





## Molded Case Circuit Breakers and Disconnect Switches Auxiliary Contacts for NZM12-...

Contacts	Type Suffix	Price
N.O. = normally open N.C. = normally closed	Article No. when ordering with basic device	see price list
N.O.      N.C.		
<b>Standard auxiliary contacts <sup>1)</sup></b>		
 2      2	<b>+NHI22-NZM12</b> 013272	
<b>Early-make auxiliary contacts</b>		
 2      1	<b>+VHI21-NZM12</b> 015645	
<b>Handle-operated early-make auxiliary contacts</b>		
 2      1	<b>+AHI21-NZM12</b> 018018	
<b>Trip-indicating auxiliary contacts</b>		
 2      1	<b>+RHI21-NZM12</b> 020391	

### Notes

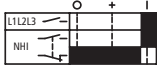
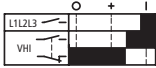
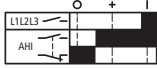
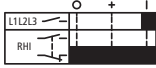
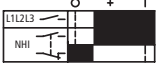
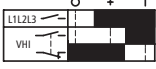
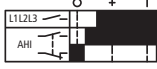
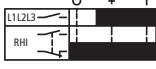
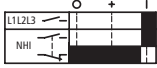
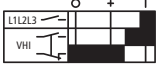
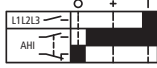
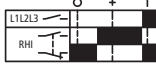
Combination possibilities of auxiliary contacts:<sup>1)</sup>

	NHI	VHI	AHI	RHI
N12	●	●	-	●
	●	-	●	●
NZM12-....	○	●	-	●
	○	-	●	●

Dots in each row represent the types which can be combined together. Dashes indicate incompatibility. ○ indicates standard equipment

<sup>1)</sup>NHI22-NZM12 auxiliary contact comes standard with all versions of the NZM12-.../ZM12-...-NA molded case circuit breakers. It is an optional accessory only for the non-automatic N12-...-CNA disconnect switches and must be ordered with the device if desired.



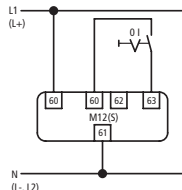
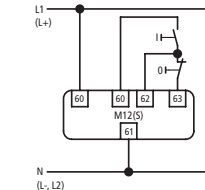

Auxiliary contacts must be ordered with device.

	NHI	VHI	AHI	RHI
	NHI standard auxiliary contacts operate simultaneously with the main contacts.  Typically used for signalling or switching auxiliary circuits such as a control circuit.	VHI early make auxiliary contacts lead the main contacts when switching ON as well as switching OFF.  Typically used for load shedding purposes or in conjunction with voltage trips in control circuits.	AHI handle operated early-make auxiliary contacts operate in advance of the main contacts, shortly after the handle has left the OFF position.  Typically used to convert the manual actuation of the switch into a control function for circuit interlocking purposes.	RHI trip-indicating auxiliary contacts work independently of the normal ON and OFF operations of the device, switching only when the device has tripped due to overloads, over-currents or other tripping functions such as voltage trips.
Position of auxiliary contacts	Same as main contacts	Same contact position in both OFF and Tripped position of the device	Same contact position in both ON and Tripped position of the device	Operates only when device is tripped
Main contacts ■ closed □ open				
Switching ON ○ →				
Switching OFF ○ ←				
Tripped position + ←				

## Molded Case Circuit Breakers and Disconnect Switches

### Voltage Trips, Motor Operators for NZM12-...





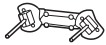
Circuit Breakers, Disconnect Switches, Molded Case Switches

Rated Control Voltage	Type Suffix	Price	Notes	
V/Hz	to be ordered with device only Article No.	see price list		
<b>Shunt trips</b>  100% continuous duty rating				
AC	120V 60Hz	<b>+A-NZM12(120V60HZ)</b> 050365	Shunt trips are typically used to electrically trip the device from a remote location  Automatic disconnection of the shunt trip can be achieved by using the NHI auxiliary contact ahead in series with the shunt trip coil Cannot be mounted together with undervoltage trips	
	208V 60Hz	<b>+A-NZM12(208V60HZ)</b> 050482		
	240V 60Hz	<b>+A-NZM12(240V60HZ)</b> 050810		
	480V 60Hz	<b>+A-NZM12(480V60HZ)</b> 051098		
	600V 60Hz	<b>+A-NZM12(600V60HZ)</b> 052204		
DC	24V	<b>+A-NZM12(24VDC)</b> 052324		Intermittent operation requires coil clearing auxiliary contact <b>+NHI22-NZM12</b>
<b>Undervoltage trips, non-delayed</b>  Continuous duty rating .				
AC	120V 60Hz	<b>+U-NZM12(120V60HZ)</b> 050812	Undervoltage trips will electrically trip the device open under power loss and can be used for control interlocking purposes, e.g. to disconnect the main switch in Emergency-Stop circuits.  Power can be applied to the undervoltage trip using VHI early-make auxiliary contacts in series with the undervoltage trip coil. Cannot be mounted together with shunt trips	
	208V 60Hz	<b>+U-NZM12(208V60HZ)</b> 051111		
	240V 60Hz	<b>+U-NZM12(240V60HZ)</b> 051200		
	480V 60Hz	<b>+U-NZM12(480V60HZ)</b> 052213		
	600V 60Hz	<b>+U-NZM12(600V60HZ)</b> 052261		
DC	24V	<b>+U-NZM12(24VDC)</b> 052349		
<b>Motor operator</b> Closing time on receipt of signal $\leq 30$ ms				
AC	120V 60Hz	<b>+M12(120V60HZ)</b> 088756	Can only be supplied with device. With three-wire control, manual operation possible with handle.   Continuous contact (min. 1.5 s)	
	208/220V 60Hz	<b>+M12(208/220V60HZ)</b> 078384		
DC	60V	<b>+M12(60VDC)</b> 083130		 Pulsed contact
	110/125V	<b>+M12(110/125VDC)</b> 087876		
	220/240V	<b>+M12(220/240VDC)</b> 090249		
<b>Motor operator for quick-acting switches</b>				
AC	120V 60Hz	<b>+M12S(120V60HZ)</b> 036551	Can only be supplied with device. Closing release supplied as standard. Suitable only for short-time operation of up to 1 s. Can also be achieved using NHI22 + VHI21 auxiliary contacts   Note load capacity of contacts.	
	208/220V 60Hz	<b>+M12S(208/220V60HZ)</b> 000076		

Note:

1) Voltage trips and motor operators must be ordered with the device.

## Molded Case Circuit Breakers and Disconnect Switches Accessories for NZM12-...

Color of handle	for use with	Type Suffix Article No. when ordered with basic device	Type Article No. when ordered separately <sup>1)</sup>	Price see price list
<b>Handle for open or panel mounted devices</b>				
Fastens to shaft, not padlockable				
				
gray	NZM12-... N12...	<b>+H12U</b> 051272	<b>H12U</b> 052850	
black	NZM12-... N12...	<b>+H12U-SW</b> 061727	<b>H12U-SW</b> 034173	
<b>Handle for cover/door interlocking</b>				
Degree of protection UL/NEMA 3R, 12; IEC IP 55 Door coupling rotary handle. For front mounting in doors and covers. Can be locked in the OFF position with up to 3 padlocks (hasp thickness 6 - 8mm). Door/cover interlocking supplied standard set in OFF position. Can be field modified for setting in ON position. 3 distinct handle positions: OFF - + (tripped) - ON				
				
gray	NZM12-... N12...	<b>+H12-NA</b> 005341	<b>H12-NA</b> 048104	
black	NZM12-... N12...	<b>+H12-SW-NA</b> 106020	<b>H12-SW-NA</b> 088863	
for Emergency-Stop function red-yellow	NZM12-... N12...	<b>+RH12-NA</b> 094919	<b>RH12-NA</b> 088571	
<b>Extension shaft</b>				
Mounting depth 240–400 mm. Extends shaft length by 183 mm. Only one extension shaft permitted. Can also be used with mechanical interlock.				
				
	NZM12-... N12...	<b>+A-NZM12</b> 041780	<b>A-NZM12</b> 081221	
<b>Switch position indicator</b>				
indicates position of switch when panel door is open				
	NZM12-... N12...	<b>+SA-NZM12</b> 039407	<b>SA-NZM12</b> 038748	
<b>Maintenance handle</b>				
To actuate the device when the panel door is open				
				
	NZM12-... N12...	<b>+H12UZ</b> 065794	<b>H12UZ</b> 047427	
<b>Mechanical interlock</b>				
				
	For mechanical interlocking of two devices, mounted side by side. Requires two handles, one for each switch. Order separately.	NZM12-... N12...	-	<b>KV-2NZM12</b> 062372
	For mechanical interlocking of two devices, not mounted side by side. Requires two handles, one for each switch. Order separately.	NZM12-... N12...	-	<b>KVA-2NZM12</b> 078983
Possible switch positions KVA-3NZM12	For mechanically interlocking two main incomers with one emergency supply device, e.g. in emergency power supply systems. Handles ordered separately.	NZM12-... N12...	-	<b>KVA-3NZM12</b> 086102
Mains 1    Emergency    Mains 2	0 = Off V = interlocked 1 = On			
0    0    0				
1    V    0				
1    V    1				
0    V    1				
0    0    0				
V    1    V				



Notes:

<sup>1)</sup> Accessories are field installable

## Molded Case Circuit Breakers and Disconnect Switches

### Accessories for NZM12-...

Circuit Breakers, Disconnect Switches, Molded Case Switches

Color of handle	for use with	Type Suffix Article No. when ordered with basic device	Type Article No. when ordered separately <sup>1)</sup>	Price see price list
<b>Rear operation shafts</b>				
For side panel mounting where device is only accessible from the rear (e.g. sides of enclosure panels). Must be combined with H...R rear operation handle. Factory installed only. Order with device				
	NZM12-... N12...	<b>+R-NZM12</b> 002968	-	
<b>Operating handle for rear operation</b>				
Used with rear operation shaft. Degree of protection UL/NEMA 3R, 12; IEC IP 55 Can be locked in the OFF position with up to 3 padlocks (hasp thickness 6 - 8mm). No cover/door interlocking provisions. 3 distinct handle positions: OFF - + (tripped) - ON				
				
gray	NZM12-... N12...	<b>+H12-R-NA</b> 005342	<b>H12-R-NA</b> 057178	
black	NZM12-... N12...	<b>+H12-R-SW-NA</b> 106019	<b>H12-R-SW-NA</b> 201667	
for Emergency-Stop functions red-yellow	NZM12-... N12...	<b>+RH12-R-NA</b> 094950	<b>RH12-R-NA</b> 066670	
<b>Legend plate (for mounting with operating handle)</b>				
Silver-colored				
				
Specify desired text Black lettering; height of letters 3.5, 5 and 7mm	NZM12-... N12...	<b>+ZSSOND-NZM12</b> 044153	<b>ZSSOND-NZM12</b> 072103	
Blank for engraving or printing	NZM12-... N12...	<b>+ZS60-NZM12</b> 063137	<b>ZS60-NZM12</b> 057794	
<b>Main disconnect warning plate</b>				
Silver-colored, black lettering, English inscription: "Main Switch - Open only in OFF Position"				
English	NZM12-... N12...	<b>+ZS62-NZM12</b> 022807	<b>ZS62-NZM12</b> 075008	
French		<b>+ZS63-NZM12</b> 025180	<b>ZS63-NZM12</b> 077381	
For other languages, see below <sup>2)</sup>		<b>+ZS...-NZM12</b> 957298	<b>ZS...-NZM12</b> 915215	

**Notes:** <sup>1)</sup> Accessories shown in this column are field installable

<sup>2)</sup> Engraved main disconnect warning plates are available in the following languages:

61 German	68 Italian	73 Romanian	78 Czech
64 Bulgarian	69 Greek	74 Russian	79 Turkish
65 Danish	70 Norwegian	75 Swedish	80 Hungarian
66 Finnish	71 Polish	76 Serbo-Croatian	81 Afrikaans
67 Dutch	72 Portuguese	77 Spanish	

Insert language key number into type number

**Example:**  
Warning plate in Italian language:  
ZS 68-NZM 12

**Molded Case Circuit Breakers and Switches**

## Accessories for NZM12-...

	<b>Type Suffix</b> Article No. when ordered with basic device	<b>Type</b> Article No. when ordered separately	<b>Price</b> see price list
<b>Control circuit tap-off terminals</b> Supplementary terminals attached to main terminals. 3 connections top and bottom. Factory addition only, must be ordered with device	+ST 052918	—	
<b>Terminal cover</b> Provides shock hazard protection in the area of the field wiring power terminals. Can be used at top or bottom, one cover per side. Mandatory requirement on the supply side of main disconnect switches to provide protection against accidental contact with line side feed.	+H-NZM12 065510	<b>H-NZM12</b> 083696	
<b>Test unit for NZM12 circuit breakers</b> Supply terminal voltage can be selected from 120/220/240V, 50/60Hz. The portable test unit can be used to verify that the long time, instantaneous and short time delayed tripping characteristics of the circuit breaker are operating as per preset values. Various test voltages simulate a short circuit or an overload condition which would cause the circuit breaker to trip out. All measuring and connection leads, as well as operating instructions, are supplied with the unit.	—	<b>PG-NZM</b> 210525	