



1 Form A Plug-in type



Form A type also available with 48A contact capacity

Refer to data sheet, starting on [page 9](#).

FEATURES

1. Excellent resistance to contact welding

Owing to the pre-tension and kick-off mechanism, the 1 Form A passes TV-15 and the 2 Form A passes TV-10.

2. High-capacity and long life

Contact arrangement	1 Form A type	2 Form A type
Contact capacity	30A	20A
Electrical life (at 20 cpm)	2×10 ⁵	
Mechanical life (at 180 cpm)	DC type: 10 ⁷ , AC type: 5×10 ⁶	

3. Excellent surge resistance

Between contacts and coil, the surge voltage is more than 10,000 V (when surge waveform accords with JEC-212-1981).

4. Compatible with all major safety standards

UL, CSA, VDE and TÜV certified

TYPICAL APPLICATIONS

1. Office equipment

Copiers, package air conditioners, automatic vending machines.

2. Industrial equipment

Machine tools, molding equipment, wrapping machines, food processing equipment, etc.

3. Home appliances

Air conditioners, microwave ovens, televisions, stereo systems, water heaters and air heating equipment.

Type		Single side stable type	
		HE 1 Form A, 2 Form A	
Insulation gap		Min. 8 mm	
Distance between contacts*		1 Form A and 2 Form A: Min. 3 mm	PC board type: Min. 2.5 mm
Breakdown voltage	Between open contacts	2, 000 Vrms for 1 min.	
	Between contact and coil	5, 000 Vrms for 1 min.	

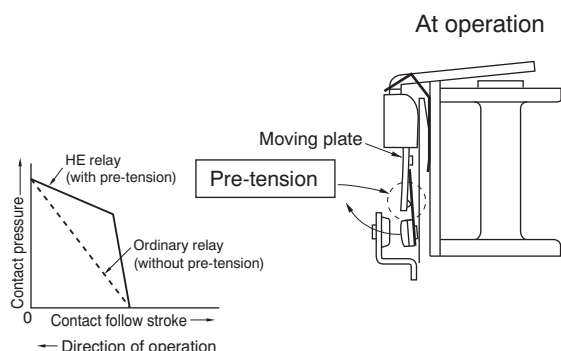
CLASSIFICATION

Type	PC board	Plug-in		TM		Screw terminal	
Operating function	Single side stable						
Contact arrangement	1 Form A	1 Form A	2 Form A	1 Form A	2 Form A	1 Form A	2 Form A

PRE-TENSION AND KICK-OFF MECHANISM

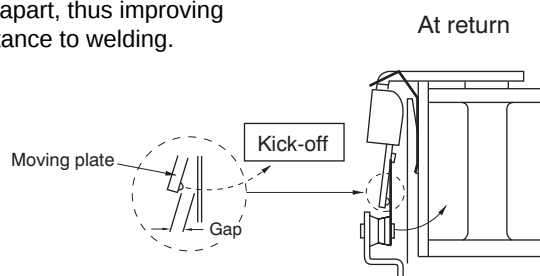
1. Pre-tension mechanism

Before operation, the moving spring is pre-tensioned by being held down by a moving plate. As a result, at the ON moment, with little follow, contact pressure is ensured with low bounce.



2. Kick-off mechanism

Even when contact welding has occurred, at the moment of return, the moving plate taps the moving spring (kick-off) and, in effect, works to tear the weld apart, thus improving resistance to welding.



	1 Form A	2 Form A
Electrical life	30 A 277 V AC, 10 ⁵ 30 A 250 V AC, 20 ⁵	25 A 277 V AC, 10 ⁵ 20 A 250 V AC, 20 ⁵
TV rating	TV-15	TV-10

ORDERING INFORMATION

HE

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HE Relay

Contact arrangement
1a: 1 Form A (Single side stable type)
2a: 2 Form A (Single side stable type)

Pick-up voltage
N: 70% of nominal voltage

Terminals
Nil: Plug-in type
S: Screw terminal type
Q: TM type
P: PC board type

Coil voltage
DC 6, 12, 24, 48, 100, 110 V
AC 12, 24, 48, 100 (100/120), 200 (200/240) V

TYPES

1. PC board type (1 Form A, DC coil) (Single side stable)

Coil voltage	1 Form A	Packing quantity	
	Part No.	Carton	Case
6V DC	HE1aN-P-DC6V	25 pcs.	100 pcs.
12V DC	HE1aN-P-DC12V		
24V DC	HE1aN-P-DC24V		
48V DC	HE1aN-P-DC48V		
100V DC	HE1aN-P-DC100V		
110V DC	HE1aN-P-DC110V		

2. Plug-in type (Single side stable)

Type	Coil voltage	1 Form A	2 Form A	Packing quantity	
		Part No.	Part No.	Carton	Case
DC type	6V DC	HE1aN-DC6V	HE2aN-DC6V	20 pcs.	100 pcs.
	12V DC	HE1aN-DC12V	HE2aN-DC12V		
	24V DC	HE1aN-DC24V	HE2aN-DC24V		
	48V DC	HE1aN-DC48V	HE2aN-DC48V		
	100V DC	HE1aN-DC100V	HE2aN-DC100V		
	110V DC	HE1aN-DC110V	HE2aN-DC110V		
AC type	12V AC	HE1aN-AC12V	HE2aN-AC12V	20 pcs.	100 pcs.
	24V AC	HE1aN-AC24V	HE2aN-AC24V		
	48V AC	HE1aN-AC48V	HE2aN-AC48V		
	100/120V AC	HE1aN-AC100V	HE2aN-AC100V		
	200/240V AC	HE1aN-AC200V	HE2aN-AC200V		

3. TM type (Single side stable)

Type	Coil voltage	1 Form A	2 Form A	Packing quantity	
		Part No.	Part No.	Carton	Case
DC type	6V DC	HE1aN-Q-DC6V	HE2aN-Q-DC6V	20 pcs.	100 pcs.
	12V DC	HE1aN-Q-DC12V	HE2aN-Q-DC12V		
	24V DC	HE1aN-Q-DC24V	HE2aN-Q-DC24V		
	48V DC	HE1aN-Q-DC48V	HE2aN-Q-DC48V		
	100V DC	HE1aN-Q-DC100V	HE2aN-Q-DC100V		
	110V DC	HE1aN-Q-DC110V	HE2aN-Q-DC110V		
AC type	12V AC	HE1aN-Q-AC12V	HE2aN-Q-AC12V	20 pcs.	100 pcs.
	24V AC	HE1aN-Q-AC24V	HE2aN-Q-AC24V		
	48V AC	HE1aN-Q-AC48V	HE2aN-Q-AC48V		
	100/120V AC	HE1aN-Q-AC100V	HE2aN-Q-AC100V		
	200/240V AC	HE1aN-Q-AC200V	HE2aN-Q-AC200V		