



*A family of telephone-type DC auxiliary relays with several contact arrangements and operating times.*

### Features and Benefits

- Telephone type unit
- Small molded case
- Front or back connections available
- Surge limiting available

### Applications

- Contact multiplication

### Protection and Control

- Various pickup and dropout times available



## Description

The NGA15 is the general designation for a family of telephone-type DC auxiliary relays mounted in a small molded case similar to HGA relays. These auxiliary relays are available with several different contact arrangements and operating times. All models are continuously rated. Some have a surge limiting diode circuit for the operating coil as noted in the Selection Guide.

## Application

The NGA15U, 15AG and 15AK are general purpose auxiliary relays. They include a diode combination in parallel with the coil circuit to limit the magnitude of the voltage surges that can be developed when the coil circuit is interrupted. Such an arrangement makes these relays suitable for application in control and relaying circuits where blocking rectifiers are used and supplied from the same DC source as the relay.

The NGA15J is a long-time delay relay for pickup and dropout but does not include a surge limiting diode circuit.

The NGA15AA, 15AH and 15AJ relays were specifically designed to initiate automatic reclosing (RI) in a protective relay scheme. These relays are surge limited and may be used in many other applications.

The NGA15Q and 15X are general purpose highspeed auxiliary relays and are not surge limited.

## Ratings

The NGA15 relays listed include the necessary resistors for the coil circuits where needed. These resistors are usually mounted inside the relay case. For some of the continuously rated models, an external resistor is required and these models are identified in the Selection Guide by “¿”

## Voltage Rating

The NGA relays have been designed and assembled with components to give a pickup of 80 percent or less of rated voltage and to give the required operating times at rated voltage. The operating voltage range is 80 to 112 percent of nominal DC rating.

## Contact Rating

The relay contacts will close and carry 30 A DC momentarily for tripping duty at control voltages of 250 VDC or less. These contacts will carry 3 A continuously and have an interrupting rating as given in Table 1.

Table 1. Interrupting ratings

Volts	Amps Inductive <sup>ⓐ</sup>	Amps Non-Inductive
48 VDC	1.0	3.0
125 VDC	0.5	1.5
250 VDC	0.25	0.75
115 V, 60 Hz	0.75	2.0
230 V, 60 Hz	0.5	1.0

<sup>ⓐ</sup>Inductance of average trip coil

## Selection Guide

Continuous DC Rating (V)	Pick-up Time (ms)	Drop-out Time (ms)	Model Number		Contact Arrangement	Case Size	Approx. Wt. in lbs (kg)		
			Back Conn. Surface Mtd. <sup>Ⓜ</sup> with Solid Cover	Front Conn. Surface Mtd. with Glass Window Cover			Net	Ship	
<b>SURGE LIMITED</b>									
110 125 220 250	8	8	NGA15U4 <sup>Ⓜ</sup> U2 <sup>Ⓜ</sup> U3 <sup>Ⓜ</sup> U5 <sup>Ⓜ</sup>	---- ---- ---- ----		Molded <sup>Ⓢ</sup>	3 (1.40)	4 (1.8)	
48 125 250	8	8	NGA15AK3 <sup>Ⓜ</sup> AK2 <sup>Ⓜ</sup> AK1 <sup>Ⓜ</sup>	NGA15AG2 <sup>Ⓜ</sup> AG1 <sup>Ⓜ</sup> ----					
48 125 220 250	8	32	NGA15AK6 AK4 AK7 AK5	NGA15AG4 AG3 ---- ----			2 (0.9)	3 (1.4)	
48 125 250	16	116-167	NGA15AH3 AH1 AH2 <sup>Ⓜ</sup>	---- NGA15AA3 AA4 <sup>Ⓜ</sup>			3 (1.4)	4 (1.8)	
125	16	116-167	NGA15AJ1 <sup>Ⓜ</sup>	----			3 (1.4)	4 (1.8)	
75 125 125 125 125 125 250	50 8 28-38 50-55 80-120 90-110 50-55	250 100 220-300 — 60-90 60 —	NGA15A28 A21 A34 A33 A30 A32 ----	---- NGA15L6 ---- L5 ---- ---- L7			2 (0.9)	3 (1.4)	
<b>NOT SURGE LIMITED</b>									
125 220 250	4	4	NGA15Q5 <sup>Ⓜ</sup> Q6 <sup>Ⓜ</sup> Q4 <sup>Ⓜ</sup>	NGA15X2 <sup>Ⓜ</sup> ---- ----			Molded <sup>Ⓢ</sup>	3 (1.4)	4 (1.8)
48 125 250	60-70	16	NGA15J6 J5 J4	---- ---- ----					

<sup>Ⓜ</sup>Model number includes external resistor.

<sup>Ⓜ</sup>Add suffix "F" for semi-flush mounting with glass window cover.

<sup>Ⓢ</sup>Molded case construction similar to the HGA.