

HVX 12 – 40kV

Vacuum Circuit Breakers



Make the most of your energy

Schneider Electric

Make the most of your
energy™



As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centres/networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, and efficient, the company's 110,000 plus employees achieved sales of more than 19.6 billion Euros in 2010, through an active commitment to help individuals and organisations make the most of their energy.

Schneider Electric

Since the establishment of its first joint-venture plant in Tianjin in 1987, Schneider Electric has established a strong foothold in the market for over 20 years, and has grown together with the Chinese economy. The most outstanding contribution made by Schneider Electric in that period was to bring circuit breaker technology into China, replacing the traditional fuse, and eventually setting new standards for breakers in China. In early 90s, the Clipsal by Schneider Electric, launched its switch panel in China, ending the Chinese history of long-term using lamp cord.

Schneider Electric's huge amount of investment constituted a strong support for China's economic construction. In the meantime, Schneider Electric provided advanced product support and sophisticated technical services for Chinese economic development: the company's industrial products, such as the low-voltage apparatuses, drives, and contactors, were extensively used in China's domestic economic development, therefore promoting the country's industrialization.

Till now, Schneider Electric had established **77** offices, **26** factories, six distribution centers, one learning institute, three research and development centers, one laboratory, **500** distributors and a nation-wide sales network. Schneider Electric currently employs **22,000** staff in China, and helps create thousands of other jobs through its partners and distributors.

Schneider Electric EcoStruxure™

Solutions

With the professional know-how in multi markets we operate and the close care of our customers, as well as our best practices in energy management, Schneider Electric has grown up from a provider of best-in-class products into an integrated solution provider. This year, we launched EcoStruxure™, an architectural approach which unites Schneider Electric's unique expertise in power, datacentres, process and machines, building control, and physical security to enable intelligent energy management solutions for customers seeking to optimise energy efficiencies across multiple domains of their business. By providing our customers with clear and comprehensive reference architectures across key environments and applications, we intend to reduce inefficiencies and save energy up to **30%**.

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HVX series vacuum circuit-breaker is the technical result of Schneider Electric one hundred years experiences in medium-voltage field.HVX is suitable for modern air-insulated switching devices and widely applied in oil and chemistry,power distribution system,transporation,industrial and mine factory etc.

Essential features

Whether you are planning new switchgear installations or upgrading existing ones,you need cost-effective and reliable components that can be easily integrated into your equipment.As a world leading component manufacturer.Schneider Electric possesses enough experiences and resources to develop the switching devices foe satisfying customers' demands globally.HVX is our latest range of vacuum circuit breaker incorporating a proven state-of-the-art design for China market.It is suitable for air-insulated switchgear and able to be interchanged with similar products.With its special design,simple and compact structure,easy operation and high reliability.HVX brings a valuable solution to your project.Especially for:Overhead line,Cable,Electro motor,Transformer,Generator,Capacitor.

Standards

HVX series vacuum circuit-breakers strictly conform to standards below:

- GB 1984,GB/T 11022
- DL/T 402,DL/T 403
- IEC 62271-100, IEC 62271-1

The highest level of the above mentioned standards have been complied with including M2, C2 and E1*.

* E2 for GB 1984,GB/T 11022.

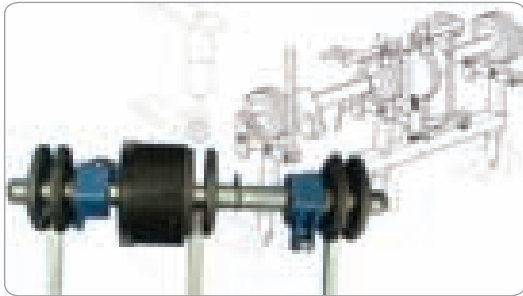
Environment and operating condition

Normal operating condition range of HVX is in line with IEC62271-100 and IEC 62271-200.

Any requirements beyond the normal condition should be consulted with the manufacturer.

Ambient conditions	
Temperature grade-5 indoor	
Optional:-25 indoor	
Minimum/maximum ambient temperature	
Average value over 24 hours(max)	-5 °C/40 °C
Average value over 24 hours(max)	35 °C
Altitude above sea-level: 1000m (For installation in special high altitude please consult the manufacturer)	

Operating mechanism



HVX adopts a spring mechanism incorporating a single-shaft system, a spiral spring supplies the energy required in a standard on and off operation cycle.

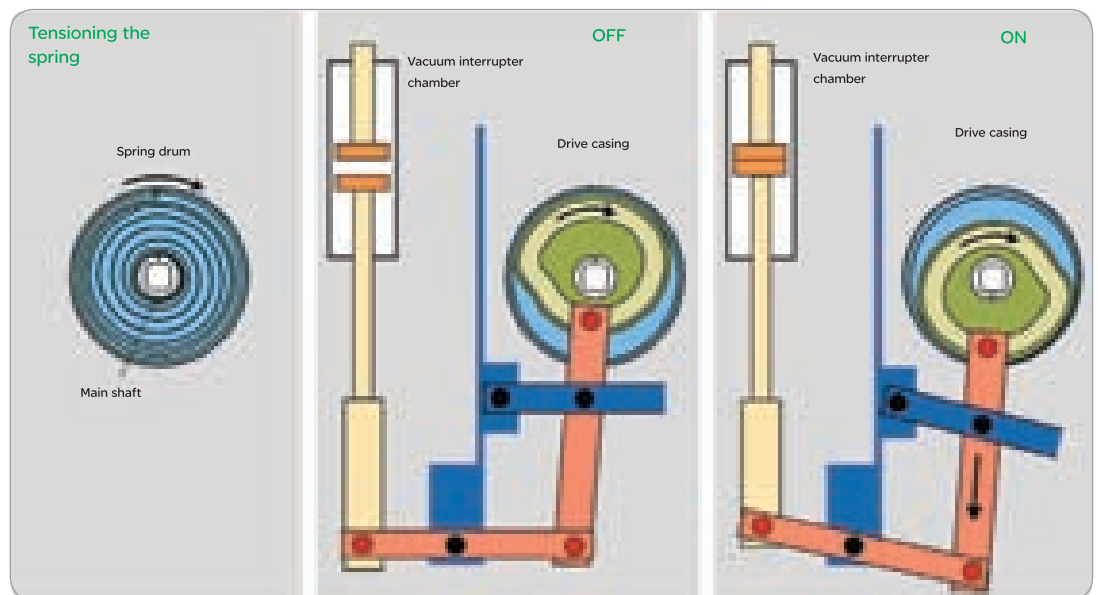
Cam output of three independent phases provides the optimal match of vacuum interrupter. The one step output of transmission mechanism and the particular axletree design has optimal transmission efficiency to ensure energy saving and stable, reliable mechanism.

Function theory

Through the electric motor or manual crank, the energy required for a whole operating cycle is stored in spiral spring. The opening and closing of vacuum interrupter is control of the cam, upon closing, the spring automatically re-store the energy for an integrated automatic on and off operating cycle.

On and off preserving mechanism, with high-efficiency rubber buffer and no rigid contact among the transmission parts, can absorb the excessive energy of the drive mechanism upon a quick on and off operation.

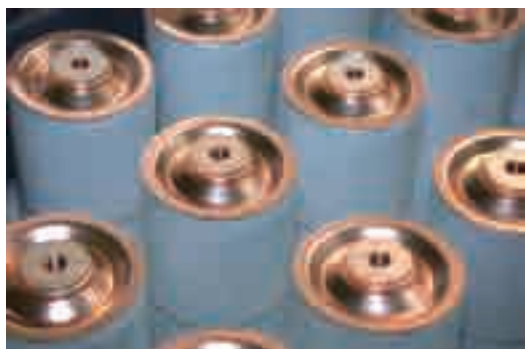
The mechanism has electric and manual charging devices. The relevant interlock prevents the error manipulation after the energy storing.



HVX Vacuum circuit-breaker

HVX12 \ HVX17.5 \ HVX24 \ HVX36 \ HVX40

Design



VG series vacuum interrupter

Vacuum interrupter

By the newest computer modeling tools, incorporating the comprehensive proven testing, Schneider Electric VG series achieves the true optimal design. With the most advanced one-stop seal-off, VG series minimizes the artificial pollution in production. With our patent design and full knowledge of vacuum interrupter technology, Schneider Electric vacuum interrupter is distinctively outstanding in medium voltage field with its high reliability, small size and long service life.

And the advantage of CuCr materials as main contacts in the interrupter provides the lower current and low surge during breaking with technique of either the radial magnetic field or axial magnetic field.

Wholly embedded-pole

The embedded pole is another contribution of Schneider Electric to medium-voltage products, with its over 100 years experience in design and manufacture, originated from 40 years operation experience of outdoor high-voltage products application technology, which has been practical test proved. Employing the elastic material of good hermetic property, completely mounding the vacuum interrupter, main circuit and insulated shaft in an epoxy pole to realize total isolation of the main circuit from the external, which obtains the pole the highest adaptability with the environment, thus the breaker can function normally under bad environment.



HVX 12/17.5 vacuum circuit-breaker

Rated voltage: 12kV
Maximum rated short-circuit breaking current: 50kA



HVX 24 vacuum circuit-breaker

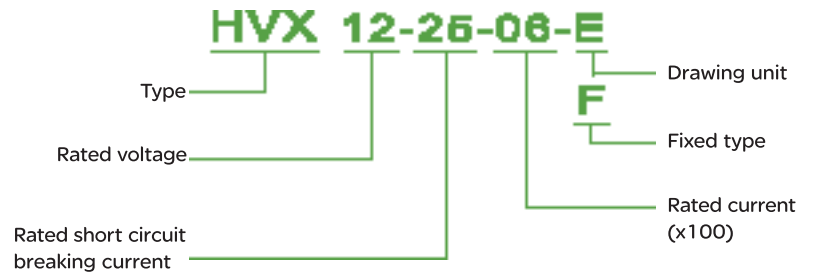
Rated voltage: 24kV
Maximum rated short-circuit breaking current: 40kA



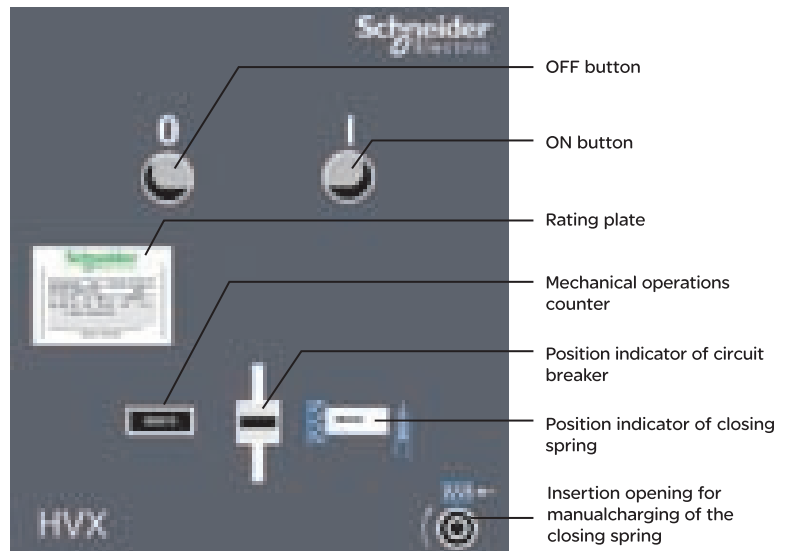
HVX36/40 vacuum circuit-breaker

Rated voltage: 40.5kV
Maximum rated short-circuit breaking current: 31.5kA

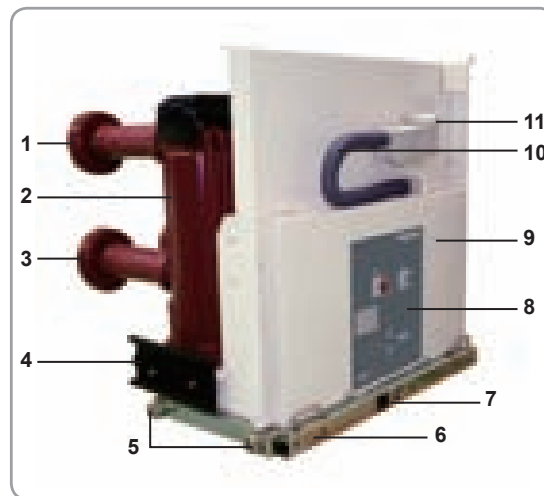
Type designation



Interface operation

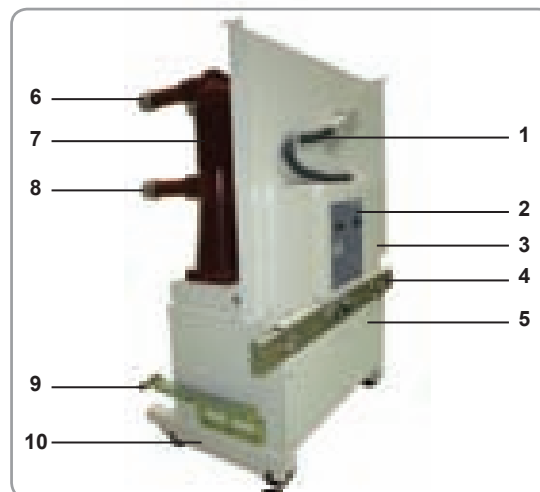


Withdrawable structure illustration



HVX 12/17.5/24

1. Upside moving-contact
2. Wholly embedded-pole
3. Downside moving-contact
4. Shutter lifting devices
5. Rollers
6. Drawing unit
7. Screw mandrel hole of truck
8. Operator interface
9. Drive housing
10. Secondary terminal
11. Secondary terminal locked institution



HVX 36/40 floor-Used

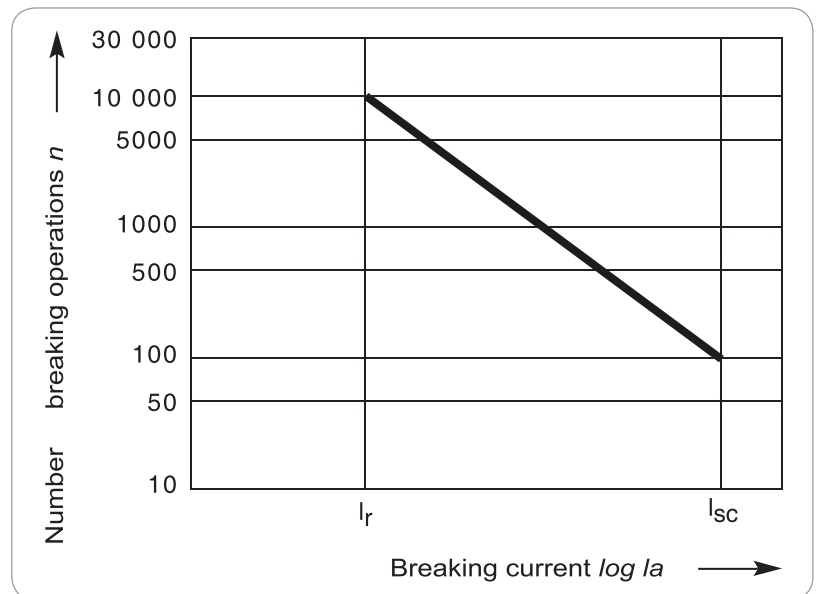
1. Secondary terminal
2. Operator interface
3. Fixed circuit-breaker
4. Screw mandrel hole of truck
5. Drawing unit
6. Upside moving-contact
7. Wholly embedded-pole
8. Downside moving-contact
9. Shutter lifting devices
10. Rollers

Test

According to the present standards, for the performance of vacuum circuit breaker, HVX has been proven in a series of tests in R&D period and type tests. These tests are performed in the manufacturer's own laboratory and authoritative institutions such as XIHARI and KEMA. The content of test not only includes the general type test items, also covering different special requirements, for example, generator protection, capacitor experiment breaking, breaking of hyper-standards and short-circuit making current, very long electric and mechanical endurance, etc.

Relationship between the permitted operation times of VG and breaking current

The following graph explains the relationship between the permitted VG operating times and breaking current. It shows whether the VG should be replaced or not.



I_r =Rated current[A]
 I_{sc} =Rated short-circuit current[kA]

Application:

- Rated short circuit breaking current and non-full loaded current
- Breaking of in-symmetrical current
- Automatic opening and closing
- Meet the no-load cables and wiring space cable and trolley cable
- Out-of-set breaking
- Meet the no-load transformer
- Different ground fault current breaking
- Breaker transient recovery voltage gradient starting a lot of short-circuit current
- Inductance motors and with the opening and closing of the gap

Release

Auxiliary switches F2 \ F11/F12

The coil of auxiliary release is actuated by auxiliary power supply. The coil is designed for short-term working, its main circuit is routed via an auxiliary switch contact controlled by the circuit breaker shaft, thus once released interrupting the current circuit.

Over current release F3

(Transformer-type over current release) Secondary release are used for automatic release of switching devices in case of short circuits and over current. Once the protector reacts, the release is actuated by the transformer current, thus causing the switching to be tripped. These releases are supplied for transformer secondary currents of 0.5A, 1A and 5A.

Under voltage release F4

Under voltage releases are supplied by the auxiliary source permanently. Wherever the auxiliary current is interrupted or its voltage drops essentially, the switching devices is tripped at once.

Auxiliary switches

Auxiliary switch in switching position S11/S12

Auxiliary switches are always actuated directly by the switch shaft via an intermediate linkage, their position always corresponding to the position of the main contacts, indicating on and off position status of the breaker, in wiring, the interlock assist the release to prevent the error manipulation. The circuit breaker is equipped on general with an auxiliary switch with 5NO+5NC (4NO+4NC+1CHG) contact elements.

Auxiliary switch in charging position S2

The auxiliary switch is mainly used for checking and indicating the charging status, it is connected by charging mechanism to assure that upon closing operating the driving mechanism can automatically store the energy. After charging finished, it breaks the electric charging finished, it breaks the electric charging circuit. The circuit breaker is equipped on general with an auxiliary switch with 8 contact elements.

Anti-pumping relay

Anti-pumping relay K01

If both an ON and OFF command are permanently present on the circuit breaker at the same time, the latter returns to its initial position after closing. It remains in this initial position until the ON command is issued again. This prevents continuous closing and opening(="pumping").

Operation counter

The counter is installed on the operation interface to record operation times of the breaker.

Charging motor

Motor M1

Electrically store the energy for the mechanism operation of the breaker,preparing the energy for closing operation the next time.

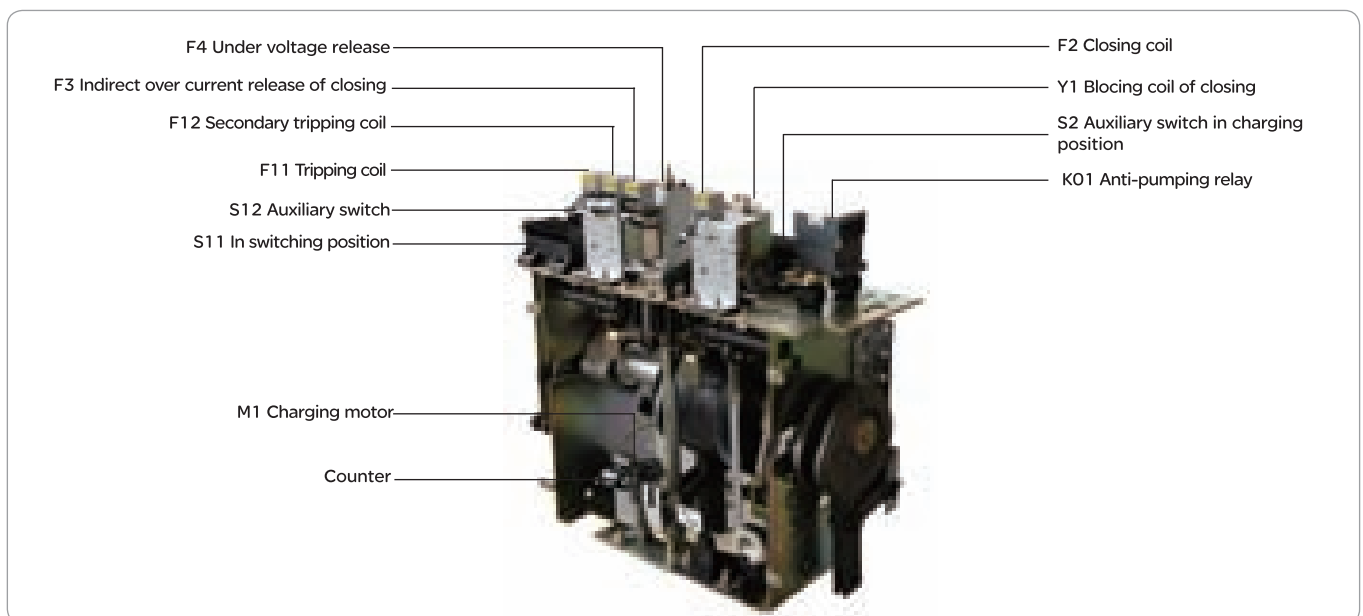
Blocking coil

Blocking coil of closing Y1

Losing the secondary controlling power supply,the breaker can not perform normally closing operation(including manual closing operation).

Blocking coil of movement track YO

Losing the secondary controlling power supply,the trolley can not perform normally manual operation.



Power consumption and tripping ranges of the releases

Release	Designation	Amount R	Rated supply voltage Ua [V]		Supply voltage range Ua [V]
Motor-actuated drive mechanism	M1	1	DC	24 48 110 220	85-110% Ua
			AC	110 220	
Closing coil	F2	1	DC	24 48 110 220	85-110% Ua
			AC	110 220	
Opening coil	F11 F12	1	DC	24 48 110 220	65-120% Ua
			AC	110 220	
Undervoltage release	F4	1	DC	24 48 110 220	35-0% Ua
			AC	110 220	

Release	Designation	Amount R	Rated supply current Ua [V]	Supply voltage range Ua [V]
Indirect over current release	F3	2	0.5 1 5	90-110% Ua

Technical data, auxiliary switch

Rated auxiliary voltage	[V]	DC[V]			AC	[V]
		≤ 48	125	220	120	230
Switching capacity	[A]	10	3,8	2	10	
Time factor T=L/R	[ms]	10		20	-	
Rated short-time current		250A/3s				
Rated continuous current	[A]	15			-	

Power consumption, solenoids and motor

solenoids/motor	power consumption[W]	
	DC[W]	AC 50/60 Hz[VA]
Closing release	≤ 250	
Opening release	≤ 250	
Undervoltage release	approx.12	
Motor for energy-storage device	approx.100	

Information about the power consumption of solenoids and the motor is available from the manufacturer. The auxiliary voltage data is required to this effect.

Operating times*

Times for solenoids and motor		
Minimum command time "OFF" el.tripping	[ms]	20
Minimum command time "ON" el.tripping	[ms]	20
Motor charging time	[s]	≤ 12

*Rated frequency according to specification on rating plate (50/60 Hz)

HVX 12 vacuum circuit-breaker

Type	Pole center spacing mm	Rated voltage kV	Rated insulation level		Rated frequency Hz	Rated current A	Rated peak withsiand current kA	(4 s) Rated short-time current kA	Rated shortcircuit breaking current		Cable-charging breaking current A
			power frequency withstand voltage kV	lightning impulse withstand voltage kV					Rated short-circuit current kA	Percentage value of the DC component %	
HVX 12-25-06 HVX 12-25-12 HVX 12-25-16 HVX 12-25-20 HVX 12-25-25 HVX 12-25-31 HVX 12-25-40	150/210 150/210 210/275 210/275 275 275 275	12	28	75	50/60	630 1250 1600 2000 2500 3150 4000*	63	25	25	45	25
HVX 12-31-06 HVX 12-31-12 HVX 12-31-16 HVX 12-31-20 HVX 12-31-25 HVX 12-31-31 HVX 12-31-40	150/210 150/210 210/275 210/275 275 275 275	12	28	75	50/60	630 1250 1600 2000 2500 3150 4000*	79	31.5	31.5	45	25
HVX 12-40-12 HVX 12-40-16 HVX 12-40-20 HVX 12-40-25 HVX 12-40-31 HVX 12-40-40	210/275 210/275 210/275 275 275 275	12	28	75	50/60	1250 1600 2000 2500 3150 4000*	100	40	40	45	25
HVX 12-50-12 HVX 12-50-16 HVX 12-50-20 HVX 12-50-25 HVX 12-50-31 HVX 12-50-40	210/275 210/275 210/275 275 275 275	12	28	75	50/60	1250 1600 2000 2500 3150 4000*	125	50	50	39	25

Note: 1) *When the rated current is 4000A, forced cooling is needed.
 2) ** The weigh of the product is for reference only.
 3) For special requirements please consult the manufacturer.

HVX Vacuum circuit-breaker

Selection List

HVX12 \ HVX17.5 \ HVX24 \ HVX36 \ HVX40

	Rated operating sequence		Number of operating cycles without overhaul				Min/Max closing time	Min/Max opening time	Bounce duration on closing	Opening Rebound	Contact eroding bedding (maximum)	Charging time motor drive mechanism	Arc duration	Weight **	
	O-0,3s-CO-180s-CO	O-180s-CO-180s-CO	Drive mechanism	Interrupter chamber	Rated (normal) current	with rated short-circuit current								Fixed type	With drawable unit
							ms	ms	ms	mm	mm	s	ms	kg	kg
●	●	30,000	30,000	10,000	100	45/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	90/100 90/100 140/150 140/150 180/190 180/190 180/190	125/135 140/150 190/200 200/210 250 270 270	
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	90/100 90/100 140/150 140/150 180/190 180/190 180/190	125/135 140/150 190/200 200/210 250 270 270	
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	140/150 140/150 140/150 190 190 190	190/200 190/200 200/210 250 270 270	
●	●	20,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	190	230/240 230/240 230/240 270 270 280	

HVX 17.5 vacuum circuit-breaker

Type	Pole center spacing mm	Rated voltage kV	Rated insulation level		Rated frequency Hz	Rated current A	Rated peak withstand current kA	(4 s) Rated short-time current kA	Rated shortcircuit breaking current		Cable-charging breaking current A
			power frequency withstand voltage kV	lightning impulse withstand voltage kV					Rated short-circuit current kA	Percentage value of the DC component %	
HVX 17.5-25-06 HVX 17.5-25-12 HVX 17.5-25-16 HVX 17.5-25-20 HVX 17.5-25-25 HVX 17.5-25-31 HVX 17.5-25-40	150/210 150/210 210/275 210/275 275 275 275	12	38	95	50/60	630 1250 1600 2000 2500 3150 4000*	63	25	25	45	25
HVX 17.5-31-06 HVX 17.5-31-12 HVX 17.5-31-16 HVX 17.5-31-20 HVX 17.5-31-25 HVX 17.5-31-31 HVX 17.5-31-40	150/210 150/210 210/275 210/275 275 275 275	12	38	95	50/60	630 1250 1600 2000 2500 3150 4000*	79	31.5	31.5	45	25
HVX 17.5-40-12 HVX 17.5-40-16 HVX 17.5-40-20 HVX 17.5-40-25 HVX 17.5-40-31 HVX 17.5-40-40	210/275 210/275 210/275 275 275 275	12	38	95	50/60	1250 1600 2000 2500 3150 4000*	100	40	40	45	25
HVX 17.5-50-12 HVX 17.5-50-16 HVX 17.5-50-20 HVX 17.5-50-25 HVX 17.5-50-31 HVX 17.5-50-40	210/275 210/275 210/275 275 275 275	12	38	95	50/60	1250 1600 2000 2500 3150 4000*	125	50	50	39	25

Note: 1) *When the rated current is 4000A, forced cooling is needed.
 2) ** The weigh of the product is for reference only.
 3) For special requirements please consult the manufacturer.

HVX Vacuum circuit-breaker

Selection List

HVX12 \ HVX17.5 \ HVX24 \ HVX36 \ HVX40

	Rated operating sequence		Number of operating cycles without overhaul				Min/Max closing time	Min/Max opening time	Bounce duration on closing	Opening Rebound	Contact eroding bedding (maximum)	Charging time motor drive mechanism	Arc duration	Weight **	
	O-0.3s-CO-180s-CO	O-180s-CO-180s-CO	mechanical	Interrupter chamber	Rated (normal) current	with rated short-circuit current								electrical	Fixed type
							ms	ms	ms	mm	mm	s	ms	kg	kg
●	●	30,000	30,000	10,000	100	45/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	90/100 90/100 140/150 140/150 180/190 180/190 180/190	125/135 140/150 190/200 200/210 250 270 270	
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	90/100 90/100 140/150 140/150 180/190 180/190 180/190	125/135 140/150 190/200 200/210 250 270 270	
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	140/150 140/150 140/150 190 190 190	190/200 190/200 200/210 250 270 270	
●	●	20,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	190	230/240 230/240 230/240 270 270 280	

HVX 24 vacuum circuit-breaker

Type	Pole center spacing mm	Rated voltage kV	Rated insulation level		Rated frequency Hz	Rated current A	Rated peak withstand current kA	(4 s) Rated short-time current kA	Rated shortcircuit breaking current		Cable-charging breaking current A
			power frequency withstand voltage kV	lightning impulse withstand voltage kV					Rated short-circuit current kA	Percentage value of the DC component %	
HVX 24-16-06	210/275	24	50	125	50/60	630	63	25	25	33	31.5
HVX 24-16-12	210/275					1250					
HVX 24-25-06	210/275					630					
HVX 24-25-12	210/275					1250					
HVX 24-25-16	275					1600					
HVX 24-25-20	275					2000					
HVX 24-25-25	275					2500					
HVX 24-25-31	275					3150*					
HVX 24-25-40	275	4000*									
HVX 24-31-06	210/275	24	50	125	50/60	630	79	31.5	31.5	33	31.5
HVX 24-31-12	210/275					1250					
HVX 24-31-16	275					1600					
HVX 24-31-20	275					2000					
HVX 24-31-25	275					2500					
HVX 24-31-31	275					3150*					
HVX 24-31-40	275					4000*					
HVX 24-40-12	275	24	50	125	50/60	1600	100	40	40	33	31.5
HVX 24-40-16						2000					
HVX 24-40-20						2800					
HVX 24-40-25						3150*					
HVX 24-40-31						4000*					
HVX 24-40-40											

Note: 1) * rated current to 3150A/4000A, the need to bring forced air
 2) ** The weight is for reference only
 3) Consult factory if special needs

HVX Vacuum circuit-breaker

Selection List

HVX12 \ HVX17.5 \ HVX24 \ HVX36 \ HVX40

	Rated operating sequence		Number of operating cycles without overhaul				Min/Max closing time	Min/Max opening time	Bounce duration on closing	Opening Rebound	Contact eroding bedding (maximum)	Charging time motor drive mechanism	Arc duration	Weight **	
	O-0.3s-CO-180s-CO	O-180s-CO-180s-CO	Drive mechanism	Interrupter chamber	Rated (normal) current	with rated short-circuit current								Fixed type	With drawable unit
							ms	ms	ms	mm	mm	s	ms	kg	kg
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	/	220/230 220/230 220/230 220/230 230/240 230/240 280 300 300	
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 2	3.5	4-12	2-15	/	220/230 220/230 230/240 230/240 280 300 300	
●	●	30,000	30,000	10,000	100	40/70	30/60	≤ 2	≤ 3	3.5	4-12	2-15	/	240 240 280 300 300	

HVX 40 vacuum circuit-breaker

Type	Pole center spacing	Rated voltage	Rated insulation level		Rated frequency	Rated current	Rated peak withstand current	(4 s) Rated short-time current	Rated shortcircuit breaking current		Cable-charging breaking current
			power frequency withstand voltage	lightning impulse withstand voltage					Rated short-circuit current	Percentage value of the DC component	
	mm	kV	kV	kV	Hz	A	kA	kA	kA	%	A
HVX 40-25-12 HVX 40-25-16 HVX 40-25-20 HVX 40-25-25 HVX 40-25-31	300	40.5	80	185	50/60	1250 1600 2000 2500 3150*	63	25	25	36	50
HVX 40-31-12 HVX 40-31-16 HVX 40-31-20 HVX 40-31-25 HVX 40-31-31	300	40.5	80	185	50/60	1250 1600 2000 2500 3150*	79	31.5	31.5	36	50

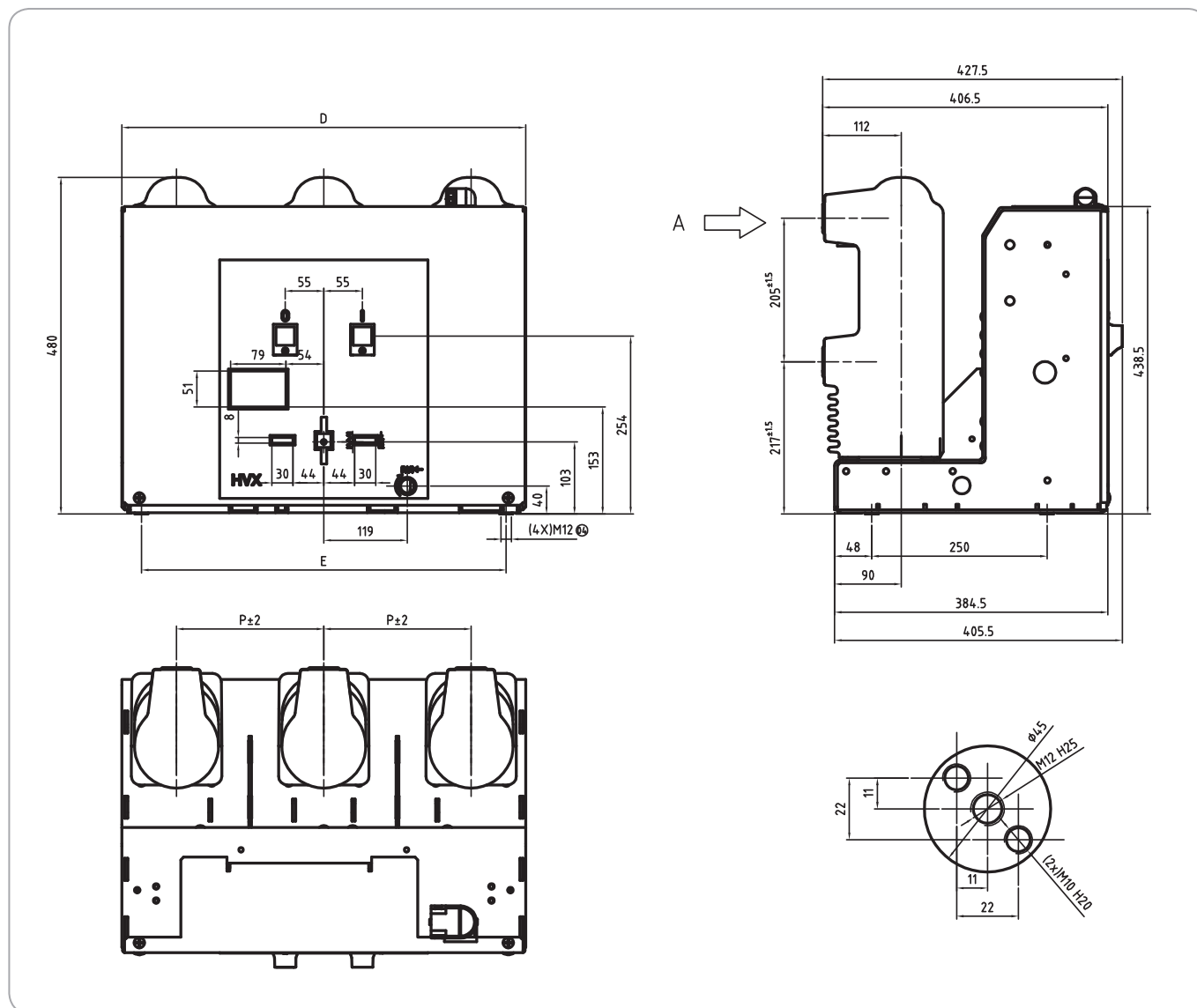
Note: 1) * rated current to 3150A, the need to bring forced air
 2) ** The weight is for reference only
 3) Consult factory if special needs

HVX Vacuum circuit-breaker

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Rated operating sequence		Number of operating cycles without overhaul				Min/Max closing time	Min/Max opening time	Bounce duration on closing	Opening Rebound	Contact eroding bedding (maximum)	Charging time motor drive mechanism	Arc duration	Weight **	
O-0.3s-CO-180s-CO	O-180s-CO-180s-CO	Drive mechanism	Interrupter chamber	Rated (normal) current	with rated short-circuit current								Fixed type	With drawable unit
						ms	ms	ms	mm	mm	s	ms	kg	kg
●	●	10,000	30,000	10,000	100	40/63	35/53	≤ 2	≤ 2	3.5	4-12	2-15	280	400
●	●	10,000	30,000	10,000	100	40/63	35/53	≤ 2	≤ 2	3.5	4-12	2-15	280	400



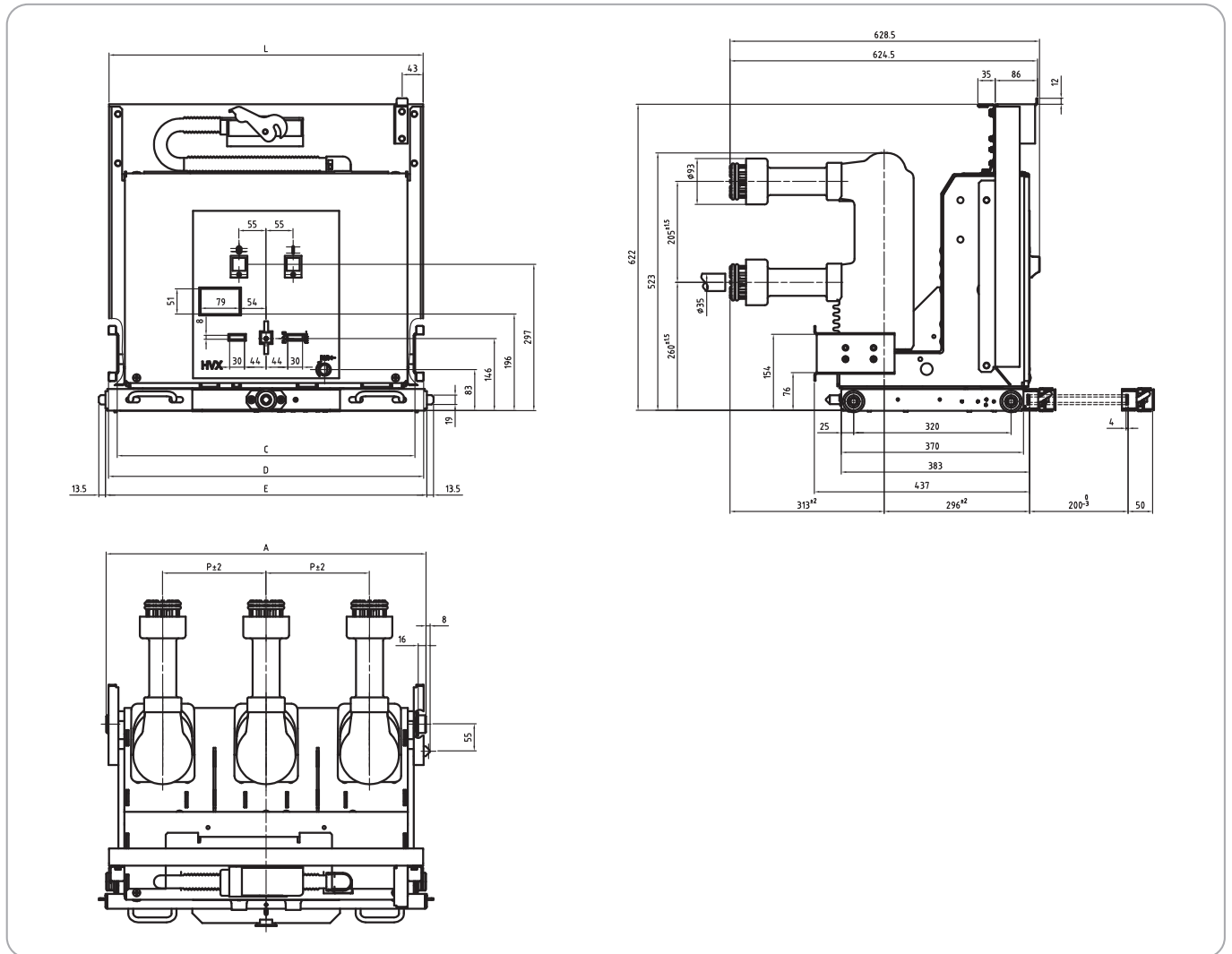
Rated current A	Rated short-circuit current kA	installation dimensions mm		
		P	D	E
630/1250	25/31.5	210	576	520
		275	706	650

HVX 12 vacuum interrupt circuit-breaker

Rated voltage: 12kV
 Rated short-circuit current: 25kA; 31.5kA
 Rated current: 630A; 1250A

HVX Vacuum circuit-breaker HVX12/17.5 withdrawable type

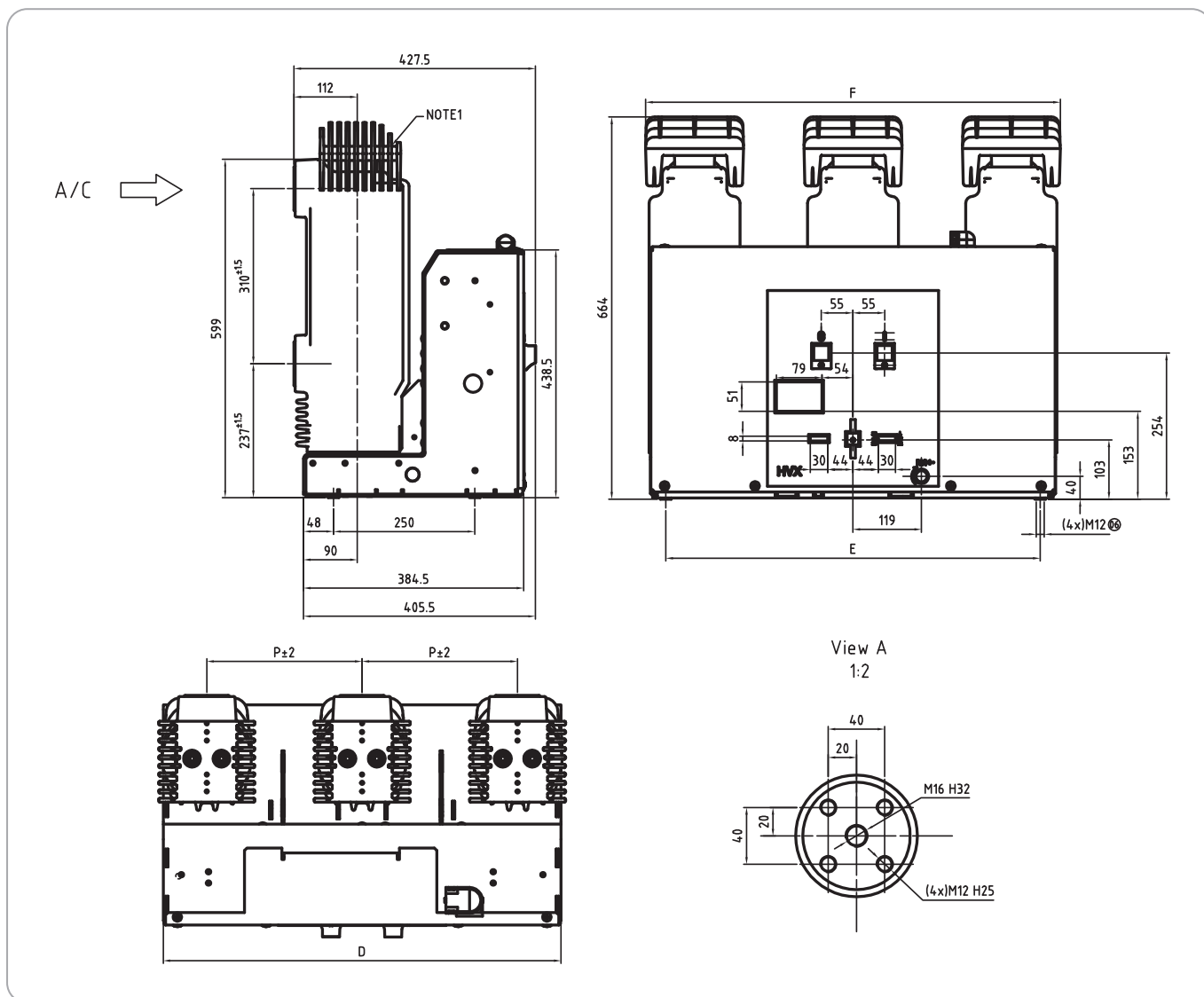
Dimension Drawing



Rated current A	Rated short-circuit current kA	installation dimensions mm					
		P	A	C	D	E	L
630/1250	25/31.5	150	502	457	492	503	494
		210	650	605	640	653	638
		275	850	801	836	853	844

HVX 12 vacuum interrupt circuit-breaker

Rated voltage: 12kV
 Rated short-circuit current: 25kA; 31.5kA
 Rated current: 630A; 1250A



Rated current A	Rated short-circuit current kA	installation dimensions mm				View
		P	D	E	F	
1250	40	210	576	520	590	C
		275	704	650	720	C
1600/2000	25/31.5/40	210	576	520	590	C
		275	704	650	720	C
1250/1600/2000	50	210	576	520	590	A
		275	704	650	720	A
2500/3150/4000*	25/31.5/40/50	275	704	650	720	A

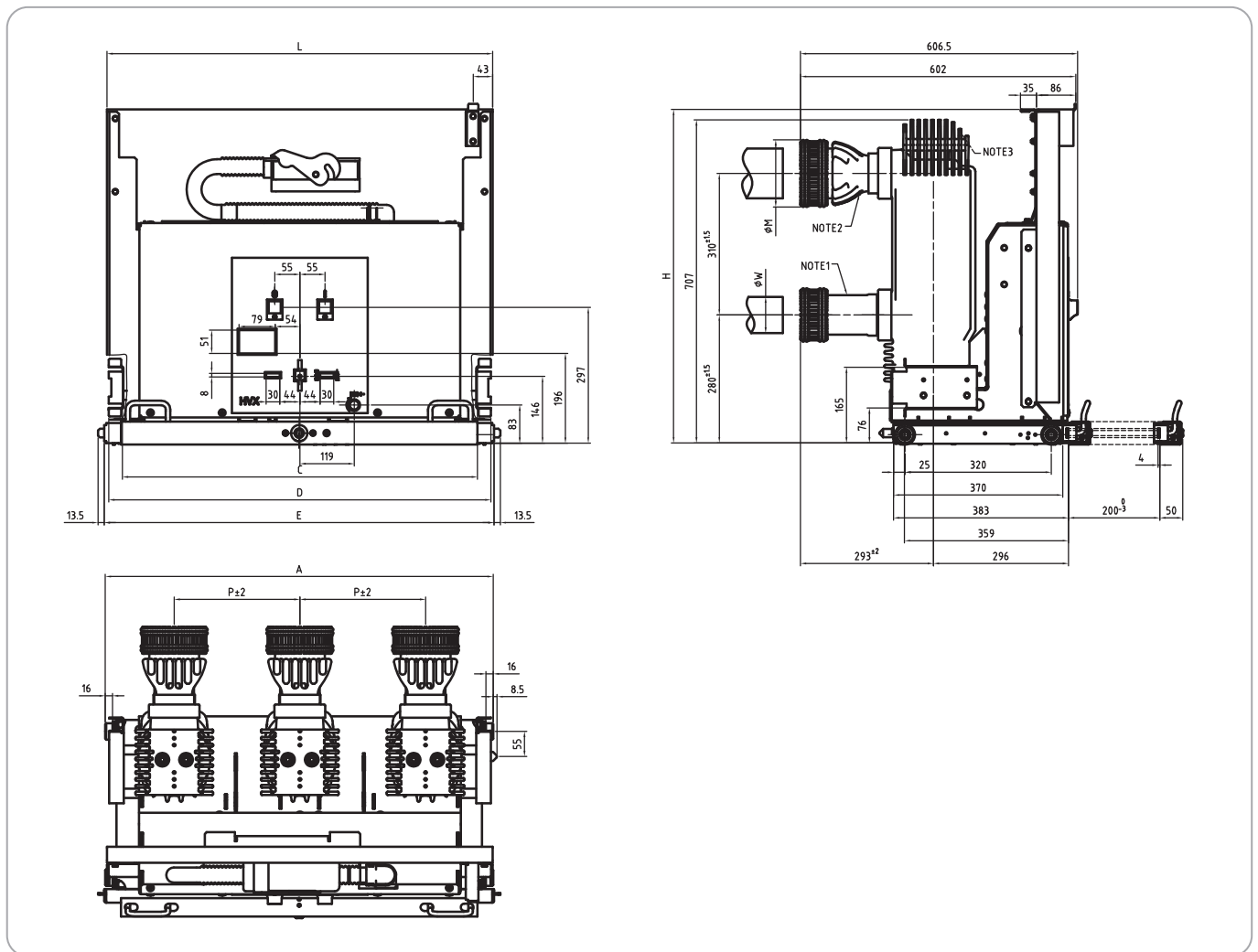
* 4000A in the switch cabinet must be forced air-cooled.
 Note1: Heat sink used for rated current ≥ 2500A

HVX Vacuum Circuit Breaker

Rated voltage: 12kV
 Rated short-circuit current: 25kA; 31.5kA; 40kA; 50kA
 Rated current: 1250A; 1600A; 2000A; 2500A; 3150A; 4000*A

HVX Vacuum circuit-breaker HVX12/17.5 withdrawable type

Dimension Drawing



Rated current A	Rated short-circuit current kA	installation dimensions mm								
		P	A	C	D	E	L	H	øW	øM
1250	40	210	650	582	640	653	638	691.5	118	79
		275	850	777	836	853	844	729.5	118	79
1600/2000	25/31.5/40	210	650	582	640	653	638	691.5	118	79
		275	850	777	836	853	844	729.5	118	79
1250/1600/2000	50	210	650	582	640	653	638	691.5	128	79
		275	850	777	836	853	844	729.5	128	79
2500/3150/4000*	25/31.5/40	275	850	777	836	853	844	729.5	148	109
2500/3150/4000*	50	275	850	777	836	853	844	729.5	158	109

* 4000A in the switch cabinet must be forced air-cooled.

Noted1: For rated current $\leq 2000A$

Noted2: For rated current $\geq 2500A$

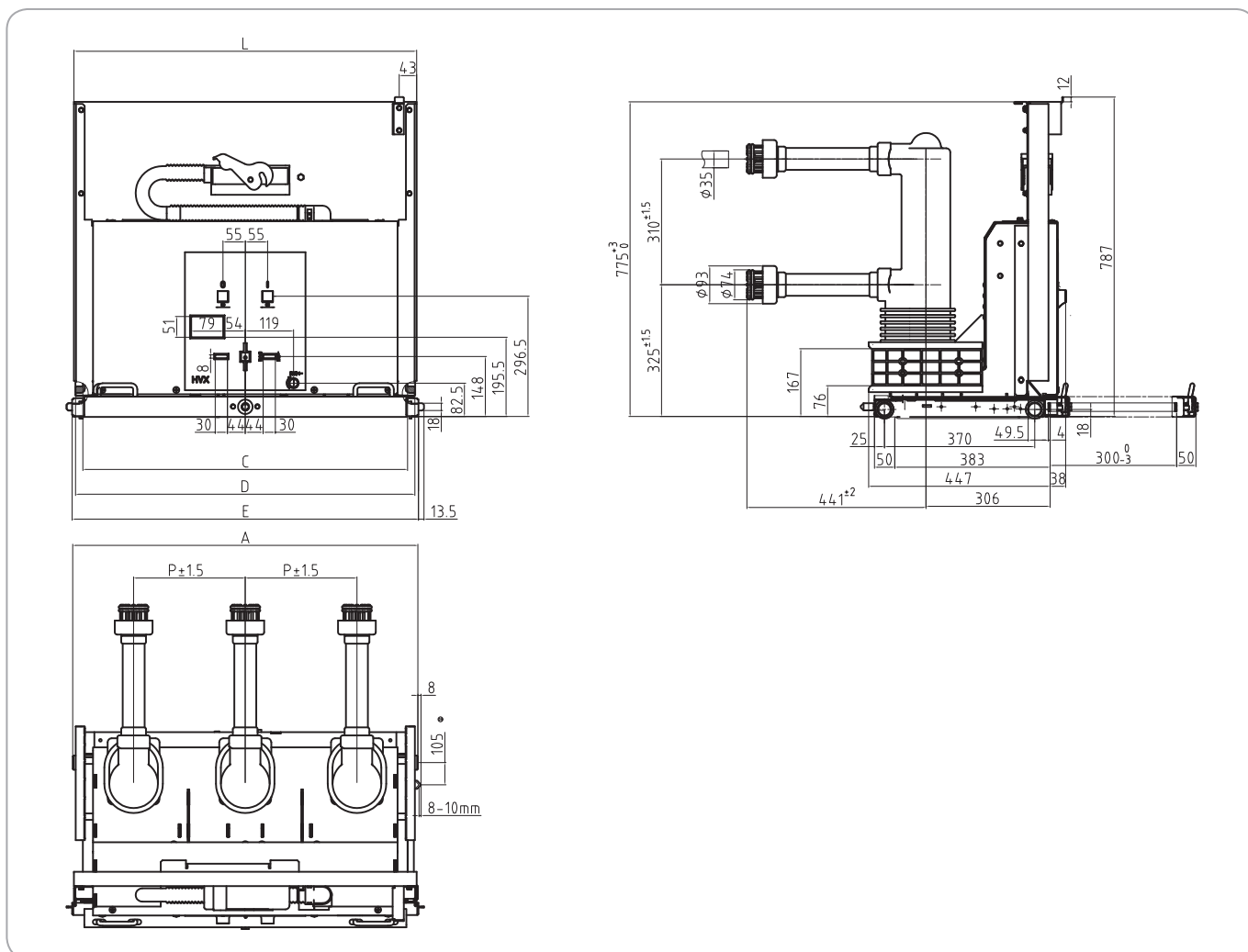
Noted3: Heat sink used for rated current $\geq 2500A$

HVX Vacuum Circuit Breaker

Rated voltage: 12kV
 Rated short-circuit current: 25kA; 31.5kA; 40kA; 50kA
 Rated current: 1250A; 1600A; 2000A; 2500A; 3150A; 4000*A

HVX Vacuum circuit-breaker HVX24 withdrawable type

Dimension Drawing



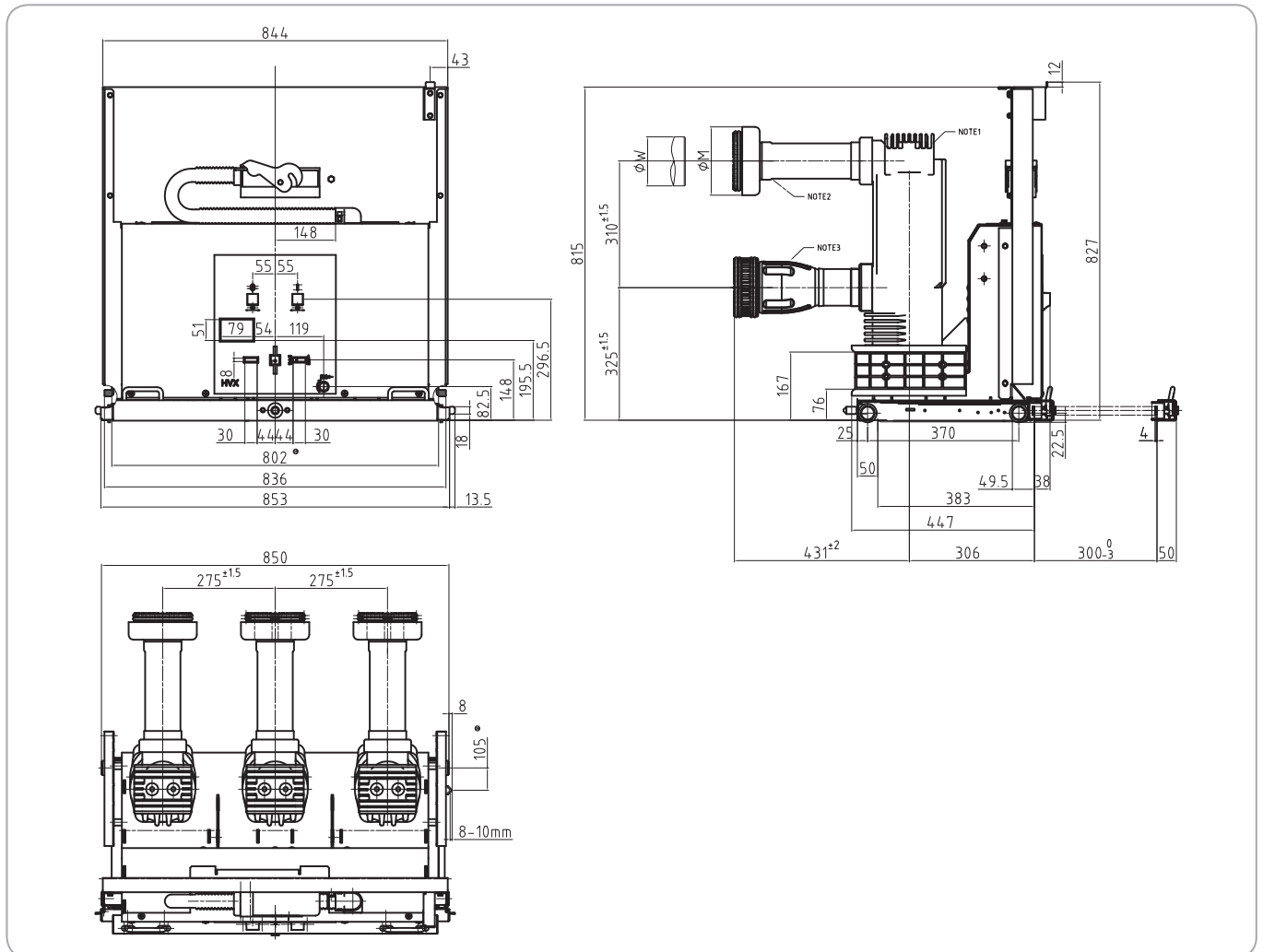
Rated current A	Rated short-circuit current kA	installation dimensions mm					
		P	A	C	D	E	L
630/1250	16/25/31.5	210	650	612	646	653	638
		275	850	802	836	853	844

HVX Vacuum Circuit Breaker

Rated voltage: 24kV
 Rated short-circuit current: 16kA; 25kA; 31.5kA
 Rated current: 630A; 1250A

HVX Vacuum circuit-breaker HVX24 withdrawable type

Dimension Drawing



Rated current A	Rated short-circuit current kA	installation dimensions mm	
		øM	øW
1250/1600/2000	25/31.5/40	135	79
3150*	25/31.5/40	167	109
4000*	25/31.5/40	148	109

* 3150A/4000A in the switch cabinet must be forced air-cooled.

Noted1: Heat sink used for rated current $\geq 2500A$

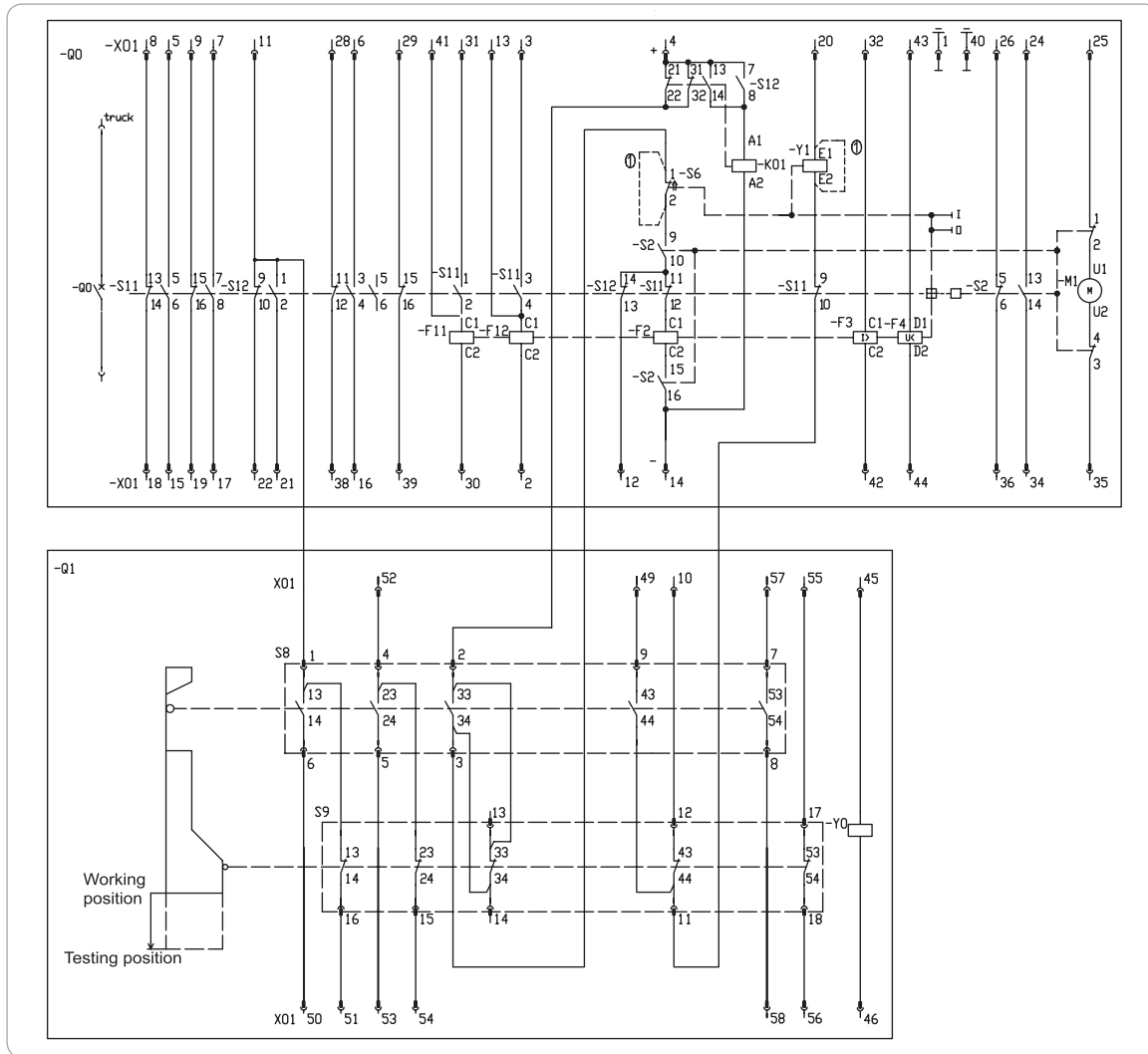
Noted2: For rated current $\leq 3150A$

Noted3: For rated current 4000A

HVX 24 vacuum interrupt circuit-breaker

Rated voltage: 24kV
 Rated short-circuit current: 25kA; 31.5kA; 40kA
 Rated current: 1250A; 1600A; 2000A; 2500A; 3150*A; 4000*A

HVX 12kV/17.5kV/24kV vacuum circuit-breaker withdrawable type with anti-pumping device KO



The circuit diagram drawing (No. AXS00525-01) show the maximum equipment. The standard equipment doesn't include option items according to the order requirement.

Circuit breaker is in discharged and open position; trolley is in service position.

①: If circuit breaker without blocking magnet for closing Y1, circuit diagram according to the dotted line shorted.

Q0 Secondary components of breaker

- F11 Tripping coil
- F12 Secondary tripping coil *
- F2 Closing coil
- F3 Indirect over current release of closing *
- F4 Undervoltage release *
- Y1 Blocking coil of closing *
- M1 Charging motor
- S11/S12 Auxiliary switch
- S2 Auxiliary switch in spring-armed position
- S6 Micro switch of blocking coil of closing *

Q1 Secondary components of trolley

- S8 Test position contacts
- S9 Service position contacts
- Y0 Blocking coil of movement of trolley *

*: Optional

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