# LOCKOUT relay-GRUS-11T series Catalogue



Version number: V1.2 (2024.1.19)

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#### Product overview





#### LOCKOUT relay-GRUS-11T series Product application scene and features

- LOCKOUT relays are also known as lockout trip relays.
- The relays cooperate with generator transformer protection or transformer protection, have messaging and other functions. Fast tripping outlet have up to 13 pay contacts.
- For occasions where the number of auxiliary contacts of primary equipment cannot meet the demand and needs to be expanded.
- Remote return and local return.
- The terminal of PHOENIX MSTB series is selected.
- Installation size: EMG-GCP:146mm(L)×72.5mm(W)×115.5mm(H)
- Installation method: embedded installation.











### Ordering data

LOCKOUT relay-GRUS-11T series Product naming rules

Typical model	GRUS	-11T	-9H4D	/220VDC
Product series GRUS=Embedded	d operating relay			
Function definition 11T=plastics EM		e、1NC contact		
Relay output con 9H4D=9NO、4N 10H3D=10NO、3 11H2D=11NO、3 8H5D=8NO、5N	C 3NC 2NC			
Rated work volta 220VDC=220V I 110VDC=110V I	ated DC voltaç	ge; 125VDC=12	5V rated DC vol	tage;

#### LOCKOUT relay-GRUS-11T series Product conventional models

Conventional recommend models	Application scenes and selection principles
GRUS-11T-9H4D/110VDC * GRUS-11T-9H4D/220VDC *	For the occasion of tripping in the control loop,
GRUS-11T-10H3D/110VDC * GRUS-11T-10H3D/220VDC *	the input is a pulse signal

<sup>\*:</sup> The contact type representation method: H represents the normally open contact; D represents the normally closed contact.

# Product technical parameters and execution standards

Input loop-rated coil volta	age					
DC voltage	110VDC; 125VD	C; 220VDC				
Allowable long-term operating voltage 1.2Un				Reliable action pulse	width	≥50ms
Starting voltage range 30%~80% (55%		$\sim$ 70% customizab	ole)	Starting power		≥5W (customizable)
Output loop-relay contact	ot output					
Contact numbers	Contact numbers			Thirteen pay contact	cts	
Output contact type			9H4D; 10H3D; 11H2D;8H5D			)
Contact long-term on load cu	ırrent	8A@250VAC/30VDC				
Contact material		Silver-nikel 90/10				
Contact disconnect load p	ower		(	0.25A@220VDC (60	W)	
Action time(rated voltage	e)		≤10	ms (NO contact close	e time)	
Return time(NO contact re	turn)		≤15	5ms (NO contact retu	rn time)	
Isolation parameter						
Insulation resistance	≥100MΩ (between the coil and th	he contact)	Medi	um strength		AC,50Hz,1min,5mA en the coil and the contact)
Product power consump	tion					
Power consumption	≤3W			Tightening torque		0.5∼0.6Nm
Work environment	-25°C∼+70°C			Screws,gaskets,termina	l material	Copper
Storage environment	-40°C∼+85°C					
Product design standard	ls					
GBT 14598.2-2011	General requirements f	for measuring relay	ys an	d protection devices		
Q/GDW 13097.1-2018	126∼500kV GIS procu	126~500kV GIS procurement standards Part I General technical specifications				
	STATE GRID Corporat	ATE GRID Corporation of China 18 major: anti-accident measures (revised edition)-20181109				
	Southern Power Grid st	uthern Power Grid standard-general technical specification for relay protection (2018 trial edition)				
	Southern Power Grid po	ower system relay	prote	ction anti-accident m	easures	compilation (2014)
Isolation parameter						
Insulation performance						
Insulation resistance	GB/T 14598.3-2006			d√ each loop≥100MΩ	)	
Medium strength	OB/1 14000.0-2000			age current 5 mA		
Shock voltage		1.2/50us, ±5k	⟨V, ;	3 times		
Vibration and collision		ı				
Vibration	GB/T 2423.10-2008				onic produ	ucts Part 2 Fc vibration (sine)
Vibration response	GB/T 11287-2000	Peak acceleration:				
Vibration endurance		Peak acceleration: 20m/s <sup>2</sup>				
Shock	GB/T 2423.5-1995	i i			ucts Part 2 Test Ea and guidelines shock	
Shock response	GB/T 14537-1993	Peak acceleration: 98m/s <sup>2</sup>				
Shock endurance	OD/T 0400 0 4005	Peak acceleration: 294m/s <sup>2</sup>				
Collision	GB/T 2423.6-1995	Environmental testing for electrical and electronic products Part 2 Test Eb and guidelines collosop  Peak acceleration: 196m/s <sup>2</sup>				
Collision response	GB/T 11287-2002	Peak accelera	uon:	190111/5*		
Flame retardant		I				
Anti-abnormal heat and fire hazard test	UL94	Level V0 (shel	II)			

### Product terminal definition

#### GRUS-11T-10H3D terminal definition

1X		2X
1	1X2 <u>LK</u> -KM 1X5	
2	1X2 ————————————————————————————————————	2
3	1X4 ————1X5	3
4	1X6 ———1X7	4
5	1X8 ————1X9	5
6	1X10——1X11	6
7	1X12——1X13	7
8	1X14——1X15	8
9	2X2 ————2X3	9
10	2X4 ————————————————————————————————————	10
11	2X82X9	11
12	2X10 2X11	12
13	2X12 2X13	13
14	2X14 2X15	14
15	RES L- KM	15
16	1X3	

#### GRUS-11T-9H4D terminal definition

1X		2X
1	1X2 <u>LK</u> -KM 1X5	
2	1X2	2
3	1X41X5	3
4	1X6 ———1X7	4
5	1X8 ————1X9	5
6	1X10——1X11	6
7	1X12——1X13	7
8	1X14———1X15	8
9	2X22X3	9
10	2X4 ————————————————————————————————————	10
11	2X82X9	11
12	2X10 2X11	12
13	2X12 2X13	13
14	2X14 2X15	14
15	RES	15
16	1X3 1X16	

GRUS-11T-11H2D terminal definition

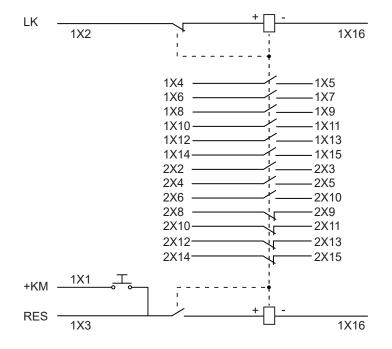
1X		2X
1	1X2 LK -KM 1X5	
2	1X21X5	2
3	1X41X5	3
4	1X61X7	4
5	1X81X9	5
6	1X10——1X11	6
7	1X12——1X13	7
8	1X14 1X15	8
9	2X2 — 2X3 2X4 — 2X5	9
10	2X42X5 2X62X7	10
11	2X82X9	11
12	2X10 2X11	12
13	2X12 2X13	13
14	2X14 2X15	14
15	No RES KM	15
16	1X3 1X16	

GRUS-11T-8H5D terminal definition

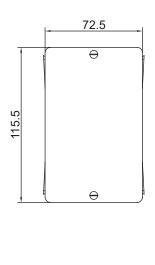
1X		2X
1	1X2 <u>LK</u> - <u>KM</u> 1X5	
2	1X21X5	2
3	1X41X5	3
4	1X61X7	4
5	1X81X9	5
6	1X10———1X11	6
7	1X12——1X13	7
8	1X14——1X15	8
9	2X22X3	9
10	2X42X5	10
11	2X6 ————————————————————————————————————	11
12	2X10 2X11	12
13	2X12 2X13	13
14	2X14 2X15	14
15	DES KM	15
16	1X3 1X16	

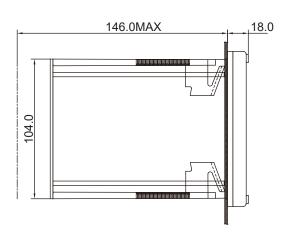
### Typical application wiring diagram

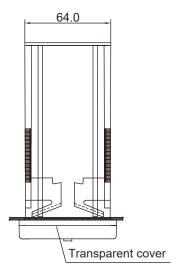
Lockout Relays application schematic(take GRUS-11T-9H4D as an example)

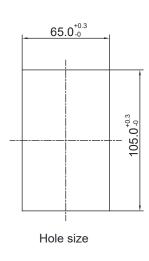


# Installation size drawing(mm)









EMG-GCP