



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 <sup>5</sup>	
Mechanical life (at 180 cpm)	DC type: 10 <sup>7</sup> , AC type: 5×10 <sup>6</sup>	

#### 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.

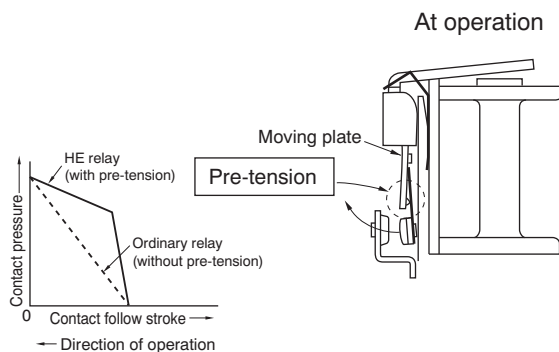
### CLASSIFICATION

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

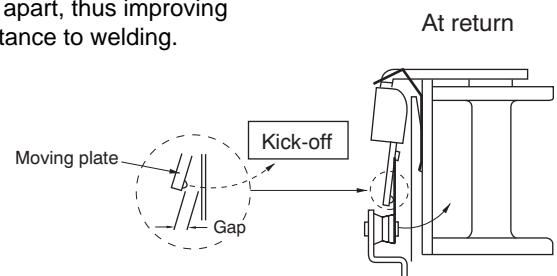
#### 1. Pre-tension mechanism

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.



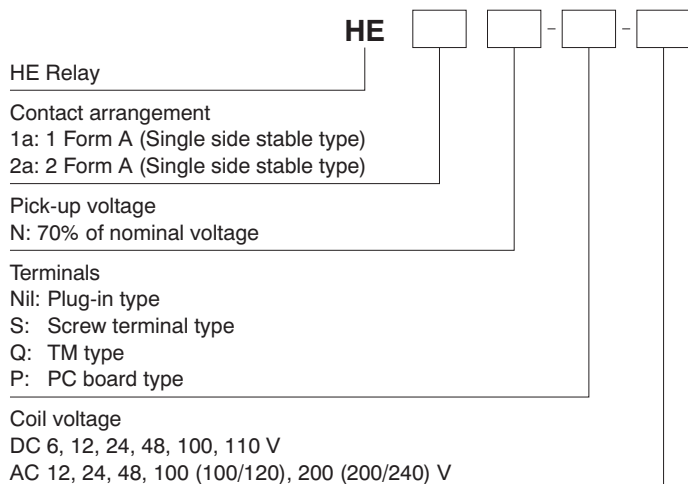
#### 2. Kick-off mechanism

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 <sup>5</sup> 30 A 250 V AC, 20 <sup>5</sup>	25 A 277 V AC, 10 <sup>5</sup> 20 A 250 V AC, 20 <sup>5</sup>
TV rating	TV-15	TV-10

## ORDERING INFORMATION



## 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				