

# SGR2-D Series Thermal Relay




## Technical data

Type	SGR2-D13,SGR2-D23,SGR2-D33,SGR2-F53,SGR2-F73	
Standard	IEC60947-4-1	
Approvals	CE,SEMKO,CB	
Tripping class	10A,20A	
Rated frame current(A)	SGR2-D13	25
	SGR2-D23	36
	SGR2-D33	93
	SGR2-F53	53
	SGR2-F73	73
Setting range(A)	SGR2-D13	0,1-25
	SGR2-D23	23-36
	SGR2-D33	23-93
	SGR2-F53	30-220
	SGR2-F33	200-630
Rated insulation voltage Ui(V)	690/1000	
Rated impulse withstand voltage Uimp(kV)	6/8	
Signalling	Trip indicator	
Tightening torque(N.m)	0.8	
Degree of protection	IP20	
Ambient air temperature(°C)	-5 to+40,max.95%humidity	
Storage temperature(°C)	-40~+75	
Maximum operating altitude (meters)	2000	
Flame resistance	V1	
Mounting	Directly under the contactor	



## Selection and ordering data

### SGR2-D thermal relay matched with contactor SGC1-D/W

	Rated frame current (A)	Rated working current of thermal relay	Rated Current (A)	Current setting range (A)	Matched fuse type aM (A)	gG (A)	Matched AC contactor
	25	SGR2-D 1301	0.16	0.1~0.16	0.25	2	SGC1-D09
		SGR2-D 1302	0.25	0.16~0.25	0.25	2	SGC1-D09
		SGR2-D 1303	0.4	0.25~0.4	1	2	SGC1-D09
		SGR2-D 1304	0.63	0.4~0.63	1	2	SGC1-D09
		SGR2-D 1305	1	0.63~1	2	4	SGC1-D09
		SGR2-D 1306	1.6	1~1.6	2	4	SGC1-D09
		SGR2-D 13X6	2	1.25~2	4	6	SGC1-D09
		SGR2-D 1307	2.5	1.6~2.5	4	6	SGC1-D09
		SGR2-D 1308	4	2.5~4	6	10	SGC1-D09
		SGR2-D 1310	6	4~6	8	16	SGC1-D09
		SGR2-D 1312	8	5.5~8	12	20	SGC1-D09
		SGR2-D 1314	10	7~10	12	20	SGC1-D12
		SGR2-D 1316	13	9~13	16	25	SGC1-D18
		SGR2-D 1321	18	12~18	20	35	SGC1-D18
SGR2-D 1322	25	17~25	25	50	SGC1-D25		
	36	SGR2-D 2353	32	23~32	40	63	SGC1-D32
		SGR2-D 2355	36	28~36	40	80	SGC1-D40
	93	SGR2-D 3353	32	23~32	40	63	SGC1-D32
		SGR2-D 3355	40	30~40	40	100	SGC1-D40
		SGR2-D 3357	50	37~50	63	100	SGC1-D50
		SGR2-D 3359	65	48~65	63	100	SGC1-D65
		SGR2-D 3361	70	55~70	80	125	SGC1-D80
		SGR2-D 3363	80	63~80	80	125	SGC1-D80
		SGR2-D 3365	93	80~93	100	160	SGC1-D95

### SGR2-F thermal relay matched with contactor SGC1-F

Type code	Current setting range	Fuses to be used with selected relay Maximum rating		Matched contactor
		aM Type (A)	gG Type (A)	
SGR2-F53/50	30-50	50	80	SGC1-F115~F185
SGR2-F53/80	48-80	80	125	SGC1-F115~F185
SGR2-F53/100	60-100	100	200	SGC1-F115~F185
SGR2-F53/150	90-150	160	250	SGC1-F115~F185
SGR2-F53/220	132-220	250	315	SGC1-F225~F265
SGR2-F73/330	200-330	400	500	SGC1-F225~F500
SGR2-F73/500	300-500	500	800	SGC1-F225~F500
SGR2-F73/630	380-630	630	800	SGC1-F400~F630



## 1. Overall and mounting dimensions( SGR2-D/SGR2-F Series )

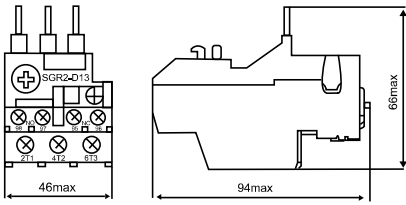


Fig 1: SGR2-D13 outline dimension diagram

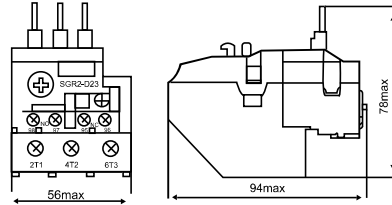


Fig 2: SGR2-D23 outline dimension diagram

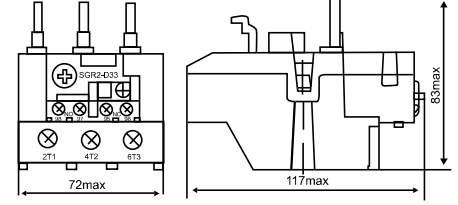
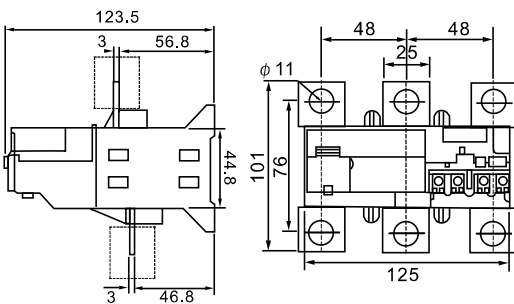
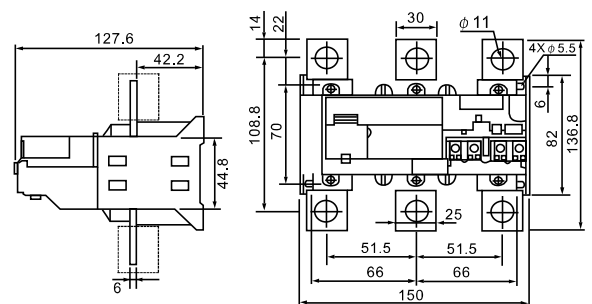
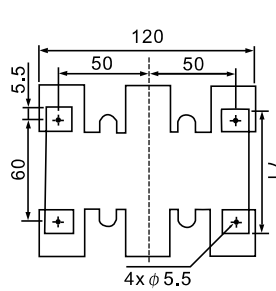


Fig 3: SGR2-D33 outline dimension diagram



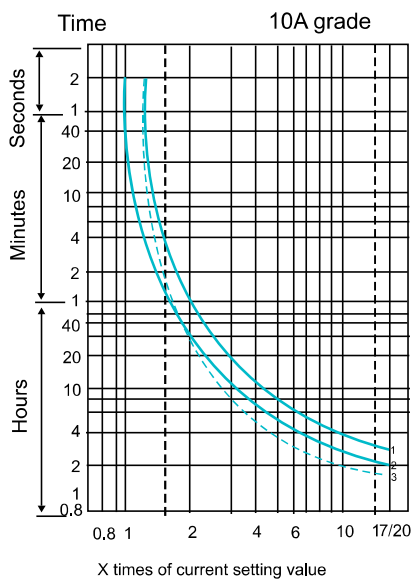
SGR2-F53/220



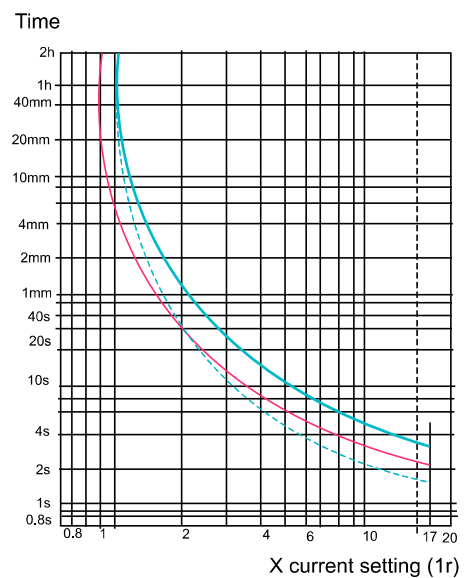
SGR2-F73/630

## 2. Tripping curve for thermal relay

### SGR2-D



### SGR2-F



1. Equilibrium running, 3phase, start form cold state
2. Equilibrium running, 2phase, start form cold state
3. Equilibrium running, 3phase, after long period of setting current(hot state)

**Derivative products of AC contactor, please refer to pictures below**

