

1.5 西门子NXAirS-40.5 kV空气绝缘、可移开式金属封闭中压开关柜 SIEMENS NXAirS-40.5 kV Air Insulation Re-movable Metal-enclosed medium-voltage Switchgear



NXAirS
最大额定值
40.5kV/31.5kA/3150A
Max rated value
40.5kV/31.5kA/3150A

一、产品概述 General

特点

- 开关的所有操作只有在高压室门关闭的情况下才能进行
- 接地开关与真空断路器手车之间有可靠的机械联锁
- 所有元件的安装高度都符合人类工程学的要求
- 可选项：电容式带电显示装置用以检测馈线或母线上是否带电

联锁

- 联锁符合GB3906-2006和IEC62 271-200标准
- 只有当可移开部分处于试验位置和移开位置时，才能操作馈线接地开关
- 只有当可移开部分处于分闸状态，且接地开关断开，高压门关闭，可移开部分才能移动
- 只有在可移开部分处于试验，工作或移开位置时，才能对其进行操作
- 只有在可移开部分处于试验位置时才能打开高压门

附加的安全性联锁

- 机械编码可防止小额定电流的开关装置误插入载有大电流的开关柜中
- 高压室门与可移开部分有可靠的机械联锁
- 可选项：可移开部分电磁联锁
- 可选项：接地开关电磁联锁
- 只有接地开关处于合闸位置时，才能将手车推入柜中试验位置或将手车从试验位置移出柜外。

Characteristics:

- All the switch operations can be carried out only when high-voltage compartment door closed.
- Reliable mechanical interlock is installed between grounding switch and vacuum circuit breaker handcart.
- All the parts and components installation heights meet the requirements of human engineering.
- Options: Capacitive electric indicator can be used to detect feeder or bus presence of power.

Interlocks

- Interlock meets GB3906-2006 and IEC 62 271-200 standards.
- Feeder grounding switch can only be operated when re-movable part on test and removed position.
- Removable part can be moved only when removable part on disconnecting status, grounding switch open and high-voltage door closed.
- Removable part can be operated only at test, working and removed position.
- High-voltage door can be opened only when removable part on test position.

Additional Safety Interlocks

- Mechanical code can avoid low current switch plugging in high current switchgear.
- Reliable mechanical interlock connects high-voltage compartment door and removable

- Options: Removable part electromagnetic interlock
- Options: Grounding switch electromagnetic interlock
- Let handcart into or out of cabinet on test position only when grounding switch is on closed position.

二、电气参数额定值 Electric Parameters

项目 Items	单位 Units	数据 Parameters
额定电压 Rated voltage	kV	40.5
额定频率 Rated frequency	Hz	50
额定1分钟短时工频耐受电压（相间，对地及断口间） Rated short-time power frequency withstand voltage 1min (interphase, to-ground and between breaks)	kV	95 (118)
额定雷电冲击耐受电压（相间，对地及断口间） Rated lightning impulse withstand voltage (interphase, to-ground and between breaks)	kV	190 (215)
额定短路开断电流 Rated short-circuit breaking current	kA	25,31.5
额定短时耐受电流，4秒 Rated short-time withstand current, 4s	kA	25,31.5
额定短路关合电流 Rated short-circuit closing current	kA	63, 80
额定峰值耐受电流 Rated peak withstand current	kA	63,80
额定母线电流 Rated bus current	A	1250,2500,3150
馈线电流 Feeder current	A	1250,2500

三、外形尺寸 Overall Dimensions

项目 Items	单位 Units	数据 Parameters
宽度 Width	mm	1200/1400 ¹
高度 Height	mm	2800/3010 ²
深度 Depth	mm	2650/3450 ³
重量 Weight	kg	1800~2300

四、低压室尺寸 Low-voltage compartment dimensions

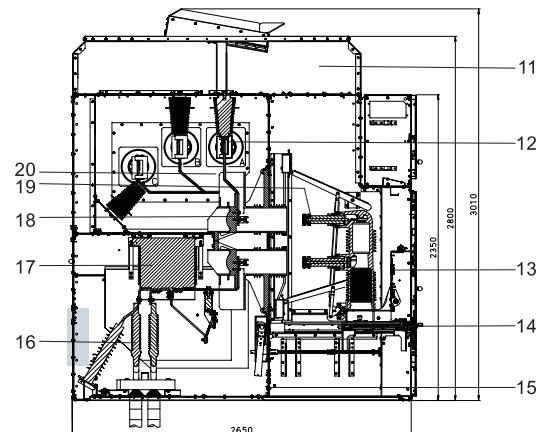
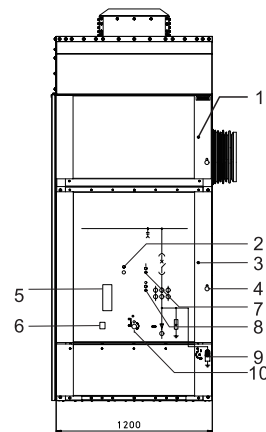
项目 Items	单位 Units	数据 Parameters
—	—	标准型 Standard Type
宽 Width	mm	1200/1400 ¹
高 Height	mm	705
深 Depth	mm	450

五、电缆室尺寸 Cable Compartment Dimensions

项目 Items	单位 Units	数据 Parameters
宽 Width	mm	1200/1400 ¹
高 Height	mm	1280
电缆接线端距地面 Cable terminal above ground	mm	≥750

- 1、所用变柜
- 2、开关柜带吸收装置
- 3、开关柜带后柜，即后背包

- 1、Cabinets used in substation
- 2、Switch cabinet with absorption device
- 3、Switch cabinet with back cabinet



- 1、低压室门锁
- 2、手动储能操作孔
- 3、高压室门锁
- 4、开启高压室门用手柄
- 5、断路器合分状态，储能及计数观察孔
- 6、手车工作位置 / 试验位置状态指示观察孔
- 7、断路器合闸操作按钮
- 8、断路器分闸操作按钮
- 9、接地开关的机械式位置指示和操作孔
- 10、底盘车移入口移出操作孔
- 11、压力释放通道
- 12、母排
- 13、断路器
- 14、底盘车
- 15、接地开关
- 16、联结电缆
- 17、电流互感器
- 18、静触头
- 19、动触头
- 20、触头盒

1. Low-voltage compartment door lock
2. Manual operational hole of energy storage
3. High-voltage compartment door lock
4. Handle for opening high-voltage compartment door
5. Observation hole of circuit breaker closing/open status, energy storage and counter
6. Observation hole of handcart working/test position status indication
7. Circuit breaker closing button
8. Circuit breaker opening button
9. Grounding switch mechanical position indication and operational hole
10. Chassis in/out operational hole
11. Pressure relief channel
12. Bus
13. Circuit breaker
14. Chassis
15. Grounding switch
16. Connecting cable
17. Current transformer
18. Static contact
19. Moving contact
20. Contact box