

Automatic Transfer Switch



V-ATS

Automatic Transfer Switch

Product introduction



V-ATS series automatic transfer switch is one new ATS of our company developed by the microcomputer control technology. This series ATS is settled AM2, DZ65 circuit breaker as the executive element, and along with the mechanotronics, the new control mechanism with electromechanical double interlock, which is especially applied in the important places not allowed power off. To meet actual demand, three different operation methods are available such as automatic entry automatic reset, automatic entry non automatic reset and commutative standby.

Main features

Three available operation methods

1. Automatic entry automatic reset
2. Automatic entry non automatic reset
3. Commutative standby

Three steady operating positions

1. The grid power supply is making, the standby power supply is breaking.
2. The grid power supply is breaking, the standby power supply is making.
3. The grid power supply is breaking, the standby power supply is breaking.

Compact size, single structure, beautiful outlook, 33~630A available, convenient operation and long operating life, 2,3,4P can be supplied.

The transfer is driven by single motor. single structure, reliable transfer, no noise and small wallop.

The switch is with electromechanical interlock protection, which can ensure the two power supplies working normally, no disturbance,

The switch can be along with load automatic transfer, on urgent situation, it can be transferred by handle.

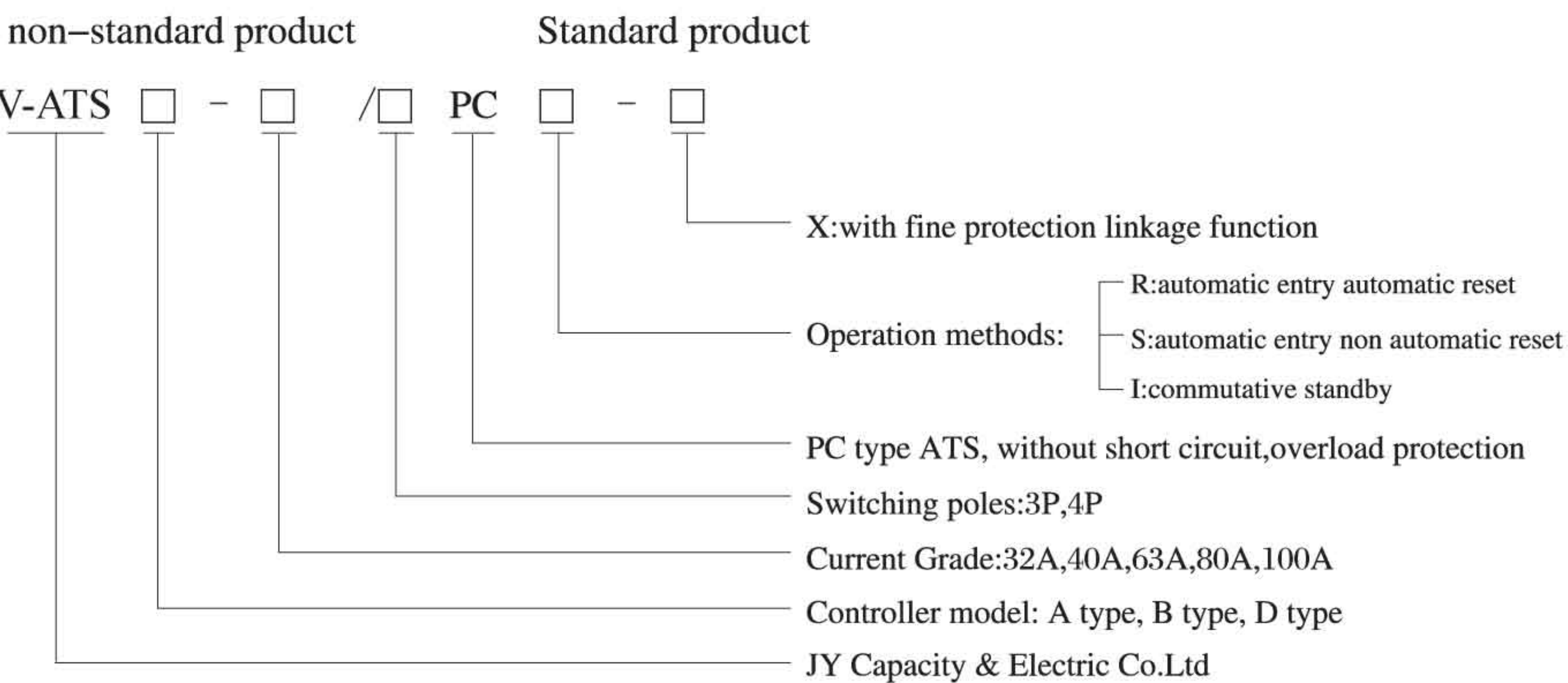
Advantages comparative to other products:

1. The breaking capacity of the control protecting fuse is 50KA, which increases the distribution safety.
2. There's interlock between manual and automatic operation, this can avoid the manual operation on the automatic operation.
3. When the executive handle of circuit breaker is broken, the contact is felted or the load is in problem(overload, short circuit), the ATS do not transfer, this is called the real electromechanical interlock.
4. The driving mechanism of MCB type ATS is changed from fork type to concave type, which solve the problem of the break of the long handle type MCB and the non-synchronization of MCB making etc. thus strengthen the function of fast making and breaking, and enhance the mechanical life.
5. The wrong wire connection indication can be supplied. When the phase wire and zero wire is connected wrong, the sound-photo device will alarm, it ensures the reliability.

V-ATS

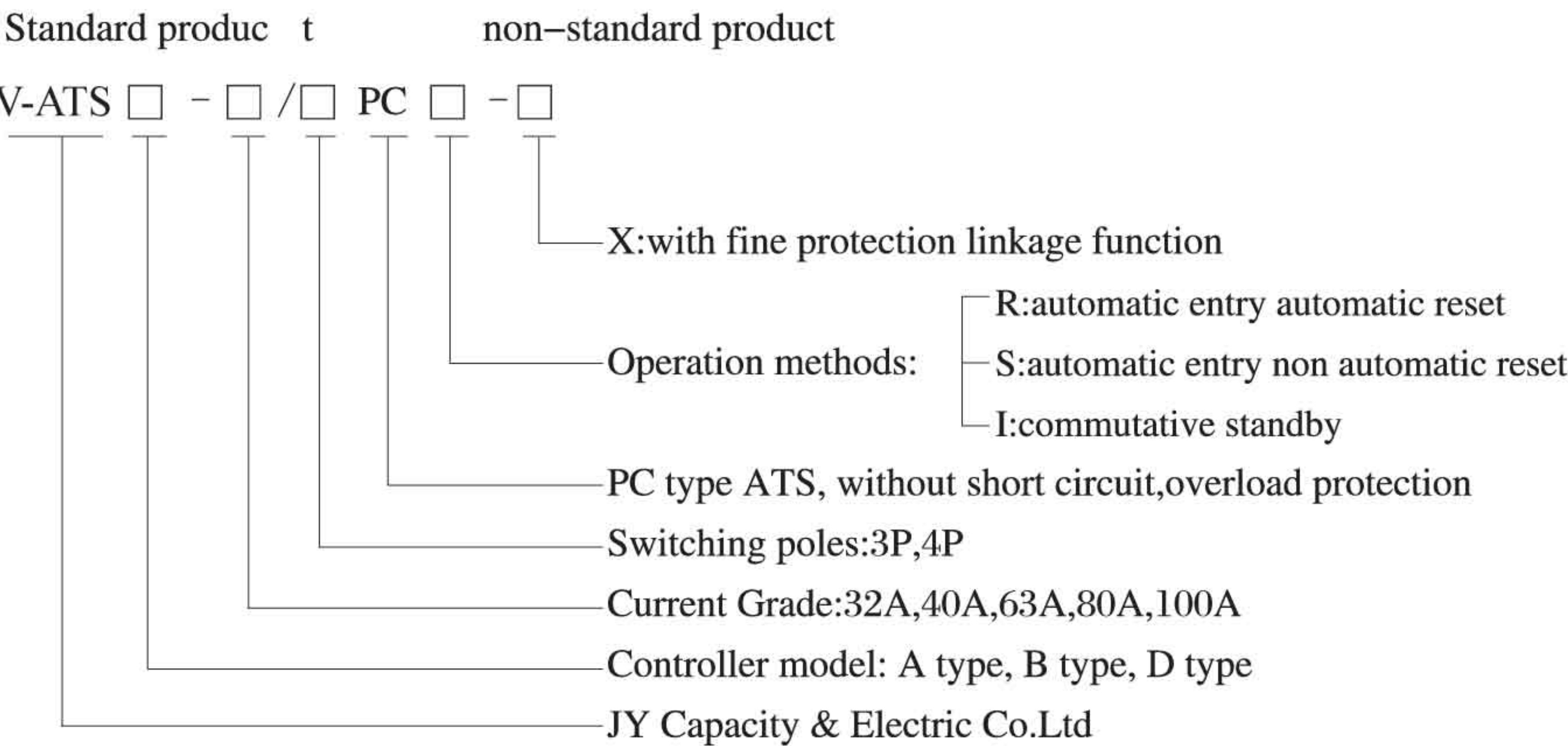
Automatic Transfer Switch

V-ATS and DZ65series



- Note:
1. To the nonstandard products, the detailed requirement should be noted. Eg. The type of fire protection signal (constant voltage DC24V/impulse DC 24V/ constant voltage AC220V/impulse AC220V. Without note, it'll be considered DC24V.) the type, quantity of no power feedback signal (the default value is the feedback signal in the position of No.1 group.)
 2. If there's special request of the executive circuit breaker, tripper, it should be noted.

V-ATS INT series:9



- Note:
- To the nonstandard products, the specific type of fire protection signal should be noted. Without note, the default be considered DC24V.
- In compliance with standard IEC60947-6-1:1998(1.2 version) The 6th part of low voltage switchgear and controlling equipment automatic transfer switch. GB14048.11-2002 low voltage switchgear and controlling equipment automatic transfer switch.

Features:

In compliance with standard IEC60947-6-1:1998(1.2 version)
The 6th part of low voltage switchgear and controlling equipment automatic transfer switch.
GB14048.11-2002 low voltage switchgear and controlling equipment automatic transfer switch.
Protection grade: IP20



V-ATS

Automatic Transfer Switch

Application:

AC-33B(CB products) / AC-23B(PC products)
Service condition:
The altitude of installation site not higher than 2000m
Ambient temperature: -25℃~55℃, relative humidity < 95% at 55℃.
Pollution level: III

Electrical performance & function

ATS automatic transfer switch decide if it should turn from one power supply to the other power supply according to its voltage status and operation mode set by users. The functions depend on its controller which consists of A type and B type. Please refer its main functions to table 1(Next page)

Table 1 functions of controller in ATS automatic transfer switch

Controller	A(built-in type)	B(panel type)
Working voltage	220VAC	220VAC
Working frequency	50/60Hz	50/60Hz
Three working positions		
Common power supply making	◆	◆
Standby power supply making	◆	◆
Both common power supply and standby power supply breaking	◆	◆
3 operations		
Automatic operation	◆	◆
Manual remote control		◆
Handle operation	◆	◆
Automatic operation		
To monitor common power supply and automatic transfer	◆(check phase lacking, voltage losing)	◆ (check phase lacking, undervolt-age, overvoltage and voltage losing)
To monitor standby power supply and automatic transfer		◆ (check phase lacking, undervolt-age, overvoltage and voltage losing)
To control generator		◆
Fire fighting linkage	◇	◇
Automatic entry automatic reset	◆	◆
Automatic entry non automatic reset	◆	◆
Commutative standby	◆	◆
Manually remote control		
Compel it to work at common power supply		◆
Compel it to work at standby power supply		◆
Compel it to work at “0” position		◆
Test		
By test pushbutton on panel or control pushbutton	◆	◆
Indications		
Operation status indication: making or breaking	◆	◆
Common power supply indication and standby power supply indication	◆	◆

V-ATS

Automatic Transfer Switch

Malfunction tripping indication		
Parameters setting indication		
Other functions		
Transfer time delay	0s, 5s, 15s, 30s accuracy $\leq 5\%$	0–255s
Recovery time delay	0s, 5s, 15s, 30s accuracy $\leq 5\%$	0–255s
Protective function when neutral line is wrong connection(sound and light alarm)	◆	◆
overtime malfunction–breaking function after transfer signal sent out	◆	◆
◆ Standard configuration ◇ Selective function		

- Note:
- 1) If working voltage is the same as power voltage, the common power supply and standby power supply can supply power directly. If not, it must use BC or equivalent isolation transformer.
 - 2) Under the situation of handle operation, if the control circuit of electrical manipulating device is open, automatic controlling function will be invalid.
 - 3) On conditions both common power supply and standby power supply are normal, if common power supply is malfunction and automatically transfer to standby power supply(transfer time delay adjustable); when the common power supply returns to normal, it will automatically return (return time delay adjustable)
 - 4) Under the situation both common power supply and standby power supply are normal and common power supply is working, if common power supply is malfunction and automatically transfer to standby power supply, controller will stop transferring. Even if common power supply returns to normal, switch will not return. Please press reset pushbutton, controller returns to normal.
 - 5) Under the situation both common power supply and standby power supply are normal,to get through electricity (or reset), the common power supply will work prior. If the working power has some malfunction during operation and automatically transfer to another power supply (B type switching transfer time delay adjustable), both power supply will have the same priority and will be standby power supply of each other.

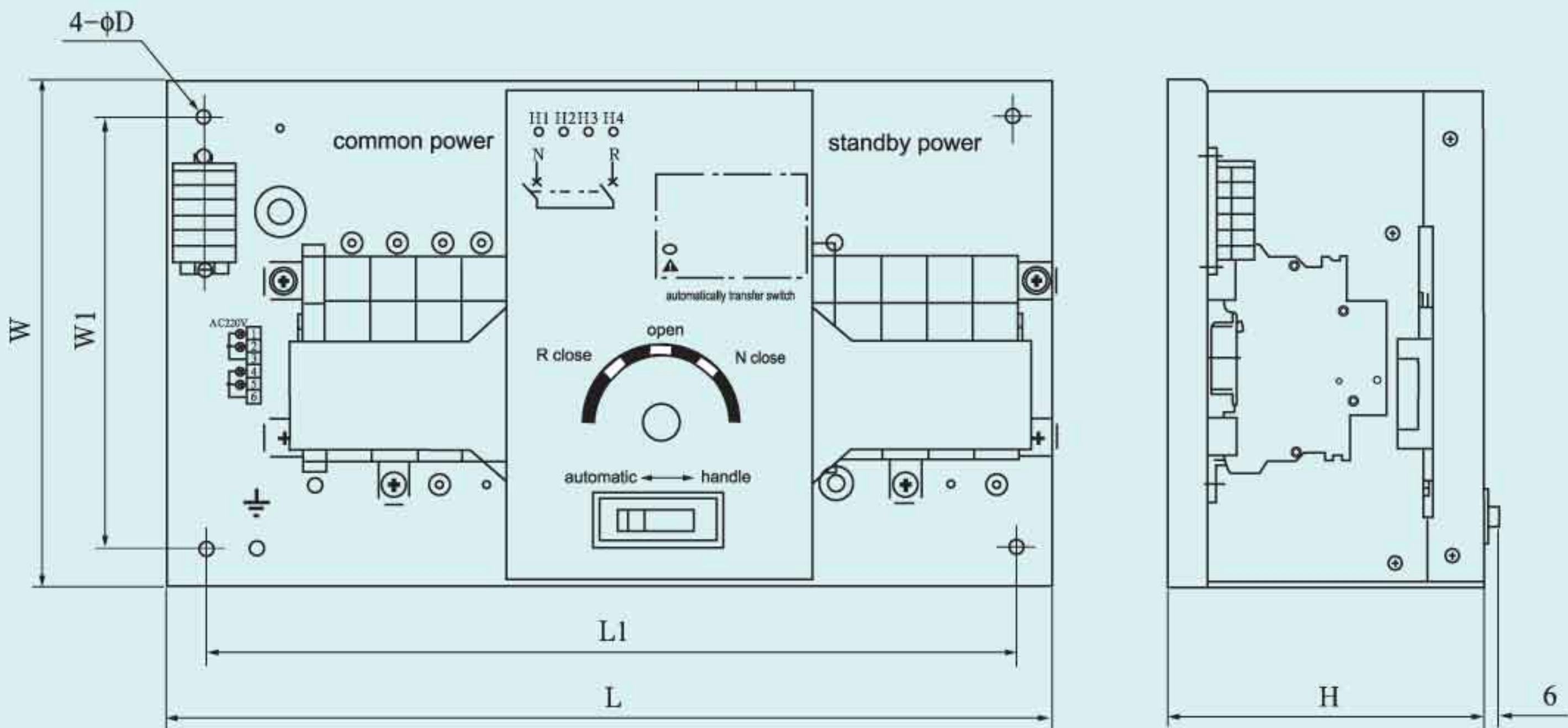


Figure 1 V-ATS-63 shape

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Automatic Transfer Switch

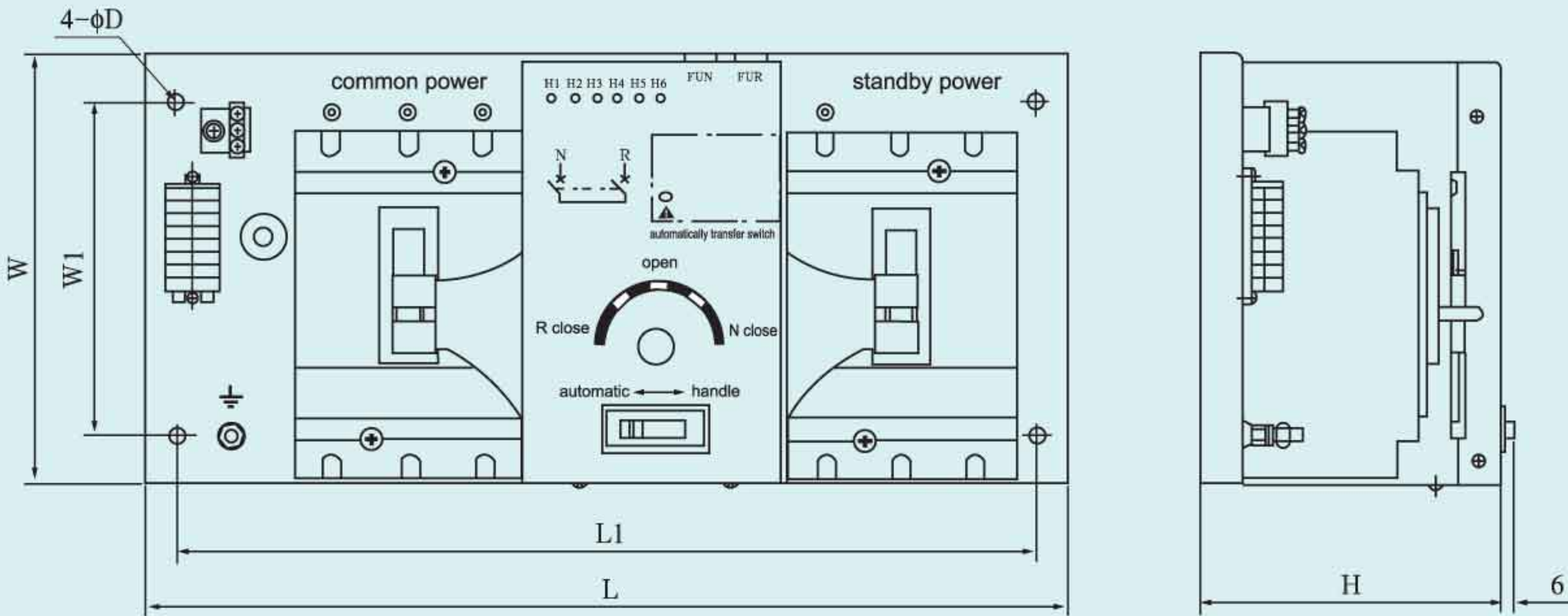


Figure 2 V-ATS-100-250 shape

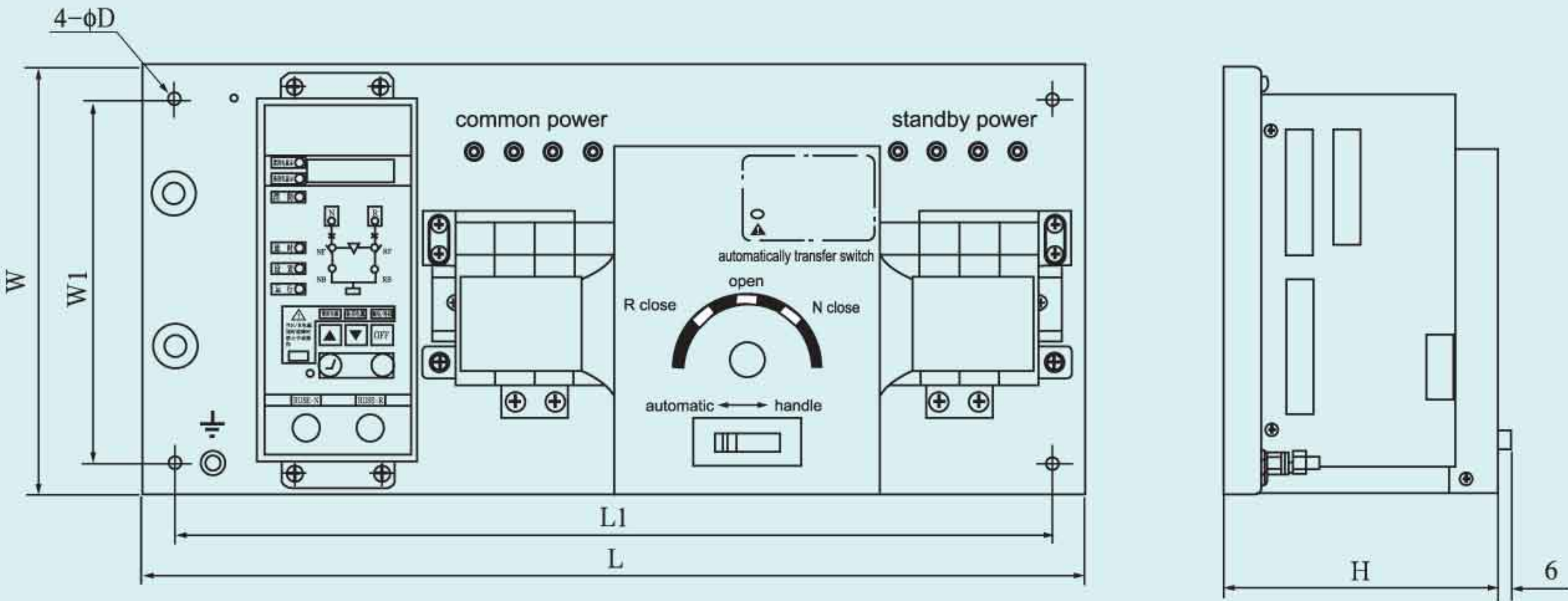


Figure 3 V-ATS-63 shape

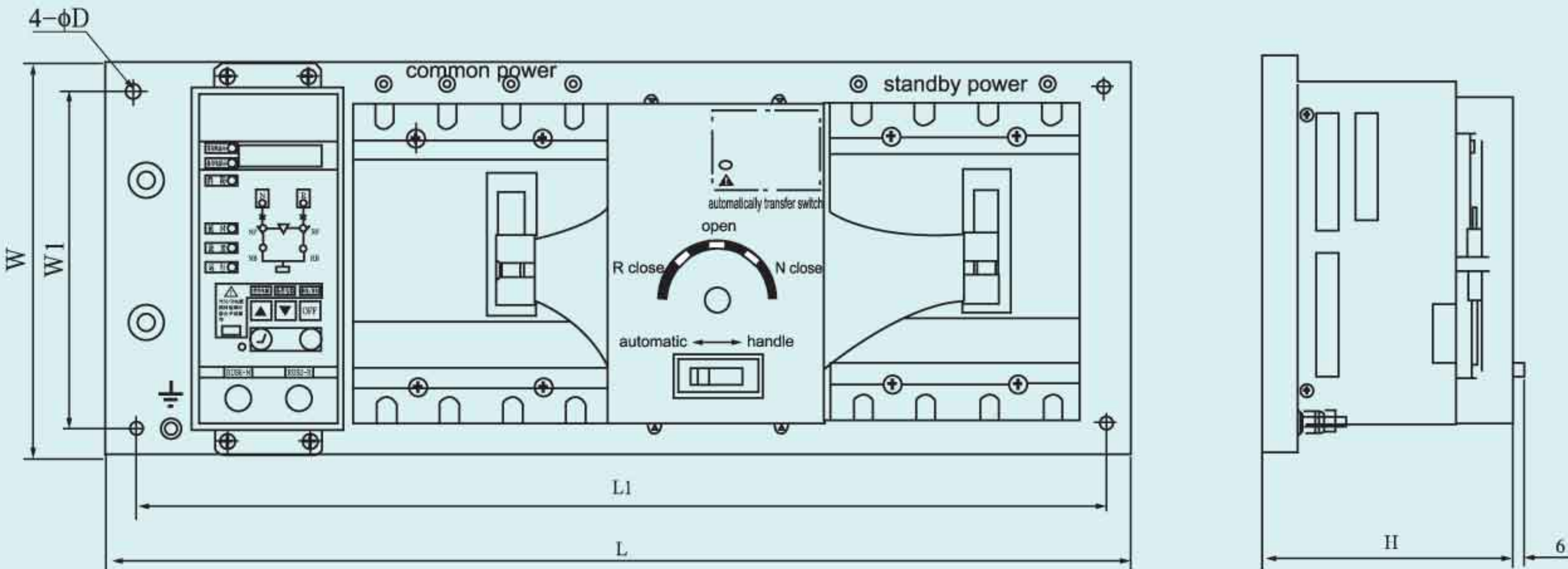


Figure 4 V-ATS-100-630 shape



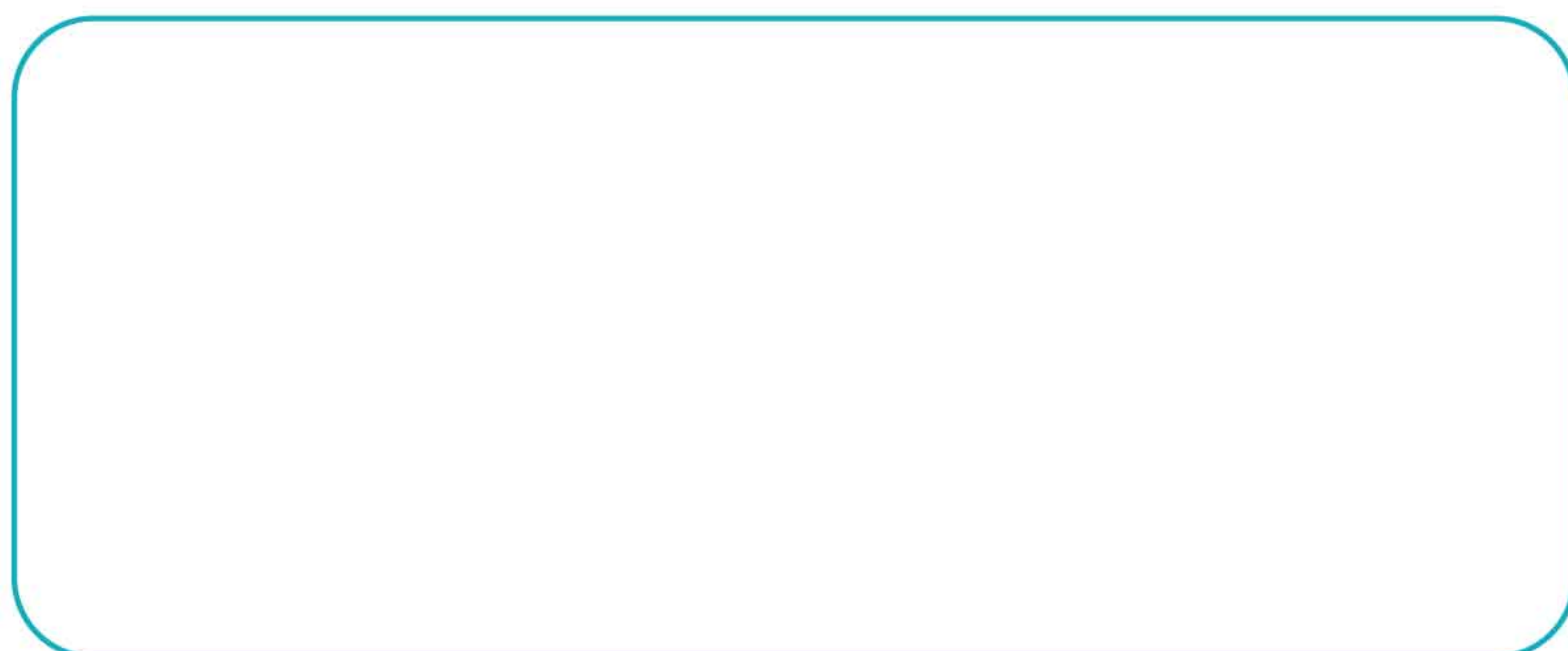
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Automatic Transfer Switch

Type	Overall dimensions (mm)			Mounting dimensions (mm)		
	L(3P/4P)	W(3P/4P)	H(3P/4P)	L1(3P/4P)	W1(3P/4P)	D(f)
VV-TTA-63-A	350	200	125	320	170	5.5
VV-TTA-100-A	430/500	200	140	400/470	155	6.5
VV-TTA-160-A	430/500	200	140	400/470	155	6.5
VV-TTA-250-A	430/500	200	140	400/470	155	6.5
VV-TTA-63-B	470	200	125	440	170	5.5
VV-TTA-100-B	500/570	200	140	470/540	170	6.5
VV-TTA-160-B	500/570	200	140	470/540	170	6.5
VV-TTA-250-A	500/570	200	140	470/540	170	6.5
VV-TTA-400-B	620/710	275	190	590/680	245	9
VV-TTA-630-A	620/710	275	190	590/680	245	9
VV-TTA-A-32/40/63/80/100 (INT Series)	350	200	125	320	170	5.5
VV-TTA-B-32/40/63/80/100 (INT Series)	430	200	125	400	170	5.5



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