

BYSS-315MOD Series Motorized DC Isolator Switch

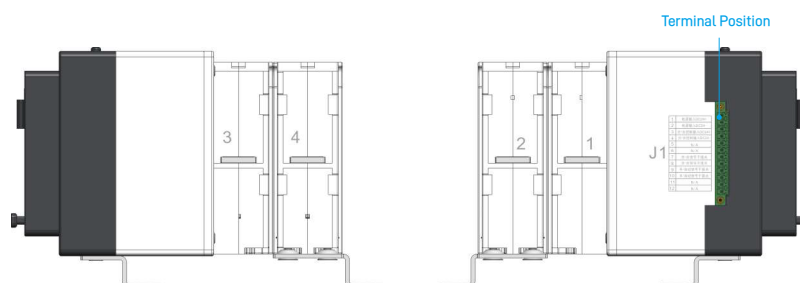
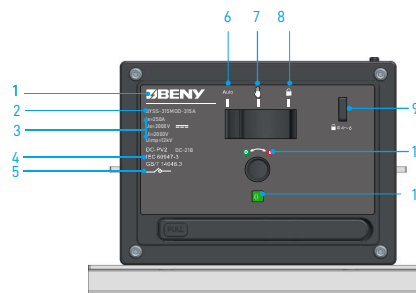
IEC60947-3

- 1 Brand
- 2 Product Model
- 3 Electrical Ratings
- 4 Standards
- 5 Electrical Symbol
- 6 Automatic Mode
- 7 Manual Mode
- 8 Padlock Position
- 9 Padlock Hole
- 10 Manual Operating Port
- 11 ON/OFF Position Indicator

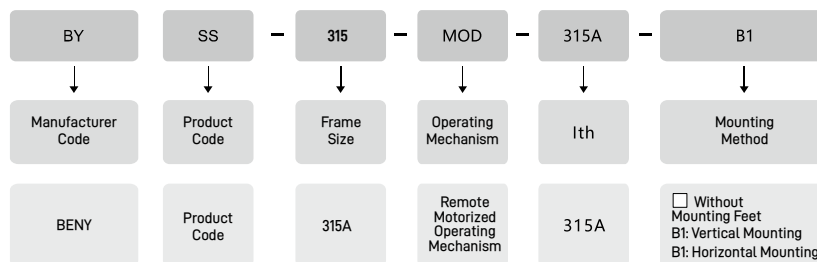
Product Overview

BENY The BYSS-315MOD Series Motorized DC Isolator Switch is designed for energy storage systems with a rated operational voltage up to DC 2000 V and a rated operational current up to 250 A. It features low temperature rise, long electrical endurance, and ultra-fast arc extinction. Equipped with both motorized and manual operating modes, it enables remote switching and isolation.

Product Structure



Model Designation



Technical Specifications

Electrical Characteristics			
Rated Operational Voltage (DC)	Ue	2000V	
Rated Operational Current	Ie	250A/200A	
Conventional Free-air Thermal Current	Ith	315A	
Rated Insulation Voltage	Ui	2000V	
Rated Impulse Withstand Voltage	Uimp	12kV	
Rated Short-time Withstand Current	Icw	8kA/1s	20kA/0.15s
Rated Short-circuit Making Capacity	Icm	10kA	
Utilization Category		DC-PV2	
On-load Operating Cycles	Times	200	
Off-load Operating Cycles	Times	5000	
Operating Mode		Manual Mode, Motorized Mode, Lockout Mode	
Motor Operating Power	W	≤87	
Motor Supply Voltage	V	DC24	
Motor Stall Protection		Yes	

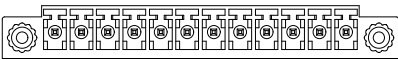
Technical Specifications

Installation & Operating Conditions

Mounting Method		Side Panel Mounting
Ambient Temperature	°C	-40 ~ +85
Storage Temperature	°C	-40 ~ +85
Relative Humidity (Non-condensing)	RH	≤ 95 %
Pollution Degree		2
IP Rating		IP20
Main Terminal Tightening Torque (M10 Bolt)	N·m	15 ~ 20 N·m
Mounting Torque	N·m	5.5 ~ 6.5 N·m
12-pin Terminal Mounting Torque	N·m	0.25 ~ 0.4 N·m
12-pin Terminal Tightening Torque	N·m	0.2 ~ 0.25 N·m

Electronic Control Module

Female Terminal Block: YE450 350 12P

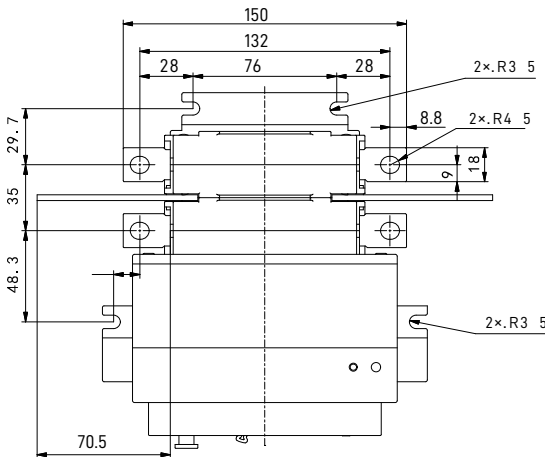
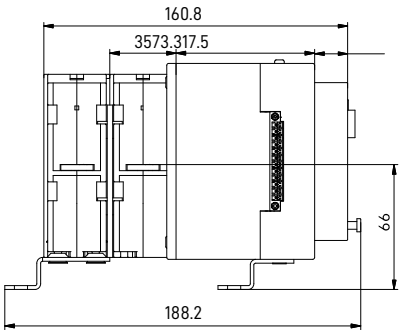
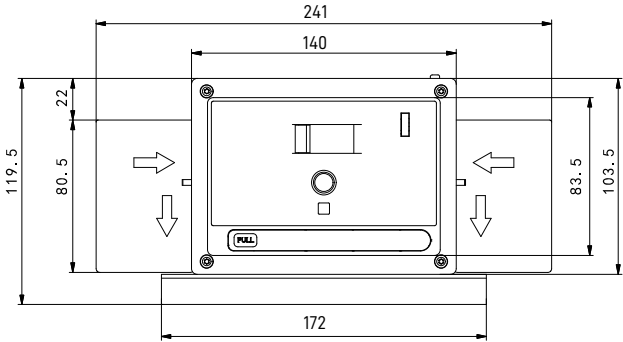


Male Terminal Block: YC421-350-12P

Input/Output Signal Terminal Definitions

1	DC 24 V+ Power Input	Power supply input for the control module. Rated input voltage: DC 24 V ±20%.	Operates within 0.8-1.5 × Un
2	DC 24 V- Power Input		
3	DC 24 V+ ON/OFF Control Input	When a continuous high-level signal (DC 24 V ±20%) is applied, the switch remains in the ON position. When the high-level signal is removed (0 V), the switch immediately turns OFF.	Active signal input. Withstands 36 V overvoltage for up to 1 hour.
4	DC 24 V- ON/OFF Control Input		
5	Reserved Terminal	/	
6			
7	ON/OFF Status Output	Switch ON:Dry contact OPEN Switch OFF:Dry contact CLOSED When used as an external load switch: Maximum current: 3 A Maximum voltage: 250 VAC	Minimum Load 6mA/24Vdc
8			
9	Manual/Motorized Mode Output	Manual Mode:Dry contact CLOSED Motorized Mode:Dry contact OPEN When used as an external load switch: Maximum current: 3 A Maximum voltage: 125 VAC	
10			
11	Reserved Terminal	/	
12			

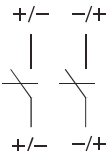
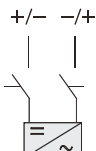
Overall Dimensions (mm)



Accessory List

Item / Qty.	Illustration	Item / Qty.	
Arc Barrier ×2		Plug-in Terminal Block ×1	

Wiring Diagram

Wiring Diagram	Application Example	Rated Operational Voltage (DC)	Rated Operational Current	
		1500V	250A 200A	1

Derating

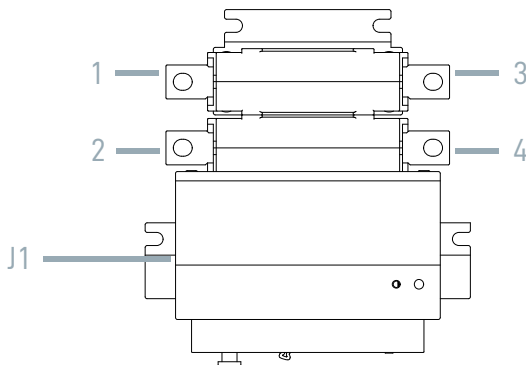
Temperature Derating

Temperature Model Current		-40℃ ~ +60℃	+65℃	+70℃	+75℃	+80℃	+85℃
		315A	315A	250A	250A	250A	250A
BYSS-315MOD-315		315A	315A	250A	250A	250A	250A

Altitude Derating

Altitude	2000m	3000m	4000m	5000m
Power-frequency Withstand Voltage	5000VDC	5000VDC	5000VDC	4000VDC
Insulation Voltage	2000VDC	2000VDC	2000VDC	2000VDC
Operating Current Correction Factor	1	1	1	1
Operating Voltage	2000VDC	2000VDC	2000VDC	2000VDC

Main Circuit Busbar & Electronic Module Interface Identification



Operating Mode Selection



Manual Mode

The selector is positioned in the center, exposing the manual operating port. The handle can be inserted into the operating port for manual ON/OFF operation.

In this mode, the padlock indicator remains retracted. The external J1 interface is disconnected, and remote operation is disabled.



Motorized Mode

Move the selector fully to the left. The manual operating port is covered, preventing insertion of the handle for manual operation.

The padlock indicator remains retracted. The external J1 interface is connected, allowing remote ON/OFF operation.



Lockout Mode

Move the selector fully to the right. The manual operating port is covered, preventing manual operation.

The padlock indicator pops out, allowing a padlock to be installed to lock the switch in the OFF position and prevent unauthorized operation.

Note: When the switch is in Lockout Mode, press the padlock indicator back to its original position before switching to another operating mode.

BYSS-500MOD Series Motorized DC Isolator Switch

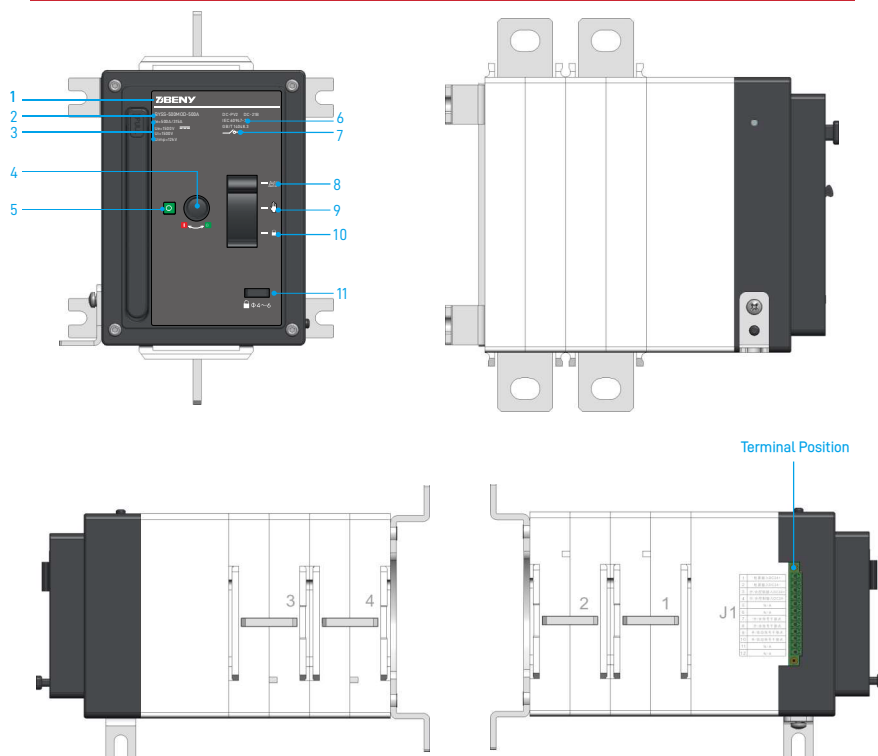
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- 6 Standards
- 7 Electrical Symbol
- 8 Motorized Mode
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- 10 Lockout Position
- 11 Padlock Hole

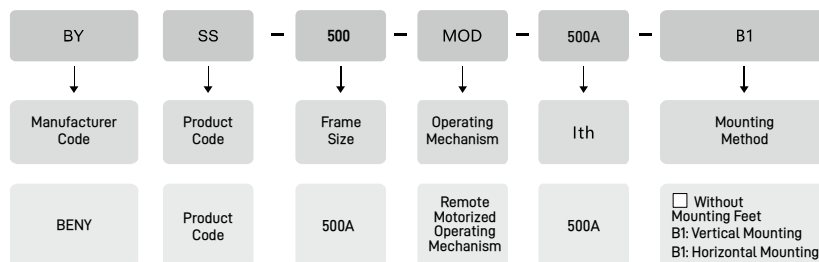
Product Overview

BENY The BYSS-315MOD Series Motorized DC Isolator Switch is designed for energy storage systems with a rated operational voltage up to DC 2000 V and a rated operational current up to 500 A. It features low temperature rise, long electrical endurance, and ultra-fast arc extinction. Equipped with both motorized and manual operating modes, it enables remote switching and isolation.

Product Structure



Model Designation



Technical Specifications

Electrical Characteristics

Rated Operational Voltage (DC)	Ue	2000V
Rated Operational Current	Ie	500A/400A/315A
Conventional Free-air Thermal Current	Ith	500A
Rated Insulation Voltage	Ui	2000V
Rated Impulse Withstand Voltage	Uimp	12kV
Rated Short-time Withstand Current	Icw	20kA/0.15s
Rated Short-circuit Making Capacity	Icm	20kA
Utilization Category		DC-PV2
On-load Operating Cycles	Times	200
Off-load Operating Cycles	Times	5000
Operating Mode		Manual Mode, Motorized Mode, Lockout Mode
Motor Operating Power	W	≤87
Motor Supply Voltage	V	DC24
Motor Stall Protection		Yes

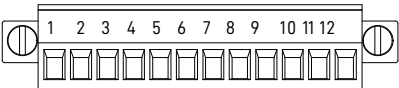
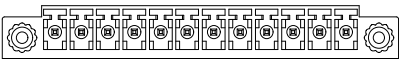
Technical Specifications

Installation & Operating Conditions

Mounting Method		Side Panel Mounting
Ambient Temperature	°C	-40 ~ +85
Storage Temperature	°C	-40 ~ +85
Relative Humidity (Non-condensing)	RH	≤ 95 %
Pollution Degree		2
IP Rating		IP20
Main Terminal Tightening Torque (M10 Bolt)	N·m	15 ~ 20 N·m
Mounting Torque	N·m	5.5 ~ 6.5 N·m
12-pin Terminal Mounting Torque	N·m	0.25 ~ 0.4 N·m
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Electronic Control Module

Female Terminal Block: YE450 350 12P

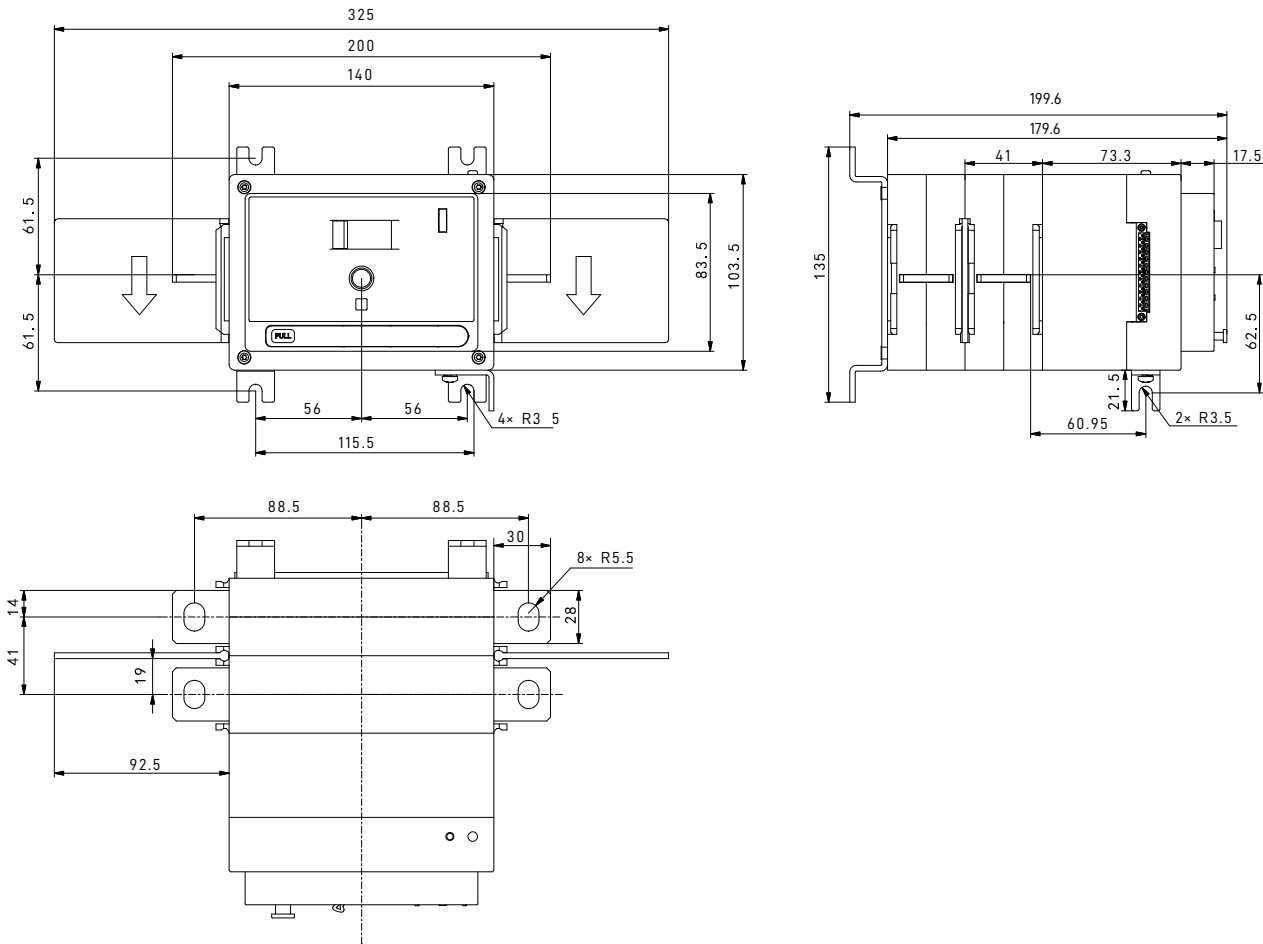


Male Terminal Block: YC421-350-12P

Input/Output Signal Terminal Definitions

1	DC 24 V+ Power Input	Power supply input for the control module. Rated input voltage: DC 24 V ±20%.	Operates within 0.8-1.5 × Un
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3	DC 24 V+ ON/OFF Control Input	When a continuous high-level signal (DC 24 V ±20%) is applied, the switch remains in the ON position. When the high-level signal is removed (0 V), the switch immediately turns OFF.	Active signal input. Withstands 36 V overvoltage for up to 1 hour.
4	DC 24 V- ON/OFF Control Input		
5	Reserved Terminal	/	
6			
7	ON/OFF Status Output	Switch ON: Dry contact OPEN Switch OFF: Dry contact CLOSED When used as an external load switch: Maximum current: 3 A Maximum voltage: 250 VAC	Minimum Load 6mA/24Vdc
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9	Manual/Motorized Mode Output	Manual Mode: Dry contact CLOSED Motorized Mode: Dry contact OPEN When used as an external load switch: Maximum current: 3 A Maximum voltage: 125 VAC	
10			
11	Reserved Terminal	/	
12			

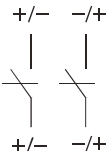
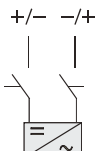
Overall Dimensions (mm)



Accessory List

Item / Qty.	Illustration	Item / Qty.	
Arc Barrier ×2		Plug-in Terminal Block ×1	

Wiring Diagram

Wiring Diagram	Application Example	Rated Operational Voltage (DC)	Rated Operational Current	
				1

Derating

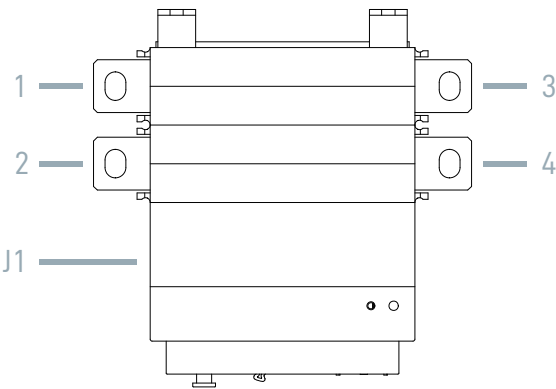
Temperature Derating

Temperature Model Current		-40℃ ~ +60℃	+65℃	+70℃	+75℃	+80℃	+85℃
		500A	500A	500A	500A	430A	430A
BYSS-315MOD-315		500A	500A	500A	500A	430A	430A

Altitude Derating

Altitude	2000m	3000m	4000m	5000m
Power-frequency Withstand Voltage	5000VDC	5000VDC	5000VDC	4000VDC
Insulation Voltage	2000VDC	2000VDC	2000VDC	2000VDC
Operating Current Correction Factor	1	0.93	0.88	0.82
Operating Voltage	2000VDC	2000VDC	2000VDC	2000VDC

Main Circuit Busbar & Electronic Module Interface Identification



Operating Mode Selection



Manual Mode

The selector is positioned in the center, exposing the manual operating port. The handle can be inserted into the operating port for manual ON/OFF operation.

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Move the selector fully to the right. The manual operating port is covered, preventing manual operation.

The padlock indicator pops out, allowing a padlock to be installed to lock the switch in the OFF position and prevent unauthorized operation.

Note: When the switch is in Lockout Mode, press the padlock indicator back to its original position before switching to another operating mode.