Specifications

■ Contact Data

Load	Single contact				Bifurcated contact	
	SPDT		DPDT, 3PDT, 4PDT		DPDT	
	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)
Rated load	15 A at 110 VAC 15 A at 24 VDC	10 A at 110 VAC 7 A at 24 VDC	10 A at 110 VAC 10 A at 24 VDC	7.5 A at 110 VAC 5 A at 24 VDC	5 A at 110 VAC 5 A at 24 VDC	4 A at 110 VAC 4 A at 24 VDC
Contact material	Ag-Alloy					
Carry current	15 A		10 A		7 A	
Max. operating voltage	250 VAC 125 VDC					
Max. operating current	15 A		10 A		7 A	
Max. switching capacity	1,700 VA 360 W	1,100 VA 170 W	1,100 VA 240 W	830 VA 120 W	550 VA 120 W	440 VA 100 W
Min. permissible load	100 mA, 5 VDC				10 mA, 5 VDC	

■ Coil Data

1- and 2-pole Types – AC

Rated voltage (V)	Rated current (mA)		Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA, W)
	50 Hz	60 Hz		Armature OFF	Armature ON	(% of rated voltage)			
6	214.10	183	12.20	0.04	0.08	80% max.	30% min.	110%	Approx. 1.00 to 1.20 (60 Hz)
12	106.50	91	46	0.17	0.33				
24	53.80	46	180	0.69	1.30				
50	25.70	22	788	3.22	5.66				
100/110	11.70/12.90	10/11	3,750	14.54	24.60				Approx. 0.90 to 1.10 (60 Hz)
110/120	9.90/10.80	8.40/9.20	4,430	19.20	32.10				
200/220	6.20/6.80	5.30/5.80	12,950	54.75	94.07				
220/240	4.80/5.30	4.20/4.60	18,790	83.50	136.40				

1- and 2-pole Types – DC

Rated voltage (V)	Rated current (mA)	Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA, W)
			Armature OFF	Armature ON	(% of rated voltage)			
6	150	40	0.16	0.33	80% max.	10% min.	110%	Approx. 0.90
12	75	160	0.73	1.37				
24	36.90	650	3.20	5.72				
48	18.50	2,600	10.60	21				
100/110	9.10/10	11,000	45.60	86.20				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with tolerances of +15%, -20% for AC rated current, and ±15% for DC rated coil resistance.

2. The AC coil resistance and inductance are reference values at 60 Hz.

3. The performance characteristics are measured at a coil temperature of 23°C (73°F).

4. Class B coil insulation is available.

3-pole Type – AC

Rated voltage (V)	Rated current (mA)		Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA, W)
	50 Hz	60 Hz		Armature OFF	Armature ON	(% of rated voltage)			
6	310	270	6.70	0.03	0.05	80% max.	30% min.	110%	Approx. 1.60 to 2.00 (60 Hz)
12	159	134	24	0.12	0.21				
24	80	67	100	0.44	0.79				
50	38	33	410	2.24	3.87				
100/110	15.90/18.30	13.60/15.60	2,300	10.50	18.50				
120	17.30	14.8	2,450	11.50	20.60				
200/220	10.50/11.60	9.00/9.90	8,650	34.80	59.50				
240	9.40	8	10,400	38.60	74.60				

3-pole Type – DC

Rated voltage (V)	Rated current (mA)	Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA, W)
			Armature OFF	Armature ON	(% of rated voltage)			
6	234	25.70	0.11	0.21	80% max.	10% min.	110%	Approx. 1.40
12	112	107	0.45	0.98				
24	58.60	410	1.89	3.87				
48	28.20	1,700	8.53	13.90				
100/110	12.70/13	8,500	29.60	54.30				

4-pole Type – AC

Rated voltage (V)	Rated current (mA)		Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA, W)
	50 Hz	60 Hz		Armature OFF	Armature ON	(% of rated voltage)			
6	386	330	5	0.02	0.04	80% max.	30% min.	110%	Approx. 1.95 to 2.50 (60 Hz)
12	199	170	20	0.10	0.17				
24	93.60	80	78	0.38	0.67				
50	46.80	40	350	1.74	2.88				
100/110	22.50/25.50	19/21.80	1,800	10.50	17.30				
120	19.00	16.40	2,200	9.30	19				
200/220	11.50/13.10	9.80/11.20	6,700	33.10	57.90				
240	11.00	9.50	9,000	33.20	63.40				

4-pole Type – DC

Rated voltage (V)	Rated current (mA)	Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA, W)
			Armature OFF	Armature ON	(% of rated voltage)			
6	240	25	0.09	0.21	80% max.	10% min.	110%	Approx. 1.50
12	120	100	0.39	0.84				
24	69	350	1.41	2.91				
48	30	1,600	6.39	13.60				
100/110	15/15.90	6,900	32	63.70				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with tolerances of +15%, -20% for AC rated current, and ±15% for DC rated coil resistance.

2. The AC coil resistance and inductance are reference values at 60 Hz.

3. The performance characteristics are measured at a coil temperature of 23°C (73°F).

4. Class B coil insulation is available.