Digital Type Overcurrent Relay
DUT □ AH, DUT □ AT
DUT □ AN, DUT □ AM(Noise immunity conforming to standard of B-402)

★Information required with your inquiry or order. The pitch in parentheses and lock setting "L" need not be specified.

Application			Detection of overload, short-circuit, and ground fault of directly grounded line system					
Principle and name			Digital type overcurrent relay					
Classification	Auxiliary energizing source	Input	★Type *33					
Unit standard structure type	DC	1	DUTUAHAS−2	DUTUAHAK−2	DUTUAHAA−2	DUTUATAS−2	DUTUATAK−2	DUTUATAA−2
	AC		DUTAAHAS−2	DUTAAHAK−2	DUTAAHAA−2	DUTAATAS−2	DUTAATAK−2	DUTAATAA−2
DQ series replacement type *21	DC	1	DUTRAHAS−2	DUTRAHAK−2	DUTRAHAA−2	DUTRATAS−2	DUTRATAK−2	DUTRATAA−2
	AC		DUTBAHAS−2	DUTBAHAK−2	DUTBAHAA−2	DUTBATAS−2	DUTBATAK−2	DUTBATAA−2
Unit standard structure type	DC	2	DUTUAHBS−2	DUTUAHBK−2	–	DUTUATBS−2	DUTUATBK−2	–
	AC		DUTAAHBS−2	DUTAAHBK−2	–	DUTAATBS−2	DUTAATBK−2	–
Unit standard structure type	DC	3	DUTUAHCS−2	DUTUAHCK−2	–	DUTUATCS−2	DUTUATCK−2	–
	AC		DUTAAHCS−2	DUTAAHCK−2	–	DUTAATCS−2	DUTAATCK−2	–
Unit standard structure type *32	DC	1	DUTUANAS−2	DUTUANAK−2	DUTUANAA−2	DUTUAMAS−2	DUTUAMAK−2	DUTUAMAA−2
	AC		DUTAANAS−2	DUTAANAK−2	DUTAANAA−2	DUTAAMAS−2	DUTAAMAK−2	DUTAAMAA−2

Ratings	★Frequency		[Hz]	50, 60					
	★Current		[A] AC	1, 5					
	Element			Inverse time−lag		Instantaneous		ndependent time−lag	
	Setting range *22	★Setting value [A] AC	1A	0.2 to 1.2 (0.1)−L		1 to 8 (0.1)−L		0.2 to 1.2 (0.1)	
				0.4 to 2.4 (0.1)−L		2 to 16 (0.1)−L		0.4 to 2.4 (0.1)	
			5A	1 to 6 (0.1)−L		5 to 40 (0.1)−L		1 to 6 (0.1)	
				2 to 12 (0.1)−L		10 to 80 (1)−L		2 to 12 (0.1)	
		Time setting		n=0.5 to 50 (n=0.1)		0 to 3s (0.1s)*26		0 to 3s (0.1s)*27	
	Output duration *23		[s]	1±0.1	0.2±0.1	0.2±0.1	1±0.1	0.2±0.1	0.2±0.1
	Rated burden		[VA]	0.4					
	Continuous withstand current			100% of rated value					
	Auxiliary energizing source *24	★Voltage [V]	DC	100, 110, 125, 200, 220, 250					
			AC	100, 110, 127, 200, 220, 250 50, 60Hz					
		Rated burden	DC	100, 110, 125V rated : 6.5W 200, 220, 250V rated : 8.5W					
			AC	100, 110, 127V rated : 15VA 200, 220, 250V rated : 20VA					

Operation indicators *31	Display hold function *34		With	With	–	With	With	–
	DC auxiliary energizing source		LED: Time lag x 1, Instantaneous x 1			LED: Operation x 1		
	AC auxiliary energizing source	1 input	LED: Time lag x 1, Instantaneous x1 Magnetic inversion: Time lag x 1, Instantaneous x 1		–	LED: Operation x 1 Magnetic inversion: Operation x 1		LED: Operation x 1
		2 inputs	LED: Time lag x 1, Instantaneous x 1 Magnetic inversion: Phase display x 2, Instantaneous x 1		–	LED: Operation x 1 Magnetic inversion: Phase display x 2		–
		3 inputs	LED: Time lag x 1, Instantaneous x 1 Magnetic inversion: Phase display x 3, Instantaneous x 1		–	LED: Operation x 1 Magnetic inversion: Phase display x 3		–

Contacts	Arrangement		Trip: Time lag 1NO ("a" make contact), Instantaneous 1NO, Alarm: 1NC ("b" break contact), External output: 1NO			Trip: 1NO, Alarm: 1NC External output: 1NO		
	Limiting making capacity	[A]	15 (R-load, 0.5s, 110V DC)					
	Continuous current carrying capacity	[A]	5					
	Limiting breaking capacity [VA] DC		10 (L–load, L/R=0.04, 110V DC)					

Characteristics	Operate time		*25		*25, *28		*25, *29	
	Operate value accuracy	[%]	*30		±5		*30	
	f2 locking function (f2/f1)	[%]	–		–		–	
	Holding factor	[%]	5					

Mass		[kg]	2					
Outline drawing	Unit standard structure type		Fig. DUT1					
	DQ series replacement type		Fig. DUT2					
Previous relay type	1 input		DQAJB1,C1,D1HJ (DQAJB1,C1,D1HH)	DQAJB1,C1,D1HC (DQAJB1,C1,D1HB)	DQAJB1HA, DQAJD1HA	DQARA1HH,DQAWA2 (C2,E2,F1,J2)HH,G	DQARA1HB,DQAWA2 (C2,E2,F1,J2)HB,D	DQARA1HA,DQAWA2 (C2,E2,F1,J2)HA,N
	2 inputs, 3 inputs		–	–	–	DQAWG1P□		–

Notes

*21 : DQ series replacement relay having the same external terminal arrangement with DQ series relay. DQ series replacement relay with panel mounting adapter that has the same depth with DQ series relay, is also available. For details, contact Fuji.
*22 : The value in parentheses indicates the pitch, and "L" indicates that the setting is locked.
*23 : The output duration of 1±0.1s is used in the case of the circuit breaker tripping, and that of 0.2±0.1s is used on other occasions.
*24 : Power interruption guarantee time of AC auxiliary energizing source is 2s. However, it may exceed 2s depending on input or operating conditions.
*25 : Refer to "Operate time characteristics".
*26 : Zero represents instantaneous operate time (40ms max.).
*27 : Zero represents instantaneous operate time (50ms max.).
*28 : ±5% of max. time setting, or for min. time setting, 40ms max. when 200% input current of operate setting value.
*29 : ±5% of max. time setting, or for min. time setting, 50ms max. when 300% input current of operate setting value.

*30 : ±5% in accuracy guaranteed setting range (1.5 times min. of min. operate setting value to max. operate setting value), ±10% for outside the accuracy guaranteed setting range.
*31 : Display by phase (R, S, and T) is as follows.
  DC auxiliary energizing source: Numbers 1 and 3 appear on the setting display (7 segments) when the number of inputs is 2 ("2" is not displayed for (S) phase), and 1, 2, and 3 appear when the number of inputs is 3.
  AC auxiliary energizing source: Numeric values that appear on the setting display (7 segments) are the same as the case of a DC auxiliary energizing source. Characters "R" and "T" appear on the magnetic inversion operation indicator when the number of inputs is 2 ((S) phase is not displayed), and "R", "(S)" and "T" appear when the number of inputs is 3.
*32 : Noise immunity per B-402 (Digital Protective Relays and Protective Equipment) .
*33 : Refer to the identifications on page 8 for the tenth digit or later of the code symbol.
*34 : If "S" or "K" is selected for the 8th digit of the code symbol, both LED and magnetic inversion operation indicators are provided with a display hold function.
  If "A" is selected, the LED indicator has no display hold function.