

Type YSF6 II —□/□

Series of pressure relief device for transformers

User's Manual

Application

•The products are apt for electrical equipments such as gas or liquid insulate transformer, instrument transformers, on-load-tap channel switch, high voltage switch etc.

Once there's something wrong in such electrical equipments, valve open and relieve the pressure to avoid oil basin from metamorphose and blowout.

•With the pressure reduced the valve automatically closed to prevent water and impurity got in from outside.

The products that coupled with electrical alarm signal realize remote control.

Working conditions and install mode Model Specification

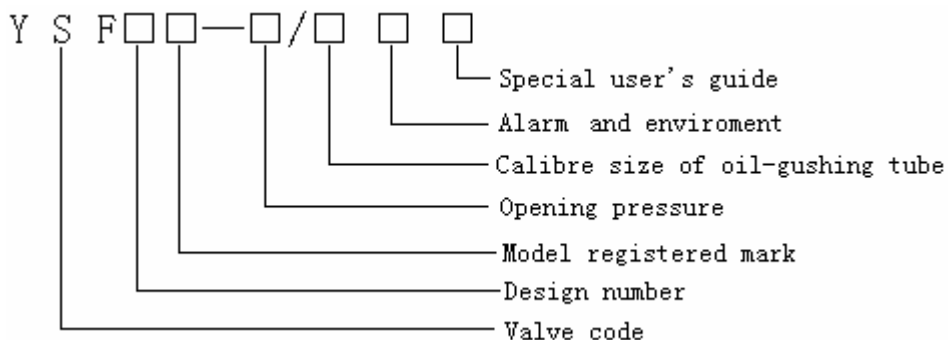
Environment temperature

- 30℃~40℃.

Installation site

a) Install in the oil basin to cover

b) Install in the oil basin to sidepiece upside



For example: YSF6-35/25KKJBTH

Namely: fuel injection caliber Φ25 mm, opening pressure of 35 kPa, with the machinery, double electrical alarm signal, with locking devices, humid tropics applicable, the Sixth design pressure release valve.

The product specification and basic parameter

Effective caliber of oil-gushing (mm)	Opening pressure (kPa)	Tolerance of Opening pressure (kPa)	Closing Pressure (kPa)	Sealed Pressure (kPa)
Φ25 Φ50	15	±5	8	9
	25		13.5	15
	35		19	21
	50		26.8	30
	55		29.5	33

Selection of pressure relief device

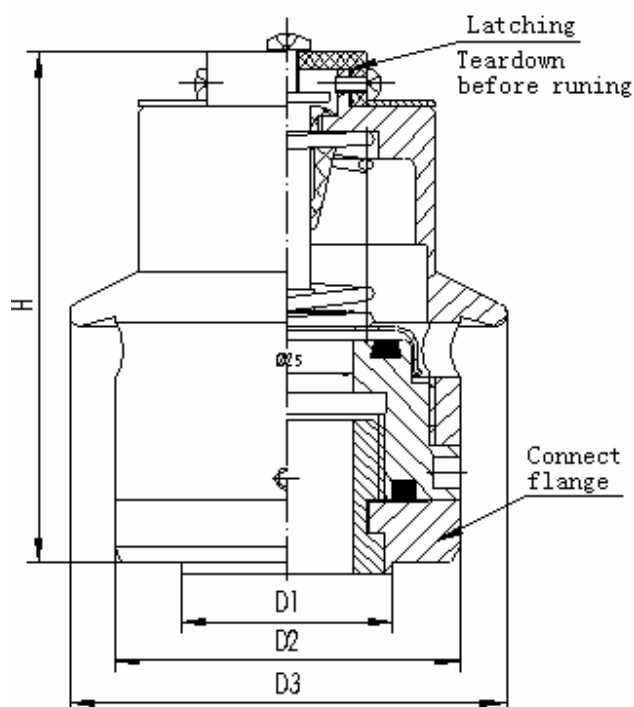
selection of effective caliber

Total weight of oil (t)	∠1.5	1.5~4.5
Effective caliber of oil-gushing valve (mm)	Φ25	Φ50

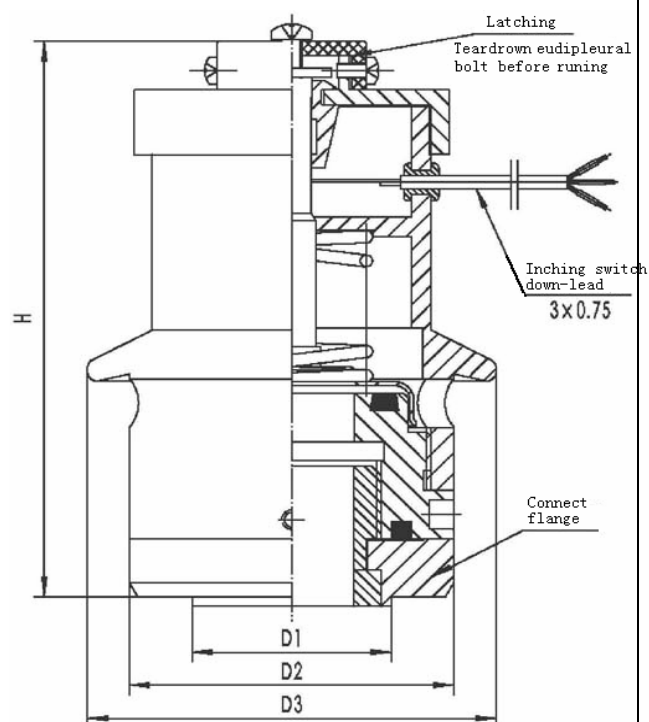
- Selection of opening pressure

- The opening pressure of pressure release valve should be equal to or slightly less than 0.6~0.7 safe pressure in oil tank;
- Use product specification and basic parameter to assure the opening pressure.

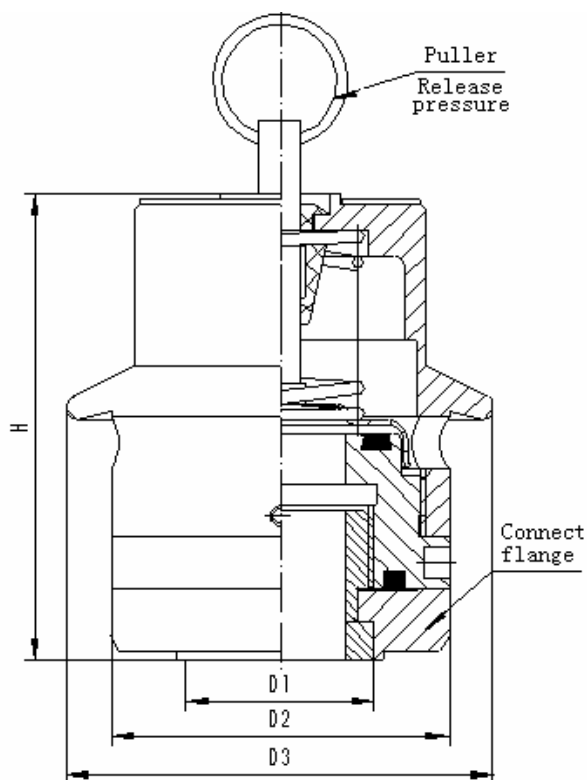
Configuration and installation dimensions



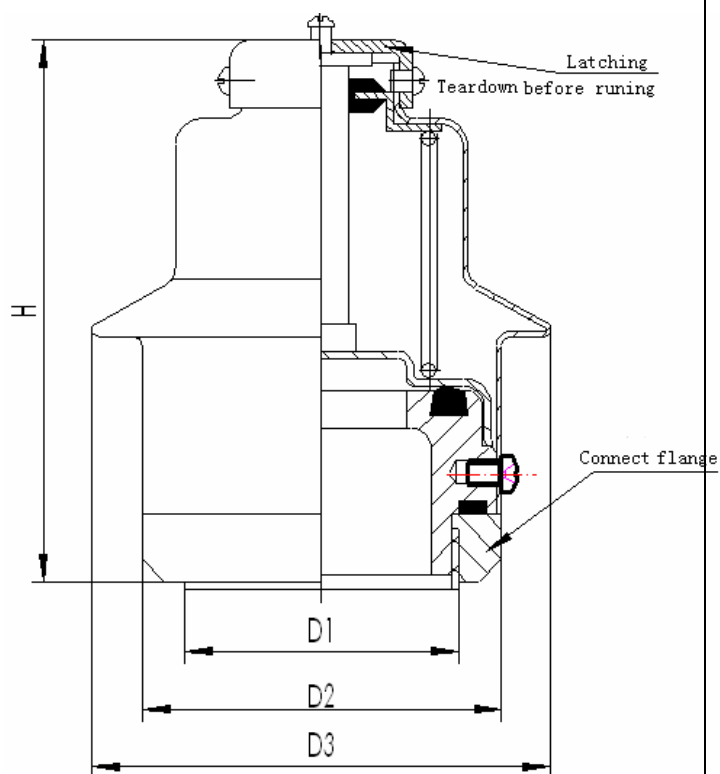
(a) YSF6 II type no switch figure and configuration chart



(b) YSF6 II type with switch figure and configuration chart



(c) YSF6 III-/25 series pressures release

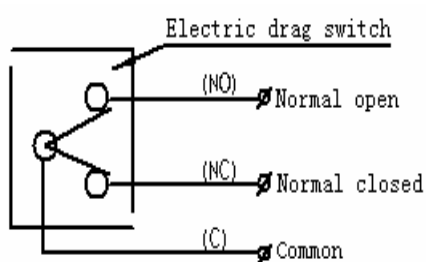


(d) YSF6-/25 series pressures release

Shape and installation dimensions

Effective caliber of oil-gushing (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	
				Without switches	With switches
Φ25 (Type a,b,c)	Φ40	Φ65	Φ82	98	138
Φ25 (Type d)	Φ40	Φ53	Φ67	80	—
Φ50 (Type a, b)	Φ67	Φ92	Φ140	140	180

The conjunction and basic parameter of the electric switch



electrical source sort	Working voltage	Working current	
		Resistance	Reactance (A)
Alternating current (AC)	220(V)	5 (A)	3(cosΦ=0.4)
Direct current (DC)		0.3 (A)	0.05(T=7ms)

- Electric switch hookup
- basic parameter of electric switch Install 、 Using、 Debugging
- Install: Before installing this series products, should weld external connection flange with oil basin cover, then screw the valve clockwise. Please pay attention that sealing loop should keep in sealing slot.
- Using: In order to ensure the pressure releasing valve normal working during equipment circulate, before the equipment circulate must teardown latching. For with switch valve must be removed zygomorphic bolts, insure the normal working of the pressure releases valve.
- Debugging: Electric alarm switch, should manual debug deferent signal of switch whether exactitude、 sensitive, before the equipments circulate .

Method :

1) Measure export signal of switch when pressure releasing valve action less by multimeter to see whether in accordance with the signal mark of the switch.

Viz.:

- (a) "Common" towards "Normal open" normal open.
- (b) "Common" towards "Normal closed" normal closed.

2) Experiment of simulate releasing valve's action, checkout whether inching switch accurate export behavioral signal.

Method:

Raise the small red hat of the pressure releasing valve, then releasing valve turn on; check whether the switch measure of the electric signal change.

Viz.:

- (a) "Common" of switch towards "Normal open": "Normal open" should turn to "Normal closed";
- (b) "Common" of switch towards "Normal closed": "Normal closed" should turn to "Normal open";
- (c) Examine the signal switch and control circuit connect whether right and good.

Attention:

The small red hat must be replacement after test over, insure that the pressure releasing valve normal working

and warning.

- When choose pulling ring to decompress for transformer oil basin, may pull the ring by hand so that the pole could up, when leave go of the pole self-righting.
- After the pressure releasing valve act during the equipment circulate, replace the instruction pole by hand before find out reason, so that could be use an other time.
- When install the pressure releasing valve, accessory and parts of shouldn't be arbitrium teardown, avoid changing protect capability.

Product malfunction analysis

malfunction phenomena	Reason	Solution method
(1) Valve oil leak	a) The pressure of oil basin between the pressurize -pressure and open-pressure of valve a long time, then leaking ,but this instance is very rarely.	Check badness phenomena of transformers, eliminate hidden trouble.
	b) Valve working time long, sealing member aging and invalidation.	Make use of the power-off time maintain、change sealing member.
	c) Eyewinker stay at the sealing plane of the sealing member.	Make use of the power-off time eliminate eyewinker.
	d) Accessory、parts metamorphose or wear off.	Make use of the power-off time maintain、change.
(2)The signal switch export behavioural signal naught	a)Control circuitry connect abnormity or contact badness and circuit interruption.	1、According to the hookup of signal switch accurately connect; 2、Use multimeter measure circuitry joints contact good or not.
	b) The signal switch be block 、stop up.	Pull the small red hat of valve, checking switch whether operate sensitive, at the same time measure switch whether out-put signal.
(3) valve no working	a) Latching of vavle dose not be backout.	Backout latching.
	b) The pressure in oil basin is smaller than the open-pressure.	Use manometer check that whether the pressure in oil basin reaches the open-pressure of the valve.
	c) Oil basin and valve have leaky place.	Check oil basin and valve whether pressurize good.

Crucial hint

- Latching should teardown before trance formers running , insure that the pressure releasing valve normal working.
- When install, accessory、parts of the pressure releasing valve shouldn't be arbitrium teardown.
- When equipment run, as if releasing valve turn on result in the instruction pole up, replace the instruction pole by hand before find out reason, unchain warning alarm.

Maintenance and Inspection

Make use of the power-off time during maintenance of the pressure releasing valve:

- If turn on action sensitive? If there is block or stop up should eliminate.
- If the sealing gaskets are aged or deformed or damaged?
- If accessory、parts whether metamorphose or wear off?

- If the signal switch whether operate sensitive?

How to Make Order

- The customer should be appropriate prepare several pressure releasing valve to switchover during maintenance.
- Product every examine and repair, after teardown should change new sealing element, the sealing after teardown do not suitable continue to use.

Please specify the model, opening pressure, caliber of oil-gushing, mode of signal, using environment, quantity and switch down-lead length(If no indication, then no down-lead.)

Spare parts and maintenance are available, also special designs asked and manufacture.

