



2023

Wuxi CRE New Energy Technology Co., Ltd





Company Profile

Name: Wuxi CRE New Energy Technology Co., Ltd

Address: No.789 Nanhu Avenue, Liangxi District, Wuxi City,
Jiangsu Province, China

Factory Area: 16,000 m²

Total Staff: 310 (as of the end of Feb 2023)

24 in the sales team 42 in the R&D process team

200 in the manufacturing team 17 in the quality team

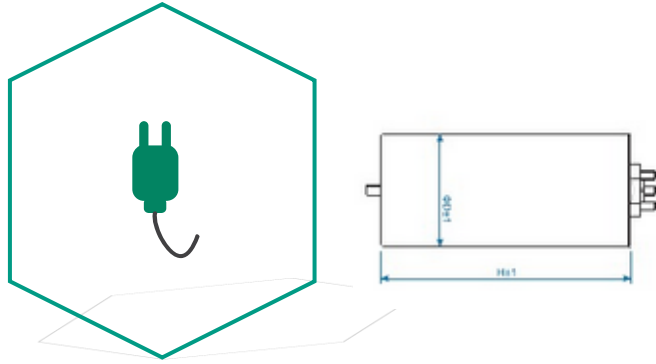
Intellectual property rights: more than 30 invention and utility model patents. Participated in the drafting of 10 Chinese industry standards

Certification: ISO9001、ISO14001、ISO45001、IATF16949、UL、VDE

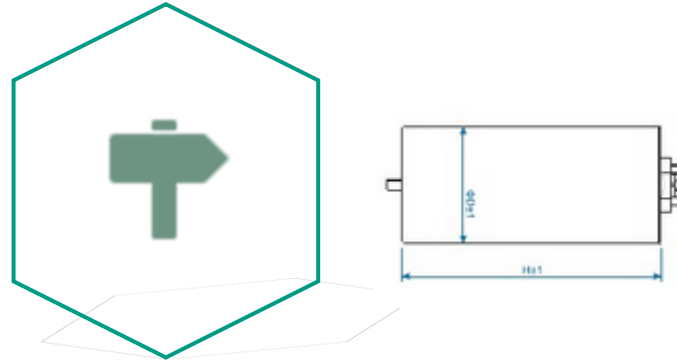




Corporate Philosophy



Power



Links



Success

Power: We are in an era of energy transformation, our products are used in the transformation process of energy

Links: Power generation/transmission/consumption all use our products, which play a role of connection and support

Success : To success with our partners



Milestone


















Certification & Honor



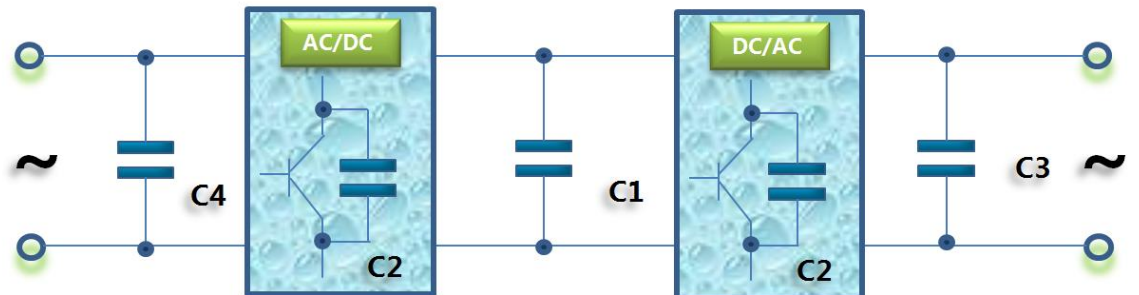


Application

C1: DC-link		C2: Snubber		C3: AC-filter		C4: EMI-filter	
						X2	
DKMJ-S	DMJ-MC	SMJ-P	AKMJ-S				
							
DMJ-PC	DMJ-MT	SMJ-TE	AKMJ-MC				
							
DKMJ-AP	DMJ-PS	SMJ-PS	AKMJ-PS				

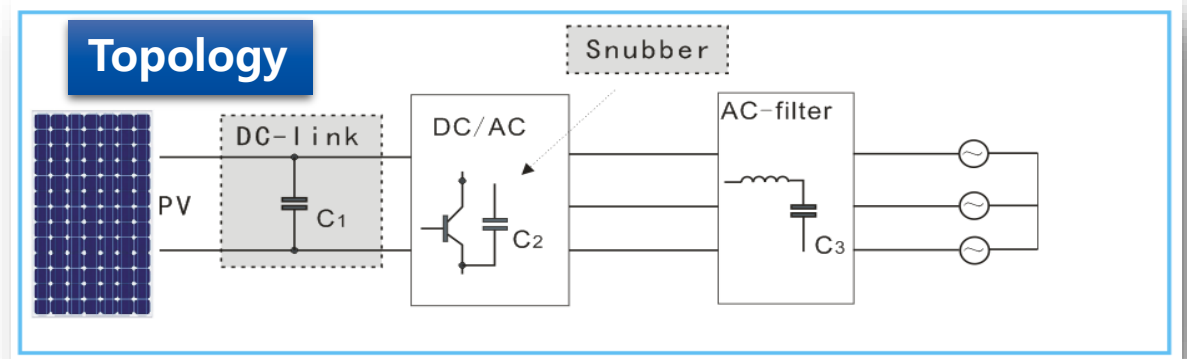

SMJ-TC

Topology





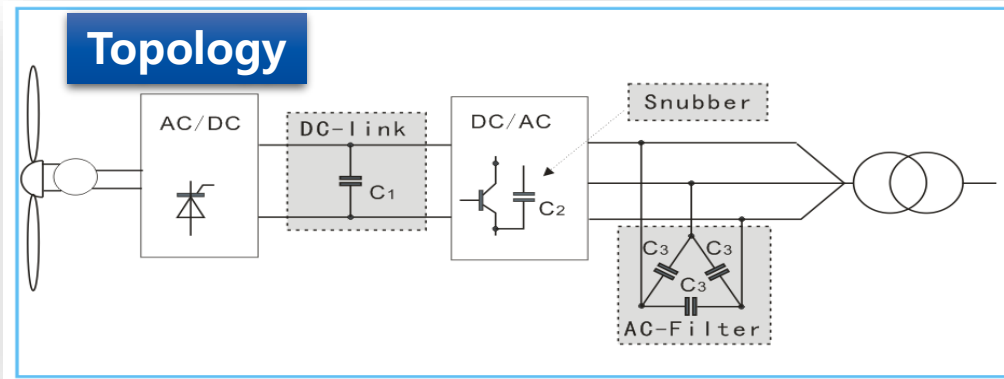
Photovoltaic inverter






CRE Solution					
AC-filter		DC-link		Snubber	
C3		C1		C2	
AKMJ-MC	AKMJ-PS	DMJ-MC	DMJ-PS	SMJ-P	SMJ-PS
Voltage					
330~850 (VAC)	330~850 (VAC)	450~2000 (VDC)	450~2000 (VDC)	630~3000 (VDC)	
Capacitance					
(3 phase) 3×10~200 (UF)	1.5~30 (UF)	100~1500 (UF)	2.2~150 (UF)	0.1~4.7 (UF)	
Standard: IEC-61071					



Wind Power Generation



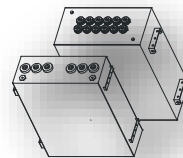
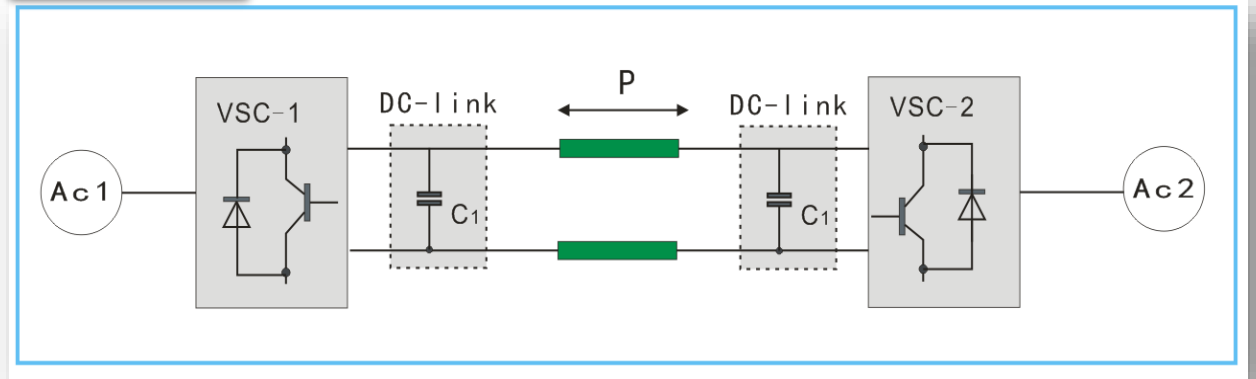
CRE Solution		
AC-filter	DC-link	Snubber
C3	C1	C2
		
AKMJ-MC	DMJ-MC	SMJ-P
Voltage		
450~850 (VAC) (3 phase)	450~2000 (VDC)	630~3000 (VDC)
Capacitance		
3×10~100 (UF)	100~1200 (UF)	0.15~4.7 (UF)
Standard: IEC-61071		



Power Flexible Transmission



Topology



CRE Solution

DC-link

C1

DKMJ-S

Voltage

1200~4500 (VDC)

Capacitance

1000~20000 (UF)

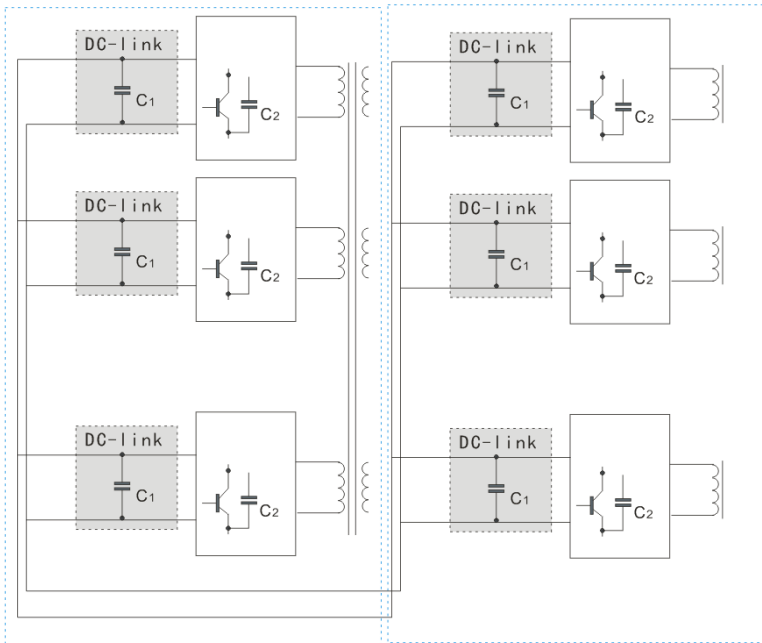
Standard: : IEC-61071 IEC-60068





SVG



Topology



CRE Solution

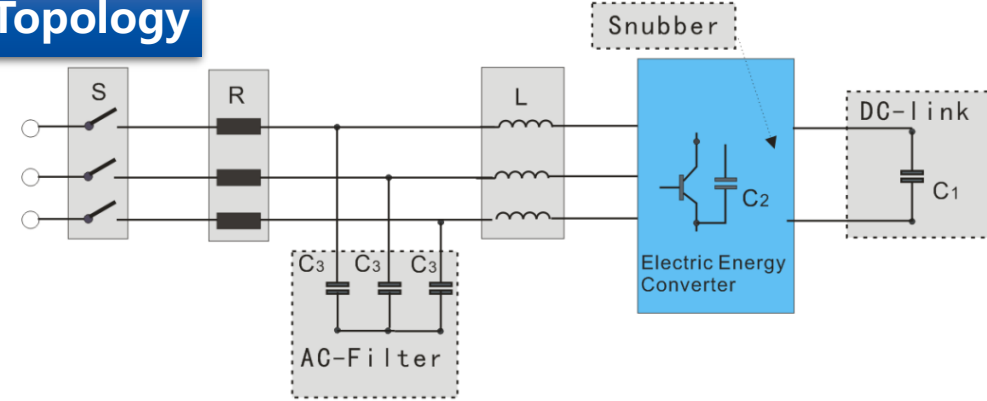
DC-link		Snubber
C1		C2
		
DKMJ-S	DMJ-MC	SMJ-P
Voltage		
450~4500 (VDC)	450~4000 (VDC)	630~4500 (VDC)
Capacitance		
100~10000 (UF)	50~3000 (UF)	0.15~4.7 (UF)
Standard: IEC-61071 IEC-60068		



APF



Topology

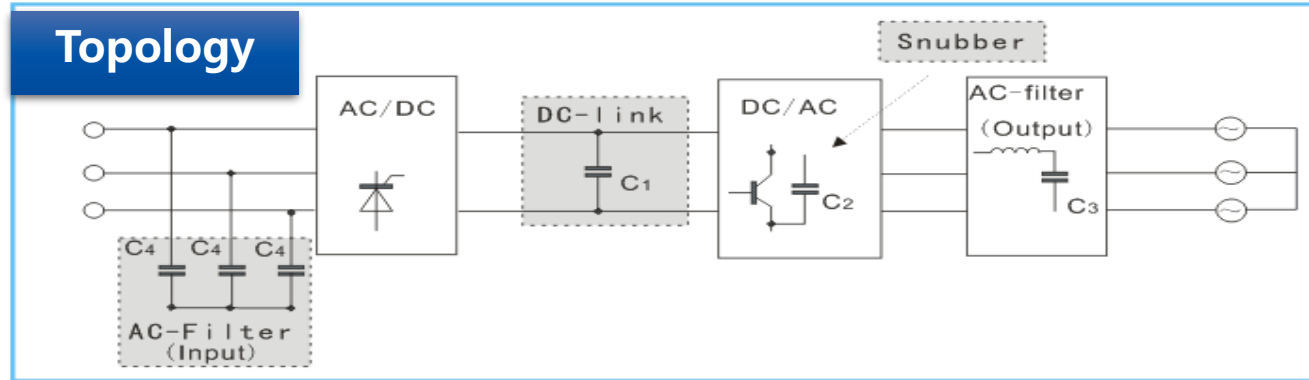
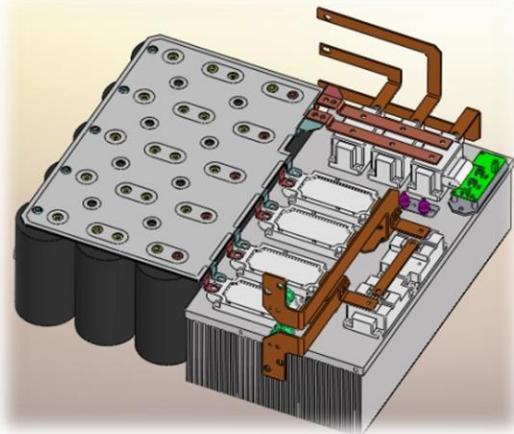


CRE Solution

AC-filter		DC-link		Snubber	
C3		C1		C2	
AKMJ-MC	AKMJ-PS	DMJ-MC	DMJ-PS	SMJ-P	SMJ-PS
Voltage					
330~850 (VAC)	330~850 (VAC)	450~2000 (VDC)	450~2000 (VDC)	630~3000 (VDC)	
Capacitance					
(1 phase) 10~200 (UF)	1.5~30 (UF)	100~1500 (UF)	2.2~150 (UF)	0.1~4.7 (UF)	
Standard: IEC-61071					



Inverter

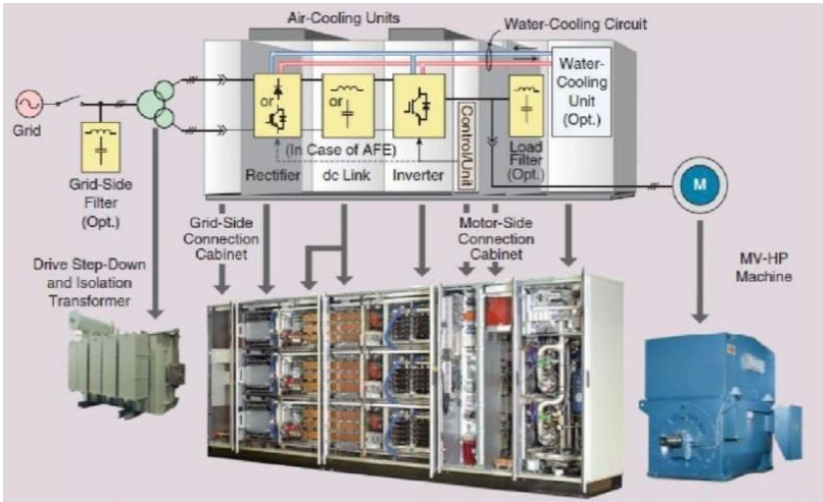


CRE Solution

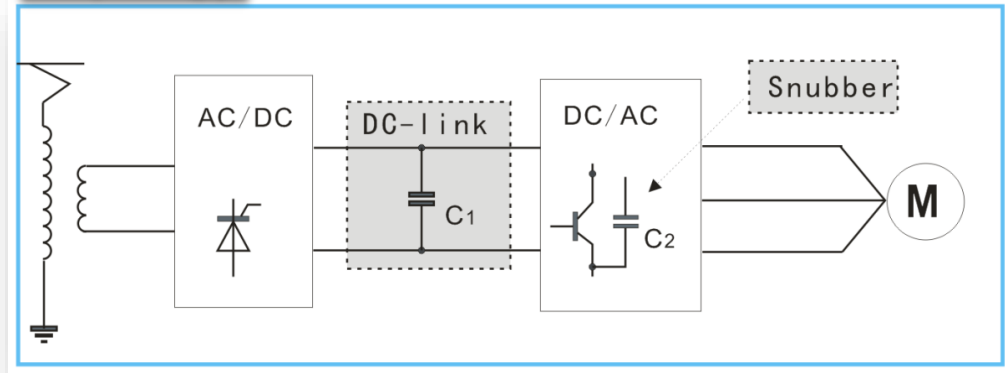
AC-filter C3,C4			DC-link C1				Snubber C2	
AKMJ-S	AKMJ-MC	AKMJ-PS	DKMJ-S	DMJ-MC	DMJ-PS	SMJ-P	SMJ-TE	RMJ-PS
Voltage								
250~6300 (VAC) (3 phase)	250~6300 (VAC) (1 phase)	150~1500 (VAC) (3 phase)	150~1500 (VAC) (3 phase)	150~450 (VAC)	450~4000 (VDC)	450~4000 (VDC)	450~2000 (VDC)	630~3000 (VDC)
Capacitance								
3×10~1000 (UF)	10~2000 (UF)	3×10~200 (UF)	10~500 (UF)	1.5~50 (UF)	100~20000 (UF)	50~3000 (UF)	2.2~150 (UF)	0.15~4.7 (UF)
Standard: IEC-61071								






Track traction



Topology

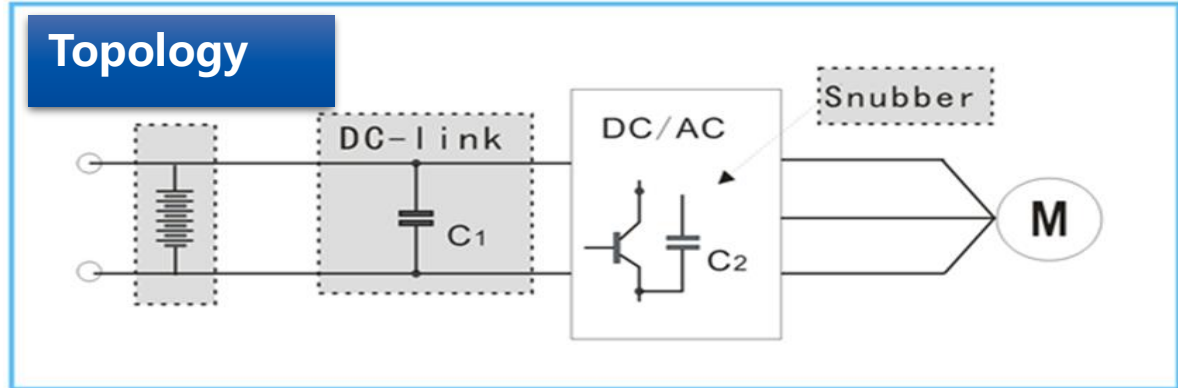


CRE Solution

DC-link	Snubber	
C1	C2	
		
DKMJ-S	SMJ-P	RMJ-PC
Voltage		
450~4500 (VDC)	630~4500 (VDC)	630~6000 (VDC)
Capacitance		
100~10000 (UF)	0.15~4.7 (UF)	0.5~20 (UF)
Standard: : IEC-61071 IEC-60068		



EV & HEV



CRE Solution

DC-link C1			Snubber C2	
DKMJ-AP	DMJ-PC	DMJ-PS	SMJ-P	SMJ-PS
Voltage			Voltage	
450~1200 (VDC)			630~2000 (VDC)	
Capacitance				
100~5000 (UF)	10~500 (UF)	1~150 (UF)	0.15~4.7 (UF)	
Standard: IEC-61071 ,AEC-Q200				



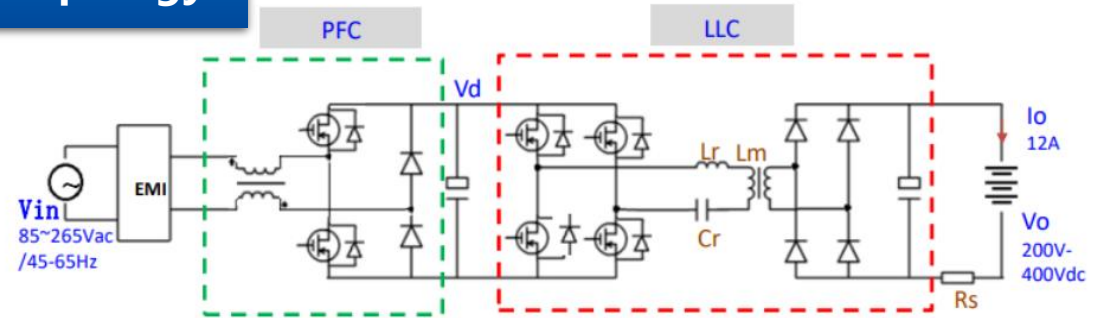


EV & HEV Charging Pile







Topology

交流充电示意图 (OBC)



CRE Solution

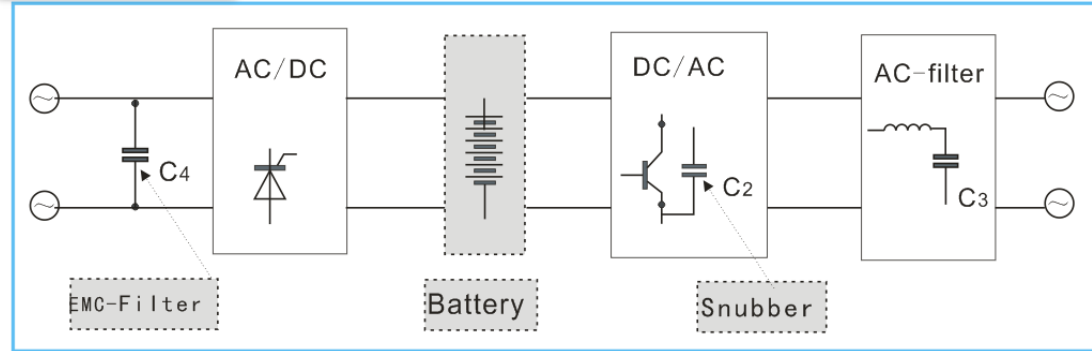
EMC	Snubber	DC-link	
			
X2	SMJ-PS	DMJ-MC	DMJ-PS
Voltage			
250/275/310 (VAC)	850~2000 (VDC)	450~1200 (VDC)	450~1200 (VDC)
Capacitance			
0.0022×10 (UF)	0.033~5 (UF)	50~500 (UF)	1~50 (UF)
Standard: IEC-61071			








Uninterruptible power supply (UPS)



Topology



CRE Solution

EMC	Snubber		AC Filter	
	C2		C3	
				
X2	SMJ-P	SMJ-PS	AKMJ-MC	AKMJ-PS
Voltage				
250/275/310 (VAC)	450~2000 (VDC)		150~1200 (VAC)	150~450 (VAC)
Capacitance				
0.0022×10 (UF)	0.1~4.7 (UF)		5~500 (UF)	1~50 (UF)
Standard: IEC-61071				



Inverter welding machine

Panasonic

电焊机 机器人 激光焊接系统

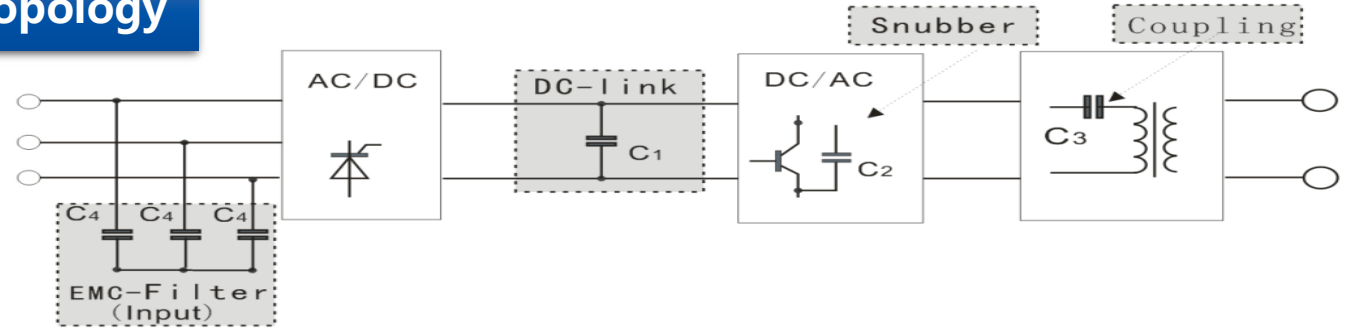


Panasonic

电焊机 机器人 激光焊接系统



Topology



CRE Solution

EMC/AC Filter		Resonance	DC-link			Snubber		
C4		C3	C1			C2		
X2	AKMJ-PS	RMJ--PC	DMJ-MC	DMJ-MT	DMJ-PS	SMJ-P	SMJ-TE	SMJ-PS
Voltage								
250/275/310 (VAC)	250~690 (VAC) (3 phase)	250~500 (VAC)	450~1200 (VDC)	400~800 (VDC) (Tri-level)	450~1200 (VDC)	630~2000 (VDC)		
Capacitance								
0.0022×10 (UF)	3×0.22~3 (UF)	1~10 (UF)	50~2000 (UF)	5~300 (UF)	2×5~50 (UF)	0.15~4.7 (UF)	0.1~4.7 (UF)	0.1~4.7 (UF)

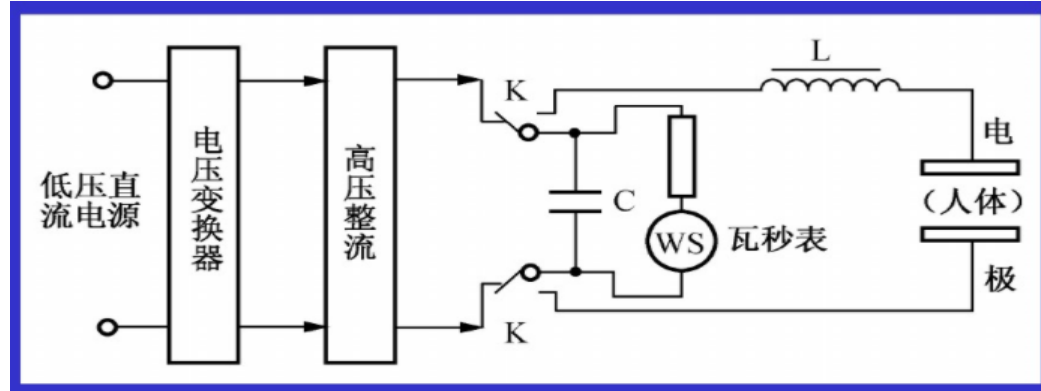
Standard: IEC-61071



Cardiac Defibrillator (AED)



Topology



CRE Solution

DC-link

C1

DEMJ-PC

Voltage

1500~5000 (VDC)

Capacitance

32~200 (UF)

Standard: IEC-61071



Power

Flexible Transmission



main clients

TEBA特变电工

XD 中国西电集团有限公司
CHINA XD GROUP CO., LTD.



MINGYANG ELECTRIC
明阳电气
地蕴天成·能动无限

CEPRI
中国电力科学研究院
CHINA ELECTRIC POWER RESEARCH INSTITUTE
中电普瑞科技有限公司
CHINA EPRI SCIENCE & TECHNOLOGY CO., LTD.



国家电网
STATE GRID

许继集团有限公司
XJ GROUP CORPORATION

Certification in progress...

Flexible Transmission(VSC-HVDC)




DC-link

DKMJ-S



HVDC



CRE Solution		
DC-link	Snubber	
C1	C2	
		
DKMJ-S	DMJ-MC	SMJ-P
Voltage		
450~4500 (VDC)	450~4000 (VDC)	630~4500 (VDC)
Capacitance		
100~10000 (UF)	50~3000 (UF)	0.15~4.7 (UF)
Standard: IEC-61071 IEC-60068		

Sales reference: 7.5 million USD

Main Customers:

STATE GRID

XJ GROUP CORPORATION

TEBA

CEPRI

CHINA XD GROUP CO.,LTD

MINGYANG ELECTRIC



Main Clients





Main Clients



Leading product: DMJ-PS

Features

- * Plastic shell, dry resin package;
- * Suitable for PCB, multi-component series-parallel combination, modular use;
- * Process guarantee of Automated production line, good product quality consistency;
- * Meet the harsh environment such as high temperature and high humidity



Typical Specifications	
2(μ F)-1100VDC	12(μ F)-700VDC
10(μ F)-1100VDC	12(μ F)-800VDC
12(μ F)-1100VDC	14(μ F)-800VDC
15(μ F)-1100VDC	22(μ F)-800VDC
25(μ F)-1100VDC	50(μ F)-600VDC
40(μ F)-1100VDC	50(μ F)-900VDC
6.5(μ F)-1500VDC	75(μ F)-700VDC
	110(μ F)-550VDC
	140(μ F)-550VDC

Application areas

Photovoltaic inverter; energy storage;
Inverter; inverter power supply

Batch delivery time: from Mar 2012

Historical cumulative shipments: 15 million pcs

From Jan to Sep of 2021: 4.34 million pcs



Leading product: DMJ-MC

Features

- ※ Cylindrical aluminum shell, dry resin package
- ※ Suitable for single element or multi-element parallel combination use, modular
- ※ The use of replaceable electrolytic capacitors, Has higher overcurrent capability
- ※ High reliability, all components
100% full inspection after high temperature electrical aging

Application areas

Power quality; Photovoltaic/wind power; Inverter; inverter power supply



Batch delivery time: from June 2011

Historical cumulative shipments: 2.2 million pcs

From Jan to Dec 2021: 600,000 pcs

Typical Specifications

650(µF)-600VDC

750(µF)-800VDC

750(µF)-900VDC

170(µF)-1100VDC

420(µF)-1100VDC

600(µF)-1100VDC

420(µF)-1200VDC

600(µF)-1200VDC





R&D Capacity



Technology guidance

Cooperate with universities and R&D institutions to provide film capacitor solutions for various advanced technology applications

Incorporate technology development direction and R&D team building into the company's medium and long-term development plan



Professional ability

The engineers have more than 20 years of working experience, who can optimize the design of products for the pursuit of the best cost performance, quickly respond to customer requirements and provide design solutions and samples



Quick service

Our R&D team will respond to customer within 24h, and provide customers with solution within 48h.



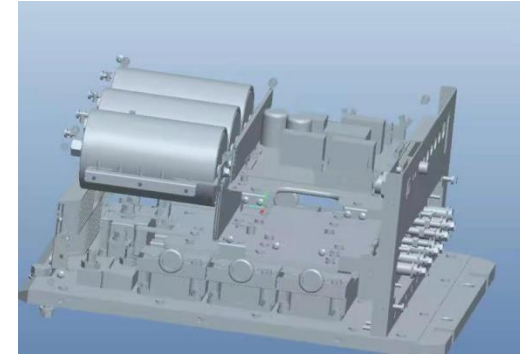
R&D Capacity



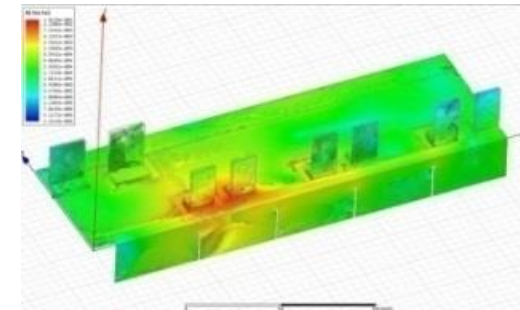
Advanced Experimental Platform



Simulation platform



Structural simulation



Thermal simulation



Cooperation with University



CRE

Capacitor material, process, performance verification

Nanjing University of Science and Technology

Power Pulse Technology

Southeast University

Pulse dust removal technology for environmental protection

Nanjing University of Aeronautics and Astronautics

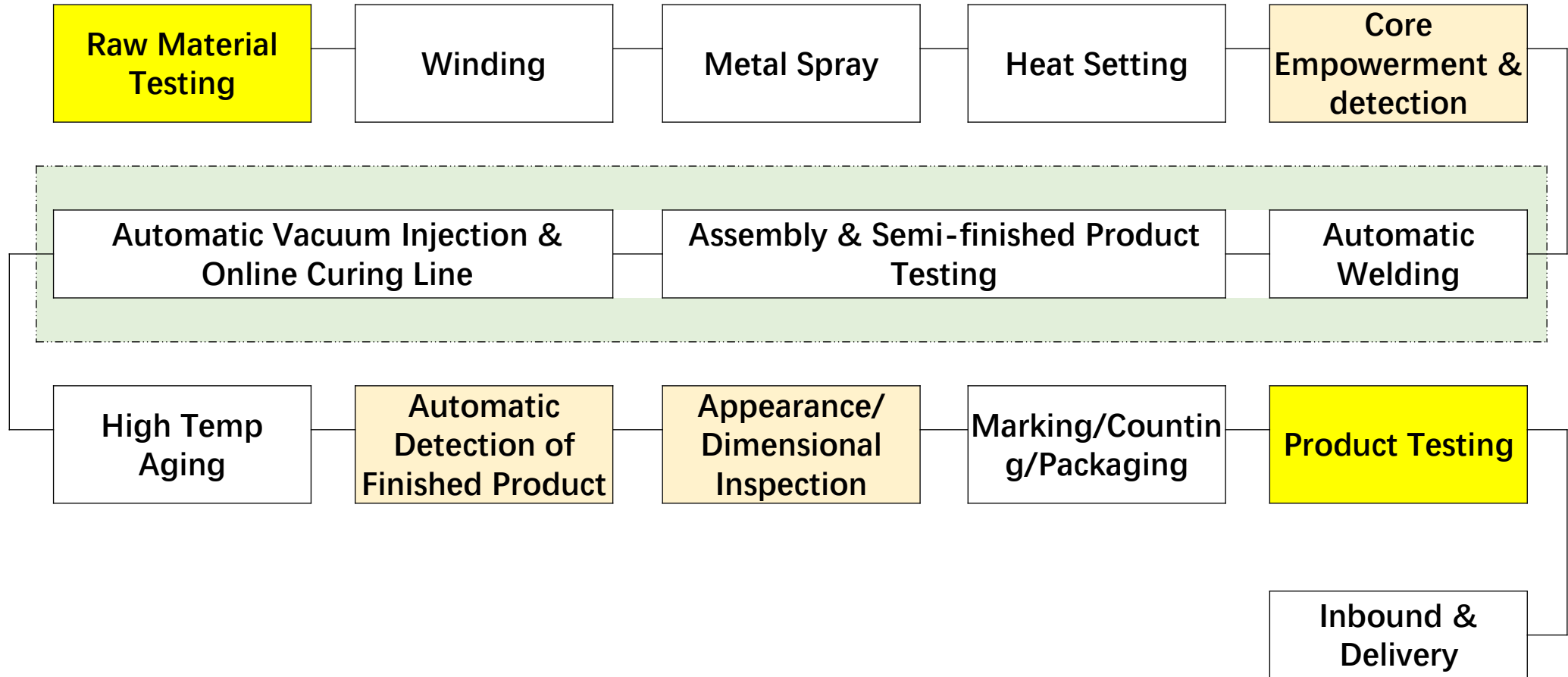
Wireless charging technology

Xi'an Jiaotong University

Power Transmission Technology



Process flow





Production Capacity

① Molded Case Pin Capacitor

② Cylindrical aluminum case capacitor

③ Customized special capacitor

④ Conventional Industrial Capacitor



★ Capacity:
24 Million/year



★ Capacity:
900K/year



★ Capacity:
18K/year



★ Capacity:
2 Million/year





Experiment Equipment



Ripple current test power supply



High temperature & humidity test chamber



Programmable Oven



Salt spray test chamber



Self-healing test bench



DC test power supply



AC test power supply



Pulse current test power supply



Experiment Equipment



High precision image measuring instrument



Insulation Resistance Tester



LCR digital Bridge



High Frequency Component Analyzer



Partial Discharge Meter



2023~2024 Development Plan

1. Overall goal

On the basis of achieving the sales target in 2022, **maintain an average annual compound growth rate of 30%+**

2. Action plan

Increase yearly production capacity

- # Molded Case Pin Capacitor production capacity: From 24 Million pcs to **40 Million pcs**
- # Cylindrical aluminum case capacitor production capacity: From 900 Kpcs to **1.4 Million pcs**
- # Customized special capacitor production capacity: From 18 Kpcs to **30 Kpcs**
- # Conventional Industrial Capacitor production capacity: From 2 Million pcs to **3 Million pcs**



2023~2024 Development Plan

3. Establish the film evaporation production line

A joint venture with South Korea's NUIINTEK to build a film evaporation and slitting production line, 50% of the metallized film is self-supplied, and an EV capacitor production line is built.

4. Construction of new factory

Invest in the construction of a new production factory, for further expansion of production scale and new product lines





Thanks

