Relay

Solid State Relay

Page D01
SSR-1
Solid State Relay

Page D02
SSR-1
Solid State
Voltage Regulator

Page D03
SSR
Solid State Relay

Page D04
SSR
Solid State
Voltage Regulator

Page D05
SSR-3
Solid State Relay

Page D06
SSR-3
Solid State Relay

General-purpose Relay

Page D07
55.02,55.04
General-purpose Relay

Page D08
55.32,55.34
General-purpose Relay

Page D09
56.02
General-purpose Relay

Page D10
57.02,57.04
General-purpose Relay

Page D11
58.02
General-purpose Relay

Page D12
60.12,60.13
General-purpose Relay

Page D13
60.12,60.13
General-purpose Relay

Page D14
70.2,70.3
General-purpose Relay

Page D15
MY2,MY3,MY4
General-purpose Relay

Page D16
LY2,LY3,LY4
General-purpose Relay

Page D17
MK3P
General-purpose Relay

Relay

Time Relay & Protection Relay

Page D18
KG316T
Time Relay

Page D20
TP8A16
Time Relay

Page D21
SUL181h
Time Relay

Page D22
SUL181d
Time Switch

Page D23
YCT8
Time Relay

Page D45
YCV8
Voltage Relay

Page D57
XJ3-D
Protective Relay

Page D59
JD-5
Motor Integrated Protector

Page D59
JD-6
Motor Integrated Protector

Page D61
JD-8
Motor Integrated Protector

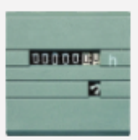
Page D63
YCIR
Impulse Relays

Time Relay

Page D65
TS711
Time Relay

Page D66
TB17
Time Relay

Page D67
SUL181a,SUL160a
YCST8,YCC18
Time Relay



Page D68
BZ142
Time Relay

Page D69
DH48J
Time Relay

Page D69
DH48S-S
Time Relay

Relay

Time Relay

Page D70
DH48S-2Z
Time Relay

Page D70
H3BA-8,H3BA-A
Time Relay

Page D72
H3CR-A8
Time Relay

Page D73
ST3PA,ST3PC
Time Relay

Page D74
H3Y-4
Time Relay

Page D75
TH3A-YA
Time Relay

Page D76
AH3-3,AH3-B
AH3-NB
Time Relay

Page D79
ATDV-Y
Time Relay

Page D80
AH2-N
Time Relay

Page D81
ASTP-Y
Time Relay

Page D82
ASY-3D
Time Relay

Page D83
ST2P-E
Time Relay

Floatless Controller

Page D84
APR-3

Page D84
JVM-1

Page D84
JVM-2

Device Protected Relay

Page D85
AFS-GR

Page D85
61F-GP

Page D85
AFR-1

Relay Socket

Page D86
PYF08A

Page D86
PYF14A-E

Page D86
TYPE 90.22

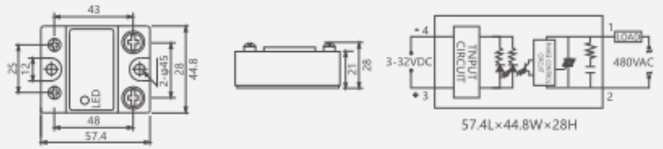
Page D86
PF113A-E

SSR-1 Solid State Relay

SSR-1 D4840

SSR-1 D48□

Item	Data
Load Voltage	480VAC
Load Current	10,15,20,25,30,40,50,60,75,80,90,100,120A
Control Voltage	3-32VDC
Control Current	DC10mA
On Voltage	≤1.5V
Off Leakage Current	≤2mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED

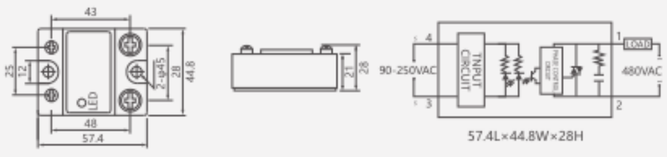


57.4L×44.8W×28H

SSR-1 A4825

SSR-1 A48□

Item	Data
Load Voltage	480VAC
Load Current	10,15,20,25,30,40,50,60,75,80,90,100,120A
Control Voltage	70-280VAC
Control Current	AC≤12mA
On Voltage	≤1.5V
Off Leakage Current	≤2mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED



57.4L×44.8W×28H

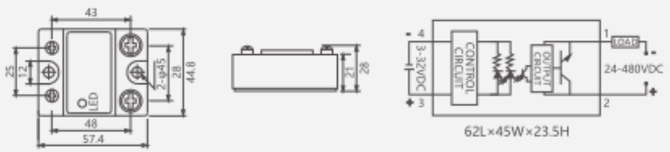
* Remark:
1. When the load current is 10A, you must install the radiator. When it's 40A or above, you must use fan forced cooling or water cooling.
2. When using inductive load, please connect a varistor on the output terminal, its value should be 1.6-1.9 times of the load voltage.

SSR-1 Solid State Voltage Regulator

SSR-1 DD480D100

SSR-1 DD48D□

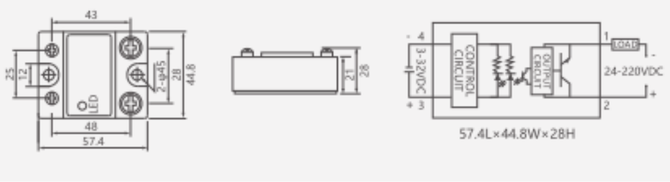
Item	Data
Load Voltage	5-480VDC
Load Current	10,15,20,25,30,40,50,60,80,100A
Control Voltage	3-32VDC
Control Current	DC40mA
On Voltage	≤1V
Off Leakage Current	≤2mA
On-off Time	≤5mS
Dielectric Strength	2000VAC
Insulation Resistance	500MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED



SSR-1 DD220D10

SSR-1 DD220D□

Item	Data
Load Voltage	5-60VDC,5-100VDC,5-220VDC
Load Current	10,15,20,25,30,40,50,60,80,100A
Control Voltage	3-32VDC
Control Current	DC10-40mA
On Voltage	≤1V
Off Leakage Current	≤2mA
On-off Time	≤5mS
Dielectric Strength	2000VAC
Insulation Resistance	500MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED



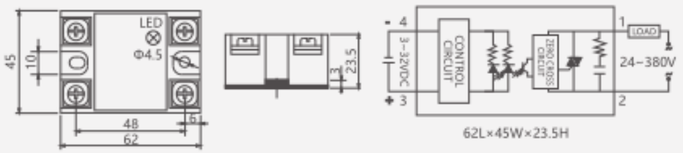
* Remark:
1. When the load current is 10A, you must install the radiator. When it's 40A or above, you must use fan forced cooling or water cooling.
2. When using inductive load, users must add suppressive circuit.

SSR Solid State Relay

SSR-40DA

SSR-□DA (Fundamental type)

Item	Data
Load Voltage	24-380VAC
Load Current	10,15,25,40,50,60,75,90A
Control Voltage	3-32VDC
Control Current	DC10mA
On Voltage	≤1.5V
Off Leakage Current	≤2mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED

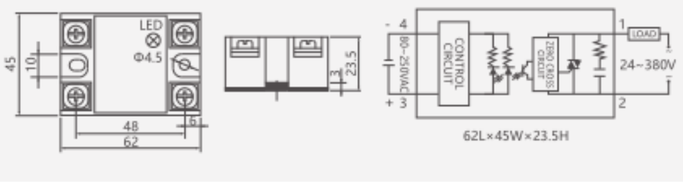


SSR-40AA

SSR-□AA (Fundamental type)

Item	Data
Load Voltage	24-380VAC
Load Current	10,15,25,40,50,60,75,90A
Control Voltage	80-250VAC
Control Current	AC≤12mA
On Voltage	≤1.5V
Off Leakage Current	≤4mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED

* Remark:
1. When the load current is 10A, you must install the radiator. When it's 40A or above, you must use fan forced cooling or water cooling.
2. When using inductive load, please connect a varistor on the output terminal, its value should be 1.6-1.9 times of the load voltage.

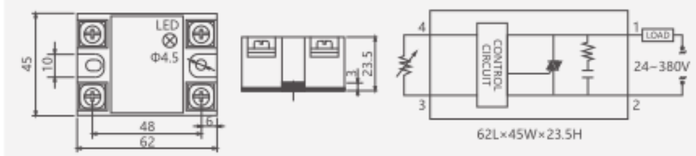


SSR Solid State Voltage Regulator

SSR-40VA

SSR-□VA (Fundamental type)

Item	Data
Load Voltage	24-380VAC
Load Current	10,25,40,50,60,80A
Control Voltage	VR:250KΩ/110VAC
	470-560KΩ/220VAC
Control Current	/
On Voltage	≤1.5V
Off Leakage Current	≤2mA
On-off Time	/
Dielectric Strength	2500VAC Input and output terminals cooling plate
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	/



SSR-10DD

SSR-□DD (Fundamental type)

Item	Data
Load Current	10A、25A、40A、50A
Load Voltage	5-60VDC
Control Voltage	3-32VDC
Control Current	DC10-50mA
On Voltage	≤1V
Off Leakage Current	≤2mA
On-off Time	≤10mS
Dielectric Strength	2000VAC
Insulation Resistance	500MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED

* Remark:

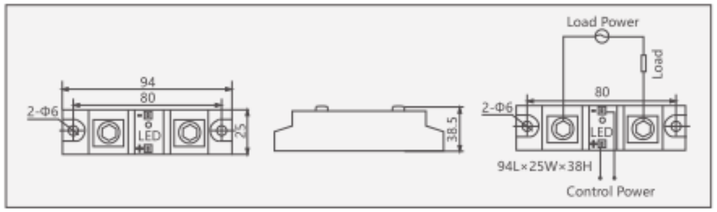
1. When the load current is 10A, you must install the radiator. When it's 40A or above, you must use fan forced cooling or water cooling.
2. When using inductive load, please connect a varistor on the output terminal, its value should be 1.6-1.9 times of the load voltage.

SSR-3 Solid State Relay

SSR-H3100ZF

SSR-H3100ZF

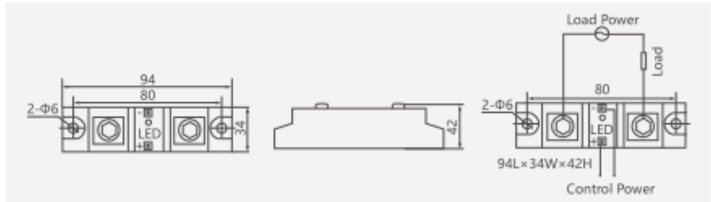
Item	Data
Load Voltage	440VAC (Fundamental type), 660VAC (High voltage type) and 1200 (Enhanced type)
Load Current	80,100,120A
Control Voltage	90-250VAC or 3-32VDC
Control Current	AC≤12mA DC10mA
On Voltage	≤1.5V
Off Leakage Current	≤4mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED



SSR-H3200ZF

SSR-H3200ZF

Item	Data
Load Voltage	440VAC (Fundamental type), 660VAC (High voltage type) and 1200 (Enhanced type)
Load Current	150,200,250,290A
Control Voltage	90-250VAC or 3-32VDC
Control Current	AC≤12mA DC10mA
On Voltage	≤1.5V
Off Leakage Current	≤4mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED



* Remark:

1. When the load current is 10A, you must install the radiator. When it's 40A or above, you must use fan forced cooling or water cooling.
2. When using inductive load, please connect a varistor on the output terminal, its value should be 1.6-1.9 times of the load voltage.

SSR-3 Solid State Relay

SSR-3 032 3840Z

SSR-3 032 38□Z (Fundamental type)

Item	Data
Load Voltage	380VAC,660VAC
Load Current	10,15,20,25,30,40,50,60,75,80,100,120,150,200A
Control Voltage	3-32VDC
Control Current	20mA
On Voltage	≤1.5V
Off Leakage Current	≤10mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED

SSR-3 A38□Z (High voltage type)

Item	Data
Load Voltage	380VAC,660VAC
Load Current	10,15,20,25,30,40,50,60,75,80,100,120,150,200A
Control Voltage	70-280VAC
Control Current	AC≤12mA
On Voltage	≤1.5V
Off Leakage Current	≤10mA
On-off Time	≤10mS
Dielectric Strength	2500VAC
Insulation Resistance	1000MΩ/500VDC
Ambient Temperature	-30~+75℃
Mounting Methods	Bolted
The work instructions	LED

SSR-3 A3840Z

* Remark:

1. When the load current is 10A, you must install the radiator. When it's 40A or above, you must use fan forced cooling or water cooling.
2. When using inductive load, please connect a varistor on the output terminal, its value should be 1.6-1.9 times of the load voltage.

55.02,55.04 General-purpose Relay

Features

Various relays, including LED,test button
With 2Z,4Z contact forms
With various terminal types
Gilt contact types
Transparent dust-proof cover,
Various mounting types
Various sockets available

55.02

55.04

Model Meaning

55 02 DC12V
- Coil Voltage DC 5~110VDC AC 6~240VAC
- Contact 55.02/2Z; 55.04/4Z
- Relay type

Contact Rating

Contact Rating	2Z	4Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A/220VAC	5A/220VAC
	30VDC	30VDC 125VAC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	25ms/25ms
Terminal Type	PCB and Socket

Coil Rating

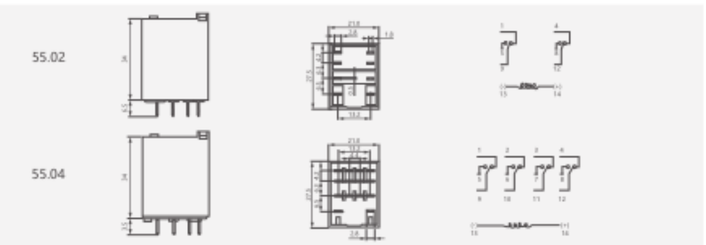
Nominal Coil Power: 0.9W/1.2VA

Coil Versions

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2560
110	88.0	11	12100

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	12
12	9.60	3.60	42
24	19.2	7.20	168
48	38.4	14.4	675
120	96.0	36.0	3500
220/240	176.0	66.0	14000/16500

Dimension



Reference Data

55.32,55.34 General-purpose Relay

Features

Various relays, including LED,test button
With 2Z,4Z contact forms
With various terminal types
Gilt contact types
Transparent dust-proof cover,
Various mounting types
Various sockets available

55.32

55.34

Model Meaning

55 32 DC12V
- Coil Voltage DC 5~110VDC AC 6~240VAC
- Contact 55.32/2Z; 55.34/4Z
- Relay type

Contact Rating

Contact Rating	2Z	4Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A/220VAC	5A/220VAC
	30VDC	30VDC 125VAC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	25ms/25ms
Terminal Type	PCB and Socket

Coil Rating

Nominal Coil Power: 0.9W/1.2VA

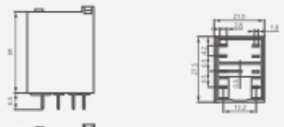
Coil Version

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2560
110	88.0	11	12100

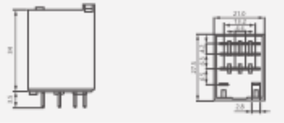
Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	12
12	9.60	3.60	42
24	19.2	7.20	168
48	38.4	14.4	675
120	96.0	36.0	3500
220/240	176.0	66.0	14000/16500

Dimension

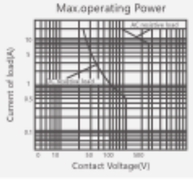
55.02

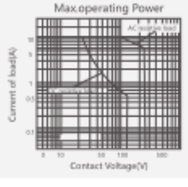


55.04



Reference Data





56.02 General-purpose Relay

Features

Various relays, including LED,test button
With 2Z contact forms
With various terminal types
Gilt contact types
Transparent dust-proof cover,
Various mounting types
Various sockets available

56.02

Model Meaning

56 02 AC220V
- Coil Voltage DC 5~110VDC AC 6~240VAC
- Contact 56.02/2Z;
- Relay type

Contact Rating

Contact Rating	2Z
Contact Resistance	50mΩ(1A 6VDC)
Contact capacity	10A/220VAC
	30VDC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	25ms/25ms
Terminal Type	PCB and Socket

Coil Rating

Nominal Coil Power: 0.9W/1.2VA

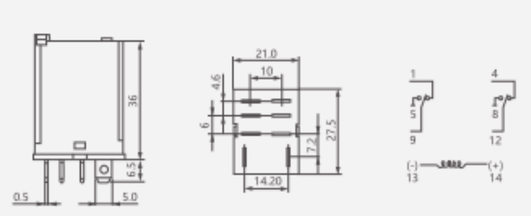
Coil Versions

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2560
110	88.0	11	12100

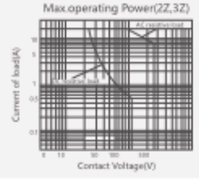
Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	12
12	9.60	3.60	42
24	19.2	7.20	168
48	38.4	14.4	675
120	96.0	36.0	3500
220/240	176.0	66.0	14000/16500

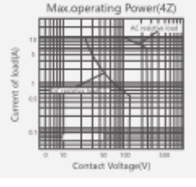
Dimension

56.02



Reference Data





57.02,57.04 General-purpose Relay

Features

Various relays, including LED,test button
With 2Z,4Z contact forms
With various terminal types
Gilt contact types
Transparent dust-proof cover,
Various mounting types
Various sockets available

57.02

57.04

Model Meaning

57 02 AC220V
- Coil Voltage DC 5~110VDC AC 6~240VAC
- Contact 57.02/2Z; 57.04/4Z
- Relay type

Contact Rating

Contact Rating	2Z,3Z	4Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A/220VAC	5A/220VAC
	30VDC	30VDC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	25ms/25ms
Terminal Type	PCB and Socket

Coil Rating

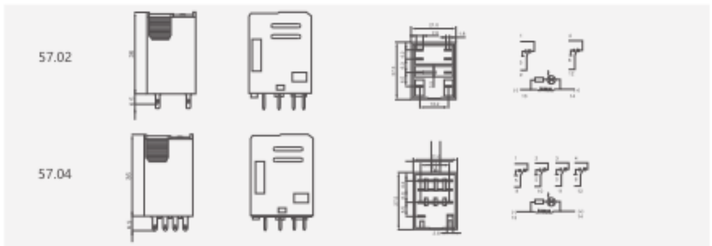
Nominal Coil Power: 0.9W/1.2VA

Coil Versions

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2560
110	88.0	11	12100

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	12
12	9.60	3.60	42
24	19.2	7.20	168
48	38.4	14.4	675
120	96.0	36.0	3500
220/240	176.0	66.0	14000/16500

Dimension



Reference Data

58.02 General-purpose Relay

Features

Various relays, including LED,test button
With 2Z,4Z contact forms
With various terminal types
Gilt contact types
Transparent dust-proof cover,
Various mounting types
Various sockets available

58.02

Model Meaning

58 02 AC12V
- Coil Voltage DC 5~110VDC AC 6~240VAC
- Contact 58.02:2Z; 58.04/4Z
- Relay type

Contact Rating

Contact Rating	2Z	4Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A/220VAC	5A/220VAC
	30VDC	30VDC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	25ms/25ms
Terminal Type	PCB and Socket

Coil Rating

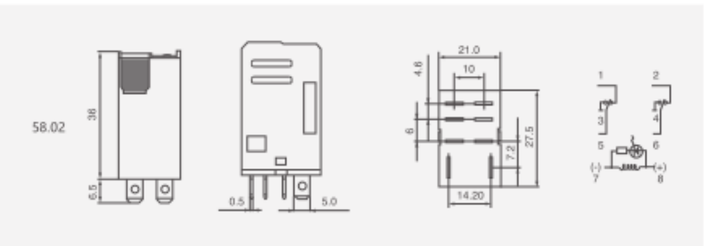
Nominal Coil Power: 0.9W/1.2VA

Coil Versions

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2560
110	88.0	11	12100

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	12
12	9.60	3.60	42
24	19.2	7.20	168
48	38.4	14.4	675
120	96.0	36.0	3500
220/240	176.0	66.0	14000/16500

Dimension



Reference Data

60.12,60.13 General-purpose Relay

Features

10 A Contact operating capacity
Mechanical life≥100000
With 2Z,3Z contact forms
Standard tube terminal
With matched socket
Including LED,test button

60.12

60.13

Socket type

Model Meaning

60 12 AC12V

- Coil Voltage: DC:6,12,24,48,100,110VDC; AC:6,12,24,48,110/120,220/240VAC
- Contact 60.12 2Z; 60.13 3Z
- Relay type

Contact Rating

Contact Rating	2Z	3Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A/220VAC	10A/5A(NO/NC)
	28VDC/220VAC	28VDC/220VAC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
Operate Time	30ms/20ms
Terminal Type	Socket

Coil Rating

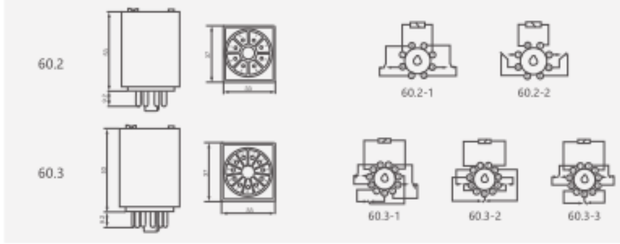
Nominal Coil Power: 1.5W/2.5VA

Coil Versions

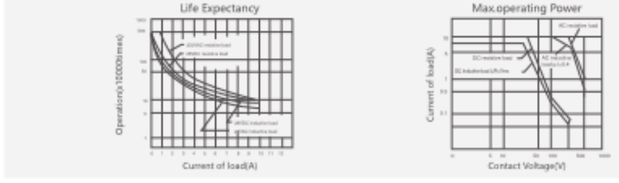
Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.8	0.60	24
12	9.6	1.20	96
24	19.2	2.40	384
48	38.4	4.80	1540
100	80.0	10.0	9600
110	88.0	11.0	9650

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	14.5
12	9.60	3.60	20
24	19.2	7.20	80
48	38.4	14.4	320
110/120	88.0	36.0	1700
220/240	176.0	72.0	7400/8760

Dimension



Reference Data



60.12,60.13 General-purpose Relay

Features

10 A Contact operating capacity
Mechanical life≥100000
With 2Z,3Z contact forms
Standard tube terminal
With matched socket
Including LED,test button

60.12-I

60.13-I

Socket type

Model Meaning

60 12 - I AC12V

- Coil Voltage: DC:6,12,24,48,100,110VDC; AC:6,12,24,48,110/120,220/240VAC
- Contact 60.12/2Z; 60.13/3Z
- Relay type

Contact Rating

Contact Rating	2Z	3Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A	10A/5A(NO/NC)
	30VDC/220VAC	30VDC/220VAC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
Operate Time	30ms/20ms
Terminal Type	Socket

Coil Rating

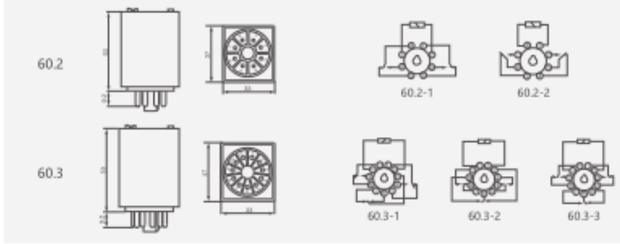
Nominal Coil Power: 1.5W/2.5VA

Coil Versions

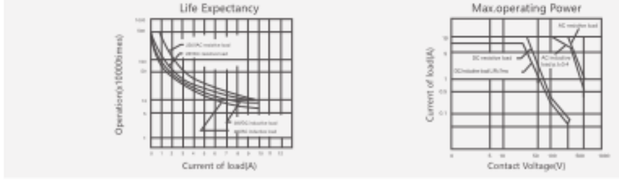
Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.8	0.60	24
12	9.6	1.20	96
24	19.2	2.40	384
48	38.4	4.80	1540
100	80.0	10.0	9600
110	88.0	11.0	9650

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	14.5
12	9.60	3.60	20
24	19.2	7.20	80
48	38.4	14.4	320
110/120	88.0	36.0	1700
220/240	176.0	72.0	7400/8760

Dimension



Reference Data



70.2,70.3 General-purpose Relay

Features

10 A Contact operating capacity
Mechanical life≥100000
With 2Z,3Z contact forms
Standard tube terminal
With matched socket
Including LED,test button

70.2

70.3

Model Meaning

70 2 DC12V

- DC12V — Coil Voltage: DC:6,12,24,48,100,110VDC; AC:6,12,24,48,110/120,220/240VAC
- 2 — Contact 70.12/2Z; 70.13/3Z
- 70 — Relay type

Contact Rating

Contact Rating	2Z	3Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A	10A/5A(NO/NC)
	28VDC/220VAC	28VDC/220VAC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
Operate Time	30ms/20ms
Terminal Type	Socket

Coil Rating

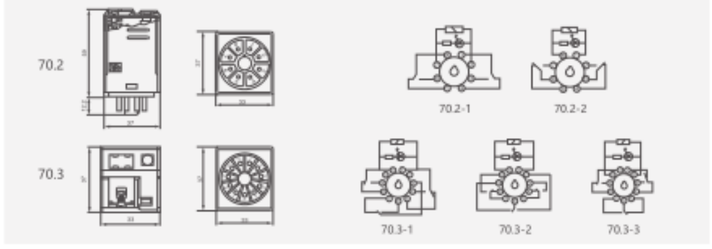
Nominal Coil Power: 1.5W/2.5VA

Coil Versions

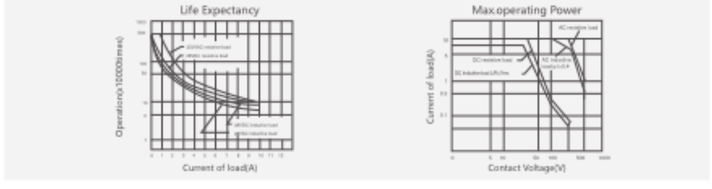
Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.8	0.60	19
12	9.6	1.20	96
24	19.2	2.40	440
48	38.4	4.80	1660
100	80.0	10.0	9820
110	88.0	11.0	9900

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	4.6
12	9.60	3.60	19
24	19.2	7.20	80
48	38.4	14.4	320
110/120	88.0	36.0	1700
220/240	176.0	72.0	7400/8760

Dimension



Reference Data



MY2,MY3,MY4 General-purpose Relay

MY2

MY3

MY4

Features

Various relays, including LED,test button
With 2Z,4Z contact forms
With various terminal types
Gilt contact types
Transparent dust-proof cover
Various mounting types
Various sockets available

Model Meaning

MY □P DC12V N

- N — LED
- DC12V — Coil Voltage: DC 5~110V; AC 6~380V
- □P — Contact 2P 3P 4P
- MY — Relay type

Contact Rating

Contact Rating	2Z,3Z	4Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	5A/220VAC	3A/220VAC 30VDC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	20ms/25ms
Terminal Type	PCB and Socket

Coil Rating

Nominal Coil Power: 0.9W/1.2VA

Coil Versions

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2500
110	88.0	11.0	12100

LY2,LY3,LY4 General-purpose Relay

LY2

LY3

LY4

Features

Various relays,including LED
10A Transfer Contacts
1Z,2Z,3Z,4Z Contact operating form
Various Terminals Available
Transparent dust-proof cover
Various mounting types
Various sockets available
Including LED,test button

Model Meaning

LY 2Z DC12V N

- N — LED
- DC12V — Coil Voltage 6,12,24,36,48,60,110/220/240
- 2Z — Contact
  1Z:A set of transformation; 2Z:Two sets of conversion;
  3Z:Three sets of conversion; 4Z:Four sets of conversion
- LY — Relay type

Contact Rating

Contact Rating	1Z	2Z,3Z,4Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A250VAC/28VDC	10A 250VAC/28VDC

Specification

Insulation Resistance	500MΩ
Dielectric Strength	BCC 1000VAC 1min
	BOC 1500VAC 1min
	CCC 1500VAC 1min
Operate Time	25ms/25ms
Terminal Type	PCD and Socket

Coil Rating

Nominal Coil Power: 0.9W/1.2VA

Coil Versions

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
5	4.0	0.50	30
6	4.8	0.60	40
12	9.6	1.20	160
24	19.2	2.40	640
48	38.4	4.80	2500
110	88.0	11.0	12100

MK3P General-purpose Relay

Features

10 A Contact operating capacity
Mechanical life≥100000
With 2Z,3Z contact forms
Standard tube terminal
With matched socket

MK3P

Model Meaning

MK 3P 12VDC N-S

- N-S — LED
- 12VDC — Coil Voltage DC:6,12,24,48,100,110VDC
  AC:6,12,24,48,110/120,220/240VAC
- 3P — Contact 2Z:ZC/O; 3Z:ZC/O
- MK — Relay type

Contact Rating

Contact Rating	2Z	3Z
Contact Resistance	50mΩ(1A 6VDC)	50mΩ(1A 6VDC)
Contact capacity	10A	10A/5A(NO/NC)
	28VDC/250VAC	28VDC/250VAC

Specification

Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	BCC 1000Vr.m.s 1min
	BOC 1500Vr.m.s 1min
Operate Time	30ms/20ms
Terminal Type	Socket

Coil Rating

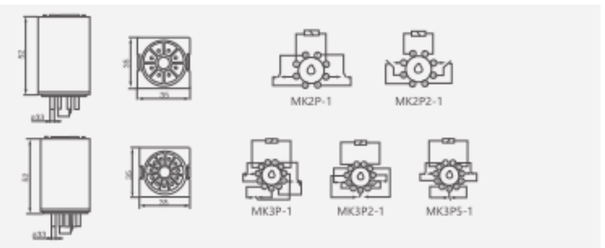
Nominal Coil Power: 1.5W/2.5VA

Coil Versions

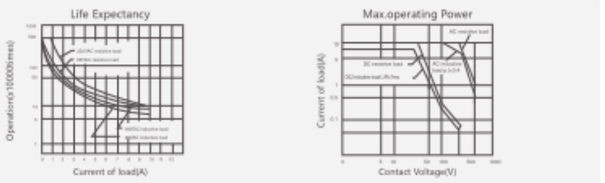
Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.8	0.60	40
12	9.6	1.20	80
24	19.2	2.40	325
48	38.4	4.80	1200
100	80.0	10.0	7550
110	88.0	11.0	9000

Nominal Voltage VDC	Pull-in Voltage VDC	Release Voltage VDC	Coil Resistance Ω:±10%
6	4.80	1.80	5.5
12	9.60	3.60	24
24	19.2	7.20	72
48	38.4	14.4	430
110/120	88.0	36.0	1512
220/240	176	72.0	6050/7200

Dimension



Reference Data



KG316T Time Relay

KG316T

General

Time Switch is control element with time as control unit and can automatically turn on or tunrn off power supply of various consumer equipments according to preset time by user.The controlled objects are circuit equipments and household appliances such as street lamps,neon lamps,advertising lamps,manufacturing equipments,broadcast & television equipments,etc.,which requires turning on and off at definite time.

Type designation

KG 316 T □

- □ — Operating voltage Us
- T — Time relay
- 316 — Design sequence No.
- KG — Switch

Technical data

Rated insulation voltage Ui: AC380V
Rated control voltage: AC110V, AC220V, AC380V
Usage category: Ue: AC110V/AC220V/AC380V; Ie: 6.5 A / 3 A / 1.9 A; Ith: 10 a; Ac-15
Protection degree: IP20
Pollution degree: 3
Load power: resistive load: 6kW; Inductive load: 1.8KW; Motor load: 1.2KW; Lamp load: 0.9KW

Operating mode	Time automatic control
Rated operating current	AC-15 3A
Rated operating voltage	AC220V 50Hz/60Hz
Electrical life	≥10000
Mechanical life	≥30000
Times of ON/OFF	16 opens & 16 closes
Battery	AA size battery (replaceable)
Timing error	≤2s/day
Ambient temperature	-5°C~+40°C
Installation mode	Guide rail type,wall-mounted type,unit style
External dimension	120×77×53

KG316T Time Relay

Wiring diagram

Wiring for direct control mode:
direct control mode can be used for electrical apparatus which is single-phase phase power supply and its power consumption doesn't exceed rated value of this switch.See Figure 1 for wiring method;
Wiring for single-phase dilatancy mode:
it is required a AC contactor with larger capacity than electrical apparatus power consumption for dilatancy when the controlled electrical apparatus is single-phase power supply,whereas its power consumption exceeds rated value of this switch.
See Figure 2 for wiring method;
wiring for three-phase operation mode:
if the controlled electrical apparatus is three-phase power supply,it is required toexternally connect three-phase AC contactor.
See Figure 3 for wiring,control contactor @ AC220V coil voltage,50Hz;
See Figure 4 for wiring, control contactor @ AC 380V coil voltage,50Hz

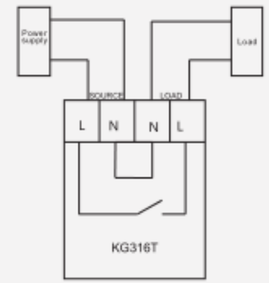


Figure 1

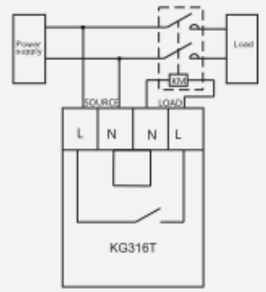


Figure 2

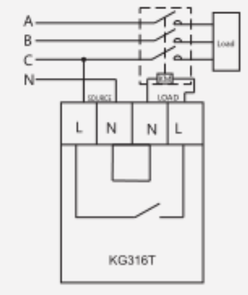


Figure 3

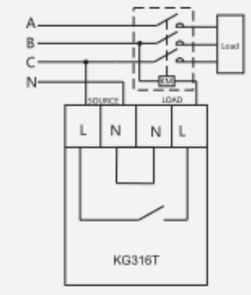
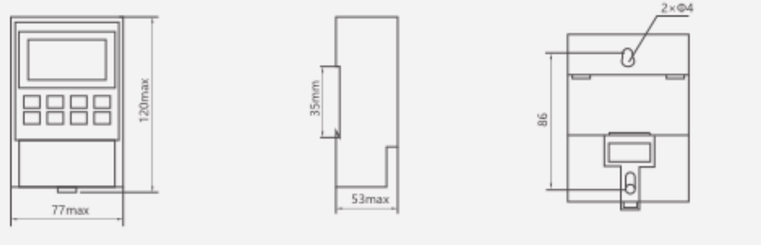


Figure 4

Overall and mounting dimensions(mm)

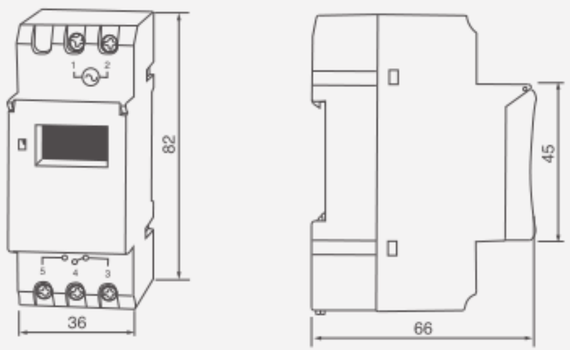


TP8A16 Time Relay

Specification

Item No.	TP8A16
Operating Voltage	AC 220~240V 50Hz/60Hz
Power Consumption	4.5VA
Ambient Temperature	-10~+-50°C
Accuracy	≤2s/day 25°C
Minimum Setting Unit	1 Min
Time Setting Range	1 Min~168 hours
Contact Capacity	Lamp Load: 1000W
	Resistive load: 16A/250VAC (cosΦ=1)
	Inductive load: 3A/250VAC (cosΦ=0.6)
Working Reserve Time	48 hour charged can lasts 15 days
Dimension	81×36×66mm
Weight	125g
Mounting	DIN rail mounting

Wiring Diagram



SUL181h Time Relay

SUL181h

Specification

Item No.	SUL181h	SUL161h
Operating Voltage	AC 24-250V 50-60Hz	AC 24-250V 50-60Hz
Power Consumption	0.5VA	0.5VA
Contact Capasity	AC 220V 16A	AC 220V 16A
Contact Resistance	≤50mΩ	≤50mΩ
Inaulation Resistance	≥100MΩ	≥100MΩ
Operating Temperature	-40℃~+55℃	-40℃~+55℃
Operating Temperature	≤2S/day 25℃	≤2S/day 25℃
Contact Capacity	Lamp Load: 1000W	
	Resistive load: 16A/250VAC(cosΦ=1)	
	Inductive load: 3A/250VAC(cosΦ=0.6)	
Working Reserve Time	24 hours charged can lasts 150hours	/
Full Timing Range	24h	24h
Storage Battery	150h	Without Battery
Minimum Setting Unit	30Minutes	30Minutes
Setup Times	30m/time 48 Times	30m/time 48 Times
Dimension	90×54×65mm	90×54×65mm
Weight	152g	152g
Installing Mode	DIN rail mounting	DIN rail mounting

Wiring Diagram

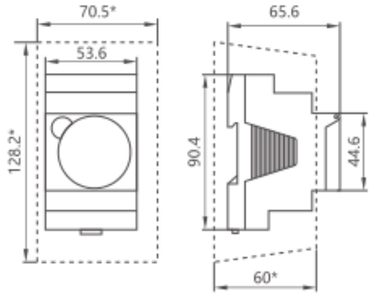
SUL181d Time Relay

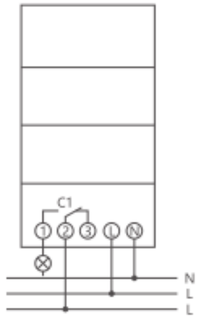
SUL181d

Feature

- Analogue time switch
- 1 channel
- Daily program
- With power reserve (NiMH rechargeable battery)
- 96 switching segments
- Quartz controlled
- Shortest switching time: 15 minutes
- Clock hands for time display and in addition 12/24 hour recognition
- Simple summer/winter time correction
- Time can be changed clockwise or anti-clockwise
- DuoFix spring terminals
- For 2 conductors each
- Wire or strand (with or without wire end sleeve)
- Wire diameter: 0.5 - 2.5 mm²
- Button for releasing plug-in connection
- Switching preselection
- Manual switch with 3 positions: Continuous ON/AUTO/continuous OFF
- Switching status display

Dimension and Wiring





Specification

Item No.	SUL181d
Operating voltage	110–230 V AC
Frequency	50–60 Hz
Number of channels	1
Width	3 modules
Installation type	DIN rail
Type of connection	DuoFix spring terminals
Drive	Quartz-controlled stepper motor
Program	Daily program
Power reserve	200 hours approx. 100 hours at 110 V
Switching capacity at 250 V AC, cos φ = 1	16 A
Switching capacity at 250 V AC, cos φ = 0,6	4 A
Incandescent/halogen lamp load	1100 W
Shortest switching times	15 min
Programmable every	15 min
Time accuracy at 25 °C	≤±1s/day (quartz)
Type of contact	Changeover contact
Switching output	Potential-free and phase-independent
Number of switching segments	96
Stand-by consumption	0.5W
Test approval	VDE
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic
Type of protection	IP 20
Protection class	II according to EN 60 730-1
Ambient temperature	-20℃...+55℃

YCT8 Time Relay

Applications

-Suitable for applications where function and time requirements are know.
-Time switch , possible to be used for pump decay time after switching heating off, switching of fans.

Function Features

-Single-function relay with possibility of time setting by a potentiometer. -Choice of 2 functions:
A:Delay ON
B:Delay OFF
-Time scale 0.1 s -10 days divided into 10 ranges.
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCT8 -□ □ / □

- Rated control supply voltage:
  A230:AC230V W240:AC/DC12V-240V
- Number of contacts:
  1:1XSPDT
  2:2XSPDT
- Function mode:
  A - Delay ON B - Delay OFF
- YCT8 Series

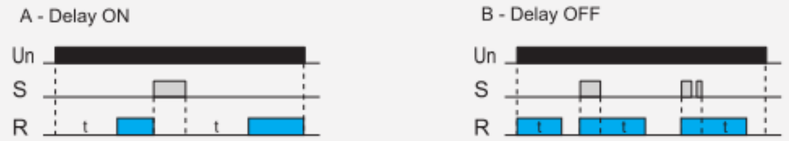
YCT8 Time Relay

Technical parameters

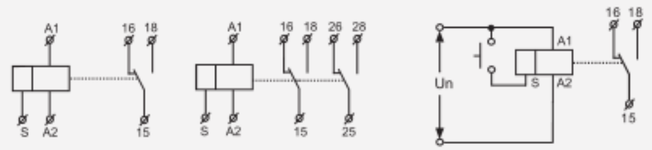
Technical parameters	YCT8-A1/B1	YCT8-A2/B2
Function	A,B,C,D,E,F,G,H,I,J	
Supply terminals	A1-A2	
Voltage range	AC/DC 12-240V(50-60Hz)	
Burden	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	AC230V(50-60Hz)	
Power input	AC max.6VA/1,3W	AC max.6VA/1,9W
Supply voltage tolerance	-15%;+10%	
Supply indication	green LED	
Time ranges	0.1s-10days,ON,OFF	
Time setting	potentionmeter	
Time deviation	10%-mechanical setting	
Repeat accuracy	0.2%-set value stability	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1XSPDT	2XSPDT
Current rating	1X16A(AC1)	2X16A(AC1)
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	$1X10^7$	
Electrical life(AC1)	$1X10^5$	
Reset time	max.200ms	
Operating temperature	-20°C to +55°C (-4°Fto131°F)	
Storage temperature	-35°C to +75°C (-22°F to 158°F)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn^2)	solid wire max.1X2. 5or2X1. 5/with sleeve max.1X2.5 (AWG 12)	
Dimensions	90X18X64mm	
Weight	1XSPDT: W240-62g,A230-60g	
	2XSPDT:W240-82g,A230-81g	
Standards	EN 61812-1,IEC60947-5-1	

YCT8 Time Relay

Functions Diagram



Wiring Diagram



Time Range

Dimensions(mm)

YCT8 Time Relay

Applications

-Multifunction time relay can be used for electrical appliances, control of lights, heating, motors, pumps and fans (10 functions, 10 time ranges, multi-voltage).

Function Features

-10 functions: - 5 time functions controlled by supply voltage
-4 time functions controlled by control input
-1 function of latching relay
-Comfortable and well-arranged function and time-range setting by rotary switches.
-Time scale 0.1 s -10 days divided into 10 ranges.
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCT8 -M □ / □

- YCT8 Series
- Multifunction time relay
- Number of contacts:
  1:1XSPDT
  2:2XSPDT
- Rated control supply voltage:
  A230:AC230V W240:AC/DC12V-240V

YCT8 Time Relay

Technical parameters

Technical parameters	YCT8-M1	YCT8-M2
Function	A,B,C,D,E,F,G,H,I,J	
Supply terminals	A1-A2	
Voltage range	AC/DC 12-240V(50-60Hz)	
Burden	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	AC230V(50-60Hz)	
Power input	AC max.6VA/1,3W	AC max.6VA/1,9W
Supply voltage tolerance	-15%;+10%	
Supply indication	green LED	
Time ranges	0.1s-10days,ON,OFF	
Time setting	potentionmeter	
Time deviation	10%-mechanical setting	
Repeat accuracy	0.2%-set value stability	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1XSPDT	2XSPDT
Current rating	1X16A(AC1)	2X16A(AC1)
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	$1X10^7$	
Electrical life(AC1)	$1X10^5$	
Reset time	max.200ms	
Operating temperature	-20°C to +55°C (-4°Fto131°F)	
Storage temperature	-35°C to +75°C (-22°F to 158°F)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn^2)	solid wire max.1X2. 5or2X1. 5/with sleeve max.1X2.5 (AWG 12)	
Dimensions	90X18X64mm	
Weight	1XSPDT: W240-62g,A230-60g	
	2XSPDT:W240-82g,A230-81g	
Standards	EN 61812-1,IEC60947-5-1	

YCT8 Time Relay

Functions Diagram

A:On Delay (Power On)
When the input voltage U is applied, timing delay t begins. Relay con¬tacts R change state after time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.

BJnterval (Power On)
When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage U is removed, contacts will also return to their shelfstate. Trigger switch is not used in this function.

C:Repeat Cycle (Starting Off)
When input voltage U is applied, time delay t begins. When time delay t is complete, relay contacts R change state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.

D: Repeat Cycle (Starting On)
When input voltage U is applied, relay contacts R change state imme¬diately and time delay t begins. When time delay t is complete, contacts return to their shelf state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.

E: Off Delay (S Break)
Input voltage U must be applied continuously. When trigger switch S is clo¬sed, relay contacts R change state. When trigger switch S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger switch S is closed before time delay t is complete, then time is reset. When trigger switch S is opened, the delay begins again, and relay contacts R remain in their energized state. If input voltage U is removed, relay contacts R return to their shelf state.

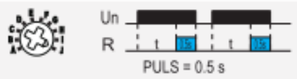
F:Single Shot
Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.

G:Single Shot Trailing Edge (Non-Retriggerable)
Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger switch S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger switch S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is removed, relay contacts R return to their shelf state.

H:On/Off Delay
Input voltage U must be applied continuously. When trigger switch S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger switch S is opened.
If input voltage U is removed, relay contacts R return to their shelfesta.

I: Latching relay
Input voltage U must be applied continuously. Output changes state with every trigger switch S closure. If input voltage U is removed, relay contacts R return to their shelf state.

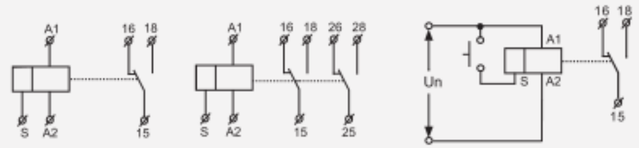
J:Pulse generator
Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and re¬applied to repeat pulse. Trigger switch is not used in this function.



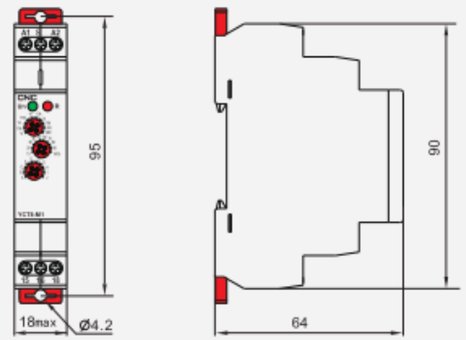
Time Range

YCT8 Time Relay

Wiring Diagram



Dimensions(mm)



YCT8 Time Relay

Applications

-For gradual switching of heavy powers (e.g. el.heating), prevents current strokes in the main.

Function Features

-2x Delay ON (2 time relays in one)
-Time scale 0.1s -10 days divided into 10 time ranges: 0.1s-1s/1s-10s/ 0.1 min -1 min / 1min - 10min /0.1h - 1h/ 1h - 10hrs / 0.1 day -1 day /1 day -10 days / ON / OFF.
-Times t1 and t2 are independantly adjustable.
-11 and t2 are switched on after supply voltage connection
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Type Designation

YCT8 - 2T / □

- Rated control supply voltage:
  A230:AC230V W240:AC/DC12V-240V
- Double time delay relay
- YCT8 Series

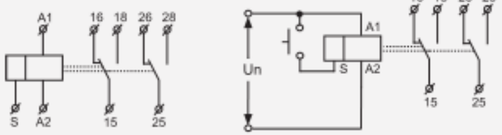
YCT8 Time Relay

Technical parameters

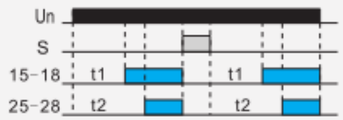
Technical parameters	YCT8-2T
Function	2x Delay ON
Supply terminals	A1-A2
Voltage range	AC/DC 12-240V(50-60Hz)
Burden	AC 0.09-3VA/DC 0.05-1.7W
Voltage range	AC230V(50-60Hz)
Power input	ACmax.6VA/1.9W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	0.1s-10days,ON,OFF
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)
Output	2XSPDT
Current rating	16A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1X107
Electrical life(AC1)	1X105
Reset time	max.200ms
Operating temperature	-20°C to +55°C (-4Tto131°F)
Storage temperature	-35°C to +75°C (-22°F to 158°F)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 forfront panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mrrf)	solid wire max.1X2. 5or2X1.5/with sleeve max.1X2. 5(AWG 12)
Dimensions	90X18X64mm
Weight	W240-82g,A230-82g
Standards	EN61812-1JEC60947-5-1

YCT8 Time Relay

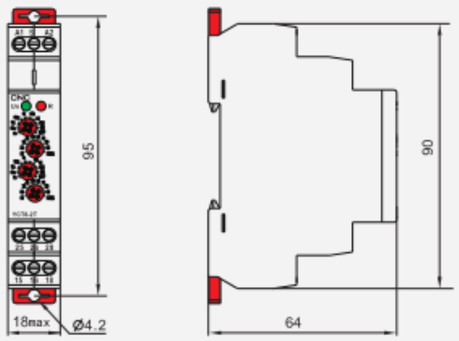
Wiring Diagram



Functions Diagram



Dimensions(mm)



YCT8 Time Relay

Applications

-It is used for regular room ventilation, cyclic dehumidification, light control, circulating pumps, noon signs, etc.

Function Features

-2 time functions:
-Cycler beginning with pulse
-Cycler beginning with pause
-Function choice is done by an external jumper of terminals S-A1.
-Time scale 0.1 s -100 days devided into 10 time ranges:
(0.1 s -1 s/1 s- 10s/0.1 min -1 min /1 min -10 min /0.1 hrs -1 h
/1 hrs -10 hrs / 0.1 day -1 day/1 day -10 days /3 days - 30 days / 10 days -100 days).
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Type Designation

YCT8 - S □ / □

- Rated control supply voltage:
  A230:AC230V W240:AC/DC12V-240V
- Number of contacts:
  1:1XSPDT
  2:2XSPDT
- Asymmetric cycler
- YCT8 Series

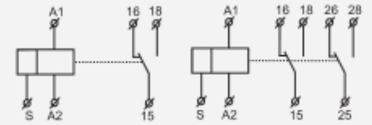
YCT8 Time Relay

Technical parameters

Technical parameters	YCT8-S1	YCT8-S2
Function	Asymmetric cycler time relay	
Supply terminals	A1-A2	
Voltage range	AC/DC12-240V(50-60Hz)	
Burden	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	AC230V(50-60Hz)	
Power input	AC max.6VA/1,3W	AC max.6VA/1,9W
Supply voltage tolerance	-15%; + 10%	
Supply indication	green LED	
Time ranges	0.1s-10days	
Time setting	potentionmeter	
Time deviation	10%-mechanical setting	
Repeat accuracy	0.2%-set value stability	
Temperature coefficient	0.05%/°C,at=20°C(0.05%T, at=68T)	
Output	1XSPDT	2XSPDT
Current rating	1X16A(AC1)	2X16A(AC1)
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	1X107	
Electrical life(AC1)	1X105	
Reset time	max.200ms	
Operating temperature	-20°C to +55°C (-4T to 131T)	
Storage temperature	-35°C to +75°C (-22T to 158T)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn^2)	solid wire max.1X2.5or2X1. 5/with sleeve max.1X2. 5(AWG 12)	
Dimensions	90X18X64mm	
Weight	1XSPDT: W240-62g,A230-61g	
	2XSPDT: W240-82g,A230-82g	
Standards	EN 61812-1,IEC60947-5-1	

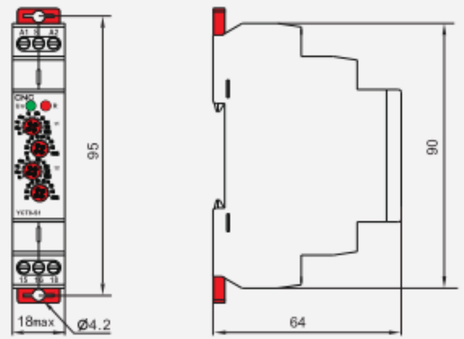
YCT8 Time Relay

Wiring Diagram



Functions Diagram

Dimensions(mm)



YCT8 Time Relay

Applications

-Back-up source for Delay OFF in case of voltage failure (emergency lighting, emergency respirator,or protection of el. controlled doors - in case of fire).

Function Features

-Time range (adjustable by rotary switch and fi ne setting by potentiometer): 0.1 s - 10 min.
-Voltage range: AC/DC12-240V , clamp terminals.
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCT8 - D / □

- Rated control supply voltage: W240:AC/DC12V-240V
- DelayOFF without supply power
- YCT8 Series

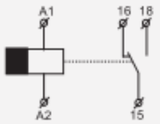
YCT8 Time Relay

Technical parameters

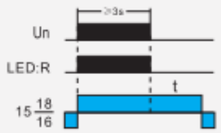
Technical parameters	YCT8-D
Function	Delay OFF without supply power
Supply terminals	A1-A2
Voltage range	AC/DC 12-240V(50-60Hz)
Burden	AC 0.09-3VA/DC 0.05-1.5W
Supply voltage tolerance	-15%; + 10%
Supply indication	green LED
Time ranges	0.1s-10min
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Mininum power time	3s
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)
Output	1XSPDT
Current rating	16A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1X106
Electrical life(AC1)	5X104
Reset time	max.200ms
Operating temperature	-20°C to +55°C (-4T to131°F)
Storage temperature	-35°C to +75°C (-22°F to 158°F)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mn?)	solid wire max.1X2.5or2X1,5/with sleeve max. 1X2. 5(AWG 12)
Dimensions	90X18X64mm
Weight	66g
Standards	EN 61812-1,IEC60947-5-1

YCT8 Time Relay

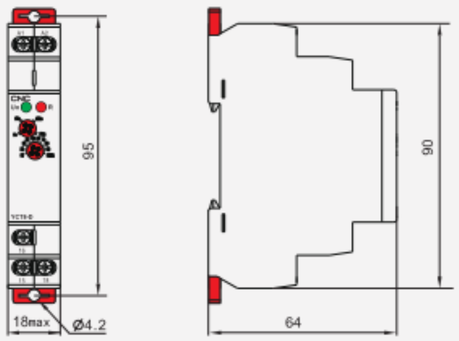
Wiring Diagram



Functions Diagram



Dimensions(mm)



YCT8 Time Relay

Applications

-Designated for delay ON of motors star/delta.

Function Features

-Time t1 (star):
time scale 0.1 s - 10min devided into 4 time ranges rough time setting by rotary switch.
-Time t2 (delay):
time scale 0.1 s -1 s
time setting by potentiometer
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCT8 - ST / □

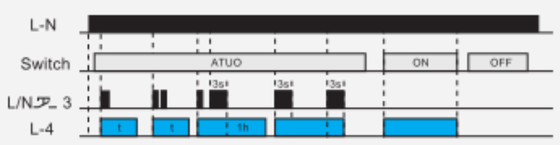
- Rated control supply voltage:
  A230:AC230V
  A400:AC400V W240:AC/DC12V-240V
- Delay ON star/delta
- YCT8 Series

YCT8 Time Relay

Technical parameters

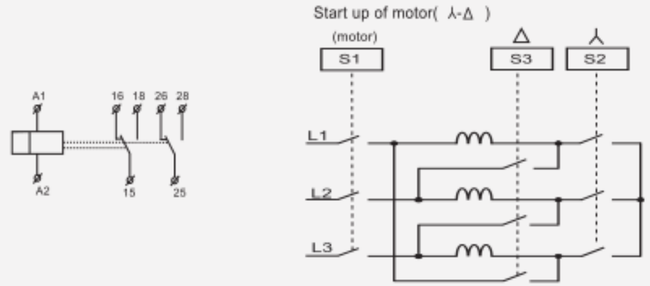
Technical parameters	YCT8-LS
Function	Delay ON star/delta
Supply terminals	A1-A2
Voltage range	AC/DC 12-240V(50-60Hz)
Burden	AC0.3-2VA/DC0.1-1.2W
Voltage rangeo	AC 230V/AC400V(50-60Hz)
Power input< <	ACmax.6VA/1.3W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	Range of time delay H：0.1 s-10 min .Switch time t2:0.1 s-1 s
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Temperature coefficient	0.05%/oC,at=20oC(0.05%T, at=68T)
Output	2XSPDT
Current rating	16A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1X107
Electrical life(AC1)	1X105
Reset time	max.200ms
Operating temperature	-20°C to +55°C (-4°F to 131T)
Storage temperature	-35°C to +75°C (-22T to 158T)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mrr?)	solid wire max.1X2.5or2X1.5/with sleeve max. 1X2. 5(AWG 12)
Dimensions	90X18X64mm
Weight	W240-82g,A230-80g
Standards	EN 61812-1,IEC60947-5-1

Functions Diagram

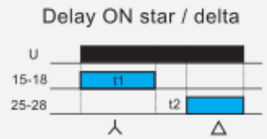


YCT8 Time Relay

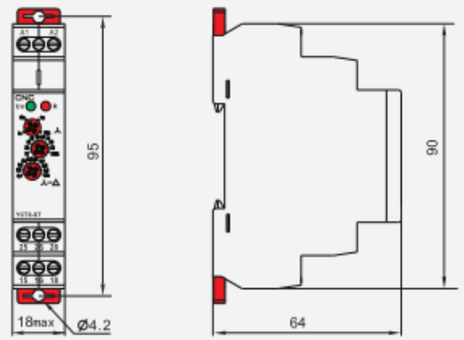
Wiring Diagram



Functions Diagram



Dimensions(mm)



YCT8 Time Relay

Applications

-It is used for delayed switching of lights in the corridors, entrances, stairways, halls or for delayed finish of fans (WC, bathroom, etc.).

Function Features

-Operating system switch:
ON - output is constantly ON .
AUTO - timing according to adjusting by potentiometer in range 0.5 - 20 min OFF- output is constantly OFF .
-Voltage range: AC 230 V, clamp terminals.
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCT8 - LS / □

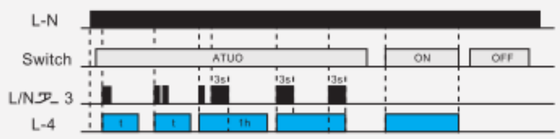
- Rated control supply voltage: A230:AC230V
- Stairase Switch
- YCT8 Series

YCT8 Time Relay

Technical parameters

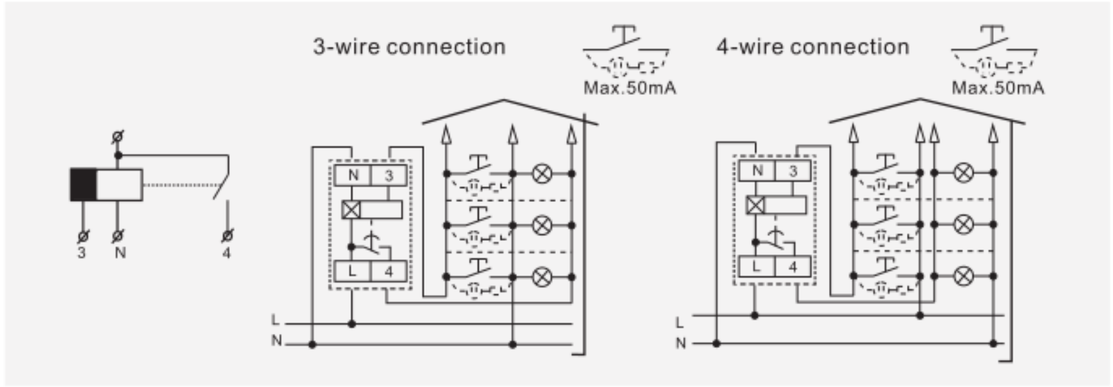
Technical parameters	YCT8-LS
Function	Delay ON star/delta
Supply terminals	A1-A2
Voltage range	AC/DC 12-240V(50-60Hz)
Burden	AC0.3-2VA/DC0.1-1.2W
Voltage rangeo	AC 230V/AC400V(50-60Hz)
Power input< <	ACmax.6VA/1.3W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	Range of time delay H：0.1 s-10 min .Switch time t2:0.1 s-1 s
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Temperature coefficient	0.05%/oC,at=20oC(0.05%T, at=68T)
Output	2XSPDT
Current rating	16A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1X107
Electrical life(AC1)	1X105
Reset time	max.200ms
Operating temperature	-20°C to +55°C (-4°F to 131T)
Storage temperature	-35°C to +75°C (-22T to 158T)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mrr?)	solid wire max.1X2.5or2X1.5/with sleeve max. 1X2. 5(AWG 12)
Dimensions	90X18X64mm
Weight	W240-82g,A230-80g
Standards	EN 61812-1,IEC60947-5-1

Functions Diagram



YCT8 Time Relay

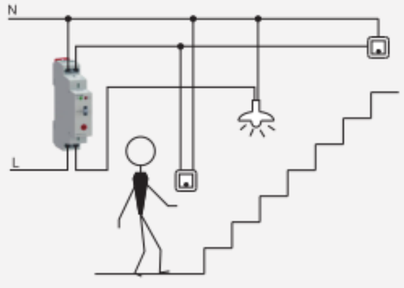
Wiring Diagram



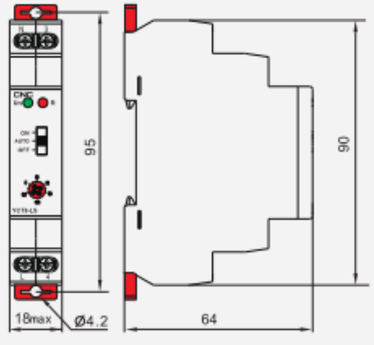
Types of lamps

2000W	2000W	1000W	900W(125uF)	400W	300W

Example



Dimensions(mm)



YCV8 Voltage Relay

Applications

-Protect electrical equipment and motors from over-voltage and under-voltage.
-Normal/emergency power supply switching.

Function Features

-Controls its own supply voltage(True RMS measurement)
-.User may select operation mode through knob.
-Voltage measurement accuracy<1%.
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCV8 - □ / □

Rated control supply voltage:

Rated supply voltage code	Rated supply voltage	Supply voltage limits	Range of adjustment
D12	DC 12V	DC 7...20V	DC 9...15V
AD48	AC/DC 24...48V	AC/DC 15...100V	AC/DC 20...80V
AD240	AC/DC 110...240V	AC/DC 50...270V	AC/DC 65...260V
A220	AC 220V	AC 160...270V	AC 180...260V

Function mode:

01 - Over/under voltage in windows mode

02 · Overvoltage Undervoltage

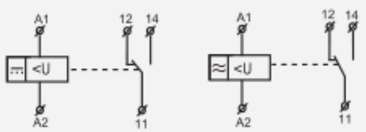
YCV8 Series

YCV8 Voltage Relay

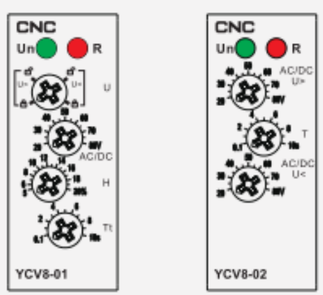
Technical parameters

Technical parameters	YCV8-01	YCV8-02
Function	Monitoring voltage	
Supply terminals	A1-A2	
Rated supply voltage	DC12V,AC/DC24V-48V,AC/DC110V-240V.AC220V	
Rated supply frequency	45Hz-65Hz,0	
Hysteresis	5%-20%3%fixed	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	W1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1XSPDT	
Current rating	10A/AC1	
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	1X107	
Electrical life(AC1)	1X105	
Operating temperature	-20°C to +55°C (-4°F to 131°F)	
Storage temperature	-35°C to +75°C (-22°F to 158°F)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn?)	solid wiremax.1X2. 5or2X1. 5/with sleeve max.1X2. 5(AWG 12)	
Dimensions	90X18X64mm	
Weight	59g	
Standards	EN 60255-1,IEC60947-5-1	

Wiring Diagram

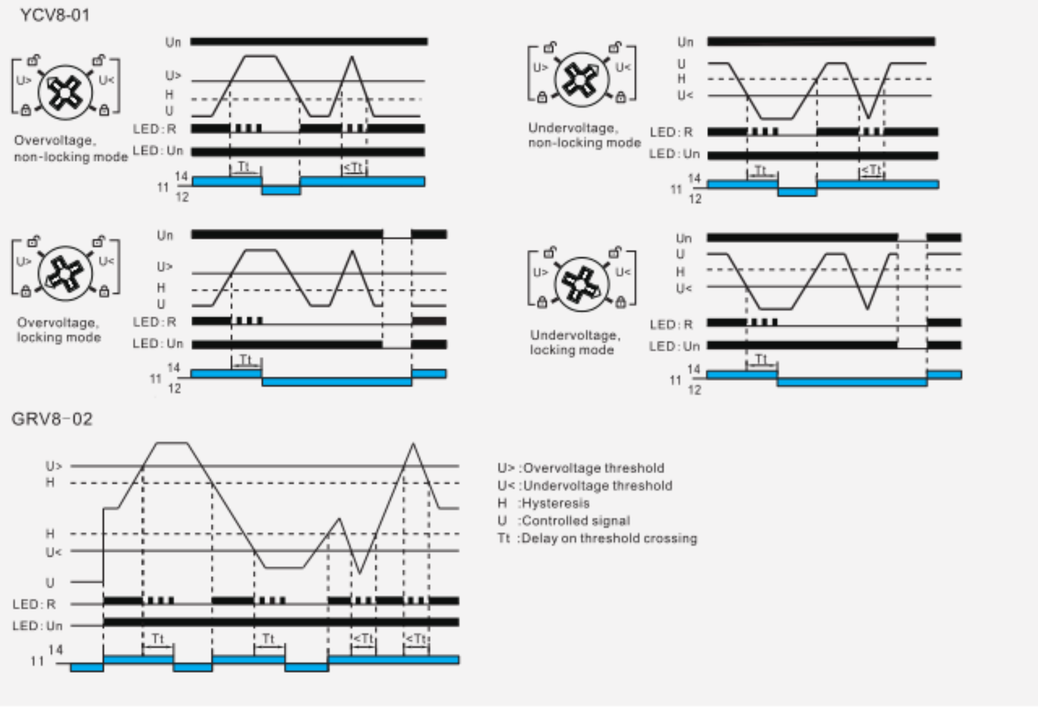


Panel Diagram

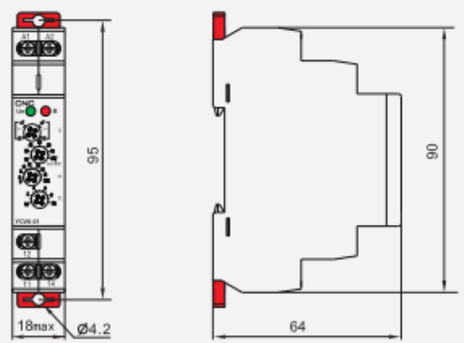


YCV8 Voltage Relay

Functions Diagram



Dimensions(mm)



YCV8 Voltage Relay

Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Function Features

-Controls its own supply voltage(True RMS measurement).
-Set 8-level rated operating voltage through knob.
-Measuring frequency range:45Hz-65Hz.
-Voltage measurement accuracy<1%.
-Relay status is indicated by LED.
-1-MODULE.DIN rail mounting.

Type Designation

YCV8 - □ / □

- Rated control supply voltage:
  M460:220-230-240-380-400-415-440-460VAC(P-P)
  M265:127-132-138-220-230-240-254-265VAC(P-N)
- Funcion Mode:table 1
- YCV8 Series

Table 1

Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03					●	●
04	2%...20%	-20%...2%		0.1s...10s	●	●
05	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06	2%...20%	-20%...2%	5%...15%	2s	●	●
07			8%	2s	●	●
08	15%	-15%	8%	2s	●	●

Note:the function is available

YCV8 Voltage Relay

Technical parameters

Technical parameters	YCV8-01	YCV8-02
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2	L1-N
Voltage range	220-230-240-380-400-415-440-460(P-P)	127-132-138-220-230-240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20%of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	<1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1XSPDT	
Current rating	10A/AC1	
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	$1X10^7$	
Electrical life(AC1)	$1X10^5$	
Operating temperature	-20°C to +55°C (-4°F to131°F)	
Storage temperature	-35°C to +75°C (-22°F to 158°F)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn?)	solid wiremax.1X2. 5or2X1.5/with sleeve max.1X2. 5(AWG 12)	
Dimensions	90X18X64mm	
Weight	64g	
Standards	EN 60255-1,IEC60947-5-1	

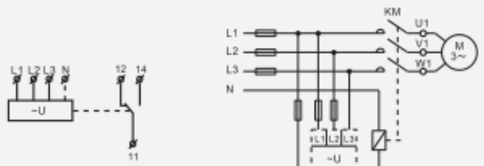
Note:

$$Asy=\frac{Umax-Umin}{Uavr}\times 100\% \qquad Umax=Max(U_1,U_2,U_3)$$

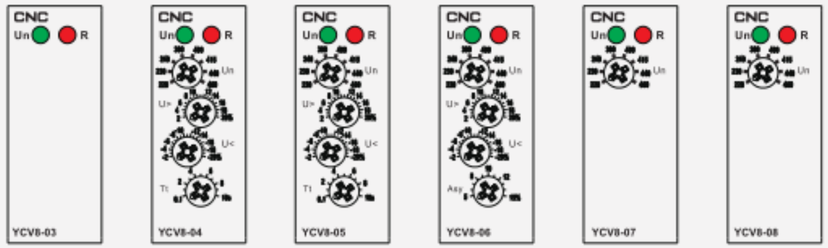
$$Uavr=\frac{U_1+U_2+U_3}{3} \qquad Umin=Min(U_1,U_2,U_3)$$

YCV8 Voltage Relay

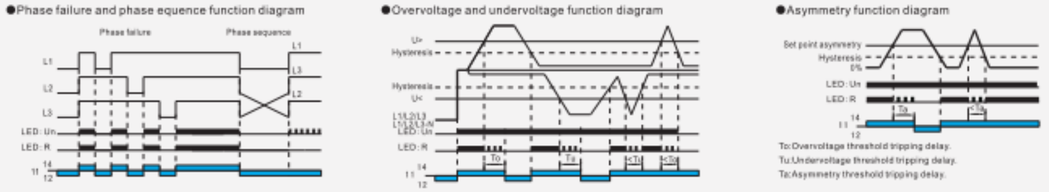
Wiring Diagram



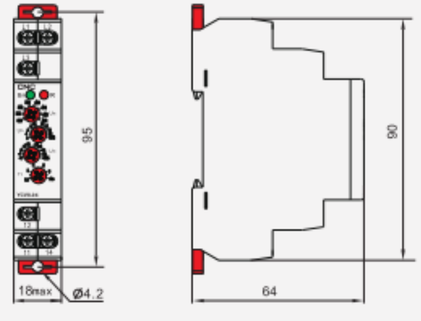
Panel Diagram



Functions Diagram



Dimensions(mm)



YCV8 Voltage Relay

Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Function Features

-Controls its own supply voltage(True RMS measurement).
-Set 8-level rated operating voltage through knob.
-Measuring frequency range:45Hz-65Hz.
-Voltage measurement accuracy<1%.
-2 C/O output.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Type Designation

YCV8 - □ / □

- Rated control supply voltage:
  M460:220-230-240-380-400-415-440-460VAC(P-P)
  M265:127-132-138-220-230-240-254-265VAC(P-N)
- Funcion Mode:table 1
- YCV8 Series

Table 1

Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03D					●	●
04D	2%...20%	-20%...2%		0.1s...10s	●	●
05D	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06D	2%...20%	-20%...2%	5%...15%	2s	●	●
07D			8%	2s	●	●
08D	15%	-15%	8%	2s	●	●

Note:the function is available

YCV8 Voltage Relay

Technical parameters

Technical parameters	M460	M265
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2	L1-N
Voltage range	220-230-240-380-400-415-440-460(P-P)	127-132-138-220-230-240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20%of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	<1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1XSPDT	
Current rating	10A/AC1	
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	$1X10^7$	
Electrical life(AC1)	$1X10^5$	
Operating temperature	-20°C to +55°C (-4°F to131°F)	
Storage temperature	-35°C to +75°C (-22°F to 158°F)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn?)	solid wiremax.1X2. 5or2X1.5/with sleeve max.1X2. 5(AWG 12)	
Dimensions	90X18X64mm	
Weight	64g	
Standards	EN 60255-1,IEC60947-5-1	

Note:

$$Asy=\frac{Umax-Umin}{Uavr}\times 100\%$$

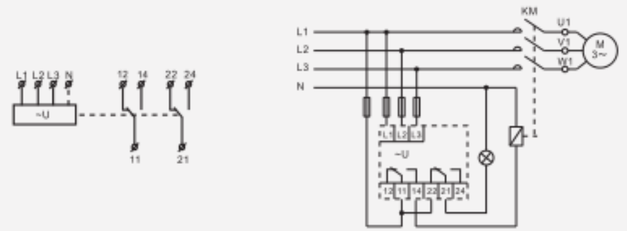
$$Uavr=\frac{U_1+U_2+U_3}{3}$$

Umax=Max(U_1,U_2,U_3)

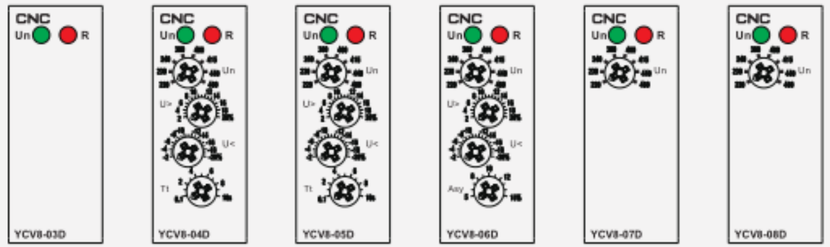
Umin=Min(U_1,U_2,U_3)

YCV8 Voltage Relay

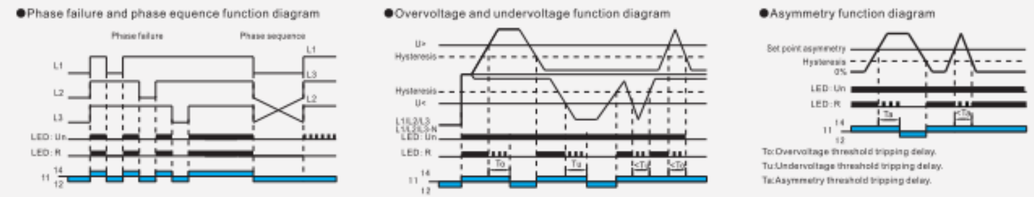
Wiring Diagram



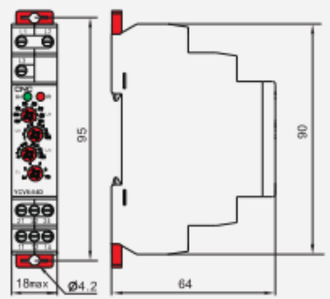
Panel Diagram



Functions Diagram



Dimensions(mm)



YCV8 Voltage Relay

Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Function Features

-Controls its own supply voltage(True RMS measurement).
-Set 8-level rated operating voltage through knob.
-Set the reset delay time through the knob.
-2 C/O output.
-Measuring frequency range:45Hz-65Hz.
-Voltage measurement accuracy<1 %.
-Relay status is indicated by LED.
-2-MODULE,DIN rail mounting.

Type Designation

YCV8 - □ / □

- Rated control supply voltage:
  M460:220-230-240-380-400-415-440-460VAC(P-P)
  M265:127-132-138-220-230-240-254-265VAC(P-N)
- Funcion Mode:table 1
- YCV8 Series

Table 1

Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure	Reset time
09			8%		●	●	
10	2%...20%	-20%...2%	5%...15%	0.1s...10s	●	●	0.1s...10s

Note:the function is available

YCV8 Voltage Relay

Technical parameters

Technical parameters	M460	M265
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2	L1-N
Voltage range	220-230-240-380-400-415-440-460(P-P)	127-132-138-220-230-240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20%of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	<1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1XSPDT	
Current rating	10A/AC1	
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	$1X10^7$	
Electrical life(AC1)	$1X10^5$	
Operating temperature	-20°C to +55°C (-4°F to131°F)	
Storage temperature	-35°C to +75°C (-22°F to 158°F)	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP40 for front panel/IP20 terminals	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mn?)	solid wiremax.1X2. 5or2X1.5/with sleeve max.1X2. 5(AWG 12)	
Dimensions	90X18X64mm	
Weight	64g	
Standards	EN 60255-1,IEC60947-5-1	

Note:

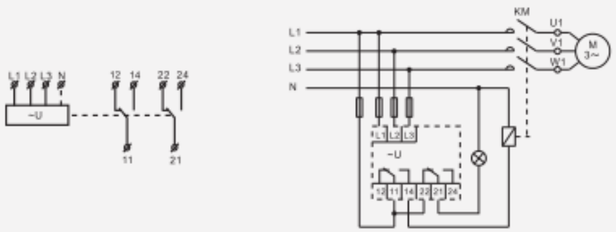
$$Asy=\frac{Umax-Umin}{Uavr}\times 100\%$$

$$Uavr=\frac{U_1+U_2+U_3}{3}$$

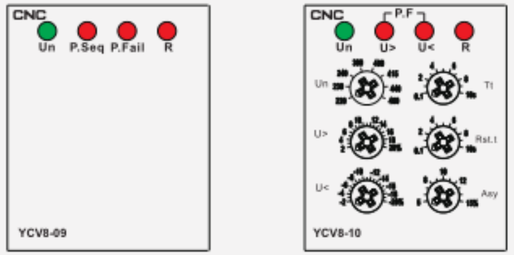
Umax=Max(U_1,U_2,U_3)
Umin=Min(U_1,U_2,U_3)

YCV8 Voltage Relay

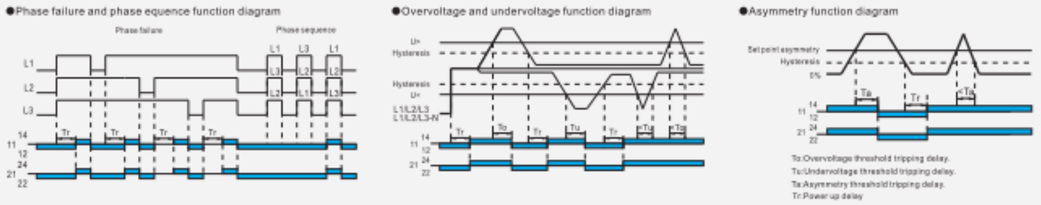
Wiring Diagram



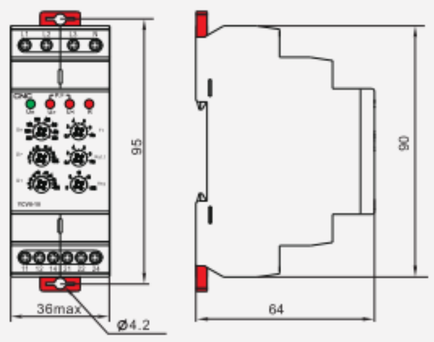
Panel Diagram



Functions Diagram



Dimensions(mm)



XJ3-D Protective Relay

General

XJ3-D phase failure and phase sequence protection relay is used to provide overvoltage, undervoltage and phase failure protection in three-phase AC circuits and phase sequence protection in irreversible transmission devices and features reliable performance, wide application and convenient use.

The protector starts to function when it is connected to the power control circuit in accordance with the drawing. When the fuse of any phase of the three-phase circuit is open or when there is a phase failure in the power supply circuit, the XJ3-D operates immediately to control the contact to cut off the power supply of the AC contactor coil of the main circuit so that the main contact of the AC contactor operates to provide the load with phase failure protection.

When the phases of a three-phase irreversible device with predetermined phase sequence are connected incorrectly due to maintenance or change of the power supply circuit, the XJ3-D will identify the phase sequence, stop supplying power to the power supply circuit and achieve the goal of protecting the device.

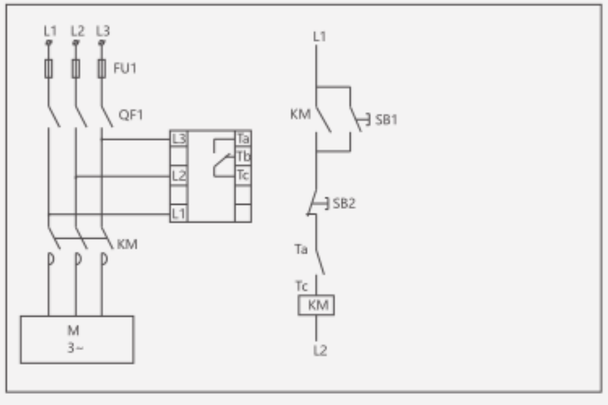
Technical data

Type	XJ3-D
Protection function	Overvoltage Undervoltage Phase-failure Phase-sequence error
Overvoltage protection(AC)	380V~460V 1.5s~4s (adjustable)
Undervoltage protection(AC)	300V~380V 2s~9s(adjustable)
Operating voltage	AC 380V 50/60Hz
Contact number	1 group changeover
Contact capacity	Ue/Ie:AC-15 380V/0.47A; Ith:3A
Phase-failure and phase-sequence protection	Reacting time≤2s
Electrical life	1×10^5
Mechanical life	1×10^6
Ambient temperature	-5℃~40℃
Installation mode	35mm Track installation or soleplate mounting

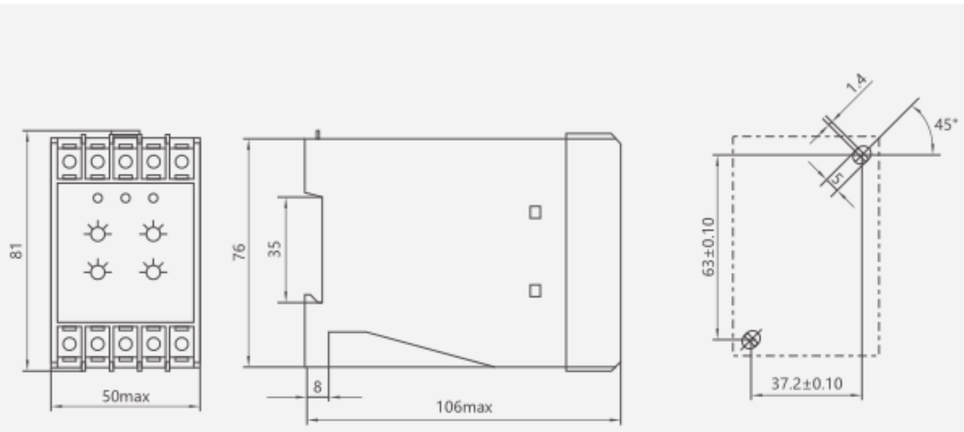
Note: in the example diagram for application circuit, protective relay can provide protection only under the condition of phase-failure occurring at terminal 1, 2, 3 and among three phase of power supply A, B, C.

XJ3-D Protective Relay

Wiring diagram



Overall and mounting dimensions(mm)



JD-5, JD-6 Motor Integrated Protector

General

JD-5, JD-6 Motor Integrated Protector (hereinafter referred to as protector) is applicable for overload and phase-failure protection of AC motor @ A.C.50Hz, less than AC690V rated insulation voltage and 20A~300A rated operating current for its continuous working or discontinuous working. Protector and AC contactor are generally used cooperatively.

This product meets the requirements of IEC 60947- 4-1.

Operating conditions

- Altitude ≤2000m.
- Ambient temperature Range: -5℃ ~ +40℃, with daily average ≤ +35℃.
  Atmospheric condition: when the highest temperature is +40℃, the relative humidity of air shall be no more than 50%, higher relative humidity shall be allowable at lower temperature, for instance air humidity may reach 90% at +20 ℃. As for dews, which contigently appear due to change of temperature, special steps should be taken.
- Pollution Level: Level 3.
- Inclination between installation plane and vertical plane shall ≤±5°.
- In the media without explosive risk, and no gases that may be corrosive to metal and damage insulation in the media together with at places where much conducting dust being in existence.
- At places where rain & snow proof facilities are equipped with and not being full of steam.
- At places without prominence rock, impact and vibration.
- Installation Category: III.

Technical data

Rated insulation voltage AC690V, rated frequency 50Hz, rated operating current 0.5A~300A.

Parameter \ Model	JD-5	JD-5B (with buzzer)	JD-6	BHQ-S-C	BHQ-S-J
Rated Voltage	AC380V 50Hz(Other voltage levels can be customized)				
Setting current range (suitable motor power)	2-80A (1-40KW)	2-80A (1-40KW)	60-300A (30-150KW)	20-80A, 63-150A 100-250A	0.5-5A 5-20A
Overload action time (with inverse time limit characteristics)	3-300s (Adjustable)				
Phase failure action time	≤2s				
Reset Mode	De-energizing reset				
Contact capacity	AC380V 3A				
Display mode	LED Light indication				
Alarm mode	Sound-light alarm				
Mechanical life	10^6				
Electric life	10^5				
Installation mode	Screw				

JD-5, JD-6 Motor Integrated Protector

Protection features

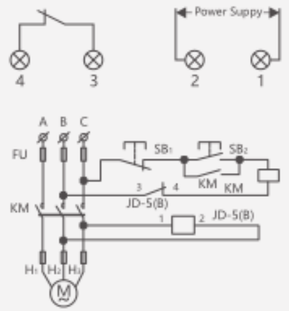
Operation characteristics under three-phase balanced-load status

I/In	Operating time	Test condition	Ambient temperature
1.05	<2h non-tripping	Cold status	+20℃
1.20	<2h tripping	Hot status	
1.50	<2 min tripping	Hot status	
7.20	2s<Tp≤10s	Cold status	

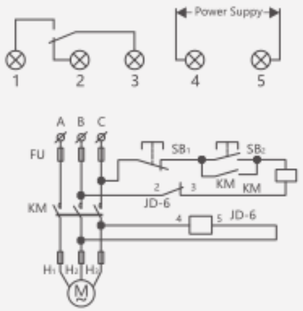
Operation characteristic under phase-failure status

Multiple of setting current		Operating time	Test condition	Ambient temperature
Any two phases	The Third phases			
1.0	0.9	<2h non-tripping	Cold status	+20℃
1.15	0	≤5s	Hot status	

Wiring diagram

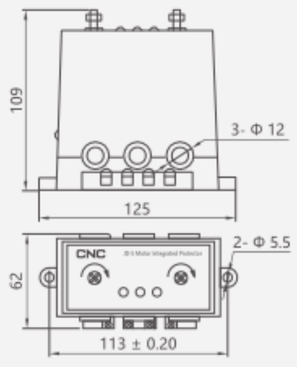


JD-5, JD-5B, BHQ-S-J, BHQ-S-C(20~80A)

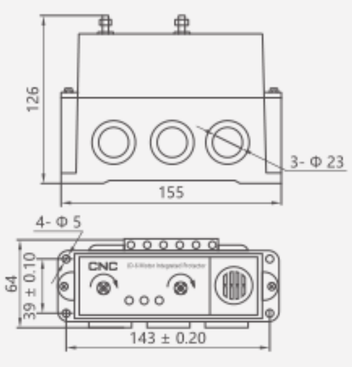


JD-6, BHQ-S-C(63~150A, 100~250A)

Overall and mounting dimensions (mm)



JD-5(B), BHQ-S-J, BHQ-S-C (20~80A)



JD-6, BHQ-S-C (63~150A, 100~250A)

JD-8 Motor Integrated Protector

General

JD-8 Motor Integrated Protector is mainly applicable to fault protection of overload and phase failure of low-voltage three-phase AC asynchronous motor in electric power system with AC frequency 50Hz and rated insulation voltage less than 690V. The protector is usually matched with the contactor in AC motor loop circuit for use. It conforms to IEC 60947-4-1 standards.

Operating conditions

- The altitude shall not exceed 2000m.
- The ambient air temperature is -5℃~+40℃ and the average temperature within 24h shall not exceed +35℃.
- Atmospheric condition: Relative humidity of atmosphere shall not exceed 50% at the temperature of +40℃,and higher relative humidity is allowed at lower temperature. For example, the air humidity can reach 90% at the temperature of +20℃. Regarding the condensation casually caused by humidity change, special measures shall be taken.
- Class of pollution: Class III
- Installation category: category III
- The angle between the installation surface and the vertical surface shall not exceed ±5 degrees.
- The place without obvious shake, impact and vibration shall be selected as the installation site.
- The installation site shall conform to the following standards: explosive and dangerous medium, no gas capable of corroding and damaging insulation in the medium and less conductive dust in the medium.
- The place with rain-proof and snow-proof equipment and a little water vapor shall be used as the installation site.

Technical data

Main circuit: rated insulation voltage AC690V, rated frequency 50Hz

Model	Range of setting current (A)	Power suitable for motor (kW)
JD-8	0.5~5	0.25~2.5
	2~20	1~10
	20~80	10~40
	64~160	32~80

Auxiliary circuit: rated insulation voltage AC380V, rated frequency 50Hz

Utility Category	AC-15	
Rated operating voltage (V)	220	380
Rated operating current (A)	1.5	0.95
Conventional thermal current (A)	5	

JD-8 Motor Integrated Protector

Others

Structure characteristics

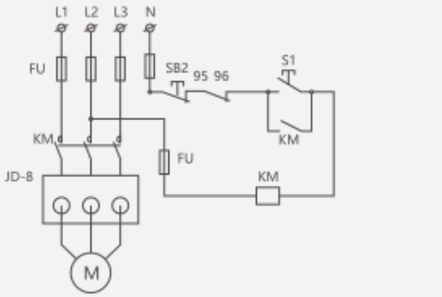
- Three-phase electronic type
- Function of phase failure and overload protection(not suitable for reversible motor)
- Device capable of continuously adjusting setting current
- The main circuit adopts pass-through-core type wiring method
- Installation method: installation via screws or rail

The protector has the following operating characteristics for load balance of each phase; the tripping level is level 30.

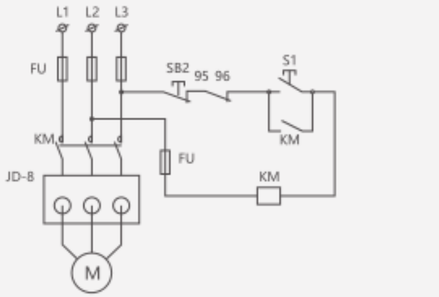
Multiple of setting current	Actuation time	Starting condition	Ambient air temperature
1.05	No actuation within 2h	Cold state	Room temperature (20±5)℃
1.2	Actuation within 2h	Hot state (the test is done following sequence 1)	
1.5	Actuation within 12min		
7.2	9s<tp≤30s	Cold state	

Wiring diagram

Wiring diagram of control circuit with voltage AC220V

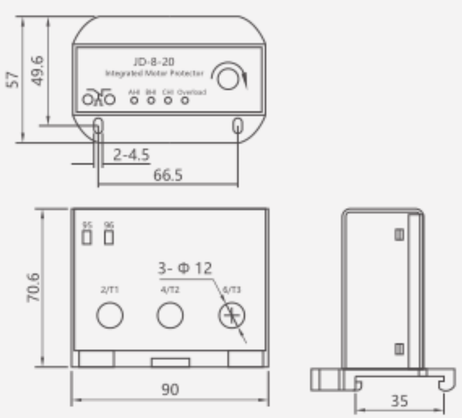


Wiring diagram of control circuit with voltage AC380V

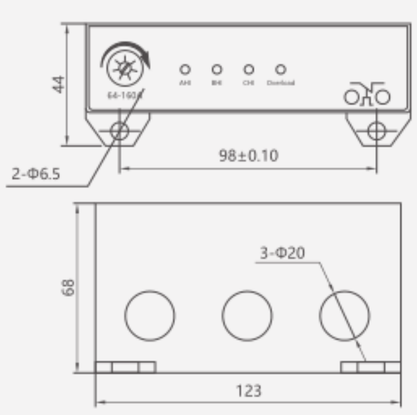


Overall and mounting dimensions (mm)

JD-8-5, JD-8-20, JD-8-80



JD-8-160



YCIR Impulse Relays

Product Overview

YCIR series impulse relay is a mechanical bistable relay that changes the contact state by inputting pulse signals. Contact switching current of up to 16A; a complete range of AC/DC specifications.

Type designation

YC IR 16 / □ □ □

- Coil Voltage
- Normal Close/Change Over Switch
- Normal Open
- Current
- Impulse Relays
- CNC

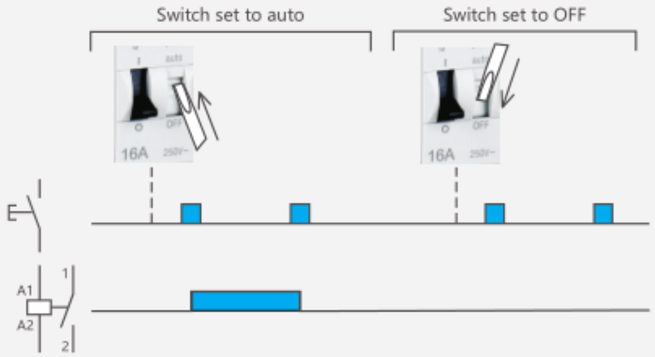
eg.YCIR-16/10 DC12V, It is16A, 1NO, 12V DC current coil voltage

Main parameter and technical performance

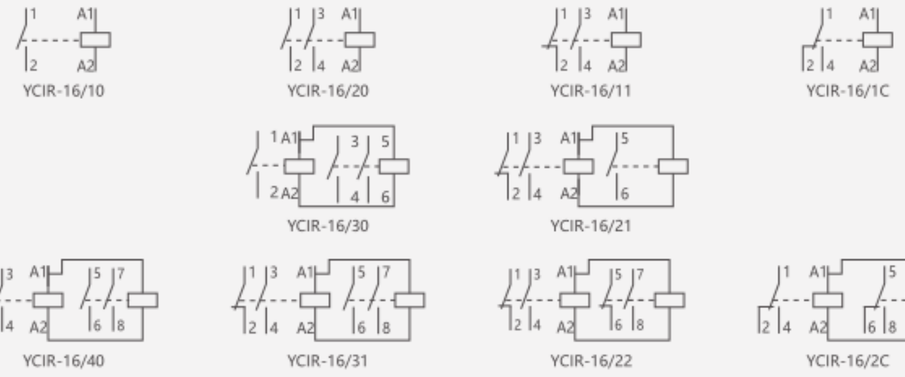
Type		Data
Dissipated power (during the impulse)		19 VA
Illuminated PB control		Max. current 3 mA
Operating threshold		Min. 85 % of Un
Duration of the control order		50 ms to 1 s (200 ms recommended)
Response time		50ms
Voltage rating(Ue)	1P, 2P, 3P, 4P	250V AC
Rated current		16A
Frequency		50/60Hz
Control voltage(V)		AC24V/DC12V, AC48V/DC24V, AC110V/DC48V, AC230V/DC110V
Maximum number of operations per minute		5
Maximum number of switching operation a day		100
Endurance		200,000 cycles(AC21), 100,000 cycles(AC22)
Overvoltage category		IV
Insulation voltage(Ui)		440 V AC
Pollution degree		3
Rated impulse withstand voltage(Uimp)		6kV
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular	Ip40 (Insulation class II)
Operating temperature		-5℃~+60℃
Storage temperature		-40℃~+70℃
Tropicalization(IEC 60068.1)		Treatment 2 (relative humidity 95 % at 55℃

YCIR Impulse Relays

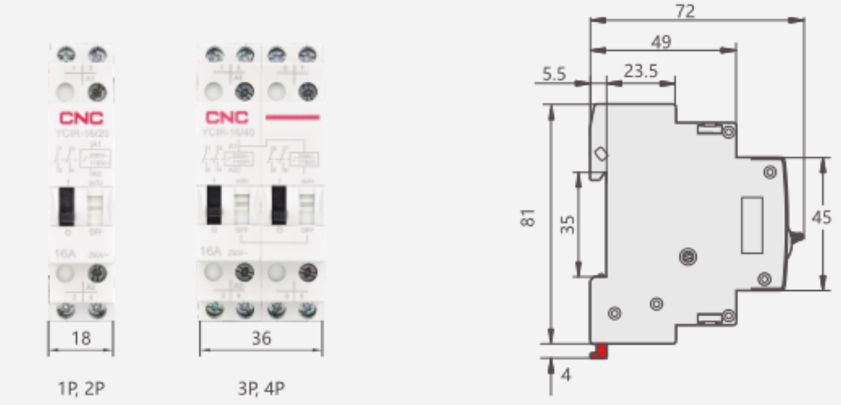
Operation



Circuit diagram



Overall and mounting dimensions(mm)



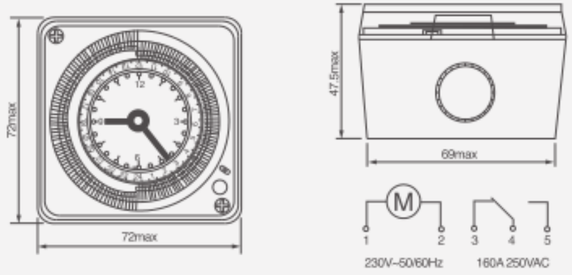
TS711 Timers

TS711

Specification

Item No.	TS711	TS170
Operating Voltage	AC 220-240V	AC 220-240V
Power Consumption	0.5V	0.5V
Contact Capasity	AC 220V 16A	AC 220V 16A
Contact Resistance	≤50mΩ	≤50mΩ
Inaulation Resistance	≥100MΩ	≥100MΩ
Operating Temperature	-10℃~+50℃	-10℃~+50℃
Operating Temperature	≤1S/day 25℃	≤1S/day 25℃
Contact Capacity	Lamp Load: 1000W	
	Resistive load: 16A/250VAC(cosΦ=1)	
	Inductive load: 3A/250VAC(cosΦ=0.6)	
Working Reserve Time	120 hours charged can lasts 200hours	/
Full Timing Range	24h	24h
Storage Battery	70h	Without Battery
Minimum Setting Unit	10Minutes	10Minutes
Setup Times	10m/time 144 Times	10m/time 144 Times
Dimension	72×72×47mm	72×72×47mm
Weight	135g	135g
Installing Mode	DIN rail mounting	DIN rail mounting

Wiring Diagram

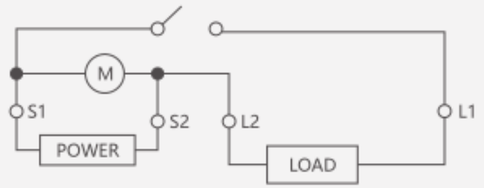


TB17 Timers

Specification

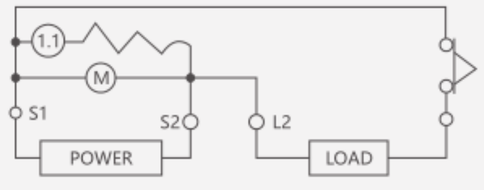
TB17

Item No.	Data
Voltage	AC 110~240V DC 12~24V 50/60Hz
Contact	Timed SPDTc
Operation	Time operation
Timing range	24H

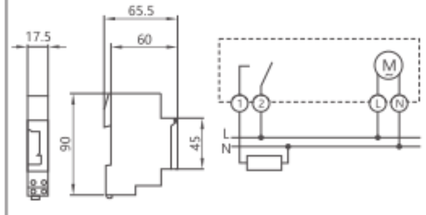
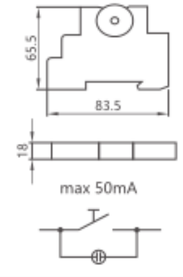
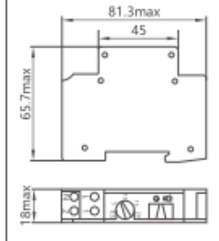


TB35

Item No.	Data
Voltage	AC 110~240V DC 12~24V 50/60Hz
Contact	Timed SPDTc
Timing range	24H



SUL180a,SUL160a,YCST8,YCC18 Timers

Classification		Timer			
Model		SUL180a	SUL160a	YCST8	YCC18
Appearance					
Contact capacity		AC230 16(4)A	AC220 16(4)A	AC220 16A	AC220 16A
Full timing range		24h	24h	7min	20min
Contact resistance		≤50mΩ	≤50mΩ	≤50mΩ	≤50mΩ
Insulation resistance		≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Coil voltage		110, 230V AC	110, 230V AC	110, 230V AC	110, 230V AC
Life	Electrical	10^5times	10^5times	10^5times	10^5times
	Mechanical	10^7times	10^7times	10^7times	10^7times
Operating temperature		-10℃~+50℃	-10℃~+55℃	-20℃~+55℃	-20℃~+55℃
Dimensions(mm)					
Storage battery (working reserve)		time 70h	without battery		
Minimum setting unit		15Minutes	15Minutes	0.5Minutes	0.5Minutes
Set up times		15m/per time 96 times	15m/per time 96 times	1M,1.5M,2M,2.5M 3M,3.5M,4M,4.5M,5M 5.5M,6M,6.5M,7M	0.5M,5M,10M 15M,20M
Consumed power max		1VA	1VA	1VA	5VA stand by mode 1VA

BZ142 Hour Meter

BZ142-A

Application

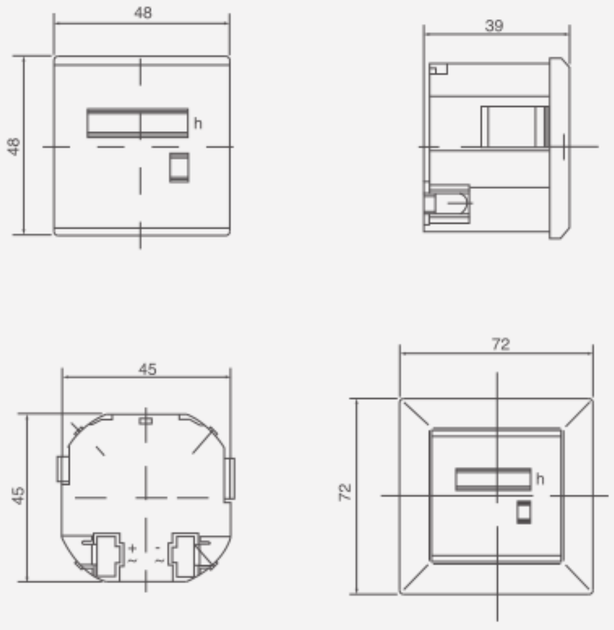
This hour meter is mechanical type. Widely applied in all kinds of machine, equipment and device(such as environmental protection equipment generator etc). Used for to demonstrate the machine, equipment, device operating time accumulation. This mechanical type accumulation longest accumulation time can be 11 years. It also can maintain the data after the power cut.

Specification

Item No.	BZ142-1	BZ142-2	BZ142-3
Operating Voltage	AC 24-450V	AC 24-450V	DC 10-80V
Ferquency	50Hz	60Hz	
Time Range	0-99,999.99 hour(h)		
Dimension	48×48×40mm		
Net Weight	50g		
Mounting	Insert Type		

BZ142-1

Wiring Diagram



DH48J,DH48S-S Time Relay

DH48J

Model Meaning

DH48J - □ AC220V

- AC220V: Voltage DC 12V-48V AC 12V-380V
- □: Contact Timed SPDT
- DH48J: Relay type

Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Counting Method	accumulation
Counting Range	1-9999 (×1×10×100) Contacts input or photoelectric switch input
Input Signal	Multiple dial switch pre-setting
Counting Speed	30 times/S
Contact Capacity	AC220V 3A; DC28V 3A
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:107 Elec:103
Weight	≈100g

DH48S-S

Model Meaning

DH48S - S

- S: Action form (duty-cycle operation)
- DH48S: Relay type

Specification

Item No.	Data
Voltage	DC12V-48V AC 24V-380V50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^3
Weight	≈150g
Installing Holing Size	45×45mm

Time Range

0.1S~99H

DH48S-2Z,H3BA-8 Time Relay

DH48S-2Z

Model Meaning

DH48S - 1Z/2Z AC220V

- Voltage DC 12V-48V AC 24V-380V
- Operation 1Z: Power on-delay Reset & Gate; 2Z: Power on-delay
- Relay type

Specification

Item No.	Data
Voltage	DC12V-48V AC24V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^3
Weight	≈150g
Installing Holing Size	45×45mm

Time Range

0.01S~99.99S; 1S~99M99S; 1M~99H99M

Model Meaning

H3BA-8 (ST4P)

H3BA - 8 - 10S AC220V

- Voltage AC 24V-220V
- Time range
- Operation 8: Power on-delay; 8H: Instantenous
- Relay type

Specification

Item No.	Data
Voltage	DC12V-48V AC24V-415V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^3
Weight	≈170g
Installing Holing Size	45×45mm

Time Range

Rated units \ Time units	Seconds	Minute	Hour	10 Hours
0.5	0.05-0.4			0.5-5h
1.0	0.1-5			1-10h
5.0	0.5-5			5-50h
10	1-10			10-100h

H3BA-A Time Relay

Features

Used for control of time order
With front-surface and
back-surface connecting sockets
LED pilot, display action state

H3BA-A

Model Meaning

H3BA - A - 10S AC220V

- Voltage AC 24V-415V DC 12V-48V
- Time range
- Operation A: On-delay; B: Recycling work; C: Off-delay; D: On/off-delay
- Relay type

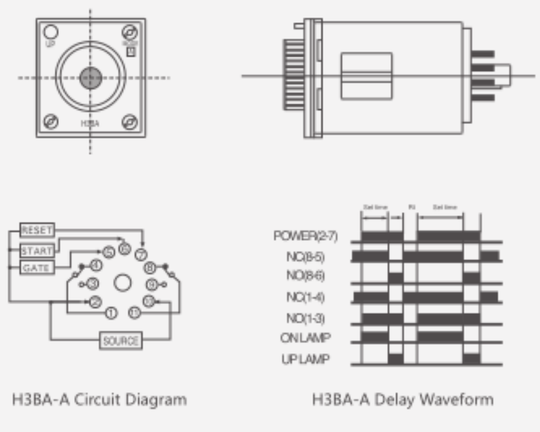
Specification

Item No.	Data
Voltage	DC12V-48V AC24V-415V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^3
Weight	≈170g
Installing Holing Size	45×45mm

Time Range

Rated units \ Time units	Seconds	Minute	Hour	10 Hours
0.5	0.05-0.4			0.5-5h
1.0	0.1-5			1-10h
5.0	0.5-5			5-50h
10	1-10			10-100h

Dimension



H3BA-A Circuit Diagram

H3BA-A Delay Waveform

H3CR-A8 Time Relay

Features

Used for control of time order
With front-surface and
back-surface connecting sockets
LED pilot, display action state

Model Meaning

H3CR - A8 AC220V

- Voltage 12V-48V AC/DC; 24V-220V AC/DC
- Operation A: Power on-delay; E: Power on interval
- Relay type

H3CR-A8

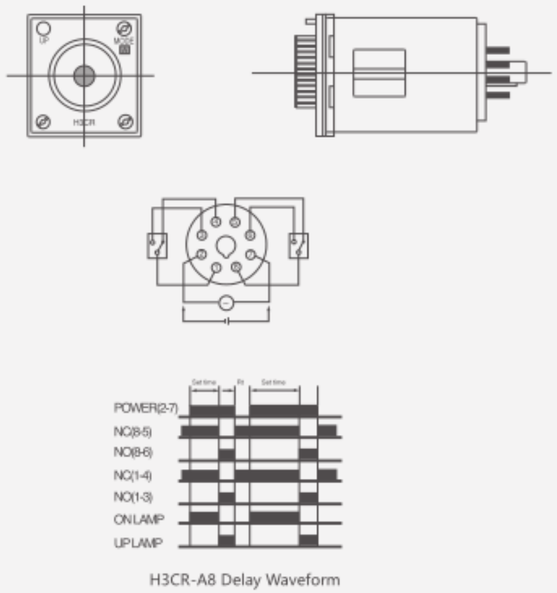
Specification

Item No.	Data
Voltage	DC12V-48V AC24V-220V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈160g
Installing Holing Size	45×45mm

Time Range

0.05S-300H

Dimension



H3CR-A8 Delay Waveform

ST3PA,ST3PC Time Relay

Features

Used for control of time order
With front-surface and
back-surface connecting sockets
LED pilot, display action state

Model Meaning

ST3P A - A AC220V

- Voltage AC 24V-380V DC 12V-48V
- Time range
- Operation
  - A: Standard type(on-delay, multi range)
  - C: With inst. contacts(on-delay, multi range)
  - F: Off-delay
  - K: Contact signal off-delay
  - Y: Timing for star-delta motor starters(on delay)
  - R: On-off repetitive type(on-delay)
- Relay type

ST3PA, ST3PC

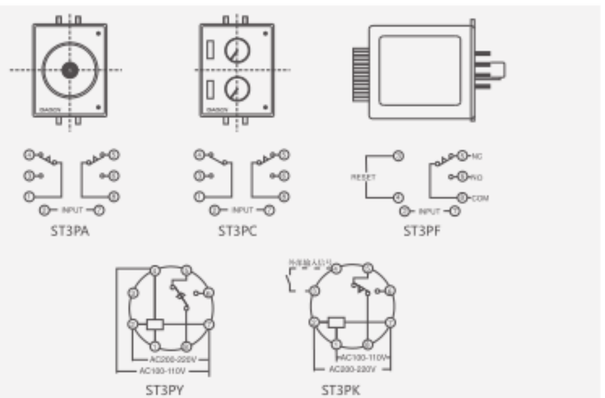
Specification

Item No.	Data
Voltage	DC12V-48V AC24V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈50g
Installing Holing Size	40×50mm

Time Range

Delay categories \ Switch position	1	2	3	4
A	0.05-0.5s	0.05-5s	2.5-30s	0.25-3m
B	0.1-1s	0.1-10s	5-60s	0.5-6m
C	0.5-5s	5-50s	0.5-5m	2.5-30m
D	1-10s	10-100s	1-10m	5-60m
E	5-60s	1-10m	5-60m	0.5-6h
F	0.25-2m	2.5-20m	0.25-2h	1-12h
G	0.5-4m	5-40m	0.5-4h	2-24h

Dimension



H3Y-4 Time Relay

Features

Used for control of time order
With front-surface and back-surface connecting sockets
LED pilot, display action state

Model Meaning

H3Y - 2/4 10S AC220V

- Voltage AC/DC 24V-380V
- Time range
- Contact 2Z,4Z
- Relay type

H3Y-4 (ST6P)

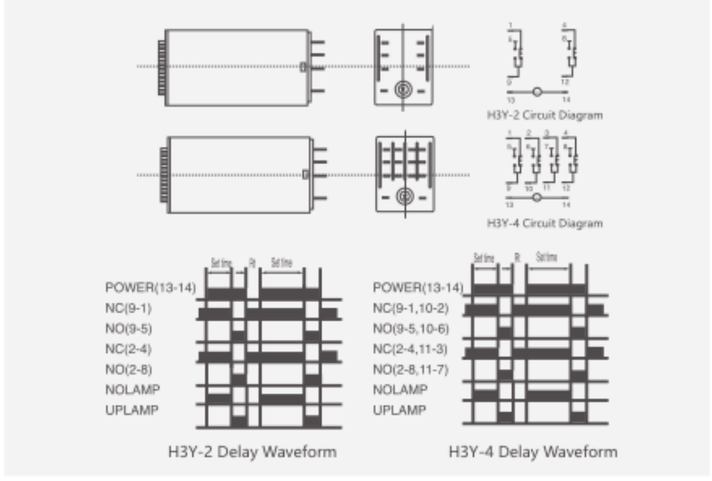
Specification

Item No.	Data
Voltage	DC12V-48V AC24V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	2Z 5A220VAC 4Z 3A220VAC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈50g
Installing Holing Size	22×28mm

Time Range

Rated time	Time range	Rated time	Time range
0.5s	0.05S~0.5S	3m	0.05m~0.5m
1s	0.1S~1S	1m	0.1m~1m
5s	0.5S~5S	5m	0.5m~5m
10s	0.5S~10S	10m	0.5m~10m
30s	1.0S~30S	30m	1m~30m
60s	2.0S~60S	60m	2m~60S
120s	5.0S~120S	120m	0.1h~3h

Dimension



TH3A-YA Time Relay

Features

Used for control of time order
With front-surface and back-surface connecting sockets
LED pilot, display action state

Model Meaning

TH3A - YA 6S AC220V

- Voltage 2-7 AC 220V, 4-7 AC 110V
- Time range
- Operation Instantenous
- Relay type

TH3A-YA

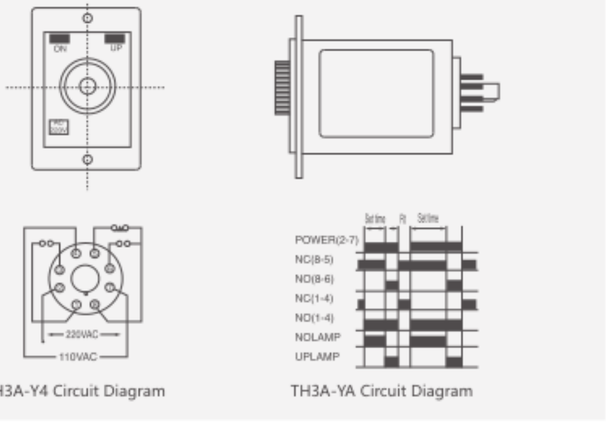
Specification

Item No.	Data
Voltage	2-7 AC220V, 4-7 AC110V
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈160g
Installing Holing Size	40×50mm

Time Range

Rated time	Time range	Rated time	Time range
1s	0.1S~1S	6m	0.3m~6m
2s	0.1S~2S	12m	0.6m~12m
3s	0.1S~3S	30m	1m~30m
6s	0.2S~6S	60m	2m~60m
12s	0.6S~12S	3h	0.1h~3h
60s	2.0S~60S	6h	0.2~6h
2m	5.0S~2m	10h	0.25~10h
3m	0.1m~3m	24h	0.8~24h

Dimension



AH3-3 Time Relay

Features

Used for control of time order
With front-surface and
back-surface connecting sockets
LED pilot, display action state

AH3-3

Model Meaning

AH3 - 1/2/3 6S AC220V

- Voltage DC 12V-48V AC 12V-380V
- Time range
- Operation
  1: 1C On-delay; 2: 2C On-delay; 3: Instantenous
- Relay type

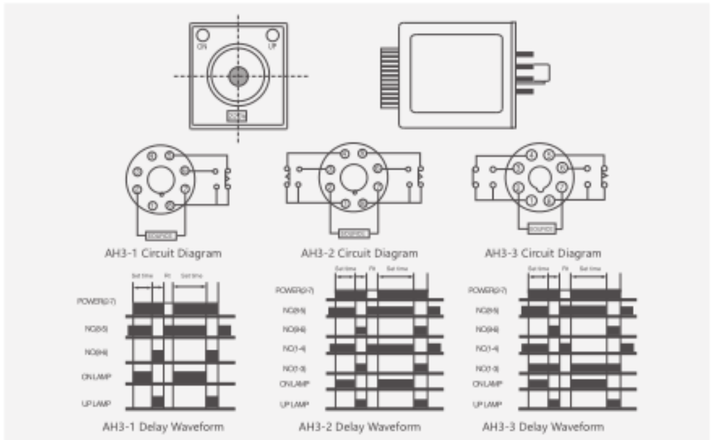
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈160g
Installing Holing Size	40×50mm

Time Range

Rated time	Time range	Rated time	Time range
1s	0.1S~1S	6m	0.3m~6m
2s	0.1S~2S	12m	0.6m~12m
3s	0.1S~3S	30m	1m~30m
6s	0.2S~6S	60m	2m~60m
10s	0.6S~10S	3h	0.1h~3h
30s	1.0S~30S	6h	0.2~6h
60s	2.0S~60S	10h	0.25~10h
2m	5.0S~2m	24h	0.8~24h
3m	0.1m~3m	30h	1~30h

Dimension



AH3-B Time Relay

Features

It's used to definite time.
It contains front-surface,
back-surface, connecting sockets,
LED indicator and action display interface.

AH3-B

Model Meaning

AH3 - B AC220V

- Voltage AC 12V-380V DC 12V-48V
- Time range
- Operation B/1B Power on-delay; 3B Instantenous
- Relay type

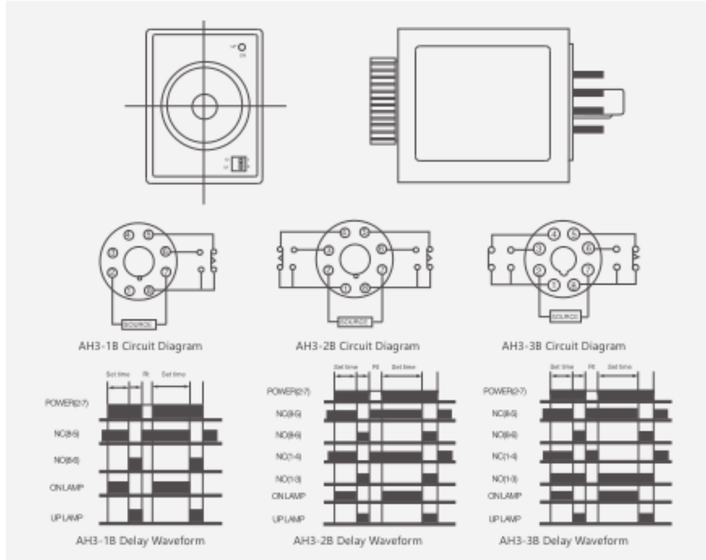
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈100g
Installing Holing Size	40×50mm

Time Range

AH3-A	1S~10M
AH3-B	3S~30M
AH3-C	6S~60M
AH3-D	1M~10H
AH3-E	3M~30H

Dimension



AH3-NB Time Relay

Features

It's used to definite time.
It contains front-surface,
back-surface, connecting sockets,
LED indicator and action display interface.

Model Meaning

AH3 - N B AC220V

- AC220V: Voltage AC 12V-380V DC 12V-48V
- B: Time range
- N: Operation A: Power on-delay; B: Instantenous
- AH3: Relay type

AH3-NB

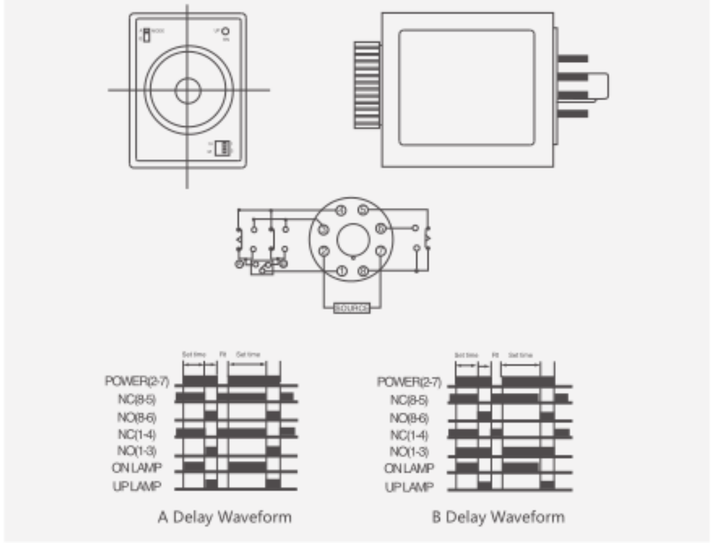
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈100g
Installing Holing Size	50×40mm

Time Range

AH3-NA	1S,1M,10S,10M
AH3-NB	3S,3M,30S,30M
AH3-NC	6M,6M,60S,60M
AH3-ND	1M,10M,1H,10H
AH3-NE	3M,30M,3H,30H

Dimension



A Delay Waveform　　B Delay Waveform

ATDV-Y Time Relay

Features

Used for control of time order
With front-surface and back-surface
connecting sockets
LED pilot, display action state

Model Meaning

ATDV - Y 01 AC220V

- AC220V: Voltage DC 12V-48V AC 12V-380V
- 01: Time range
- Y: Mounting Y:Flush N:Surface
- ATDV: Relay type

ATDV-Y

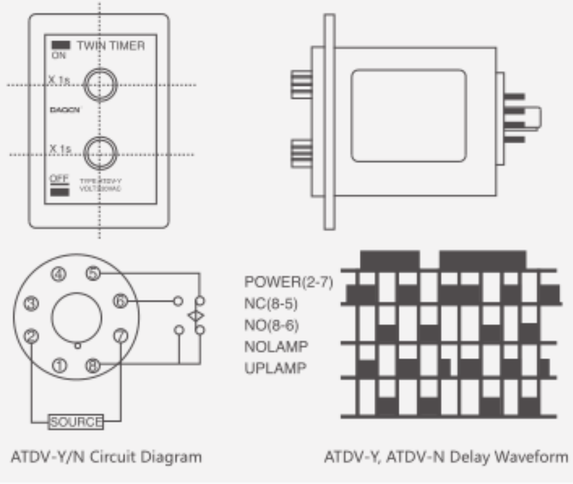
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈210g
Installing Holing Size	50×62mm

Time Range

Type	Time range	Type	Time range
ATDV-Y/N-01	6S*6S	ATDV-Y/N-07	60M*6M
ATDV-Y/N-02	6S*60S	ATDV-Y/N-08	60M*60M
ATDV-Y/N-03	60S*6S	ATDV-Y/N-09	6H*6H
ATDV-Y/N-04	60S*60S	ATDV-Y/N-10	6H*12H
ATDV-Y/N-05	6M*6M	ATDV-Y/N-11	12H*6H
ATDV-Y/N-06	6M*60M	ATDV-Y/N-12	12H*12H

Dimension



ATDV-Y/N Circuit Diagram　　ATDV-Y, ATDV-N Delay Waveform

AH2-N Time Relay

Features

Used for control of time order
With front-surface and back-surface connecting sockets
LED pilot, display action state

Model Meaning

AH2 - N/Y AC220V

- Voltage DC 12V-48V AC 12V-380V
- Mounting Y:Flush N:Surface
- Relay type

AH2-N

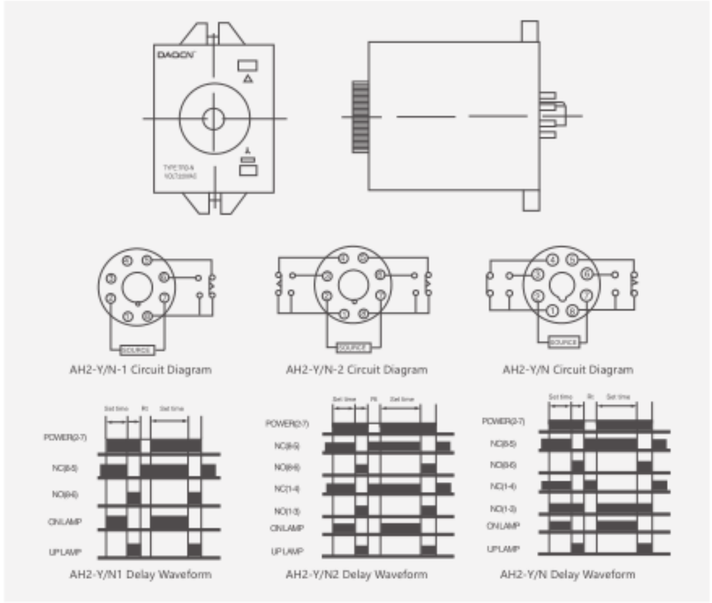
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈210g
Installing Holing Size	50×62mm

Time Range

Unit	Time range
S	1S,3S,6S,12S,30S,60S
M	3M,6M,12M,30M,60M
H	3H,6H,12H,24H

Dimension



ASTP-Y Time Relay

Features

Used for control of time order
With front-surface and back-surface connecting sockets
LED pilot, display action state

Model Meaning

ASTP - Y 2 6S AC220V

- Voltage DC 12V-48V AC 12V-380V
- Time range
- Operation 1:1C On-delay; 2:2C On-delay; 3:Instantenous
- Mounting Y:Flush N:Surface
- Relay type

ASTP-Y

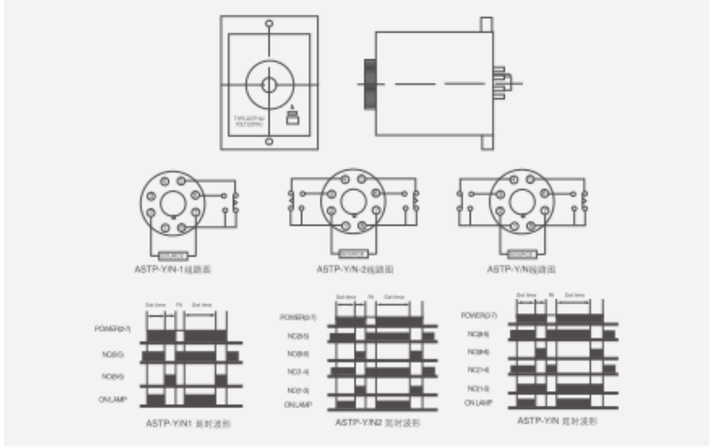
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈220g
Installing Holing Size	50×62mm

Time Range

Rated time	Time range	Rated time	Time range
1s	0.1s~1s	3m	0.1m~3m
2s	0.1s~2s	6m	0.3m~6m
3s	0.1s~3s	12m	0.6m~12m
6s	0.2s~6s	30m	1m~30m
12s	0.6s~12s	60m	2m~60S
60s	2.0s~60s	3h	0.1h~3h
2m	5.0s~1m	6h	0.2h~6h

Dimension



ASY-3D Time Relay

Features

This is the time relay for timing control; the device pulls switch, multiple selection modes and lightweight design.

Model Meaning

ASY - 3D AC220V

- Voltage DC 12V-48V AC 12V-380V
- Time Rating 1D: 1-digit; 2D: 2-digit; 3D: 3-digit
- Relay type

ASY-3D

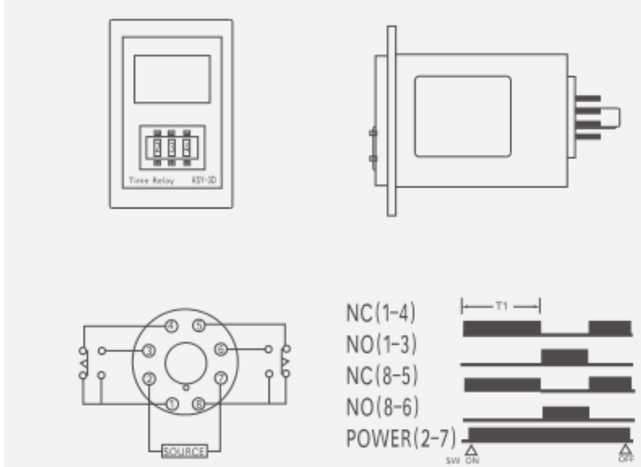
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈150g
Installing Holing Size	50×62mm

Time Range

Item	Time range
ASY-1D	9S/9M/9H
ASY-2D	9.9S/9.9M/9.9H,99S/99M/99H
ASY-3D	99.9S/99.9M/99.9H,999S/999M/999H

Dimension



ASY Circuit Diagram

ST2P-E Time Relay

Features

Used for control of time order
With front-surface and back-surface connecting sockets
LED pilot, display action state

Model Meaning

ST2P - E AC220V

- Voltage DC 12V-48V
  AC 12V-380V
- Operation Power on-delay
- Relay type

ST2P-E

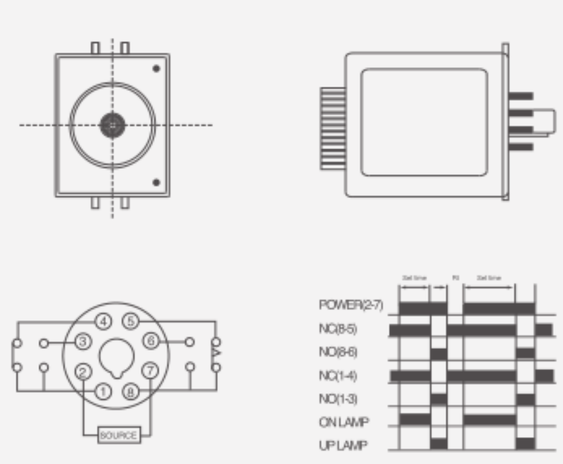
Specification

Item No.	Data
Voltage	DC12V-48V AC12V-380V 50HZ
Power expend	DC1.0W AC1.0VA
Control output	5A 220V AC
Insulation Resistance	DC500V 100MΩ
Dielectric Strength	BCC1500VAC BOC1000VAC
Operating Temperature	-10℃~50℃
Humidity	35%~85%
Life	Mech:10^7 Elec:10^5
Weight	≈50g
Installing Holing Size	40×50mm

Time Range

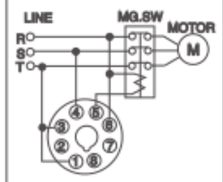
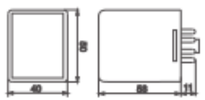
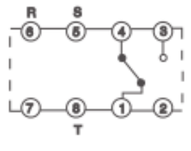
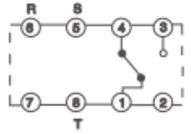
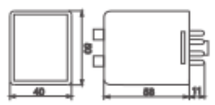
Unit	Time range
S	1S,2S,3S,6S,12S,30S,60S
M	2M,3M,5M,6M,12M,30M,60M
H	3H,6H,12H,24H

Dimension

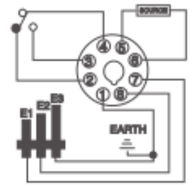
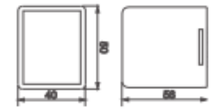
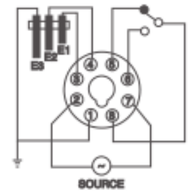
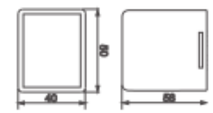
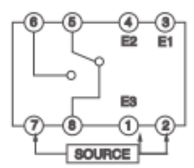
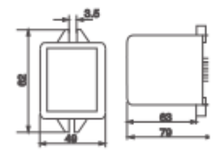


ST2P-E Delay Waveform

Floatless Controller

 APR-3		Voltage	AC220,380V,415V 50/60Hz	Wiring Diagram
		Functions	Protecting three phase induction motor reverse relay 380V source with surge absorber and highn voltage protection	
		Ambient temperature	-10℃ to 55℃	
		Ambient humidity	48 to 85%RH	
 JVM-1		Voltage	AC220,380V,415V 50/60Hz	Wiring Diagram
		Functions	Protecting three phase induction motor reverse relay 380V source with surge absorber and highn voltage protection	
		Ambient temperature	-10℃ to 55℃	
		Ambient humidity	48 to 85%RH	
 JVM-2		Voltage	AC220,380V,415V 50/60Hz	Wiring Diagram
		Functions	Protecting three phase induction motor reverse relay 380V source with surge absorber and highn voltage protection	
		Ambient temperature	-10℃ to 55℃	
		Ambient humidity	-10℃ to 55℃	

Device Protected Relay

 AFS-GR		Voltage	AC 24~380V DC24V	Wiring Diagram
		Contact	1C SPDT	
		Operating temperature	-25 to 40℃	
		Technical parameter	Out put DC12V DC24V Amps DC15mA	
		External dimension (mm)	40×50×58	
 61F-GP		Voltage	AC 24~380V DC24V	Wiring Diagram
		Contact	1C SPDT	
		Operating temperature	-25 to 40℃	
		Technical parameter	Out put DC12V DC24V Amps DC15mA	
		External dimension (mm)	40×50×70	
 AFR-1		Voltage	AC 24~380V DC24V	Wiring Diagram
		Contact	1C SPDT	
		Operating temperature	-25 to 40℃	
		Technical parameter	Out put DC12V DC24V Amps DC15mA	
		External dimension (mm)	49×80×79	

Relay Socket


PYF08A


PYF08A-E


PYF11A


PTF11AK


PYF14A


PYF14A-E


PTF08A


PTF08A-E


PTF14A


PTF14AK


TYPE 90.22


TYPE 90.23


PF083A


PF083A-E


PF113A

Relay Socket


PF113A-E


P2CF-08


8PFA


P3G-08


SOCKET-38F


PF085A


TP28X-A


US-08


US-11


PTF14A-E


PY-08A


PY-14A


13F-2Z-B


Y-57


Y-40