



SANERGY

PRODUCT GUIDE

DC Electrical Devices

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Overview

DC or PV electrical products, used in solar power systems, include solar panels, inverters, charge controllers, DC circuit breakers, batteries, combiner boxes, and DC cables. They convert, manage, store, and transmit solar energy efficiently.



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DC MCB 10-63A

•YSL7-PV DC Breaker



•Specification

YSL7 Series Circuit Breaker		YSL7-PV			
Frame Degree Rated Current		63 A			
Pole		1P, 2P, 3P, 4P			
Rated Operating Voltage (VDC)		12V, 24V, 48V, 250V, 500V, 750V, 1000V			
Rated Current In (A)		10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A			
Rated Insulation Voltage Ui (VDC)		1000VDC			
Rated Impact Voltage Uimp (kV)		4			
Ultimate Breaking Capacity Icu (kA)		6			
Run Breaking Capacity Ics (%Icu)		0.75			
Curve Type		C			
Trip Type		Thermal-magnetic			
Mechanical	Actual average value	20000 times			
	Standard value	8500 times			
Electric	Actual average value	2500 times			
	Standard value	1500 times			
Wiring Capacity (mm ²)		In ≤ 32A, I-25 mm ² , I ≥ 40A, 10-35mm ²			
Ambient Temperature(°C)		-20°C ~+70 °C			
Attitude		≤ 2000 m			
Relative Humidity		≤ 9.5%			
Pollution Level		3			
Installation Environment		No obvious shock and vibration			
Installation Category		Class III			
Installation		Standard din rail			
Dimensions (W)*(H)*(DEEP) (mm)	W	18	36	54	72
	H	80	80	80	80
	DEEP	71	71	71	71

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1P	YSL7-PV	230*260*430	180	24
2P	YSL7-PV	230*260*430	90	24
3P	YSL7-PV	230*260*430	60	24
4P	YSL7-PV	230*260*430	45	24

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DC MCB 10-63A

•YSB1-63Z DC Breaker



•Specification

YSB1 Series Circuit Breaker		YSB1-63Z			
Frame Degree Rated Current		63 A			
Pole		1P, 2P, 3P, 4P			
Rated Operating Voltage (VDC)		12V, 24V, 48V, 250V, 500V, 750V, 1000V			
Rated Current In (A)		10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A			
Rated Insulation Voltage Ui (VDC)		1000VDC			
Rated Impact Voltage Uimp (kV)		4			
Ultimate Breaking Capacity Icu (kA)		6			
Run Breaking Capacity Ics (%Icu)		0.75			
Curve Type		C			
Trip Type		Thermal-magnetic			
Mechanical	Actual average value	20000 times			
	Standard value	8500 times			
Electric	Actual average value	2500 times			
	Standard value	1500 times			
Wiring Capacity (mm ²)		In ≤ 32A, 1~25 mm ² , I ≥ 40A, 10~35mm ²			
Ambient Temperature(°C)		-20°C ~+70 °C			
Attitude		≤ 2000 m			
Relative Humidity		≤ 9.5%			
Pollution Level		3			
Installation Environment		No obvious shock and vibration			
Installation Category		Class III			
Installation		Standard din rail			
Dimensions (W)*(H)*(DEEP) (mm)	W	18	36	54	72
	H	78.6	78.6	78.6	78.6
	DEEP	74	74	74	74

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1P	YSB1-63Z	230*260*430	180	18
2P	YSB1-63Z	230*260*430	90	18
3P	YSB1-63Z	230*260*430	60	18
4P	YSB1-63Z	230*260*430	45	18

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DC MCB 63-125A

•YSB1-125Z DC Breaker



•Specification

YSB1 Series Circuit Breaker		YSB1-125Z			
Frame Degree Rated Current		125 A			
Pole		1P, 2P, 3P, 4P			
Rated Operating Voltage (VDC)		12V, 24V, 48V, 250V, 500V, 750V, 1000V			
Rated Current In (A)		63A,80A, 100A, 125A			
Rated Insulation Voltage Ui (VDC)		1000VDC			
Rated Impact Voltage Uimp (kV)		4			
Ultimate Breaking Capacity Icu (kA)		6			
Run Breaking Capacity Ics (%Icu)		0.75			
Curve Type		C			
Trip Type		Thermal-magnetic			
Mechanical	Actual average value	20000 times			
	Standard value	8500 times			
Electric	Actual average value	2500 times			
	Standard value	1500 times			
Wiring Capacity (mm ²)		In ≤ 32A, I ≥ 25 mm ² , I ≥ 40A, I ≥ 35mm ²			
Ambient Temperature(°C)		-20°C ~+70 °C			
Attitude		≤ 2000 m			
Relative Humidity		≤ 9.5%			
Pollution Level		3			
Installation Environment		No obvious shock and vibration			
Installation Category		Class III			
Installation		Standard din rail			
Dimensions (W)*(H)*(DEEP) (mm)	W	27	54	81	108
	H	80	80	80	80
	DEEP	71	71	71	71

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1P	YSB1-125Z	455*355*185	120	19
2P	YSB1-125Z	455*355*185	60	19
3P	YSB1-125Z	455*355*185	40	19
4P	YSB1-125Z	455*355*185	30	19

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DC MCCB 32-630A

•YSM1-PV DC Breaker



•Specification

Type	YSM1-125Z	YSM1-250Z	YSM1-400Z	YSM1-630Z	
Max Related Current	125A	250A	400A	630A	
Related Current In (A)	32/63/80/100/125	125/160/200/225/250	315/350/400	400/500/630	
Related Working Voltage Ue (VDC)	250V、500V、750V、1000V	500V、750V、1000V	500V、750V、1000V	500V、750V、1000V	
Related Insulated Voltage Ui (V)	1000V				
Related Impulse Withstand Voltage	8kV				
Test Voltage One Minute (V)	3550V				
Ultimate short circuit breaking capacity (kA)Icu (Ics=75%Icu)	250V	20	35	35	
	500V				
	750V				
	1000V				
Mechanical life	Total times	7000	7000	4000	4000
Electrical life	Total times	2000	2000	1000	1000
Total break time (ms)	20	20	20	20	
Operating Temperature	-25°C ~ +50°C				
Protection Grade	IP20				
Flashover Distance	≥ 50				
Instantaneous Action Value	12In				
Installation Method	Fixed type				
Technical Standard	IEC60947-2、IEC60947-1、GB14048.1、GB14048.2				

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1P250V	YSM1-1300Z/32-125A	405*330*220	32	19
2P500V	YSM1-2300Z/32-125A	405*330*220	16	17
3P750V	YSM1-3300Z/32-125A	405*330*220	16	21
4P1000V	YSM1-4300Z/32-125A	405*330*220	12	21
1P250V	YSM1-1300Z/125-250A	530*230*260	24	22
2P500V	YSM1-2300Z/125-250A	530*230*260	12	19
3P750V	YSM1-3300Z/125-250A	530*230*260	12	26
4P1000V	YSM1-4300Z/125-250A	530*230*260	8	22
3P750V	YSM1-3300Z/315-400A	550*340*195	4	22
4P1000V	YSM1-4300Z/315-400A	550*340*195	2	16
3P750V	YSM1-3300Z/400-630A	405*295*200	2	16
4P1000V	YSM1-4300Z/400-630A	405*295*200	2	21

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DC SPD

•YSLY-40Z DC Surge Protect Device



•Specification

Type	YSLY-40Z	
Pole	2P	3P
Rated Voltage	DC500V,800V,1000V	
Max Operating Voltage	DC550V,880V,1100V	
Discharge Current	5kA -60kA	
Protection Level	≤ 3.0KV	≤ 3.0KV, ≤ 3.2KV
Operating Temperature	-40°C to +85°C	
Relative Humidity	≤ 95% (25°C)	
Installation Method	35mm Din Rail	
Window Indicates	Normal: Green Feailure: Red	
Degree of Protection	IP20	
Leakage current (μ A)	≤ 20	

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
2P	YSLY-40Z	235*240*490	90	24
3P	YSLY-40Z	235*240*490	60	24

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DC Fuse

•YSPV-32 DC Fuse

•Specification

Type	YSPV-32	YSPV-63T
Pole	1P	
Rated Voltage	DC 1000V	DC 1500V
Rated Current(A)	3,6,10,15,20,25,32,40,50	
Short-Circuit Breaking Capacity	20kA	
Max Power Attenuation	3.5kW	
Protection Grade	IP20	
Connection	2.5-10mm ²	
Operation Ambient Temperature	-30°C to +70°C	
Resistance and Damp Hot	Class2	
Elevation	≤ 2000 m	
Installation Way	TH35-7.5/DIN35 Rail Installation	
RH(relative air humidity)	when+20°C , not exceed 95%; when+40°C , not exceed 50%	
Pollution Class	+3	
Installation Enviroment	the place of no abvious vibrate& impact	
Installation class	III	

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1P1000V	YSPV-32	460*240*290	240	17
1P1000V	3-32A	460*255*145	2000	22
1P1500V	YSPV-63T	137*134*76	108	17
1P1500V	3-50A	445*220*140	1000	21

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PV Combiner Box

•YSX**•Specification**

Model No.	YSX-C2/1 32A DC500V	YSX-2/1 32A DC1000V
Input	2 string	2 string
Output	1 string	1 string
Maximum Voltage	500V	1000V
Max DC Short Circuit Current Per Input (Isc)	15A (Changeable)	15A (Changeable)
Maximum Current Output	32A	32A
Material Type	Polycarbonate/ABS	Polycarbonate/ABS
Degree of Protection	IP65	IP65
Degree of Resistance to Impacts	IK10	IK10
Dimension (L*W*H)	215*250*100mm	300*300*140mm
Cable input Entry	PG 2.5-6mm ² ,MC42.5-6mm ²	PG 2.5-6mm ² ,MC4 2.5-6mm ²
Output Cable Gland	PG 2.5-6mm ² ,MC4 2.5-6mm ²	PG 2.5-6mm ² ,MC4 2.5-6mm ²
DC Switch Disconnecter	YSL7/YSB1	YSNQ-40
Rated Insulation Voltage (Ui)	500V	1000V
Rated Current (Ie)	32A	32A
DC Surge Arrester	YSLY-40Z	YSLY-40Z
Max Operation Voltage (Uc _{pv})	500V	1000V
Maximum Discharge Current	40KA	40KA
DC Fuse Holder	YSPV 1000VDC	YSPV 1000VDC
Rated Working Voltage	500V	1000V
Fuse Link	10*38mm 10-30A(Optional)	10*38mm 10-30A(Optional)

YSX 2 in 1 out DC500V/DC1000V Combiner Box for Solar PV

Installed between solar panels and solar inverter.

Equipped with the most reliable DC components bring maximum protection

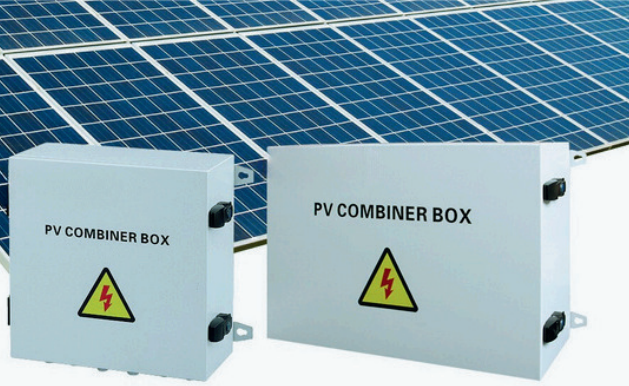
•Packing Specification Sheet

YSX-1000V32A				
规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1 in and 1out	32A	465*270*455	6	14
2 in and 1 out	32A	625*320*530	6	19
3 in and 1 out	32A	625*320*530	6	22
4 in and 1 out	32A	435*350*536	3	13
2 in and 2 out	32A	435*350*536	3	15
6 in and 2 out	32A	625*320*530	3	20
3 in and 3out	32A	625*320*530	3	20

YSX-C500V63A				
规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
1 in and 1 out	32A	465*270*455	6	11.5
2 in and 1out	40A	465*270*455	6	13
3 in and 1 out	63A	625*320*530	6	17.5
4 in and 1 out	63A	625*320*530	6	19
6 in and 1 out	63A	435*350*536	3	13
2 in and 2out	63A	625*320*530	3	11
4 in and 2 out	63A	435*350*536	4	17.5

PV Combiner Box

•YS-CB



•Specification

Model	YS-CB 2	YS-CB 4	YS-CB 6	YS-CB 8	YS-CB 10	YS-CB 12	YS-CB 14	YS-CB 16	YS-CB 18	YS-CB 20	YS-CB 22	YS-CB 24
Number of DC Inputs	2	4	6	8	10	12	14	16	18	20	22	24
Material of Box	Coated Iron											
Protection Level	IP65/IP66											
IK Impact Resistance Class	IK08											
Max Rated Voltage DC	1000V											
DC Fuse	15A (Recommend 15A, support other ampere)											
Fuse Holder	1000V DC 30A											
DC Breaker	33A	63A	100A	125A	150A	200A	225A	250A	275A	300A	315A	350A
Surge Protection DC	Type II In=20KA, Imax=40KA, Ucpv=1000V DC											
Over-Voltage Category	Cat III											
Diode for The Function of Anti-Reflex	Bulid in											
Connection Type DC Input	PG09, IP68											
Input Cable Size for Negative and Positive	Φ4-8mm											
Number of DC Outputs	1 (Support customize for output number)											
Connection Type DC Output	PG11	PG11	PG13.5	PG19	PG19	PG25	PG25	PG25	PG29	PG29	PG29	PG29
Gland Connectors	Material: Nylon Plastic, Seals: Nitrile Rubber Buna, IP68											
Ambiant Temperature Range/Humidity	Temperature: -20°C ~+60°C , Humidity: 0-99%											
Altitude	≤ 2000m. Derating for above 2000m.											
Installation	Wall mounting/Padlockable latch											

Function

1. Water proof, dust proof.
2. PV convergence, current anti-reverse protection, over current protection, over voltage protection and lightning protection.
3. Can work for PV grid-tie inverter and off-grid inverter.
4. Anti-theft lock.

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DC Isolated Switch

•YSNQ-40



•Specification

Main Parameters			YSNQ-40
Rated insulation voltage	Ui	V	1500
Rated thermal current	Ith	A	32
Rated impulse withstand voltage	Uimp	V	8000
Rated short-circuit making capacity	Icw	A	1000
Maximum cable cross sections (incl. jumper)			
Solid or standard		mm ²	2.5-6
Flexible		mm ²	2.5-6
Flexible (+ multicore cable end)		mm ²	2.5-6
Torque			
Tightening torque terminal screws M4.		Nm	1.2-1.8
Tightening torque shell mounting screws		Nm	1.5-2.0
Tightening torque knob screws		Nm	0.5-0.7
Switching on or off Torque		Nm	0.9-1.3
The wiring Torque on Base		Nm	1.1-1.4
General parameters			
Knob positions			OFF at 9 hr, ON at 12 hr
Mechanical life			10000
Number of DC poles			2 or 4
Operation temperature			-40 to +85
Storage temperature			-40 to +85
Pollution degree		°C	2
Overvoltage category		°C	III
IP rating of shafte and mounting nul			IP66

•Packing Specification Sheet

规格 Specs	型号 Model	装箱数 PCS/CTNS	外箱尺寸 DIM.(mm)	毛重 G.W. (kg)	备注 P.S.
DC1000V/32A	YSNQ-40	20	570*340*260	15	No waterproof connector
DC1000V/32A	YSNQ-40	20	565*275*495	15	With waterproof connector
DC1000V/32A	YSNQ-40	20	565*275*495	15.5	Basics
DC1000V/32A	YSNQ-40	20	565*275*495	23	2 in 2 out (with wire)
DC1000V/32A	YSNQ-40	20	595*400*360	19	2 in 2 out (MC4)

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PV Connector



•Specification

Connector System	Φ4mm
Rated Voltage	1000V/ 1500V DC
Rated Current	17A(1.5mm ²) 22A(2.5mm ² ; 14AWG) 30A(4,6mm ² ; 10,12AWG)
Test Voltage	6KV(50Hz, 1 min.)
Ambient Temperature Range	IEC: -40°C ~ +90°C UL: -40°C ~ +75°C
Upper Limiting Temperature	IEC: +105°C
Degree of Protection, Mated, Unmated	IP67,IP2X
Contact Resistance of Plug Connector	0.5mΩ
Safety Class	II
Contact Material	copper alloy, tin plated
Insulation Material	PC/ PPO
Locking System	Snap-in
Flame Class	UL94-V0
Salt Mist Spray Test, Degree of Severity 5	IEC 60068-2-52
Connector Type	General tye, Diode type, Fuse type

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
DC1000V	45A	400*330*230	500	11
		420*420*305	1000	22
DC1000V	45A	400*330*230	500	13
		420*420*305	1000	26
DC1500V	30A	400*330*275	500	14
DC1500V	45A	400*330*275	500	16

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PV Connector

•Y Type



•Specification

Connector Type	MC4 3Y/ 4Y/ 5Y
Rated Voltage	1000VDC
Rated Current	20A(4mm ²) 30A(6mm ²)
Single Core Cable Section	1.5mm ² ~ 6mm ²
Cable Outer Diameter	1.5mm ² ~ 6mm ²
Ambient Temperature Range	-40°C ~ +105°C
Degree of Protection, Mated	IP67
Contact Resistance	≤ 0.5mΩ
Insulation Resistance	>500mΩ
Contact Material	Copper alloy, tin plated
Insulation Material	PPO, Black
Terminal Connection	Crimping
Flame Class	UL94-V0
Safety Class	II

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
DC1500V	3Y/50A	400*330*27.5	100	13
DC1500V	4Y/50A	400*330*275	50	10
DC1500V	5Y/50A	400*330*275	50	16

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PV Connector

•T Type



•Specification

Connector Type	MC4 3T/ 4T/ 5T/ 6T/ 7T
Rated Voltage	1000VDC
Rated Current	20A(4mm ²) 30A(6mm ²)
Single Core Cable Section	1.5mm ² ~ 6mm ²
Cable Outer Diameter	1.5mm ² ~ 6mm ²
Ambient Temperature Range	-40°C ~ +105°C
Degree of Protection, Mated	IP67
Contact Resistance	≤ 0.5mΩ
Insulation Resistance	>500mΩ
Contact Material	Copper alloy, tin plated
Insulation Material	PPO, Black
Terminal Connection	Crimping
Flame Class	UL94-V0
Safety Class	II

•Packing Specification Sheet

规格 Specs	型号 Model	外箱尺寸 DIM.(mm)	装箱数 PCS/CTNS	毛重 G.W. (kg)
DC1500V	3T/50A	400*330*275	200	22.5
DC1500V	4T/50A	400*330*275	150	23
DC1500V	5T/50A	400*330*275	100	20.5
DC1500V	6T/50A	400*330*230	50	12
DC1500V	7T/50A	400*330*230	50	14

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**Your Electrical Journey
Begins Here**

Thank you for exploring our collection. Each piece is crafted with passion and precision.

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