

Voltage Switching Relay-GRUS-11G(S) Series

Directory

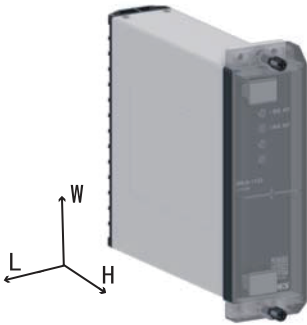


Version number V1.3 Date: 2025.4.9

Product overview	2/7
Order information	2/7
Human machine interface	3/7
Product technical parameters and executive standards	4/7
Terminal definition	5/7
Typical application wiring diagram	6/7
Dimensions(mm)	7/7

Voltage Switching Relay-GRUS-11G(S) Series

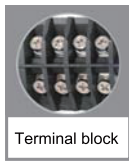
Product overview



Voltage switching relay-GRUS-11G(S) series

Application scenarios and features

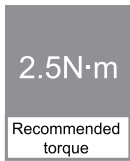
- Used in situations where the wiring method in the power system is double busbar, and can also be used as a functional extension when the voltage switching configuration is insufficient or the cost is reduced.
- Single position and dual position switching circuits are optional.
- Provide dual busbar simultaneous action and PT voltage loss alarm contacts.
- With clear status indication function.
- Dimensions (mm):48mm(L)*177.6mm(W)*181mm(H).
- Installation Methods: Flush Mounted.



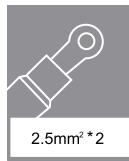
Terminal block



SL or PH screwdriver
Disassembly



Recommended
torque



2.5mm² * 2

Order information

Naming convention for GRUS-11G(S) Series Products

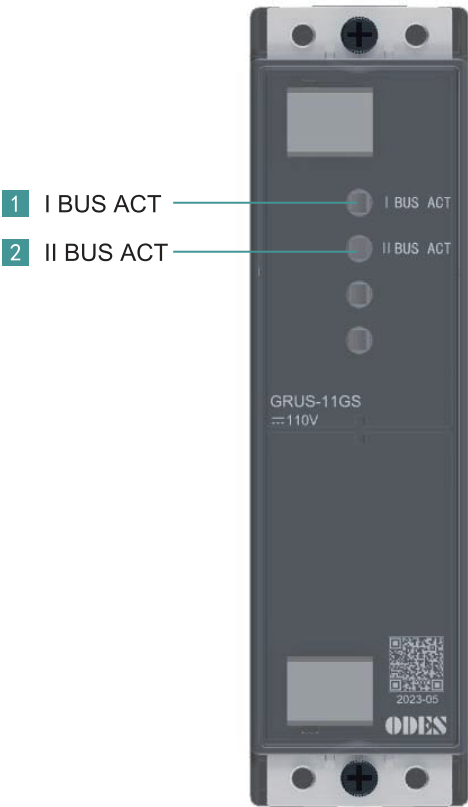
Typical models	GRUS	-11G	/220VDC
Series Model GRUS=Panel Operation Relay			
Functionality Definition 11G=Double busbar voltage switching relay (single position) 11GS=Double busbar voltage switching relay (two-position)			
Rated Voltage 110VDC=Rated Voltage of 110VDC 220VDC=Rated Voltage of 220VDC			

GRUS-11G(S) series regular models

Regular Models	Voltage level	Number of switching groups	Switching method
GRUS-11G/220VDC	220VDC	One group	Single position
GRUS-11G/110VDC	110VDC	One group	Single position
GRUS-11GS/220VDC	220VDC	One group	Two-position
GRUS-11GS/110VDC	110VDC	One group	Two-position

Voltage Switching Relay-GRUS-11G(S) Series

Human machine interface



	Definition		Explain
Pilot Lamp	1	I BUS ACT	Red, Action indicator , illuminated when I bus operates, extinguished when power is lost
	2	II BUS ACT	Red, action indicator , illuminated when II bus operates, extinguished when power is lost

Voltage Switching Relay-GRUS-11G(S) Series

Product technical parameters and executive standards

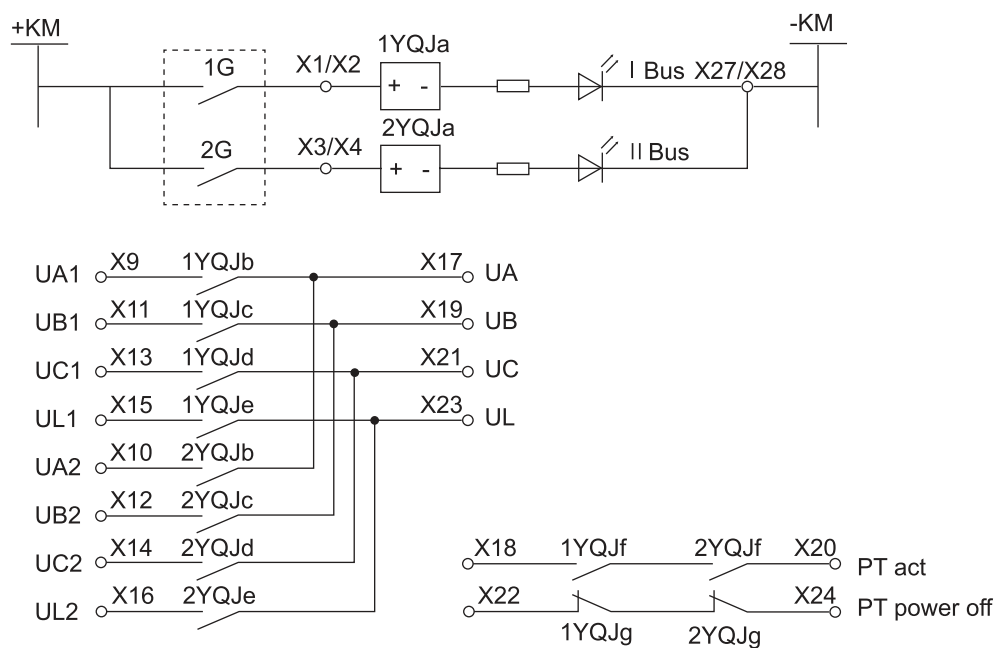
Unless otherwise specified, all data are rated at T=25°C

Coil characteristics			
Standard voltages	110VDC, 220VDC		
Voltage range	0.8Un to 1.15Un		
Pick-up voltage	70%Un Reliable action（Single position）;80%Un Reliable action（Two-position）		
Release voltage	10%Un Reliable return(Single position);80%Un Reliable return(Two-position)		
Rated Power	≤5W		
Operating time			
Pick-up time	≤15ms		
Drop-out time	≤15ms		
Contacts			
Contacts no.	Nine contacts + one Normal Close contacts		
Contact type	9no+1nc		
Contact material	AgNi 90/10		
Permanent current	10A		
Instantaneous current	30A/0.2s		
Maximum limiting current	15A/4s		
Umax opened contact	250VDC/400VAC		
Breaking capacity	L/R=0ms: 10A@250VAC/30VDC,0.25A@220VDC,0.55A@110VDC		
	L/R=40ms: 0.4A@110VDC,0.35A@125VDC,0.2A@220VDC		
General standards			
GB/T 14598.2/IEC 60255	Electrical relays. Measuring relays and protection equipment.		
GB/T 14048.5/IEC 60947	Low-voltage switchgear and controlgear		
GB/T 17626.1/IEC 61000	Electromagnetic compatibility		
Screw type/Tightening torque	M4/2.5Nm	Contact material	Copper material
Electromagnetic compatibility			
Electrostatic discharges	IEC 61000-4/ GB/T 17626.2-2018	III（8kV/air discharge, 6kV/contact discharge）	
Electrical Fast transient burst	IEC 61000-4/ GB/T 17626.4-2018	III（±2kV Power, ±1kV Input/Output）	
Surge	IEC 61000-4/ GB/T 17626.5-2019	III（common mode ±2kV, differential mode ±1kV）	
Isolation parameter			
Insulation property	IEC 60255-5/ GB/T 14598.3-2006	The insulation resistance of each conductive loop to the ground and between each conductive loop is not less than 100MΩ	
Insulation resistance			
Dielectric strength		AC 2kV, 1min, leakage current 5mA	
Impulse voltage		1.2/50μs, ±5kV, 3order	
Vibration and collision			
Vibration	IEC 60068-2-6/ GB/T 2423.10-2019	Environmental tests for electrical and electronic products - Part 2 Test methods Fc vibration test(sine)	
Vibration response	IEC 60225-21-1/ GB/T 11287-2000	Acceleration amplitude of 10m/s²	
Vibration durability		Acceleration amplitude of 20m/s²	
Shock	IEC 60068-2-27/ GB/T 2423.5-2019	Environmental testing for electrical and electronic products - Part 2 Test methods Test Ea and guidelines impact	
Shock response	IEC 60255-21-2/ GB/T 14537-1993	Acceleration amplitude of 98m/s²	
Shock durability		Acceleration amplitude of 294m/s²	
Collision	IEC 60068-2-27/ GB/T 2423.5-2019	Environmental testing for electrical and electronic products - Part 2 Test methods Test Ea and guidelines impact	
Collision response	IEC 60255-21-2/ GB/T 14537-1993	Acceleration amplitude of 196m/s²	
Performace data			
Operating temperature	-25℃ to 70℃	Storage temperature	-40℃ to 70℃
Max operating humidity	93%RH@+40℃	Operating altitude	<4500m
Flame retardant			
Flame retardant grade	UL94 V0 flame retardant（750℃,30s）		
Weight (g)	750		

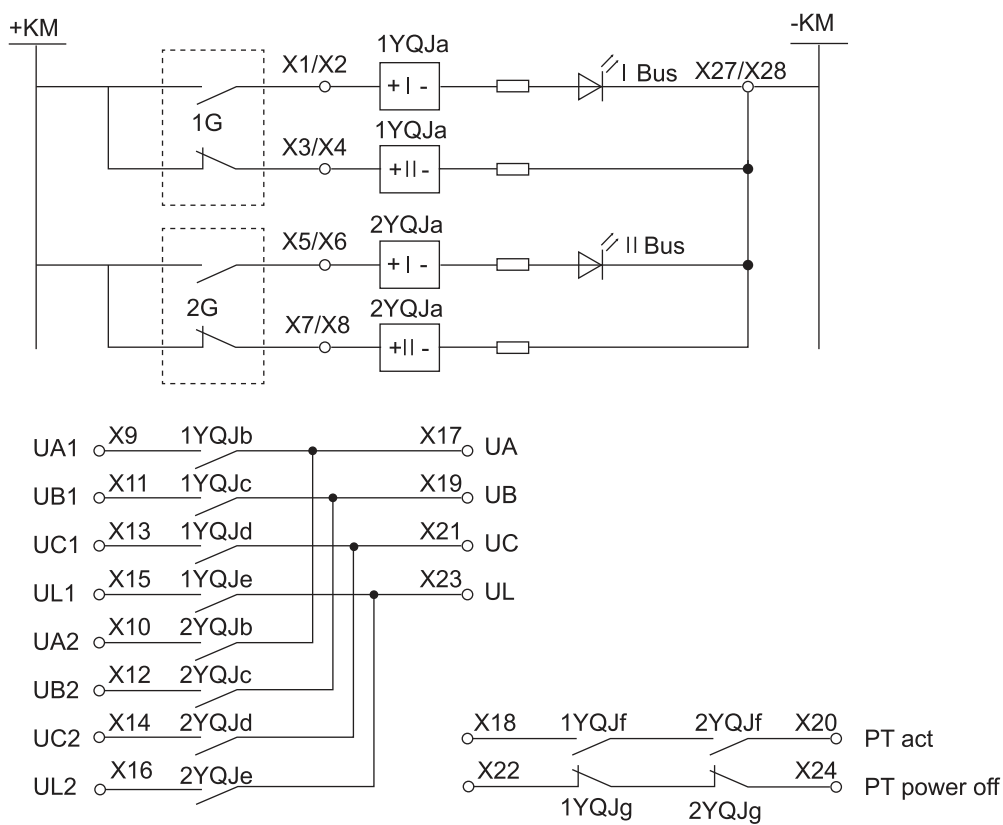
Voltage Switching Relay-GRUS-11G(S) Series

Terminal definition

GRUS-11G terminal definition

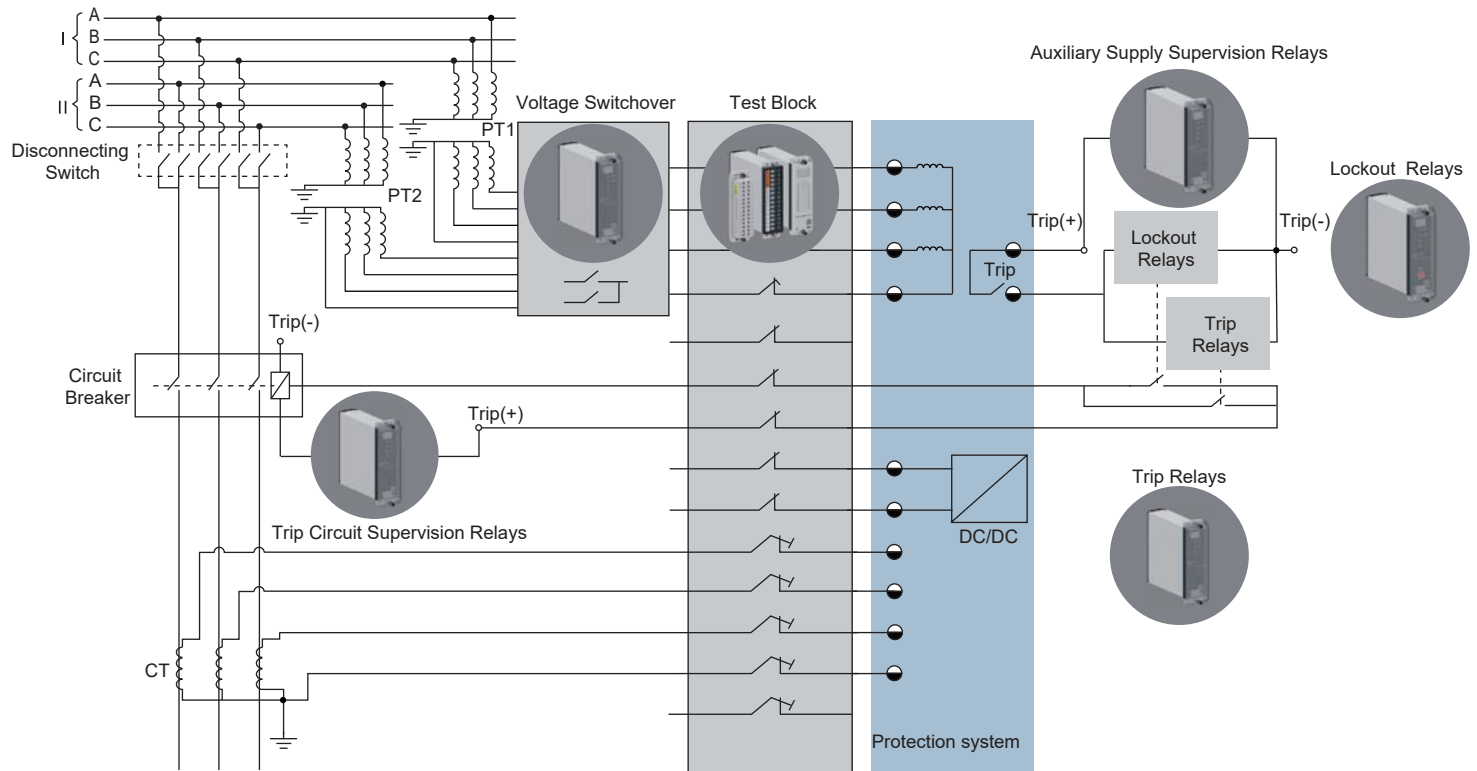


GRUS-11GS terminal definition



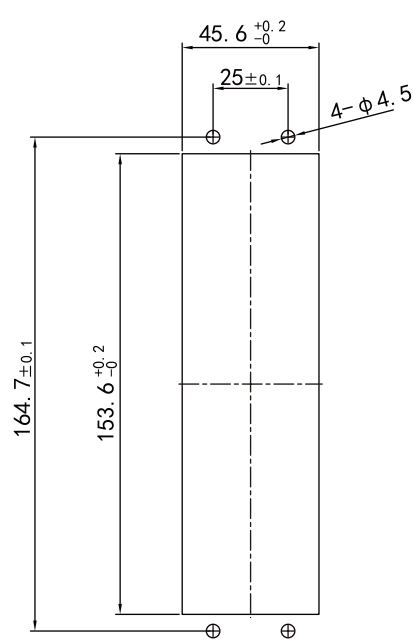
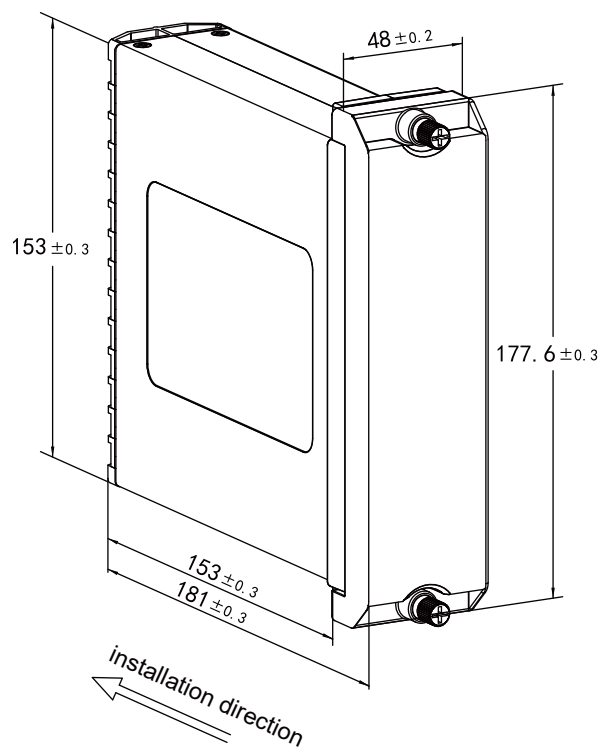
Voltage Switching Relay-GRUS-11G(S) Series

Typical application wiring diagram



Voltage Switching Relay-GRUS-11G(S) Series

Dimensions(mm)



Hole size diagram

Use a phillips or flat-head screwdriver to tighten the screws;

A=8.5mm

Maximum shape of terminal: no more than 8.5mm(diameter).

Compatible connection terminal types		
Round Shape		2.5 ² *2
Y Shape		
Hard Wire		2.5 ² *1



Terminal connection definition

- * Install the protective cover on the front panel after testing to prevent foreign bodies from entering.
- * The information panel at the top of the protective cover can be adjusted to display information required.