

## Technical Specification of Compensation Reactor (JXBK-736.5/17)

### 1. General

The compensation reactor can be used as compensation when testing MV capacitors. There is one test during which reactor (when 2 pcs JXBK-736.5/17 reactors are connected in series) is subjected to voltage lower than rated for 1.5 minutes and without interruption voltage is raised up to 54 kV in duration of 300 ms. This is repeated 60 times without interruption. Inductance must not change at 54 kV.

The compensation reactor can be used indoor and outdoor.



### 2. Operation Conditions

Altitude:  $\leq 1500\text{m}$

Temperature:  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$

Temperature day difference:  $25^{\circ}\text{C}$

Relatively humanity:  $<85\%$  ( $25^{\circ}\text{C}$ )

Indoor operation without conduction dirt or corrode metal and insulation material gas

Earthing system: earth resistance  $<0.5\Omega$  with an independent earthing system

### 3. Main Technical Parameters

Model no.:	JXBK-736.5/17
Frequency:	50Hz
There are 3 pcs of reactors, which can be connected in series.	
Rated capacity of one piece reactor:	736.5kVA
Rated voltage of one piece reactor:	17kV
Rated current of one piece reactor:	43.3A
Inductance of one piece reactor:	1.25H±3%
The tolerance of the inductance of the two reactors:	≤±1%
Rated capacity:	1473kVA (when 2 reactors are connected in series)
Rate voltage:	34kV (when 2 reactors are connected in series)
Rated current:	43.3A (when 2 reactors are connected in series)
Rated inductance:	2.5H±3% (when 2 reactors are connected in series)
Phase:	Single phase
Insulation level of one reactor:	Withstand 1 minute at 38kV, 38kV means the applied voltage between the two terminals of the reactor. The insulation level of winding to the earth is 38kV 1 minute.

Insulation level of the winding to the earth (when 2 reactors in series):	75kV/1min
Noise level:	≤60dB
Running time:	The reactor can run upto 10 days at rated voltage (34kV)and current (43.3A); The reactor (2 reactors connected in series is subjected to voltage lower than rated for 1.5 minutes and without interruption voltage is raised up to 54 kV in duration of 300 ms, this test can be repeated 60 times without interruption. this is to test one capacitor, 10 pcs capacitors will be tested in one day. so this above test will be repeated 600 times in one day. The temperature rise of the winding is less than 75K, the temperature rise of the oil on the top is less than 65K.
Quality factor:	>40
There is no partial discharge requirement.	
Terminal:	None of the terminals are connected to earth.
Structure:	ONAN ( oil-immersed self-cooled);without iron core; there are terminals in the flanges of the reactor; with cylinder insulation made of epoxy glass; with stainless steel base and corona ring on the top
The 3 pcs reactors can operate only in 1 pc reactor, or 2 pcs reactors in series, or 3 pcs for 3 phase.	