

TEST REPORT

NO. 091083G

Product Type: MASS-24(F)/T100-31.5

Name of Product: Gas-insulated Metal –enclosed Ring Main Unit
(Switch-fuse combination Unit)

Client: Shenzhen Feiyue Switchgear Co., Ltd

Test category: Type Test

Issued by: **National Quality Supervision and Inspection Center for
High Voltage Electrical Apparatus**

Xi'an High Voltage Apparatus Research Institute Co., Ltd

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Test Category		Type Test				
Product type		MASS-24(F)/T100- 31.5 Gas-insulated Metal –enclosed Ring Main Unit				
Client		Shenzhen Feiyue Switchgear Co., Ltd (add. Tel...)				
Manufacturer		Shenzhen Feiyue Switchgear Co., Ltd				
Date of manufacture, No. (Test on Capacity & high pressure)		2009-09		0906018		
Date of manufacture, No. (Test on mechanics & temperature rise)		2009-03		0906012		
Main Technical data of the sample, provided by the manufacturer	Rated Voltage (kV)		24		Rated SF6 gas operating pressure (20°C) (Mpa)	0.045
	Rated Current (A)		100			
	Rated Frequency (Hz)		50			
	Rated short-circuit breaking current (kA)		31.5			
	Rated short-circuit making current (kA)		80 _{peak}			
	Rated transfer current (A)		1400			
	Rated short-time power frequency withstand voltage (kV)		65			
	Rated lightning impulse withstand voltage (kV)		125			
	Rated short-time power frequency withstand voltage (isolating distance) (kV)		79			
	Rated lightning impulse withstand voltage (across isolating distance) (kV)		145			
	Mechanical endurance (times)		5000			
	Circuit Resistance (μΩ)		≤140			
	Technical Information guaranteed by client					
Note		The test on the sample provided by the client was carried out under the original packed and sealed condition, no any extra adjustment works on it.				
Representative of the client: XX						
Date of Test		from 2009-07-09		to 2010-04-19		

Testing conclusion

Client: Shenzhen Feiyue Switchgear Co., Ltd
Product type: MASS-24(F)/T100-31.5
Name of product: Gas-insulated Metal –enclosed Ring Main Unit
Manufacturer: Shenzhen Feiyue Switchgear Co., Ltd

Test items of carried out:

- Check on degree of Protection (enclosure: IP3X)
- Measure on circuit Resistance ($\leq 500\mu\Omega$)
- Temperature rise test (100A)
- Mechanical characteristics & Mechanical operation test
- Test on mechanical endurance (5000/2000times – Load break switch/earth switch)
- On tripping linkage (100times)
- On gas leakage ($\leq 0.25\%/Y$)
- On short-time power frequency withstand voltage (phase-phase, to earth: 65kV 1min)
(across isolating distance: 79kV 1min)
- On lightning impulse withstand voltage (phase-phase, to earth 125kV)
(across isolating distance: 145kV)
- On switch-fuse combination (type 1) (24kV 31.5kA 80kA_{peak})
- On switch-fuse combination (type 3) (24kV 1400A)

In accordance with:

GB 3906-2006 3.6kV-40.5kV AC metal-enclosed switchgear & control-gear
GB 16926-1997 High voltage AC load switch & fuse combination unit

Testing conclusion:

All testing results of a/m items complied with the relative requirements, relative performance of the sample is qualified.

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Center for High Voltage Electrical Apparatus)**

Complied by: XX	Checked by: X X	Authorized by: XX	Approved by: XX
Date:2010/04/13	Date:2010/04/23	Date: 2010/07/05	Date: 2010/07/05

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Technical data of main components fitted on H.V Switchgear		
1. Switch – fuse combination		
Model	LBS-24(F)/T100-31.5	
Rated voltage (kV)	24	
Rated current (A)	100	
Rated Frequency (Hz)	50	
Rated short-circuit breaking current (kA)	31.5	
Rated peak short-circuit making current (kA)	80 _{peak}	
Rated transfer current (A)	1000	
Model/Name of operation mechanism (load break switch/earth switch)	Manual springs energy-stored type/ Manual springs type	
Rated SF6 gas operating pressure (20°C) (Mpa)	0.045	
Equipped fuse link model	XRNT1-24/125-31.5	
Max. rated current of equipped fuse link (A)	100	
Type of striker pin of fuse link (light/ medium/ heavy)	Medium	
Manufacturer of fuse link	Xi'an Hande Electrical Equipments Co.,Ltd	
Delivery date	/	
Serial No.	/	
Manufacturer	Shenzhen Feiyue Switchgear Co., Ltd	
2. Busbar		
Spec. & Size (mm ²)	Copper, 240	

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Inspection on degree of protection		
Date of Test: 2009-07-31		
1. Details of checking		
No.	Checking process	Checking status
1	Relative standard inspection tools can/can't pass through the holes on enclosure or partition.	No
2	While the inspection tools plug into these holes (a/m), it will/won't cause the dielectric strength weaker and less than rated insulation level	/
3	While the inspection tools plug into these holes (a/m), it will/won't touch the moving parts inside the enclosure.	/
4		
2. Inspection results:		
The enclosure matched the requirements of IP3X degree of protection		