## Circuit breaker 3-pole 40A, system/cable protection, withdrawable unit



Part no. NZMS2-A40-SVE Catalog No. NZMS2-A40-SVE

Similar to illustration

Delivery program			
Switching capacity			
400/415 V 50 Hz	I <sub>cu</sub>	kA	70
Rated current = rated uninterrupted current			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	40
Setting range			
Overload trip			
4	I <sub>r</sub>	Α	32 - 40
Short-circuit releases			
Non-delayed	$I_i = I_n x \dots$		8 – 10

## **Technical data**

#### General

Ambient temperature			
Ambient temperature, storage		°C	- 40 - + 70
Operation		°C	-25 - +70
Circuit-breakers			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	40
Switching capacity			
Rated short-circuit breaking capacity I <sub>cn</sub>	I <sub>cn</sub>		
Icu to IEC/EN 60947 test cycle 0-t-C0	lcu	kA	
400/415 V 50/60 Hz	I <sub>cu</sub>	kA	70

# Design verification as per IEC/EN 61439

Technical data for design verification			
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	13.44
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.

10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

### **Technical data ETIM 7.0**

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])

Rated permanent current lu         A         40           Rated voltage         V         990 - 890           Rated short-circuit breaking capacity lcu at 400 V, 50 Hz         kA         70           Overload release current setting         A         32 - 40           Adjustment range short-term delayed short-circuit release         A         0 - 0           Adjustment range undelayed short-circuit release         A         0 - 0           Adjustment range undelayed short-circuit release         A         0 - 0           Adjustment range undelayed short-circuit release         A         0 - 0           Littegrated earth fault protection         A         0 - 0           Unserget earth fault protection of main circuit         C         No           Device construction         Suits due for DIN rail (top hat rail) mounting         No         No           Unitable for DIN rail (top hat rail) mounting optional         No         No           Number of auxiliary contacts as normally closed contact         No         No           With switched-off indicator         No         No           With under voltage release         No         No           Number of poles         S         S         S           Postion of connection for main current circuit         No         No			
Rated short-circuit breaking capacity lou at 400 V, 50 Hz Overload release current setting Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release A 0-0 Adjustment range undelayed short-circuit release Adjustment range undelayed sh	Rated permanent current lu	А	40
Overload release current setting Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact With switched-off indicator With switched-off indicator With under voltage release No Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional	Rated voltage	V	690 - 690
Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release Adjustment range undelayed short-circuit release Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Number of pausiliary contacts as change-over contact Number of pausiliary contacts as change-over contact Number of poles Number	Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	70
Adjustment range undelayed short-circuit release Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of poles Number of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional	Overload release current setting	А	32 - 40
Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as	Adjustment range short-term delayed short-circuit release	Α	0 - 0
Type of electrical connection of main circuit  Device construction  Device construction  Device construction  Suitable for DIN rail (top hat rail) mounting  DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Number of poles  No  Vith under voltage release  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional	Adjustment range undelayed short-circuit release	Α	320 - 400
Device construction  Device construction  Suitable for DIN rail (top hat rail) mounting  DIN rail (top hat rail) mounting optional  No  No  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  No  With switched-off indicator  With under voltage release  No  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional	Integrated earth fault protection		No
Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of pauxiliary contacts as change-over contact No	Type of electrical connection of main circuit		Screw connection
DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  With switched-off indicator  With under voltage release  No  Number of poles  Sales side  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  No  No  No  No  No  No  No  No  No  N	Device construction		Built-in device plug-in technique
Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  No  With switched-off indicator  With under voltage release  No  Number of poles  Socition of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  O  O  Rocker lever  Yes  Motor drive optional	Suitable for DIN rail (top hat rail) mounting		No
Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  With switched-off indicator  With under voltage release  No  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  O  Rocker lever  Ves  No  Yes	DIN rail (top hat rail) mounting optional		No
Number of auxiliary contacts as change-over contact  With switched-off indicator  With under voltage release  No  Number of poles  3  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive optional  No  Motor drive optional	Number of auxiliary contacts as normally closed contact		0
With switched-off indicator  With under voltage release  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  No  No  No  No  No  No  No  Yes	Number of auxiliary contacts as normally open contact		0
With under voltage release No Number of poles 3 Position of connection for main current circuit Back side Type of control element Complete device with protection unit Yes Motor drive optional No Motor drive optional No	Number of auxiliary contacts as change-over contact		0
Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive optional  Sack side  Rocker lever  Yes  No  Yes	With switched-off indicator		No
Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive optional  Back side  Rocker lever  Yes  No  Yes	With under voltage release		No
Type of control element Complete device with protection unit Motor drive optional Rocker lever Yes No Yes Yes	Number of poles		3
Complete device with protection unit Yes  Motor drive integrated No  Motor drive optional Yes	Position of connection for main current circuit		Back side
Motor drive integrated No Motor drive optional Yes	Type of control element		Rocker lever
Motor drive optional Yes	Complete device with protection unit		Yes
· ·	Motor drive integrated		No
Degree of protection (IP)	Motor drive optional		Yes
	Degree of protection (IP)		IP20

## **Additional product information (links)**

additional technical information for NZM power switch ftp://ftp.moeller.net/DOCUMENTATION/PDF/nzm\_technic\_de\_en.pdf