			
DC current injection	< 0.5%			
THDi	< 3%			
<b>Efficiency</b>				
Maximum efficiency	98.3%	98.4%	98.5%	98.5%
European efficiency	98.0%	98.1%	98.2%	98.2%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%
<b>Protect</b>				
DC Switch	Integrated			
Insulation monitoring	Integrated			
DC reverse-polarity protection	Integrated			
AC over current protection	Integrated			
Anti-Islanding protection	Integrated			
Residual current detection	Integrated			
SPD protection	Standard (Type II) , IEC61643-11:2011/IEC61643-11:2012/UL1449 Ed.4/ EN50539-11:2013			
<b>General Parameters</b>				
Dimensions(W×H×D)	660 x 460 x 255 mm			
Weight	38 kg			
Installation method	Wall mounted installation			
Display	3.5 Inch LCD			
Communication	RS485(standard),WIFI (optional)/GPRS(optional)			
Ambient temperature range	-25 °C ~ 60 °C			
Relative humidity	0~98%( no condensation )			
Operating altitude	≤ 4000m			
Standby Self Consumption	< 0.2W			
Topology	transformerless			
Heat dissipation	Natural	Natural	Natural	Fan
Protection degree	IP65			
Noise emission	<35dB			
Warranty	5 year(Standard),10/15/20/25 year(Optional)			
Certifications	IEC 62109-1, IEC 62109-2, EN 61000-2, EN 61000-3, AS/NZS 3100,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, VDE-AR-N-4105, VDE 0126-1-1+A1, CE, G83/2, UTE C15-712-1, MEA, PEA, AS4777, NB/T 32004-2013,IEC60068, IEC61683, IEC61727,IEC62116,EN50438			



# R3 Plus Series ( THREE PHASE GRID ON )

NAC50K /NAC60K /NAC70K /NAC80K

Model	NAC50K	NAC60K	NAC70K	NAC80K
<b>DC Input Data</b>				
Recommended Max.DC Power	57000W	68000W	80500W	92000W
Max.DC Voltage	1100V	1100V	1100V	1100V
MPPT voltage Range	200-1000V			
Start-up Voltage	250V			
Min. DC Voltage	200V			
No. of MPP Trackers	3		4	
No. of Input Strings per Tracker	4/4/4	4/4/4	3/3/3/3	4/4/3/3
Max. DC Input Current	38A/38A/38A	40A/40A/40A	33A/33A/33A/33A	44A/44A/33A/33A
Type of DC Connector	MC4			
DC Switch	Integrated			
<b>AC Output Data</b>				
Rated AC Power	50000W	60000W	70000W	80000W
Max.output power	55000W	66000W	77000W	88000W
Rated AC Current	72A	87A	101A	115.5A
Max. AC Current	80A	95A	111.1A	127A
Nominal AC Voltage/Range	230V/400, 320-480Vac			
Grid frequency/ range	50HZ/60HZ 45~55HZ/55~65HZ			
Power Factor[cos φ]	0.8leading ~0.8lagging ( full load)			
Total Harmonic Distortion [THDI]	<3%			
Number of output phases	3W+N+PE,3W+PE			
<b>Efficiency</b>				
Max.Efficiency	99.00%	99.00%	99.00%	99.00%
Euro Efficiency	98.50%	98.50%	98.50%	98.50%
MPPT Accuracy	99.90%	99.90%	99.90%	99.90%
<b>Protection</b>				
DC Insulation Monitoring	Integrated			
Input Reverse Polarity Protection	Integrated			
Output Over Current Protection	Integrated			
Anti-island Protection	Integrated			
GFCI Monitoring	Integrated			
OverHeat Protection	Integrated			
DC reverse connection protection	Integrated			
DC surge protection	Optional Standard (TypeII )			
AC surge protection	Optional Standard (TypeII )			
String failure detection	Optional			
<b>General Data</b>				
Size(Width*Height*Depth)	630×815×280mm	640×841×285mm	640×841×285mm	640×841×286mm
Weight	62KG	76KG	76KG	76KG
Mounting	Wall Hangings			
User Interface	LCD			
Communication	RS485(standard) ,WiFi(optional),GPRS(optional)			
Ambient Temperature Range	-25 °C ~ 60 °C (> 45 °C Derating Operation)			
Relative Humidity	0-100% (No condensation)			
Operating Altitude	4000m (>3000m derating Operation)			
Standby Self Consumption	<1W			
Topology	Transformerless			
Cooling	Intelligent Air Cooling	Intelligent Air Cooling	Intelligent Air Cooling	Intelligent Air Cooling
Protection Grades	IP65			
Noise	<60db			
Warranty	5 year(Standard),10/15/20/25 year(Optional)			
<b>Certifications &amp; Standards</b>				
VDE-AR-N-4105, VDE 0126-1-1+A1, CE, G59/3, UTE C15-712-1, MEA, PEA, AS4777, EN50438,NB/T 32004-2018,CEI-021,IEC.61727 IEC 62109-1, IEC 62109-2,AS/NZS 3100, 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 Hybrid Series ( Hybrid Inverter )

ESC3000-DS / ESC3680-DS / ESC5000-DS

Model	ESC3000-DS	ESC3680-DS	ESC5000-DS
<b>PV input data</b>			
Max. PV-generator power	3300 W	4000 W	5000 W
Max. DC Voltage	580V		
MPPT Voltage Range	100~500V		
Start-up Voltage	110 V		
Min. DC Voltage	75V		
Max. DC current	12A /12A		
Numbers of MPPT	2		
Strings per MPPT	1		
Type of DC Connector	MC4		
<b>AC Output data(On-grid)</b>			
Nominal AC power	3000 W	3680 W	4600 W
Max. AC Power	3000 W	3680 W	4600 W
Max. AC Current	13 A	16 A	21.7 A
Nominal AC Voltage/ Range	230V/180-270V		
Grid frequency/ range	50HZ/60HZ 45~55HZ/55~65HZ		
Output Power factor	0.8leading ~0.8lagging ( full load)		
Output THDi(@Nominal Output)	<3%		
<b>AC Output data(Back-up)</b>			
Max.Output Apparent Power	3000 W		
Nominal Output Voltage	230 V		
Nominal Output Frequency	50 / 60 Hz		
Max.Output Current	13 A		
Harmonic distortion [THD] at rated output	<3%		
Automatic Switch Time	<5s		
Peak power[W],Duration	4500VA,10 s		
<b>Battery Input Data</b>			
Battery Type	Lead-acid battery/lithium battery		
Nominal Battery Voltage	48 V		
Battery Voltage range	40~60 V		
Max.Charging/Discharging Current	60 A		
Communication interfaces	CAN		
<b>Efficiency</b>			
Max. efficiency	97.60%	97.60%	97.60%
Euro efficiency	97.00%	97.00%	97.00%
MPPT adaptation efficiency	99.90%	99.90%	99.90%
<b>General data</b>			
Dimension[W*H*D]	526*528*178 mm		
Weight	29.5 kg		
Mounting	Wall Hangings		
User Interface	LCD		
Communication	Ethernet(standard), RS485(Optional), Wifi(Optional)		
Operating Temperature Range	-25 C ~ 60 C		
Relative Humidity	0-98% (No condensation)		
Operating Altitude	≤4000m		
Standby Self Consumption	<1W		
Topology	transformerless		
Cooling	Natural Convection		
Protection Grades	IP65		
Noise	<35db		
Warranty	5 year(Standard),10/15/20/25 year(Optional)		
Certifications	IEC 62109-1, IEC 62109-2,AS/NZS 3100,VDE-AR-N-4105, VDE 0126-1-1+A1, CE, G59/3, UTE C15-712-1,MEA, PEA, AS4777, EN50438,NB/T 32004-2013,CEI-021 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 IEC60068, IEC61683, IEC61727,IEC62116,EN50438		