## DATASHEET - FAZ-C20/1-NA

## Miniature circuit breaker (MCB), 20 A, 1p, characteristic: C



Part no.	FAZ-C20/1-NA
	102091
EL Number	1691580
(Norway)	

(INDI WAY)	
General specifications	
Product name	Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB
Part no.	FAZ-C20/1-NA
EAN	4015081019670
Product Length/Depth	105 millimetre
Product height	75.5 millimetre
Product width	17.7 millimetre
Product weight	0.121 kilogram
Compliances	RoHS conform
Certifications	CSA-C22.2 No. 5-09 CE marking CSA (Class No. 1432-01) IEC/EN 60947-2 UL 489 Specially designed for North America, suitable as BCPD UL (Category Control Number DIVQ) North America (UL listed, CSA certified) UL 489, CSA C22.2 No. 5 UL (File No. E235139) CSA (File No. 204453) IEC 60947-2 EN45545-2 IEC 61373
Product Tradename	xEffect - FAZ-NA, FAZ-RT
Product Type	мсв
Product Sub Type	None
Delivery program	
Application	Feeder circuits, branch circuits Switchgear for export to North America (UL-listed)
Number of poles	Single-pole
Number of poles (total)	1
Number of poles (protected)	1
Tripping characteristic	С
Release characteristic	C
Amperage Rating	20 A
Туре	FAZ-NA Miniature circuit breaker
Technical Data - Electrical	
Voltage type	AC
Voltage rating	277 V AC / 480 V AC
Voltage rating at DC	60 V DC
Voltage rating (IEC/EN 60947-2)	254 V
Voltage rating (UL)	277 V
Rated operational voltage (Ue) - max	240 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)	15 kA
Breaking capacity	14 kA (UL489)
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	15 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	15 kA

Selectivy class     Selectivy class     Selectivy class       Ukapan, lexification days     III       Patient of a caming supply     A required       Technical Data - Mechanical     Selectivy class       Frame     Selectivy class       Enclarer wich     IIII       Witch in number of modular spacings     IIII       Ball-in deglth     IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
Overevelage setagory     III       Pollation signey     III       Pollation signey     III       Tennical Data - Machanical     III       Frame     IIII       Encloare with     IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
Polision group     2       Direction of moming supply     Ar required       Frame     66 mm       Enclosure width     105 mm       Built in depth     65 mm       Mounting width ger pole     75 mm       Mounting width ger pole     75 mm       Mounting width ger pole     17 mm       Degree of protection     1928       Degree of protection     1928       Degree of protection     100 <sup>mm</sup> Connectable conductor cross section fould-core1-min     10mm <sup>2</sup> Connectable conductor cross section fould-core1-max     10mm <sup>2</sup> Connectable conductor cross section fould-core1-max     10mm <sup>2</sup> Connectable conductor cross section fould-section     10mm <sup>2</sup> Terminal protection     10mm <sup>2</sup>	
Direction disconing supply As required   Technical Data - Mechanical 45 mm   Frame 46 mm   Exclosure width 45 mm   Width in mubber of modular spacings 1   Bail-in degth 12.5 mm   Meaning width 12.5 mm   Meaning width per pole 10.7 mm   Mounting width per pole 10.7 mm   Mounting bethod 10.7 mm   Mounting bethod 10.7 mm   Mounting bethod 10.7 mm   Mounting bethod 10.7 mm   Degree of protection 10.7 mm   U/USAN Yape: 10.7 mm   Connectable conductor cross section isold-corel - min 10.7 mm   Connectable conductor cross section isold-corel - min 10.7 mm   Connectable conductor cross section isold-corel - min 10.7 mm   Connectable conductor cross section itold-wored - min 25 mm <sup>2</sup> Connectable conductor cross section itold-wored - min 25 mm <sup>2</sup> Connectable conductor cross section itold-scorel - max 10.1 mm <sup>2</sup> Connectable conductor cross section itold-scorel - max 10.1 mm <sup>2</sup> Connectable conductor cross section itold-scorel - max 10.1 mm <sup>2</sup> Connectable conductor cross section itold-scorel - max 10.1 mm <sup>2</sup> Connectable conductor cross section itold-scorel - max 25	
Prome Smm   Frame Smm   Bencare width Smm   Width in windbe of hold registings Io   Built-in depth Io   Mounting width per pole Io   Terminal top and betom! Io   Connectable conductor cross section (multi-wired) - max Io   Connectable conductor cross section (multi-wired) - max Io   Terminal top pole Io   Rand operational current for specified hoad displant (nei) Io   Rand operational current for specified hoad displant (nei) Io   Batting spating current-dependent	
FameSameSameEclosure with105 mmWith in number of modules spacings105 mmBaltich deph1.7 mmMouning with per pole1.7 mmMouning with per pole1.7 mmMouning with per pole1.7 mmMouning with per pole1.7 mmMouning of printection1.7 mmBarlen dephAs requiredDegree of printection1.7 mmConnectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Connectable conductor cross section (solid core) - min1.7 mm <sup>2</sup> Terminal protection1.7 mm <sup>2</sup> Tightening torgue2.5 mm <sup>2</sup> Rated operational current or specified heat dissipation (m)1.6 mm <sup>2</sup> Heat dissipation per pole, current dependent2.5 m <sup>2</sup> Rated operational current dependent2.5 m <sup>2</sup> Rated operational temperature - min.5 m <sup>2</sup> Anbent operating temperature - min.5 m <sup>2</sup> Anbent operating temperature - min.5 m <sup>2</sup> Rated operation of resistance of insulating materials to normal heatMest t	
Enclosure with105 mmWith in number of modular spacings1Worth in number of modular spacings1Parenteal protection1Connectable conductor cross section (null-wired) - max1Connectable conductor cross section (null-wired) - max1Connectable conductor cross section (null-wired) - max1Terminal protection1Tarthening torque1Worth in conductor cross section (null-wired) - max1Read operational current for specified heat dissipation (n)1Heat dissipation, non-current-dependent2Notes th sprotuct standard's requirements.Notes the product standard's requirements.<	
With in number of modular spacings     Image: Spacings     Image: Spacings       Built-in depth     75 mm       Mounting with propole     72 7m       Mounting with propole     72 7m       Mounting with propole     72 7m       Mounting Methad     Top-hatral IED/EN 80715       Mounting Nethad     Sequerad       Mounting Nethad     Sequerad       Degree of protection     Pail (Values fifted) (Values fifted) (Values fifted)       Torninals (top and bottom)     Fee of anticle/Sequeration       Connectable conductor cross section (solid-core) - max     Imm <sup>2</sup> Connectable conductor cross section (mult-wired) - max     Imm <sup>2</sup> Connectable conductor cross section (mult-wired) - max     Imm <sup>2</sup> Terminal protection     Imm <sup>2</sup> Terminal protection     Imm <sup>2</sup> Terminal protection     Imm <sup>2</sup> Read operational current dog spacing (mult-wired) - max     Imm <sup>2</sup> Read operational current dog spacing (mult-wired) - max     Imm <sup>2</sup> Read operational current dog spacing (mult-wired)     Imm <sup>2</sup> Read operational current dog spacing (mult-wired)     Imm <sup>2</sup> Read operational current dog spacing (mult-wired)	
Built in depth   For Smm     Mounting width per pole   17.7 mm     Mounting position   18.6 (200 M015)     Degree of protection   1920 (Pole)     Pole of protection   1920 (Pole)     Connectable conductor cross section (solid-core) - max   17.7 mm     Connectable conductor cross section (multi-wired) - max   25.mm <sup>2</sup> Connectable conductor cross section (multi-wired) - max   25.mm <sup>2</sup> Terminal protection   11.2 .2 .8 m/2 (200 H02 H02 H02 H02 H02 H02 H02 H02 H02	
Mourning width per pole     17.7 mm       Connectable conductor cross section (solid-core) - mm     17.7 mm       Connectable conductor cross section (mult-wired) - max     17.7 mm       Torminal process section (mult-wired) - max     17.7 mm       Torminal process per IEC/EN 61439 - tochnical data     17.7	
Mounting width per pole   17.7 m     Mounting Method   Top-hat rail IEC/EN 60715     Mounting position   As required     Degree of protection   IPO (whan fitted)     Pagree of protection   IPO (whan fitted)     Connectable conductor cross section (solid-core) - max   Twin-purpose terminals     Connectable conductor cross section (solid-core) - max   Zs m <sup>3</sup> Connectable conductor cross section (solid-core) - max   Zs m <sup>3</sup> Connectable conductor cross section (multi-wired) - max   Zs m <sup>3</sup> Connectable conductor cross section (multi-wired) - max   Zs m <sup>3</sup> Connectable conductor cross section (multi-wired) - max   Zs m <sup>3</sup> Connectable conductor cross section (multi-wired) - max   Zs m <sup>3</sup> Connectable conductor cross section (multi-wired) - max   Zs m <sup>3</sup> Connectable conductor cross section (multi-wired) - max   Zs m <sup>3</sup> Rated operational current of specified heat dissipation (milti-wired) - max   Zs m <sup>3</sup> Rated operational current of specified heat dissipation (milti-wired)   Zo A     Rated operational current dependent   Zo A     Rated operating temperature - min   Zs Coroscin resistance     Anbient operating temperature - min   Zs Coroscin resistance <td< td=""><td></td></td<>	
Mounting Method   Top-hat rail EC/EN 60715     Mounting position   As required     Degree of protection   P28     Terminals (top and bottom)   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - min   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - max   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - max   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - max   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - max   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - max   Top-hat rail EC/EN 60715     Connectable conductor cross section (solid-core) - max   Top-hat rail EC/EN 600715     Terminal protection   Tom <sup>2</sup> Tightening torque   Engre and hand touch safe, DGUV VS3, EN 50274     U::23 N m25   Mice 24 Nm 71     Rated operational current for specified heat dissipation (In)   Nov 24 Nm 71     Heat dissipation, current-dependent   Sec 50     Equipment heat dissipation, current-dependent   With and top-rain for XMG 10 - XMG 8     Novint operating temperature - min   Sec 50     Statis heat dissipation, current-dependent   With a	
Mounting position     Arequired       Degree of protection     P20       Perce of protection     P20       Terminals (top and bottom)     P20       Connectable conductor cross section (solid-core) - min     Imm <sup>2</sup> Connectable conductor cross section (solid-core) - max     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - min     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - min     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - max     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - max     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - max     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - max     Imm <sup>2</sup> Connectable conductor cross section (multi-wired) - max     Imm <sup>2</sup> Terminal protection     Finger and hand touch safe, DGUV VS3, EN 50274       UL: 28 Nm (25 lb-in) for AWG 18 - AWG 12     Multi (S0 lb-in) for AWG 18 - AWG 12       Maxetid oporational current for specified heat dissipation (In)     20 A       Rated oporational current dopendent     OW       Equipment heat dissipation, current-dependent     OW       Rated issipation caperity     S °C       Rated opor	
Degree of protection   P20     Terminals (top and bottom)   Twin-purpose torminals     Connectable conductor cross section (solid-core) - min   Twin-purpose torminals     Connectable conductor cross section (solid-core) - max   Twin-purpose torminals     Connectable conductor cross section (multi-wired) - max   Twin-purpose torminals     Connectable conductor cross section (multi-wired) - max   Twin-Purpose torminals     Connectable conductor cross section (multi-wired) - max   Twin-Purpose torminals     Connectable conductor cross section (multi-wired) - max   Twin-Purpose torminals     Connectable conductor cross section (multi-wired) - max   Twin-Purpose torminals     Torminal protection   Tum?     Targhtening torque   UL: 28 km (25 kmin) for AWG 8     UL: 28 km (25 kmin) for AWG 8   UL: 28 km (25 kmin) for AWG 8     UL: 24 km (21 kmin) for AWG 8   UL: 24 km (21 kmin) for AWG 8     UL: 24 km (21 kmin) for AWG 8   UL: 24 km (21 kmin) for AWG 8     UL: 24 km (21 kmin) for AWG 8   UL: 24 km (21 kmin) for AWG 8     UL: 24 km (24 kmin) for AWG 8   UL: 24 km (21 kmin) for AWG 8     UL: 24 km (24 kmin) for AWG 8   UL: 24 km (24 kmin) for AWG 8     Static heat dissipation, nor-urent-dependent   OW     Retat dissipation, nor-ur	
PerformantsPerformantsTerminals (top and bottom)Twin-purpose terminalsConnectable conductor cross section (solid-core) - maxTimm <sup>1</sup> Connectable conductor cross section (mult-wired) - maxTimm <sup>1</sup> Terminal protectionTimm <sup>1</sup> Terminal protectionU: 28 Nm (21 bi-m) for AWG 10 - AWG 8Tightening torqueU: 28 Nm (21 bi-m) for AWG 10 - AWG 8Design verification as per IEC/EN 61439 - technical dataU: 28 Nm (21 bi-m) for AWG 10 - AWG 8Rated operational current for specified heat dissipation (In)20 ARated operational current-dependentUEquipment heat dissipation, current-dependentURated operating temperature - min-25 °CAmbient operating temperature - minx-25 °CNathient operating temperature - minx-25 °C102.22 Orrosion resistanceMeets the product standard's requirements.102.22 Verification of thermal stability of enclosuresMeets the product standard's requirements.102.23 Verification of neutral to insulating materials to normal heatMeets the product standard's requirements.102.23 Verification of neusistance of insulating materials to normal heatMeets the product standard's requirements.102.23 Verification of neusistance of insulating materials to normal heatMeets the product standard's	
Connectable conductor cross section (solid-core) - minImm <sup>1</sup> Connectable conductor cross section (solid-core) - max25 mm <sup>3</sup> Connectable conductor cross section (multi-wired) - min25 mm <sup>3</sup> Connectable conductor cross section (multi-wired) - max1 mm <sup>1</sup> Connectable conductor cross section (multi-wired) - max25 mm <sup>2</sup> Terminal protection1 mm <sup>1</sup> Tightening torqueU: 24 Nm (21 b-in) for AWG 10 - AWG 8U: 24 Nm (21 b-in) for AWG 10 - AWG 8U: 24 Nm (21 b-in) for AWG 10 - AWG 8Design verification as per IEC/EN 61439 - technical data20 ARated operational current for specified heat dissipation (In)0 WHeat dissipation, current-dependent0 WEquipment heat dissipation, current-dependent0 WStatic heat dissipation, current-dependent0 WHeat dissipation capacity0 WAmbient operating temperature - min-25 °CIto222 Corrosion resistanceMeets the product standard's requirements.10222 Corrosion resistanceMeets the product standard's requirements.10232 Nerification of tersistance of insulating materials to normal heatMeets the product standard's requirements.1024 Resistanci to ultra-violet (UV) radiationMeets the product standard's requirements.1024 Resistance to ultra-violet (UV) radiationDoes not apply, since the entire switchgear needs to be evaluated.1024 Resistance to ultra-violet (UV) radiationDoes not apply, since the entire switchgear needs to be evaluated.1024 Resistance to ultra-violet (UV) radiationDoes not apply, since the entire switchgear needs to be e	
Connectable conductor cross section (solid-core) - maxZ mm²Connectable conductor cross section (multi-wired) - minI mm²Connectable conductor cross section (multi-wired) - maxFinger and hand touch safe, DGUV VS3, EN 50274Terminal protectionIfiger and hand touch safe, DGUV VS3, EN 50274Tightening torqueUL: 28 Nm (25 lb-in) for AWG 10 - AWG 8 UL: 24 Nm (21 lb-in) for AWG 10 - AWG 8 UL: 24 Nm (21 lb-in) for AWG 10 - AWG 8 UL: 24 Nm (21 lb-in) for AWG 10 - AWG 8 UL: 24 Nm (21 lb-in) for AWG 10 - AWG 8 UL: 24 Nm (21 lb-in) for AWG 10 - AWG 8 UL: 24 Nm (21 lb-in) for AWG 10 - AWG 8 	
Connectable conductor cross section (multi-wired) - minImm³Connectable conductor cross section (multi-wired) - max5 mm³Terminal protectionFinger and hand touch safe, DGUV VS3, EN 50274Tightening torqueUL: 28 Nm (25 lb-in) for AWG 8 UL: 24 Nm (21 lb-in) for AWG 8 UL: 40 Nm (25 lb-in) for	
Connectable conductor cross section (multi-wired) - maxZ markTerminal protectionFinger and hand touch safe, DGUV VS3, EN 50274Tightening torqueUL: 2.8 Nm (25 b-in) for AWG 0Tightening torqueUL: 2.4 Nm (21 b-in) for AWG 0Design verification as per IEC/EN 61439 - technical dataUERated operational current for specified heat dissipation (In)VHeat dissipation, per pole, current-dependent0WEquipment heat dissipation, current-dependent0WStatic heat dissipation, non-current-dependent0WAmbient operating temperature - min0WAmbient operating temperature - min0W102.2 Corrosion resistance0W102.2 Corrosion resistanceMeets the product standard's requirements.102.3 I Verification of thermal stability of enclosuresMeets the product standard's requirements.102.3 Shesist, of insul, mat to abnormal heat/fire by internal elect effectsMeets the product standard's requirements.102.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.102.5 Uffing1024 Resistance to ultra-violet (UV) radiation102.6 Mechanical impactCores not apaply, since the entire switchgear needs to be evaluated.	
Terminal protectionFinger and hand touch safe, DGUV VS3, EN 50274Tightening torqueL: 2.8 km (25 lb-in) for AWG 10 - AWG 8 UL: 2.4 km (21 lb-in) for AWG 10 - AWG 0Design verification as per IEC/EN 61439 - technical dataPosign verification as per IEC/EN 61439 - technical dataRated operational current for specified heat dissipation (In)00Heat dissipation, current-dependent00Equipment heat dissipation, current-dependent00Static heat dissipation, current-dependent00Heat dissipation capacity00Ambient operating temperature - min-25 °CAmbient operating temperature - max75 °CDesign verification as per IEC/EN 61439Mets the product standard's requirements.102.2 Corrosion resistanceMets the product standard's requirements.102.3 Nerification of thermal stability of enclosuresMets the product standard's requirements.102.3 Verification of resistance of insulating materials to normal heat/Mets the product standard's requirements.102.4 Resistance to ultra-violet (UV) radiationMets the product standard's requirements.102.4 Resistance to ultra-violet (UV) radiationMets the product standard's requirements.102.5 LiftingDes not apply, since the entire switchgear needs to be evaluated.102.6 Mechanical impactMets the product standard's requirements.	
Tightening torque   U: 2.8 km (25 lb-in) for AWG 10 - AWG 8 UI: 2.4 km (21 lb-in) for AWG 10 - AWG 8 UI:	
Design verification as per IEC/EN 61439 - technical data   IL: 24 Nm (21 b-in) for AWG 8     Rated operational current for specified heat dissipation (In)   Image: Comparison of the comparison of	
Rated operational current for specified heat dissipation (In)20 AHeat dissipation per pole, current-dependent0 WEquipment heat dissipation, current-dependent29 WStatic heat dissipation, non-current-dependent0 WHeat dissipation capacity0 WAmbient operating temperature - min-25 °CAmbient operating temperature - max75 °CDesign verification as per IEC/EN 61439Meets the product standard's requirements.10.2.3 L'orification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3 L'orification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.3 L'orification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.	
Heat dissipation per pole, current-dependent0 WEquipment heat dissipation, current-dependent2.9 WStatic heat dissipation, non-current-dependent0 WHeat dissipation capacity0 WAmbient operating temperature - min-25 °CAmbient operating temperature - max75 °CDesign verification as per IEC/EN 61439Meets the product standard's requirements.10.2.2 Corrosion resistanceMeets the product standard's requirements.10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDes not apply, since the entire switchgear needs to be evaluated.	
Equipment heat dissipation, current-dependent   2.9 W     Static heat dissipation, non-current-dependent   0 W     Heat dissipation capacity   0 W     Ambient operating temperature - min   -25 °C     Ambient operating temperature - max   75 °C     Design verification as per IEC/EN 61439   Meets the product standard's requirements.     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.     10.2.3.2 Verification of resistance to ultra-violet (UV) radiation   Meets the product standard's requirements.     10.2.3.2 Verification of resistance to ultra-violet (UV) radiation   Meets the product standard's requirements.     10.2.3.2 Verification of resistance to ultra-violet (UV) radiation   Meets the product standard's requirements.     10.2.3 Resist. of insul. mat to abnormal heat/fire by internal elect. effects   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.	
Static heat dissipation, non-current-dependent   0W     Heat dissipation capacity   0W     Ambient operating temperature - min   -25 °C     Ambient operating temperature - max   -25 °C     Design verification as per IEC/EN 61439   75 °C     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   Meets merce witchgear needs to be evaluated.	
Heat dissipation capacity   0W     Ambient operating temperature - min   -25 °C     Ambient operating temperature - max   75 °C     Design verification as per IEC/EN 61439   Meets the product standard's requirements.     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   Des not apply, since the entire switchgear needs to be evaluated.     10.2.5 Lifting   Des not apply, since the entire switchgear needs to be evaluated.	
Ambient operating temperature - min-25 °CAmbient operating temperature - max-75 °CDesign verification as per IEC/EN 61439Meets the product standard's requirements.10.2.2 Corrosion resistanceMeets the product standard's requirements.10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactMeets the product standard's requirements.	
Ambient operating temperature - minImage: section operating temperature - max-25 °CDesign verification as per IEC/EN 614395 °C10.2.2 Corrosion resistanceMeets the product standard's requirements.10.2.3 Lverification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effectsMeets the product standard's requirements.10.2.5 LiftingMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactMeetsMeets negoly, since the entire switchgear needs to be evaluated.	
Ambient operating temperature - max75 °CDesign verification as per IEC/EN 61439Meets the product standard's requirements.10.2.2 Corrosion resistanceMeets the product standard's requirements.10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactMeets the opt	
Design verification as per IEC/EN 61439Mets the product standard's requirements.10.2.2 Corrosion resistanceMeets the product standard's requirements.10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactMeets the orduct standard's requirements.	
10.2.2 Corrosion resistanceMeets the product standard's requirements.10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactMeets the ord apply, since the entire switchgear needs to be evaluated.	
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   Meets the orduct 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   Meets the orduct 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.	
10.2.4 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   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.	
10.2.6 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	
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. I	Eaton will
10.11 Short-circuit rating   Is the panel builder's responsibility. The specifications for the switchg observed.	gear must be

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.
Additional information	
Current limiting class	3
Features	Additional equipment possible
Functions	Current limiting circuit breaker
Special features	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
Used with	Miniature circuit breaker FAZ-NA

## **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 [AAB905019])

Built-in depth	mm	m 70.5
Release characteristic		C
Number of poles (total)		1
Number of protected poles		1
Rated current	А	20
Rated voltage	V	240
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	A 0
Voltage type		AC
Rated short-circuit breaking capacity Icn according to EN 60898 at 400 $V$	kA	A 0
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V $$	kA	A 15
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V $$	kA	A 15
Frequency	Hz	z 50 - 60
Power loss	W	3.3
Current limiting class		3
Flush-mounted installation		No
Concurrently switching neutral conductor		No
Over voltage category		3
Pollution degree		2
Additional equipment possible		Yes
Width in number of modular spacings		1
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section multi-wired	mm <sup>2</sup>	m <sup>2</sup> 1 - 25
Connectable conductor cross section solid-core	mm <sup>2</sup>	m <sup>2</sup> 1 - 25
Explosion-proof		No