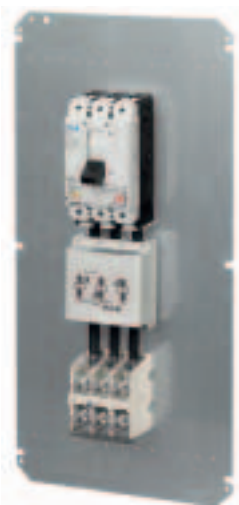




## More Than Just a Main Switch: Diagnostics and Energy Data from Networked Circuit-Breakers

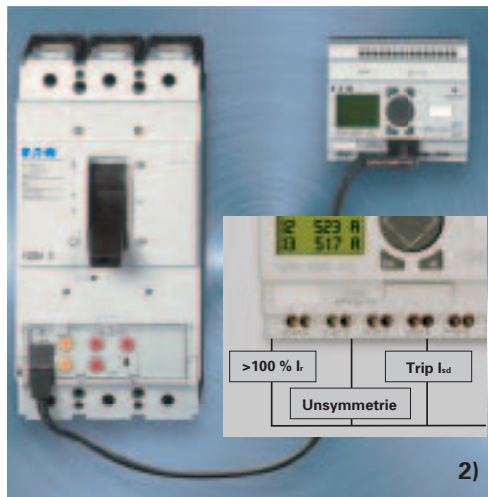


Circuit-breakers NZM and switch-disconnectors P from Eaton are used as the main switch in many machines. Circuit-breakers NZM guarantee additional reliable short-circuit and overload protection.

They also offer much more. Warnings and diagnostics data as well as energy consumption data are communicated via the energy consumption values. Warnings about critical current values enable the implementation of measures to counter overloads; diagnostics data provide information about the cause of faults and delivers trend diagrams for the detection of peak loads.

Energy conservation is vital in the world of today. The circuit-breakers NZM record and communicate power and energy data together with the metering and communication modules. Particularly beneficial is the compact solution with integrated current transformers and voltage tap-offs. Suitable from 85 A to 630 A.

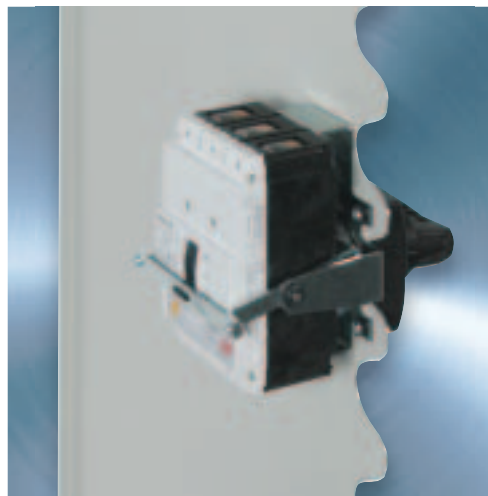
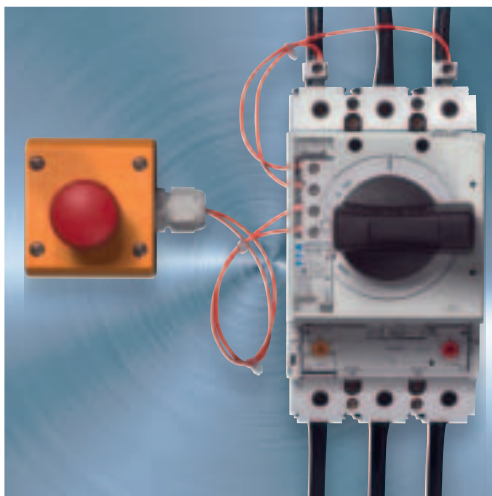
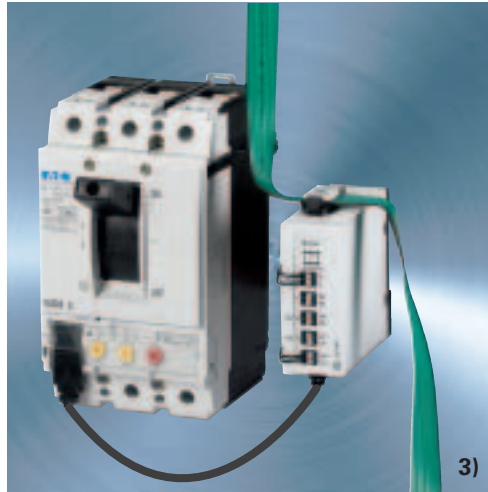
In addition to data recording with the metering and communication modules, the compact switch NZM offers 3 further communication options to further process this data. A PC software, used mainly for diagnostic purposes and 2 fieldbus interfaces with different available functions.



**1)**  
The PC software "XPC Soft" can view the past history and the last trip cause can be reviewed.

**2)**  
The DMI (Data Management Interface) provides comfortable access to the circuit-breaker. The functions include on-site operation via display, software switch parameterization and Profibus-DP communication.

**3)**  
With the SmartWire-DT Interface it is possible to efficiently access a group of switches via an open fieldbus. Particularly interesting is the operation in conjunction with other SmartWire-DT components such as the motor starter PKE.

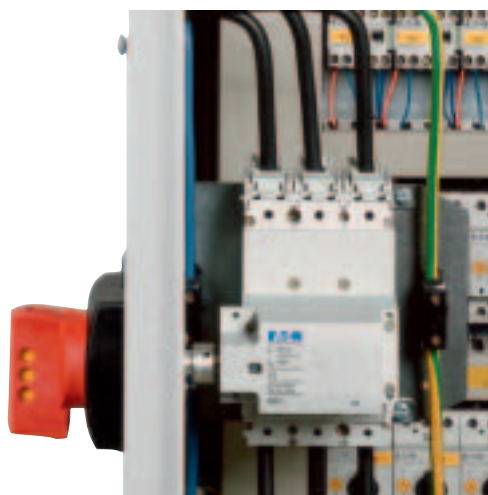


**Rear operator**

If a power disconnecting device with door coupling rotary handle is to be used in a confined space: up to 300 A rated current can be quickly mounted using the compact mechanical features and comfortably operated using the solid rotary handle. All switch variants from the NZM1 and NZM2 range – regardless of if they are circuit-breakers or switch-disconnectors – can be combined with a rear operator.

















**Main switch application**

The main switch application with an emergency-stop function up to 1600 A conform to IEC/EN 60204-1, VDE 0113 Part 1 can be easily and cost-effectively implemented with the new Eaton products. The voltage is switched off on all current conducting circuits when the switch is switched off using the undervoltage release with two integrated early-make auxiliary contacts.



**Side operator**

Up to 1600 A, the side wall operator enables the switch to be operated from the right or left hand side as desired. Optional fitting of our mounting bracket results in optimum use of space in the control panel. The mounting plate can thus be used for other machine control elements.

	For use with	Part no.	Article no. when ordered separately	Notes	
<b>Door coupling rotary handle</b>					
Complete including rotary drive and coupling parts An additional extension shaft is necessary with the NZM...-XT(V)D(V)(R)(-60) types. Protection type IP66/UL/CSA type 4X, 12					
Standard, black/grey					
  	Lockable on the 0 position on the handle using up to 3 padlocks. With door interlock.	NZM1, N(S)1	<b>NZM1-XTVD</b> 260166	Door interlock <ul style="list-style-type: none"> <li>• <b>Not</b> defeated in the locked OFF and ON positions</li> <li>• Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position.</li> <li>• Door can be opened in OFF NZM...-XTVD(V)</li> <li>• External warning plate/markings plate can be clipped on.</li> </ul>	
		NZM2, N(S)2	<b>NZM2-XTVD</b> 260168		
		NZM3, N(S)3	<b>NZM3-XTVD</b> 260170		
  	Lockable on the handle on the switch using up to 3 padlocks. Can be locked in 0 position, with adequate modification also in I position. With door interlock. Lockable on the switch in the 0 position.	NZM1, N(S)1	<b>NZM1-XTVDV</b> 260172		
		NZM2, N(S)2	<b>NZM2-XTVDV</b> 260174		
		NZM3, N(S)3	<b>NZM3-XTVDV</b> 260176		
Red-yellow for emergency switching off					
  	Lockable on the handle on the switch using up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on the switch in the 0 position.	NZM1, N(S)1	<b>NZM1-XTVDVR</b> 260178	Door interlock <ul style="list-style-type: none"> <li>• <b>Not</b> defeated in the locked OFF position.</li> <li>• Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position.</li> <li>• Door can be opened in OFF NZM...-XTVDVR</li> <li>• External warning plate/markings plate can be clipped on.</li> </ul>	
		NZM2, N(S)2	<b>NZM2-XTVDVR</b> 260180		
		NZM3, N(S)3	<b>NZM3-XTVDVR</b> 260182		
<b>Door coupling rotary handle for North America UL/CSA</b>					
Complete including rotary drive and coupling parts Extension shaft additionally required. Protection type IP66/UL/CSA type 4X, 12 Divergent to normal IEC handles: Door opening only possible with active rotation beyond the 0 position.					
Standard, black/grey					
  	Lockable in 0 position on handle. With door interlock.	NZM1, N1	<b>NZM1-XTVD-NA</b> 271445	Door interlock <ul style="list-style-type: none"> <li>• <b>Not</b> defeated in the locked OFF position.</li> <li>• Door opening with active rotation beyond the 0 position.</li> <li>• cannot be combined with mechanical interlock</li> <li>• External warning plate/markings plate can be clipped on.</li> </ul>	
		NZM2, N2	<b>NZM2-XTVD-NA</b> 271446		
		NZM3, N3	<b>NZM3-XTVD-NA</b> 271447		
  	Lockable on the handle on the switch using up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on the switch in the 0 position.	NZM1, N(S)1	<b>NZM1-XTVDVR-NA</b> 271449		
		NZM2, N(S)2	<b>NZM2-XTVDVR-NA</b> 271450		
		NZM3, N(S)3	<b>NZM3-XTVDVR-NA</b> 271451		
<b>Extension shaft</b>					
	400 mm max. mounting depth	NZM1, N(S)1	<b>NZM1/2-XV4</b> 261232	Length 290 mm, can be cut to desired length.	
		NZM2, N(S)2			
		NZM3, N(S)3			<b>NZM3/4-XV4</b> 261234
	600 mm max. mounting depth	NZM1, N(S)1	<b>NZM1/2-XV6</b> 260191		Length 425 mm, can be cut to desired length.
		NZM2, N(S)2			
		NZM3, N(S)3			