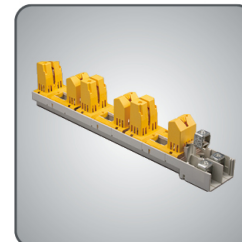
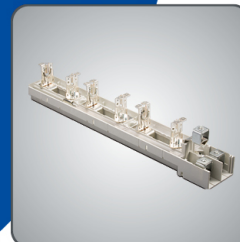




DHECN[®]

HHT10 Series

Selection Manual for Bar-type
Vertical Fuse Switch Disconnecter

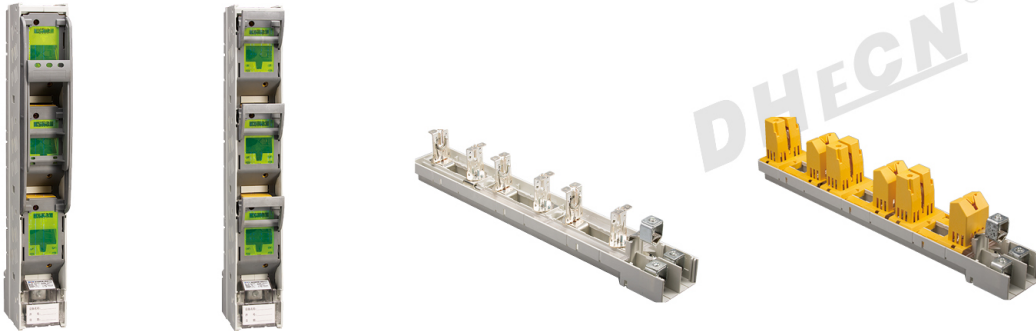


DONGHUA ELECTRIC STOCK CO., LTD. OF ZHEJIANG

HHT10 Series Bar-type Vertical Fuse Switch Disconnecter

Version Number:202405

Current classification: 160A、250A、400A、630A



Applicable Scope

The HHT10 series bar-type vertical fuse switch disconnecter (hereinafter referred to as switches) are used for AC 50/60Hz, rated voltages up to AC400V, AC500V, AC690V, and agreed heating currents up to 630A. It is used for infrequent connection and disconnection of circuits and isolation in enterprise power distribution systems. It is used as a power switch, disconnect switch, emergency switch, and for circuit protection, but it is not typically used for direct switching of individual units. This product is used for electric motors. It has a novel appearance and is widely used in cable branch boxes, American-style box transformers, and other applications.

This product complies with the standards GB/T14048.3 IEC60947-3.

Meaning of Product Model

HHT 10 - □ / □ □ □

"D" indicates with isolating knife; no "D" indicates with fuse

"L" represents the ability to simultaneously open and close three phases; "F" indicates that each phase needs to be independently opened and closed

Number of poles, "3" represents 3 poles

Agreed heating current

Design code

Fuse switch disconnecter

Normal Working and Installation Conditions

1. The ambient air temperature shall not exceed +40 °C and not be lower than -5 °C .
2. The altitude of the installation site shall not exceed 2000m.
3. Humidity: When the maximum temperature is +40 °C , the relative humidity of the air does not exceed 50%. Higher relative humidity can be allowed at lower temperatures, such as reaching 90% at 20 °C . Due to temperature changes, special measures should be taken to treat occasional condensation.
4. The pollution level of the surrounding environment is level 3.
5. The switch should be installed in a place without significant shaking, impact vibration, and invasion of rain and snow. At the same time, the installation location should be free of explosive hazardous media, and there should be no gas or dust in the media that can corrode metals and damage insulation.

Structure Characteristics

The switch is composed of a base, contacts, cover, operating handle, arc extinguishing device, etc. The base is made of unsaturated polyester molded plastic, and the rest are pressed with arc resistant plastic. The fuse installed on the cover serves as the moving contact. The handle rotates in a fan-shaped motion along the fulcrum on the base, and the cover is connected to the fuse for opening and closing. The base is equipped with an arc extinguishing chamber to ensure the segmented ability of the switch. This product has a simple structure that is easy to disassemble and assemble.

The advantages of strong arc extinguishing ability and beautiful appearance. There are two installation methods: screw fixed installation and hook fixed installation. Fixed installation with hooks, the busbar does not require punching, making installation more convenient, flexible, and reliable.

- A 3-pole strip fuse holder installed on the bus track. It integrates three vertically arranged single pole fuse holders, with one contact (feed contact) of each phase connected to one phase, and other contacts (output contact) equipped with wire connection devices.
 - The carrier for the live parts of the fuse holder is made of sturdy fiberglass reinforced polyester material. The silver plated fuse contacts are combined with the tin plated lead plate to ensure low energy consumption of the product; High power acceptance and low temperature rise.
 - There are two installation methods: screw fixed installation and hook fixed installation.
- Fixed installation with hooks, the busbar does not require punching, making installation more convenient, flexible, and reliable.

Main technical parameters

Relationship between switches and fuses

Agreed heating current I _{th}	Matching fuse size	Rated current of fuse (A)
160	NT00、NH00	10、16、25、32、40、50、63、80、100、125、160
250	NT1、NH1	63、80、100、125、160、200、250
400	NT2、NH2	160、200、250、315、400
630	NT3、NH3	250、315、400、500、630

Main technical parameters of switches

				160			250			400			630		
With fuse	Rated working voltage	U _e	V	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690
	Rated working current	I _e	A	160	125	100	250	250	200	400	400	315	630	630	500
	Agreed heating current	I _{th}	A	160	125	100	250	250	200	400	400	315	630	630	500
	Utilization category			AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B
	Rated limiting breaking current	I _q	kA	50			100	100	50	100	100	50	100	100	50
	Rated insulation voltage	U _i	V	1000			1000			1000			1000		
	Rated impulse withstand voltage	U _{imp}	kV	12			12			12			12		
	Rated frequency		Hz	50/60			50/60			50/60			50/60		
	Electrical life		Time	200			200			200			200		
With isolation knife	Rated operational voltage	U _e	V	/			/	AC500	/	/	AC500	/	/	AC500	/
	Rated working current	I _e	A	/			/	250	/	/	400	/	/	630	/
	Agreed heating current	I _{th}	A	/			/	250	/	/	400	/	/	630	/
	Utilization category			/			/	AC-23B	/	/	AC-23B	/	/	AC-23B	/
	Short time withstand current	I _{cw}	kA	/			/	12	/	/	12	/	/	12	/
	Rated insulation voltage	U _i	V	/			1000			1000			1000		
	Rated impulse withstand voltage	U _{imp}	kV	/			12			12			12		
	Rated frequency		Hz	/			50/60			50/60			50/60		
	Electrical life		Time	/			200			200			200		
Mechanism	Mechanical lifespan		Time	1400			1400			800	800	1400	800		
	Distance between busbars		mm	185			185			185			185		
IP Grade	Front	Open		IP20			IP20			IP20			IP20		
		Closing		IP30			IP30			IP30			IP30		
Working conditions	Way of working			Work-conserving											
	Manipulate			Hand shank											
	Installation			Perpendicular											
	Pollution degree			3											
	Overvoltage level			I			IV								

Installation Precautions

- 1.The contact parameters of the switch have been set by the manufacturer and cannot be adjusted freely during use.
- 2.During the connection process between the busbar and the product, it is necessary to ensure that the distance between the busbar holes is consistent with the product wiring holes to avoid product damage caused by external forces.

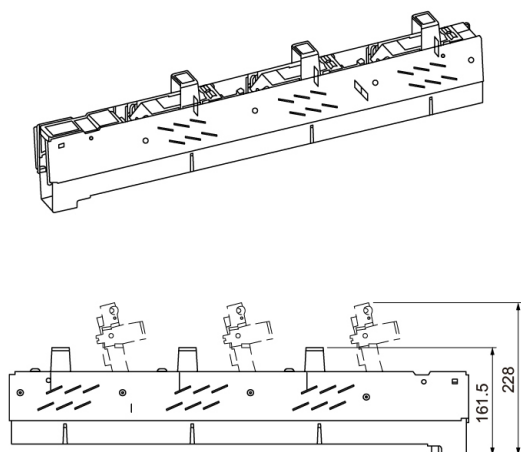
Ordering Notice

Customers must indicate the product name, model, rated current, number of poles, and quantity, for example: HHT10-400/3F (with fuse 315A).

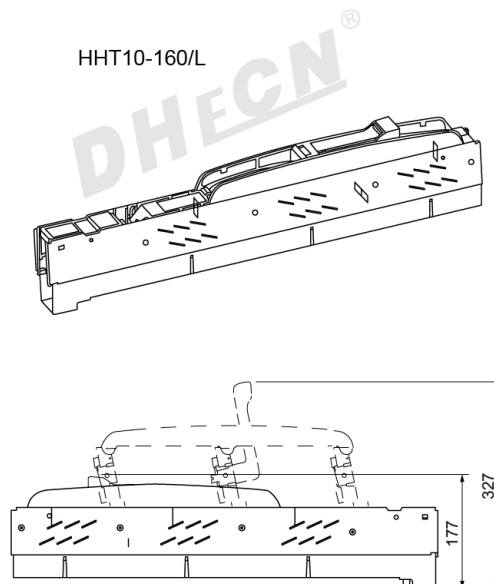
Note: The specifications and external dimensions may change due to product improvements without prior notice, and the actual product shall prevail.

Outline and Installation Dimension Diagram

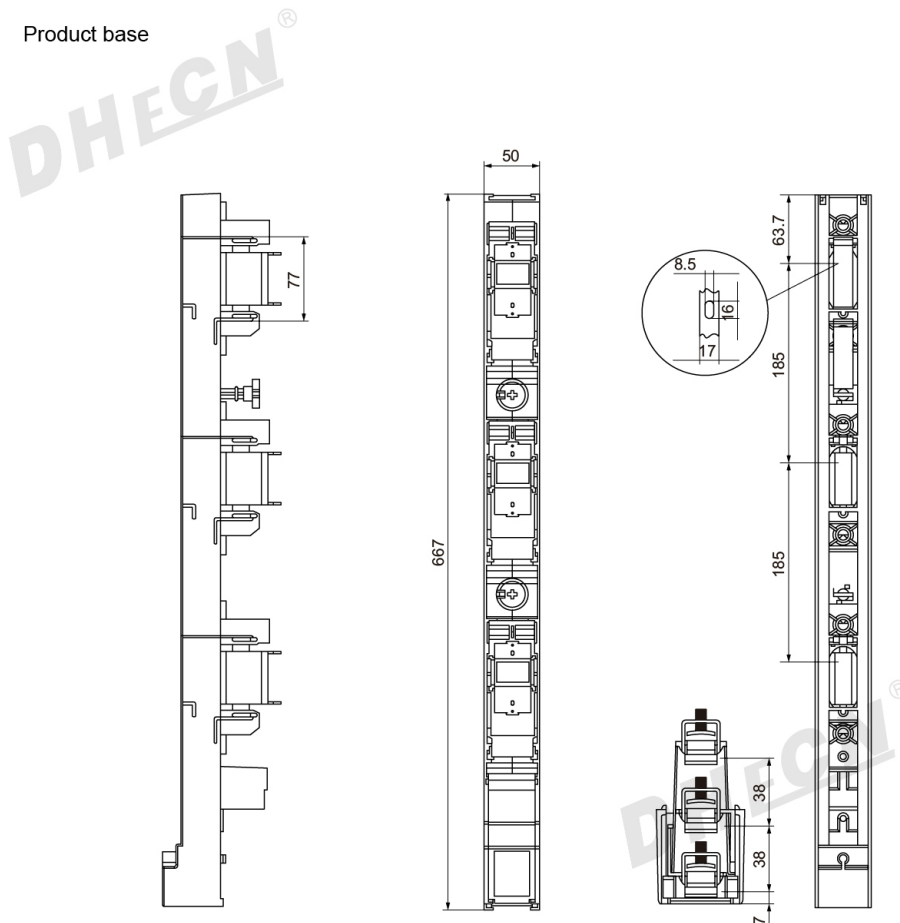
HHT10-160/F



HHT10-160/L



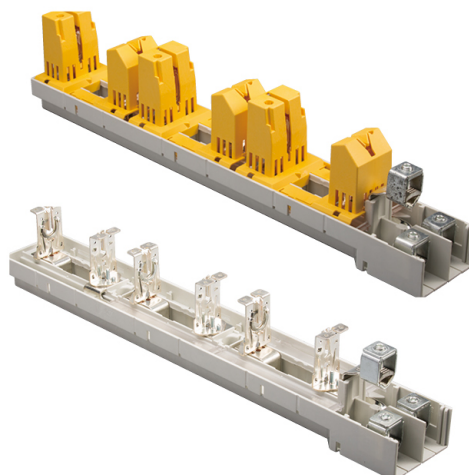
Product base



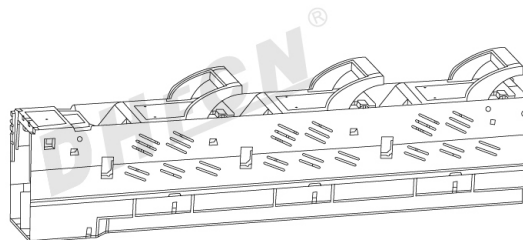
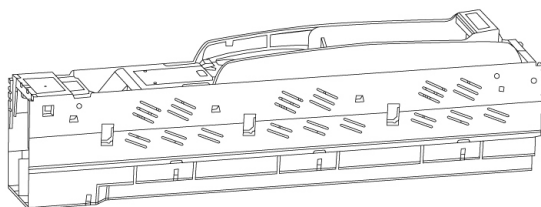
Type Specification	Construction	Generatrix(mm)	Equipped with fuses	Notes
HHT10-250/F	Pressure plate connection terminal M10	185	NT/NH1	Single-phase breaking
HHT10-400/F	Pressure plate connection terminal M10	185	NT/NH2	
HHT10-630/F	Pressure plate connection terminal M12	185	NT/NH3	
HHT10-250/L	Pressure plate connection terminal M10	185	NT/NH1	Three phase synchronous breaking
HHT10-400/L	Pressure plate connection terminal M10	185	NT/NH2	
HHT10-630/L	Pressure plate connection terminal M12	185	NT/NH3	
HHT10-250/F	V-shaped direct connection terminal	185	NT/NH1	Single-phase breaking
HHT10-400/F	V-shaped direct connection terminal	185	NT/NH2	
HHT10-630/F	V-shaped direct connection terminal	185	NT/NH3	
HHT10-250/L	V-shaped direct connection terminal	185	NT/NH1	Three phase synchronous breaking
HHT10-400/L	V-shaped direct connection terminal	185	NT/NH2	
HHT10-630/L	V-shaped direct connection terminal	185	NT/NH3	



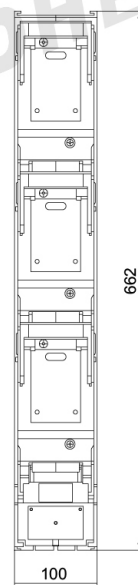
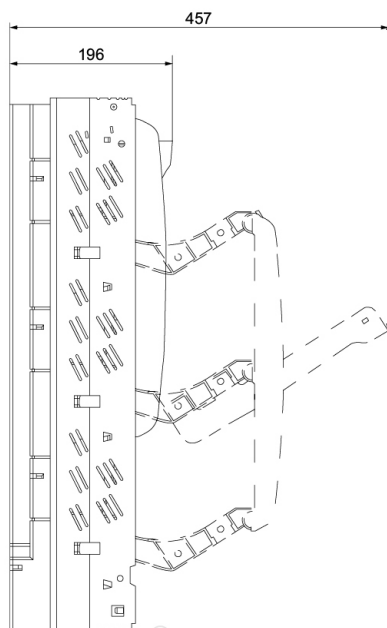
HHT10-250~630/L



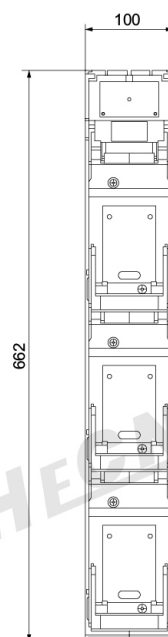
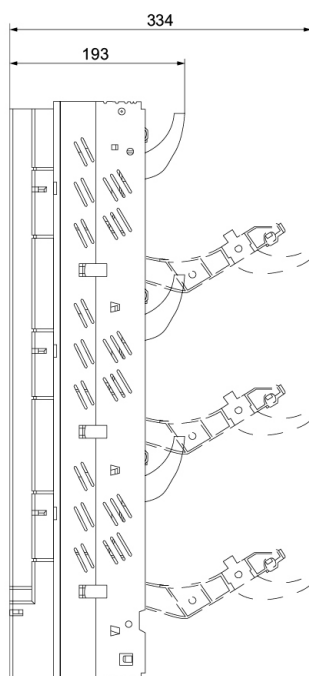
HHT10-250~630/F



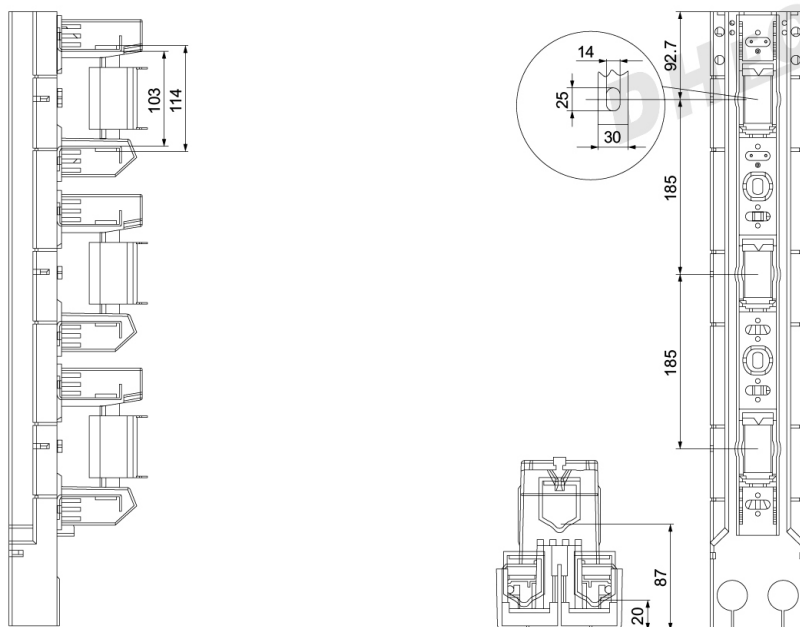
HHT10-250~630/L



HHT10-250~630/F



HHT10-250~630/L



HHT10-250~630/F

