

HK15F

MINIATURE HIGH POWER RELAY



Features

- 30A switching capability
- PCB coil terminals, ideal for heavy duty load
- Wash tight and dust protected types available
- Class F insulation available
- Environmental friendly product(RoHS compliant)
- Outline Dimensions: (32.4 x 27.5 x 28.0)mm

■ CONTACT DATA

Contact Form	1A 1B 1C
Contact Material	Silver Alloy
Contact Ratings	1A: 30A 240VAC/30VDC 1B: 20A 240VAC/30VDC NO: 30A 240VAC /30VDC NC: 20A 240VAC/30VDC
Max Switching Voltage	250VAC /30VDC
Max Switching Current	30A
Max Switching Power	60000VAC /560W
Contact Resistance	100MΩ(at 1A 6VDC)
Electrical Life	1X10 ⁵ Ops(30Ops/min)
Mechanical Life	1X10 ⁷ Ops(300Ops/min)

■ GENERAL DATA

Insulation Resistance	100MΩ 500VDC	
Dielectric Strength	Between coil & contacts	2000VAC 1min
	Between open contacts	1500VAC 1min
Operate Time	Max. 15ms	
Release Time	Max. 10ms	
Temperature Range	- 40°C to +70°C	
Shock Resistance	Functional	98m/s ² (10g)
	Destructive	980m/s ² (100g)
Vibration Resistance	10 to 55Hz 1.5mm	
Humidity	45% to 85% RH	
Weight	Approx. 36g	
Safety Standard	CUL TÜV	

■ COIL DATA

Nominal Voltage (VDC)	Coil Resistance at 20°C ± 10%(Ω)	Max Operate Voltage (VDC)	Min Release Voltage (VDC)	Max Applicate Voltage (VDC)
	0.9W			
5	27	3.75	0.50	6.50
6	40	4.50	0.60	7.80
9	97	6.75	0.90	11.70
12	155	9.00	1.20	15.60
24	660	18.00	2.40	31.20
48	2560	36.00	4.80	62.40
110	13450	82.50	11.00	143.00

ORDERING INFORMATION

HK15F	-	DC	6V	-	S	H	A	X	X	X	
										Special request code	G:RoHS
										Mounting termination	NIL:PCB
										Terminal Type	W: With #6terminal NIL: Without #6terminal
										Contact Form	C A B NIL:C
										Coil Power	H:0.9W
										Type of Sealing	K: Open Type S: Plastic Sealed Type
										Coil Voltage	5V 6V 9V 12V 24V 48V 110V
										Coil Type	DC
										Type	HK15F

- Notes:1) We recommend dust protected types for a clean environment (free from contaminations like H₂S, SO₂, NO₂, dust, etc.).
We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H₂S, SO₂, NO₂, dust, etc).
If water cleaning is required after the relay is assembled on PCB, please contact us for suggestion about suitable parts.
- To avoid using relays under strong magnetic field which will change the parameters of relays such as pick-up voltage and drop-out voltage.
 - Relays may be damaged because of falling or when shocking conditions exceed the requirement.
 - Regarding the wash tight relay, we should leave it cooling naturally until below 40°C after welding, then clean it and deal with coating, remarkably the temperature of solvents should also be controlled below 40°C. Please avoid cleaning the relay by ultrasonic, avoid using the solvents like gasoline, Freon, and so on, which would affect the configuration of relay or influence the environment.
 - About preferable condition of operation, storage and transportation, please refer to "Explanation to terminology and guide of relay".

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Plastic Sealed Type

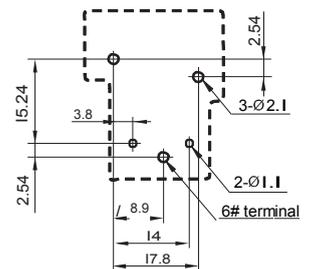
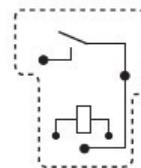
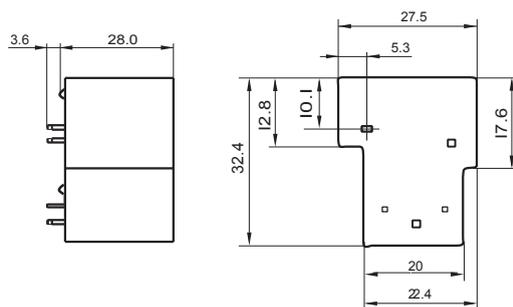
1 Form A

Outline Dimensions

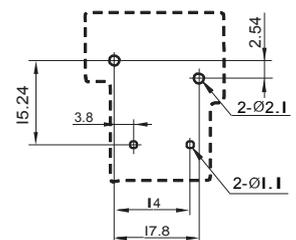
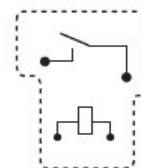
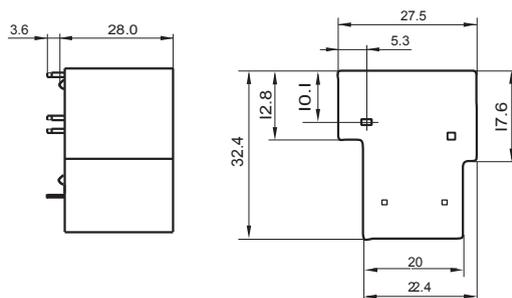
Wiring Diagram (Bottom view)

PCB Layout (Bottom view)

With 6# terminal



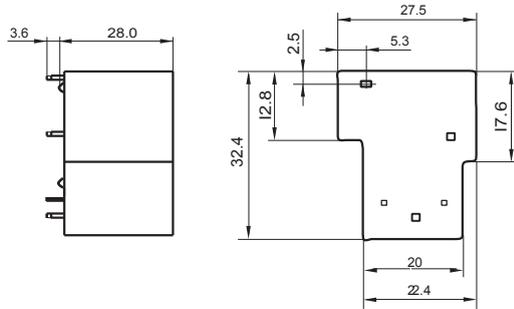
Without 6# terminal



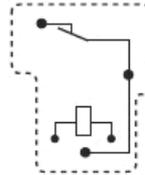
1 Form B

Outline Dimensions

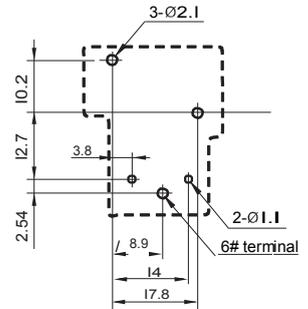
With 6# terminal



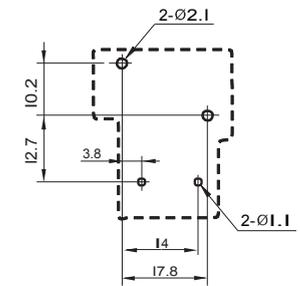
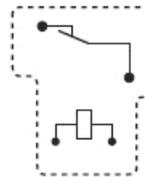
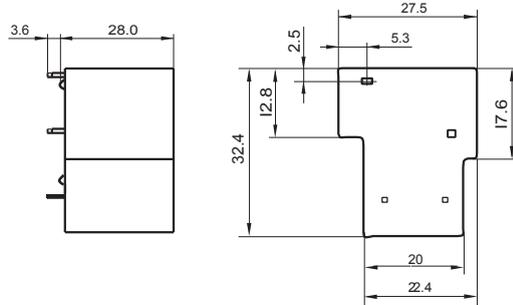
Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



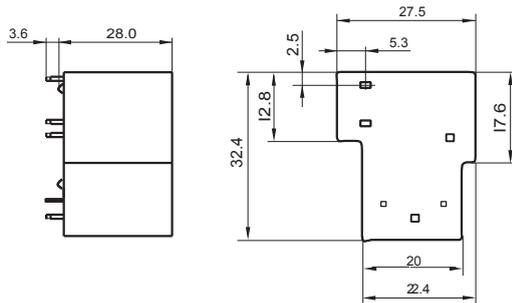
Without 6# terminal



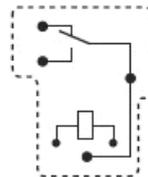
1 Form C

Outline Dimensions

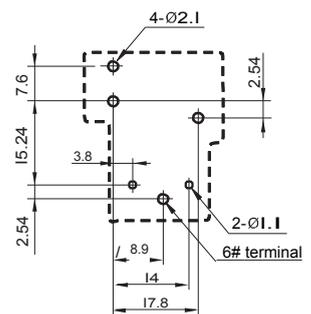
With 6# terminal



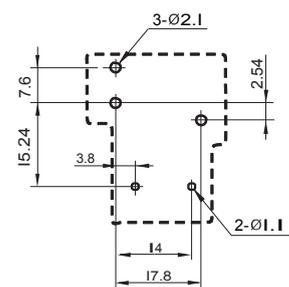
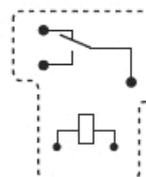
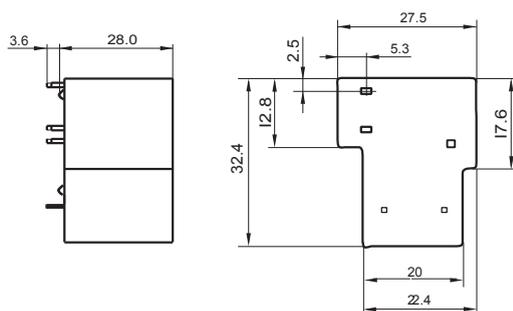
Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



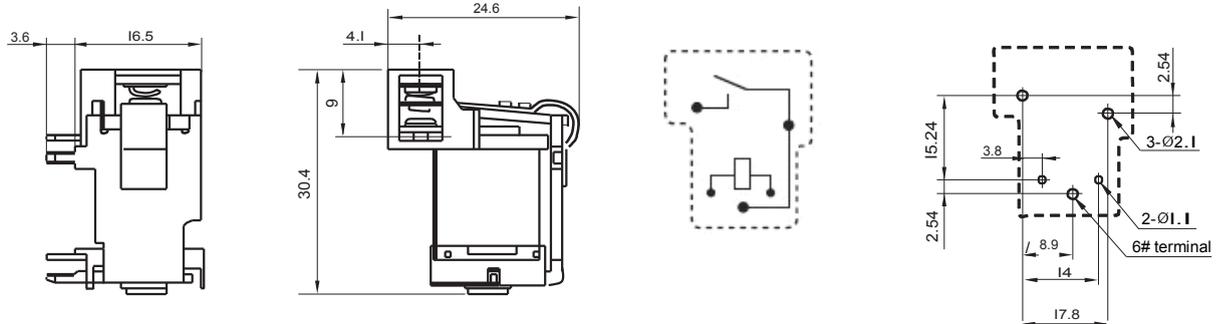
Without 6# terminal



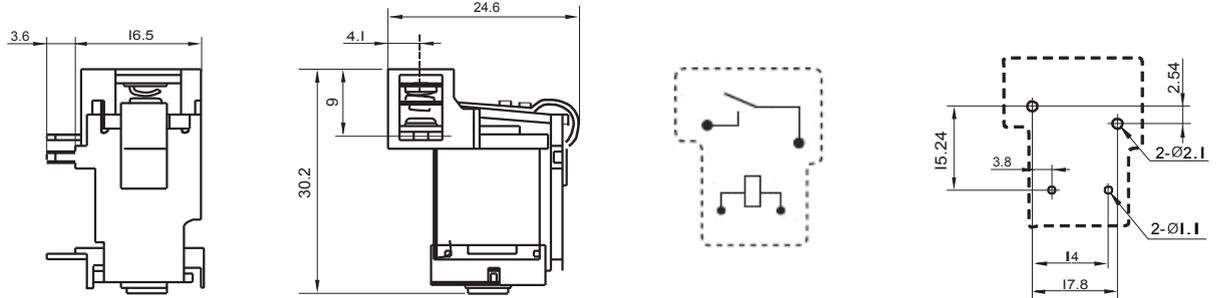
Open Type

1 Form A

With 6# terminal



Without 6# terminal



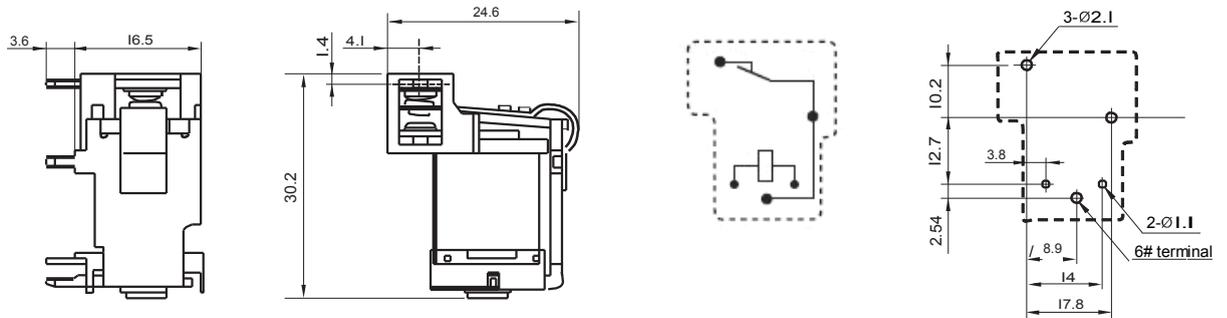
1 Form B

Outline Dimensions

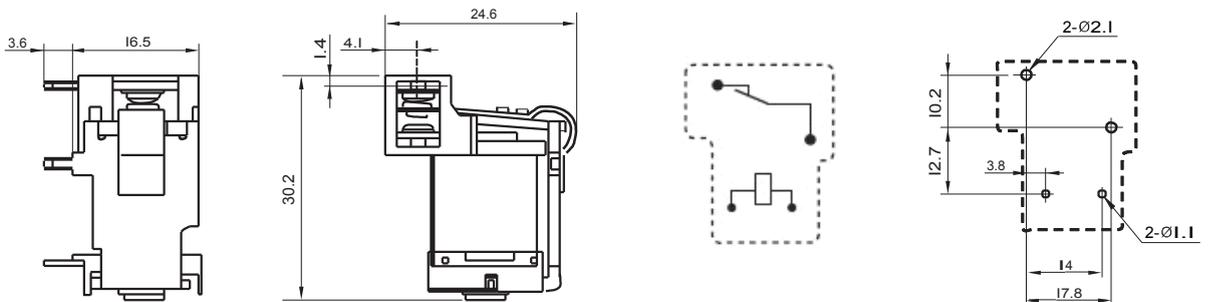
Wiring Diagram
(Bottom view)

PCB Layout
(Bottom view)

With 6# terminal



Without 6# terminal



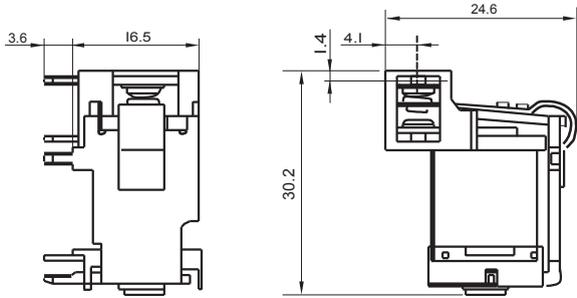
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

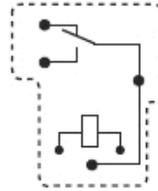
1 Form C

Outline Dimensions

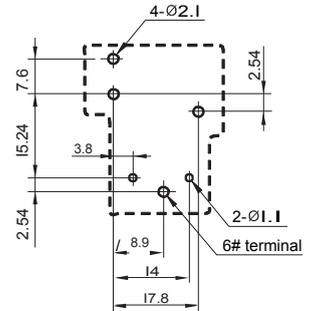
With 6# terminal



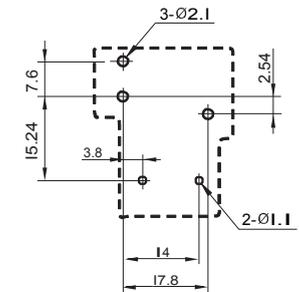
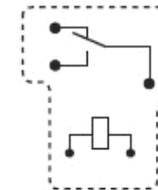
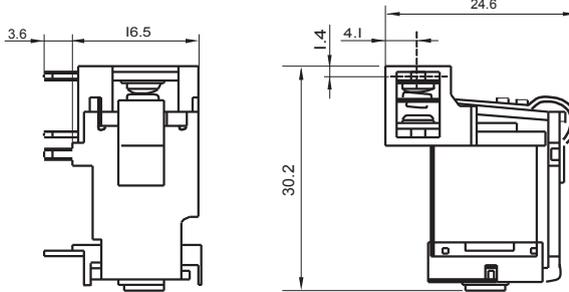
Wiring Diagram (Bottom view)



PCB Layout (Bottom view)



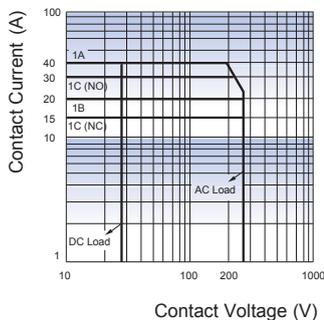
Without 6# terminal



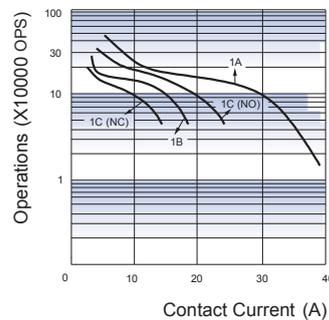
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

CHARACTERISTIC CURVES

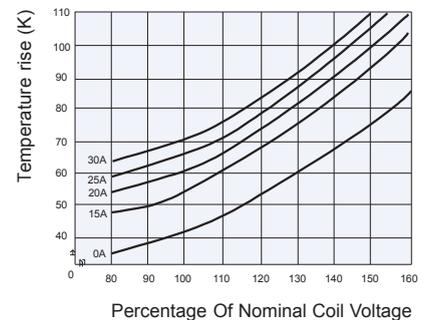
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL TEMPERATURE RISE



Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a tight position to choose the suitable product for their own application. If there is any query, please contact Ever-way for the technical service. However, it is the user's responsibility to determine which product should be used only.