SCU Modular UPS Solutions

Highly Reliable and Efficient UPS designed with flexible operating modes(iECO) for larger facilities, data centers, and critical applications.

15kVA~1200kVA 6kVA~36kVA

Parallel Solutions starting from 4800kVA

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Data Center and Facility UPS

——In IT world, data security needs reliable power protection.

Application:

Date center, Government, Public infrastructures, Army, Aerospace, Communication, Transportation, Broadcast & TV, Finance, Health Care, Education & Research, Enterprise, Automated production line, etc.

CMS modular UPS, specially used in IDC data center, is a high-end product launched to market by SCU adopting"Energysaving, creen, environmental protection" conceot, it deivers the best combination of rectter, fiter, charcer, inverte- and intelligent power protection. Applying innovative current sharing rectifier control, master-slave synchronizationin sequence control, multi-level decentralized control and 3-level sine wave modulation technology, it features greatefficiency, flexibility and reliability, reduces the investment, operation, operation & maintenance cost.

CMS modular UPS is a new type modular UPS, which integrated digital technology and new semiconductor technology can completely eliminate the impact of various grid problems on key loads. Adopting 15KVA, 25KVA, 50KVA, 75KVApower modules, it features high power density, reliable, high efficiency and intelligence, provides ideal protection forcustomers'large and medium power supply applications.

Environment friendly

Provide green power to the load and stable power to the grid.

Safe & Reliable

Master-slave synchronization in sequence control, Centralized bypass technology, multi-level decentralized control technology, parallel redundancy design, no single-point faults, and fault isolation.

Intelligent & convenient

Adopting full digital control technology, standard interface configured RS232/RS485, CAN port, USB, dry contact card, SD card, optional SNMP card, MODBUS card. Large-screen and intelligent monitoring system, supports online, remotely and real-time monitoring, makes it more intelligent and convenient for operation.

Wide applications

After brief market analysis, we developed new generation of 15kVA, 25kVA, 50kVA, 75kVA power modules, single system capacity range from 30kVA to 1200kVA, minimum 4 units in parallel upto multiple numbers of units, single system adopts standard 19-inch cabinet, reasonable layout , meet multiple applications.

Features

Safety & Reliability

- Multiple redundancy measures, perfect fault isolation protection
- Advanced DSP digital control technology
- Master-slave synchronization in sequence control, multi-level decentralized control technology
- Supports integrating with one battery pack
- Adaptive lead-acid battery or lithium battery system, complete battery management function

High Efficiency & Energy Saving

- ECO efficiency up to 99%, iECO efficiency up to 99.5%.
- Continuous current mode (CCM) is adopted for AC input , input THDI ＜ 3% , input PF ＞ 0.99 , greatly reduced interference to power grid (RFI/EMI)
- Peak coefficient of output current is 3:1, greatly enhanced ability of carrying load
- Power module sleep mode settable, automatic adjustment of quantity of working modules.

Great Flexibility

- Modular design, hot swappable, online upgrade, super fast maintenance process, capacity expansion.
- 2N, N+1, Δ2N multiple power supply solutions;
- Any power module has a balanced distribution function for input, output and charging power;
- Standard structure design, compact footprint, less weight, meets the load-bearing requirements of ordinary buildings;
- Air flow from front to rear or top, installation against wall;
- Soft start function for Gensets;
- Energy storage function.

Systems based on 15kVA module

Model: **CMS-30/15**
Max. Capacity of system: **30KVA**
Configuration: **2 slots**
Power module model: **CM15**
Power module capacity: **15KVA**
Dimension: **482/442*800*662**(W*D*H)mm, stand alone or embed into standard 19" cabinet

Model: **CMS-60/15**
Max. Capacity of system: **60KVA**
Configuration: **4 slots**
Power module model: **CM15**
Power module capacity: **15KVA**
Dimension: **482/442*800*840**(W*D*H)mm, stand alone or embed into standard 19" cabinet

Model: **CMS-120/15**
Max. Capacity of system: **120KVA**
Configuration: **8 slots**
Power module model: **CM15**
Power module capacity: **15KVA**
Dimension: **482/442*800*1195**(W*D*H)mm, stand alone or embed into standard 19" cabinet

CM15 Module Data

Phase	Charging current	Max Charging Power	Max heat dispassion	Input PF	Input THDI	Dimension (W*D*H)mm	Weight
3/3	3A	1.8kW	450W	≥ 0.99	< 3%	422/380*590*86	16kg

UPS SYSTEM TEHCNICAL SPECIFICATION

Model		CMS-30/15	CMS-60/15	CMS-120/15
System Capacity (kVA/kW).		30 kVA/kW	60 kVA/kW	120 kVA/kW
INPUT				
Phase		3Ph+N+PE		
Nominal Input Voltage		380V/400V/415V AC， Three-Phase Five-Wire		
Input Voltage Range		132- 276 VAC, (If 132-176VAC, 50% load max.)		
Input rated frequency		50/60Hz		
THDI		< 3%		
Power Factor		≥ 0.99		
Bypass Voltage Range		± 20%		
Bypass Frequency Range		50/60 ± 10%		
Bypass synchronization tracking range		± (0.5, 1, 2, 3, 5) adjustable		
Output				
Output active power (kW)		30	60	120
Output rated voltage		380V/400V/415V AC， Three-Phase Five-Wire		
Output Frequency		50/60Hz		
Overload Ability		10 minutes at 125%		
Output Voltage THD		≤ 2% (Resistive load), ≤ 4% (Non-linear load)		
Output voltage stabilization accuracy		≤ 1%		
Voltage Recovering Time		≤ 20ms		
Transfer From Mains to Battery Supply		0ms		
Efficiency		Up to 99% in ECO mode, Up to 99.5% in iECO mode		
Battery				
Battery Rated Voltage		± 240V DC		
VRLA Battery		40 (Range 32-44)		
Access to Lithium-ion Battery		Standard		
Environmental				
Operating Temperature		-5℃ ~40℃		
Operating Relative Humidity		≤ 95%, non-condensation		
Altitude		5000 m, derating if 1000 above		
Protection Class		IP20		
Others				
Parallel Configuration		No less than 4 units (N+1)		
EPO		Support		
Communication		RS232/RS485, CAN, USB, Dry contact, SD Card as standard. MODBUS, SNMP (optional)		
Safety Compliance		IEC/EN 62040-1, IEC/EN 60950-1		
EMC Compatibility & Performance		IEC/EN 62040-2, IEC/EN 62040-3		
Dimension (W*D*H)mm	Standard (1*breaker)	482/442*800*662	482/442*800*840	482/442*800*1195
	Optional (4 breakers)			482/442*800*1500
Weight (kg)		72	82	108

Systems based on 25kVA module

Model: **CMS-150/25**
Max. Capacity of system: **150KVA**
Configuration: **6 slots**
Power module model: **CM25**
Power module capacity: **25KVA**
Dimension: **600*1000*1600**(W*D*H)mm, standard 19" cabinet

Model: **CMS-250/25**
Max. Capacity of system: **250KVA**
Configuration: **10 slots**
Power module model: **CM25**
Power module capacity: **25KVA**
Dimension: **600*1000*2000**(W*D*H)mm, standard 19" cabinet

CM25 Module Data

Phase	Charging current	Max Charging Power	Max heat dispassion	Input PF	Input THDI	Dimension (W*D*H)mm	Weight
3/3	5A	3kW	750W	≥ 0.99	< 3%	482/442*590*86	19kg

UPS SYSTEM TEHCNICAL SPECIFICATION

Model		CMS-150/25	CMS-250/25
System Capacity (kVA/kW).		150 kVA/kW	250 kVA/kW
INPUT			
Phase		3Ph+N+PE	
Nominal Input Voltage		3380V/400V/415V AC，Three-Phase Five-Wire	
Input Voltage Range		132- 276 VAC, (If 132-176VAC, 50% load max.)	
Input rated frequency		50/60Hz	
THDI		< 3%	
Output active power (kW)		≥ 0.99	
Bypass Voltage Range		±20%	
Bypass Frequency Range		50/60±10%	
Bypass synchronization tracking range		± (0.5, 1, 2, 3, 5) adjustable	
Output			
Output active power (kW)		150	250
Output rated voltage		380V/400V/415V AC，Three-Phase Five-Wire	
Output Frequency		50/60Hz	
Overload Ability		10 minutes at 125%	
Output Voltage THD		≤ 2% (Resistive load), ≤4% (Non-linear load)	
Output voltage stabilization accuracy		≤ 1%	
Voltage Recovering Time		≤ 20ms	
Transfer From Mains to Battery Supply		0ms	
Efficiency		Up to 99% in ECO mode， Up to 99.5% in iECO mode	
Battery			
Battery Rated Voltage		± 240V DC	
VRLA Battery		40 (Range 32-44)	
Access to Lithium-ion Battery		Standard	
Environmental			
Operating Temperature		-5℃ ~40℃	
Operating Relative Humidity		≤ 95%, non-condensation	
Altitude		5000 m, derating if 1000 above	
Protection Class		IP20	
Others			
Parallel Configuration		No less than 4 units (N+1)	
EPO		Support	
Communication		RS232/RS485, CAN, USB, Dry contact, SD Card as standard. MODBUS, SNMP (optional)	
Safety Compliance		IEC/EN 62040-1, IEC/EN 60950-1	
EMC Compatibility & Performance		IEC/EN 62040-2, IEC/EN 62040-3	
Dimension (W*D*H)mm	Standard (1*breaker)	600*1000*1600	600*1000*2000
	Optional (4 breakers)		
Weight (kg)		170	220

Systems based on 50kVA module

Model: **CMS-200/50**
Max. Capacity of system: **200KVA**
Configuration: **4 slots**
Power module model: **CM50**
Power module capacity: **50KVA**
Dimension: **600*1000*2000**(W*D*H)mm, standard 19" cabinet

Model: **CMS-300/50**
Max. Capacity of system: **300KVA**
Configuration: **6 slots**
Power module model: **CM50**
Power module capacity: **50KVA**
Dimension: **900*1000*2000**(W*D*H)mm, standard 19" cabinet

Model: **CMS-400/50**
Max. Capacity of system: **400KVA**
Configuration: **8 slots**
Power module model: **CM50**
Power module capacity: **50KVA**
Dimension: **900*1000*2000**(W*D*H)mm, standard 19" cabinet

Model: **CMS-500/50**
Max. Capacity of system: **500KVA**
Configuration: 10 slots
Power module model: CM50
Power module capacity: **50KVA**
Dimension: **1200*1000*2000**(W*D*H)mm, standard 19" cabinet

CM50 Module Data

Phase	Charging current	Max Charging Power	Max heat dispassion	Input PF	Input THDI	Dimension (W*D*H)mm	Weight
3/3	10A	6kW	1500W	≥ 0.99	< 3%	482/442*622*129	30kg

UPS SYSTEM TEHCNICAL SPECIFICATION

Model		CMS-200/50	CMS-300/50	CMS-400/50	CMS-500/50
System Capacity (kVA/kW).		200 kVA/kW	300 kVA/kW	400 kVA/kW	500 kVA/kW
INPUT					
Phase		3Ph+N+PE			
Nominal Input Voltage		380V/400V/415V AC，Three-Phase Five-Wire			
Input Voltage Range		132- 276 VAC, (If 132-176VAC, 50% load max.)			
Input rated frequency		50/60Hz			
THDI		< 3%			
Power Factor		≥ 0.99			
Bypass Voltage Range		±20%			
Bypass Frequency Range		50/60±10%			
Bypass synchronization tracking range		± (0.5, 1, 2, 3, 5) adjustable			
Output					
Output active power (kW)		200	300	400	500
Output rated voltage		380V/400V/415V AC，Three-Phase Five-Wire			
Output Frequency		50/60Hz			
Overload Ability		10 minutes at 125%			
Output Voltage THD		≤ 2% (Resistive load), ≤ 4% (Non-linear load)			
Output voltage stabilization accuracy		≤ 1%			
Voltage Recovering Time		≤ 20ms			
Transfer From Mains to Battery Supply		0ms			
Efficiency		Up to 99% in ECO mode， Up to 99.5% in iECO mode			
Battery					
Battery Rated Voltage		± 240V DC			
VRLA Battery		40 (Range 32-44)			
Access to Lithium-ion Battery		Standard			
Environmental					
Operating Temperature		-5℃ ~40℃			
Operating Relative Humidity		≤ 95%, non-condensation			
Altitude		5000 m, derating if 1000 above			
Protection Class		IP20			
Others					
Parallel Configuration		No less than 4 units (N+1)			
EPO		Support			
Communication		RS232/RS485, CAN, USB, Dry contact, SD Card as standard. MODBUS, SNMP (optional)			
Safety Compliance		IEC/EN 62040-1, IEC/EN 60950-1			
EMC Compatibility & Performance		IEC/EN 62040-2, IEC/EN 62040-3			
Dimension (W*D*H)mm	Standard (1*breaker)	600*1000*1600	900*1000*2000	900*1000*2000	1200*1000*2000
	Optional (4 breakers)			1200*1000*2000	
Weight (kg)		220	300	323	415

Systems based on 75kVA module

Model: **CMS-450/75**
Max. Capacity of system: **450KVA**
Configuration: **6 slots**
Power module model: **CM75**
Power module capacity: **75KVA**
Dimension: **900*1000*2000**(W*D*H)mm, standard 19" cabinet

Model: **CMS-600/75**
Max. Capacity of system: **600KVA**
Configuration: **8 slots**
Power module model: **CM75**
Power module capacity: **75KVA**
Dimension: **1200*1000*2000** (W*D*H)mm, standard 19" cabinet

Model: **CMS-900/75**
Max. Capacity of system: **900KVA**
Configuration: **12 slots**
Power module model: **CM75**
Power module capacity: **75KVA**
Dimension: **1800*1000*2000** (W*D*H)mm, standard 19" cabinet

Model: **CMS-1200/75**
Max. Capacity of system: **1200KVA**
Configuration: **16 slots**
Power module model: **CM75**
Power module capacity: **75KVA**
Dimension: **2000*1000*2200** (W*D*H)mm, standard 19" cabinet

CM75 Module Data

Phase	Charging current	Max Charging Power	Max heat dispassion	Input PF	Input THDI	Dimension (W*D*H)mm	Weight
3/3	15A	9kW	2250W	≥ 0.99	< 3%	482/442*628*172	45kg

482/442*628*172

UPS SYSTEM TEHCNICAL SPECIFICATION

Model	CMS-450/75	CMS-600/75	CMS-900/75	CMS-1200/75
System Capacity (kVA/kW).	450 kVA/kW	600 kVA/kW	900 kVA/kW	1200 kVA/kW
INPUT				
Phase	3Ph+N+PE			
Nominal Input Voltage	380V/400V/415V AC，Three-Phase Five-Wire			
Input Voltage Range	132- 276 VAC, (If 132-176VAC, 50% load max.)			
Input rated frequency	50/60Hz			
THDI	< 3%			
Power Factor	≥ 0.99			
Bypass Voltage Range	± 20%			
Bypass Frequency Range	50/60±10%			
Bypass synchronization tracking range	± (0.5, 1, 2, 3, 5) adjustable			
Output				
Output active power (kW)	450	600	900	1200
Output rated voltage	380V/400V/415V AC，Three-Phase Five-Wire			
Output Frequency	50/60Hz			
Overload Ability	10 minutes at 125%			
Output Voltage THD	≤ 2%(Resistive load), ≤ 4% (Non-linear load)			
Output voltage stabilization accuracy	≤ 1%			
Voltage Recovering Time	≤ 20ms			
Transfer From Mains to Battery Supply	0ms			
Efficiency	Up to 99% in ECO mode ， Up to 99.5% in iECO mode			
Battery				
Battery Rated Voltage	± 240V DC			
VRLA Battery	40 (Range 32-44)			
Access to Lithium-ion Battery	Standard			
Environmental				
Operating Temperature	-5℃ ~40℃			
Operating Relative Humidity	≤ 95%, non-condensation			
Altitude	5000m, derating if 1000 above			
Protection Class	IP20			
Others				
Parallel Configuration	No less than 4 units (N+1)			
EPO	Support			
Communication	RS232/RS485, CAN, USB, Dry contact, SD Card as standard. MODBUS, SNMP (optional)			
Safety Compliance	IEC/EN 62040-1, IEC/EN 60950-1			
EMC Compatibility & Performance	IEC/EN 62040-2, IEC/EN 62040-3			
DimensionStandard (1*breaker)	900*1000*2000	1200*1000*2000	1800*1000*2000	2000*1000*2200
(W*D*H)mmOptional (4 breakers)	1200*1000*2000			
Weight (kg)	344	387	618	700

ERMS Serie Rackmount Modular UPS

Model: **ERMS-12/6**
Max. capacity of system : **12kVA**
Configuration: 2 slots
Power module model: **ERM-06**
Power module capacity: **6kVA**
Dimension (W*D*H): **482*635*132** mm, standalone or embed into standard 19" cabinet

Model: **ERMS-24/6**
Max. capacity of system : **24kVA**
Configuration: **4 slots**
Power module model: **ERM-06**
Power module capacity: **6kVA**
Dimension (W*D*H): **482*635*220** mm, standalone or embed into standard 19" cabinet

Model: **ERMS-36/6**
System capacity : **36kVA**
Configuration: **6 slots**
Power module model: **ERM-06**
Power module capacity: **6kVA**
Dimension (W*D*H): **482*635*310** mm, standalone or embed into standard 19" cabinet

ERM-06 Module Data

Phase	Charging current	Max Charging Power	Max heat dispassion	Input PF	Input THDI	Dimension (W*D*H)mm	Weight
1/1	1A	620kW	300W	≥ 0.99	< 3%	200*500*85	8kg

UPS SYSTEM TEHCNICAL SPECIFICATION

Model	ERMS-12/6	ERMS-24/6	ERMS-36/6
System Capacity (kVA)	12kVA	24kVA	36kVA
INPUT			
Phase	1Ph+N+PE	1Ph+N+PE	3Ph+N+PE
Nominal Input Voltage	220V/230V/240V AC, Single-Phase Three-Wire		380V/400V/415V AC, Three-Phase Five-Wire
Input Voltage Range	132- 276 VAC, (If 132-176VAC, 50% load max.)		
Input rated frequency	50/60Hz		
THDI	< 5%		
Power Factor	≥ 0.99		
Bypass Voltage Range	± 20%		
Bypass Frequency Range	50/60 ±10%		
Bypass synchronization tracking range	50/60 ±4%		
Output			
Output active power (kW)	10.8	21.6	32.4
Output rated voltage	220V/230V/240V AC, Single-Phase Three-Wire		380V/400V/415V ACThree-Phase Five-Wire
Output Frequency	50/60Hz		
Overload Ability	10 minutes at 125%		
Output Voltage THD	≤ 2% (Resistive load), ≤ 4% (Non-linear load)		
Output voltage stabilization accuracy	≤ 1%		
Voltage Recovering Time	≤ 20ms		
Transfer From Mains to Battery Supply	0ms		
Efficiency	≥ 94%		
Battery			
Battery Rated Voltage	± 240V DC		
VRLA Battery	40 (Range 32-44)		
Access to Lithium-ion Battery	Standard		
Environmental			
Operating Temperature	-5℃ ~40℃		
Operating Relative Humidity	≤ 95%, non-condensation		
Altitude	5000 m, derating if 1000 above		
Protection Class	IP20		
Others			
Operation mode	Online double conversion mode		
Communication	MODBUS, SNMP, Dry contact		
Safety Compliance	IEC/EN 62040-1, IEC/EN 60950-1		
EMC Compatibility &Performance	IEC/EN 62040-2, IEC/EN 62040-3		
Installation	stand alone or embed into standard 19" cabinet		
Dimension (W*D*H)mm	482*635*132	482*635*220	482*635*310
Weight (kg)	16.5	21.5	26.5

Sicon Chat Union Electric Co., Ltd. (referred as: SCU), is an industry leading electrical and power electronic product designer and manufacturer. SCU takes the lead in promoting and encouraging energy sustainable products,provides complete solutions for UPS & Data Center, Electric Vehicle Charging Station, Energy Storage, paves the way for a future decarbonization of the energy and mobility sector.

SCU: A Leader of Modular UPS Industry
We have been developing modular UPS since 2002, leading top market share in modular UPS market. With our passion and commitment for innovative design, product quality and customer care, SCU has launched full range modular UPS from 6kVA to 1.2MW, based on various types of UPS module 6kVA, 15kVA, 25kVA, 50kVA, 75Kva.

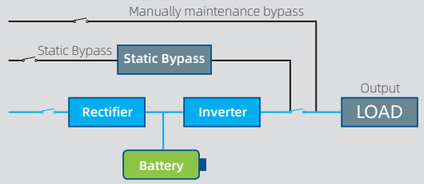
ISO9001, ISO14001 OHSAS 18001 certified SCU plant, CE approved UPS, IEC EN 62040-1, IEC EN 62040-2, IEC EN62040-3 full compliant, Own proprietary intellectual property right for all SCU UPS and related power products.

Modular UPS + Lithium-ion Battery System Solution

- Higher energy density, smaller footprint, longer lifespan
- Large discharge rate, suitable for 5 15 minutes short- term backup of data center
- Wide temperature range, saving refrigeration investment and reducing operating costs
- Flexible, customized Li-ion Battery Solution available

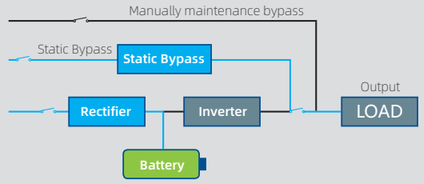
Innovated UPS Operation Mode achieves 99.5% efficiency

Online double conversion, ECO, and iECO mode to achieve the perfect combination of usability and efficiency to meet the unique operational goals of the user. Innovative and efficient power regulation mode brings extraordinary value to customers.



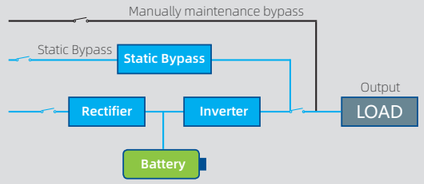
Online double conversion mode

- UPS output PF=1, THDI<3%
- Efficiency up to 96.5%
- Mains battery seamless switching
- Meet the uninterrupted power supply and power quality of the load



ECO mode

- UPS is running in static bypass state
- Efficiency up to 99%
- Mains battery switching time is less than 4ms



iECO mode

- Ultra-high efficiency up to 99.5%
- Output meets IEC62040 and meet the power supply quality to load
- Mains power supply and battery power supply seamless switching
- Provide reactive power compensation and harmonic suppression to eliminate load interference to the power grid
- Battery and mains can be powered at the same time, support the slow start of the oil machine
- In addition to the backup function, the lithium battery can also use the electricity price difference between mains peak and valley to save operating costs

20+ Years of Experience

With more than 20 years of R&D experience in building UPS power supplies, SCU takes the industry lead in providing uninterruptible power supply protection for critical loads, covering applications from small IT rooms through to large data centers and complete industrial plant protection.

Part of projects reference

Cloud Data Center in Beijing	43.6MW SCU Modular UPS
China Telecom	460+ units of SCU UPS (30KVA-800KVA)
China Unicom	300+ units of SCU UPS (50KVA-500KVA)
China Mobile	200+ units of SCU UPS (100KVA-900KVA)
Semiconductor Chip Factory	5.8MW SCU UPS
Beijing Public Security Bureau(Government)	57.6MW SCU Modular UPS
Beidou Navigation Satellite Project (Military)	16MW SCU Modular UPS
APEC 2014	2.9MW SCU Modular UPS + Standalone UPS
2008 Beijing Olympic Games	3.6MW SCU Modular UPS

For more application reference, pls visit SCU website: **www.scupower.com**

Powerful Marketing & Service Network

SCU has established a powerful marketing and service network. With the HQ in China and a subsidiary in Europe we support customers and partners in more than 50 countries worldwide.

Time to Join SCU

We welcome distributors and partners from all over the world to join us and build the future together.