PRODUCT INTRODUCTION

Power Conversion System

•CRRC-APCS-3450



Efficient and Stable

Advanced ANPC three-level topology, max. efficiency ≥99%; DC1500V system with wide input voltage range High system reliability, long-lasting 1.1 times overload operation, 1.2 times overload operation for no less than 10min

Intelligent O&M

Modular design, easy for maintenance Multiple parallel connection, flexible power expansion Intelligent online debugging and upgrading, fault recording and fast locating

Flexible Application

C5 anti-corrosion degree, adjust to humid environmental conditions Applicable to a variety of energy storage application scenarios(user side, grid side and power generation side) IP65 protection degree, applicable to various harsh environments

Grid Friendly

Support high/low voltage ride through Comprehensive grid support functions (black start, SVG, VSG, PQ, VF,etc) Equipped with multiple communication interfaces for flexible networking

A.AC output currentr 3150.kW 210.kW 220.kW Max.AC output currentr 3175A 3175A 3175A 2301A Nominal operating voltage 690V 630V 550V 690V Allowable grid voltage range 586.5-759V 535.5-693V 467.5-605V 586.5-759V Nominal grid frequency 50Hz/60Hz 50Hz/60Hz 50Hz/60Hz Power factor at nominal power/Adjustable power factor <_299% 50Hz/60Hz 50Hz/60Hz Harmonic(THD) -<5% 50Kz 50Hz/60Hz 500V 1000V-1500V 100V-1500V 100V-1500V 100V-1500V		AC s	ide				
Official operating voltage Official	Nominal powe	3450kW	3150kW	2750kW	2500kW		
Idewable grid voltage range 000V 000V <t< td=""><td>Max.AC output currentr</td><td>3175A</td><td>3175A</td><td>3175A</td><td>2301A</td></t<>	Max.AC output currentr	3175A	3175A	3175A	2301A		
Bookshow	Nominal operating voltage	690V	630V	550V	690V		
Prover factor at nominal power/Adjustable power factor ≥0.99/(1 leading-1 lagging) Harmonic(THDi) <55%	Allowable grid voltage range	586.5-759V	535.5-693V	467.5-605V	586.5-759V		
Harmonic(THDi) <5% Max. efficiency ≥99% DC side Max.DC voltage 1500V Full power voltage range 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V Starpe range 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V Ac DC current 3872A 3864A 3858A 2806A DC Protection	Nominal grid frequency	50Hz/60Hz					
Max. efficiency >30% Max. efficiency >30% Max. efficiency >299% DC side DC side Max. DC voltage 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V Full power voltage range 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V ADC current 3872A 3864A 3858A 2806A Protection Circuit breakers Surge protection Circuit breakers Surge protection OC Type II / AC Type II Grid monitoring/ground fault monitoring Yes/Yes Overheating protection Yes/Yes Overheating protection Yes/Yes Overheating protection Yes/Yes Overheating antient temperature range -40°C~60°C (derating over 45°C) Allowable relative humidity range 0~100% Allowable relative humidity range Porced air cooling <td colspa<="" td=""><td>Power factor at nominal power/Adjustable power factor</td><td colspan="5">≥0.99/(1 leading-1 lagging)</td></td>	<td>Power factor at nominal power/Adjustable power factor</td> <td colspan="5">≥0.99/(1 leading-1 lagging)</td>	Power factor at nominal power/Adjustable power factor	≥0.99/(1 leading-1 lagging)				
DC side DC side Max.DC voltage 1500V Full power voltage range 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V ax.DC current 3872A 3864A 3858A 2806A Protection Load break switch + fuse protector AC Protection Load break switch + fuse protector AC Protection Corrent is protector AC Protection Corrent is protection AC Protection Surge protection Ger of monitoring/ground fault monitoring Yes Overheating protection Yes Overheating protection Yes Overheating protection Yes Overheating anticity range Overheating over 45 °C (derating over 45 °C) Allowable relative humidity range Overheating over 45 °C (derating over 45 °C) Fo	Harmonic(THDi)	<5%					
Max.DC voltage 1500V Full power voltage range 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V ax.DC current 3872A 3864A 3858A 2806A Protection Current 2806A DC Protection Load break switch + fuse protector AC Protection Circuit breakers Surge protection Circuit breakers Yes/Yes Note: Yes Overheating protection Yes Overheating ambient temperature range -40°C~60°C (derating over 45°C) Allowable relative humidity range 0~100% Degree of protection IP65 Cooling method IP65 Coling method IP65 Standard compliance IP65	Max. efficiency	≥99%					
Full power voltage range 1000V~1500V 915V-1500V 800V-1500V 1000V~1500V ax.DC current 3872A 3864A 3858A 2806A Protection DC Protection Circuit break switch + fuse protector AC Protection Circuit breakers Surge protection Ger dott monitoring/ground fault monitoring Yes/Yes Insulation monitoring Overheating protection Yes Overheating over 40°C~60°C (der ating over 45°C) Allowable relative humidity range 0~100% Max.operating altitude 20~100% IP65 Coling method Expention IP65 Sandard compliance <		DC sid	le				
ax.DC current 3872A 3864A 3858A 2806A Protection DC Protection Load break switch + fuse protector AC Protection Circuit breakers Surge protection DC Type II / AC Type II Grid monitoring/ground fault monitoring Yes/Yes Insulation monitoring Yes Overheating protection Yes Others Operating ambient temperature range ALlowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 45°) Degree of protection IP65 Cooling method 2716mm*2279mm*1696mm Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight Standard compliance	Max.DC voltage	1500V					
Protection Protection AC Protection Circuit breakers Surge protection DC Type II / AC Type II Grid monitoring/ground fault monitoring Yes/Yes Insulation monitoring Yes Overheating protection Yes Operating ambient temperature range -40 C ~60 C (derating over 45 C) Allowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight ≤2450kg Communication RS485/Ethernet/CAN Standard compliance CE, IEC 62477-1, IEC 61000-6-2,	Full power voltage range	1000V~1500V	915V-1500V	800V-1500V	1000V~1500V		
DC ProtectionLoad break switch + fuse protectorAC ProtectionCircuit breakersSurge protectionDC Type II / AC Type IIGrid monitoring/ground fault monitoringYes/YesInsulation monitoringYesOverheating protectionYesOverheating protectionYesOverheating protectionYesOperating ambient temperature range-40 C ~60 °C (derating over 45 °C)Allowable relative humidity range0~100%Max.operating altitude0~100%Degree of protectionIP65Cooling methodForced air coolingDimensions(W*H*D)2716mm*2279mm*1696mmWeightStandard complianceCommunicationRS485/Ethernet/CAN	ax.DC current	3872A	3864A	3858A	2806A		
AC Protection Circuit breakers Surge protection DC Type II / AC Type II Grid monitoring/ground fault monitoring Yes/Yes Insulation monitoring Yes Overheating protection Yes Overheating protection Yes Overheating protection Yes Operating ambient temperature range -40°C~60°C (derating over 45°C) Allowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight Standard compliance		Protecti	on				
Surge protection DC Type II / AC Type II Grid monitoring/ground fault monitoring Yes/Yes Insulation monitoring Yes Overheating protection Yes Overheating protection Yes Operating ambient temperature range -40 ° ~60 ° (derating over 45 °) Allowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight Standard compliance	DC Protection	Load break switch + fuse protector					
Grid monitoring/ground fault monitoring Yes/Yes Insulation monitoring Yes Overheating protection Yes Others Operating ambient temperature range -40°C~60°C (derating over 45°C) Allowable relative humidity range 0~100% Max.operating altitude 0~100% Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight <42450kg	AC Protection	Circuit breakers					
Insulation monitoring Yes Overheating protection Yes Operating ambient temperature range -40℃~60℃(derating over 45℃) Allowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight Standard compliance	Surge protection	DC Type II / AC Type II					
Overheating protection Yes Others Operating ambient temperature range -40°C~60°C (derating over 45°C) Allowable relative humidity range 0~100% Max.operating altitude 4500m (derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight ≤2450kg Communication RS485/Ethernet/CAN Standard compliance CE, IEC 62477-1, IEC 61000-6-2,	Grid monitoring/ground fault monitoring	Yes/Yes					
Others Operating ambient temperature range -40 ℃ ~60 ℃ (derating over 45 ℃) Allowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight <2450kg	Insulation monitoring	Yes					
Operating ambient temperature range -40°C~60°C (derating over 45°C) Allowable relative humidity range 0~100% Max.operating altitude 4500m(derating over 3000m) Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight <42450kg	Overheating protection	Yes					
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Degree of protection IP65 Cooling method Forced air cooling Dimensions(W*H*D) 2716mm*2279mm*1696mm Weight <2450kg	Allowable relative humidity range	0~100%					
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Weight ≤2450kg Communication RS485/Ethernet/CAN Standard compliance CE, IEC 62477-1, IEC 61000-6-2,	Cooling method	Forced air cooling					
Communication RS485/Ethernet/CAN Standard compliance CE, IEC 62477-1, IEC 61000-6-2,	Dimensions(W*H*D)		2716mm*227	'9mm*1696mm			
Standard compliance CE, IEC 62477-1, IEC 61000-6-2,	Weight		≤24	50kg			
	Communication	RS485/Ethernet/CAN					
IEC 61000-6-4,GB/T 34120,GB/T 34133	Standard compliance	CE, IEC 62477-1, IEC 61000-6-2,					
			IEC 61000-6	6-4,GB/T 34120,	GB/T 34133		

Nominal powe		ide			
	3450kW	3150kW	2750kW	2500kW	
Max.AC output currentr	3175A	3175A	3175A	2301A	
Nominal operating voltage	690V	630V	550V	690V	
Allowable grid voltage range	586.5-759V	535.5-693V	467.5-605V	586.5-759V	
Nominal grid frequency	50Hz/60Hz				
Power factor at nominal power/Adjustable power factor	≥0.99/(1 leading-1 lagging)				
Harmonic(THDi)	<5%				
Max. efficiency		≥9	9%		
	DC sid	le			
Max.DC voltage	1500V				
Full power voltage range	1000V~1500V	915V-1500V	800V-1500V	1000V~1500V	
ax.DC current	3872A	3864A	3858A	2806A	
	Protecti	on			
DC Protection	Load break switch + fuse protector				
AC Protection	Circuit breakers				
Surge protection	DC Type II / AC Type II				
Grid monitoring/ground fault monitoring	Yes/Yes				
Insulation monitoring	Yes				
Overheating protection	Yes				
	Others	;			
Operating ambient temperature range	-40 °C ~60 °C (derating over 45 °C)				
Allowable relative humidity range	0~100%				
Max.operating altitude	4500m(derating over 3000m)				
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Standard compliance	CE, IEC 62477-1, IEC 61000-6-2,				
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POWER CONVERSION SYSTEM 11

