The NRM-Series: Micro Hybrid Contactors

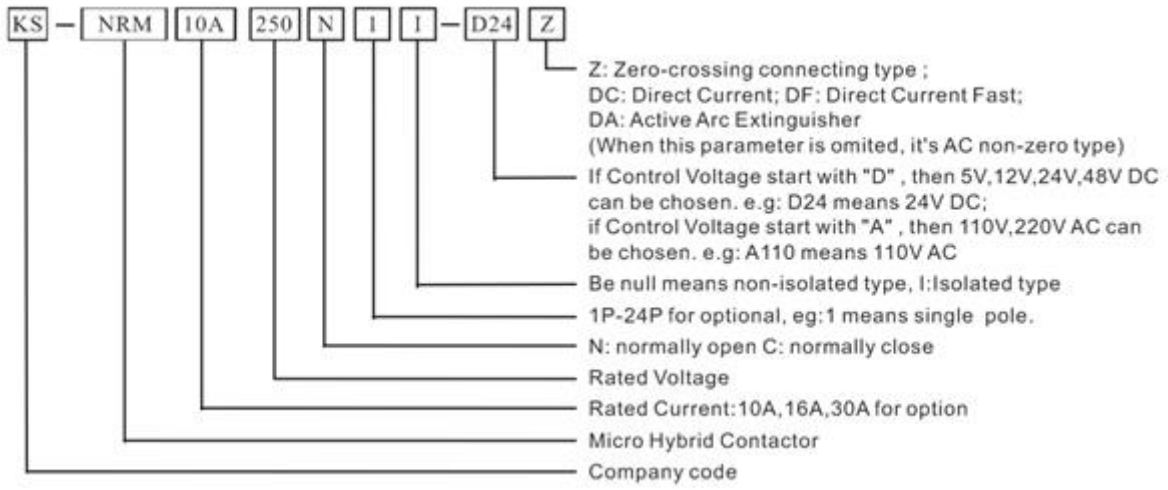
General:

KS-NRM series of micro hybrid contactor(without changing relay) was developed by Kingser to avoid the short electrical lifetime, low current and voltage breaking force, large volume, large drive power consumptions and short operation life of the existing contactors. A product which shows no arcs or only tiny arcs, but with super long electrical lifetime, small volume, strong current and voltage breaking force, which is highly cost effective. It is composed of a relay and a no arc device or active arc extinguisher. It is suitable for switching of low voltage electric heating element, lights, motors, inductors, inverters, switching mode power supply, resistors and other loads. It is a new environmentally friendly low-voltage switch.

Features:

1. The use of the electronic arc extinguishing technologies invented and patented by Kingser results in an extremely short arc elimination time.
2. The electrical life exceeds 10 ~ 1000 times, by currently available relays and contactors. It reduces maintenance and improves system reliability greatly.
3. The built-in mechanical switch is welded, compared to other plug type relay structures, the line loss reduce is above 50% and withstanding of surge current is larger.
4. While the current zero-crossing no breaking over voltage occurs.
5. Small size, light weight.

Product Code:



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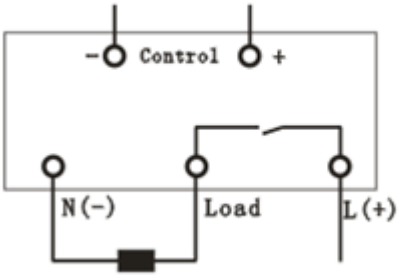
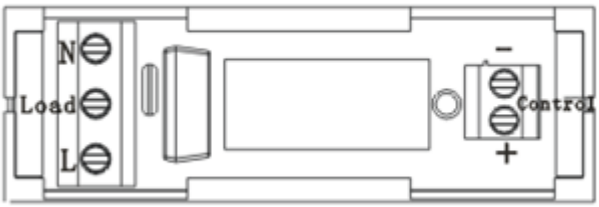
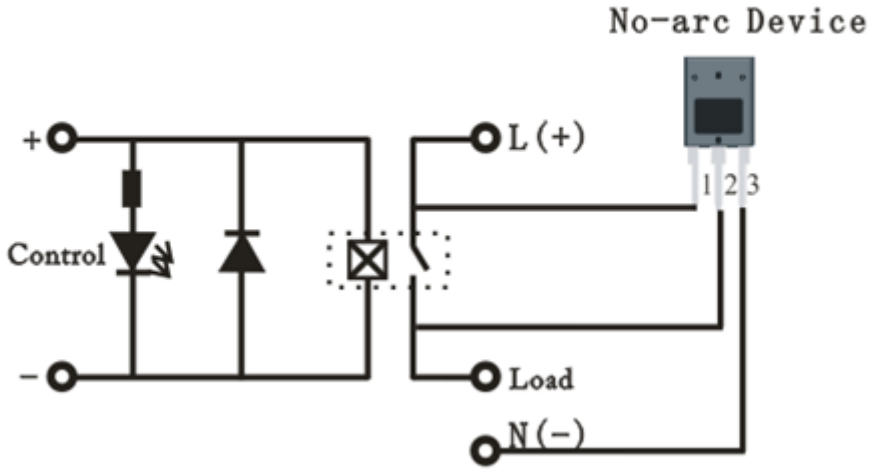
Wiring Diagram:





Schematic Diagram with No-arc device:

During the breaking process of the mechanical switch the no arc device is triggered, when there is a potential difference at the two ends of the mechanical contacts in the moment the mechanical contacts breaks. Then the current is bypassed by the no arc device, to realize the no arc breaking purpose. The working principle is shown below:



Caution: This switch can't be used as isolated switch.

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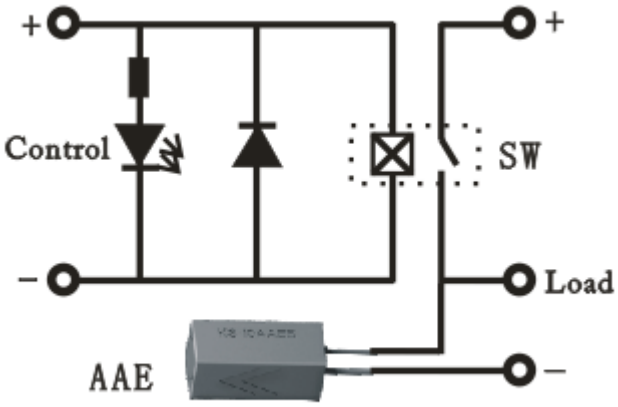
Schematic Diagram with AAE:

AAE is connected with the load in parallel. In the moment of SW breaking the AAE detects arcing or approaching arcing, then it puts out a high energy pulse signal to the load. That causes, that the voltage on both the ends of SW is lower than the arcing voltage, which achieves the arc extinguishing purpose.



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