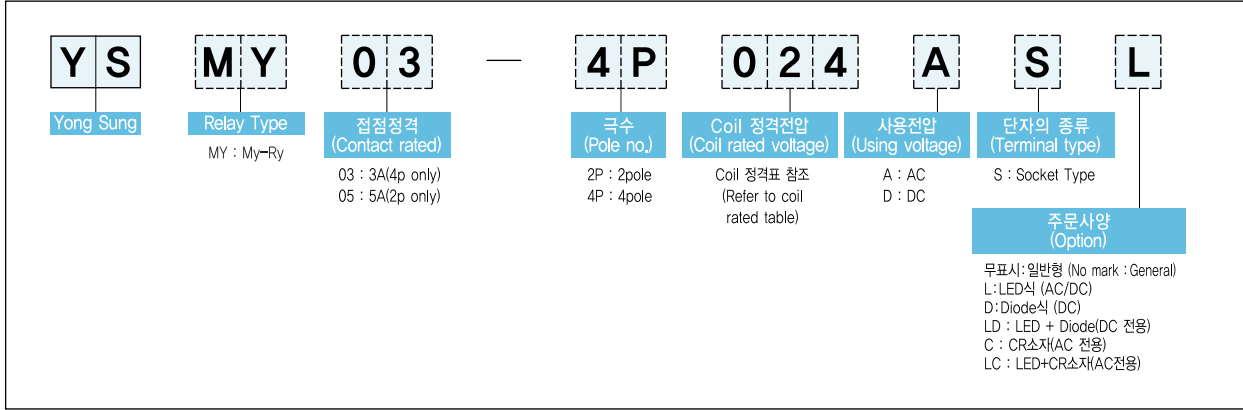


## 9-1

### 소형 파워 릴레이 Mini Power Relay



#### 형식 구분도 | Type Classification Diagram



#### 특징 | Features

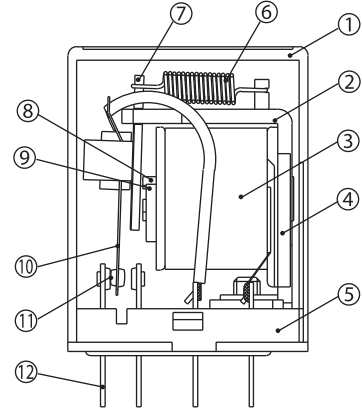
- 소형경량이므로 복잡한 제어회로에 적합합니다.
- 소형으로서 개폐용량이 높습니다.
- 소전류 소모형으로 DC용은 반도체 회로에 적합합니다.
- 종류가 다양하므로 용도별 선택이 용이합니다.
- With mini-size and lightness, it is suitable for complicated control circuit.
- High switching capacity and small size.
- Suitable for semiconductor circuit due to lower current consumption.
- Various types are available.

#### 성능 개요 | Performance Summary

접촉저항 (Contact resistance)	50mΩ 이하 (초기치) (Below 50mΩ, initial value)	
절연저항 (Insulation resistance)	100MΩ 이상 (Above 100MΩ) (DC 500V, Meg)	
내전압 (Withstand voltage)	접점상호간 (Between contacts)	AC 1,000V/min
	충전부와 비충전부간 (Between charging part and non-charging part)	AC 2,000V/min
수명 (Lifetime)	기계적 (Mechanical)	300만회 이상 (Above 3,000,000 times)
	전기적 (Electrical)	50만회 이상 (Above 500,000 times)
동작시간 (Operating time)	20ms 이하 (Below 20ms)	
복귀시간 (Return time)	20ms 이하 (Below 20ms)	
내진동 (Withstand vibration)	복진폭 (Double amplitude) 1.0mm (10~ 55Hz)	
최대개폐빈도 (Max. Switching frequency)	기계적 (Mechanical)	20 times/min
	전기적 (Electrical)	20 times/min
사용주위온도 (Ambient temperature)	-25℃ ~ +40℃	
상대습도 (Relative humidity)	MAX, 90%	

부품 재질 | Part Materials |

No.	부품 (Part)	재질 (Materials)
1	커버 (Cover)	PC 수지 (Polycarbonate resin)
2	프레임 (Frame)	탄소강 (Carbon steel)
3	코일 (Coil)	구리선 (Copper wire)
4	보빈 (Bobbin)	66 나일론 수지 (Nylon 66 resin)
5	베이스 (Base)	66 나일론 수지 (Nylon 66 resin)
6	리턴 스프링 (Return spring)	스테인리스 (Stainless steel)
7	전기자 (Armature)	순철 (Pure iron)
8	평와셔 (Washer plate)	동판 (Plate copper)
9	샤프트 (Shaft)	순철 (Pure iron)
10	유동단자 (Moving terminal)	인청동 (Phosphor bronze)
11	접점 (Contact)	은합금 (Silver alloy)
12	고정단자 (Fixed terminal)	황동 (Brass)



접점 정격 | Contact Rated |

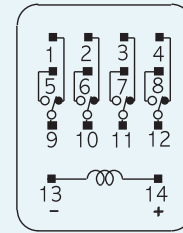
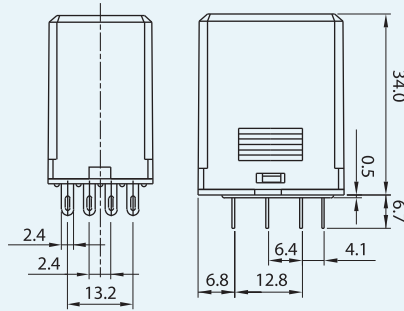
구분 (Classification)	극수 (Pole No.)	접점허용전력 (Contact allowable power)		전압(V) (Voltage)	정격부하 (Rated load)		정격통전전류(A) (Rated conductive current)
		저항부하 (Resistive load)	유도부하 (Inductive load)		저항부하 (Resistive load) (COS $\phi$ =1)	유도부하 (Inductive load) (COS $\phi$ =0.4, L/R=7ms)	
MY03	4	AC660VA	AC176VA	AC220V	3	0.8	3
		DC72W	DC36W	DC24V	3	1.5	
MY05	2	AC1100VA	AC440VA	AC220V	5	2	5
		DC120W	DC48W	DC24V	5	2	

코일 정격 | Coil Rated |

	정격전압(V) (Rated voltage)	정격전류(mA) (Rated current)	COIL 저항( $\Omega$ ) (Coil resistance)	소비전력(VA,W) (Power consumption)	동작전압(V) (Operation voltage)	복귀전압(V) (Return voltage)	최대허용전압(V) (Max. allowable voltage)
AC	24	50	167	1.2VA	80% 이하 (Below 80%)	30% 이상 (Above 30%)	110%
	110	12	3,600	1.3VA			
	220	8	12,500	1.6VA			
DC	24	48	500	1.2W	80% 이하 (Below 80%)	10% 이상 (Above 10%)	110%
	48	23	1,760	1.2W			
	110	11	10,080	1.2W			
	125	10	12,710	1.2W			
	220	6.8	33,450	1.4W			

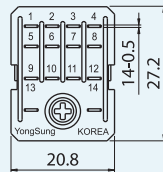
※ 주 (Note) 1. 정격전류의 허용범위 (23°C일때) :  $\pm 15\%$  (Allowable range of rating current (at 23°C) :  $\pm 15\%$ )  
 2. Coil 저항의 허용범위 (23°C일때) :  $\pm 10\%$  (Allowable range of coil resistance (at 23°C) :  $\pm 10\%$ )  
 3. LED Type은 회로에 따라 반불이 발생할 수 있으니 사용전 검토 바랍니다.  
 (Preliminary examination recommended due to possible dimness phenomena depending on circuit for LED type.)

YS MY03-4P

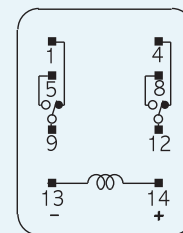
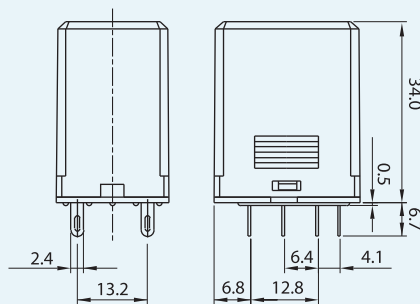


YS MY03-4P

※ 적용소켓 : YS SKMY-4  
(Applied socket : YS SKMY-4)

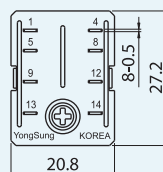


YS MY05-2P



YS MY05-2P

※ 적용소켓 : YS SKMY-2  
(Applied socket : YS SKMY-2)



## 접점 정격 | Contact Rated |

정격절연전압 (U <sub>i</sub> ) (Rated insulation voltage)			AC 250V, DC 250V		
정격통전전류 (I <sub>th</sub> ) (Rated conductive current)			10A		
최대개폐전류 (Max. Switching current)			10A		
교류 (AC)	정격전압 (U <sub>e</sub> ) (Rated voltage)		24V	110V	220V
	정격전류 (I <sub>e</sub> ) (Rated current)	저항부하 (Resistive load) cos $\phi$ = 1	10A	10A	5A
		유도부하 (Inductive load) cos $\phi$ = 0.4	10A	7.5A	3.75A
	최대 개폐용량 (Max. Switching capacity)	저항부하 (Resistive load) cos $\phi$ = 1	1,100VA		
유도부하 (Inductive load) cos $\phi$ = 0.4		825VA			
직류 (DC)	정격전압 (U <sub>e</sub> ) (Rated voltage)		24V	110V	220V
	정격전류 (I <sub>e</sub> ) (Rated current)	저항부하 (Resistive load)	10A	2.2A	1.1A
		유도부하 (Inductive load) L/R = 7ms	5A	1.1A	0.54A
	최대 개폐용량 (Max. Switching capacity)	저항부하 (Resistive load)	240W		
유도부하 (Inductive load) L/R = 7ms		120W			

※ 주        개폐전류의 최대치는 10A입니다.

※ Note     Maximum switching current is 10A.

## 코일 정격 | Coil Rated |

	정격전압(V) (Rated voltage)	정격전류(mA) (Rated current)		COIL 저항( $\Omega$ ) (Coil resistance)	소비전력(VA, W) (Power consumption)		동작전압(V) (Operation voltage)	복귀전압(V) (Return voltage)	최대허용전압(V) (Max. allowable voltage)
AC	24	93.6	80	78	2.25	1.92	80% 이하 (Below 80%)	30% 이상 (Above 30%)	110%
	100/110	22.5/25.5	19.0/21.8	1,800	2.25/2.81	1.90/2.40			
	200/220	12.5/14.3	11.8/13.4	6,700	2.50/3.15	2.36/2.95			
DC	24	69		350	1.66		80% 이하 (Below 80%)	10% 이상 (Above 10%)	110%
	48	30		1,600	1.44				
	110	15.9		6,900	1.75				
	125	12.0		10,400	1.50				
	220	6.9		32,000	1.52				

※ 주        1. 정격전류의 허용범위는 20°C에서 +15%, -20%입니다.

2. 코일저항은 허용범위는 20°C에서  $\pm$ 15%입니다.

3. 코일특성은 20°C에서의 수치입니다.

4. 상기 수치는 일반형에 대한 코일정격입니다.

※ Note    1. Allowable range of rated current (at 20°C) : +15%, -20%.

2. Allowable range of coil resistance (at 20°C) :  $\pm$ 15%.

3. Coil characteristic is specified at 20°C.

4. Above data indicates coil resistance based on general type.