



Kacon Time Relay *Keeping your electricity safe at all times*

TIME RELAY



TTL-FM/TTL-FS

Timer

TTL-F series

Model Naming

TTL-F①

①	Functional Models
M	Multi-function
S	Single function

Characteristics

- TTL-FS has two output relays that can be individually set for different delay times. TTL-FM has 10 adjustable delay modes.
- 10 optional delay range
- Operating voltage: AC/DC 12V~240V
- Relay operating status is indicated by LEDs
- Ultra-compact, only 18mm widths, 35mm Din rail mounted

Product Display

Single-function

TTL-FS Asymmetric Cycle Time Relay



Multi-function

TTL-FM Multi-function Time Relay



Timer

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Technical parameters

	TTL-FS	TTL-FM
Contact load	10A 250VAC/24VDC	10A 250VAC/24VDC
Operating voltage	12-240V DC/AC	12-240V DC/AC
Operating frequency	DC/AC50Hz-60Hz	AC/DC50Hz-60Hz
Operating current	< 30mA	< 60mA
Time delay accuracy	1%	1%
Adjustment accuracy	5%	5%
IP rating	IP20	IP20
Ambient temperature	-20°C~+55°C	-20°C~+55°C
Output method	Asymmetric cycle time relay	Delayed output / cyclic output
Time setting range	0.1S-100d	0.1S-100d

Caution

*TTL-FS asymmetric cyclic relay, 2 changeover contacts 10*19 time, adjustable in the range of 0.1s-100d, with LED indicator ultra-wide voltage input 12-240V DC/AC general purpose. Two sets of knobs are adjustable delay closing time "t1" and delay disconnecting time "t2". TTL-FS time relay is suitable for AC250V and below, or DC24V control circuit as a delay cycle device, the role of the delay "t1" on and delay "t2" off in the cycle circuit, the product has a small size, low power consumption, high precision, wide delay range, rail mounting and so on.

*TTL-FM time relay can be delayed output, and cycle output, two conversion contacts K1 and K2, 10 * 19 kinds of time, in the range of 0.1S-100d adjustable, 10 kinds of output modes can be selected, with LED closure indicator, ultra-wide voltage input operating voltage 12-240V DC/AC universal. TTL-FM time relay is suitable for AC250V and below, or DC24V control circuit as a delay "t" output or cyclic output control device, the product has a small size, low power consumption, high precision, wide delay range, rail mounting and other advantages.

Timer

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Timing View

TTL-FS

<p>Two sets of knobs can adjust the delay time or disconnection time of t1 and t2 respectively, and there are 10*19 kinds of time adjustable in the time range of 0.15-100d. Within the time range of 0.15-100d, there are 10*19 kinds of time adjustable.</p>	<p>The diagram shows a sequence of four time intervals: t1, t2, t1, t2. A1 A2 is active throughout. K1 is active during the first t1 and third t1 intervals. K2 is active during the second t2 and fourth t2 intervals.</p>
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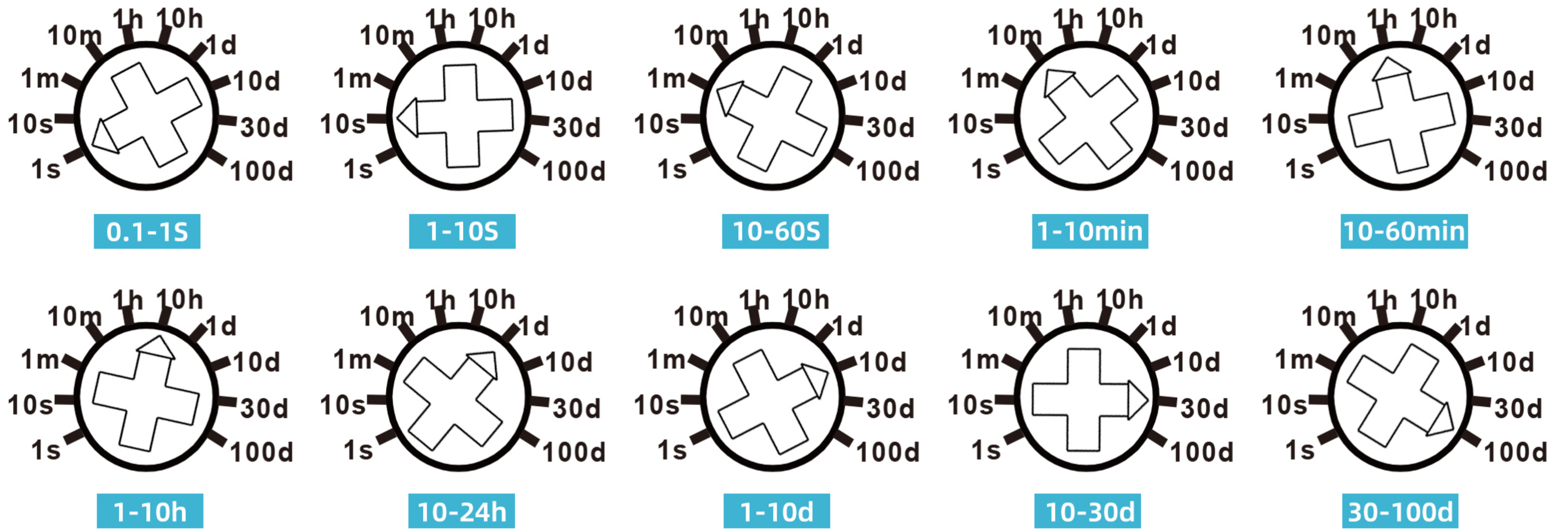
TTL-FM

A	Relay K1 is disconnected after time "t" K1 is engaged, power failure or regulation mode or regulation time re-timing relay K2 does not operate		<p>A1 A2: Time "t" K1: [Active for time 't'] K2: [Inactive]</p>
B	Relay K1 is engaged after time "t" K1 is disconnected, power failure or regulation mode or regulation time re-timing relay K2 does not operate		<p>A1 A2: Time "t" K1: [Inactive for time 't', then Active] K2: [Inactive]</p>
C	Relay K1 is disconnected after time "t" cyclic activation/disconnection, power failure or regulation mode or regulation time re-timing Relay K2 does not operate		<p>A1 A2: Time "t" Time "t" K1: [Active for time 't', disconnected, active for time 't', disconnected] K2: [Inactive]</p>
D	Relay K1 is activated after time "t" and cyclically disconnected/activated, relay K2 is not activated in case of power failure or regulation mode or regulation time re-timing.		<p>A1 A2: Time "t" Time "t" K1: [Active for time 't', disconnected, active for time 't', disconnected] K2: [Inactive]</p>
E	Relay K1 is disconnected, relay K2 is activated, after the time "t" K1 is activated and K2 is disconnected, cycle		<p>A1 A2: Time "t" Time "t" K1: [Inactive for time 't', active for time 't', disconnected] K2: [Active for time 't', disconnected]</p>
F	Relay K1 is active, relay K2 is not active after time "t" K1 is not active, K2 is active, cycle		<p>A1 A2: Time "t" Time "t" K1: [Active for time 't', disconnected, active for time 't', disconnected] K2: [Inactive for time 't', active for time 't', disconnected]</p>
G	The relays K1 and K2 are disconnected at the same time, and after time "t" the relays K1 and K2 are activated, and the cycle is complete.		<p>A1 A2: Time "t" Time "t" K1: [Disconnected for time 't', active for time 't', disconnected] K2: [Disconnected for time 't', active for time 't', disconnected]</p>
H	The relays K1 and K2 are activated at the same time, and after time "t" the relays K1 and K2 are disconnected, and the cycle is complete.		<p>A1 A2: Time "t" Time "t" K1: [Active for time 't', disconnected for time 't'] K2: [Active for time 't', disconnected for time 't']</p>
I	Relay K1 disconnects, relay K2 is active, after time "t" relay K1 closes, K1 cycles, K2 stays active.		<p>A1 A2: Time "t" Time "t" K1: [Disconnected for time 't', active for time 't', disconnected] K2: [Active for time 't', disconnected]</p>
J	Relay K1 is closed, relay K2 is disconnected, after time "t" relay K2 is closed, K2 cycles, K1 stays closed.		<p>A1 A2: Time "t" Time "t" K1: [Active for time 't', disconnected for time 't', active for time 't', disconnected] K2: [Inactive for time 't', active for time 't', disconnected]</p>

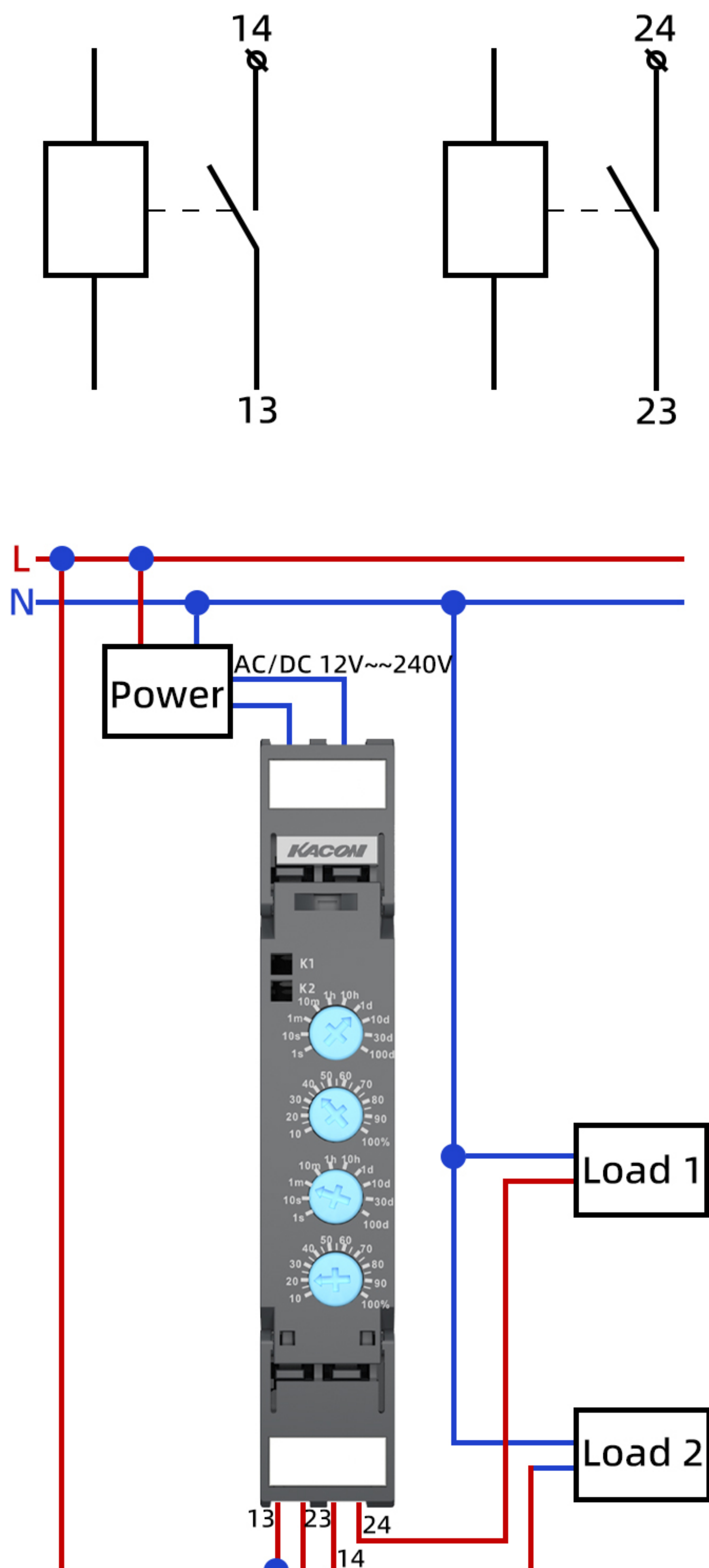
Timer

TTL-F series

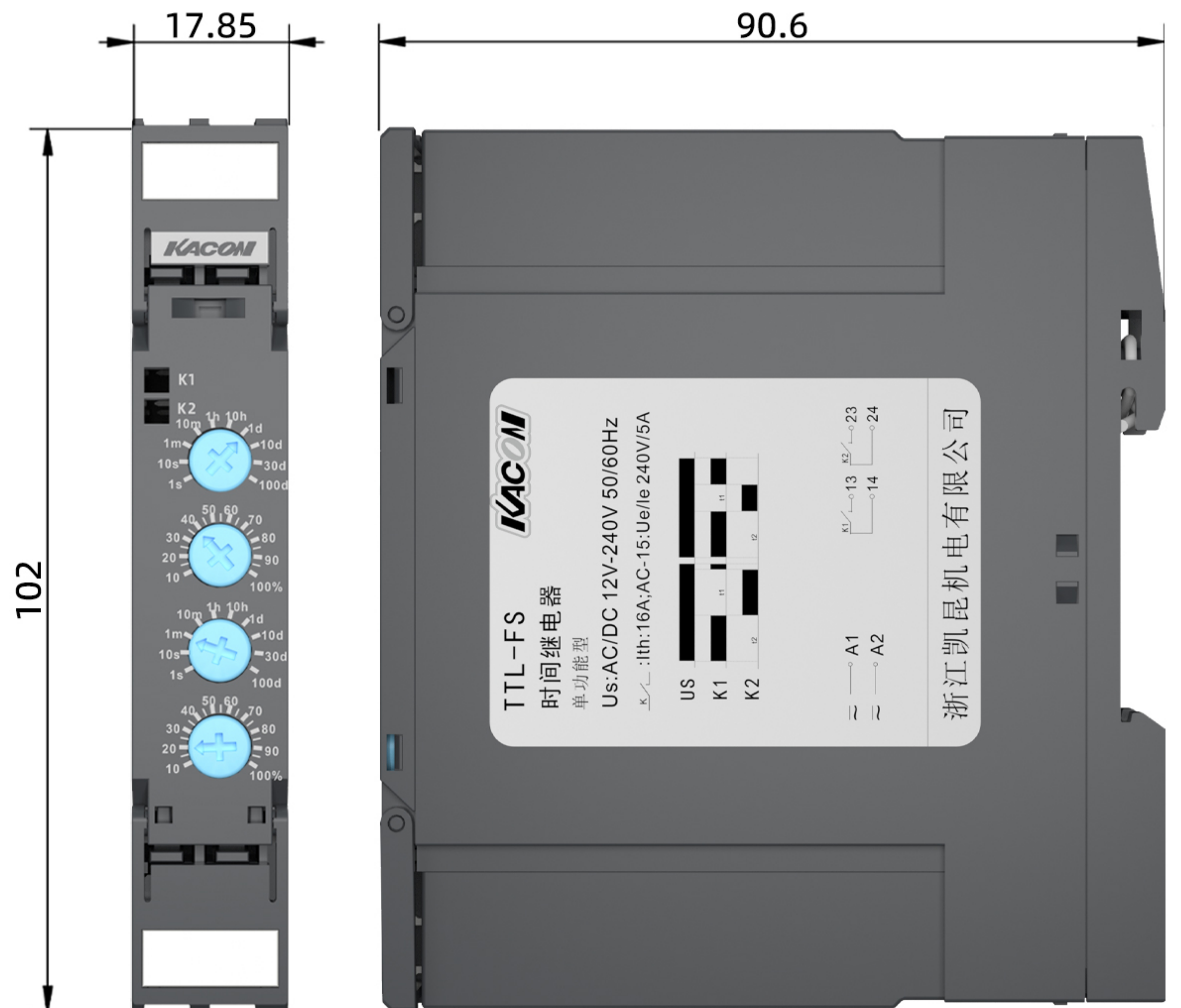
Delay Setting



Wiring Circuit



Dimension



Unit: mm

Timer

TTL-F series

Applications

Multi-function time relays can be used for industrial equipment, lighting control, heating element control, motors, air mechanisms, with 10 delay modes and a delay range covering 0.1 seconds to 100 days.

