



# KH-301

## Quick Selection Guide

### 1. Standard Products

Ammeter change-over Switch	3Φ3W	2CT	KH-301A-2
		3CT	KH-301A-33
	3Φ4W	3CT	KH-301A-3
Voltmeter Change-over Switch	3Φ3W	2PT	KH-301V-2
		3PT	KH-301V-33
	3Φ4W	3PT	KH-301V-3
Control Switch	Auto-release		KH-301C-1
	LOCK, Auto-release		KH-301CL-1

### 2. Order-made Products

**KH-301-□□□□ (R)**

①      ②

① Refer to the Appendix#1. 'OPTIONAL CIRCUITS'

② none: Manual Return | R: Auto Return by spring

※ Please specify handle type (R, H, P and F type available). See picture below.

**R type**



**H type**



**P type**



**F type**



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# KH-301

## Technical DATA

### 1. Ratings

AC					DC				
Voltage	Resistive Load		Inductive Load		Voltage	Resistive Load		Inductive Load	
	Current	Capacity	Current	Capacity		Current	Capacity	Current	Capacity
125VAC	10A	1250VA	6A	750VA	24VDC	10A	240W	7A	168W
250VAC	7.5A	1875VA	3.5A	875VA	110VDC	2A	220W	1.3A	143W
440VAC	2.5A	1100VA	0.8A	352VA	250VDC	1A	250W	0.45A	112W

### 2. Specification

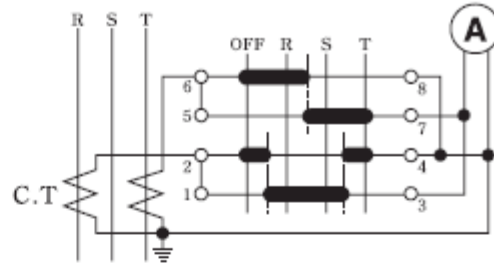
<b>Insulation Resistance</b>	min. 100MΩ (DC500V)
<b>Dielectric Strength</b>	1,500VAC (50/60Hz) for 1 minute
<b>Contact Resistance</b>	Max. 50mΩ
<b>Vibration Resistance</b>	10~55Hz 1.5mm double amplitude at X,Y,Z axis for 1 hour
<b>Impact Resistance</b>	30G
<b>Operation Frequency</b>	20 operations/minute
<b>Durability</b>	Electrical: 200,000 operations Mechanical: 500,000 operations
<b>Protection</b>	IP40
<b>Ambient Temperature</b>	-25~+50°C(not freezing condition)
<b>Ambient Humidity</b>	45~85% RH
<b>Material</b>	Contact block: Phenol Front Panel: ABS Printing Panel: Aluminum

# KH-301

KH-301A-2



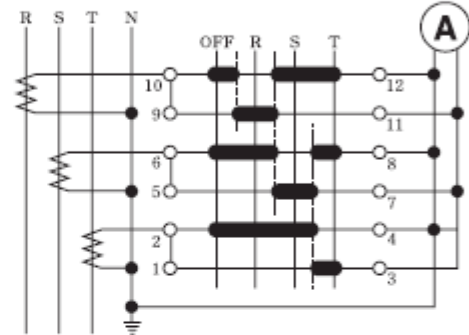
3 $\phi$ 3W 2CT



KH-301A-3



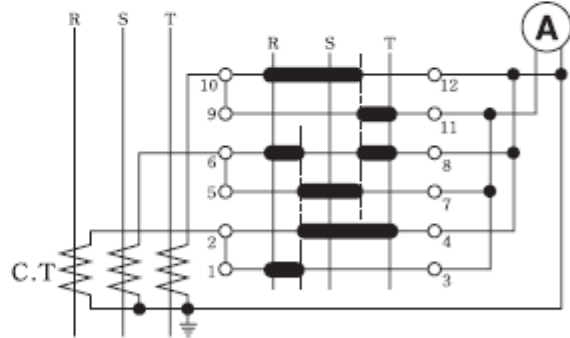
3 $\phi$ 4W 3CT



KH-301A-33



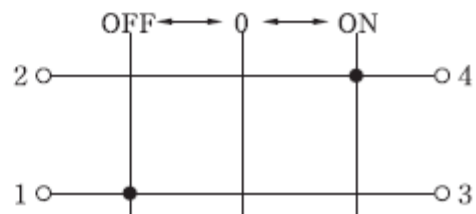
3 $\phi$ 3W 3CT



KH-301C-1



C.S

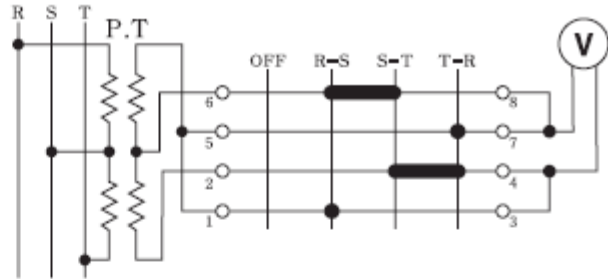


# KH-301

KH-301V-2



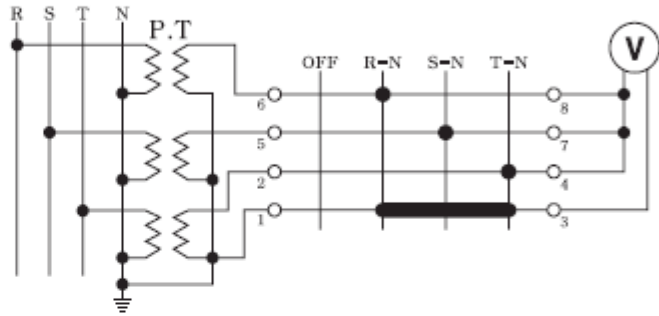
3Ø3W 2PT



KH-301V-3



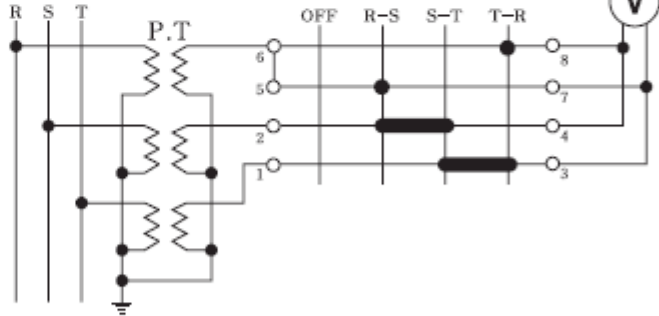
3Ø4W 3PT



KH-301V-33



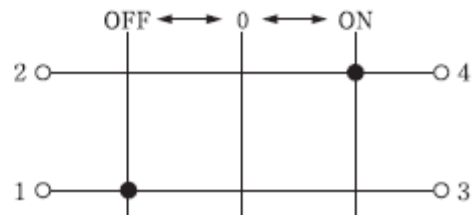
3Ø3W 3PT



KH-301CL-1



C.S

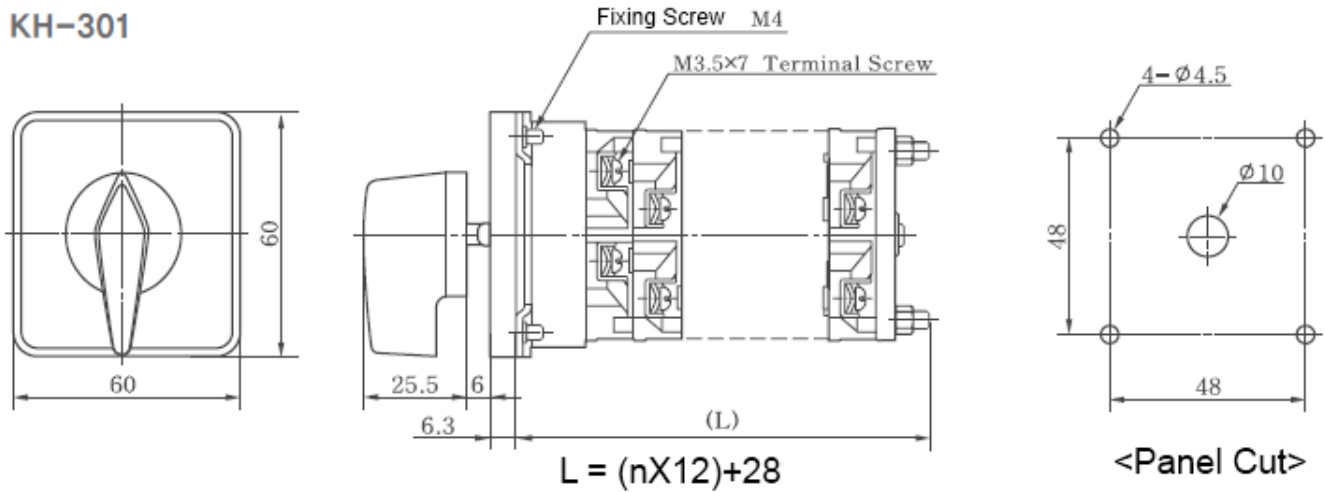


※ To operate, pull the handle and then turn the handle.

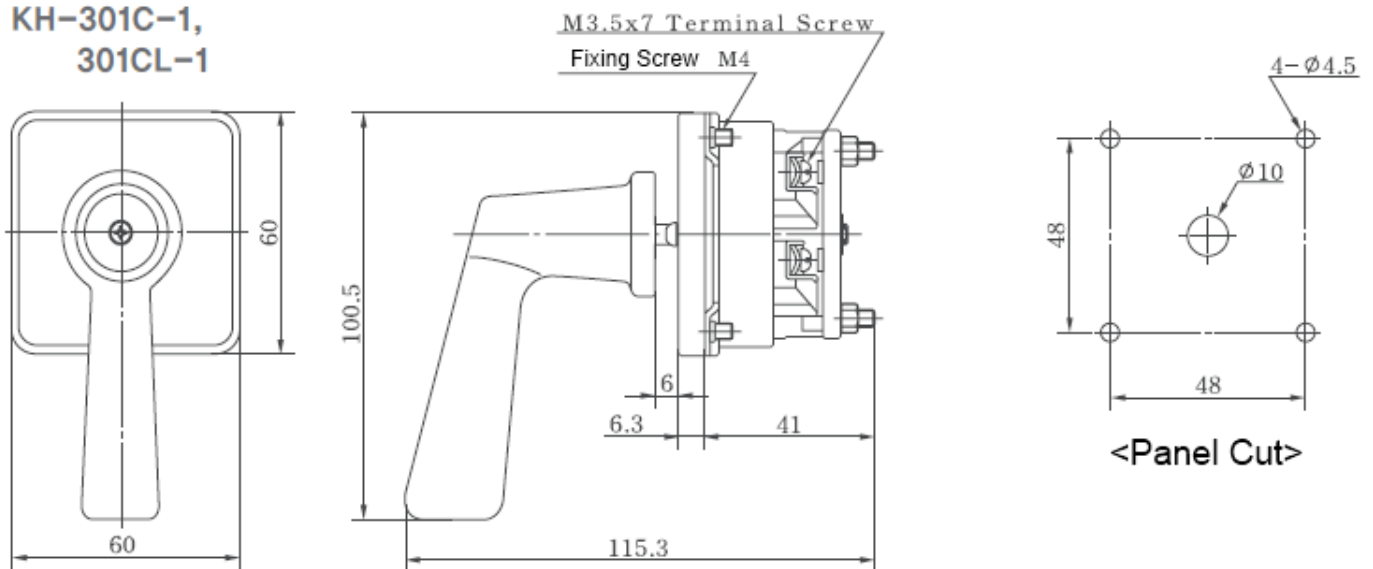
# KH-301

## Dimensions

KH-301



KH-301C-1,  
301CL-1



# KH-302

## Quick Selection Guide

### 1. Standard Products

Ammeter change-over Switch	3Φ3W	2CT	KH-302A-2
		3CT	KH-302A-33
	3Φ4W	3CT	KH-302A-3
Voltmeter Change-over Switch	3Φ3W	2PT	KH-302V-2
		3PT	KH-302V-33
	3Φ4W	3PT	KH-302V-3
Control Switch	Auto-release		KH-302C-1
	LOCK, Auto-release		KH-302CL-1

### 2. Order-made Products

**KH-302-  -  □□□□ (R)**

①

②

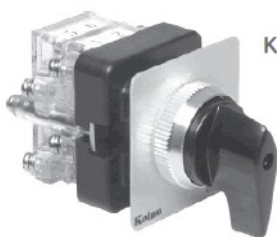
③

① none: standard type | R: fix with ring | K: operate with Key | KL: Key Locker type

② Refer to the Appendix#1. 'OPTIONAL CIRCUITS'

③ none: Manual Return | R: Auto Return by spring

※ Please specify handle type (R, H, P and F type available). See picture below.



KH-302-R



KH-302-K



KH-302-KL

R type



H type



P type



F type



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# KH-302

## Technical DATA

### 1. Ratings

AC					DC				
Voltage	Resistive Load		Inductive Load		Voltage	Resistive Load		Inductive Load	
	Current	Capacity	Current	Capacity		Current	Capacity	Current	Capacity
125VAC	20A	2500VA	10A	1250VA	24VDC	20A	480W	15A	360W
250VAC	10A	2500VA	6A	1500VA	110VDC	5A	550W	3A	330W
440VAC	2.5A	1100VA	2A	880VA	250VDC	1A	250W	0.5A	125W

### 2. Specification

<b>Insulation Resistance</b>	min. 100MΩ (DC500V)
<b>Dielectric Strength</b>	1,500VAC (50/60Hz) for 1 minute
<b>Contact Resistance</b>	Max. 50mΩ
<b>Vibration Resistance</b>	10~55Hz 1.5mm double amplitude at X,Y,Z axis for 1 hour
<b>Impact Resistance</b>	30G
<b>Operation Frequency</b>	20 operations/minute
<b>Durability</b>	Electrical: 200,000 operations Mechanical: 500,000 operations
<b>Protection</b>	IP40
<b>Ambient Temperature</b>	-25~+50°C(not freezing condition)
<b>Ambient Humidity</b>	45~85% RH
<b>Material</b>	Contact block: PC Front Panel: ABS Printing Panel: Aluminum

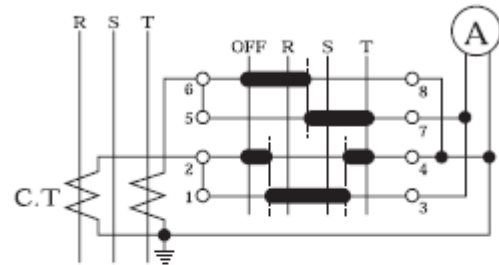


# KH-302

KH-302A-2



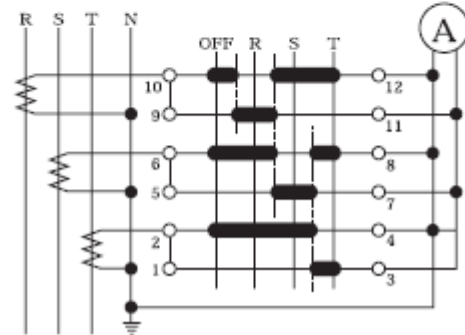
3Ø3W 2CT



KH-302A-3



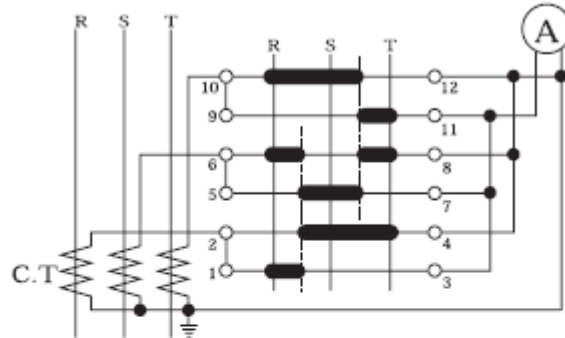
3Ø4W 3CT



KH-302A-33



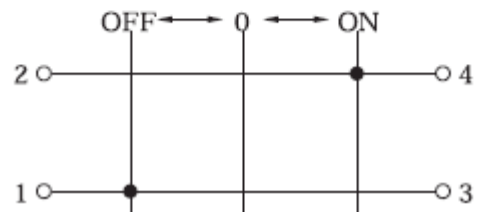
3Ø3W 3CT



KH-302C-1



C.S

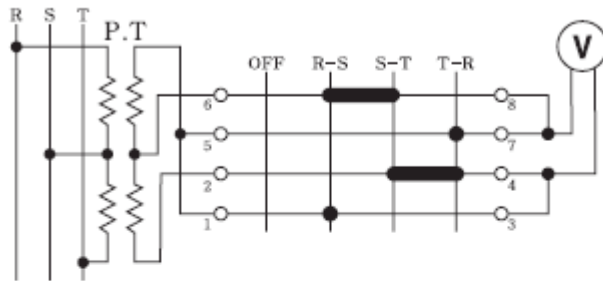


# KH-302

KH-302V-2



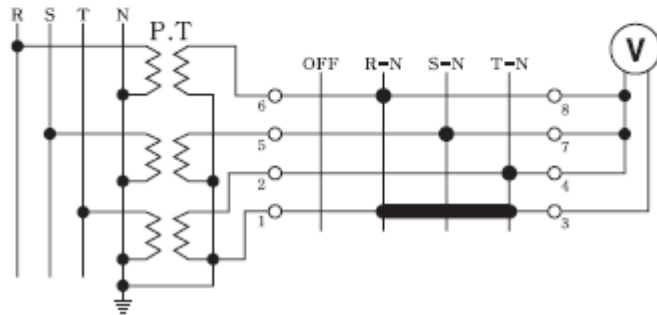
3Ø3W 2PT



KH-302V-3



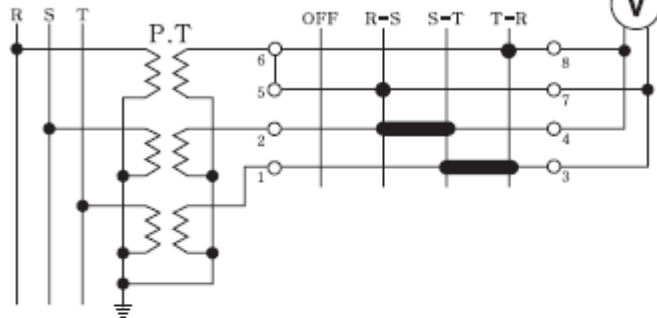
3Ø4W 3PT



KH-302V-33



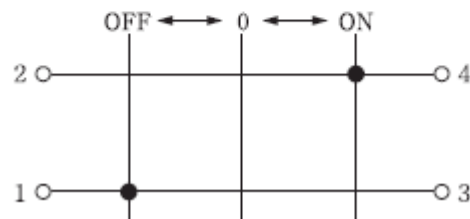
3Ø3W 3PT



KH-302CL-1



C.S



※ To operate, pull the handle and then turn the handle.

# KCR-303



## Quick Selection Guide

### 1. Standard Products

Ammeter change-over Switch	3Φ3W	2CT	KCR-303A-2
		3CT	KCR-303A-33
	3Φ4W	3CT	KCR-303A-3
Voltmeter Change-over Switch	3Φ3W	2PT	KCR-303V-2
		3PT	KCR-303V-33
	3Φ4W	3PT	KCR-303V-3

### 2. Order-made Products

**KH-303-**□□□□ □- □  
①                      ②                      ③

- ① Refer to the Appendix#1. 'OPTIONAL CIRCUITS'
- ② handle type (R, H, P and F type available). See picture below.
- ③ none: Manual operation | PL: Pull to LOCK

R type



H type



P type



F type



# KH-303



## Technical DATA

### 1. Ratings

AC					DC				
Voltage	Resistive Load		Inductive Load		Voltage	Resistive Load		Inductive Load	
	Current	Capacity	Current	Capacity		Current	Capacity	Current	Capacity
125VAC	20A	2500VA	10A	1250VA	24VDC	20A	480W	15A	360W
250VAC	10A	2500VA	6A	1500VA	110VDC	5A	550W	3A	330W
440VAC	2.5A	1100VA	2A	880VA	250VDC	1A	250W	0.5A	125W

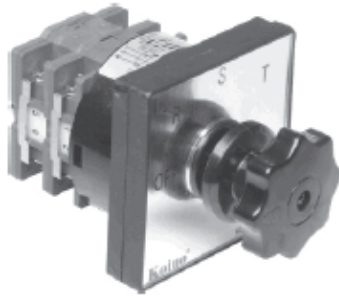
### 2. Specification

<b>Insulation Resistance</b>	min. 100M $\Omega$ (DC500V)
<b>Dielectric Strength</b>	1,500VAC (50/60Hz) for 1 minute
<b>Contact Resistance</b>	Max. 50m $\Omega$
<b>Vibration Resistance</b>	10~55Hz 1.5mm double amplitude at X,Y,Z axis for 1 hour
<b>Impact Resistance</b>	30G
<b>Operation Frequency</b>	20 operations/minute
<b>Durability</b>	Electrical: 200,000 operations Mechanical: 500,000 operations
<b>Protection</b>	IP40
<b>Ambient Temperature</b>	-25~+50 $^{\circ}$ C(not freezing condition)
<b>Ambient Humidity</b>	45~85% RH
<b>Material</b>	Contact block: Nylon (Flame-resist grade UL94-V0) Front Panel: ABS Printing Panel: PC

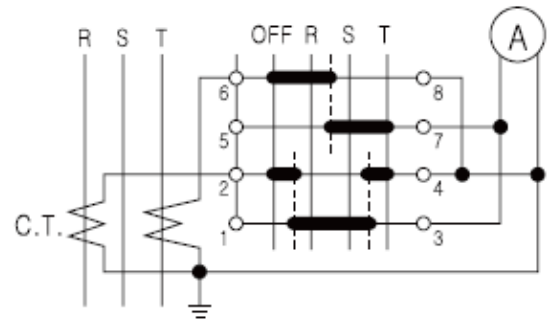
# KH-303



KCR-303A-2  
(KCR-303-4246)



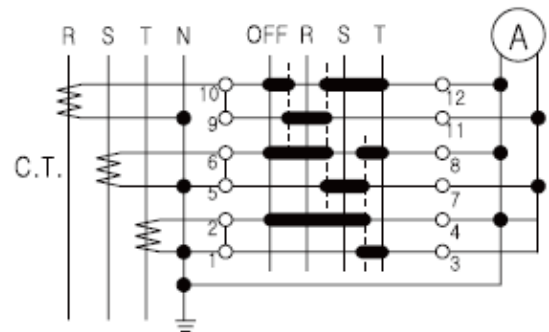
3 $\phi$ 3W 2CT



KCR-303A-3  
(KCR-303-4321)



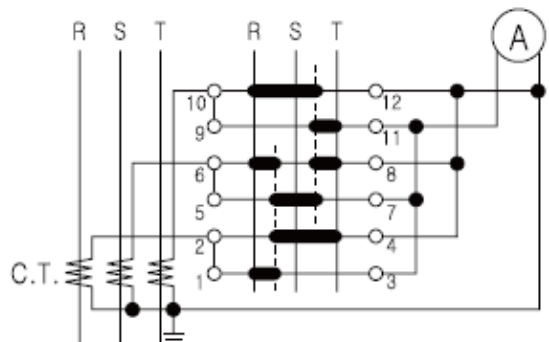
3 $\phi$ 4W 3CT



KCR-303A-33  
(KCR-303-3330)



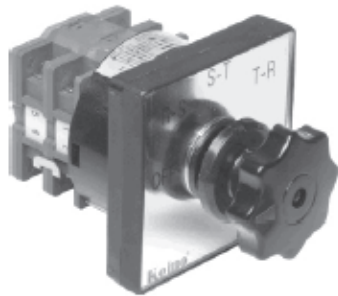
3 $\phi$ 3W 3CT



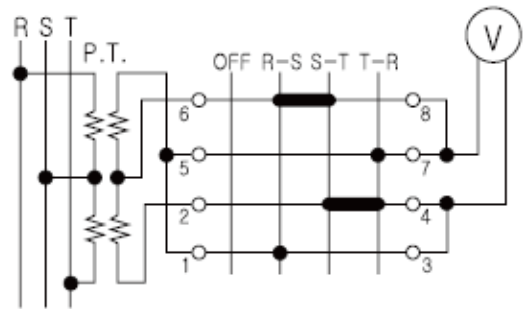
# KCR-303



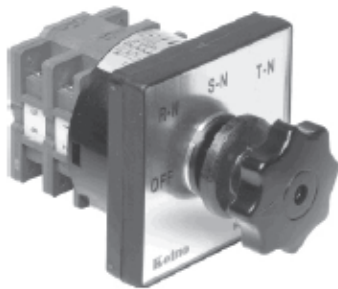
**KCR-303V-2**  
(KCR-303-4247)



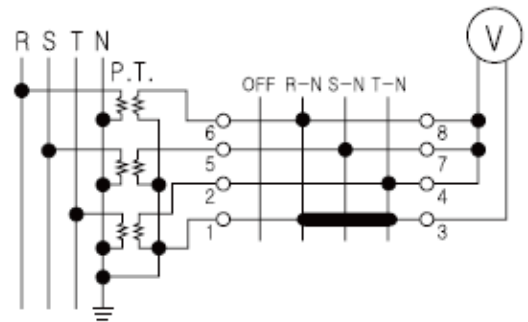
3Ø3W 2PT



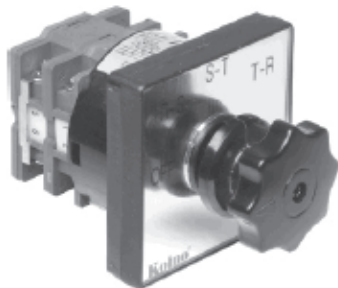
**KCR-303V-3**  
(KCR-303-4248)



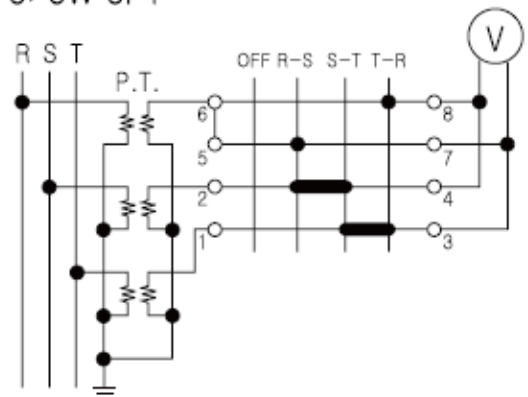
3Ø4W 3PT



**KCR-303V-33**  
(KCR-303-4249)



3Ø3W 3PT

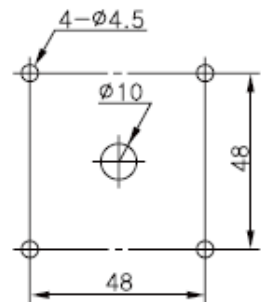
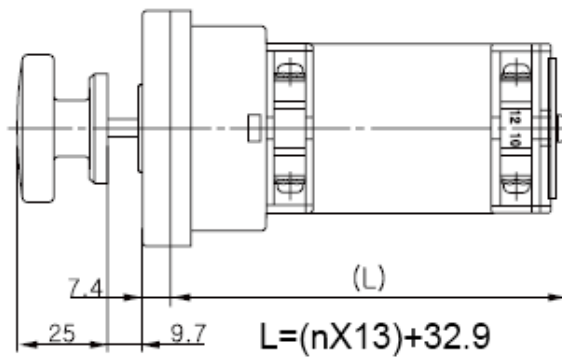
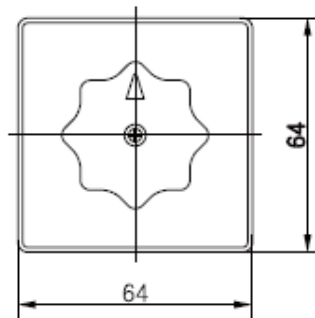


# KH-303



## Dimensions

KCR-303



<Panel Cut>

M3.5X4 Terminal Screw

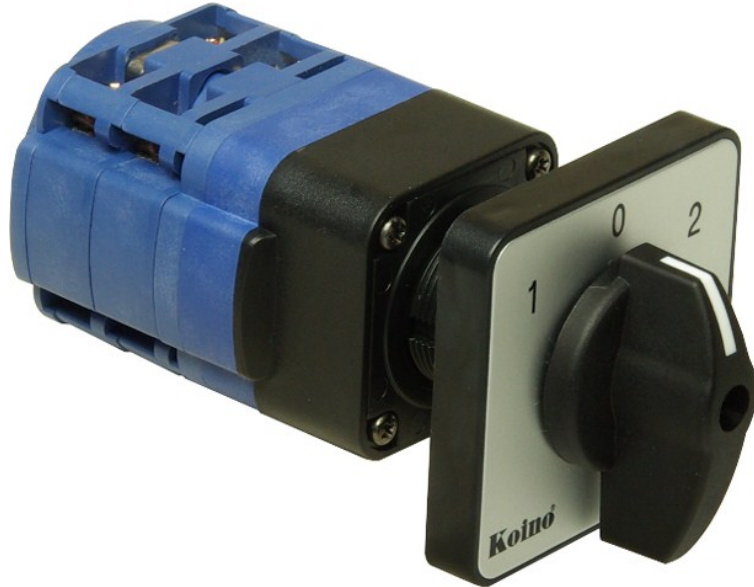
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# KSC-22

## Quick Selection Guide



### Order-made Products ONLY

**KSC-22**□-□□□□ **H**

①

②

③

① none: Manual Return | R: Auto Return | K: Key type

② Refer to the Appendix#1. 'OPTIONAL CIRCUITS'

③ H type handle available

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# KSC-22

## Technical DATA

### 1. Ratings

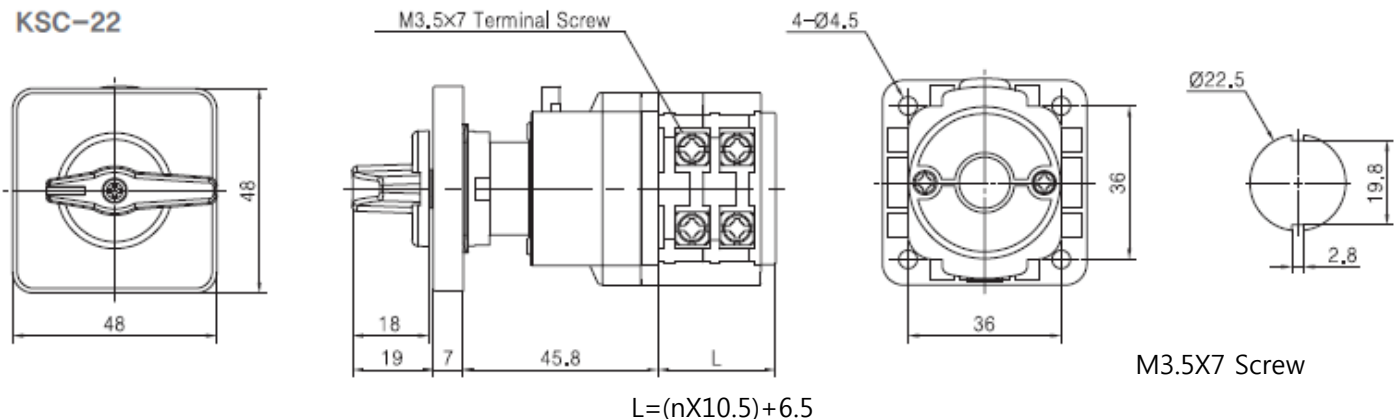
AC					DC				
Voltage	Resistive Load		Inductive Load		Voltage	Resistive Load		Inductive Load	
	Current	Capacity	Current	Capacity		Current	Capacity	Current	Capacity
125VAC	15A	2500VA	10A	1250VA	24VDC	20A	480W	15A	360W
250VAC	10A	2500VA	6A	1500VA	110VDC	5A	550W	3A	330W
440VAC	2.5A	1100VA	2A	880VA	250VDC	1A	250W	0.5A	125W

### 2. Specification

<b>Insulation Resistance</b>	min. 100MΩ (DC500V)
<b>Dielectric Strength</b>	1,500VAC (50/60Hz) for 1 minute
<b>Contact Resistance</b>	Max. 50mΩ
<b>Vibration Resistance</b>	10~55Hz 1.5mm double amplitude at X,Y,Z axis for 1 hour
<b>Impact Resistance</b>	30G
<b>Operation Frequency</b>	20 operations/minute
<b>Durability</b>	Electrical: 200,000 operations Mechanical: 500,000 operations
<b>Protection</b>	IP65
<b>Ambient Temperature</b>	-25~+50°C(not freezing condition)
<b>Ambient Humidity</b>	45~85% RH
<b>Material</b>	Contact block: Nylon (Flame-resist grade UL94-V0) Front Panel: ABS Printing Panel: PC

### 3. Dimensions

KSC-22



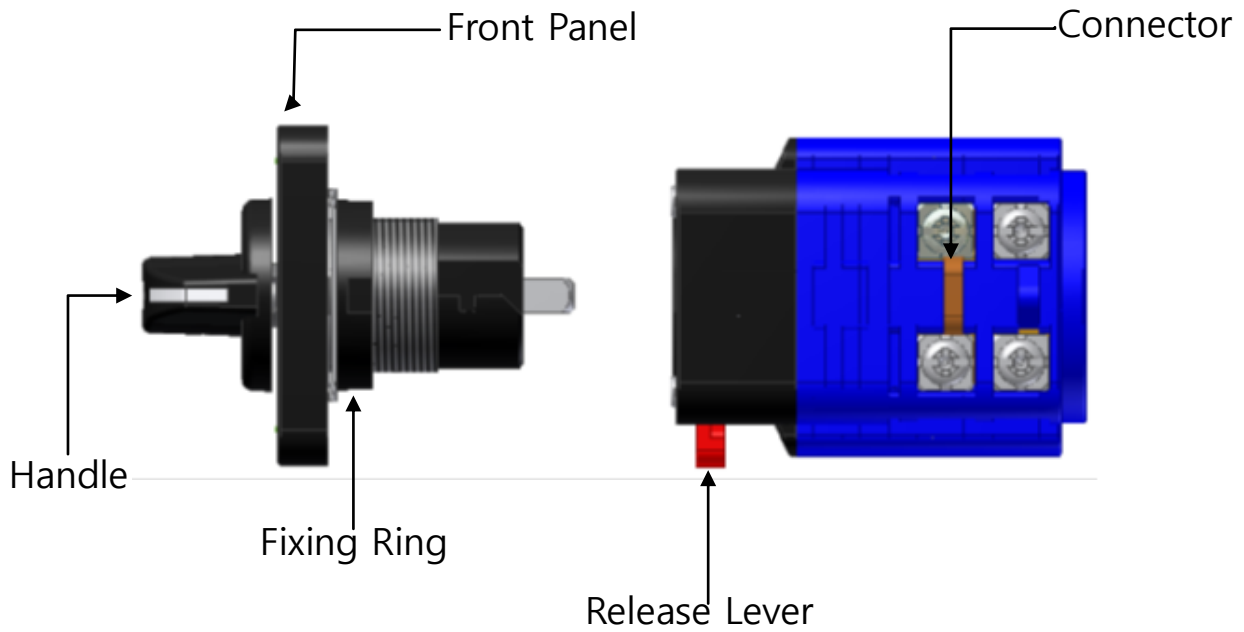
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# KSC-22

## Parts



## Installation

