

DC Isolator Switch and DC Circuit Breaker for Photovoltaic

www.zjbeny.com



ZHEJIANG BENYI ELECTRICAL CO., LTD

Address: Beibaixiang Zhong shi Industrial Zone
Wenzhou, China

TEL: +86-577-5717 7222

FAX: +86-577-5717 7007

Email: benyi@zjbeny.com

Http:// www.zjbeny.com

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 If the models and specifications in this product catalogue is changed due to the change of products, we will not inform.



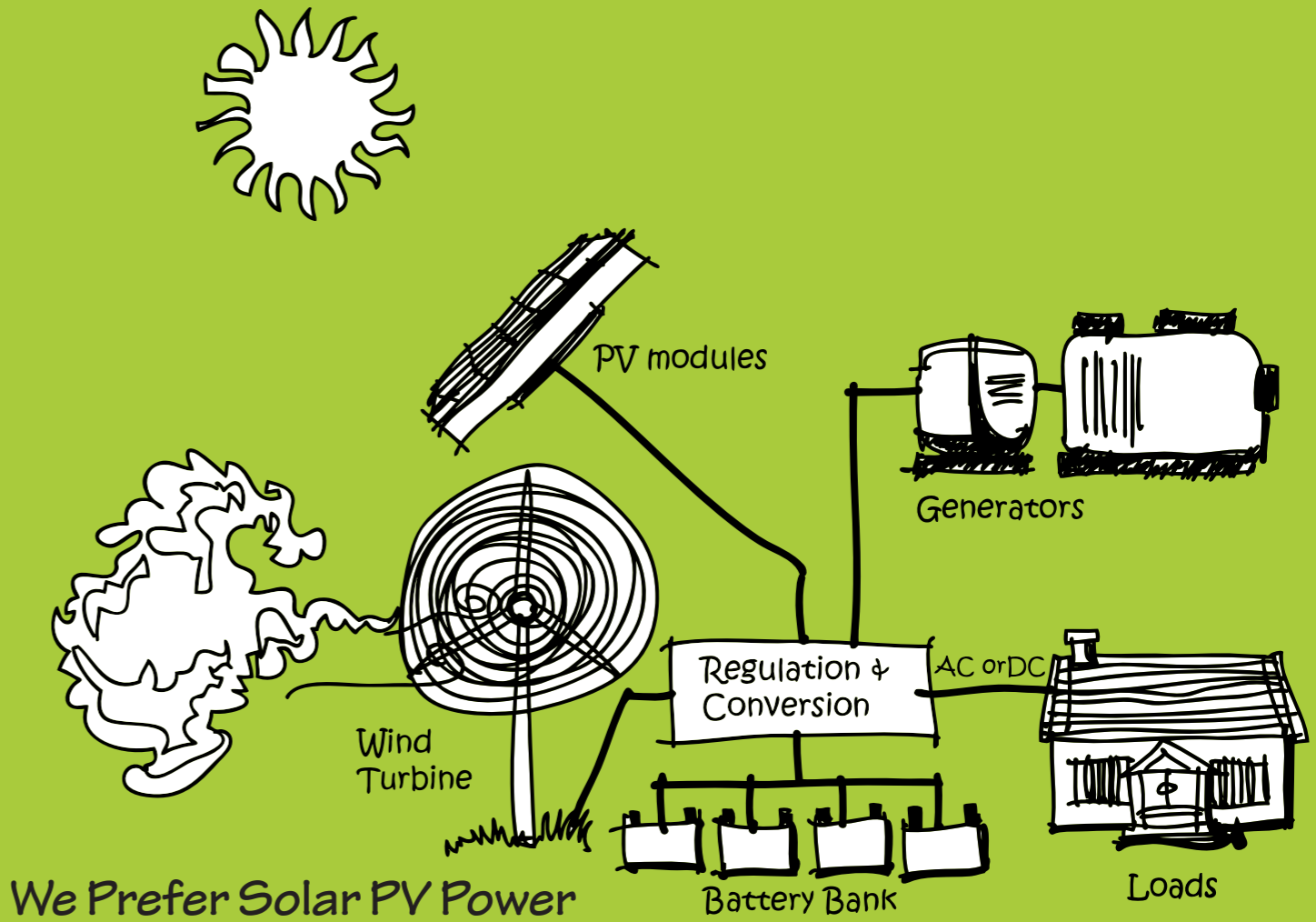
Leading Manufacturer for
PV Solution



Beny's commitment: Making More Reliable and safer Solar PV Solutions

Our PV Products Including:

- PV DC Isolator switch
- PV DC MCB
- PV DC MCCB
- PV DC Fuse Holder
- PV DC Surge surge protection device
- PV DC monitoring device
- PV DC String Combiner Box



Leading Supplier for Solar Photovoltaic Components



BENY Electrical Production Base in Wenzhou

COMPANY PROFILES



Leading Manufacturer for
PV Solution

ZJ·BENY is one of pioneer in china in the development, production and sales of photovoltaic (PV) DC string combiner box .We mainly manufacturing DC isolator ,DC circuit breaker, DC fuse ,DC surge protection device and smart monitoring device.

With more than 25 years experiences in traditional electrical area we could provides powerful support for the renewable business.

With each product is backed by the skills and service of dedicated team of customer-focused specialists, we have been striving to provide high-quality products for residential, commercial and utility-scale solar projects, we strictly make the management as per the ISO9001:2008

So far we have already obtained TUV / ROHS / CE / SAA /CB / SEMKO / VDE / CCC / CQC certifications.

ZJ·BENY Enjoys a ready market in many countries and areas, our products are widely exported to Australia, Japan, Germany, Malaysia, South Africa, Sri Lanka ,Indonesia, Middle East countries.

Our primary customers include Engineering Procurement Contractors (EPCs), solar developers, Real Estate developers, Electrical distributors and contractors, and Solar Financing companies with solar installations .

ZJ·BENY is dedicated to make the solar power more reliable and safe.

Mission:

Making Solar PV Power System More Reliable and Safe

Value:

Honesty, Responsibility, Innovation

Faith:

People-oriented, creating value; Scientific management, keeping developing

Quality policy:

Create the Best Products and Superb Service

Social Responsibility:

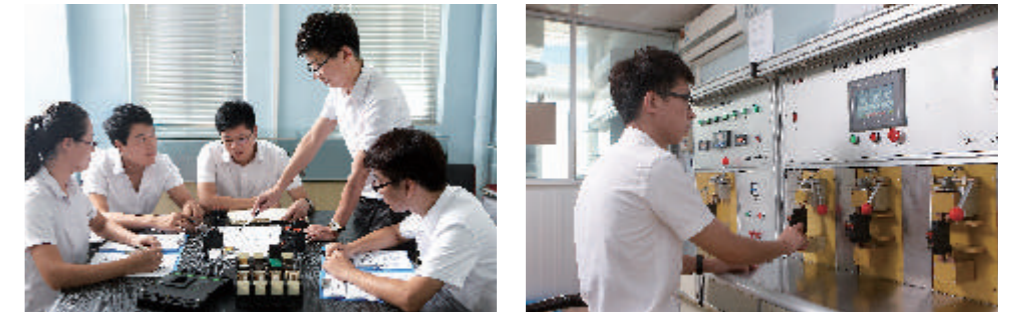
Devote us to improve the quality of life of the workforce and their families as well as the local community and society at large and to behave ethically in business and contribute to economic development.

Making superb Product ,Creating Top Brand

MANUFACTURING



Photovoltaic DC components production workshop



The ZJ·BENY Quality Management System, which includes this Policy, provides the framework through which a formal and continuing program of review is adopted and fully supported so that products, services and the effectiveness of systems, policies, objectives and targets may be continually measured and improved as far as possible. ZJ·BENY defines Quality as conformance to our Customers' needs, both internally and externally, and as conformance to all defined quality system requirements. Consequently, we recognise the value of our customers and the impact of our activities upon them.

ZJ·BENY

Pursue zero product Defect,
Strict quality control



Smart junction box production workshop



Strict quality control

Quality is life, quality is competition, with perfect products we won long-term customer. For every product we exported, we got 100% positive feedback in Australia, Europe, USA and South-east Asia.

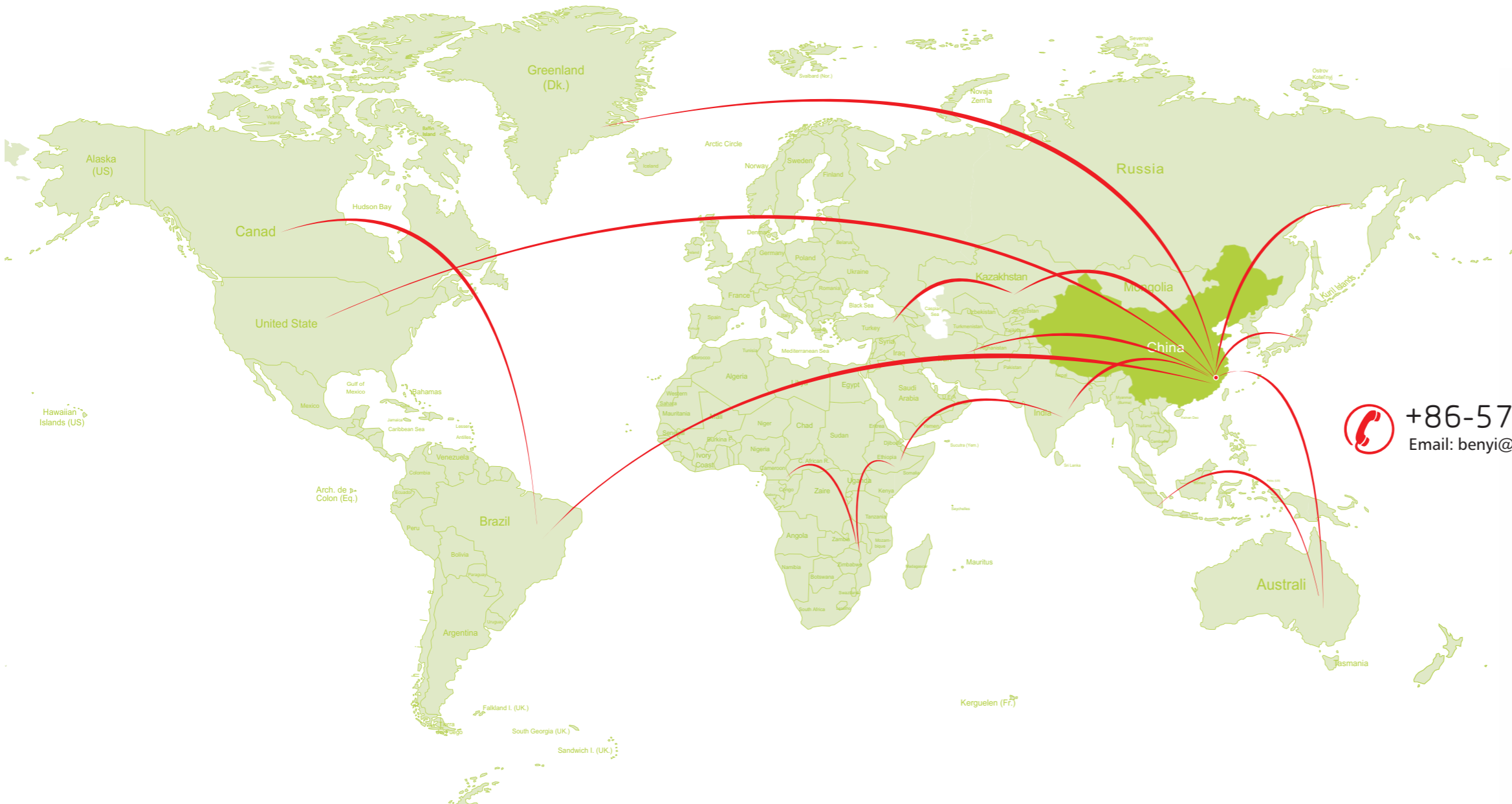
Strong R&D capacity

Professional engineers with 25 years experience in traditional electrical products, now we build a gradient-type R&D team to develop series DC products for PV.

ADVANTAGE

MARKETING SERVICE

Dedicated to the global sale of ZJ·BENY brand products



+86-577-57177222
Email: benyi@zjbeny.com



Industry custom service all over the world

SUCCESSFUL CASES

CERTIFICATE



Location: Western Australia



Location: Poland



Location: Beinwil, Switzerland



Location: Jiangxi, China



Location: South Africa



Location: Tamilnadu, India



Location: California, USA



Location: Japan



Location: Hunan, China



ZJ·BENY

Series DC Isolator Switches/Circuit Breaker

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www.zjbeny.com



Why DC Isolator Switch?

ZJ·BENY DC isolator switch is used between DC PV arrays and grid-connect inverters. Positioned adjacent to the inverter a DC switch is required to provide a means of manually isolating the entire PV array during system installation or any subsequent maintenance. Because if without isolator switch, the PV array cannot be turned off and terminals remain live at all times during daylight hours.

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PV DC Isolator Switches

BYH Series DC Isolator Switches

ZJ·BENY



True DC Switch

Beny PV DC Isolators Switch have been specifically developed for arduous DC disconnect applications and feature an operator independent trigger ratchet switching mechanism resulting in switching times of less than 3ms. Additionally high reliability knife edge contacts and long arc cooling chambers ensure safe and effective isolation of DC voltages within solar installations.

Beny successfully obtained the Certifications: TUV/SAA/ROHS/CB/CE

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- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Knob
- 5 BE LOCKABLE
- 6 Brand
- 7 ON
- 8 OFF



BYH-32



BYH-32BC4

ZJ·BENY

Application

ZJ·BENY BYH Series DC Isolator Switch in plastic enclosure is applied 1~20KW Residential or Commercial Photovoltaic system, placed between photovoltage modules and inverters. Arcing time less than 3ms, that keep solar system more safe. To ensure its stability and long service life, our products are made by components with optimum quality. Max voltage up to 1000V DC It holds a safe lead among similar products.

Feature

- Pre-wired DC Main Switch with BC4(Optional)
- IP66 , UV Resistance
- Arcing Time < 3ms
- "OFF" Position Lockable
- Earth Terminal
- IEC/EN60947-3
- 2 Pole, 4 Poles Available(Single | Double String)
- DC-21B: 16A,25A,32A up to 1000VDC

Appearance Introduction



Parameter

Electrical Characteristics		
Type		BYH-32 BYH-32BC4
Function		Isolator, Control
Comply with		IEC60947-3
Pole		4P
Max Rated Current		32A
Rated Working Voltage	Ue	1000V DC
Rated Current	In	32A
Rated Insulated Voltage	Ui	1000V DC
Rated Impulsed Voltage	Uimp	8KV
Service Life/Cycle Operation		
Mechanical		20000
Electrical		2000
Installation Environment		
Ingress Protection		IP66
Storage Temperature		-40℃~+85℃

**BYH Series
PV DC Isolator Switches**

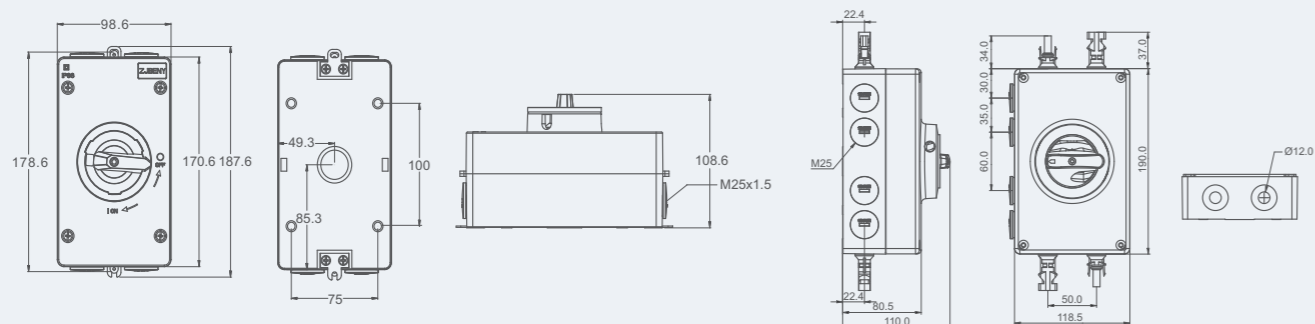
Wiring Diagram

Contacts wiring diagram	500V	600V	800V	1000V	Poles in series	Number of Strings	Type Number	Weight kg/PCS
	16A	16A	16A	9A	2	1	BYH-16PE2	0.65
	25A	25A	20A	11A	2	1	BYH-25PE2	0.65
	32A	32A	23A	13A	2	1	BYH-32PE2	0.65
	29A	29A	16A	9A	2	1	BYH-16PE2H	0.71
	45A	45A	20A	11A	2	1	BYH-25PE2H	0.71
	58A	50A	23A	13A	2	1	BYH-32PE2H	0.71
	16A	16A	16A	9A	2	2	BYH-16PE4	0.68
	25A	25A	20A	11A	2	2	BYH-25PE4	0.68
	32A	32A	23A	13A	2	2	BYH-32PE4	0.68
	16A	16A	16A	16A	4	1	BYH-16PE4S	0.69
	25A	25A	25A	25A	4	1	BYH-25PE4S	0.69
	32A	32A	32A	32A	4	1	BYH-32PE4S	0.69
	16A	16A	16A	16A	4	1	BYH-16PE4B	0.69
	25A	25A	25A	25A	4	1	BYH-25PE4B	0.69
	32A	32A	32A	32A	4	1	BYH-32PE4B	0.69
	16A	16A	16A	16A	4	1	BYH-16PE4T	0.69
	25A	25A	25A	25A	4	1	BYH-25PE4T	0.69
	32A	32A	32A	32A	4	1	BYH-32PE4T	0.69

Switching Configurations

Type	2-pole	2-pole 4 Paralleled Poles	4-pole	4-pole with Input on top Output bottom	4-pole with Input and Output bottom	4-pole with Input and Output on top
BYH-16	2	2H	4	4S	4B	4T
BYH-25	2	2H	4	4S	4B	4T
BYH-32	2	2H	4	4S	4B	4T
Contacts Wiring graph						
Switching example						

Dimensions(mm)



True DC Switch

Beny PV DC Isolators Switch have been specifically developed for arduous DC disconnect applications and feature an operator independent trigger ratchet switching mechanism resulting in switching times of less than 3ms. Additionally high reliability knife edge contacts and long arc cooling chambers ensure safe and effective isolation of DC voltages within solar installations.

Beny successfully obtained the Certifications: TUV/SAAR/ROHS/CB/CE

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- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Knob
- 5 BE LOCKABLE
- 6 Brand
- 7 ON
- 8 OFF



Accessories

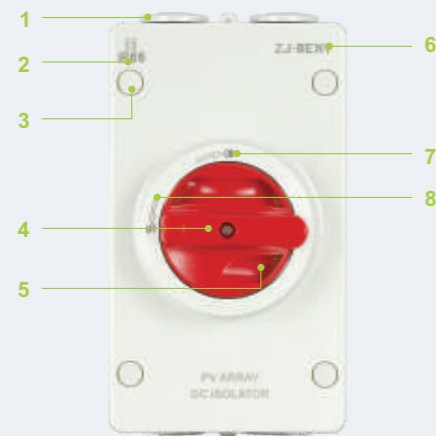
Application

ZJ·BENY BYT Series DC Isolator Switch in plastic enclosure is applied 1~20KW Residential or Commercial Photovoltaic system, placed between photovoltaic modules and inverters. Arcing time less than 3ms, that keep solar system more safe To ensure its stability and long service life, our products are made by components with optimum quality. Max voltage up to 1200V DC It holds a safe lead among similar products.

Feature

- Pre-wired DC Main Switch with BC4(Optional)
- IP66 , UV Resistance
- Arcing Time < 3ms
- "OFF" Position Lockable
- Earth Terminal
- IEC/EN60947-3
- 2 Pole, 4 Poles Available(Single | Double String)
- DC-21B: 16A,25A,32A up to 1200VDC

Appearance Introduction



Parameter

Electrical Characteristics		BYT-32	BYT-32BC4
Type		BYT-32	BYT-32BC4
Function		Isolator, Control	
Comply with		IEC60947-3	
Pole		4P	
Max Rated Current		32A	
Rated Working Voltage	Ue	1200V DC	
Rated Current	In	32A	
Rated Insulated Voltage	Ui	1200V DC	
Rated Impulsed Voltage	Uimp	8KV	
Service Life/Cycle Operation			
Mechanical		20000	
Electrical		2000	
Installation Environment			
Ingress Protection		IP66	
Storage Temperature		-40℃~+85℃	

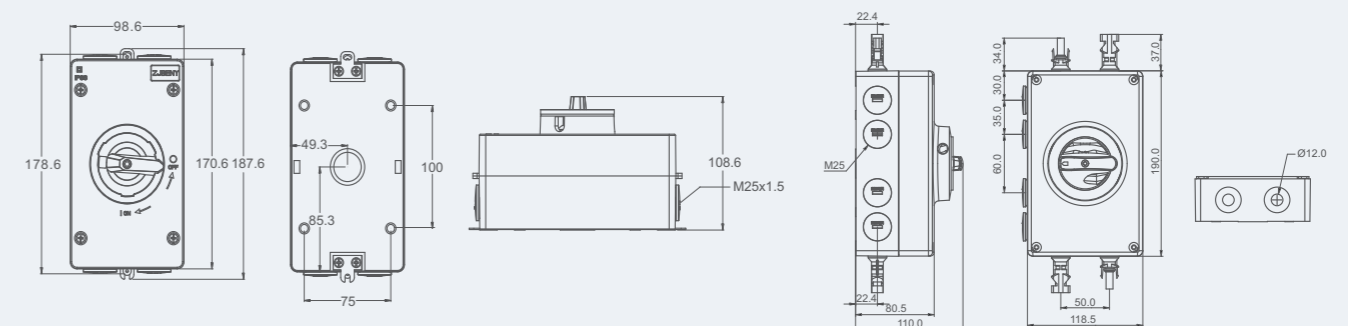
Wiring Diagram

Contacts wiring diagram	600V	800V	1000V	1200V	Poles in series	Number of Strings	Type Number	Weight kg/PCS
	16A	16A	9A	7.5A	2	1	BYT-16PE2	0.65
	25A	20A	11A	9A	2	1	BYT-25PE2	0.65
	32A	23A	13A	10A	2	1	BYT-32PE2	0.65
	29A	16A	9A	7.5A	2	1	BYT-16PE2H	0.71
	45A	20A	11A	9A	2	1	BYT-25PE2H	0.71
	50A	23A	13A	10A	2	1	BYT-32PE2H	0.71
	16A	16A	9A	7.5A	2	2	BYT-16PE4	0.68
	25A	20A	11A	9A	2	2	BYT-25PE4	0.68
	32A	23A	13A	10A	2	2	BYT-32PE4	0.68
	16A	16A	16A	16A	4	1	BYT-16PE4S	0.69
	25A	25A	25A	25A	4	1	BYT-25PE4S	0.69
	32A	32A	32A	32A	4	1	BYT-32PE4S	0.69
	16A	16A	16A	16A	4	1	BYT-16PE4B	0.69
	25A	25A	25A	25A	4	1	BYT-25PE4B	0.69
	32A	32A	32A	32A	4	1	BYT-32PE4B	0.69
	16A	16A	16A	16A	4	1	BYT-16PE4T	0.69
	25A	25A	25A	25A	4	1	BYT-25PE4T	0.69
	32A	32A	32A	32A	4	1	BYT-32PE4T	0.69

Switching Configurations

型号	2-pole	2-pole 4 Paralleled Poles	4-pole	4-pole with Input on top Output bottom	4-pole with Input and Output bottom	4-pole with Input and Output on top
BYT-16	2	2H	4	4S	4B	4T
BYT-25	2	2H	4	4S	4B	4T
BYT-32	2	2H	4	4S	4B	4T
Contacts Wiring graph						
Switching example						

Dimensions(mm)





- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Type
- 5 Application Category
- 6 Rated Voltage
- 7 Rated Current
- 8 Knob
- 9 BE LOCKABLE
- 10 Electrical Diagram
- 11 Brand
- 12 ON
- 13 OFF

BYS series isolator switch is new developed products ,which successfully pass the IP66 inspection ,power frequency withstand voltage test, cycle operation endurance etc.
It successfully obtain certifications :UL ,TUV,CB,KEMA

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BYS-32



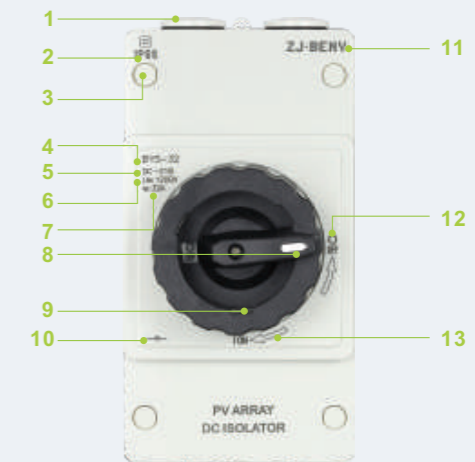
Application

ZJ·BENY BYS Series DC Isolator switch in plastic enclosure are applicable in 1-20KW Residential or Commercial Photovoltaic system, independent with inverter. This model are designed to keep solar system more safe, Max voltage up to 1500V DC. It holds a safe lead among similar products.

Feature

- Compact structure
- pre-wired DC Main Switch with BC4(optional)
- UV resistant, IP66 enclosure
- Arcing time < 3ms
- "OFF" position Lockable
- IEC60947-3 Standard
- 4P,6P
- DC-21B: 16A,25A,32A up to 1500VDC

Appearance Introduction



Parameter

Electrical Characteristics					
Type		BYS-32		BYS-32BC4	
Function		Isolator, Control			
Comply with		IEC60947-3			
Pole		4P	6P	4P	6P
Max Rated Current		32A			
Rated Working Voltage	Ue	1200V DC	1500V DC	1200V DC	1500V DC
Rated Current	In	16A/25A/32A			
Rated Insulated Voltage	Ui	1500V DC			
Application Category		DC-21B			
Service Life/Cycle Operation					
Mechanical		10000			
Electrical		1000			
Isolator Function		Yes			
Installation Environment					
Ingress Protection		IP66			
Storage Temperature		-30°C~+70°C			

PV DC Mini Circuit Breakers Isolator Switches

BYS Series PV DC Isolator Switches

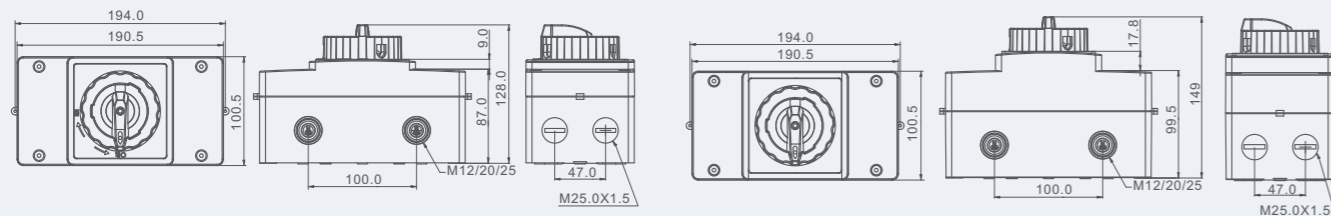
Wiring Diagram

Contacts wiring diagram	500V	600V	800V	1000V	1200V	1500V	Poles in series	Number of Strings	Type Number
	16A	16A	16A	9A			2	1	BYS.1-16 DR 2
	25A	25A	20A	11A			2	1	BYS.1-16 DR 2
	32A	32A	23A	13A			2	1	BYS.1-16 DR 2
	29A	29A	16A	9A			2+2	1	BYS.1-16 DR 2H
	45A	45A	20A	11A			2+2	1	BYS.1-16 DR 2H
	58A	58A	23A	13A			2+2	1	BYS.1-16 DR 2H
	16A	16A	16A	9A			4	2	BYS.1-16 DR 4
	25A	25A	20A	11A			4	2	BYS.1-16 DR 4
	32A	32A	23A	13A			4	2	BYS.1-16 DR 4
	16A	16A	16A	16A			4	1	BYS.1-16 DR 4S
	25A	25A	25A	25A			4	1	BYS.1-16 DR 4S
	32A	32A	32A	32A			4	1	BYS.1-16 DR 4S
	16A	16A	16A	16A			4	1	BYS.1-16 DR 4B
	25A	25A	25A	25A			4	1	BYS.1-16 DR 4B
	32A	32A	32A	32A			4	1	BYS.1-16 DR 4B
	16A	16A	16A	16A			4	1	BYS.1-16 DR 4T
	25A	25A	25A	25A			4	1	BYS.1-16 DR 4T
	32A	32A	32A	32A			4	1	BYS.1-16 DR 4T
	60A	45A	32A	25A	16A	13A	3+3	1	BYS.1-16 DR 3H
	80A	63A	50A	40A	32A	23A	3+3	1	BYS.1-16 DR 3H
							3+3	1	BYS.1-16 DR 3H
	16A	16A	16A	16A	16A	16A	6	1	BYS.1-16 DR 6S
	25A	25A	25A	25A	25A	25A	6	1	BYS.1-16 DR 6S
	32A	32A	32A	32A	32A	32A	6	1	BYS.1-16 DR 6S
	16A	16A	16A	16A	16A	16A	6	1	BYS.1-16 DR 6B
	25A	25A	25A	25A	25A	25A	6	1	BYS.1-16 DR 6B
	32A	32A	32A	32A	32A	32A	6	1	BYS.1-16 DR 6B

Switching Configurations

Type	2-pole	2-pole 4 Paralleled Poles	4-pole	4-pole with Input on top Output bottom	4-pole with Input and Output bottom	2-pole 6 Paralleled Poles	6-pole with Input on top Output bottom	6-pole with Input and Output bottom	
BYS-16	2	2H	4	4S	4B	4T	3H	6S	6B
BYS-25	2	2H	4	4S	4B	4T	3H	6S	6B
BYS-32	2	2H	4	4S	4B	4T	3H	6S	6B
Contacts Wiring graph									
Switching example									

Dimensions(mm)



True DC Product
Non polarity
Anti-reflux
It successfully obtain certifications : TUV, CB, CCC, SAA

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CB

- 1 Waterproof Plug
- 2 Sealed Plug
- 3 Brand
- 4 View window
- 5 Waterproof gasket
- 6 Lock catch



BB1-63



BB1F-63

Application

ZJ·BENY BB1F-63 Series Mini circuit breaker with enclosure mainly be used in PV application, placed between solar modules and inverters. Max voltage up to 1200VDC, current up to 63A, with the function of overload protection, Anti-reflux protection and short-circuit protection. Also be applied to infrequently use for close and open. Scientific arc extinguishing design and flash barrier keep system more safe.

Feature

- Non-polarity
- Short-circuit/High breaking capacity and Anti-reflux protection
- Protection Functions: overload, short circuit , unfrequent operation
- Rated Voltage: up to 1200V
- Rated Current: up to 63A
- Comply with : IEC60947-2/GB14048-2
- Ingress Protection:IP66

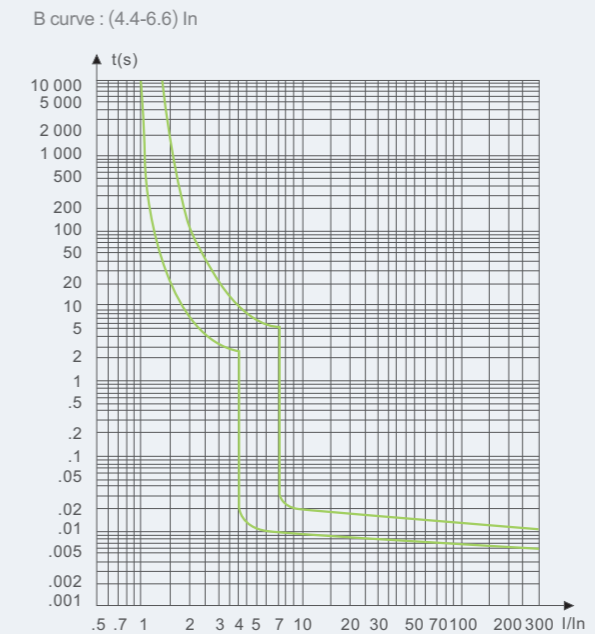
Appearance Introduction



Parameter

Electrical Characteristics		BB1-63			
Type		BB1-63			
Comply with		IEC60947-2/GB14048.2			
Pole		1P	2P	3P	4P
Rated Working Voltage	Ue	300V DC	600V DC	900V DC	1200V DC
Max Rated Current		63A			
Rated Current	In	3A, 4A, 6A, 10A, 13A, 16A, 20A, 25A, 32A, 40A, 50A, 63A			
Rated Insulated Voltage	Ui	1200V DC			
Rated Impulsed Voltage	Uimp	4KV			
Type of Breaking		H			
Ultimate Breaking Capacity Icu		6KA			
Run Breaking Capacity Ics		100%			
Curve Type		B			
Tripping Type		Thermal Magnetic Type			
Service Life/cycle Operation					
Mechanical	Actual Value	20000			
	Standard Value	8500			
Electrical	Actual Value	4000			
	Standard Value	1500			
Installation Environment					
Ingress Protection		IP66			
Terminal Cross Section		2.5-25mm ²			
Working Temperature		-25℃~+70℃			

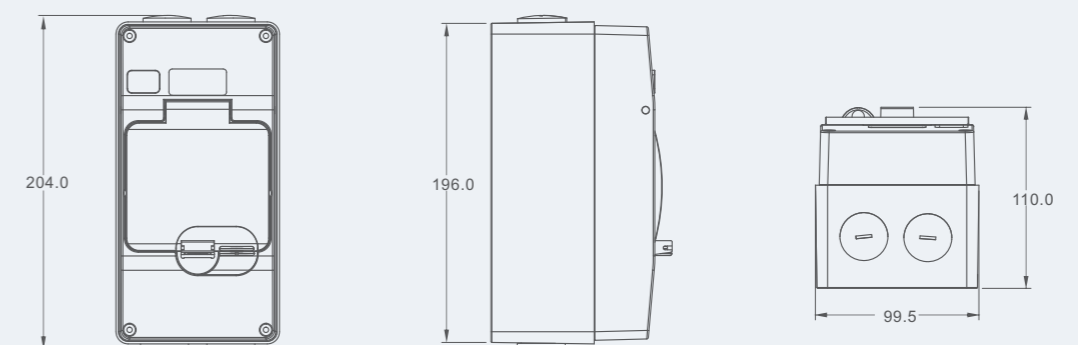
Characteristic Curve



Wiring Method

Pole	1P	2P	3P	4P
Type				
Contacts Wiring graph				

Dimensions(mm)



BB1HF-63

PV DC Isolator Switches



- 1 Waterproof Plug
- 2 Sealed Plug
- 3 Brand
- 4 View window
- 5 Waterproof gasket
- 6 Lock catch



BB1H-63



BB1HF-63

Application

ZJ·BENY BB1HF Series PV DC Isolator switches with enclosure are mainly be used in PV solar power system placed between solar modules and inverters. The Max voltage up to 1200V DC, current up to 63A ,with the function of effective disconnection and Anti-reflux protection. Scientific arc extinguishing design and flash barrier keep system more safe.

Feature

- Non-polarity
- Functions: Unfrequent operation and isolation
- Rated Voltage: up to 1200V
- Rated Current: up to 63A
- Flash barrier keep system more safe
- Comply with: IEC60947-3/GB14048-3
- Ingress Protection:IP66

Appearance Introduction



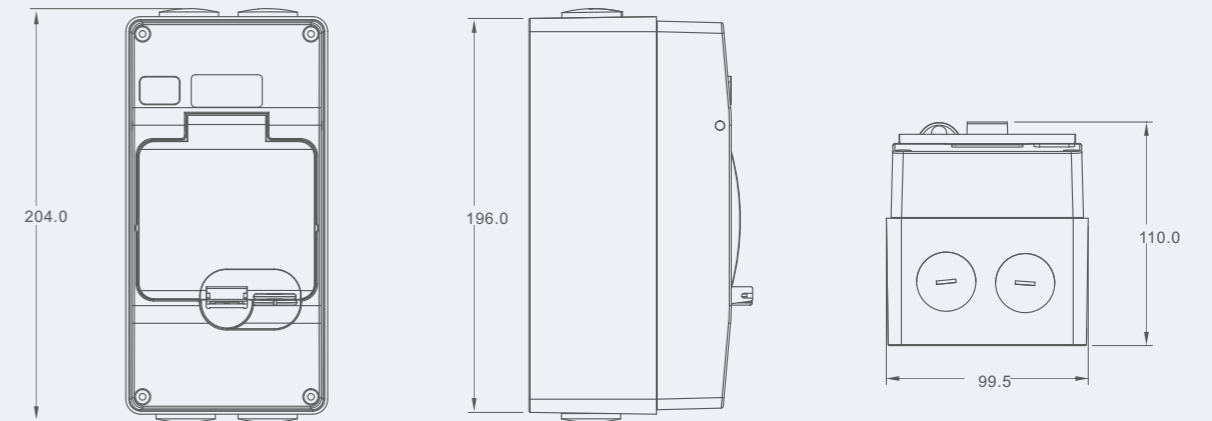
Parameter

Electrical Characteristics				
Type	BB1HF-63			
Comply with	IEC60947-3/GB14048.3			
Pole	1P	2P	3P	4P
Rated Working Voltage Ue	300V DC	600V DC	900V DC	1200V DC
Max Rated Current	63A			
Rated Current In	25A,40A,63A			
Rated Insulated Voltage Ui	1200V DC			
Rated Impulsed Voltage Uimp	4KV			
Service Life/cycle Operation				
Mechanical	Actual Value	20000		
	Standard Value	8500		
Electrical	Actual Value	4000		
	Standard Value	1500		
Isolator Function	Yes			
Installation Environment				
Ingress Protection	IP66			
Terminal Cross Section	2.5-25mm ²			
Working Temperature	-25℃~+70℃			

Wiring Method

Pole	1P	2P	3P	4P
Type				
Contacts Wiring graph				

Dimensions(mm)



Application

