

# AC&DC Converter Systems

## CFE-SC 60A/80A/120A



### Cutting-Edge MPPT Technology

- **Multi-Point Tracking with 99.97% MPPT Accuracy** Optimized for partial shading and complex environmental conditions
- **Millisecond-Level Response (<0.1s)** Real-time tracking algorithms ensure maximum energy capture
- **Dynamic Current Control** Intelligent power derating protects equipment when current exceeds thresholds
- **Up to 98% Conversion Efficiency** Digital power architecture minimizes loss and boosts performance



### Robust Safety Protection

- **Triple Circuit Protection** TVS surge suppression, linear thermal derating, and battery undervoltage cut off
- **Dual-Mode Alarm System** Screen-coded and buzzer-based real-time fault alerts for quick diagnostics



### Enhanced User Interface

- **HD Touchscreen** Displays solar generation curves, fault logs, and system metrics Supports bilingual interface (EN/CN)
- **Auto-Config for Battery Types** Auto-detection for lead-acid; programmable settings for lithium



### Open System Architecture

- **Universal Battery Compatibility** Works with gel, sealed, flooded, and lithium batteries
- **Auto-Config for Battery Types** Built-in Modbus + free monitoring software; supports programmable expansion



### Industrial-Grade Reliability

- **Anti-Miswiring Design** Reduces installer error and component failure risk
- **Smart Sleep Mode** Powers down automatically in no-light conditions, reducing self-consumption by 70%

Model			CFE-SC 60A	CFE-SC 80A	CFE-SC 120A
Product category	Controller type		Controller with Maximum Power Point Tracking (MPPT) function		
	MPPT Efficiency		≥99.97% (Max Power Point Tracking Precision)		
	Power Consumption		Charging Stop: 1.2W~3W		
			Sleep Mode: 1~2mW		
	System Voltage		Automatic Recognition/Manual Configuration		
	Battery Voltage Range	12V system	DC9V~DC15V		
		24V system	DC18V~DC30V		
		36V system	Manual setting		
		48V system	DC42V~DC60V		
		60V system	Manual setting		
		72V system	Manual setting		
		96V system	DC84V~DC115V		
		120V system	Manual Setting		
Input Characteristics	Li-ion Activation Voltage		≥30V		
	Wake-up Voltage		≥30V		
	PV Open Circuit Voltage (VOC)		12V-72V Series: 180V, 48v-120v Series: 235V		
	Startup Charging Voltage		5V above battery voltage		
	Input Low Voltage Protection		2V above battery voltage		
	Input Overvoltage Protection		12V-72V Series: 180V, 48v-120v Series: 235V		
	Input Overvoltage Recovery		12V-72V Series: 175V, 48V-120V Series: 230V		
	Startup Charging Voltage Threshold		5V above battery voltage		
	Solar Panel Input Power	12V System	780W	1040W	1560W
		24V System	1560W	2080W	3120W
		36V System	2340W	3120W	4680W
		48V System	3120W	4160W	6240W
		60V System	3900W	5200W	7800W
		72V System	4680W	6240W	9360W
		96V System	6240W	8320W	12480W
		120V System	7800W	10400W	---
		12V System	Bulk Charge: 14.4V Float Charge: 13.8V (Configurable)		
		24V System	Bulk Charge: 28.8V Float Charge: 27.6V (Configurable)		
		36V System	Bulk Charge: 43.2V Float Charge: 41.4V (Configurable)		

Model			CFE-SC 60A	CFE-SC 80A	CFE-SC 120A
Charging Characteristics	Bulk Charge Voltage and Float Charge Voltage	48V System	Bulk Charge: 57.6V Float Charge: 55.2V (Configurable)		
		60V System	Bulk Charge: 72V Float Charge: 69V (Configurable)		
		72V System	Bulk Charge: 86.4V Float Charge: 82.8V (Configurable)		
		96V System	Bulk Charge: 115.2V Float Charge: 110.4V (Configurable)		
		120V System	Bulk Charge: 144V Float Charge: 138V (Configurable)		
	Rated Charging Current		60A	80A	120A
	Charging Method		Three-stage: Bulk (Fast Charge), Absorption, Float		
	Output Voltage Accuracy		≤±1.5%		
Load Characteristics	Rated Load Current		30A	50A	60A
	Load Voltage		Matches batter voltage		
	Load Control Mode		NO/NC Mode, Time Control, Light Control		
	High/Low Voltage Protection		Configurable		
	Configuration Method		Controller Menu Interface		
Display & Communication	Display		High-resolution color LCD		
	Interface		8-pin RJ45, RS485, Supports host monitoring, WiFi module (optional)		
Other Features	Protection Functions		Input overvoltage, reverse polarity, temperature,		
			battery over-discharge, short circuit protection		
	Operating Temperature		-20°C~+50°C		
	Storage Temperature		-40°C~+75°C		
	IP Rating		IP21		
	Noise Level		≤40dB		
	Operating Altitude		0~3000m		
	Dimensions (L*W*D)		250*187*86mm	265*197*86mm	325*232*86mm

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