JGL 系列两相反时限过流继电器

JGL Series Two Phase Reverse Time Overcurrent Relay

1.用途及特点 Use and Characteristics

该继电器用于电机，变压器，输配电线路的过负荷和短路保护，集过流，时间为一体的交流操作或直流操作的静态型多功能继电器，可作为定时限过流保护或反时限过流保护。要产品具有精度高，动作快，功耗低，返回系数，整定直观方便，采用进口小型大功率继电器作为出口中间继电器，触点容量大；该继电器能按预定的时限可靠动作或发出信号，切除故障部分，保证主设备及输配电系统安全交流电后有动作指示作记忆。

The relay is used for over-load and short-circuit protection of motor, transformer, transmission and distribution line, static multi-function relay with over-current, time-integrated AC operation or DC operation. It can be used as timing limiting over-current protection or inverse time-limited over-current protection. The products have high precision, fast action, low power consumption, return coefficient, easy to set, adopt imported small high-power relay as outlet intermediate relay, and have large contact capacity. The relay can operate reliably or signal according to the predetermined time limit, remove the fault part, and ensure that the main equipment and the transmission and distribution system have the action indication for memory after the safe alternating current.

2.主要技术参数 Main Technical Parameters

整定范围：2-20（辅助电源为 220V）

额定电流：5A(10A)

速断延时：0-0.9S

定时限延时时间整定范围：0.5-99.9S 级差 0.1S；整定误差 0.1%整定值＋10ms

反时限延时时间整定范围：0.5-99.9S 级差 0.1S;（反时限延时时间整定值为 2 倍动作电流下的延时时间整定值）

速动电流倍数整定范围：2-10 倍

速断延时整定为 0 秒时。 速断动作时间（即继电器固有动作时间）不大于 50ms，整定为 0.1-0.9S 时，其延时误差不大于 1%整定值+10ms.

Setting range: 2-20 (220V auxiliary power supply)

Rated current: 5A (10A)

Quick break delay: 0-0.9S

Timing limit delay time setting range: 0.5-99.9S, differential is 0.1S; Setting error 0.1%,Setting value is + 10ms

Inverse time delay time setting range: 0.5-99.9S, difference is 0.1S; (the delay time tuning value of the reverse time delay time is 2 times the action current) Speed current multiple setting range: 2-10 times

The fast break delay is set at 0 seconds. The delay error is not more than 1% and setting value is 10ms when the operation time (Relay inherent action time

) is not more than 50ms and the whole time is 0.1-0.9S.

3. 过流动作整定 Overcurrent action setting

1.继电器面板上第一组 3 个数字开关，自左到右分别为十位数，个位数和红字表示小数，数字开关置 020，即过流整定值为 2A.

The first group of three digital switches on the relay panel are 10 digits from left to right, with single digits and red characters representing decimal numbers. The digital switch is set at 020, that is, the overcurrent setting value is 2A.

2. 面板上第二组开关，有 2 个数字组成，自左到右分别为 10 位数和个位数，开关整定数即为速断倍数，速断电流整定值=过流整定值*速断倍数，例：过流整定值 2A，速断倍数 6 倍，则速断电流=2*6=12A

The second group of switches on the panel consists of two numbers, from left to right are 10 digits and single digits respectively. The switch setting number is a quick break multiple, the quick break current setting value = the overcurrent setting value * the quick break multiple, for example, the overcurrent setting value is 2A, If the quick break multiple is 6 times, the fast breaking current=2*6=12A

4.过流反时限时间整定 Overcurrent reverse time setting

1.首先把过流延时开关打在反时限侧，为了整定方便，以 2 倍动作电流为反时限延时整定时间。

First of all, the overcurrent delay switch is hit on the reverse time limit side. For the convenience of setting, the time of setting the time delay is 2 times the action current.

例如：在 2 倍动作电流下延时时间继电器为 3.5s，可直接将时间开关置 035 可从表中查出 10 倍电流下反时限延时时间为 0.5S（附：电流倍数与反时限延时时间关系表）

For example, when the delay time relay is 3.5 s at 2 times current, the time switch 035 can be directly set from the table to find out that the reverse time delay time of 10 times current is 0.5s (attached: the relation table between current multiple and inverse time delay time)
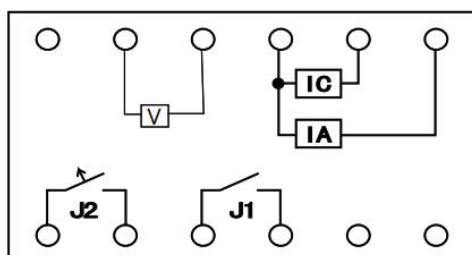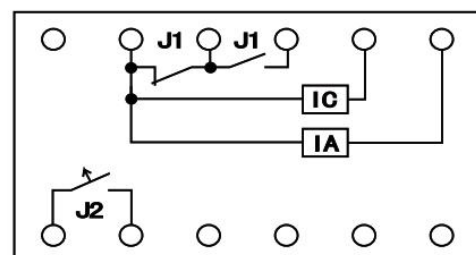
5.接线端子图 Terminal diagram
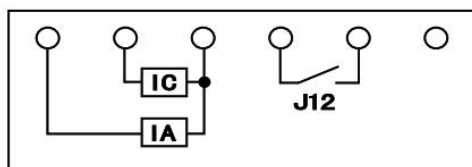
JGL-11/Ⅱ
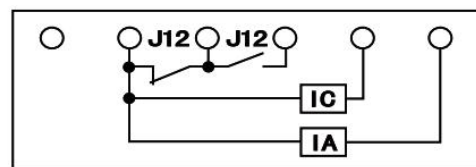
JGL-15/Ⅱ

JGL-13/Ⅱ

JGL-16/Ⅱ

Table of relationship between current multiple and inverse time delay time
电流倍数与反时限延时时间关系表

附表：Attached list

Double current setting time	2倍电流整定时间 m / 延时时间 s	电流倍数 $\frac{I}{I_d}$ Current multiple							
		3	4	5	6	7	8	9	10
0.5		0.32	0.23	0.19	0.16	0.14	0.13	0.12	0.11
0.6		0.37	0.27	0.22	0.19	0.16	0.15	0.14	0.13
0.7		0.43	0.31	0.25	0.21	0.18	0.16	0.15	0.14
0.8		0.48	0.34	0.27	0.23	0.20	0.18	0.16	0.15
0.9		0.53	0.38	0.30	0.25	0.22	0.20	0.18	0.16
1.0		0.59	0.42	0.33	0.28	0.24	0.21	0.19	0.17
1.1		0.64	0.46	0.36	0.30	0.26	0.23	0.21	0.19
1.2		0.70	0.49	0.38	0.32	0.28	0.25	0.22	0.20
1.3		0.75	0.53	0.41	0.34	0.30	0.26	0.24	0.22
1.4		0.80	0.57	0.44	0.37	0.31	0.28	0.25	0.23
1.5		0.86	0.60	0.47	0.39	0.33	0.29	0.26	0.24
1.6		0.91	0.64	0.50	0.41	0.35	0.31	0.28	0.25
1.7		0.97	0.68	0.53	0.43	0.37	0.33	0.29	0.27
1.8		1.02	0.71	0.55	0.45	0.39	0.34	0.31	0.28
1.9		1.07	0.75	0.58	0.48	0.41	0.36	0.32	0.29
2.0		1.13	0.79	0.61	0.50	0.43	0.38	0.33	0.30
2.1		1.18	0.82	0.64	0.52	0.45	0.39	0.35	0.32
2.2		1.23	0.86	0.67	0.55	0.47	0.41	0.36	0.33
2.3		1.29	0.90	0.70	0.57	0.49	0.43	0.38	0.34
2.4		1.34	0.93	0.72	0.59	0.50	0.44	0.39	0.36
2.5		1.40	0.97	0.75	0.61	0.52	0.46	0.41	0.37
2.6		1.45	1.01	0.78	0.64	0.54	0.47	0.43	0.38
2.7		1.50	1.04	0.81	0.66	0.56	0.49	0.44	0.39
2.8		1.56	1.08	0.83	0.68	0.58	0.51	0.45	0.41
2.9		1.61	1.12	0.86	0.70	0.60	0.52	0.46	0.42
3.0		1.67	1.16	0.89	0.73	0.62	0.54	0.48	0.43
3.1		1.72	1.19	0.92	0.75	0.64	0.55	0.49	0.44
3.2		1.78	1.23	0.95	0.77	0.66	0.57	0.51	0.46
3.3		1.83	1.27	0.97	0.80	0.67	0.59	0.52	0.47
3.4		1.94	1.34	1.03	0.82	0.71	0.62	0.55	0.50
3.5		1.94	1.34	1.03	0.84	0.71	0.62	0.55	0.50
3.6		1.99	1.38	1.06	0.86	0.73	0.64	0.56	0.51
3.7		2.04	1.41	1.09	0.89	0.75	0.65	0.58	0.52
3.8		2.10	1.45	1.11	0.91	0.77	0.67	0.59	0.53
3.9		2.15	1.49	1.14	0.93	0.79	0.68	0.61	0.55
4.0		2.21	1.53	1.17	0.95	0.81	0.70	0.62	0.56
4.1		2.26	1.56	1.20	0.97	0.82	0.72	0.63	0.57
4.2		2.31	1.60	1.23	1.00	0.84	0.73	0.65	0.58
4.3		2.37	1.64	1.25	1.02	0.86	0.75	0.66	0.60
4.4		2.42	1.67	1.28	1.04	0.88	0.77	0.68	0.61

Delay time

Double current setting time	2倍电流整定时间 m / 延时时间 s	电流倍数 $\frac{I}{I_d}$ Current multiple							
		3	4	5	6	7	8	9	10
4.5		2.48	1.71	1.31	1.07	0.90	0.78	0.69	0.62
4.6		2.53	1.74	1.34	1.09	0.92	0.80	0.71	0.64
4.7		2.59	1.78	1.37	1.11	0.94	0.82	0.72	0.65
4.8		2.63	1.82	1.39	1.13	0.96	0.83	0.74	0.66
4.9		2.69	1.86	1.42	1.16	0.98	0.85	0.75	0.67
5.0		2.75	1.89	1.45	1.18	0.99	0.87	0.76	0.69
5.5		3.02	2.08	1.59	1.29	1.09	0.95	0.83	0.75
6.0		3.29	2.26	1.73	1.40	1.19	1.03	0.91	0.81
6.5		3.55	2.44	1.87	1.52	1.28	1.11	0.98	0.88
7.0		3.83	2.63	2.01	1.63	1.38	1.19	1.05	0.94
7.5		4.09	2.81	2.15	1.74	1.47	1.27	1.12	1.00
8.0		4.37	3.00	2.29	1.86	1.56	1.36	1.19	1.07
9.0		4.91	3.37	2.57	2.08	1.75	1.52	1.33	1.19
1.0		5.43	3.73	2.85	2.31	1.94	1.68	1.48	1.32
11		5.97	4.10	3.13	2.53	2.13	1.84	1.62	1.45
12		6.51	4.47	3.41	2.76	2.32	2.00	1.76	1.58
13		7.05	4.84	3.69	2.99	2.51	2.17	1.91	1.70
14		7.59	5.21	3.97	3.21	2.70	2.33	2.05	1.83
15		8.13	5.58	4.25	3.44	2.89	2.50	2.19	1.96
16		8.67	5.94	4.53	3.66	3.08	2.65	2.34	2.09
17		9.20	6.31	4.81	3.89	3.27	2.82	2.48	2.21
18		9.74	6.68	5.09	4.11	3.46	2.99	2.62	2.34
19		10.28	7.05	5.37	4.34	3.64	3.14	2.76	2.47
20		10.82	7.42	5.65	4.56	3.84	3.32	2.91	2.59
25		13.51	9.26	7.05	5.70	4.78	4.12	3.62	3.23
30		16.74	11.47	8.73	7.05	5.91	5.10	4.48	4.00
35		18.90	12.94	9.85	7.95	6.67	5.75	5.05	4.50
40		21.59	14.79	11.25	9.08	7.62	6.56	5.76	5.14
45		24.28	16.63	12.65	10.21	8.56	7.38	6.48	5.78
50		26.97	18.47	14.05	11.34	9.51	8.19	7.19	6.41
55		29.67	20.31	15.45	12.47	10.46	9.00	7.91	7.05
60		32.35	22.16	16.85	13.60	11.40	9.82	8.62	7.69
65		35.05	24.00	18.25	14.73	12.35	10.63	9.34	8.32
70		37.74	25.84	19.65	15.86	13.29	11.45	10.05	8.96
75		40.43	27.68	21.05	16.99	14.24	12.26	10.76	9.60
80		43.13	29.52	22.45	18.11	15.19	13.07	11.48	10.23
85		45.82	31.37	23.85	19.24	16.13	13.89	12.19	10.87
90		48.51	33.21	25.25	20.37	17.08	14.70	12.91	11.50
95		51.20	35.05	26.65	21.50	18.02	15.52	13.62	12.14
99.9		53.84	36.86	28.02	22.61	18.95	16.31	14.32	12.76