

# High Capacity Industrial Relay HY



- 30A switching capabilities
- 4kV dielectric strength (between coil and contacts)
- 3mm contact gap available
- Class F insulation
- Heavy load up to 8310VA
- Outline dimensions: 52.5 x 35.5 x 47.0 mm

## Options and Ordering Codes

<b>HY</b>	<b>1A</b>	<b>1</b>	<b>24DC</b>
Contact arrangement			Coil voltage
SPNO	<b>1A</b>		
DPNO	<b>2A</b>		
Mounting			
Solder Lug/push-on		<b>1</b>	
PCB		<b>2</b>	



## Contact Data

Contact arrangement	1A	2A
Contact resistance	100mΩ (at 1A 24VDC)	
Contact material	AgSnO <sub>2</sub>	
Contact Rating	30A 240VAC 30A 277VAC	25A 240VAC 25A 277VAC
Max. switching voltage	277 VAC	
Max. switching current	30A	25A
Max. switching power	8310VA	6925VA
Mechanical Life	1x10 <sup>7</sup> OPS	
Electrical Life	1x10 <sup>5</sup> OPS	

## Characteristics

Initial Insulation Resistance	1000MΩ (at 500VDC)	
Dielectric Strength	Between coil & contacts	4000VAC 1min.
	Between open contacts	2000VAC 1min.
Operate time (at nomi. Volt)	30 ms max. (DC type)	
Release time (at nomi. Volt)	30 ms max. (DC type)	
Shock resistance	Functional	98m/s <sup>2</sup>
	Destructive	980m/s <sup>2</sup>
Vibration resistance	NC (no coil voltage)	10 to 55Hz 1.5mm
Ambient temperature	-55°C to +70°C	
Humidity	85% RH, 40°C	
Termination	PCB, QC	
Unit Weight	Approx 120g	
Construction	Sealed, Dust protected	

## Coil Data

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.3	3.3	4.7 (1 ± 10%)
6	4.5	0.6	6.6	18.8 (1 ± 10%)
12	9	1.2	13.2	75 (1 ± 10%)
24	18	2.4	26.4	300 (1 ± 10%)
48	36	4.8	52.8	1200 (1 ± 10%)
100	75	10	110	5200 (1 ± 10%)
110	82.5	11	121	6300 (1 ± 10%)
200	150	20	220	21000 (1 ± 10%)

Nominal Voltage VAC	Pick-up Voltage VAC	Drop-out Voltage VAC	Max. Allowable Voltage VAC	Coil Resistance Ω
6	4.8	0.9	6.6	18.8 (1 ± 10%)
12	9.6	1.8	13.2	75 (1 ± 10%)
24	19.2	3.6	26.4	300 (1 ± 10%)
48	38.4	7.2	52.8	1200 (1 ± 10%)
120	96	18	132	5200 (1 ± 10%)
220	176	33	242	20800 (1 ± 15%)

## Coil

Coil power	DC type	1.9W
	AC type	2.7VA

## Safety Approval Ratings

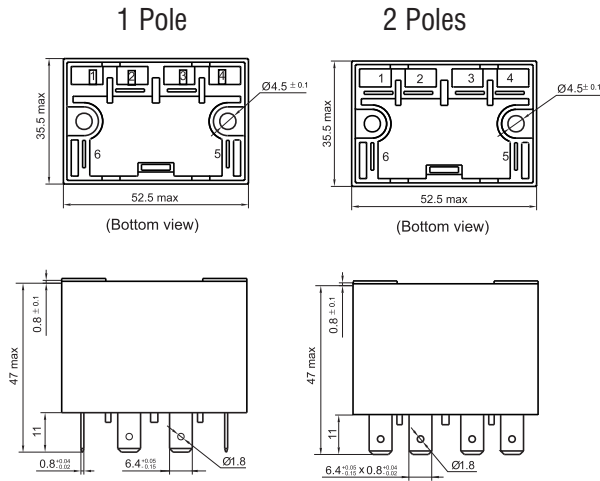
UL/CUL	30A 277VAC
	1.5HP 120VAC 3HP 240VAC
	10A 120VAC Tungsten

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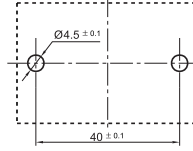


## Outline dimensions (mm)

Solder lug / Push-on

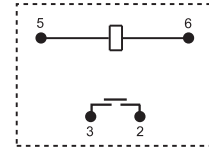


## Mounting Holes

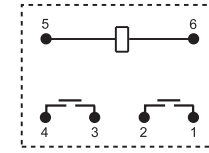


## Wiring diagram

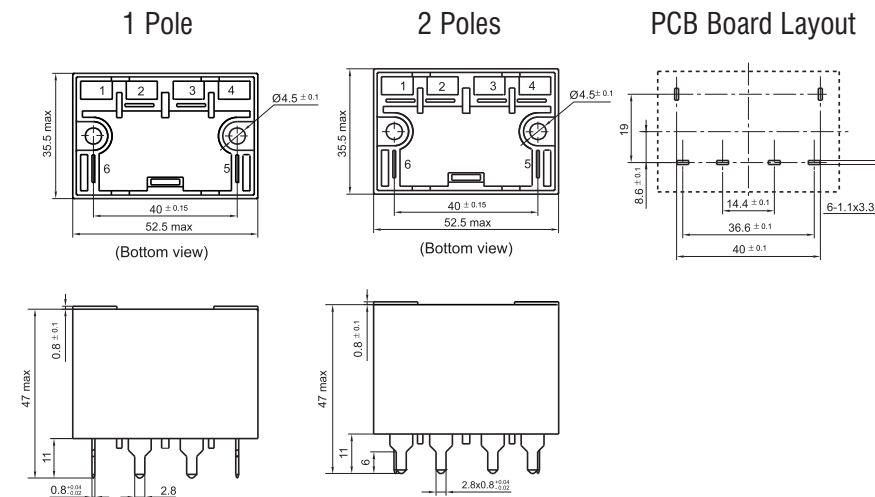
### 1 Form A



### 2 Form A

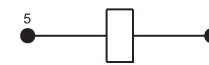


## PCB

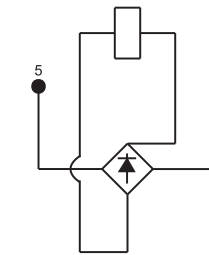


## Coil Inner Circuit

### DC Operation Coil

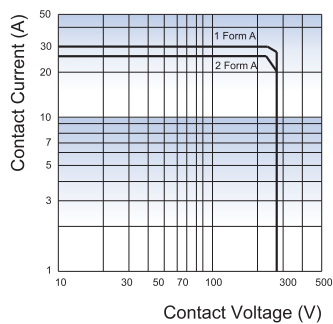


### AC Operation Coil

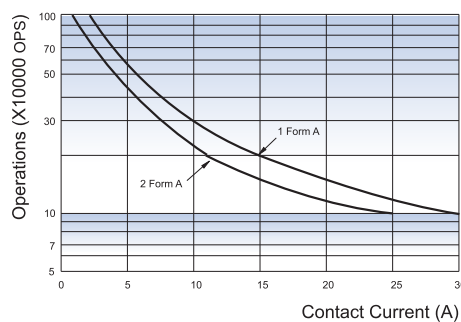


## Characteristics Curve

### Maximum Switching Power



### Endurance Curve



### Coil Temperature Rise

