Miniature circuit breaker (MCB), 80A, 3p, C-Char



Part no. AZ-3-C80 211801

EL Number 1601060

(Norway)

(Norway)	
General specifications	
Product name	Eaton Moeller series xEffect - AZ MCB
Part no.	AZ-3-C80
EAN	4015082118013
Product Length/Depth	90 millimetre
Product height	75 millimetre
Product width	81 millimetre
Product weight	0.64 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 60947-2 IEC 61373 EN45545-2
Product Tradename	xEffect - AZ MCB
Product Type	MCB
Product Sub Type	None
Delivery program	
Application	Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications
Number of poles	Three-pole
Number of poles (total)	3
Number of poles (protected)	3
Tripping characteristic	С
Release characteristic	С
Amperage Rating	80 A
Туре	AZ Miniature circuit breaker
Technical Data - Electrical	
Voltage type	AC
Voltage rating	230 V AC / 400 V AC
Voltage rating at DC	60 V DC (per pole)
Rated operational voltage (Ue) - max	400 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating - min	50 Hz
Frequency rating - max	60 Hz
Rated switching capacity (IEC/EN 60947-2)	20 kA
Operational switching capacity	20 kA
Rated short-circuit breaking capacity (EN 60898) at 230 V	0 kA
Rated short-circuit breaking capacity (EN 60898) at 400 V	0 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 230 V	20 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	20 kA
Admissible back-up fuse - max	200 A gL/gG
Selectivity class	3
Lifespan, electrical	10000 operations
Overvoltage category	III
Pollution degree	2
Direction of incoming supply	As required
Technical Data - Mechanical	
Frame	45 mm

Factorius viidate	00
Enclosure width	90 mm
Width in number of modular spacings	4.5
Built-in depth	75 mm
Mounting width per pole	27 mm
Mounting width	27 mm
Mounting Method	Top-hat rail IEC/EN 60715
Degree of protection	IP20 IP40 (when fitted)
Terminals (top and bottom)	Lift terminals
Connectable conductor cross section (solid-core) - min	2.5 mm ²
Connectable conductor cross section (solid-core) - max	50 mm ²
Connectable conductor cross section (multi-wired) - min	2.5 mm ²
Connectable conductor cross section (multi-wired) - max	50 mm ²
Terminal capacity (control cable)	2.5 mm ² - 50 mm ²
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	80 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	21.4 W
Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	55 °C
Design verification as per IEC/EN 61439	
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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.
10.12 Machanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
10.13 Mechanical function	
Additional information Current limiting class	3
Additional information	3 Additional equipment possible
Additional information Current limiting class	

Technical data ETIM 9.0

Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss13-27-14-19-01

Built-in depth nmm 75 Release characteristic C Number of poles (total) 3 Number of protected poles A 80 Rated current A 80 Rated curstage V 400 Rated insulation voltage Uin kV 40 Rated short-circuit breaking capacity (cn according to EN 60898 at 230 V kV 4 Voltage type AC AC Rated short-circuit breaking capacity (cn according to EN 60898 at 230 V kA 0 Rated short-circuit breaking capacity (cn according to EN 60898 at 230 V kA 0 Rated short-circuit breaking capacity (cn according to EC 60947-2 at 230 V kA 20 Rated short-circuit breaking capacity (cu according to EC 60947-2 at 230 V kA 20 Frequency kA 20 Power loss W 3 3 Current limiting class Y 3 3 Flush-mounted installation No No No Concurrently switching neutral conductor Yes 4 Delivat	Electric engineering, automation, process control engineering / Electrical installation [AAB905019])	on, device / Miniature c	ircuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss13-2/-14-19-01
Number of poles (total) Number of protected poles Rated current Rated current Rated insulation voltage Uin Rated insulation voltage Uinp Rated insulation voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60894-72 at 230 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-circuit breaking capacity Icu according to EN 60898 at 200 V Rated short-ci	Built-in depth	mm	75
Number of protected poles 3 Rated current A 80 Rated voltage V 400 Rated insulation voltage Ui V 40 Rated insulation voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 0 Voltage type AC AC Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 2400 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 2400 V kA 20 Frequency H2 50 - 60 Power loss W No Current limiting class No No Flush-mounted installation No No Concurrently switching neutral conductor No No Over voltage category Yes 4.5 Pollution degree Yes 4.5 Width in number of modular spacings Yes 4.5 Degree of protection (IP) Po	Release characteristic		С
Rated current A 80 Rated voltage V 400 Rated insulation voltage Ui V 440 Rated insulation voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 0 Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 0 Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 20 Frequency H2 50 - 60 Power loss W No Current limiting class No No Pullution degree No No Additional equipment possible Yes Yes Width in number of modular spacings Yes Yes	Number of poles (total)		3
Rated voltage V 400 Rated insulation voltage Ui V 440 Rated inpulse withstand voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 0 Voltage type AC AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 20 Frequency HZ 50 - 60 Power loss W 3 Current limiting class No No Currently switching neutral conductor No No Over voltage category 3 3 Pollution degree 2 2 Additional equipment possible Yes Width in number of modular spacings 4.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 55 Connectable conductor cross section solid-core mm² </td <td>Number of protected poles</td> <td></td> <td>3</td>	Number of protected poles		3
Rated insulation voltage Ui V 440 Rated impulse withstand voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 0 Voltage type AC AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 20 Frequency Hz 50 - 60 Power loss W No Current limiting class No No Flush-mounted installation No No Concurrently switching neutral conductor No No Over voltage category S 3 3 Pollution degree Yes Yes Width in number of modular spacings Yes 4.5 Degree of protection (IP) IP20 Ambient temperature during operating "C 25 - 55 Connectable conductor cross section solid-core mm" 25 - 50 <td>Rated current</td> <td>А</td> <td>80</td>	Rated current	А	80
Rated impulse withstand voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 0 Voltage type AC AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 20 Frequency HZ 50 - 60 Power loss W W Current limiting class W 3 Flush-mounted installation No No Concurrently switching neutral conductor No No Over voltage category 2 3 Pollution degree 2 Yes Width in number of modular spacings 4.5 Yes Width in number of modular spacings Yes 2.5 - 55 Connectable conductor cross section multi-wired "C -25 - 55 Connectable conductor cross section solid-core mm² 2.5 - 50	Rated voltage	V	400
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 6094	Rated insulation voltage Ui	V	440
Voltage type Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated Short-circuit breaking capacity Icu according to IEC 6	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V	Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V $$	kA	0
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 20 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 20 Frequency Hz 50 - 60 Power loss W Current limiting class 3 Flush-mounted installation No Concurrently switching neutral conductor No Over voltage category 3 Pollution degree Additional equipment possible Yes Width in number of modular spacings 4.5 Degree of protection (IP) IP20 Ambient temperature during operating ° C -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Voltage type		AC
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Frequency Power loss W Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core KA 20 50 - 60 W W W W W W W W W	Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V $$	kA	0
Frequency Power loss W Current limiting class Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Hz 50 - 60 W No No No 2 4.5 Pes 4.5 Pep 4.5 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	kA	20
Power loss Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Width in number of modular spacings Connectable conductor cross section multi-wired Connectable conductor cross section solid-core W W S S S S S S S S S S S	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V $$	kA	20
Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Over voltage category Pollution degree 2 Additional equipment possible Width in number of modular spacings Width in number of modular spacings Pegree of protection (IP) IP20 Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core "C" -25 - 55 Connectable conductor cross section solid-core """ 25 - 50	Frequency	Hz	50 - 60
Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Pegree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core No No No No 1 No 2 4 Fue Yes 4.5 IP20 Fue 2 2-5-55 Connectable conductor cross section solid-core mm² 2.5-50	Power loss	W	
Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Width in number of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core No No No 1 2 2 Additional equipment possible Yes 4.5 IP20 P20 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Current limiting class		3
Over voltage category 3 Pollution degree 2 Additional equipment possible Width in number of modular spacings Ves Width in number of modular spacings 1,5 Degree of protection (IP) P20 Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Flush-mounted installation		No
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 4.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Concurrently switching neutral conductor		No
Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating "C" -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Over voltage category		3
Width in number of modular spacings 4.5 Degree of protection (IP) Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Pollution degree		2
Degree of protection (IP) Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Additional equipment possible		Yes
Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Width in number of modular spacings		4.5
Connectable conductor cross section multi-wired mm² 2.5 - 50 Connectable conductor cross section solid-core mm² 2.5 - 50	Degree of protection (IP)		IP20
Connectable conductor cross section solid-core mm² 2.5 - 50	Ambient temperature during operating	°C	-25 - 55
	Connectable conductor cross section multi-wired	mm²	2.5 - 50
Explosion-proof No	Connectable conductor cross section solid-core	mm²	2.5 - 50
	Explosion-proof		No