





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.		
Standard auxiliary contacts ¹⁾		
 2 2	+NHI22-NZM12 013272	
Early-make auxiliary contacts		
 2 1	+VHI21-NZM12 015645	
Handle-operated early-make auxiliary contacts		
 2 1	+AHI21-NZM12 018018	
Trip-indicating auxiliary contacts		
 2 1	+RHI21-NZM12 020391	

Notes

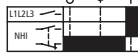




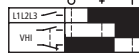






Combination possibilities of auxiliary contacts:¹⁾

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

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



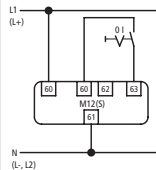

¹⁾NHI22-NZM12 auxiliary contact comes standard with all versions of the NZM12-.../ZM12-...-NA molded case circuit breakers. It is an optional accessory only for the non-automatic N12-...-CNA disconnect switches and must be ordered with the device if desired.

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 ■ closed □ open				
Switching ON ○ →				
Switching OFF ○ ←				
Tripped position + ←				

Molded Case Circuit Breakers and Disconnect Switches

Voltage Trips, Motor Operators for NZM12-...






Rated Control Voltage V/Hz	Type Suffix to be ordered with device only Article No.	Price see price list	Notes
Shunt trips  100% continuous duty rating			
AC	120V 60Hz	+A-NZM12(120V60HZ) 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	+A-NZM12(208V60HZ) 050482	
	240V 60Hz	+A-NZM12(240V60HZ) 050810	
	480V 60Hz	+A-NZM12(480V60HZ) 051098	
	600V 60Hz	+A-NZM12(600V60HZ) 052204	
DC	24V	+A-NZM12(24VDC) 052324	
Undervoltage trips, non-delayed  Continuous duty rating .			
AC	120V 60Hz	+U-NZM12(120V60HZ) 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	+U-NZM12(208V60HZ) 051111	
	240V 60Hz	+U-NZM12(240V60HZ) 051200	
	480V 60Hz	+U-NZM12(480V60HZ) 052213	
	600V 60Hz	+U-NZM12(600V60HZ) 052261	
DC	24V	+U-NZM12(24VDC) 052349	
Motor operator Closing time on receipt of signal ≤ 30 ms			
AC	120V 60Hz	+M12(120V60HZ) 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	+M12(208/220V60HZ) 078384	
DC	60V	+M12(60VDC) 083130	
	110/125V	+M12(110/125VDC) 087876	
	220/240V	+M12(220/240VDC) 090249	
Motor operator for quick-acting switches			
AC	120V 60Hz	+M12S(120V60HZ) 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	+M12S(208/220V60HZ) 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 sepa- rately ¹⁾	Price see price list
Handle for open or panel mounted devices				
Fastens to shaft, not padlockable				
				
gray	NZM12... N12...	+H12U 051272	H12U 052850	
black	NZM12... N12...	+H12U-SW 061727	H12U-SW 034173	
Handle for cover/door interlocking				
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...	+H12-NA 005341	H12-NA 048104	
black	NZM12... N12...	+H12-SW-NA 106020	H12-SW-NA 088863	
for Emergency-Stop function	NZM12... N12...	+RH12-NA 094919	RH12-NA 088571	
Extension shaft				
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...	+A-NZM12 041780	A-NZM12 081221	
Switch position indicator				
indicates position of switch when panel door is open				
	NZM12... N12...	+SA-NZM12 039407	SA-NZM12 038748	
Maintenance handle				
To actuate the device when the panel door is open				
				
	NZM12... N12...	+H12UZ 065794	H12UZ 047427	
Mechanical interlock				
				
	For mechanical interlocking of two devices, mounted side by side. Requires two handles, one for each switch. Order separately.	NZM12... N12...	-	KV-2NZM12 062372
	For mechanical interlocking of two devices, not mounted side by side. Requires two handles, one for each switch. Order separately.	NZM12... N12...	-	KVA-2NZM12 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...	-	KVA-3NZM12 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:

¹⁾ Accessories are field installable

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 ¹⁾	Price see price list
Rear operation shafts				
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...	+R-NZM12 002968	-	
Operating handle for rear operation				
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...	+H12-R-NA 005342	H12-R-NA 057178
	black	NZM12-... N12...	+H12-R-SW-NA 106019	H12-R-SW-NA 201667
for Emergency-Stop functions	red-yellow	NZM12-... N12...	+RH12-R-NA 094950	RH12-R-NA 066670
Legend plate (for mounting with operating handle)				
Silver-colored				
				
Specify desired text Black lettering; height of letters 3.5, 5 and 7mm	NZM12-... N12...	+ZSSOND-NZM12 044153	ZSSOND-NZM12 072103	
Blank for engraving or printing	NZM12-... N12...	+ZS60-NZM12 063137	ZS60-NZM12 057794	
Main disconnect warning plate				
Silver-colored, black lettering, English inscription: "Main Switch - Open only in OFF Position"				
English	NZM12-... N12...	+ZS62-NZM12 022807	ZS62-NZM12 075008	
French		+ZS63-NZM12 025180	ZS63-NZM12 077381	
For other languages, see below ²⁾		+ZS...-NZM12 957298	ZS...-NZM12 915215	

Notes: ¹⁾ Accessories shown in this column are field installable

²⁾ 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-...

	Type Suffix Article No. when ordered with basic device	Type Article No. when ordered separately	Price see price list
Control circuit tap-off terminals Supplementary terminals attached to main terminals. 3 connections top and bottom. Factory addition only, must be ordered with device	+ST 052918	–	
Terminal cover 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	H-NZM12 083696	
Test unit for NZM12 circuit breakers 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.	–	PG-NZM 210525	