## Product Range Catalogue | 2006

Switching, protection, communication the new NZM1-4 circuit-breaker series up to 1200 A

## xEnergy

Reliable and safely controlling, switching and managing power. In industry, in buildings and in machine construction. Innovative protection concepts With built-in diagnostics and communication functions.


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## $\rightarrow 24$

Circuit-breakers for North America 1
Rated uninterrupted current up to 1200 A
Switching capacity $25,35,42,85,100 \mathrm{kA}$ at 480 V
Adjustable releases for overload and short-circuit
Adjustable time selectivity
Earth-fault protection
Protection of systems, cables, motors,

## generators

3 pole version,
UL489/CSA5, IEC 60947

## $\rightarrow 6$

Circuit-breakers without overcurrent 1 protection for North America
Rated uninterrupted current up to 1200 A
Remotely tripped, with undervoltage or shunt release
3 pole version, UL489/CSA5
$\rightarrow 20$

| Disconnect switches for <br> North America | 1 |
| :--- | :--- |
| Rated uninterrupted current up to 1200 A |  |
| Remotely tripped disconnect switches with <br> undervoltage or shunt release |  |
| 3 pole version, UL489/CSA5, IEC 60947 |  |
| $\rightarrow 21$ |  |


| Add-on functions |  |
| :---: | :---: |
| Standard auxiliary contact | 11 |
| Switching with the main contacts Used for indication and interlocking tasks |  |
| Trip-indicating auxiliary contact General indication of tripping with trip due to overload or short-circuit as well as voltage release | $\sim^{11}$ |
| Early-make auxiliary contacts <br> For interlocking and load shedding circuits, as well as for early make of the undervoltage release in main switch/ Emergency-stop applications | ${ }^{25}$ |
| $\rightarrow 24$ |  |
| Voltage releases | 25 |
| Undervoltage release <br> - Non-delayed <br> - OFF-delayed |  |
| Shunt release |  |
| $\rightarrow 26$ |  |
| Spacers | 10 |
| $\rightarrow 60$ |  |
| Delay unit for undervoltage releases | 26 |
| $\rightarrow 50$ |  |
| Door coupling rotary handle | 13,15 |
| - Lockable <br> - With door interlock |  |
| $\rightarrow 50$ |  |
| Main switch rotary handle for side panel mounting | 12 |
| $\rightarrow 56$ |  |
| Extension shaft | 14 |
| Can be cut to required length. |  |
| $\rightarrow 50$ |  |
| Rotary handle | 16 |
| Lockable |  |
| $\rightarrow 54$ |  |
| Remote operator | 19 |
| For ON and OFF switching and resetting by means of 2 -wire or 3 -wire control. |  |
| $\rightarrow 62$ |  |
| Toggle lever interlock device | 20 |
| $\rightarrow 60$ |  |
| Flange Operator | 21 |
| In preparation |  |
| Data Management Interface (DMI Module) | 22 |
| Access to diagnostics and operational data |  |
| Recording of current values |  |
| Parameterization and control of the circuitbreakers with electronic releases |  |
| $\rightarrow 88$ |  |
| EASY-LINK-DS data plug | 23 |
| $\rightarrow$ see main Moeller catalogue for industrial switchgear |  |
| PROFIBUS-DP interface | 24 |
| $\rightarrow 88$ |  |


| Mounting accessories |  |
| :--- | :--- |
| Control circuit terminal |  |
| For two terminals at top or bottom |  |
| NZM1 $\rightarrow 68$ |  |
| NZM2 $\rightarrow 72$ |  |
| NZM3 $\rightarrow 76$ |  |
| NZM4 $\rightarrow 86$ |  |
| Tunnel terminals for Al and Cu cable | 5 |
| Standard with control circuit terminal |  |
| NZM1 $\rightarrow 66$ |  |
| NZM2 $\rightarrow 70$ |  |


| NZM3 $\rightarrow 76$ |  |
| :--- | :--- |
| NZM4 $\rightarrow 82$ |  |
| Box terminals | 5 |

Standard equipment of frame size 1
Fitted within the switch housing

| NZM1 $\rightarrow 66$ |  |
| :--- | ---: |
| NZM2 $\rightarrow 70$ |  |
| NZM3 $\rightarrow 74$ | 3 |

Protection against direct contact where cable lugs, busbars or tunnel terminals are used.

| NZM1 $\rightarrow 68$ |  |
| :--- | ---: |
| NZM2 $\rightarrow 72$ |  |
| NZM3 $\rightarrow 78$ | 8 |
| NZM4 $\rightarrow 86$ |  |
| Clip plates |  |
| NZM1-XC35 for 35 mm top-hat rail |  |
| NZM1-XC75 for 75 mm top-hat rail |  |
| $\rightarrow 60$ |  |

Rear connection 9

| NZM1 $\rightarrow 66$ |  |
| :--- | :--- |
| NZM2 $\rightarrow 70$ |  |
| NZM3 $\rightarrow 76$ |  |
| NZM4 $\rightarrow 82$ |  |
| Plug-in and withdrawable unit | 7 |
| $\rightarrow 92$ | 18 |

For use with toggle levers, rotary drives and remote operators protruding from the enclosure
NZM1 $\rightarrow 60$

| External warning plate/designation <br> label | 17 |
| :--- | :--- |
| NZM1 $\rightarrow 59$ |  |
| IP2X protection against contact with | 2 | a finger

For box terminals

| NZM1 $\rightarrow 68$ |  |
| :--- | ---: |
| NZM2 $\rightarrow 72$ |  |
| NZM3 $\rightarrow 78$ |  |
| IP2X protection against contact with <br> a finger | 4 |
| For barrier |  |
| NZM1 $\rightarrow 68$ |  |
| NZM2 $\rightarrow 72$ |  |



With main switch characteristics to IEC/EN 60204 and isolating characteristics to IEC/EN 60947, VDE 0660

Rated uninterrupted current $I_{\mathrm{I}}=$ Rated current $I_{n}$

## Thermomagnetic releases

Adjustable overload releases $I_{r}$
Adjustable short-circuit releases $I_{\mathrm{i}}$
Delayed short-circuit releases $I_{\text {sd }}$


## Disconnect switches:

UL/CSA approved to UL 489, CSA 22.2 No. 5.1 and to IEC/EN 60947

With main switch characteristics to IEC/EN 60204 and VDE 0113 isolating characteristics to IEC/EN 60947-3 and VDE 0660.
without overload and short-circuit releases
Rated uninterrupted current $I_{\mathrm{u}}=I_{\mathrm{n}}$


|  |  | N3-...-NA | N4-...-NA |
| :---: | :---: | :---: | :---: |
| Rated short-circuit making capacity $I_{\text {cm }}$ | kA | 25 | 53 |
| Rated short-time withstand current $I_{\text {cw }}$ (1s current $\mathrm{m}_{\mathrm{ms}}$ ) | kA | 12 | 25 |

Moeller SK1230-1157EN-NA


| NZMN2-...E...-NA | NZMN3-...E...-NA | NZMN4-...E...-NA |
| :---: | :---: | :---: |
| 85 | 85 | 85 |
| 35 | 42 | 42 |
| 25 | 35 | 35 |
| $50 \quad 0.25$ | $50 \quad 0.25$ | $50 \quad 0.25$ |
| 35-0.25 | $\overline{35} 0.25$ | $\overline{35} 0.25$ |
| 25 0.25 | 25 0.25 | $\overline{25} 0.25$ |
| $20-0.30$ | $20-0.30$ | $20 \quad 0.30$ |
| NZMH2-..E...-NA | NZMH3-...E...-NA | NZMH4-...E...-NA |
| 150 | $\overline{150}$ | 125 - |
| 100 | 100 | 85 |
| 50 | 50 | 50 |
| $150 \quad 0.20$ | $150-0.20$ | $100 \quad 0.20$ |
| $\overline{130} 0.20$ | $\overline{130} 0.20$ | 85 0.20 |
| 50 0.25 | $\overline{65} 0.25$ | $\overline{65} 0.25$ |
| $\overline{20} 0.30$ | $\overline{35} 0.30$ | $50 \quad 0.30$ |

The approved switches are suitable for world-wide use. The UL and CSA certificates can be found at www.ul.com and www.csa.com UL Certificates: file no.: E 31593 (NZM1-4), E 148671 (N(S)1-4)
CSA certificates: file no. 165628 (NZM1-4)


Thermomagnetic releases, 3 pole

|  |  |  |  | Basic switching capacity 35 kA 240 V <br> 25 kA $480 \mathrm{~V}^{1)}$ <br> 18 kA $\left.600 \mathrm{~V}^{2}\right)$ |  | Normal switching capacity 85 kA 240 V <br> 35 kA 480 V ${ }^{1)}$ <br> 25 kA $\left.600 \mathrm{~V}^{2}\right)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rated current = rated uninterrupted current | Setting range Overload releases | Short-circuit releases | Part no. Article no. | Price see price list | Part no. Article no. | Price see price list |
|  | $I_{\mathrm{n}}=I_{\mathrm{u}}$ | $I_{\text {r }}$ | $I_{i}$ |  |  |  |  |
|  | A | A | A |  |  |  |  |
| Protection of systems and cables |  |  |  |  |  |  |  |
| 3-pole |  |  |  |  |  |  |  |
| Fixed overload releases Terminals standard terminal screw as accessories |  |  |  |  |  |  |  |
|  | 15 | 15 | 350 | $\begin{aligned} & \text { NZMB1-AF15-NA } \\ & 281553 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF15-NA } \\ & 281564 \end{aligned}$ |  |
|  | 20 | 20 | 350 | $\begin{aligned} & \text { NZMB1-AF20-NA } \\ & 281554 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF20-NA } \\ & 281565 \end{aligned}$ |  |
|  | 25 | 25 | 350 | $\begin{aligned} & \text { NZMB1-AF25-NA } \\ & 281555 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF25-NA } \\ & 281566 \end{aligned}$ |  |
|  | 30 | 30 | 350 | NZMB1-AF30-NA |  | $\begin{aligned} & \text { NZMN1-AF30-NA } \\ & 281567 \end{aligned}$ |  |
|  | 35 | 35 | 320-400 | $\begin{aligned} & \text { NZMB1-AF35-NA } \\ & 272204 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF35-NA } \\ & 274220 \end{aligned}$ |  |
|  | 40 | 40 | 320-400 | $\begin{aligned} & \text { NZMB1-AF40-NA } \\ & 272205 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF40-NA } \\ & 274223 \end{aligned}$ |  |
|  | 45 | 45 | 300-500 | $\begin{aligned} & \text { NZMB1-AF45-NA } \\ & 272206 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF45-NA } \\ & 274230 \end{aligned}$ |  |
|  | 50 | 50 | 300-500 | $\begin{aligned} & \text { NZMB1-AF50-NA } \\ & 272207 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF50-NA } \\ & 274231 \end{aligned}$ |  |
|  | 60 | 60 | 380-630 | $\begin{aligned} & \text { NZMB1-AF60-NA } \\ & 272208 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF60-NA } \\ & 274232 \end{aligned}$ |  |
|  | 70 | 70 | 480-800 | $\begin{aligned} & \text { NZMB1-AF70-NA } \\ & 272209 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF70-NA } \\ & 274233 \end{aligned}$ |  |
|  | 80 | 80 | 480-800 | $\begin{aligned} & \text { NZMB1-AF80-NA } \\ & 272250 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF80-NA } \\ & 274234 \end{aligned}$ |  |
|  | 90 | 90 | 600-1000 | $\begin{aligned} & \text { NZMB1-AF90-NA } \\ & 272251 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF90-NA } \\ & 274235 \end{aligned}$ |  |
|  | 100 | 100 | 600-1000 | $\begin{aligned} & \text { NZMB1-AF100-NA } \\ & 272252 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF100-NA } \\ & 274236 \end{aligned}$ |  |
|  | 110 | 110 | 750-1250 | $\begin{aligned} & \text { NZMB1-AF110-NA } \\ & 281557 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF110-NA } \\ & 281568 \end{aligned}$ |  |
|  | 125 | 125 | 750-1250 | $\begin{aligned} & \text { NZMB1-AF125-NA } \\ & 281558 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-AF125-NA } \\ & 281569 \end{aligned}$ |  |
| Line and load Box Lugs installed |  |  |  |  |  |  |  |
|  | 15 | 15 | 350 | $\begin{aligned} & \text { NZMB2-AF15-BT-NA } \\ & 107611 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF15-BT-NA } \\ & 107631 \end{aligned}$ |  |
|  | 20 | 20 | 350 | $\begin{aligned} & \text { NZMB2-AF20-BT-NA } \\ & 107612 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF2O-BT-NA } \\ & 107632 \end{aligned}$ |  |
|  | 25 | 25 | 350 | $\begin{aligned} & \text { NZMB2-AF25-BT-NA } \\ & \text { 107613 } \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF25-BT-NA } \\ & 107633 \end{aligned}$ |  |
|  | 30 | 30 | 350 | $\begin{aligned} & \text { NZMB2-AF30-BT-NA } \\ & 107614 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF30-BT-NA } \\ & 107634 \end{aligned}$ |  |
|  | 35 | 35 | $320-400$ | $\begin{aligned} & \text { NZMB2-AF35-BT-NA } \\ & 107615 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF35-BT-NA } \\ & 107635 \end{aligned}$ |  |
|  | 40 | 40 | 320-400 | $\begin{aligned} & \text { NZMB2-AF40-BT-NA } \\ & 107616 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF40-BT-NA } \\ & 107636 \end{aligned}$ |  |
|  | 45 | 45 | 300-500 | $\begin{aligned} & \text { NZMB2-AF45-BT-NA } \\ & 107617 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF45-BT-NA } \\ & 107637 \end{aligned}$ |  |
|  | 50 | 50 | 300-500 | $\begin{aligned} & \text { NZMB2-AF50-BT-NA } \\ & 107618 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF50-BT-NA } \\ & 107638 \end{aligned}$ |  |
|  | 60 | 60 | 380-630 | $\begin{aligned} & \text { NZMB2-AF60-BT-NA } \\ & 107619 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF60-BT-NA } \\ & 107639 \end{aligned}$ |  |
|  | 70 | 70 | 480-800 | $\begin{aligned} & \text { NZMB2-AF70-BT-NA } \\ & 107600 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF70-BT-NA } \\ & 107640 \end{aligned}$ |  |
|  | 80 | 80 | 480-800 | $\begin{aligned} & \text { NZMB2-AF80-BT-NA } \\ & 107621 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF80-BT-NA } \\ & 107641 \end{aligned}$ |  |
|  | 90 | 90 | 600-1000 | $\begin{aligned} & \text { NZMB2-AF90-BT-NA } \\ & 107622 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF90-BT-NA } \\ & 107642 \end{aligned}$ |  |
|  | 100 | 100 | 600-1000 | $\begin{aligned} & \text { NZMB2-AF100-BT-NA } \\ & 107623 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF100-BT-NA } \\ & 107643 \end{aligned}$ |  |



Thermomagnetic releases， 3 pole

| Rated current＝rated uninterrupted current $I_{\mathrm{n}}=I_{\mathrm{u}}$ <br> A | Setting range <br> Overload releases <br> $I_{r}$ <br> A | Short－circuit releases <br> $I_{i}$ <br> A | Basic switching capacity <br> 35 kA 240 V <br> 25 kA 480 V ${ }^{1)}$ <br> 18 kA $\left.600 \mathrm{~V}^{2}\right)$ <br> Part no． <br> Article no． | Price see price list | Normal switching capacity 85 kA 240 V <br> 35 kA $480 \mathrm{~V}^{1)}$ <br> 25 kA $600 \mathrm{~V}^{2}$ <br> Part no． <br> Article no． | Price see price list |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Protection of systems and cables |  |  |  |  |  |  |
| 3－pole |  |  |  |  |  |  |
| Fixed overload release Line and load Box Lugs installed |  |  |  |  |  |  |
| $\text { 蓶甮 } 110$ | 110 | 750－1250 | $\begin{aligned} & \text { NZMB2-AF110-BT-NA } \\ & 107624 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF110-BT-NA } \\ & 107644 \end{aligned}$ |  |
|  | 125 | 750－1250 | $\begin{aligned} & \text { NZMB2-AF125-BT-NA } \\ & 107625 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF125-BT-NA } \\ & 107645 \end{aligned}$ |  |
| toxorey 150 | 150 | 960－1600 | $\begin{aligned} & \text { NZMB2-AF150-BT-NA } \\ & 107626 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF150-BT-NA } \\ & 107646 \end{aligned}$ |  |
| 175 | 175 | 1200－2000 | $\begin{aligned} & \text { NZMB2-AF175-BT-NA } \\ & 107627 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF175-BT-NA } \\ & 107647 \end{aligned}$ |  |
| 200 | 200 | 1200－2000 | $\begin{aligned} & \text { NZMB2-AF200-BT-NA } \\ & 107628 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF200-BT-NA } \\ & 107648 \end{aligned}$ |  |
| 225 | 225 | 1500－2500 | $\begin{aligned} & \text { NZMB2-AF225-BT-NA } \\ & 107629 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF225-BT-NA } \\ & 107649 \end{aligned}$ |  |
| 250 | 250 | 1500－2500 | $\begin{aligned} & \text { NZMB2-AF250-BT-NA } \\ & 107630 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-AF250-BT-NA } \\ & 107650 \end{aligned}$ |  |
| Adjustable overload release Line and load Box Lugs installed |  |  |  |  |  |  |
| $\text { 冎名名 } 20$ | 15－20 | 350 | $\begin{aligned} & \text { NZMB1-A20-NA } \\ & 281559 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A20-NA } \\ & 281570 \end{aligned}$ |  |
|  | 20－25 | 350 | $\begin{aligned} & \text { NZMB1-A25-NA } \\ & 281560 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A25-NA } \\ & 281571 \end{aligned}$ |  |
| 32 | 25－32 | 350 | $\begin{aligned} & \text { NZMB1-A32-NA } \\ & 281561 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A32-NA } \\ & 281572 \end{aligned}$ |  |
| 40 | 32－40 | 320－400 | $\begin{aligned} & \text { NZMB1-A40-NA } \\ & 272253 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A40-NA } \\ & 274237 \end{aligned}$ |  |
| 50 | 40－50 | 300－500 | $\begin{aligned} & \text { NZMB1-A50-NA } \\ & 272254 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A50-NA } \\ & 274239 \end{aligned}$ |  |
| 63 | 50－63 | 380－630 | $\begin{aligned} & \text { NZMB1-A63-NA } \\ & 272255 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A63-NA } \\ & 274240 \end{aligned}$ |  |
| 80 | 63－80 | 480－800 | $\begin{aligned} & \text { NZMB1-A80-NA } \\ & 272256 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A80-NA } \\ & 274241 \end{aligned}$ |  |
| 100 | 80－100 | 600－1000 | $\begin{aligned} & \text { NZMB1-A100-NA } \\ & 272258 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A100-NA } \\ & 274242 \end{aligned}$ |  |
| 125 | 100－125 | 750－1250 | $\begin{aligned} & \text { NZMB1-A125-NA } \\ & 281562 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN1-A125-NA } \\ & 281573 \end{aligned}$ |  |
| Adjustable overload releases Line and load Box Lugs installed |  |  |  |  |  |  |
| $\text { 量面里 } 20$ | 15－20 | 350 | $\begin{aligned} & \text { NZMB2-A20-BT-NA } \\ & 107773 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A20-BT-NA } \\ & 107785 \end{aligned}$ |  |
|  | 20－25 | 350 | $\begin{aligned} & \text { NZMB2-A25-BT-NA } \\ & 107774 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A25-BT-NA } \\ & 107786 \end{aligned}$ |  |
| $32$ | 25－32 | 350 | $\begin{aligned} & \text { NZMB2-A32-BT-NA } \\ & 107775 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A32-BT-NA } \\ & 107787 \end{aligned}$ |  |
| 40 | 32－40 | 320－400 | $\begin{aligned} & \text { NZMB2-A40-BT-NA } \\ & 107776 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A40-BT-NA } \\ & 107788 \end{aligned}$ |  |
| 50 | 40－50 | 300－500 | $\begin{aligned} & \text { NZMB2-A50-BT-NA } \\ & 107777 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A50-BT-NA } \\ & 107789 \end{aligned}$ |  |
| 63 | 50－63 | 380－630 | $\begin{aligned} & \text { NZMB2-A63-BT-NA } \\ & 107778 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A63-BT-NA } \\ & 107790 \end{aligned}$ |  |
| 80 | 63－80 | 480－800 | $\begin{aligned} & \text { NZMB2-A80-BT-NA } \\ & 107779 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A80-BT-NA } \\ & 107791 \end{aligned}$ |  |
| 100 | 80－100 | 600－1000 | $\begin{aligned} & \text { NZMB2-A100-BT-NA } \\ & 107780 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A100-BT-NA } \\ & 107792 \end{aligned}$ |  |
| 125 | 100－125 | 750－1250 | $\begin{aligned} & \text { NZMB2-A125-BT-NA } \\ & 107781 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A125-BT-NA } \\ & 107793 \end{aligned}$ |  |
| 160 | 125－160 | 960－1600 | $\begin{aligned} & \text { NZMB2-A160-BT-NA } \\ & 107782 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A160-BT-NA } \\ & 107794 \end{aligned}$ |  |
| 200 | 160－200 | 1200－2000 | $\begin{aligned} & \text { NZMB2-A200-BT-NA } \\ & 107783 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A200-BT-NA } \\ & 107795 \end{aligned}$ |  |
| 250 | 200－250 | 1500－2500 | $\begin{aligned} & \text { NZMB2-A250-BT-NA } \\ & 107784 \end{aligned}$ |  | $\begin{aligned} & \text { NZMN2-A250-BT-NA } \\ & 107796 \end{aligned}$ |  |




Basic switching capacity $480 \mathrm{~V}^{1)}$

| Rated current = rated <br> uninterrupted current | Setting range <br> Short-circuit releases |
| :--- | :--- |
| $I_{\mathrm{n}}=I_{\mathrm{u}}$ | $I_{\mathrm{i}}$ |
| A | A |
|  | $I>$ |

Setting range
$I_{i}$
A

Short-circuit protection
Motor protection in conjunction with contactor and overload relay

- With short-circuit release
- Without overload release

3 pole
Terminals standard


| 1.2 | 8-14 |
| :---: | :---: |
| 2 | 12.8-22.4 |
| 3 | 19.2-33.6 |
| 5 | 32-56 |
| 8 | 48-84 |
| 12 | 80-140 |
| 18 | 128-224 |
| 26 | 200-350 |
| 33 | 256-448 |
| 40 | 320-560 |
| 50 | 400-700 |
| 63 | 504-882 |
| 80 | 640-1120 |
| 100 | 800-1250 |


| $\begin{aligned} & \text { NZMB1-S1,2-CNA } \\ & 102906 \end{aligned}$ |
| :---: |
| $\begin{aligned} & \hline \text { NZMB1-S2-CNA } \\ & 102907 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S3-CNA } \\ & 102908 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S5-CNA } \\ & 102909 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S8-CNA } \\ & 103020 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S12-CNA } \\ & 103021 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S18-CNA } \\ & 103022 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S26-CNA } \\ & 103023 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S33-CNA } \\ & 103024 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S40-CNA } \\ & 281263 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S50-CNA } \\ & 281264 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S63-CNA } \\ & 281265 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S80-CNA } \\ & 281266 \end{aligned}$ |
| $\begin{aligned} & \text { NZMB1-S100-CNA } \\ & 281267 \end{aligned}$ |

Notes
Notes for terminals $\rightarrow 67$

## Notes

Switches conform to UL/CSA as well as the IEC regulations.
40 IEC switching performance values from 40 A are contained on the rating plate.
UL 489, CSA-C22.2-5.1, IEC/EN 60947-4-1
Adjustable short-circuit release $I_{\mathrm{i}}$

- 8-14× $I_{n}$ (ex-factory $12 \times I_{n}$ )
- NZM...1-S1,2 - 33-CNA: approx. $8-14 \times I_{n}$
- NZM...1-S100-CNA: $8-12.5 \times I_{n}$ (ex-factory $12 \times I_{n}$ ) Without overload release $I_{r}$


## 9

CNA: The device has components approved to UL, the conditions of approval must be observed during use
i.e. the device must be combined with a suitable contactor and overload relay.
A switching capacity is stated for the complete motor-starter combination.
The device is approved as a CSA approved single device.

1) $480 \mathrm{Y} / 277 \mathrm{~V}$ AC from 60 A .

## Circuit-breakers for North America

## Magnetic 3 pole short-circuit releases

```
Rated current = rated uninterrupted current
Short-circuit releases
\(I_{\mathrm{n}}=I_{\mathrm{u}}\)
A
A
```



|  | Basic switching capacity $480 \mathrm{~V}$ $600 \text { V }$ |  |
| :---: | :---: | :---: |
| Setting range | Part no. Article no. | Price see price |
| Short-circuit releases |  |  |
| $I_{i}$ |  |  |
| A |  |  |
| $\stackrel{1}{\square}$ |  |  |

Basic switching capacity
480 V
600 V

## Short-circuit protection

Motor protection in conjunction with contactor and overload relay - With short-circuit release

- Without overload release

3 pole
Line and load Box Lugs installed


| 1.6 | 12.8-22.4 |
| :---: | :---: |
| 2.4 | 19.2-33.6 |
| 5 | 32-56 |
| 8 | 48-84 |
| 12 | 80-140 |
| 18 | 128-224 |
| 26 | 200-350 |
| 33 | 256-448 |
| 40 | 320-560 |
| 50 | 400-700 |
| 63 | 504-882 |
| 80 | 640-1120 |
| 100 | 800-1400 |
| 125 | 1000-1750 |
| 160 | 1280-2240 |
| 200 | 1600-2500 |
| 250 | 2000-2500 |

$\left.\begin{array}{llll}\hline \text { NZMB2-S1,6-BT-CNA } & \\ 107651\end{array}\right)$

Notes

[^0]Std. pack Notes

| 1 off | Switches conform to UL/CSA as well as the IEC regulations. <br> 40 IEC switching performance values from 40 A are contained on the rating plate. <br> UL 489, CSA-C22.2-5.1, IEC/EN 60947-4-1 <br> - NZM...2-S250-CNA: IEC/EN 60947-2 <br> Adjustable short-circuit release $I_{\mathrm{i}}$ <br> - $8-14 \times I_{n}$ (ex-factory $12 \times I_{n}$ ) <br> - NZM...2-S5-33-CNA: approx. 6-10× $I_{n}$ (ex-factory $10 \times I_{n}$ ) <br> -NZM...2-S250-CNA: 8-10× $I_{n}$ (ex-factory $10 \times I_{n}$ ) <br> Without overload release $I_{\mathrm{r}}$ <br> 7 <br> CNA: The device has components approved to UL, the conditions of approval must be observed during use. <br> i.e. the device must be combined with a suitable contactor and overload relay. <br> A switching capacity is stated for the complete motor-starter combination. <br> The device is approved as a CSA approved single device. |
| :---: | :---: |

Circuit-breakers for North America
Electronic releases, 3 pole

| Setting range Overload releases | Short-circuit releases | Normal switching capacity 85 kA 240 V <br> 42 kA 480 V <br> 35 kA 600 V |  |
| :---: | :---: | :---: | :---: |
|  |  | Part no. Article no. | Price see price list |
|  | Non-delayed |  |  |
| $I_{\text {r }}$ | $I_{i}$ |  |  |
| A | A |  |  |
| $\square$ | $\frac{1}{I>}$ |  |  |


| Protection of systems and cables |  |  |  |
| :---: | :---: | :---: | :---: |
| 3 pole |  |  |  |
| Fixed overload releases Terminal screws standard terminals as accessories |  |  |  |
|  | 250 | 500-2750 | $\begin{aligned} & \text { NZMN3-AEF250-NA } \\ & 269275 \end{aligned}$ |
|  | 300 | 600-3300 | $\begin{aligned} & \text { NZMN3-AEF300-NA } \\ & 269276 \end{aligned}$ |
|  | 350 | 700-3850 | $\begin{aligned} & \text { NZMN3-AEF350-NA } \\ & 269277 \end{aligned}$ |
|  | 400 | 800-4400 | $\begin{aligned} & \text { NZMN3-AEF400-NA } \\ & 269278 \end{aligned}$ |
|  | 450 | 900-3600 | $\begin{aligned} & \text { NZMN3-AEF450-NA } \\ & 269279 \end{aligned}$ |
|  | 500 | 1000-4000 | $\begin{aligned} & \text { NZMN3-AEF500-NA } \\ & 269280 \end{aligned}$ |
|  | 550 | 1100-4400 | $\begin{aligned} & \text { NZMN3-AEF550-NA } \\ & 269281 \end{aligned}$ |
|  | 600 | 1200-4800 | $\begin{aligned} & \text { NZMN3-AEF600-NA } \\ & 269282 \end{aligned}$ |
|  | 600 | 1200-7200 | $\begin{aligned} & \text { NZMN4-AEF600-NA } \\ & 271108 \end{aligned}$ |
|  | 700 | 1400-8400 | $\begin{aligned} & \text { NZMN4-AEF700-NA } \\ & 271109 \end{aligned}$ |
|  | 800 | 1600-9600 | $\begin{aligned} & \text { NZMN4-AEF800-NA } \\ & 271110 \end{aligned}$ |
|  | 900 | 1800-10800 | $\begin{aligned} & \text { NZMN4-AEF900-NA } \\ & 271111 \end{aligned}$ |
|  | 1000 | 2000-12000 | $\begin{aligned} & \text { NZMN4-AEF1000-NA } \\ & 271112 \end{aligned}$ |
|  | 1200 | 2400-14400 | $\begin{aligned} & \text { NZMN4-AEF1200-NA } \\ & 271113 \end{aligned}$ |
| 3 pole |  |  |  |
| Adjustable overload releases Terminal screws standard terminals as accessories |  |  |  |
|  | 125-250 | 500-2750 | $\begin{aligned} & \text { NZMN3-AE250-NA } \\ & 269299 \end{aligned}$ |
| $400$ | 200-400 | 800-4400 | $\begin{aligned} & \text { NZMN3-AE400-NA } \\ & 269300 \end{aligned}$ |
| $\circ$  <br> Bog  <br> 0 600 | 300-600 | 1200-4800 | $\begin{aligned} & \text { NZMN3-AE600-NA } \\ & 269301 \end{aligned}$ |
|  | 400-800 | 1600-9600 | $\begin{aligned} & \text { NZMN4-AE800-NA } \\ & 271120 \end{aligned}$ |
|  | 500-1000 | 2000-12000 | $\begin{aligned} & \text { NZMN4-AE1000-NA } \\ & 271121 \end{aligned}$ |
| $1200$ | 600-1200 | 2400-14400 | $\begin{aligned} & \text { NZMN4-AE1200-NA } \\ & 271122 \end{aligned}$ |


| High switching capacity <br> 100 kA 240 V <br> 65 kA 480 V <br> 35 kA 600 V |  |  |
| :--- | :--- | :--- |
| Part no. <br> Article no. |  |  |


| $\begin{aligned} & \text { NZMH3-AE250-NA } \\ & 269302 \end{aligned}$ | 1 off | Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { NZMH3-AE400-NA } \\ & 269303 \end{aligned}$ |  | UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 |
| $\begin{aligned} & \text { NZMH3-AE600-NA } \\ & 269304 \end{aligned}$ |  | - $0.5-1 \times I_{n}$ (ex-factory $0.8 \times I_{n}$ ) <br> R.m.s. value measurement and "thermal memory" |
| $\begin{aligned} & \text { NZMH4-AE800-NA } \\ & 271123 \end{aligned}$ |  | Adjustable short-circuit release $I_{i}$ <br> - With NZM...3-AE250/400-NA: $2-11 \times I_{\mathrm{n}}$ (ex-factory $6 \times I_{n}$ ) <br> - With NZM...3-AE600-NA: $2-8 \times I_{\mathrm{n}}$ (ex-factory $6 \times I_{n}$ ) |
| $\begin{aligned} & \text { NZMH4-AE1000-NA } \\ & 271124 \end{aligned}$ |  | - With NZM...4-AE...-NA: $2-12 \times I_{n}$ (ex-factory $6 \times I_{n}$ ) |
| NZMH4-AE1200-NA 271125 |  | 1) For limiter high switching capacity with NZMH4, the following applies: $85 \mathrm{kA} / 480 \mathrm{~V}$ |



[^1]| $\begin{aligned} & \text { NZMH2-VEF150-BT-NA } \\ & 107598 \end{aligned}$ | 1 off | Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. |
| :---: | :---: | :---: |
| NZMH2-VEF175-BT-NA 107599 |  | UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 |
| $\begin{aligned} & \text { NZMH2-VEF200-BT-NA } \\ & 107840 \end{aligned}$ |  | Fixed overload releases $I_{\mathrm{r}}$ <br> R.m.s. value measurement and 'thermal memory' Adjustable time delay setting to overcome current peaks $t_{\mathrm{r}}$ |
| NZMH2-VEF225-BT-NA 107841 |  | - $2-20 \mathrm{~s}$ with $6 \times I_{\mathrm{r}}$ (ex-factory 10 s ) Adjustable delayed short-circuit releases $I_{\text {sd }}$ |
| $\begin{aligned} & \text { NZMH2-VEF250-BT-NA } \\ & 107842 \end{aligned}$ |  | - 2 - $10 \times I_{r}$ (ex-factory $6 \times I_{r}$ ) <br> - NZM...3-VEF450...600-NA: 1.5-7 $\times I_{\mathrm{r}}$ (ex-factory $6 \times I_{\mathrm{r}}$ ) Adjustable delay time $t_{\text {sd }}$ |
| $\begin{aligned} & \text { NZMH3-VEF250-NA } \\ & 269316 \end{aligned}$ |  | - NZM...3-VEF250...400-NA: $2-11 \times I_{n}$ (ex-factory $11 \times I_{n}$ ) <br> - NZM...3-VEF450...600-NA: $2-8 \times I_{n}$ (ex-factory $8 \times I_{n}$ ) <br> - NZM....-VEF...-NA: $2-12 \times I_{n}$ (ex-factory $12 \times I_{n}$ ) |
| $\begin{aligned} & \text { NZMH3-VEF300-NA } \\ & 269317 \end{aligned}$ |  | i2t constant function <br> - NZM2 fixed OFF |
| $\begin{aligned} & \text { NZMH3-VEF350-NA } \\ & 269318 \end{aligned}$ |  | - NZM3, NZM4 switched (ex-factory OFF) |
| NZMH3-VEF400-NA 269319 |  | 1) For normal switching capacity with NZMN2-...-NA, the following applies: $35 \mathrm{kA} / 480 \mathrm{~V}$ <br> 2) For normal switching capacity with NZMN2-...-NA, |
| $\begin{aligned} & \text { NZMH3-VEF450-NA } \\ & 269320 \end{aligned}$ |  | the following applies: $25 \mathrm{kA} / 600 \mathrm{~V}$ <br> 3) For limiter high switching capacity with NZMH4-...-NA, |
| $\begin{aligned} & \text { NZMH3-VEF500-NA } \\ & 269321 \end{aligned}$ |  | the following applies: $85 \mathrm{kA} / 480 \mathrm{~V}$ |
| $\begin{aligned} & \text { NZMH3-VEF550-NA } \\ & \text { 269322 } \end{aligned}$ |  |  |
| $\begin{aligned} & \text { NZMH3-VEF600-NA } \\ & 269323 \end{aligned}$ |  |  |
| $\begin{aligned} & \text { NZMH4-VEF600-NA } \\ & 271142 \end{aligned}$ |  |  |
| NZMH4-VEF700-NA 271143 |  |  |
| $\begin{aligned} & \text { NZMH4-VEF800-NA } \\ & 271144 \end{aligned}$ |  |  |
| $\begin{aligned} & \begin{array}{l} \text { NZMH4-VEF900-NA } \\ 271145 \end{array} \\ & \hline \end{aligned}$ |  |  |
| NZMH4-VEF1000-NA $271146$ |  |  |
| $\begin{aligned} & \text { NZMH4-VEF1200-NA } \\ & 271147 \end{aligned}$ |  |  |



Electronic releases, 3 pole

Moeller SK1230-1157EN-NA

| High switching capacity <br> 65 kA 480 V <br> 35 kA 600 V3) |  |  |
| :--- | :--- | :--- |
| Part no. <br> Article no. | Price <br> see price <br> list | Std. pack |
|  |  |  |

[^2]| 1 off | Switches conform to UL/CSA as well as the IEC regulations. <br> IEC switching performance values are contained on the rating plate. <br> UL 489, CSA-C22.2-5.1, IEC/EN $60947-2$ and IEC/EN 60947-4 |
| :--- | :--- |
| Adjustable short-circuit release $I_{\mathrm{i}}$ <br> $-2-14 \times I_{\mathrm{n}}\left(\right.$ ex-factory $\left.12 \times I_{\mathrm{n}}\right)$ <br> Without overload release $I_{\mathrm{r}}$ |  |
| CNA: The device has components approved to UL, the conditions of approval must be observed during use. i.e. the device must be combined with a suitable <br> contactor and overload relay. A switching capacity is stated for the complete motor-starter combination. <br> The device is approved as a CSA approved single device. |  |


| Part no. Article no. | Price see price list | Std. pack | Notes |
| :---: | :---: | :---: | :---: |

Molded case switches
These switches are recommended especially as incoming circuit-breakers for the North American market.


[^3]|  | Rated current = rated uninterrupted current | Short-circuit protection, max. gG/gL fuse ${ }^{1)}$ | Short-circuit protection max. fuse OTS characteristic | Short-circuit rating with OTS fuse |  | 3 switch positions I, +, 0 ; can be tripped remotely with shunt/under voltage release |  | Std. pack |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Part no. Article no. | Price see price list |  |
|  |  |  |  | At 480 V : | At 600 V : |  |  |  |
| $I_{\mathrm{n}}=I_{\mathrm{u}}$ |  |  |  |  |  |  |  |  |
|  | A | A | A | kA | kA |  |  |  |
| Switch-disconnector |  |  |  |  |  |  |  |  |
| 3 pole |  |  |  |  |  |  |  |  |
| Terminals standard terminal screws as accessories |  |  |  |  |  |  |  |  |
|  | 63 | 125 | 150 | 10 | - |  |  | 1 off |
|  | 100 | 125 | 150 | 10 | - |  |  |  |
|  | 125 | 125 | 150 | 10 | - |  |  |  |
| Line and load Box Lugs installed |  |  |  |  |  |  |  |  |
|  | 160 | 250 | 225 | 10 | 10 |  |  | 1 off |
| Terminal screws standard terminals as accessories |  |  |  |  |  |  |  |  |
|  | 400 | 630 | -2) | 14 | 14 | $\begin{aligned} & \hline \text { N3-400-NA } \\ & 271169 \end{aligned}$ |  | 1 off |
|  | 550 | 630 | -2) | 14 | 14 | $\begin{aligned} & \text { N3-550-NA } \\ & 293635 \end{aligned}$ |  |  |
|  |  | 1600 | -2) | 25 | 25 | $\begin{aligned} & \hline \text { N4-600-NA } \\ & 292386 \end{aligned}$ |  |  |
|  | 800 | $1600$ | -2) | $25$ | $25$ | $\begin{aligned} & \text { N4-800-NA } \\ & 271171 \end{aligned}$ |  |  |
|  | $1000$ | $1600$ | $-2)$ | $25$ | $25$ | $\begin{aligned} & \hline \text { N4-1000-NA } \\ & 271172 \\ & \hline \end{aligned}$ |  |  |
|  | 1200 | 1600 | $-2)$ | 25 | $25$ | $\begin{aligned} & \text { N4-1200-NA } \\ & 271173 \end{aligned}$ |  |  |
| Notes | Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. <br> Isolating characteristics to IEC/EN 60947-3 and VDE 0660. <br> Protection against accidental contact according to IEC. <br> Undervoltage and shunt releases and HIA trip-indicating auxiliary contacts can be used in addition to N disconnect switches. N3... and N4... can also be combined with the NZM...-XR... remote operator. <br> Switches conform to UL 489/CSA 22.2 No. 5.1 as well as to the IEC regulations. |  |  |  |  |  |  |  |

[^4]| Contact sequence of the auxiliary contacts |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Standard auxiliary contact (HIN) |  |  |  |  |
|  | $0 \rightarrow 1$ | Switch-on | - |  |
| ${ }^{\text {Hin }}$ |  | Swith-on | $\square$ | Contact open |
| $0^{0 \Psi_{+}^{1}}$ | $0 \leftarrow 1$ | Switch-off |  |  |
| Hin $\underset{\sim}{\text { In }}$ |  |  |  |  |
|  | $+\leftarrow 1$ | Trip |  |  |
|  |  |  |  |  |

Early-make auxiliary contact (HIV)
NZM 1, 2, 3

$0 \rightarrow 1 \quad$ Switch-on

- Contact closed
$\square \quad$ Contact open

$0 \leftarrow I \quad$ Switch-off

$+\leftarrow 1 \quad$ Trip

$0 \rightarrow 1 \quad$ Switch-on
- Contact closed
$\square \quad$ Contact open

$0 \leftarrow 1 \quad$ Switch-off
$+\leftarrow I \quad$ Trip

Trip-indicating auxiliary contact (HIA)


| Maximum component fitting |  | NZM1 | NZM2 | NZM3 | NZM4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIN | 1 N/O or 1 N/C | 1 | 2 | 3 | 3 |
| HIA | $1 \mathrm{~N} / \mathrm{O}$ or $1 \mathrm{~N} / \mathrm{C}$ | 1 | 1 | 1 | 2 |
| HIV | 2 N/O | 1 | 1 | 1 | 1 |

Notes If early-make contacts are required in combination with shunt or undervoltage releases, please select the combination type in the "Release" section.


The following can be clipped into the switches:

- NZM1 - a standard auxiliary contact
- NZM2 up to two M22-K... standard auxiliary contacts
- NZM3 as well as NZM4 - up to 3 standard auxiliary contacts M22-(C)K...
Any combinations of the auxiliary contact types is possible. Marking on switch: HIN

Not in conjunction with undervoltage release NZM...-
XU(C)... or shunt release NZM...-XA(C)...
Early-make with on and off switching (manual operation):
approx. 20 ms

Not in conjunction with undervoltage release NZM...-
XU(C) ..., shunt release NZM...-XA(C)... or remote operator NZM...-XR...
Early-make with switch on (manual operation): approx.
90 ms

The following can be clipped into the switches:

- NZM1 - one trip-indicating auxiliary switch
- NZM2 - one M22-(C)K... trip-indicating auxiliary switch
- NZM3 - one M22-(C)K... trip-indicating auxiliary switch
- NZM4 - up to two M22-(C)K... trip-indicating auxiliary switches
Any combinations of the auxiliary contact types ispossible. Marking on switch: HIA

Undervoltage releases
Without auxiliary contact
Non-delayed disconnection of NZM circuit-breakers or N disconnect switches when the control voltage sinks below $35-70 \% U_{s}$.
For use with Emergency-Stop devices in conjunction with Emergency-Stop button.

|  | With clamp terminal on the left-hand switch side. | NZM1, N1 | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XU24AC } \\ & 259434 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XU110-130AC } \\ & 259440 \end{aligned}$ |
|  |  |  | 208 V $240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XU208-240AC } \\ & 259442 \end{aligned}$ |
|  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XU380-440AC } \\ & 259444 \end{aligned}$ |
|  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XU480-525AC } \\ & 259446 \end{aligned}$ |
|  |  |  | $600 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XU600AC } \\ & 259448 \end{aligned}$ |
|  |  |  | 12 V DC | $\begin{aligned} & \text { NZM1-XU12DC } \\ & 259450 \end{aligned}$ |
|  |  |  | 24 V DC | $\begin{aligned} & \text { NZM1-XU24DC } \\ & 259452 \end{aligned}$ |
|  |  |  | $110 \mathrm{~V}-130 \mathrm{~V}$ DC | $\begin{aligned} & \text { NZM1-XU110-130DC } \\ & 259458 \end{aligned}$ |
|  |  |  | 220 V-250 V DC | $\begin{aligned} & \text { NZM1-XU220-250DC } \\ & 259460 \end{aligned}$ |

When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented.

Undervoltage release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.

## Undervoltage releases

Without auxiliary contact
Non-delayed disconnection of NZM circuit-breakers or N disconnect switches when the control voltage sinks below $35-70 \% U_{s}$.
For use with Emergency-Stop devices in conjunction with Emergency-Stop button.

|  | $\frac{\mathrm{D}^{\mathrm{D} 1}}{\mathrm{U}_{\mathrm{l}_{\mathrm{D} 2}}^{2}}$ | - | $\begin{aligned} & \text { NZM2, N2 } \\ & \text { NZM3, N3 } \end{aligned}$ | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | NZM2/3-XU24AC $259491$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XU110-130AC } \\ & 259497 \end{aligned}$ |
|  |  |  |  | 208 V $240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XU208-240AC } \\ & 259499 \end{aligned}$ |
|  |  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XU380-440AC } \\ & 259501 \end{aligned}$ |
|  |  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XU480-525AC } \\ & 259503 \end{aligned}$ |
|  |  |  |  | $600 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \hline \text { NZM2/3-XU600AC } \\ & 259505 \end{aligned}$ |
|  |  |  |  | 12 V DC | $\begin{aligned} & \text { NZM2/3-XU12DC } \\ & 259507 \end{aligned}$ |
|  |  |  |  | 24 V DC | $\begin{aligned} & \text { NZM2/3-XU24DC } \\ & 259509 \end{aligned}$ |
|  |  |  |  | 110 V 130 V DC | $\begin{aligned} & \text { NZM2/3-XU110-130DC } \\ & 259515 \end{aligned}$ |
|  |  |  |  | $220 \mathrm{~V}-250 \mathrm{~V}$ DC | $\begin{aligned} & \text { NZM2/3-XU220-250DC } \\ & 259517 \end{aligned}$ |
|  | $\begin{aligned} & \\|^{D 1} \\ & U^{2}< \end{aligned}$ | - | NZM4, N4 | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XU24AC } \\ & 266189 \end{aligned}$ |
|  | D2 |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XU110-130AC } \\ & 266192 \end{aligned}$ |
|  |  |  |  | $208 \mathrm{~V}-240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XU208-240AC } \\ & 266193 \end{aligned}$ |
|  |  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XU380-440AC } \\ & 266194 \end{aligned}$ |
|  |  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XU480-525AC } \\ & 266195 \end{aligned}$ |
|  |  |  |  | $600 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XU600AC } \\ & 266196 \end{aligned}$ |
|  |  |  |  | 12 V DC | $\begin{aligned} & \text { NZM4-XU12DC } \\ & 266203 \end{aligned}$ |
|  |  |  |  | 24 V DC | $\begin{aligned} & \text { NZM4-XU24DC } \\ & 266204 \end{aligned}$ |
|  |  |  |  | $110 \mathrm{~V}-130 \mathrm{~V}$ DC | $\begin{aligned} & \hline \text { NZM4-XU110-130DC } \\ & 266207 \end{aligned}$ |
|  |  |  |  | 220 V - 250 V DC | $\begin{aligned} & \hline \text { NZM4-XU220-250DC } \\ & 266208 \end{aligned}$ |

When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented.

Undervoltage release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.

## Undervoltage releases

With two early-make auxiliary contacts
For interlocking and load-shedding circuits,
as well as for early-make of the undervoltage release in main-switch applications.

|  |  | With clamp terminal on the left-hand switch side. | NZM1, N1 | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIV24AC } \\ & 259531 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIV110-130AC } \\ & 259537 \end{aligned}$ |
|  |  |  |  | $208 \mathrm{~V}-240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIV208-240AC } \\ & 259539 \end{aligned}$ |
|  |  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIV380-440AC } \\ & 259541 \end{aligned}$ |
|  |  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIV480-525AC } \\ & 259543 \end{aligned}$ |
|  |  |  |  | 12 V DC | $\begin{aligned} & \text { NZM1-XUHIV12DC } \\ & 259545 \end{aligned}$ |
|  |  |  |  | 24 V DC | $\begin{aligned} & \text { NZM1-XUHIV24DC } \\ & 259547 \end{aligned}$ |
|  |  |  |  | 110 V 130 V DC | $\begin{aligned} & \text { NZM1-XUHIV110-130DC } \\ & 259553 \end{aligned}$ |
|  |  |  |  | $220 \mathrm{~V}-250 \mathrm{~V}$ DC | $\begin{aligned} & \text { NZM1-XUHIV220-250DC } \\ & 259555 \end{aligned}$ |
|  |  | With 3 m connection cable instead of screw termination. | NZM1, N1 | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIVL24AC } \\ & 259557 \end{aligned}$ |
|  |  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIVL110-130AC } \\ & 259563 \end{aligned}$ |
|  |  |  |  | 208 V 240 V 50/60 Hz | $\begin{aligned} & \text { NZM1-XUHIVL208-240AC } \\ & 259565 \end{aligned}$ |
|  |  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIVL380-440AC } \\ & 259567 \end{aligned}$ |
|  |  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM1-XUHIVL480-525AC } \\ & 259569 \end{aligned}$ |
|  |  |  |  | 12 V DC | $\begin{aligned} & \text { NZM1-XUHIVL12DC } \\ & 259571 \end{aligned}$ |
|  |  |  |  | 24 V DC | $\begin{aligned} & \text { NZM1-XUHIVL24DC } \\ & 259573 \end{aligned}$ |
|  |  |  |  | 110 V 130 V DC | $\begin{aligned} & \text { NZM1-XUHIVL110-130DC } \\ & 259579 \end{aligned}$ |
|  |  |  |  | $220 \mathrm{~V}-250 \mathrm{~V}$ DC | ```NZM1-XUHIVL220-250DC 259581``` |


| 1 off | When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. <br> Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms . <br> Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |
| :---: | :---: |
| 1 off | When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. <br> Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms . <br> Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |

## Undervoltage releases

With two early-make auxiliary contacts
For interlocking and load-shedding circuits,
as well as for early-make of the undervoltage release in main-switch applications.

|  | D1 3.13 | $\begin{array}{\|l} \hline \text { NZM2, N2 } \\ \text { NZM3, N3 } \end{array}$ | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XUHIV24AC } \\ & 259583 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | NZM2/3-XUHIV110-130AC 259589 |
|  |  |  | $208 \mathrm{~V}-240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XUHIV208-240AC } \\ & 259591 \end{aligned}$ |
|  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XUHIV380-440AC } \\ & 259594 \end{aligned}$ |
|  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM2/3-XUHIV480-525AC } \\ & 259598 \end{aligned}$ |
|  |  |  | 12 V DC | $\begin{aligned} & \text { NZM2/3-XUHIV12DC } \\ & 259600 \end{aligned}$ |
|  |  |  | 24 V DC | $\begin{aligned} & \text { NZM2/3-XUHIV24DC } \\ & 259602 \end{aligned}$ |
|  |  |  | 110 V 130 V DC | $\begin{aligned} & \text { NZM2/3-XUHIV110-130DC } \\ & 259608 \end{aligned}$ |
|  |  |  | $220 \mathrm{~V}-250 \mathrm{~V}$ DC | $\begin{aligned} & \text { NZM2/3-XUHIV220-250DC } \\ & 259610 \end{aligned}$ |
|  |  | NZM4, N4 | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XUHIV24AC } \\ & 266217 \end{aligned}$ |
|  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XUHIV110-130AC } \\ & 266220 \end{aligned}$ |
|  |  |  | $208 \mathrm{~V}-240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XUHIV208-240AC } \\ & 266221 \end{aligned}$ |
|  |  |  | $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XUHIV380-440AC } \\ & 266222 \end{aligned}$ |
|  |  |  | $480 \mathrm{~V}-525 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ | $\begin{aligned} & \text { NZM4-XUHIV480-525AC } \\ & 266223 \end{aligned}$ |
|  |  |  | 12 V DC | $\begin{aligned} & \text { NZM4-XUHIV12DC } \\ & 266231 \end{aligned}$ |
|  |  |  | 24 V DC | $\begin{aligned} & \text { NZM4-XUHIV24DC } \\ & 266232 \end{aligned}$ |
|  |  |  | $110 \mathrm{~V}-130 \mathrm{~V}$ DC | $\begin{aligned} & \text { NZM4-XUHIV110-130DC } \\ & 266235 \end{aligned}$ |
|  |  |  | $220 \mathrm{~V}-250 \mathrm{~V}$ DC | $\begin{aligned} & \text { NZM4-XUHIV220-250DC } \\ & 266236 \end{aligned}$ |


| 1 off | When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. <br> Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms . <br> Cannot be used in conjunction with NZM...-XR... remote operator. <br> Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |
| :---: | :---: |
| 1 off | When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. <br> Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms . <br> Cannot be used in conjunction with NZM...-XR... remote operator. <br> Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |


|  |  | For use with | Rated control voltage <br> $U_{s}$ <br> V | Part no. <br> Article no. when ordered separately | Price see price list | Std. pack |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Undervoltage releases |  |  |  |  |  |  |
| With two separate early-make auxiliary contacts |  |  |  |  |  |  |
| With 3 m connection cable instead of screw termination. |  |  |  |  |  |  |
|  |  | NZM1, N1 | $24 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $110 \mathrm{~V}-130 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $208 \mathrm{~V}-240 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $380 \mathrm{~V}-440 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $480 \mathrm{~V} \mathrm{-} 525 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> 12 V DC <br> 24 V DC | NZM1-XUHIV20L24AC <br> 259612 <br> NZM1-XUHIV20L110-130AC <br> 259620 <br> NZM1-XUHIV20L208-240AC <br> 259622 <br> NZM1-XUHIV20L380-440AC <br> 259624 <br> NZM1-XUHIV20L480-525AC <br> 259626 <br> NZM1-XUHIV20L12DC <br> 259628 <br> NZM1-XUHIV20L24DC <br> 259630 |  | 1 off |
| Contacts 3.23 and 3.24 with separate 3 m connection cables. |  |  |  |  |  |  |
|  |  | $\begin{array}{\|l} \hline \text { NZM2, N2 } \\ \text { NZM3, N3 } \end{array}$ | $24 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $110 \mathrm{~V}-130 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $208 \mathrm{~V}-240 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $380 \mathrm{~V}-440 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> $480 \mathrm{~V} \mathrm{-} 525 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ <br> 12 V DC <br> 24 V DC | NZM2/3-XUHIV2024AC <br> 259640 <br> NZM2/3-XUHIV20110-130AC <br> 259648 <br> NZM2/3-XUHIV20208-240AC <br> 259651 <br> NZM2/3-XUHIV20380-440AC <br> 259653 <br> NZM2/3-XUHIV20480-525AC <br> 259655 <br> NZM2/3-XUHIV2012DC <br> 259657 <br> NZM2/3-XUHIV2024DC <br> 259659 |  | 1 off |
| Notes When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely <br> prevented.  <br> Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms.  <br> Cannot be used in conjunction with NZM...-XR... remote operator.  <br>  Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |  |  |  |  |  |  |

Undervoltage release


| Moeller SK1230-1157EN-NA |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For use with |  |  | Rated control voltage Us V | Part no. <br> Article no. when ordered separately | Price see price list | Std. pack |
| Undervoltage releases |  |  |  |  |  |  |
| With two separate early-make auxiliary contacts |  |  |  |  |  |  |
| Contacts 3.23 and 3.24 with separate 3 m connection cables. |  |  |  |  |  |  |
|  |  | NZM4, N4 | $24 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ $110 \mathrm{~V}-130 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ $208 \mathrm{~V} 240 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ $380 \mathrm{~V}-440 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ 24 V DC | NZM4-XUHIV2024AC <br> 266244 <br> NZM4-XUHIV20110-130AC <br> 266247 <br> NZM4-XUHIV20208-240AC <br> 266248 <br> NZM4-XUHIV20380-440AC <br> 266249 <br> NZM4-XUHIV2024DC <br> 266258 |  | 1 off |
| Notes When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely <br> prevented.  <br> Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms.  <br> Cannot be used in conjunction with NZM...-XR... remote operator.  <br>  Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. | When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. <br> Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms . <br> Cannot be used in conjunction with NZM...-XR... remote operator. <br> Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |  |  |  |  |  |


|  | Part no. <br> Article no. <br> when ordered <br> separately | Price <br> see price <br> list |
| :--- | :--- | :--- | :--- |

With 2 early-make auxiliary contacts

NZM1 with 3 m separate connection cables instead of screw terminal, NZM2, 3, 4 with screw terminal

| $\int_{-f^{\text {D1 }}}^{\left.\right\|^{3.13}}$ | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM1-XUVHIVL } \\ & 271608 \end{aligned}$ | 1 off | Cannot be used in conjunction with NZM...-XR... remote operator. |
| :---: | :---: | :---: | :---: | :---: |
| $U<$ | $\begin{aligned} & \text { NZM2, N2 } \\ & \text { NZM3, N3 } \end{aligned}$ | $\begin{aligned} & \text { NZM2/3-XUVHIV } \\ & 259684 \end{aligned}$ |  | UVU-NZM delay unit is additionally required. Cannot be installed simultaneously with separate NZM...-XHIV early-make auxiliary |
| \|D2 3.14 | $\begin{aligned} & \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \text { NZM4-XUVHIV } \\ & 266596 \end{aligned}$ |  | contact or NZM...-XA... shunt release. <br> NZM1, 2, 3: Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms . <br> NZM4: Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms . |

## With 2 separately operating early-make auxiliary contacts

NZM1 with 3 m separate connection cables instead of screw terminal, NZM2, 3, 4 with screw terminal, contact 3.23 and 3.24 with 3 m separate connection cables.

| $\left.\left.{ }^{\text {D1 }}\right\|^{3.13}\right\|^{3.23}$ | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \end{aligned}$ | $\begin{aligned} & \text { NZM1-XUVHIV20L } \\ & 271609 \end{aligned}$ | 1 off | Cannot be used in conjunction with NZM...-XR... remote operator. |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \hline \text { NZM2, N2 } \\ & \text { NZM3, N3 } \end{aligned}$ | $\begin{aligned} & \text { NZM2/3-XUVHIV20 } \\ & 259688 \end{aligned}$ |  | UVU-NZM delay unit is additionally required. Cannot be installed simultaneously with |
|  | $\begin{aligned} & \hline \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \text { NZM4-XUVHIV20 } \\ & 266604 \end{aligned}$ |  | contact or NZM...-XA... shunt release. <br> NZM1, 2, 3: Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms . <br> NZM4: Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms . |

Shunt releases
Without auxiliary contact
Switches are tripped by a voltage pulse or by the application of uninterrupted voltage.

|  | $\vdash^{\mathrm{C1}}$ | With clamp terminal on the left-hand switch side. | NZM1, N1 | $12 \mathrm{~V} \mathrm{AC/DC}$ | $\begin{aligned} & \text { NZM1-XA12AC/DC } \\ & 259706 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{T}_{\mathrm{C} 2}$ |  |  | $24 \mathrm{~V} \mathrm{AC/DC}$ | $\begin{aligned} & \text { NZM1-XA24AC/DC } \\ & 259708 \end{aligned}$ |
|  |  |  |  | $110 \mathrm{~V}-130 \mathrm{~V} \mathrm{AC/DC}$ | $\begin{aligned} & \text { NZM1-XA110-130AC/DC } \\ & 259724 \end{aligned}$ |
|  |  |  |  | $208 \mathrm{~V}-250 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XA208-250AC/DC } \\ & 259726 \end{aligned}$ |
|  |  |  |  | $380 \mathrm{~V}-440 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XA380-440AC/DC } \\ & 259728 \end{aligned}$ |
|  |  |  |  | $480 \mathrm{~V}-525 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XA480-525AC/DC } \\ & 259730 \end{aligned}$ |
|  |  | With 3 m connection cable instead of screw termination. | NZM1, N1 | $12 \mathrm{~V} \mathrm{AC/DC}$ | $\begin{aligned} & \text { NZM1-XAL12AC/DC } \\ & 259734 \end{aligned}$ |
|  |  |  |  | 24 V AC/DC | $\begin{aligned} & \text { NZM1-XAL24AC/DC } \\ & 259736 \end{aligned}$ |
|  |  |  |  | $110 \mathrm{~V}-130 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XAL110-130AC/DC } \\ & 259742 \end{aligned}$ |
|  |  |  |  | $208 \mathrm{~V}-250 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XAL208-250AC/DC } \\ & 259744 \end{aligned}$ |
|  |  |  |  | $380 \mathrm{~V}-440 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XAL380-440AC/DC } \\ & 259746 \end{aligned}$ |
|  |  |  |  | $480 \mathrm{~V}-525 \mathrm{~V}$ AC/DC | $\begin{aligned} & \text { NZM1-XAL480-525AC/DC } \\ & 259748 \end{aligned}$ |

Std. pack Notes
1 off

1 off When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented.

Shunt release cannot be installed simultaneously with
NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release.

|  |  |  |
| :--- | :--- | :--- |

Std. pack Notes
1 off

1 off When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented.

Shunt release cannot be installed simultaneously with
NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release.

|  | For use with | Part no. <br> Article no. <br> when ordered separately |
| :--- | :--- | :--- |
| Price <br> see price list |  |  |
| Std. pack |  |  |

Std. pack Notes

Cannot be installed simultaneously with NZM...-XHIV... earlymake auxiliary contact or NZM...-XU... undervoltage release.

Intermittent operation guaranteed by series connection of an M22-(C)K10 make contact.
The maximum operating time of the shunt release for mesh network circuit-breaker is 1 s .

1 off


## Shunt releases with screw terminal

|  |  |  |
| :--- | :--- | :--- | :--- |

Std. pack Notes

| 1 off | When the shunt release is energized, accidental contact with <br> the main contacts of the switch during attempts to switch on <br> is safely prevented. <br> Early-make of the auxiliary contact with on and off switching <br> (manual operation): approx. 20 ms. <br> Shunt release cannot be installed simultaneously with <br> NZM...-XHIV.. early-make auxiliary contact or NZM...-XU... <br> undervoltage release. |
| :--- | :--- |
| 1 off |  |



## Std. pack Notes

| 1 off | When the shunt release is energized, accidental contact with <br> the main contacts of the switch during attempts to switch on <br> is safely prevented. <br> Early-make of the auxiliary contact with on and off switching <br> (manual operation): approx. 20 ms. <br> Cannot be used in conjunction with NZM...-XR... remote <br> operator. <br> Shunt release cannot be installed simultaneously with <br> NZM...-XHIV.. early-make auxiliary contact or NZM...-XU... <br> undervoltage release. |
| :--- | :--- |
| 1 off | When the shunt release is energized, accidental contact with <br> the main contacts of the switch during attempts to switch on <br> is safely prevented. <br> Early-make of the auxiliary contact with switch on (manual <br> operation): approx. 90 ms. <br> Cannot be used in conjunction with NZM...-XR... remote <br> operator. <br> Shunt release cannot be installed simultaneously with <br> NZM...-XHIV.. early-make auxiliary contact or NZM...-XU... <br> undervoltage release. |

With early-make auxiliary contact
For mesh-network circuit-breakers
For intermittent operation
Maximum on time $=1 \mathrm{~s}$
Operating range $10-110 \% U_{s}$
not UL/CSA approved
(3)



## Std. pack Notes

Cannot be installed simultaneously with NZM...-XHIV... earlymake auxiliary contact or NZM...-XU... undervoltage release. Cannot be used in conjunction with NZM...-XR... remote operator.

Intermittent operation guaranteed by series connection of a N/O contact M22-(C)K10 (standard auxiliary contact).
The maximum operating time of the shunt release for mesh network circuit-breaker is 1 s .
NZM3: Early-make of the auxiliary contact with on and off switching (manual operation): approx. 20 ms .
NZM4: Early-make of the auxiliary contact with switch on (manual operation): approx. 90 ms .

## Door coupling rotary handle

CSA only

Complete including rotary drive and coupling parts
An additional extension shaft is necessary with the NZM...-XT(V)D(V)(R)(-60) types.
Degree of protection IP66/UL/CSA Type 4X


Notes


## Door coupling rotary handle

Complete including rotary drive and coupling parts
Extension shaft additionally required.
Degree of protection IP66/UL/CSA Type 4X


Notes
Circuit-breaker can also be installed in a lying position $90^{\circ}$ left/right, with the handle still in the same position.


- Not defeated in the locked OFF position
Door opening possible with active
- Cannot be combined with mechanical interlock
- External warning plate/ designation label can be clipped

NZM...-XTVDV-60-NA

- For a maximum shaft length of 60 mm
- Without shaft support

Cannot be combined with

- External warning plate/ designation label can be clipped on


## NZM

NZM2-XTVDV-0-NA
100676
NZM3-XTVDV-0-NA
100677
NZM4-XTVDV-0-NA
100678

Door interlock

- Not defeated in the locked OFF
- Door opening possible with active
rotation beyond the 0 position.
- Cannot be combined with mechanical interlock
- External warning plate/ designation label can be clipped

NZM...-XTVDV-0-NA

- For extremely narrow fittings
- With special short extension shaft
- Cannot be combined with

NZM...-XDZ additional handle
designation label can be clipped on

NZM1-XTVDVR-60-NA
NZM2-XTVDVR-60-NA
100672
NZM3-XTVDVR-60-NA
NZM4-XTVDVR-60-NA
100674

Door interlock

- Not defeated in the locked OFF in
Door opening possible with active
rotation beyond the 0 position.
- Cannot be combined with
hanical interlock
External warning plate/ on
- For a maximum shaft length of 60 mm
- Winout shaft suppor

Cannot be combined with

- External warning plate/ designation label can be clipped on
- Not defeated in the locked OFF
- Door opening possible with active
rotation beyond the 0 position.
and
- External warning plate/ designation label can be clipped on
$.-X T V D V R-0-N A$
- For extremely narrow fittings
- Cannot be combined with

NZM...-XDZ additional handle
designation label can be clipped on


Notes
Circuit-breaker can also be installed in a lying position $90^{\circ}$ left/right, with the handle still in the same position.

| Moeller SK1230-1157EN-NA |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | For use with | Part no. <br> Article no. when ordered separately | Price see price list | Std. pack |
| CSA only |  |  |  |  |  |  |
| Main switch assembly kit |  |  |  |  |  |  |
| Equipment supplied: <br> - Rotary door-coupling handle <br> - NZM...-XV4 extension shaft <br> - External warning plate/designation label in German/English <br> - Black and yellow flash <br> For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered $\rightarrow 68$ <br> Other external warning plates/designation labels can be clipped on. |  |  |  |  |  |  |
| With black door coupling rotary handle |  |  |  |  |  |  |
|  | Lockable in 0 position on handle. With door interlock | - | NZM1 | $\begin{aligned} & \text { NZM1-XHB } \\ & 266626 \end{aligned}$ |  | 1 off |
|  |  |  | NZM2 | NZM2-XHB |  |  |
|  |  |  | N2 | 266627 |  |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM3 } \\ & \text { N3 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM3-XHB } \\ & 266628 \\ & \hline \end{aligned}$ |  |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \text { NZM4-XHB } \\ & 271779 \end{aligned}$ |  |  |
| With red door coupling rotary handle for using switch as Emergency-Stop device according to IEC/EN 602041 |  |  |  |  |  |  |
|  | Lockable in 0 position on handle. Lockable door, locking facility on circuit-breaker in 0 position. | - | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \\ & \hline \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | NZM1-XHBR <br> 266632 <br> NZM2-XHBR <br> 266633 |  |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM3 } \\ & \text { N3 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM3-XHBR } \\ & 266634 \\ & \hline \end{aligned}$ |  |  |
|  |  |  |  | $\begin{aligned} & \text { NZM4-XHBR } \end{aligned}$ |  |  |

Main switch assembly kit for side panel mounting
Actuation of the switch on the control panel side wall
Switch mounting on mounting plate
Equipment supplied:

- Door coupling rotary handle
- NZM...-XV4 extension shaft
- External warning plate/designation label in German/English
- Black and yellow flash

For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered $\rightarrow 68$
Other external warning plates/designation labels can be clipped on.

| Standard, black/grey |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Can be locked in 0 position, with adequate modification also in I position. | For operation on the left | $\begin{aligned} & \text { NZM1 } \\ & \text { N1 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM1-XS-L } \\ & 266641 \end{aligned}$ | 1 off |
|  |  |  | $\begin{aligned} & \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | $\begin{aligned} & \text { NZM2-XS-L } \\ & 266642 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \text { NZM3 } \\ & \text { N3 } \end{aligned}$ | $\begin{aligned} & \text { NZM3-XS-L } \\ & 266643 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM4-XS-L } \\ & 289806 \end{aligned}$ |  |
|  |  | For operation on the right | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM1-XS-R } \\ & 266644 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM2 } \\ & \text { PN2, N2 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM2-XS-R } \\ & 266645 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM3 } \\ & \text { N3 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM3-XS-R } \\ & 266646 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \text { NZM4-XS-R } \\ & 289807 \end{aligned}$ |  |
| Red-yellow for Emergency-Stop |  | For operation on the left |  |  |  |
|  | Lockable in 0 position on handle. |  | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \end{aligned}$ | $\begin{aligned} & \text { NZM1-XSR-L } \\ & 266653 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | $\begin{aligned} & \hline \text { NZM2-XSR-L } \\ & 266654 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM3 } \\ & \text { N3 } \end{aligned}$ | $\begin{aligned} & \text { NZM3-XSR-L } \\ & 266655 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \text { NZM4-XSR-L } \\ & 289808 \end{aligned}$ |  |
|  |  | For operation on the right | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \end{aligned}$ | $\begin{aligned} & \text { NZM1-XSR-R } \\ & 266656 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | $\begin{aligned} & \text { NZM2-XSR-R } \\ & 266657 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \text { NZM3 } \\ & \text { N3 } \end{aligned}$ | $\begin{aligned} & \text { NZM3-XSR-R } \\ & 266658 \end{aligned}$ |  |
|  |  |  | $\begin{aligned} & \hline \text { NZM4 } \\ & \text { N4 } \end{aligned}$ | $\begin{aligned} & \text { NZM4-XSR-R } \\ & 289809 \end{aligned}$ |  |

## Main switch assembly kit for side wall installation

Actuation of the switch on the control panel door.

## Mounting the breaker on the control panel side wall

Equipment supplied:

- Door coupling rotary handle
- NZM...-XV4 extension shaft
- External warning plate/designation label in German/English
- Black and yellow flash

For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered $\rightarrow 68$
Other external warning plates/designation labels can be clipped on.



## CSA only

Main switch assembly kit for side panel mounting with mounting bracket
For direct mounting of circuit-breaker and handle in the side wall of the control cabinet
Equipment supplied:

- Door coupling rotary handle
- Mounting bracket
- Special short extension shaft
- External warning plate/designation label in German/English
- Black and yellow flash

For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered $\rightarrow 68$
Other external warning plates/designation labels can be clipped on.

| Standard, black/grey |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Can be locked in 0 position, with adequate modification also in I position. Narrowest minimum clearance between enclosure side plates of control panel and circuit-breaker is defined by mounting bracket. Extensions cannot be used. | For operation on the left <br> For operation on the left <br> For operation on the right <br> For operation on the right | $\begin{aligned} & \hline \text { NZM1 } \\ & \text { N1 } \\ & \hline \text { NZM2 } \\ & \text { N2 } \\ & \hline \text { NZM1 } \\ & \text { N1 } \\ & \hline \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | NZM1-XSM-L <br> 266663 <br> NZM2-XSM-L <br> 266664 <br> NZM1-XSM-R <br> 266665 <br> NZM2-XSM-R <br> 266666 | 1 off |
| Red-yellow for Emergency-Stop |  |  |  |  | 1 off |
|  | Lockable in 0 position on handle. Narrowest minimum clearance between enclosure side plates of control panel and circuit-breaker is defined by mounting bracket. Extensions cannot be used. | For operation on the left <br> For operation on the left <br> For operation on the right <br> For operation on the right | NZM1 <br> N1 <br> NZM2 <br> N2 <br> NZM1 <br> N1 <br> NZM2 <br> N2 | NZM1-XSRM-L <br> 266671 <br> NZM2-XSRM-L <br> 266672 <br> NZM1-XSRM-R <br> 266673 <br> NZM2-XSRM-R <br> 266674 |  |

## Add-on plate

For fitting to the mounting bracket when using N conductor or PE conductor terminals K25, K50, K95 or K150.


Additional terminal arrangement for side wall operator with mounting bracket
NZM1-XS(R)M-..., NZM2-XS(R)M-...
Additional terminals K25, K50, K95, K150
Actuation:
3-pole
For operation on the right
For operation on the left


| Mounting areas |  | MI |  | MII |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Variation options | V1 | V2 | V3 | V4 | V1 | V2 |  |
| Maximum number of additional <br> terminals | K25 | $2 \times$ | - | - | - | - | - |
|  | K50 | - | $2 \times$ | - | - | - | - |
|  | K95 | - | - | $1 \times$ | - | $1 \times$ | - |
|  | K150 | - | - | - | $1 \times$ | - | $1 \times$ |

Example: In mounting area MI, variation option 1 allows the K25 additional terminal to be mounted twice.


## Accessories

|  |  | Part no. <br> Article no. <br> when ordered <br> separately |
| :--- | :--- | :--- | :--- | :--- |

Toggle lever locking device
Off position lockable using up to 3 padlocks
(hasp thickness 4-8 mm)

| $l$ |  |  |  |
| :--- | :--- | :--- | :--- |

Clip plate
Enables snap-fit of the circuit-breaker to a DIN rail

|  | NZM1 <br> N1 | $\begin{aligned} & \text { NZM1-XC35 } \\ & 260213 \end{aligned}$ |
| :---: | :---: | :---: |
| $\left[\begin{array}{cc} 0: \\ 5 & 0 \\ 0 & 0 \\ 0 & 5 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 \end{array}\right.$ | $\begin{aligned} & \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | $\begin{aligned} & \text { NZM2-XC75 } \\ & 260215 \end{aligned}$ |


| 1 off |  | For top-hat rail 35 mm |
| :--- | :--- | :--- |
| 1 off | For top-hat rail 75 mm <br> Not suitable for circuit-breakers with remote <br> operator. |  |

Mechanical interlock
$l$


## Notes

A standard auxiliary contact (HIN) for the switch position detection is supplied.
Please note during engineering:
Full current flows through the contact during make and break!
RMQ series contact elements can be used for the
NZM2(3,4)-XR... remote operators.

3-wire control with automatic reset to the OFF position after the switch has tripped


Switching cycle:



The time interval between OFF and ON is 3 seconds.
On commands received during the time interval are ignored within the first 3 seconds after switch off.


## Plug-in units

For circuit-breakers NZM and disconnect switches N not UL/CSA approved

Plug-in adapter elements
Complete
Only in combination with circuit-breaker

|  | $\begin{aligned} & \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | 3 pole | $\begin{aligned} & \hline \text { +NZM2-XSV } \\ & 266697 \end{aligned}$ |
| :---: | :---: | :---: | :---: |

Sockets
e.g. for reserved slots

Retrofit of circuit-breaker with plug-in module.


Removable module
Fits socket base
Only in combination with circuit-breaker

|  | $\begin{aligned} & \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | 3 pole | $\begin{aligned} & \text { +NZM2-XSVE } \\ & 266701 \end{aligned}$ |  | 1 off |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Control circuit | g unit |  |  |  |  |  |
|  | $\begin{aligned} & \hline \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | for auxiliary contact, shunt/undervoltage |  | $\begin{aligned} & \hline \text { NZM2-XSVHI } \\ & 266705 \end{aligned}$ | 1 off | - |
|  | $\begin{aligned} & \hline \text { NZM2 } \\ & \text { N2 } \end{aligned}$ | for remote operator |  | $\begin{aligned} & \text { NZM2-XSVR } \\ & 266706 \end{aligned}$ | 1 off | - |


|  | For use with | Number of poles | Part no. <br> Article no. when ordered with basic unit | Price see price list | Part no. <br> Article no. when ordered separately | Price see price list | Std. pack | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Withdrawable unit with control circuit plug unit |  |  |  |  |  |  |  |  |
| For circuit-breakers NZM and disconnect switches N not UL/CSA approved |  |  |  |  |  |  |  |  |
| Withdrawable unit with auxiliary plug-in adapter <br> Complete <br> Only in combination with circuit-breaker |  |  |  |  |  |  |  |  |
|  | NZM3 <br> N3 <br> NZM4 <br> N4 | $\begin{aligned} & \hline 3 \text { pole } \\ & \hline 3 \text { pole } \end{aligned}$ | $\begin{aligned} & \hline \text { +NZM3-XAV } \\ & \text { 266707 } \\ & \hline \text { +NZM4-XAV } \\ & \text { 266709 } \end{aligned}$ |  |  |  | 1 off | $I_{\text {nmax. }}$ at: <br> $20^{\circ} \mathrm{C}$ : $605 \mathrm{~A}(\mathrm{NZM} 3), 1600 \mathrm{~A}$ <br> (NZM4) <br> $40^{\circ} \mathrm{C}: 550 \mathrm{~A}(\mathrm{NZM} 3), 1500 \mathrm{~A}$ <br> (NZM4) <br> Mounting position: <br> NZM3: vertical, $90^{\circ}$ left <br> NZM4: vertical, 3 positions <br> Connected, test, disconnected <br> The 3 positions are indicated mechanically. <br> Additionally, auxiliary contacts are use for remote signalling. An |
| Socket base e.g. for reserved slots Retrofit of circuit-break carrier. | with withdra | wable |  |  |  |  |  | optional M22-(C)K01 N/C contact or M22-(C)K10 N/O contact per position. <br> Also see the RMQ-Titan control |
|  | NZM3 <br> N3 <br> NZM4 <br> N4 | 3 pole <br> 3 pole |  |  | $\begin{aligned} & \hline \begin{array}{l} \text { NZM3-XAVS } \\ \text { 26711 } \end{array} \\ & \hline \text { NZM4-XAVS } \\ & 266713 \end{aligned}$ |  | 1 off | All connections of auxiliary switches (HIA, HIN, HIV) and undervoltage and shunt releases to the control circuit plug units are already present. <br> Cannot be combined with NZM4/NZM14 (NZM4-XSAS14-...) or $\mathrm{N}(\mathrm{ZM}) 4 / \mathrm{N}(\mathrm{ZM}) 12$ adapter kits. |
| Withdrawable carrier Not UL/CSA approved. |  |  |  |  |  |  |  |  |
|  | NZM3 <br> N3 <br> NZM4 <br> N4 | $\begin{gathered} \hline 3 \text { pole } \\ \hline 3 \text { pole } \end{gathered}$ | $\begin{aligned} & \hline \text { +NZM3-XAVE } \\ & 266715 \\ & \hline \text { +NZM4-XAVE } \\ & 266717 \end{aligned}$ |  |  |  | 1 off |  |



| Terminal capacities |  |  |  | Std. pack | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cu strip (number of segments $\times$ width $\times$ segment thickness) mm | Copper busbar width $\times$ thickness mm | Article no. when ordered separately | see price list |  |  |
| $2 \times 9 \times 0.8$ |  | $\begin{aligned} & \hline \text { NZM1-XKC } \\ & 260015 \end{aligned}$ |  | 1 off | Standard connection with all switches NZM1, and N(S)1. Conversion kit for circuit-breaker with screw connection. Type contains parts for a 3 pole switch side. Fitted within the switch housing |
|  | $\min .12 \times 5$ | $\begin{aligned} & \hline \text { NZM1-XKS } \\ & 260019 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. <br> Fitted outside the switch housing <br> Mounting of the cover NZM1-XKSA obligatory (supplied). |
|  |  | $\begin{aligned} & \hline \text { NZM1-XKA } \\ & 266730 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. <br> A standard with control circuit terminal for $1 \times 0.75-2.5 \mathrm{~mm}^{2}$ ( $18-14$ AWG) or $2 \times 0.75-1.5 \mathrm{~mm}^{2}(18-14$ AWG) copper conductors. <br> Fitted outside the switch housing <br> Use with flexible and highly flexible conductors ferrules. Maximum specified cross-section can only be connected when stranded and without ferrules. <br> Mounting of the cover NZM1-XKSA obligatory (supplied). |
|  | $\begin{array}{\|l} \hline \min .12 \times 5 \\ \max .16 \times 5 \end{array}$ | $\begin{aligned} & \hline \text { NZM1-XKR } \\ & 266734 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. |

3 pole circuit-breakers.
Fitted outside the switch housing
Mounting of the cover NZM1-XKSA obligatory (supplied).

Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers.
A standard with control circuit terminal for $1 \times 0.75-2.5 \mathrm{~mm}^{2}$ ( $18-14$ AWG) or $2 \times 0.75-1.5 \mathrm{~mm}^{2}(18-14$ AWG) copper conductors.

Use with flexible and highly flexible conductors ferrules. Maximum specified cross-section can only be connected when stranded and without ferrules.
Mounting of the cover NZM1-XKSA obligatory (supplied).

## NZM1 terminals

## Max. cable connection For use with

Terminal capacities
Type of conductor $\quad$ Terminal capacities $\quad$ AWG/kcmil
$\mathrm{mm}^{2}$

| Control circuit terminal |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |




NZM1, NS1
3 pole

| Terminal capacities <br> Cu strip <br> (number of segments $\times$ width $\times$ segment thickness) mm | Copper busbar width $\times$ thickness mm | Part no. Article no. when ordered separately | Price see price list | Std. pack | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \hline \text { NZM1-XSTS } \\ & 260150 \end{aligned}$ NZM-XSTK $266739$ |  | 1 off <br> 1 off | Type contains parts for two terminal locations located at top or bottom for 3 pole circuit-breakers. <br> Included as standard with tunnel terminal Degree of protection IP1X <br> NZM-XSTK cannot be combined with NZM1-XIPK IP2X protection against contact with a finger. <br> Height or thickness of the control terminals: $\begin{aligned} & \text { NZM-XSTK }=2 \mathrm{~mm} \\ & \text { NZM-XSTS }=2 \mathrm{~mm} \end{aligned}$ |
|  |  | $\begin{aligned} & \text { NZM1-XKSA } \\ & 260021 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. <br> Protection against direct contact where cable lugs, busbars or tunnel terminals are used <br> Contained in kit with tunnel terminals or screw connection terminals. Degree of protection IP1X on the connection side when using insulated conductor material. |
|  |  | $\begin{aligned} & \text { NZM1-XKSFA } \\ & 100780 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. <br> Enhancement of the protection against direct contact (simplified protection against contact with a finger). <br> Cannot be combined with NZM-XSTK control circuit terminal. |
|  |  | $\begin{aligned} & \hline \text { NZM1-XIPK } \\ & 266744 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. <br> Enhancement of the protection against direct contact to IP2X. Protection when reaching into the cable connection area with the connection of cables in the box terminal. <br> Cannot be combined with NZM-XSTK control circuit terminal. |
|  |  | $\begin{aligned} & \hline \text { NZM1-XIPA } \\ & 266748 \end{aligned}$ |  | 1 off | Type contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. Enhancement of the protection against direct contact to IP2X. |

## NZM2 terminals



## Connection on rear

not UL/CSA approved
When using cable lugs without NZM3-XKSA cover, they must be insulated.


[^5]

| Min. $16 \times 5$ <br> Max. $20 \times 5$ | $\begin{aligned} & \hline+ \text { NZM2-XKRO } \\ & 266763 \end{aligned}$ | $\begin{aligned} & \text { NZM2-XKR } \\ & 266765 \end{aligned}$ | 1 off | Type suffix and type contain parts for a circuit-breaker side at top or bottom for 3 pole circuit-breakers. |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { +NZM2-XKRU } \\ & 266764 \end{aligned}$ |  |  | $0=$ for fitting at the top <br> $\mathrm{U}=$ for fitting at the bottom |

## NZM2 terminals

Max. cable
connection area

| Connection cover, knockout |  |  |  |
| :---: | :---: | :---: | :---: |
|  | - | NZM2, N(S)2 | 3 pole |

## IP2X protection against

For box terminals
$-\overline{-} \quad \frac{}{\text { NZM2,N(S)2 }} \frac{}{3 \text { pole }}$

For covers NZM2-XKSA or NZM2 or NZM2...(C)NA and N(S)2...NA


$$
\begin{aligned}
& \text { NZM2, N(S)2 }
\end{aligned}
$$

Copper cable lug
not UL/CSA approved
When using cable lugs without NZM2-XKSA cover, they must be insulated.

|  | - | $95 \mathrm{~mm}^{2}$ | $\begin{array}{\|l} \hline \text { NZM2, } \\ \text { N2 } \end{array}$ | Three pole |
| :---: | :---: | :---: | :---: | :---: |
|  | - | 120 mm ${ }^{2}$ |  |  |
|  | - | $150 \mathrm{~mm}^{2}$ |  |  |
|  | - | $185 \mathrm{~mm}^{2}$ |  |  |



|  |
| :--- | :--- | :--- | :--- | :--- |

## NZM3 terminals

 generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.

## NZM3 terminals

Moeller SK1230-1157EN-NA

at top or bottom for 3 pole circuitbreakers.
Standard connection with all NZM3, and circuit-breakers
onversion kit for circuit-breaker with box terminal
$\rightarrow 73$
Fitted within the switch housing
When a busbar is used insulation is required ( 400 mm ) e.g. using heat shrink $U_{\mathrm{e}} \geqq 525 \mathrm{~V} \mathrm{AC}$ :
A shroud NZM3-XKSA must be used with all other connection types.

Type contains parts for a terminal located at top or bottom for 3 pole circuitbreakers.
Central holes, e.g. for up to 2 cable lugs per phase.
screw termination
Phase isolator supplied.
Distance between pole centres with
M3-XKV70: 70 mm
Terminals NZM3-XK300 and
NZM3-XK22X21 can be mounted.


Terminals for connection width extension


| Max. 500 | NZM3, N3 | 3-pole | Cu cable | $1 \times 120-300$ |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { NZM3, } \\ & \text { N3 } \end{aligned}$ |  |  |  |
| Max. 630 | NZM3, N3 |  |  |  |


| Tunnel terminal |
| :--- | :--- | :--- | :--- |

Connection on rear


## NZM3 terminals

Moeller SK1230-1157EN-NA


## NZM3 terminals

|  |  | For use with |  | Terminal capacities |  |  | Terminal capacities |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | connection area |  |  | Type of conductor | Terminal capacities $\mathrm{mm}^{2}$ | AWG/kcmi | Cu strip (number of segments $\times$ width $\times$ segment thickness) mm | Copper busbar width $\times$ thickness mm |
| Cover |  |  |  |  |  |  |  |  |
|  |  | $\begin{array}{\|l} \hline \text { NZM3, } \\ \text { N(S)3 } \end{array}$ | 3 pole |  |  |  |  |  |
| Phase isolator |  |  |  |  |  |  |  |  |
|  |  | $\begin{array}{\|l} \hline \text { NZM3, } \\ \text { N(S)3 } \end{array}$ | 3 pole |  |  |  |  |  |
| Connection cover, knockout |  |  |  |  |  |  |  |  |
|  |  | $\begin{array}{\|l} \hline \text { NZM3, } \\ \text { N(S)3 } \end{array}$ | 3 pole |  |  |  |  |  |
| IP2X protection against contact with a finger |  |  |  |  |  |  |  |  |
| For box terminals |  |  |  |  |  |  |  |  |
|  |  | $\begin{array}{\|l\|} \hline \text { NZM3, } \\ \text { N3 } \end{array}$ | 3 pole |  |  |  |  |  |
| For cover NZM3-XKSA or NZM3...(C)NA and N(S)3...NA |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & \text { NZM3, } \\ & \mathrm{N}(\mathrm{~S}) 3 \end{aligned}$ | 3 pole |  |  |  |  |  |

## Copper cable lug

not UL/CSA approved
When using cable lugs without NZM3-XKSA cover, they must be insulated.


| Part no. <br> Article no. <br> when ordered with <br> basic unit | Price <br> see price <br> list | Part no. <br> Article no. <br> when ordered <br> separately | Price <br> see price <br> list | Std. pack |
| :--- | :--- | :--- | :--- | :--- | | Notes |
| :--- |


| $\begin{aligned} & \text { NZM3-XKS240 } \\ & 260041 \end{aligned}$ | 3 off | Type contains a cable lug for 3 pole switches. Special cable lug, narrow style |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { NZM3-XKS185 } \\ & 260040 \end{aligned}$ | 3 off |  |



| Terminal capacities | Copper busbar width $\times$ thickness | Part no. Article no. when ordered separately | Price see price list | Std. pack | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cu strip <br> (number of segments $\times$ width $\times$ segment thickness) |  |  |  |  |  |
| mm$2 \times(10 \times 40 \times 1.0)$ | mm |  |  |  |  |
|  | (2×) $50 \times 10$ |  |  | off | Double |
| $2 \times(10 \times 40 \times 1.0)$ |  |  |  |  | Use spe |
|  |  |  |  |  | $U_{\text {e }} \geqq$ |




## Connection on rear

| not UL/CSA approved |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | Max. 1250 | $\begin{aligned} & \hline \text { NZM4, } \\ & \text { N4 } \end{aligned}$ | Three pole | Copper cable lugs | $\begin{aligned} & 1 \times 120-185 \\ & 2 \times 95-185 \\ & 4 \times 35-185 \end{aligned}$ |
|  |  |  |  | Aluminium | $1 \times 185$ |
|  |  |  |  | cable lugs | $2 \times 70-185$ |
|  |  |  |  |  | $4 \times 50-185$ |

## NZM4 terminals

Moeller SK1230-1157EN-NA


## NZM4 terminals

|  |  |  |  |  |  |  | 1230-1157EN-NA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. cable connection area | Rated current ${ }^{1)}$ | For use with |  | Terminal capacities |  |  |
|  |  |  |  |  | Type of conductor | Terminal capacities | AWG/kcmil |
|  |  | $I_{\text {n }}$ |  |  |  |  |  |
| Not UL/CSA approved |  | A |  |  |  | $\mathrm{mm}^{2}$ |  |
| Adapter set N(ZM)4/N(ZM)12 |  |  |  |  |  |  |  |
|  |  | Max. 1000 | N4 | 3 pole |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | Max. 1250 | N4 | 3 pole |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | Max. 1600 | N4 | 3 pole |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | Max. 1250 | NZM4 | 3 pole |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | Max. 1600 | NZM4 | 3 pole |  |  |  |
|  |  |  |  |  |  |  |  |
| Notes 1) The fo <br> the $m$  <br>  The e | in applies for the rated curren fined cross-sections and are ring standards which apply in | The values h tended for th each case must | ve been determ purpose of orie t be observed. | conform n. | C/EN 60947 (switc | ear standar | generally relate to |



## NZM4 terminals



| Cover |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \hline \text { NZM4, } \\ & \mathrm{N}(\mathrm{~S}) 4 \end{aligned}$ | 3 pole |



## Cable lug

not UL/CSA approved

| (0) | $185 \mathrm{~mm}^{2}$ | $\begin{aligned} & \text { NZM3, } \\ & \text { N3 } \\ & \text { NZM4, } \end{aligned}$ | 3 pole |
| :---: | :---: | :---: | :---: |



| Moeller SK1230-1157EN-N |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Description | Part no. <br> Article no. | Price | Std. pack | Notes |
| Diagnostic and configurator software for NZM and DMI (at the machine) |  |  |  |  |  |
|  | PC software for direct connection to all new NZM circuitbreakers with electronic releases (IEC and UL/CSA devices) or for direct connection to the DMI module, including the connection cable. <br> Protection parameters: Online display and characteristic representation, export option to "Moeller CurveSelect" characteristics program. <br> Warning and trip messages: Read of the diagnostics memory even in a no-voltage state. <br> Load currents: Display and trend representation. Recording and export feature to MS-Excel for load currents and diagnostic messages. <br> Configuration of the DMI: motor starter, remote operator, assignment of the DMI inputs and outputs and displays. | $\begin{aligned} & \text { NZM-XPC-KIT } \\ & 265631 \end{aligned}$ |  | 1 off | Only suitable for use in conjunction with circuit-breakers having electronic releases. Free-of-charge download of the manual AWB1230-1459 and a demo software at www.moeller.net. |
| Data Management Interface (DMI Module) |  |  |  |  |  |
|  | Query of diagnostics and operational data, display of currents, motor starter function, parameterization and control of the circuit-breaker with electronic release. Comprehensive remote diagnostic options and remote operation via fieldbus in combination with fieldbus connection. <br> Inclusive NZM-XDMI-CAB connection cable between NZM and DMI (length: 2 m ). | NZM-XDMI612 |  |  | electronic |

Expansion unit, networking


Switched-mode power supply unit

- Rated input voltage: 50/60 HZ: 115/230 V AC
- Rated output voltage (residual ripple): 24 V DC ( $\pm 3 \%$ )
- Rated output current: 1.25 A


## Telescopic adapter

for DMI module
For equalization of the mounting depth when rear mounted in CI-K.. enclosures and cabinets.


With 35 mm top-hat rail IEC/EN 60715, adjustable from 75 - 115 mm . Screw-on and snap fitting.

## EASY400-POW



| Description |  |  |
| :--- | :--- | :--- | :--- |

Circuit-breakers, disconnect switches Insulated terminals

Additional insulated terminals
For looping through the neutral and protective conductor 1 pole


| 32 | Flexible, $1 \times(1.5-6)$ | $\begin{aligned} & \hline \text { K10/1 } \\ & 093827 \end{aligned}$ | 10 off |
| :---: | :---: | :---: | :---: |
| 63 | Flexible, $1 \times(6-16)$, stranded, $1 \times(16-25)$ | $\begin{aligned} & \hline \text { K25/1 } \\ & 096200 \end{aligned}$ |  |
| 100 | Flexible, $1 \times(10-35)$, stranded, $1 \times(16-50)$ | $\begin{aligned} & \hline \text { K50/1 } \\ & 098573 \end{aligned}$ |  |
| 160 | Stranded, $1 \times(16-95)$ | $\begin{aligned} & \hline \text { K95/1N/BR } \\ & 012336 \end{aligned}$ | 1 off |
| 250 | Stranded, $1 \times(35-150), 2 \times(16-70)$ | $\begin{aligned} & \hline \text { K150/1/BR } \\ & 014709 \end{aligned}$ |  |
| 400 | Stranded, $1 \times(50-240), 2 \times(25-120)$ | $\begin{aligned} & \hline \text { K240/1/BR } \\ & 017082 \end{aligned}$ |  |
| 630 | Stranded, $1 \times(240-300), 2 \times(50-240)$ | $\begin{aligned} & \text { K2X240/1/BR } \\ & 019455 \end{aligned}$ |  |

Tripping characteristics for circuit-breakers




## Tripping characteristics

Tripping characteristics for circuit-breakers
 System and line protection with NZM3


Systems, cable, selectivity and generator protection with NZM3


## Tripping characteristics for circuit-breakers

Systems, cable, selectivity and generator protection with NZM3


## System and line protection with NZM4



Systems, cable, selectivity and generator protection with NZM4



## Let-through current $\hat{I}_{D}$





## Let-through current $\hat{l}_{D}$




## Let-through energy $I^{2 t}$




## Let-through energy $I^{2} t$



(1) $1^{\text {st }}$ half-wave


Rated uninterrupted current: 125 A
NZMB1
NZMN1

| General |  |  |
| :---: | :---: | :---: |
| Standards |  | IEC/EN 60947: UL 489, CSA 22.2 No. 5.1 |
| Protection against direct contact |  | Finger and back of hand proof to VDE 0106 Part 100 |
| Climatic proofing |  | Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical to IEC 60068-2-30 |
| Ambient temperature |  |  |
| Storage | ${ }^{\circ} \mathrm{C}$ | -25/+70 |
| Operation | ${ }^{\circ} \mathrm{C}$ | -25/+70 |
| Mechanical shock resistance (IEC/EN 60068-2-27) |  | 20 (half-sinusoidal shock 20 ms ) |
| Safe isolation to VDE 0106 Part 101 and Part 101/A1 |  |  |
| between auxiliary contacts and main contacts | V AC | 500 |
| between the auxiliary contacts | V AC | 300 |
| Mounting position |  | Vertical and $90^{\circ}$ in all directions |
|  |  |  |
| Direction of incoming supply |  | As required |
| Degree of protection |  |  |
| Device |  | In the operating controls area: IP20 (basic degree of protection) |
| Enclosures |  | With insulating surround: IP40, with door coupling rotary handle: IP66 |
| Terminals |  | Tunnel terminal: IP10 Phase isolator and strip terminal: IPOO |

Rated uninterrupted current: 250 A
NZMB2 NZMN2


Notes
${ }^{1)}$ For switching capacity of NA switches with NZM...1-...NA the following applies: $480 \mathrm{Y} / 277 \mathrm{~V}$ from 60 A
2) For rated operational current AC-3 at NZM4 the following applies: 400 V : max. 650 kW ; 600 V : max. 600 kW
${ }^{3)}$ For switching capacity of NA switches with NZMH2 and NZMH3 the following applies: current limiting switch to UL489
4) For switching capacity of NA switches with NZMH4 at 240 V 60 Hz the following applies: please enquire

| Rated uninterrupted current: 250 A |  |  | Rated uninterrupted current: 600 A |  | Rated uninterrupted current: 1200 A |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NZMB2 | NZMN2 | NZMH2 | NZMN3 | NZMH3 | NZMN4 | NZMH4 |
| 8000 | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |
| 6000 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 690 | 690 | 690 | 690 | 690 | 690 | 690 |
| III/3 | III/3 | III/3 | III/3 | III/3 | III/3 | III/3 |
| 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| 525 | 690 | 690 | 690 | 690 | 525 | 525 |
| 63 | 187 | 330 | 187 | 330 | 105 | 275 |
| 53 | 105 | 330 | 105 | 330 | 105 | 220 |
| 53 | 74 | 286 | 74 | 286 | 74 | 187 |
| 30 | 53 | 105 | 53 | 143 | 53 | 143 |
| - | 40 | 40 | 40 | 74 | 40 | 105 |
| 30 | 85 | 150 | 85 | 150 | 50 | 125 |
| 25 | 50 | 150 | 50 | 150 | 50 | 100 |
| 25 | 35 | 130 | 35 | 130 | 35 | 85 |
| 15 | 25 | 50 | 25 | 65 | 25 | 65 |
| - | 20 | 20 | 20 | 35 | 20 | 50 |
| 30 | 85 | 150 | 85 | 150 | 37 | 63 |
| 25 | 50 | 150 | 50 | 150 | 37 | 50 |
| 25 | 35 | 130 | 35 | 130 | 26 | 43 |
| 15 | 25 | 38 | 13 | 33 | 19 | 49 |
| - | 5 | 5 | 5 | 9 | 15 | 37 |
| A | A | A | A | A | B | B |
| - | 1.9 | 1.9 | 3.3 | 3.3 | 19.2 | - |
| - | 1.9 | 1.9 | 3.3 | 3.3 | 19.2 | - |
| 250 | 250 | 250 | 600 | 600 | 1200 | 1200 |
| 250 | 250 | 250 | 600 | 600 | 1200 | 1200 |
| 250 | 250 | 250 | 600 | 600 | 12003) | 12003) |
| 250 | 250 | 250 | 600 | 600 | 12003) | 12003) |
| 20000 | 20000 | 20000 | 15000 | 15000 | 10000 | 10000 |
| 120 | 120 | 120 | 60 | 60 | 60 | 60 |
| 10000 | 10000 | 10000 | 5000 | 5000 | 3000 | 3000 |
| 7500 | 7500 | 7500 | 3000 | 3000 | 2000 | 2000 |
| 6500 | 6500 | 6500 | 2000 | 2000 | 2000 | 2000 |
| 5000 | 5000 | 5000 | 2000 | 2000 | 1000 | 1000 |
| 19 | 19 | 19 | 40 | 40 | 97 | 97 |
| 0 | 0 | 0 | - | - | - | - |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <10 | <10 | <10 | < 10 | <10 | $\begin{aligned} & <25 \leqq 415 \mathrm{~V} ;<35 \\ & >415 \mathrm{~V} \end{aligned}$ | $\begin{aligned} & <25 \leqq 415 \mathrm{~V}_{i}<35 \\ & >415 \mathrm{~V} \end{aligned}$ |
| 35 | 85 | 1504) | 85 | 1504) | 85 | 1256) |
| 25 | 35 | 1004) | 42 | 1004) | 42 | 85 |
| 18 | 25 | $50^{4)}$ | 35 | $50^{4)}$ | 35 | 50 |

Current limiting specifications: NZMH2... and NZMH3...

| Circuit-breakers |  | Voltage | Threshold current |  |  | Intermediate current |  |  | High interrupting capacity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | max. <br> frame size |  |  | Maximum |  |  | Maximum |  | Maximum |  |  |
|  |  | At 60 Hz | sym. rms | Peak | 1 dt | sym. rms | Peak | 1 dt | sym. rms | Peak | 1 dt |
|  | [A] | [V] | [kA] | [kA] | [ $\mathrm{kA}^{2} \mathrm{~s}$ ] | [kA] | [kA] | [ $\mathrm{AA}^{2}$ s] | [kA] | [kA] | [ $\mathrm{AA}^{2}$ s] |
| NZMH2- | 250 A | 240 | 16.25 | 12.80 | 0.36 | 100 | 20.23 | 0.40 | 150 | 20.00 | 0.38 |
| A... |  | 480 | 16.25 | 13.20 | 0.50 | 65 | 23.63 | 0.85 | 100 | 26.55 | 0.78 |
| AF... |  | 600 | 16.25 | 12.98 | 0.60 | 30 | 19.40 | 0.67 | 50 | 24.40 | 0.84 |
| NZMH2- | 250 A | 240 | 16.25 | 11.40 | 0.31 | 100 | 18.23 | 0.27 | 150 | 20.40 | 0.32 |
| VE... |  | 480 | 16.25 | 14.23 | 0.48 | 65 | 23.63 | 0.58 | 100 | 26.43 | 0.62 |
| VEF... |  | 600 | 16.25 | 14.33 | 0.48 | 30 | 19.60 | 0.60 | 50 | 24.63 | 0.79 |
| NZMH3 | 600 A | 240 | 39 | 41.20 | 3.30 | 100 | 31.00 | 1.01 | 150 | 36.80 | 1.34 |
|  |  | 480 | 39 | 29.50 | 1.60 | 65 | 36.40 | 2.34 | 100 | 43.10 | 1.92 |
|  |  | 600 | 30 | 29.50 | 2.24 | 42 | 33.80 | 2.04 | 50 | 39.15 | 2.42 |


|  |  |  |  | $\begin{aligned} & \text { N3 } \\ & 550 \text { A max. } \end{aligned}$ | $\begin{aligned} & \text { N4 } \\ & 1200 \text { A max. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Disconnect switches |  |  |  |  |  |
| Rated impulse withstand voltage $U_{\text {imp }}$ |  |  |  |  |  |
| Main contacts |  |  | V | 8000 | 8000 |
| Auxiliary contacts |  |  | V | 6000 | 6000 |
| Rated operational voltage |  | $U_{\text {e }}$ | VAC | 690 | 690 |
| Rated uninterrupted current max. |  |  |  |  |  |
| IEC/EN 61131-3 |  | $I_{u}$ | A | 630 | 1600 |
| Technical data, divergent from the products for the IEC market UL489, CSA 22.2 No. 5.1 |  | $I_{u}$ | A | 550 | 1200 |
| Overvoltage category/pollution degree |  |  |  | III/3 | 111/3 |
| Rated insulation voltage |  | $U_{\text {e }}$ | VAC | 1000 | 1000 |
| Switching capacity |  |  |  |  |  |
| Rated short-circuit making capacity |  | $I_{\text {cm }}$ | kA | 25 | 53 |
| Rated short-time withstand current |  |  |  |  |  |
|  | $\mathrm{t}=0.3 \mathrm{~s}$ | $I_{\text {cw }}$ | kA | 12 | 25 |
|  | $t=1 \mathrm{~s}$ | $I_{\text {cw }}$ | kA | 12 | 25 |
| Rated conditional short-circuit current |  |  |  |  |  |
| with back-up fuse |  |  | A gG/gL | 550 | $2 \times 600$ |
|  | $400 / 415 \mathrm{~V}$ |  | kA | 100 | 100 |
|  | 690 V |  | kA | 80 | 80 |
| With downstream fuse |  |  | A gG/gL | 630 | $2 \times 600$ |
|  | $400 / 415 \mathrm{~V}$ |  | kA | 100 | 100 |
|  | 690 V |  | kA | 100 | 80 |
| Rated making and breaking capacity |  |  |  |  |  |
| Rated operational current, AC-22/23A |  |  |  |  |  |
|  | 415 V | $I_{\text {e }}$ | A | 550 | 1200 |
|  | 690 V | $I_{\text {e }}$ | A | 550 | 1200 |
| Lifespan, mechanical |  | Operations |  | 15000 | 10000 |
| Maximum operating frequency |  |  | Ops/h | 60 | 60 |
| Lifespan, electrical to IEC/EN 60947-4-1 section B |  |  |  |  |  |
| AC-1 | $400 / 415 \mathrm{~V}$ | Operations |  | 5000 | 3000 |
|  | 690 V | Operations |  | 3000 | 2000 |
| AC-3 | $400 / 415 \mathrm{~V}$ | Operations |  | 3000 | 2000 |
|  | 690 V | Operations |  | 2000 | 1000 |
| Current heat loss per pole at $I_{\mathrm{u}}{ }^{1)}$ |  |  | W | 40 | 97 |
| Notes | ${ }^{1)}$ The curre ${ }^{3)} 690 \mathrm{~V}: \mathrm{m}$ | at loss per pol 0 kW | ratings re | he maximum | the frame size. |



|  |  |  |  | $\begin{aligned} & \text { NS1-...-NA } \\ & \text { max. } 125 A \end{aligned}$ | $\begin{aligned} & \text { NS2-...-NA } \\ & \text { max. } 250 \mathrm{~A} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Molded Case Switch |  |  |  |  |  |
| Rated impulse withstand voltage |  |  | $U_{\text {imp }}$ |  |  |
| Main contacts |  |  |  | 6000 | 8000 |
| Auxiliary contacts |  |  |  | 6000 | 6000 |
| Rated operational voltage |  |  | $U_{\text {e }}$ | 690 | 690 |
| Rated uninterrupted current max. |  |  |  |  |  |
| IEC/EN 60947-2 Annex L |  |  | $I_{\text {u }}$ | 125 | 250 |
| UL489/CSA 22.2 No. 5.1 |  |  | $I_{\text {u }}$ | 125 | 250 |
| Overvoltage category/pollution degree |  |  |  | IIII3 | III/3 |
| Rated insulation voltage |  |  | $U_{i}$ | 690 | 1000 |
| Switching capacity to UL 489, CSA 22.2 No. 5.1 |  |  |  |  |  |
|  |  | 240 V |  | 85 | 150 |
|  |  | 480 V |  | 35 | 100 |
|  |  | 600 V |  | - | 50 |
| Switching capacity, divergent from the products for the NA market |  |  |  |  |  |
| Rated short-circuit making capacity |  | 240 V | $I_{\text {cm }}$ | 187 | 330 |
|  |  | $400 / 415 \mathrm{~V}$ | $I_{\text {cm }}$ | 105 | 330 |
|  |  | 440 V | $I_{\text {cm }}$ | 74 | 286 |
|  |  | 525 V | $I_{\text {cm }}$ | 53 | 105 |
|  |  | 690 V | $I_{\text {cm }}$ | 17 | 53 |
| Rated short-circuit breaking capacity $I_{\mathrm{cc}}=I_{\mathrm{cu}}$ to IEC/EN 60947-2 Annex L | $I_{\text {cu }}$ to IEC/EN 60947 test cycle 0-t-CO | 240 V | $I_{\mathrm{cu}}$ | 85 | 150 |
|  |  | $400 / 415 \mathrm{~V}$ | $I_{\text {cu }}$ | 50 | 150 |
|  |  | 440 V | $I_{\mathrm{cu}}$ | 35 | 130 |
|  |  | 525 V | $I_{\text {cu }}$ | 20 | 50 |
|  |  | 690 V | $I_{\text {cu }}$ | 10 | 20 |
|  | $I_{\text {cs }}$ to IEC/EN 60947 | 240 V | $I_{\text {cs }}$ | 85 | 150 |
|  | test cycle 0-t-CO-t-CO | $400 / 415 \mathrm{~V}$ | $I_{\text {cs }}$ | 50 | 150 |
|  |  | 440 V | $I_{\text {cs }}$ | 35 | 130 |
|  |  | 525 V | $I_{\text {cs }}$ | 10 | 37.5 |
|  |  | 690 V | $I_{\text {cs }}$ | 7.5 | 5 |
| Lifespan, mechanical |  |  | Operations | 20000 | 20000 |
| Maximum operating frequency |  |  |  | 120 | 120 |
| Lifespan, electrical | AC-1 | $400 / 415 \mathrm{~V}$ | Operations | 10000 | 10000 |
|  |  | 690 V | Operations | 7500 | 7500 |
|  | AC-3 | $400 / 415 \mathrm{~V}$ | Operations | 7500 | 6500 |
|  |  | 690 V | Operations | 5000 | 5000 |
| Current heat loss per pole at $I_{u}{ }^{1)}$ |  |  |  | 13 | 19 |
| Total opening delay on short-circuit |  |  |  | <10 | < 10 |

${ }^{1)}$ Details relate to the maximum nominal current of the frame size

| NZM up to 250A with thermomagnetic release (3 pole) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fixed mounted |  |  |  |  |  |  |  |
|  | NZM1- |  |  |  |  |  | NS1- |  |
|  | A...-NA |  | AF...-NA |  | S...-CNA |  | ...-NA |  |
| $I_{n}[\mathrm{~A}]$ | $\begin{aligned} & \hline \mathrm{P} \\ & {[\mathrm{~W}]} \end{aligned}$ | R [ $\mu \mathrm{Ohm}$ ] | $\begin{aligned} & \hline \mathrm{P} \\ & {[\mathrm{~W}]} \end{aligned}$ | R <br> [ $\mu \mathrm{Ohm}$ ] | $\begin{aligned} & \hline \mathrm{P} \\ & {[\mathrm{~W}]} \end{aligned}$ | R [ $\mu \mathrm{Ohm}$ ] | $\begin{aligned} & \hline \mathrm{P} \\ & {[\mathrm{~W}]} \end{aligned}$ | $\begin{aligned} & \hline \mathrm{R} \\ & {[\mu \mathrm{Ohm}]} \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
| 1.2 | - | - | - | - | 1.2 | 413000 | - | - |
| 1.6 | - | - | - | - | - | - | - | - |
| 2 | - | - | - | - | 0.5 | 66000 | - | - |
| 2.4 | - | - | - | - | - | - | - | - |
| 3 | - | - | - | - | 1.1 | 66000 | - | - |
| 5 | - | - | - | - | 0.4 | 9180 | - | - |
| 8 | - | - | - | - | 1 | 9180 | - | - |
| 12 | - | - | - | - | 0.5 | 1670 | - | - |
| 15 | - | - | 5.5 | 8180 | - | - | - | - |
| 18 | - | - | - | - | 1.3 | 1670 | - | - |
| 20 | 9.8 | 8180 | 9.8 | 8180 | - | - | - | - |
| 25 | 8.8 | 4680 | 8.8 | 4680 | - | - | - | - |
| 26 | - | - | - | - | 2 | 1050 | - | - |
| 30 | - | - | 8.2 | 3030 | - | - | - | - |
| 32 | 9.1 | 3030 | - | - | - | - | - | - |
| 33 | - | - | - | - | 3.2 | 1050 | - | - |
| 35 | - | - | 8.2 | 2220 | - | - | - | - |
| 40 | 11 | 2220 | 11 | 2220 | 2.7 | 562 | - | - |
| 45 | - | - | 10.7 | 1760 | - | - | - | - |
| 50 | 13.5 | 1760 | 13.5 | 1760 | 4.2 | 562 | - | - |
| 60 | - | - | 12.9 | 1190 | - | - | - | - |
| 63 | 14 | 1190 | - | - | 6.7 | 562 | 6.7 | 562 |
| 70 | - | - | 12.5 | 850 | - | - | - | - |
| 80 | 15.5 | 850 | 15.5 | 850 | 10.8 | 562 | - | - |
| 90 | - | - | 17.7 | 730 | - | - | - | - |
| 100 | 24 | 730 | 24 | 730 | 16.9 | 562 | 16.9 | 562 |
| 110 | - | - | 20.7 | 570 | - | - | - | - |
| 125 | 38 | 570 | 38 | 570 | - | - | 26.3 | 562 |
| 150 | - | - | - | - | - | - | - | - |
| 160 | 50 | 460 | - | - | - | - | - | - |
| 175 | - | - | - | - | - | - | - | - |
| 200 | - | - | - | - | - | - | - | - |
| 225 | - | - | - | - | - | - | - | - |
| 250 | - | - | - | - | - | - | - | - |
| Note: | The values stated in the table apply for fixed mounted 3 pole devices which are loaded uniformly. The entire resistive load is for the measured three-pole or four-pole value. <br> The total heat dissipation is the measured value for $I_{n}$ at $50 / 60 \mathrm{~Hz}$ for a 3-pole switch. <br> The heat dissipation can be calculated using the fromula: $P=3 \times R \times I$ |  |  |  |  |  |  |  |


| NZM up to 1200 A with electronic release (3 pole) |  |  |  | Additional Withdrawable units | Fixed mounted |  | Additional Withdrawable units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fixed mounted | Additional Plug-in units | Fixed mounted |  |  |  |  |  |
| NZM2- |  | NZM3- | N3- |  | NZM4- | N4- |  |
| R | R |  |  |  |  |  |  |
| [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] | [ $\mu \mathrm{Ohm}$ ] |
| 275 | 100 | 100 | 90 | 70 | 37 | 37 | 10 |
| Note: | The values stated in the table apply for 3 pole devices which are loaded uniformly. The total resistive load is the measured value for a 3 pole switch (independent of $I_{n}$ and the type of release). <br> The total resistive load for a switch in fixed or withdrawable design results from: the resistive value for fixed mounting + resistive value for plug-in or withdrawable design. The heat dissipation can be calculated using the fromula: $P=3 \times R \times P$ |  |  |  |  |  |  |

## Technical data

| Fixed mounted |  |  |  |  |  | NS2- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NZM2- |  |  |  |  |  |  |  |
| A...-NA |  | AF...-NA |  | S...-CNA |  | ...-NA |  |
| P | R | P | R | P | R | P |  |
| [W] | [ $\mu \mathrm{Ohm}$ ] | [W] | [ $\mu \mathrm{Ohm}$ ] | [W] | [ $\mu \mathrm{Ohm}$ ] | [W] | [ $\mu \mathrm{Ohm}$ ] |
| - | - | - | - | - | - | - | - |
| - | - | - | - | 6.2 | 750000 | - | - |
| - | - | - | - | - | - | - | - |
| - | - | - | - | 8.4 | 450000 | - | - |
| - | - | - | - | - | - | - | - |
| - | - | - | - | 0.2 | 4600 | - | - |
| - | - | - | - | 0.5 | 4600 | - | - |
| - | - | - | - | 0.4 | 1200 | - | - |
| - | - | 3 | 4250 | - | - | - | - |
| - | - | - | - | 1 | 1200 | - | - |
| 5.1 | 4250 | 5.1 | 4250 | - | - | - | - |
| 8 | 4250 | 6 | 3140 | - | - | - | - |
| - | - | - | - | 0.5 | 780 | - | - |
| - | - | 9 | 3140 | - | - | - | - |
| 10 | 3140 | - | - | - | - | - | - |
| - | - | - | - | 0.9 | 780 | - | - |
| - | - | 11 | 2800 | - | - | - | - |
| 13 | 2800 | 13 | 2800 | 1.5 | 317 | - | - |
| - | - | 15 | 2270 | - | - | - | - |
| 18 | 2270 | 18 | 2270 | 2.5 | 317 | - | - |
| - | - | 19 | 1700 | - | - | - | - |
| 20 | 1700 | - | - | 4 | 317 | - | - |
| - | - | 17 | 1070 | - | - | - | - |
| 22 | 1070 | 22 | 1070 | 6 | 317 | - | - |
| - | - | 23 | 855 | - | - | - | - |
| 28 | 855 | 28 | 855 | 10 | 317 | - | - |
| - | - | 22 | 589 | - | - | - | - |
| 29 | 589 | 29 | 589 | 15 | 317 | - | - |
| - | - | 35 | 427 | - | - | - | - |
| 40 | 427 | - | - | 25 | 317 | 25 | 317 |
| - | - | 37 | 332 | - | - | - | - |
| 48 | 332 | 48 | 332 | 40 | 317 | 40 | 317 |
| - | - | 46 | 310 | - | - | - | - |
| 57 | 310 | 57 | 310 | 59.4 | 317 | 59.4 | 317 |

Technical data Terminal capacities


# Technical data 

| $\begin{aligned} & \text { NZM4, N4, NS4 } \\ & 1200 \text { A } \end{aligned}$ | $\begin{aligned} & I_{\mathrm{n}}{ }^{1} \\ & \end{aligned}$ |  | $\begin{aligned} & \text { NZM...1...NA, } \\ & \text { NS1...NA } \end{aligned}$ | $\begin{aligned} & \text { NZM...2...NA, } \\ & \text { NS2...NA } \end{aligned}$ | $\begin{aligned} & \text { NZM...3...NA, } \\ & \text { N3...NA, NS3....NA } \end{aligned}$ | NZM...4...NA, N4...NA, NS4...NA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Screw terminal | - | - | Box terminal | Screw terminal | Screw terminal | Screw terminal |
| Tunnel terminal Connection on rear Strip terminal |  | - | Screw connection Tunnel terminal Connection on rear | Box terminal Tunnel terminal Connection on rear | Box terminal Tunnel terminal Connection on rear | Tunnel terminal Connection on rear Strip terminal |
| - | - | AWG | $1 \times(12-6)$ | $1 \times(12-6)$ | - | - |
| - | - | AWG/kcmil | $1 \times(4-2 / 0)$ | $1 \times(4-350)$ | $1 \times(2-500)$ | - |
| - | - | AWG | $1 \times 6$ | $1 \times 6$ | $1 \times 6$ | - |
| - | - | AWG/kcmil | $1 \times(4-3 / 0)$ | $1 \times(4-350)$ | $1 \times(4-350)$ | - |
| - | - | AWG/kcmil | - | - | $\begin{aligned} & 1 \times(0-500) \\ & 2 \times(0-500) \\ & \hline \end{aligned}$ | - |
| $4 \times(50-240)$ | 1200 | AWG/kcmil | - | - | - | $4 \times(0-500)$ |
| - | - | AWG | $\begin{aligned} & 1 \times(12-6) \\ & 2 \times(9-6) \end{aligned}$ | $1 \times(12-6)$ | - | - |
| $\begin{aligned} & 1 \times(120-185) \\ & 4 \times(50-185) \\ & \hline \end{aligned}$ | 1200 | AWG/kcmil | $1 \times(4-2 / 0)$ | $1 \times(4-3 / 0)$ | $1 \times(4-350)$ | $\begin{aligned} & 1 \times(250-350) \\ & 4 \times(0-350) \\ & \hline \end{aligned}$ |
| $1 \times(120-300)$ | 1000 | kcmil | - | - | - | $1 \times(250-600)$ |
| $2 \times(95-300)$ |  | AWG/kcmil | - | - | - | $2 \times(3 / 0-600)$ |
| $2 \times(95-185)$ | 1200 | AWG/kcmil | - | - | - | $2 \times(3 / 0-350)$ |
| $4 \times(35-185)$ |  | AWG/kcmil | - | - | - | $4 \times(2-350)$ |
| $\begin{aligned} & 4 \times 300 \\ & 6 \times(95-240) \end{aligned}$ | 1200 | AWG/kcmil |  |  | $2 \times 500$ | $\begin{aligned} & 4 \times 600 \\ & 6 \times(3 / 0-500) \end{aligned}$ |
| - | - | AWG | - | - | - | - |
| - | - | AWG/kcmil | - | - | - | - |
| - | - | AWG/kcmil | - | - | - | - |
| $4 \times(50-240)$ | 1200 | AWG/kcmil | - | - | - | - |
| - | - | AWG | - | - | - | - |
| - | - | AWG/kcmil | - | - | - | - |
| $1 \times(185-240)$ | on request | kcmil | - | - | - | - |
| $2 \times(70-185)$ | on request | AWG/kcmil | - | - | - | - |
| $4 \times 50$ | - | AWG | - | - | - | - |
| $\begin{aligned} & 2 \times 240 \\ & 6 \times(70-240) \end{aligned}$ | on request | AWG/kcmil |  |  |  | - |
| - | - | mm | $2 \times 9 \times 0.8$ | $2 \times 9 \times 0.8$ | $6 \times 16 \times 0.8$ | - |
| - | - | mm | $9 \times 9 \times 0.8$ | $10 \times 16 \times 0.8$ | $\begin{aligned} & 10 \times 24 \times 1.0 \\ & +5 \times 24 \times 1.0 \\ & (2 \times) 8 \times 24 \times 1.0 \\ & \hline \end{aligned}$ | - |
| $6 \times 16 \times 0.8$ | 1100 | mm | - | - | - | $6 \times 16 \times 0.8$ |
| $(2 \times) 10 \times 32 \times 1.0$ |  | mm | - | - | - | $(2 \times) 10 \times 32 \times 1.0$ |
| $(2 \times) 10 \times 50 \times 1.0$ | 1200 | mm | - | - | - | $(2 \times) 10 \times 50 \times 1.0$ |
| $(2 \times) 10 \times 50 \times 1.0$ | 1200 | mm | - | $2 \times 16 \times 0.8$ | $6 \times 16 \times 0.8$ | $(2 \times) 10 \times 50 \times 1.0$ |
| $(2 \times 10 \times 50 \times 1.0$ |  | mm | - | $10 \times 16 \times 0.8$ | $\begin{aligned} & 10 \times 32 \times 1.0+5 \\ & \times 32 \times 1.0 \end{aligned}$ | $(2 \times) 10 \times 50 \times 1.0$ |
| $(2 \times) 10 \times 80 \times 1.0$ | 1200 | mm | - | - | $(2 \times) 10 \times 50 \times 1.0$ | $(2 \times) 10 \times 80 \times 1.0$ |
| M10 | - | - | M6 | M8 | M10 | M10 |
| $25 \times 5$ | 1200 | mm | $12 \times 5$ | $16 \times 5$ | $20 \times 5$ | $25 \times 5$ |
| $2 \times(50 \times 10)$ |  | mm | $16 \times 5$ | $20 \times 5$ | $\begin{aligned} & 30 \times 10 \\ & +30 \times 5 \end{aligned}$ | $2 \times(50 \times 10)$ |
| $25 \times 5$ | 1200 | mm | - | - | - | $25 \times 5$ |
| $2 \times(50 \times 10)$ |  | mm | - | - | - | $2 \times(50 \times 10)$ |
| $2 \times(50 \times 10)$ | 1200 | mm | - | - | - | $2 \times(50 \times 10)$ |
| $60 \times 10$ | 1200 | mm | - | - | - | $60 \times 10$ |
| $2 \times(80 \times 10)$ |  | mm | - | - | $2 \times(10 \times 50)$ | $2 \times(80 \times 10)$ |


|  |  |  |  |  | Moeller SK1230-1157EN-NA |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | at $\mathrm{AC}=50 / 60 \mathrm{~Hz}$ |  | M22-K... | XHIV | XHI |
| Auxiliary contacts |  |  |  |  |  |
| Rated operational voltage |  |  |  |  |  |
| AC | $U_{\text {e }}$ | V AC | 500 | 500 | 500 |
| DC | $U_{\text {e }}$ | V DC | 220 | 220 | 220 |
| Conventional thermal current | $I_{\text {th }}=I_{\mathrm{e}}$ | A | 4 | 4 | 4 |
| Rated operational current |  |  |  |  |  |
| AC-15 115 V | $I_{\text {e }}$ | A | 4 | 4 | 4 |
| 230 V | $I_{\text {e }}$ | A | 4 | 4 | 4 |
| 400 V | $I_{\text {e }}$ | A | 2 | 2 | 2 |
| 500 V | $I_{\text {e }}$ | A | 1 | 1 | 1 |
| DC-13 24 V | $I_{\text {e }}$ | A | 3 | 3 | 3 |
| 42 V | $I_{\text {e }}$ | A | 1.7 | 1.5 | - |
| 60 V | $I_{\text {e }}$ | A | 1.2 | 0.8 | 1.2 |
| 110 V | $I_{\text {e }}$ | A | 0.8 | 0.5 | 0.5 |
| 220 V | $I_{\text {e }}$ | A | 0.3 | 0.2 | 0.2 |
| Short-circuit protection |  |  |  |  |  |
| max. fuse |  | A gG/gL | 10 | 10 | 10 |
| Max. miniature circuit-breaker |  | A | PKZM0-10/FAZ-B6 | FAZ-B6 | FAZ-B6 |
| Early-make time compared to the main contacts during switch on and off (switching times with manual operation) |  | ms | - | NZM1, PN1, N1: approx. 20 NZM2, PN2, N2: approx. 20 NZM3, PN3, N3: approx. 20 NZM4, N4: ca. 90 With NZM4/N4 the HIV does not feature early break. | - |
| Terminal capacities |  |  |  |  |  |
| Solid or flexible conductor with ferrule |  | $\mathrm{mm}^{2}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ | $\begin{aligned} & 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ |
|  |  | AWG | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ |
| UL/CSA |  |  |  |  |  |
| Rated operational current | $I_{\text {e }}$ | A | $\begin{aligned} & 10 \mathrm{~A}-600 \mathrm{~V} \mathrm{AC} \\ & 1 \mathrm{~A}-250 \mathrm{VDC} \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{~A}-240 \mathrm{~V} \mathrm{AC} \\ & 1 \mathrm{~A}-250 \mathrm{VDC} \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{~A}-240 \mathrm{~V} \mathrm{AC} \\ & 1 \mathrm{~A}-250 \mathrm{~V} \mathrm{DC} \end{aligned}$ |
| Heavy Pilot Duty |  |  | A600/P300 above 300 V AC same polarity | C300/R300 | C300/R300 |

Maximum component installation and position of the internal accessories


## Time differences ON-OFF



|  | Time difference a (ms) |  |  |  |  |  | Time difference b (ms) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Manual operation |  |  | Motor operators |  |  | Manual operation |  |  | Motor operators |  |  |
|  | HIV | HIN |  | HIV | HIN |  | HIV | HIN |  | HIV | HIN |  |
|  |  | K10 | K01 |  | K10 | K01 |  | K10 | K01 |  | K10 | K01 |
| NZM1 | 202) | 0 | 2.5 | - | - | - | $20^{2)}$ | 0 | 2.5 | - | - | - |
| NZM2 | 202) | 3.5 | 6.5 | Not permissible | 2.5 | 4.5 | 202) | 3 | 4.5 | Not permissible | 3 | 4 |
| NZM3 | 202) | 4 | 8 | Not permissible | 2 | 4 | 202) | 3.5 | 8 | Not permissible | 3 | 6.5 |
| NZM4 | 902) | 7 | 11 | Not permissible | on request | on request | $0^{1 / 2)}$ | 12 | 15 | Not permissible | on request | on request |
| Notes | ${ }^{1)}$ With NZM4/N4 the HIV does not feature early break. <br> ${ }^{2)}$ Minimum value, as it is dependent on the switching speed |  |  |  |  |  |  |  |  |  |  |  |


|  |  |  | NZM1(2/3)-XU... | NZM4-XU... |
| :---: | :---: | :---: | :---: | :---: |
| Undervoltage release |  |  |  |  |
| Rated control voltage |  |  |  |  |
| Alternating voltage at $50 / 60 \mathrm{~Hz}$ | $U_{s}$ | V AC | 24-600 | 24-600 |
| DC | $U_{s}$ | VDC | 12-250 | 12-250 |
| Operating range |  |  |  |  |
| Drop-out voltage |  | $\times U_{s}$ | 0.35-0.7 | 0.35-0.7 |
| Pick-up voltage |  | $\times U_{5}$ | 0.85-1.1 | 0.85-1.1 |
| Power consumption |  |  |  |  |
| AC |  |  |  |  |
| Sealing AC |  | VA | 1.5 | 3.6 |
| DC |  |  |  |  |
| Sealing DC |  | W | 0.8 | 2.5 |
| Max. opening delay (response time until the main circuits open) |  | ms | 19 | 23 |
| Minimum command time |  | ms | 10-15 | 10-15 |
| Terminal capacities |  |  |  |  |
| Solid or flexible conductor with ferrule |  | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ |
|  |  | AWG | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ |

UVU-NZM

| Undervoltage releases, off-delayed |  |  |  |
| :---: | :---: | :---: | :---: |
| Rated operational voltage |  |  |  |
| Alternating voltage at $50 / 60 \mathrm{~Hz}$ | $U_{\text {e }}$ | V AC | 24, 220-550 |
| DC | $U_{\text {e }}$ | VDC | 24 |
| Inrush current (peak value) | $I_{\text {e }}$ | mA | < 500 |
| Power consumption |  | VA | 50 |
| Delay time | $t_{\text {sd }}$ | ms | 70-4000 |
| With additional external capacitor, $90.000 \mu \mathrm{~F} \geqq 35 \mathrm{~V}$ |  | s | To 16 |
| With additional external capacitor, $30.000 \mu \mathrm{~F} \geqq 35 \mathrm{~V}$ |  | 5 | To 8 |
| Terminal capacities |  |  |  |
| Solid or flexible conductor with ferrule |  | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(0.5-2.5) \\ & 2 \times(0.5-1.5) \end{aligned}$ |


|  |  |  | NZM1(2/3)-XA... | NZM4-XA... | NZM2/3-XA...-MNS | NZM4-XA...-MNS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shunt release |  |  |  |  |  |  |
| Rated control voltage |  |  |  |  |  |  |
| AC | $U_{\text {s }}$ | V AC | 12-525 | 12-600 | 230 | 230 |
| DC | $U_{\text {S }}$ | VDC | 12-525 | 12-600 | - | - |
| Frequency range |  | Hz | 0-400 | 0-400 | 50/60 | 50/60 |
| Operating range |  |  |  |  |  |  |
| AC |  | $\times U_{\text {s }}$ | 0.7-1.1 | 0.7-1.1 | 0.1-1.1 | 0.1-1.1 |
| DC |  | $\times U_{\text {s }}$ | 0.7-1.1 | 0.7-1.1 | - | - |
| Power consumption |  |  |  |  |  |  |
| Sealing AC/DC |  | VA/W | 2.5 | 2.5 | - | - |
| Maximum current consumption at $110 \% \mathrm{U}_{5}(230 \mathrm{~V} 50 \mathrm{~Hz})$ |  | A | - | - | 0.5 | 1 |
| Maximum opening delay (response time until opening of the main contacts) |  | ms | 20 | 22 | 20 | 22 |
| Maximum duty factor |  | ms | $\infty$ | $\infty$ | 1000 | 1000 |
| Minimum command time |  | ms | 10-15 | 10-15 | 10-15 | 10-15 |
| Terminal capacities |  |  |  |  |  |  |
| Solid or flexible conductor with ferrule |  | $\mathrm{mm}^{2}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ |
|  |  | AWG | $\begin{aligned} & 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ | $\begin{aligned} & 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ | $\begin{aligned} & \hline 1 \times(18-14) \\ & 2 \times(18-14) \end{aligned}$ |

# Technical data 



|  |  |  | NZM2-XR... | NZM3-XR... | NZM4-XR... |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Rated control voltage |  |  |  |  |  |
| AC | $U_{\text {s }}$ | V AC | 110-440 | 110-440 | 110-440 |
| DC | $U_{s}$ | VDC | 24-250 | 24-250 | 24-250 |
| Operating range |  |  |  |  |  |
| AC | $U_{\text {s }}$ |  | 0.85-1.1 | 0.85-1.1 | 0.85-1.1 |
| DC | $U_{\text {s }}$ |  | 0.85-1.1 | 0.85-1.1 | 0.85-1.1 |
| Motor rating |  |  |  |  |  |
| AC $110 \mathrm{~V}-130 \mathrm{VAC}$ |  | VA | 350 | 350 | 350 |
| $208 \mathrm{~V}-240 \mathrm{~V} \mathrm{AC}$ |  | VA | 350 | 350 | 350 |
| $380 \mathrm{~V}-440 \mathrm{~V} \mathrm{AC}$ |  | VA | 350 | 350 | 350 |
| DC |  | W | 250 | 250 | 250 |
|  |  | W | 250 | 250 | 250 |
|  |  | W | 250 | 250 | 250 |
| Total make time |  | ms | 60 | 80 | 100 |
| Total opening delay |  | ms | 300 | 1000 | 3000 |
| Minimum signal duration |  |  |  |  |  |
| with switch on |  | ms | 30 | 30 | 30 |
| with switch off |  | ms | 150 | 250 | 500 |
| Lifespan, mechanical |  |  | 20000 | 15000 | 10000 |
| Terminal capacities |  | Ops./h | 120 | 60 | 20 |
|  |  |  |  |  |  |
| Solid or flexible conductor with ferrule |  | $\mathrm{mm}^{2}$ | 0.75-2.5 | 0.75-2.5 | 0.75-2.5 |
|  |  | AWG | 18-14 | 18-14 | 18-14 |

Technical data
Data Management Interface (DMI Module)

| General |  |  |
| :---: | :---: | :---: |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) | mm | $107.5 \times 90 \times 53$ |
| Modular spacing (space units) |  | 6 space units wide |
| Weight | kg | 0.3 |
| Mounting |  | Top-hat rail IEC/EN 60715, 35 mm |
| Climatic environmental conditions |  |  |
| Operating ambient temperature | ${ }^{\circ} \mathrm{C}$ | 0 to +55 |
| Mounting position |  | horizontal, vertical |
| Condensation |  | Prevent condensation by means of suitable measures |
| LCD display (clearly legible) | ${ }^{\circ} \mathrm{C}$ | 0 to +55 |
| Storage/Transport | ${ }^{\circ} \mathrm{C}$ | -40 to +70 |
| Relative humidity, non-condensing (IEC/EN 60068-2-30) | \% | 5-95 |
| Air pressure (operation) | hPa | 795-1080 |
| Corrosion resistance |  |  |
| IEC/EN 60068-2-42 | $\mathrm{cm}^{3} / \mathrm{m}^{3}$ | 10 |
| IEC/EN 60068-2-43 | $\mathrm{cm}^{3} / \mathrm{m}^{3}$ | 1 |
| Ambient conditions, mechanical |  |  |
| Pollution degree |  | 2 |
| Degree of protection (IEC/EN 60529) |  | IP20 |
| Vibrations (IEC/EN 60068-2-6) |  |  |
| Constant amplitude 0.15 mm | Hz | 10-57 |
| Constant acceleration 2 g | Hz | 57-150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal $15 \mathrm{~g} / 11 \mathrm{~ms}$ | Impacts | 18 |
| Drop to IEC/EN 60068-2-31 | mm | 50 |
| Free fall, packaged (IEC/EN 60068-2-32) | m | 1 |
| Power supply |  |  |
| Rated operational voltage | V | 24 |
| Admissible range | VDC | 20.4-28.8 |
| Residual ripple | \% | $\leqq 5$ |
| Input current at 24 V DC | mA | 210 |
| Voltage dips (IEC/EN 61131-2) | ms | 10 |
| Heat dissipation at 24 V DC | W | 5 |

$$
\begin{aligned}
& \text { Technical data } \\
& \text { Fieldbus connection }
\end{aligned}
$$

Moeller SK1230-1157EN-NA

|  |  |  | EASY221-CO | EASY222-DN | NZM-XDMI-DPV1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| General |  |  |  |  |  |
| Standards |  |  | EN 55011, EN 55022, EN 61000-4, IEC 60068-2-6, IEC 60068-2-27 |  |  |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) |  | mm | $35.5 \times 90 \times 58$ (2 SU) | $35.5 \times 90 \times 58$ (2 SU) | $35.5 \times 90 \times 58$ (2 SU) |
| Weight |  | kg | 0.15 | 0.15 | 0.15 |
| Mounting |  |  | Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories) |  |  |
| Terminal capacity |  |  |  |  |  |
| Solid |  | $\mathrm{mm}^{2}$ | 0.2 / 4 (AWG $22-12)$ | 0.2 / 4 (AWG $22-12)$ | 0.2 / 4 (AWG $22-12)$ |
| Flexible with ferrule |  | $\mathrm{mm}^{2}$ | 0.2 / 2.5 (AWG $22-12)$ | 0.2 /2.5 (AWG $22-12)$ | 0.2 /2.5 (AWG $22-12)$ |
| Flat-bladed screwdriver |  | mm | $3.5 \times 0.8$ | $3.5 \times 0.8$ | $3.5 \times 0.8$ |
| Max. tightening torque |  | Nm | 0.6 | 0.6 | 0.6 |
| Climatic environmental conditions |  |  |  |  |  |
| Operating ambient temperature |  | ${ }^{\circ} \mathrm{C}$ | -25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2 |  |  |
| Condensation |  |  | Prevent condensation by means of suitable measures |  |  |
| Storage |  | ${ }^{\circ} \mathrm{C}$ | 40-70 | 40-70 | 40-70 |
| Relative humidity, non-condensing (IEC/EN 60068-2-30) |  | \% | 5-95 | 5-95 | 5-95 |
| Atmospheric pressure (operation) |  | hPa | 795-1080 | 795-1080 | 795-1080 |
| Corrosion resistance |  |  |  |  |  |
| IEC/EN 60947-2-42 | 4 days $\mathrm{SO}_{2}$ | $\mathrm{cm}^{3} / \mathrm{m}^{3}$ | 10 | 10 | 10 |
| IEC/EN 60068-2-43 | 4 days $\mathrm{H}_{2} \mathrm{~S}$ | $\mathrm{cm}^{3} / \mathrm{m}^{3}$ | 1 | 1 | 1 |
| Mechanical environmental conditions |  |  |  |  |  |
| Pollution degree |  |  | 2 | 2 | 2 |
| Degree of protection (IEC/EN 60529) |  |  | IP20 | IP20 | IP20 |
| Vibrations (IEC/EN 60068-2-6) |  |  |  |  |  |
| Constant amplitude 0.15 mm |  | Hz | 10-57 | 10-57 | 10-57 |
| Constant acceleration, 2 g |  | Hz | 57-150 | 57-150 | 57-150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal $15 \mathrm{~g} / 11 \mathrm{~ms}$ |  | Impacts | 18 | 18 | 18 |
| Drop to IEC/EN 60068-2-31 | Drop height | mm | 50 | 50 | 50 |
| Free fall, packaged (IEC/EN 60068-2-32) |  | m | 1 | 1 | 1 |
| Mounting position |  |  | Horizontal / vertical | Horizontal / vertical | Horizontal / vertical |
| Electromagnetic compatibility (EMC) |  |  |  |  |  |
| Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD) |  |  |  |  |  |
| Air discharge |  | kV | 8 | 8 | 8 |
| Contact discharge |  | kV | 6 | 6 | 6 |
| Electromagnetic fields (IEC/EN 61000-4-3, RFI) |  | $\mathrm{V} / \mathrm{m}$ | 10 | 10 | 10 |
| Radio interference suppression (EN 55011) |  |  | $\begin{aligned} & \hline \text { EN } 55011 \text { class B, } \\ & \text { EN } 55022 \text { class B } \end{aligned}$ |  | EN 55011 class A, EN 55022 class A |
| Burst impulses (IEC/EN 61000-4-4, level 3) |  |  |  |  |  |
| Power lines |  | kV | 2 | 2 | 2 |
| Signal cables |  | kV | 2 | 2 | 2 |
|  |  | kV | 0.5 (power line symmetry) |  |  |
| Immunity to line-conducted interference (IEC/EN 61000-4-6) |  | V | 10 | 10 | 10 |



## Direction of blow-out



|  | Top <br> Front | Bottom <br> Rear |
| :--- | :--- | :--- |
| NZM1 | X | - |
| NZM2 | X | X |
| NZM3 | X | X |
| NZM4 | X | - |

## Minimum clearance



Between two switches mounted side-by-side
Minimum clearance a in mm

|  | NZM1 | NZM2 | NZM3 | NZM4 |
| :--- | :--- | :--- | :--- | :--- |
| NZM1 | 0 | 5 | 5 | 15 |
| NZM2 | 5 | 5 | 5 | 15 |
| NZM3 | 5 | 5 | 5 | 15 |
| NZM4 | 15 | 15 | 15 | 15 |

Between switch and other components
Minimum clearance in mm

|  | b <br> $\leqq 690 \mathrm{~V}$ | c <br> $\leqq 690 \mathrm{~V}$ | 1000 V | $\leqq 690 \mathrm{~V}$ |
| :--- | :--- | :--- | :--- | :--- |
| NZM1 | 0 | 60 | - | 0 |
| NZM2 | 5 | 35 | 35 | 35 |
| NZM3 | 5 | 60 | 60 | 60 |
| NZM4 | 15 | 100 | 200 | 0 |

## Dimensions



Interlocking variants combination options


| NZM-XBZ225 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Max. switch clearance | NZM1 | NZM2 | NZM3 | NZM4 |
|  | $X_{3 P}$ | $\mathrm{X}_{3 \mathrm{P}}$ | $\mathrm{X}_{3 \mathrm{P}}$ | $\mathrm{X}_{3}$ |
|  | mm | mm | mm | mm |
| NZM1 3 pole | 135 | 120 | 135 | 125 |
| NZM2 3 pole | 135 | 120 | 135 | 125 |
| NZM3 3 pole | 90 | 75 | 85 | 80 |
| NZM4 3 pole | 50 | 40 | 25 | 15 |


| NZM-XBZ600 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Max. switch clearance | NZM1 | NZM2 | NZM3 | NZM4 |
|  | $\mathrm{X}_{3 \mathrm{P}}$ | $\mathrm{X}_{3}$ | $\mathrm{X}_{3 \mathrm{P}}$ | $\mathrm{X}_{3}$ |
|  | mm | mm | mm | mm |
| NZM1 3 pole | 510 | 495 | 510 | 475 |
| NZM2 3 pole | 510 | 495 | 510 | 475 |
| NZM3 3 pole | 460 | 450 | 460 | 460 |
| NZM4 3 pole | 400 | 380 | 400 | 390 |


| NZM-XBZ1000 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Max. switch clearance | NZM1 | NZM2 | NZM3 | NZM4 |
|  | $\mathrm{X}_{3}$ | $\mathrm{X}_{3}$ | $\mathrm{X}_{3 \mathrm{P}}$ | $\mathrm{X}_{3}$ |
|  | mm | mm | mm | mm |
| NZM1 3 pole | 910 | 895 | 910 | 865 |
| NZM2 3 pole | 910 | 895 | 910 | 865 |
| NZM3 3 pole | 820 | 850 | 860 | 860 |
| NZM4 3 pole | 750 | 730 | 800 | 790 |



| A |  | B | $C$ |
| :--- | :--- | :--- | :--- |
| OFF |  | OFF | OFF |
| OHK | ON/TRIP | OHK |  |
| ON/TRIP | OHK | ON/TRIP |  |


| A | B | C |
| :---: | :---: | :---: |
| OFF | OFF | OFF |
| ON/TRIP | THK | DAK |
| THK | ON/TRIP | OAK |
| Dek | THK | ON/TRIP |


| A | B | C | D |
| :---: | :---: | :---: | :---: |
| OFF | OFF | OFF | OFF |
| ON/TRIP | TOK | ON/TRIP | TAK |
| OHK | ON/TRIP | DEK | ON/TRIP |

[^6]Moeller SK1230-1157EN-NA


| Mechanical interlock, XMVR <br> (mounting side-by-side) |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| NZM...-XMVR |  |  |  |  |  |  |  |
| Max. switch clearance | NZM2 | NZM3 |  | NZM3 | NZM4 | NZM4 <br>  | 3 pole |


| Mechanical interlock, XMVRL (mounting in adjacent control panel sections) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NZM...-XMVRL |  |  |  |  |  |
| Max. switch clearance | NZM2 | NZM3 | NZM3 | NZM4 | NZM4 |
|  | 3 pole | 3 pole | 3 pole | 3 pole | 3 pole |
| NZM2 3 pole | on request | - | - | - | - |
| NZM3 3 pole | on request | on request | on request | on request | on request |
| NZM4 3 pole | - | - | - | on request | on request |

Circuit-breaker, disconnect switch, 3-pole NZMB1, NZMN1, NZMH1, N1, NS1

(1) Blow out area, minimum clearance to other parts $\geqq 60 \mathrm{~mm}$

# Cover for screw terminals <br> NZM1-XKSA <br> Screw connection <br> NZM1-XKS <br> IP2X protection against contact with a finger <br> NZM1-XIPA 


(1) 3-pole
(2) 4-pole

NZM1 tunnel terminal
NZM1-XKA


Moeller SK1230-1157EN-NA

## Connection on rear

NZM1-XKR


Control circuit terminal
NZM-XSTK, NZM1-XSTS


IP2X protection against contact with a finger NZM1-XIPK

(1) 3-pole
(2) 4-pole

## Rotary handle for circuit-breaker


(1) Up to 3 padlocks

## Door coupling rotary handle

 NZM1-XT(V)D(V)(R)
(1) Up to 3 padlocks

Moeller SK1230-1157EN-NA
Door coupling rotary handle with extension shaft
NZM1-XT(V)D(V)(R)(-NA)
NZM1/2-XV4(6)


|  | $x$ |
| :--- | :--- |
| NZM1/2-XV4 | $210-400$ |
| NZM1/2-XV6 | $400-600$ |



NZM1-XT(V)D(V)(R)-0(-NA)

(1) Special tip

Minimum door coupling rotary handle clearance from door pivot point


## Main switch assembly kit for side wall installation

 NZM1-XS(R)-L

NZM1-XS(R)-R


Main switch assembly kit for side panel mounting with mounting bracket
NZM1-XS(R)M-L


NZM1-XS(R)M-R


For Immediate Delivery call KMParts.com at (866) 595-9616

Undervoltage release, shunt release, early-make auxiliary contact

(1) NZM1-XA(HIV) NZM1-XU(HIV)(20) NZM1-XHIV
(2) NZM1-XA(HIV)(L) NZM1-XU(V)(HIV)(L)(20) NZM1-XHIV(L)
(3) NZM1-XHIVR

Spacers
NZM1/2-XAB


Clip plates
NZM1-XC35



Rotary handle on switch with door interlock NZM1-XDTV(R)

Mounting aperture


## Toggle lever interlock device NZM1-XKAV



Moeller SK1230-1157EN-NA
Mechanical interlock
NZM1-XMV with NZM1-XDV(R)


## NZM1-XMV with NZM1-XT(V)D(V)(R)



## Dimensions

Circuit-breakers, disconnect switches

## Circuit-breaker, disconnect switch, 3-pole NZMB2, NZMN2, NZMH2, NS2


Box terminal
(+)NZM2-...-XKC(0)(U)
IP2X protection against contact with a finger
NZM2-XIPK

(1) 3-pole
(2) 4-pole

Cover for screw terminals
NZM2-XKSA
Cable lug
NZM2-XKS185
IP2X protection against contact with a finger for shroud
NZM2-XIPA


Connection on rear
(+)NZM2-XKR(0)(U)


Moeller SK1230-1157EN-NA
Control circuit terminal
NZM2-XSTS, NZM-XSTK

(1) 3-pole
(2) 4-pole

> Rotary handle for circuit-breaker
NZM2-XDV(R) NZM2-XDTV(R)


## Door coupling rotary handle

NZM2-XT(V)D(V)(R)


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NZM2-XT(V)D(V)(R)-60(-NA)
NZM2-XT(V)D(V)(R)-O(-NA)

(1) Special tip

Minimum door coupling rotary handle clearance from door pivot point



NZM2-XS(R)-R


## Main switch assembly kit for side panel mounting with mounting bracket NZM2-XS(R)M-L



NZM2-XS(R)M-R



Clip plates
NZM2-XC75


## Insulating surround

NZM2-XBR
Mounting aperture


## Rotary handle on switch with door interlock NZM2-XDTV(R)




|  | a |
| :--- | :--- |
| NZM2, PN2, N2 | 52,5 |
| NZM3, PN3, N3 | 70 |

Capacitor unit
NZM-XCM


Remote operator NZM2-XR...

(1) Up to 3 padlocks
(2) Remote operator folded



NZM2-XMV with NZM2-XT(V)D(V)(R)



NZM2-XMV with NZM2-XT(V)D(V)(R)-0

(1) Special tip


## Data Management Interface (DMI Module) <br> NZM-XDMI612



Undervoltage release, delayed UVU-NZM


Circuit-breaker, disconnect switches, 3-pole NZMN3, NZMH3, N3, NS3

(1) Blow out area, minimum clearance to other parts $\geqq 60 \mathrm{~mm}$
(2) Minimum clearance from adjacent parts $\geqq 5 \mathrm{~mm}$

IP2X protection against contact with
NZM3-XIPK


Cover for screw terminals
NZM3-XKSA

## Cable lug

NZM3-XKS185
IP2X protection against contact with NZM3-XIPA


Connection width extension
NZM3-XKV70
Terminals
NZM3-XK22X21
NZM3-ХK300

(1) NZM3(-4)-XK22X21
(2) NZM3(-4)-XK300

Note: Length with phase isolators approx. 599 mm
Connection on rear
(+)NZM3-XKR(0)(U)


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Control circuit terminal
NZM3/4-XSTS
NZM-XSTK

(1) 3-pole
(2) 4 -pole

## Rotary handle on circuit-breaker

NZM3-XDV(R)


(1) Up to 3 padlocks

Door coupling rotary handle
NZM3-XT(V)D(V)(R)


$d=4-8$
$b \geqq 34$
(1) Up to 3 padlocks

Door coupling rotary handle with extension shaft
NZM3-XT(V)D(V)(R)(-NA)
NZM3/4-XV4(6)


NZM3-XT(V)D(V)(R)-O(-NA)

(1) Special tip

Minimum door coupling rotary handle clearance from door pivot point


Main switch assembly kit for side wall installation NZM3-XS(R)-L


NZM3-XS(R)-R


Spacers
NZM3-XAB


## Insulating surround

NZM3-XBR



Mechanical interlock
NZM3-XMV with NZM3-XDV(R)


## NZM3-XMV with NZM3-XT(V)D(V)(R)



NZM3-XMV with NZM3-XT(V)D(V)(R)-60


NZM3-XMV with NZM3-XT(V)D(V)(R)-0

(1) Special tip

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Withdrawable unit
+NZM3-XAV


For Immediate Delivery call KMParts.com at (866) 595-9616

## Circuit-breaker, switch-disconnector, 3-pole NZMN4, NZMH4, N4, NS4


(1) Blow out area, minimum clearance to other parts $\geqq 100 \mathrm{~mm}$ up to 690 V ; $\geqq 200 \mathrm{~mm}$ up to 1000 V
(2) Minimum clearance from adjacent parts $\geqq 15 \mathrm{~mm}$

## Cover

NZM4-XKSA

(1) 3-pole
(2) 4-pole
(3) Clearance from conductive parts $\geqq 100 \mathrm{~mm}$ up to $690 \mathrm{~V} ; \geqq 200 \mathrm{~mm}$ up to 1000 V

## Tunnel terminal

NZM4-XKA

(1) 3-pole
(2) 4-pole
(3) Clearance from conductive parts $\geqq 100 \mathrm{~mm}$ up to $690 \mathrm{~V} ; \geqq 200 \mathrm{~mm}$ up to 1000 V
Screw connection
Module plate 1-hole
NZM4-XKM1
Module plate 2-hole
NZM4-XKM2
Flat cable terminal
NZM4-XKB

(1) 3-pole
(2) 4-pole
(3) Clearance from conductive parts $\geqq 100 \mathrm{~mm}$ up to 690 V

|  |  | b |
| :--- | :--- | :--- |
| NZM4(-4)-XKM1 | 36 | 47 |
| NZM4(-4)-XKM2 | 32 | 40 |
| NZM4(-4)-XKB | - | 47 |

Module plate 2-hole vertical
NZM4-XKM2S


|  | x |
| :--- | :--- |
| NZM4-XKM2S-1250 | 12 |
| NZM4-XKM2S-1600 | 20 |

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NZM4-XKV110


NZM4-4-XKV120

## NZM4-4-XKV95




Rear connection possible also with rotation by $90^{\circ}$.
(1) 3 -pole
(2) 4-pole


Drilling template NZM12-1000 (1250) conversion to NZM4

(1) Module plate NZM4-XAS12-1000(1250)
(2) Drilling dimensions for mounting bracket NZM4-XAS12(M5)
(3) Mounting bracket NZM4-XAS12
(4) DIN rail NZM12

## NZM4-XAS12-1000(1250)



Exchange of NZM12-1600() by NZM4 with module plate, fixed mounted on mounting plate
NZM4-XAS12-1600



Door coupling rotary handle
NZM4-XT(V)D(V)(R)


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|  | $x$ |
| :--- | :--- |
| NZM3/4-XV4 | $300-400$ |
| NZM3/4-XV6 | $400-600$ |

## NZM4-XT(V)D(V)(R)-60(-NA)



NZM4-XT(V)D(V)(R)-0(-NA)

(1) Special tip

Minimum door coupling rotary handle clearance from door pivot point


Main switch assembly kit for side wall installation
NZM4-XS(R)(F)-L
NZM4-XS(R)(F)-R


## Insulating surround

NZM4-XBR


Mechanical interlock
NZM4-XMV with NZM4-XDV(R)


NZM4-XMV with NZM4-XT(V)D(V)(R)


NZM4-XMV with NZM4-XT(V)D(V)(R)-60


Moeller SK1230-1157EN-NA
NZM4-XMV with NZM4-XT(V)D(V)(R)-0

(1) Special tip

Remote operator
NZM4-XR...


Withdrawable unit
+NZM4-XAV

(1) 3-pole
(2) 4-pole
(3) Up to 3 padlocks
(4) disconnected
(5) test
(6) connected

| + |  |
| :--- | :--- |
| +NZM...-XAV... | Withdrawable unit with auxiliary pl <br> +NZM...-XKC |
| +NZM...-XKR... Connection on rear <br> +NZM...-XSV... <br> A Plug-in units  |  |
|  |  |
| B |  |
| BPF-NZM... |  |
| E |  |
| EASY221-CO | Lightning symbol |
| EASY222-DN | Expansion unit CANopen |
| EASY400-POW | Switched-mode power supply unit |

## F

FDT-NAVIGATOR
FDT frame software for field device operation

## K

K.../1
K.../BR

KS...-NZM7

## M

M22-...
M22-TA

> insulated additional terminal insulated additional terminal Cable lug

NZM...-ХKP
NZM...-XKR
NZM...-XKS
NZM...-XKS...
NZM...-XKSA NZM...-XKSFA
NZM...-XKV...
NZM...-XMV
NZM...-XMVR
NZM...-XMVRL
NZM...-XRC
NZM...-XS...
NZM...-XST
NZM...-XSV...
NZM...-XT...
NZM...-XT...-NA
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NZM...-XUV...
NZM...-XV...
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NZM-XBZ...
NZM-XCM

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NZM-XPC-KIT

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而

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N4-...-NA
NS1-...-NA
NS2-...-NA
NS3-...-NA
NS4-...-NA
NZM...1-...-CNA
NZM...1-...-NA
NZM...2-...-CNA
NZM...2-...-NA
NZM...3-...-CNA
NZM...3-...-NA
NZM...4-...-NA
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Spacers 60
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Additional handle
Additional plate
Auxiliary contact
Auxiliary contact, early-make

## B

Bolt connection
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Box terminal

## C

Cable lug
Capacitor unit
Circuit-breakers for North America
Clamp terminal springloaded clamp
Clip plate
Connection on rear
Connection width extension
Control circuit terminal

## D

Data management interface (DMI module)
Diagnostic and configurator software for NZM and DMI
Door coupling rotary handle
Door coupling rotary handle for UL/CSA approved breakers
DTM software module to FTD standard

## E

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Expansion unit DeviceNet
Expansion unit PROFIBUS-DPV1 slave
Extension shaft
External warning plate

## F

FDT frame software for operating field devices
Flat cable terminal

## I

Insulating surround
IP2X protection against contact with a finger
lusulated additional terminal

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[^0]:    Notes for terminals $\rightarrow 71$

[^1]:    Notes

[^2]:    Std. pack Notes

[^3]:    NS2, NS3 and NS4 can be combined with remote operator NZM...-XR...
    Voltage releases U/A and trip-indicating auxiliary contacts can be used.

[^4]:    ${ }^{1)}$ for use when using a switch-disconnector to EN 60947-3.
    2) for use when using a switch-disconnector to N3...-NA and N4...-NA without protective device to UL 1087, CSA 22.2 No 5.2.

[^5]:    ${ }^{1)}$ Up to $240 \mathrm{~mm}^{2}$ can be connected depending on the cable manufacturer.

[^6]:    $X_{3 p}=3$ pole switch clearance

