

# SONGLE RELAY



RELAY ISO9002

**SMIH**



## 1. MAIN FEATURES

- Slim type and small occupying space can offer high density P.C.B. technique.
- Low coil power consumption type and general coil power consumption are prepared to comply with user's wide selections.
- Employment of suitable plastic materials to be applied to high temperature and various chemical solutions.
- Complete protective construction from dust and soldering flux. If required, plastic epoxy resin sealed type is available for washing procedure.

## 2. APPLICATIONS

- Cooking appliances, air conditioners, audio equipment, domestic appliances, etc.

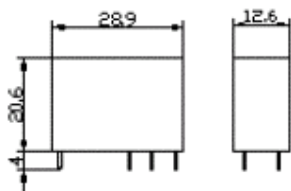
## 3. ORDERING INFORMATION

SMIH	XX VDC	S	L	C
Model of relay	Nominal coil voltage	Structure	Coil sensitivity	Contact form
SMIH	05, 06, 09, 12, 24, 48VDC	S: Sealed type	L: 0.54W	A: 1 form A
		F: Flux free type	D: 0.72W	B: 1 form B C: 1 form C

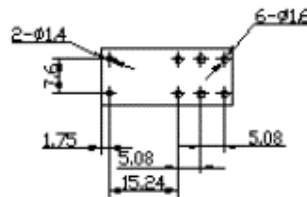
## 4. RATING

CCC	FILE NUMBER: CH0036746-99	16A/250VDC
UL	FILE NUMBER: E167996	16A/240VAC 30VDC
TUV	FILE NUMBER: R9933789	16A/240VAC 30VDC

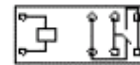
## 5. DIMENSION (unit:mm)



## DRILLING (unit:mm)



## WIRING DIAGRAM



## 6. COIL DATA CHART (AT20°C)

Coil Sensitivity	Coil Voltage Code	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega$ ) $\pm 10\%$	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max-Allowable Voltage (VDC)
SMIH0.72W	03	03	240	12.5	abt. 0.72W	80% Max.	5% Min.	130% Max.
	05	05	138.9	36				
	06	06	120	50				
	09	09	78.3	115				
	12	12	60	200				
	24	24	29.3	820				
SMIH0.54W	03	03	126.5	17	abt. 0.54W	80%Max.	5% Min.	130% Max.
	05	05	106.4	47				
	06	06	88	68				
	09	09	58	155				
	12	12	44.4	270				
	24	24	21.8	1100				
	48	48	10.9	4400				

## 7. CONTACT RATING

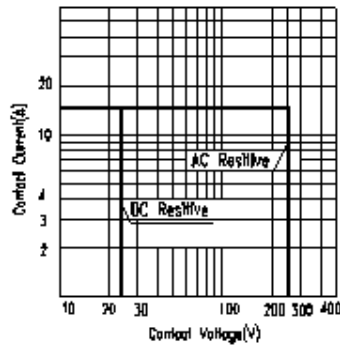
Item	Arrangement	SMIH	
		Resistive Load ( $\cos\phi=1$ )	Inductive Load ( $\cos\phi=0.4$ )
Rated load		16A 250VAC	7A 250VAC
		16A 30VDC	7A 30VDC
Carrying current		16A	
Max. switching voltage		450VAC, 200VDC	
Min. permissible load		5VDC 10mA	
Contact material		AgCdO	

## 8. PERFORMANCE (at initial value)

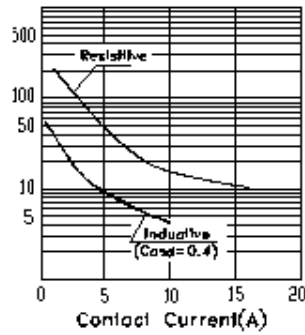
Item	Type	SMIH
Contact Resistance		100m $\Omega$ Max.
Operation Time		15msec Max.
Release Time		8msec Max.
Dielectric Strength	Between coil & contact	5000VAC 50/60HZ (1 minute)
	Between contacts	1000VAC 50/60HZ (1 minute)
Surge Resistiveness		1000V (between coil & contact 1 $\times$ 40 msec)
Insulation Resistance		100 M $\Omega$ Min. (500VDC)
Max. ON/OFF Switching	Mechanically	300 operation/min
	Electrically	30 operation/min
Operating Ambient Temperature		-20°C to +55°C
Operating Humidity		45 to 80% RH
Coil Temperature Rise		45 deg. Max. (at rated coil voltage)
Vibration	Endurance	10 to 55Hz Double Amplitude 1.5mm
	Error Operation	10 to 55Hz Double Amplitude 1.5mm
Shock	Endurance	100G Min.
	Error Operation	10G Min.
Life Expectancy	Mechanically	10 <sup>7</sup> operations. Min.
	Electrically	10 <sup>5</sup> operations. Min.
Weight		abt. 13grs.

## 9. USEFUL CURVES

Maximum switching power



Life curve



Temperature rise

