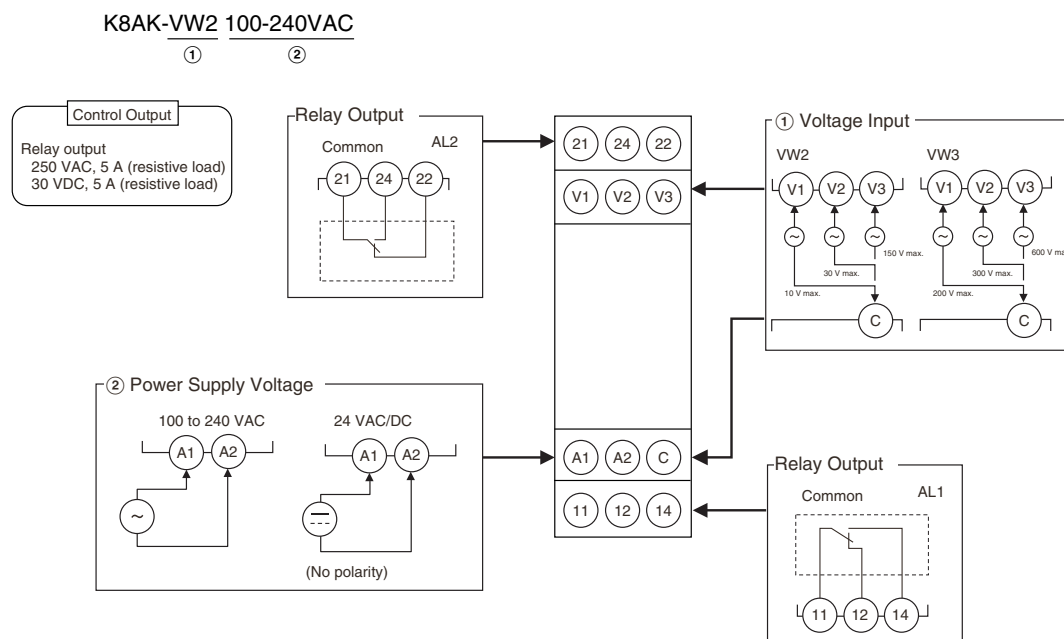


Specifications

Allowable operating voltage range		85% to 110% of rated power supply voltage
Allowable operating frequency range		50/60 Hz ± 5 Hz
Input frequency range		40 to 500 Hz
Overload capacity		Continuous input at 115% of maximum input, 10 s at 125% (up to 600 VAC).
Repeat error	Operating value	$\pm 0.5\%$ full scale (at 25°C and an ambient humidity of 65% at the rated power supply voltage, DC and 50/60 Hz sine wave input)
	Operating time	± 50 ms (at 25°C and 65% humidity, rated power supply voltage)
Applicable standards	Conforming standards	EN 60947-5-1 Installation environment (pollution level 2, installation category III)
	EMC	EN 60947-5-1
	Safety standards	UL 508 (Recognition), Korean Radio Waves Act (Act 10564), CSA: C22.2 No.14, CCC: GB14048.5
Insulation resistance		20 M Ω min. Between all external terminals and the case Between all power supply terminals and all input terminals Between all power supply terminals and all output terminals Between all input terminals and all output terminals
Dielectric strength		2,000 VAC for 1 min Between all external terminals and the case Between all power supply terminals and all input terminals Between all power supply terminals and all output terminals Between all input terminals and all output terminals
Noise immunity		1,500 V power supply terminal common/normal mode Square-wave noise of ± 1 μ s/100 ns pulse width with 1-ns rise time
Vibration resistance		Frequency: 10 to 55 Hz, 0.35-mm single amplitude 10 sweeps of 5 min each in X, Y, and Z directions
Shock resistance		100 m/s ² , 3 times each in 6 directions along 3 axes
Degree of protection		Terminals: IP20

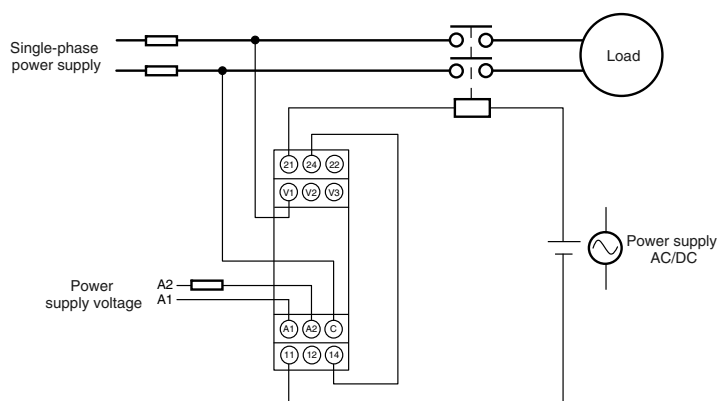
Connections

Terminal Diagram



- Note:**
1. There is no polarity for the DC power supply input.
 2. For the voltage input, you can input only from the C terminal and one other terminal.
 3. Refer to *Setting Ranges and Wiring Connections* for information on the V1, V2, and V3 voltage input terminals.
 4. Use the recommended ferrules if you use twisted wires.

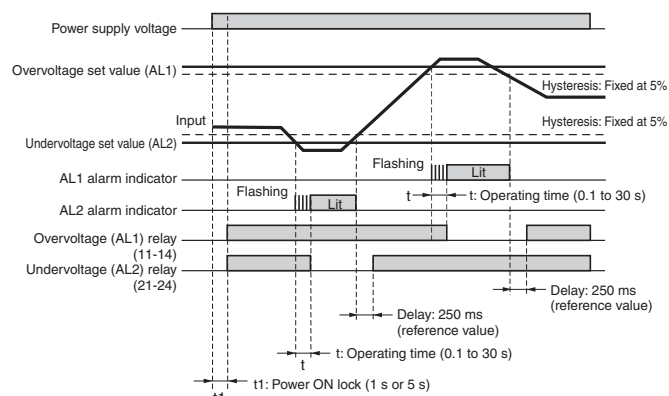
Wiring Example



Timing Charts

● Overvoltage and Undervoltage Operation Diagram

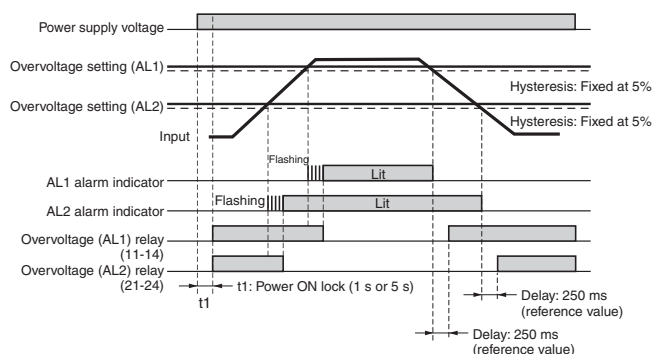
DIP switch settings: SW3 and SW4 both ON or both OFF.



- Note:**
1. The K8AK-VW□ output relay is normally operative.
 2. The power ON lock prevents unnecessary alarms from being generated during the instable period when the power is first turned on. There is no relay output during timer operation.

●Overvoltage and Overvoltage Operation Diagram (Overvoltage Pre-alarm Mode)

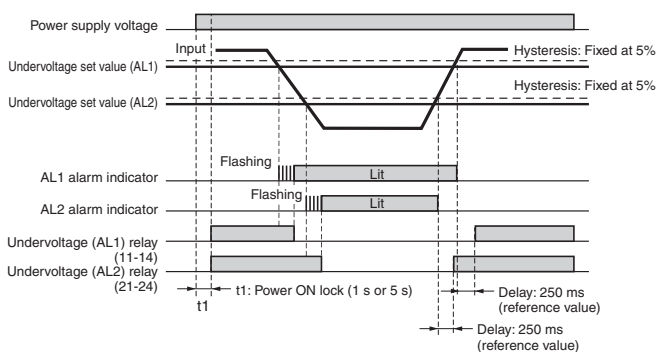
DIP switch settings: SW3 ON and SW4 OFF.



- Note:**
1. The K8AK-VW□ output relay is normally operative.
 2. The power ON lock prevents unnecessary alarms from being generated during the instable period when the power is first turned on. There is no relay output during timer operation.

●Undervoltage and Undervoltage Operation Diagram (Undervoltage Pre-alarm Mode)

DIP switch settings: SW3 OFF and SW4 ON.



- Note:**
1. The K8AK-VW□ output relay is normally operative.
 2. The power ON lock prevents unnecessary alarms from being generated during the instable period when the power is first turned on. There is no relay output during timer operation.