

## Circuit-breaker, 3p, 4000 A, fixed

Powering Business Worldwide\*

Part no. IZMX40H3-U40F Article no. 149748

Catalog No. RESC403BM2RNMNN2MN1X

# **Delivery program**

		Air circuit-breakers/switch-disconnectors
		Open circuit-breakers
		Up to 4000 A
		Universal protection
		Fixed
		IZMX40
		Electronic release
		IEC
		3 pole
		IP20, IP55 with protective cover, IP41 door sealing frame
		suitable for zone selectivity suitable for communication integrated system monitor and 4-character display optionally fittable by user with comprehensive accessories
$I_n = I_u$	Α	4000
I <sub>cu</sub>	kA	105
I <sub>cs</sub>	kA	105
I <sub>r</sub>	Α	2000
I <sub>r</sub>	Α	4000
$I_i = I_n \times \dots$		2 - 12, OFF
$I_{sd} = I_r \times \dots$		2 - 10
	I <sub>cu</sub> I <sub>cs</sub> I <sub>r</sub> I <sub>r</sub> I <sub>i</sub> = I <sub>n</sub> x	I <sub>cu</sub> kA I <sub>cs</sub> kA I <sub>r</sub> A I <sub>r</sub> A

# **Technical data**

#### Conora

General			
Standards			IEC/EN 60947
Ambient temperature			
Storage	θ	°C	-25 - +70 (device with LCD-display -20 - +70)
Operating (open)		°C	-25 - +70 (device with LCD-display -20 - +70)
Mounting position			30° 30°
			30° 30°
Utilization category			В
Degree of Protection			IP20, IP55 with protective cover, IP41 door sealing frame
Direction of incoming supply			as required
Main conducting paths			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	4000
Rated uninterrupted current at 50 °C	Iu	Α	4000

Road similarryaged currant at 12 "CS         4, Was a control of control of 12 May 10 May	Reset ministering end contrain at 17 °C				
Red unuse withtand voltage Red specially soltage Red Specially s	Rated operational voltage         Units         V AC         1000           Rated operational voltage         Up         V AC         800           Decreotage category/buildint depree         Up         V BO         100           Tabled voltage category/buildint depree         Up         V BO         100           Structure of the Control traking capacity         Up         V BO         100           Rated standard carrier SM00 Pr         Up         V BO         100           Rated standard carrier SM00 Pr         Up         V BO         100           Rated standard carrier SM00 Pr         Up         V BO         100           Rated standard standard carrier SM00 Pr         Up         V BO         100           Rated standard standard carrier SM00 Pr         Up         V BO         100           Rated standard standard carrier SM00 Pr         Up         V BO         100           Rated standard standard carrier SM00 Pr         Up         V BO         100           Rated standard standard carrier SM00 Pr         Up         V BO         100           Spot 207 93800 Pt         Up         V BO         100           Spot 207 93800 Pt         Up         V BO         100           Spot 207 93800 Pt	Rated uninterrupted current at 60 °C	l <sub>u</sub>	Α	3650
Name   Part	Name	Rated uninterrupted current at 70 °C	I <sub>u</sub>	Α	3500
Name   Part	Name	Rated impulse withstand voltage	U <sub>imp</sub>	V AC	12000
Overvituing category/pillulation degree         U         VID           Risad mustican votage         U         VID           Sviteching capacity         Image: VID         VID           gup to 400 V5800 ftz         Image: VID         VID           Black distriction making capacity         Image: VID         VID           1 = 1 a         Image: VID         VID           1 = 2 a         VID         VID           1 = 3 a         VID         VID           1 = 3 a         VID         VID           1 = 4 a         VID         VID	No.	Rated operational voltage		V AC	690
Overvituing category/pillulation degree         U         VID           Risad mustican votage         U         VID           Sviteching capacity         Image: VID         VID           gup to 400 V5800 ftz         Image: VID         VID           Black distriction making capacity         Image: VID         VID           1 = 1 a         Image: VID         VID           1 = 2 a         VID         VID           1 = 3 a         VID         VID           1 = 3 a         VID         VID           1 = 4 a         VID         VID	No.	Use in IT electrical power networks up to U = 440 V		kA	57.6
Note   1900	Service   Parameter   Parame				III/3
Name   Second Process	Switching capacity  Raide allow-circuit making capacity  1 or to 440 Y 5000 Hz  1 or to 580 Y 5000 Hz  1 c 1 s 1  1 c 2 s		U:	V	
Rised of or croal making capacity         Igna         IA A         IA C	Rate of short - Frame waking capacity		-1		
Bit	In to 690 V 5800 Nr Rated short-since webstand current 5090 Nr 1 = 1 s		I <sub>cm</sub>		
15   15   15   15   15   15   15   15	In the Second Se	up to 440 V 50/60 Hz	I <sub>cm</sub>	kA	231
Rated short-time withstand current 50/60 Hz  1 = 1 s 1 c	Rated short-time withstand current 50/90 kt  1 - 1 s  1 c  1 c  1 c  1 c  1 c  1 c  1 c	up to 690 V 50/60 Hz		kA	166
t = 1 s t = 3 s t = 3 s Rated short-circuit breaking capacity I <sub>con</sub> len	t = 1 s		CIII		
ELECK ROBAT operating separately Lon	ECEN 99847 operating sequence \( \frac{1}{2} \) O+CO		low	kA	85
Rated short-circuit breaking capacity i <sub>cn</sub>   ECCEN 60947 operating sequence I <sub>cu</sub> 0-t-CO    Up to 2404 V 50809 Hz	Rated short-circuit breaking capacity I <sub>cn</sub>   EC/EN 60947 operating sequence I <sub>co</sub> 0-t-CO   up to 240 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 50947 operating sequence I <sub>co</sub> 0-t-CO+CO   I <sub>co</sub>   IA   105     up to 240 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     Up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     Up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     Up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     Up to 440 V 50800 Hz   I <sub>co</sub>   IA   105     Up to 440 V 50800 Hz   I <sub>co</sub>   IA   I				
ECEN 80947 operating sequence I <sub>co</sub> , 0+cCO	IEC/EN 80947 (page and ence log 0 -CO  up to 240 V 5080 Hz  up to 490 V 5080 Hz  up to 690 V 5080 Hz  up to 690 V 5080 Hz  up to 490 V			KA.	
Leg	up to 240 V 5080 Hz  up to 690 V 5080 Hz  up to 509 V 5080 Hz  up to 509 V 5080 Hz  up to 509 V 5080 Hz  up to 690 V 5080 Hz  fotal opening delay via spring release  Total opening delay via undervoltage release  Total opening delay via pring release  Total opening delay via undervoltage release  Total op		Icn		
up to 440 V 5060 Hz  IECEN 05987 operating sequence I <sub>cs</sub> 0-t-C0+C0  I to 240 V 5060 Hz  up to 240 V 5060 Hz  up to 240 V 5060 Hz  up to 800 V 5060 Hz  lcs  A  1cs  A	up to 440 V 50/60 Hz  up to 690 V 50/60 Hz  up to 240 V 50/60 Hz  up to 360 V 50/60 Hz  Total opening delay via spring release  ms 35  Total opening delay via spring release  ms 37  Total opening delay via undervoltage release  ms 37  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Operations/h  A5 00  Maximum operating frequency  Operations/h  A6 00  Total opening delay on non-delayed short-circuit release (up to complete arc good and to complete a				
up to 690 V 5060 Hz  IEC/EN 60947 operating sequence I <sub>CS</sub> 0-t-CO-t-CO  up to 240 V 5060 Hz  up to 440 V 5060 Hz  up to 440 V 5060 Hz  up to 490 V 5060 Hz  les kA 105  Operating times  Closing delay via spring release  Total opening delay via undervoltage release  Total opening delay via undervolt	up to 890 V 50/60 Hz	up to 240 V 50/60 Hz	I <sub>cu</sub>	kA	105
EC/EN 60847 operating sequence   cs 0+CO+CO+CO   cs   cs   kA   105	ECUEN 60947 operating sequence   Lea Or-CO+CO     up to 240 V 50/00 Hz   Lea	up to 440 V 50/60 Hz	I <sub>cu</sub>	kA	105
up to 240 V 50/60 Hz  up to 680 V 50/60 Hz  up to 680 V 50/60 Hz  lcs kA 75  Operating times  Closing delay via spring release Total opening delay via spring release Total opening delay via sundervoltage release Total opening delay via undervoltage release Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Operations/h  Fixed mounting  3-pole 4-pole  4-pole  Fixed mounting  8-lack  Fixed mounting  8-lack  Fixed mounting  1	up to 240 V 50/80 Hz  up to 440 V 50/80 Hz  up to 450 V 50/80 Hz  up to 560 V 50/80 Hz  les  kA  16s  kA  106  Operating times  Closing delay via spring release  Total opening delay via subtur rolease  Total opening delay via undervoltage release  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Operations/h  Fixed mounting  W 600  Weight  Fixed mounting  3-pole 4-pole 5-pole 6-pole 7-treminal capacities  Copper bar  Fixed mounting  Black  M 4 x 100 x 10  These are values used in apparate switchpear. The actual values will depend on the temperature and the circuit-branker which is influenced by the ambient temperature. The degree of pending height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions, and any external ventiliano (IP) the mounting height, the partitions,	up to 690 V 50/60 Hz	I <sub>cu</sub>	kA	75
up to 440 V 50/60 Hz  up to 690 V 50/00 Hz  lcs  kA  75  Operating times  Closing delay via spring release Closing delay via spring release Total opening delay via undervoltage release Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency Operations/h  Fixed mounting W 600  Weight Fixed mounting  3-pole 4-pole 4-pole 5-pole 4-pole 5-pole 4-pole 5-pole 4-pole 6-pole bar Fixed mounting  Black  ### A x 100 x 10  These are values used in separate switchgear. The actual values will depend on temperature, the degree of protection (IP). The mounting, and any result in derature rise tests in the specific switchgear design, this may result in derature rise tests in the specific switchgear can provide specific and detailed information.  Permissalle continuous current rice in the specific switchgear can provide specific and detailed information.  Permissalle continuous current rice rice tim the specific switchgear can provide specific and detailed information.  Permissalle continuous current rice rice tim the specific switchgear can provide specific and detailed information.  Permissalle continuous current rice rice tim the specific switchgear can provide specific and detailed information.	up to 440 V 50/60 Hz  up to 890 V 50/60 Hz  les	IEC/EN 60947 operating sequence $I_{CS}$ 0-t-C0-t-C0			
up to 690 V 50/60 Hz	Up to 690 V 50/600 Hz  Operating times  Closing delay via spring release Total opening delay via shunt release Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Maximum operating frequency  Fixed mounting  W 600  Weight  Fixed mounting  3-pole  4-pole  5-8  Fixed mounting  Black  Mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature and the circuit-breaker, positions, this may result in feeting witch is influenced by the ambient temperature, the degree of the picce	up to 240 V 50/60 Hz	I <sub>cs</sub>	kA	105
Operating times  Closing delay via spring release  Total opening delay via shunt release  Total opening delay via undervoltage release  ms 37  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Heat dissipation at rated current In  Fixed mounting  W 600  Weight  Fixed mounting  Spole  4-pole  4-pole  Fixed mounting  Black  Maximum operating frequency  M	Operating times  Closing delay via spring release  Total opening delay via sundervoltage release  Total opening delay via undervoltage release  Total opening delay on non-delayed short-circuit release (up to complete or total opening delayed on the temperature around the circuit-breaker should be estimated using the calculation methods of IEC regulation. With vertical universal connection.  With vertical universal connection.	up to 440 V 50/60 Hz	I <sub>cs</sub>	kA	105
Closing delay via spring release Total opening delay via shunt release Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Ms 37  Total opening delay via undervoltage release  Ms 45  Maximum operating frequency  Operations/h  Fixed mounting  W 600  Weight  Fixed mounting  Spole  4-pole  4-pole  56  Terminal capacities  Copper bar  Fixed mounting  Black  M 4 × 100 × 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature around the circuit-breaker, which is influenced by the ambient temperature is to the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's internal ambient temperatures. The switchboard's internal ambient temperatures should be estimated using the calculation methods of IEC regulation.	Closing delay via spring release Total opening delay via shunt release Total opening delay via undervoltage release  ms 37  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Meat dissipation at rated current I <sub>n</sub> Fixed mounting  Weight  Fixed mounting  3-pole 4-pole 4-	up to 690 V 50/60 Hz	I <sub>cs</sub>	kA	75
Closing delay via spring release Total opening delay via shunt release Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Total opening delay via undervoltage release  Ms 37  Total opening delay via undervoltage release  Ms 45  Maximum operating frequency  Operations/h  Fixed mounting  W 600  Weight  Fixed mounting  S-pole  kg 43  4-pole  4-pole  Fixed mounting  Black  Mm 4 × 100 × 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature around the compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Closing delay via spring release Total opening delay via shunt release Total opening delay via undervoltage release  ms 37  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Meat dissipation at rated current I <sub>n</sub> Fixed mounting  Weight  Fixed mounting  3-pole 4-pole 4-	Operating times			
Total opening delay via undervoltage release ms 37  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency	Total opening delay via undervoltage release ms 37  Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Qperations/h Heat dissipation at rated current I <sub>n</sub> Fixed mounting  W 600  Weight  Fixed mounting  A by 600  Weight  Fixed mounting  Black  M g 43  4-pole 56  Terminal capacities  Copper bar  Fixed mounting  Black  M m 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature, the degree of protection (IP), the mounting height, the partitions, and any external vertilation. Depending on the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature is tests in the specific switchgear can provide specific and detailed information.  With vertical universal connection.			ms	35
Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Operations/h  Fixed mounting  S-pole  4-pole  Apole  4-pole  Black  Mm  A x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external venilation. Depending on the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperatures should be estimated using the calculation methods of IEC regulation.	Total opening delay on non-delayed short-circuit release (up to complete arc quenching)  Maximum operating frequency  Heat dissipation at rated current In  Fixed mounting  Weight  Fixed mounting  3-pole 4-pole 4-pole 4-pole 5-goale 4-pole 6-pole 4-pole 4-pole 6-pole 4-pole 6-pole 4-pole 6-pole 4-pole 6-pole 4-pole 6-pole 4-pole 6-pole 6	Total opening delay via shunt release		ms	22
quenching)  Maximum operating frequency  Operations/h  Fixed mounting  W 600  Weight  Fixed mounting  3-pole 4-pole 4-pole 5-governal explaints  Fixed mounting  Black  M 4 100 × 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature bould be estimated using the calculation methods of IEC regulation.	Maximum operating frequency  Met dissipation at rated current In  Fixed mounting  Weight  Fixed mounting  3-pole 4-pole 4-pole 8-g 43 4-pole 7-pole 8-g	Total opening delay via undervoltage release		ms	37
quenching)  Maximum operating frequency  Operations/h  Fixed mounting  W 600  Weight  Fixed mounting  3-pole 4-pole by 65  Terminal capacities  Copper bar  Fixed mounting  Black  Mm 4x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature used on the specific switchged acisy, this may result in derating. Which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgard acisy, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgard acisy, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgard acisy, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgard acisy, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgard acisy, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgard acisy, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature should be estimated using the calculation methods of IEC regulation.	Maximum operating frequency  Met dissipation at rated current In  Fixed mounting  Weight  Fixed mounting  3-pole 4-pole 4-pole 8-g 43 4-pole 7-pole 8-g				
Heat dissipation at rated current In  Fixed mounting  Weight  Fixed mounting  3-pole 4-pole 4-pole 4-pole 5-comparished mounting  Black  mm  Was as a separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambition temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Heat dissipation at rated current In  Fixed mounting  3-pole 4-pole 4-pole 5copper bar Fixed mounting  Black  Mm  4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature, the degree of protection (IP), the mounting hear even the respectific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.  With vertical universal connection.			ms	45
Fixed mounting  3-pole kg 43 4-pole kg 56  Terminal capacities  Copper bar  Fixed mounting  Black mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Fixed mounting  3-pole kg 43 4-pole kg 56  Terminal capacities  Copper bar Fixed mounting  Black mm  4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperatures should be estimated using the calculation methods of IEC regulation. With vertical universal connection.	Maximum operating frequency	Operations/h		60
Weight  Fixed mounting  3-pole kg 43  4-pole kg 56  Terminal capacities  Copper bar  Fixed mounting  Black mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Weight Fixed mounting 3-pole kg 43 4-pole kg 56  Terminal capacities  Copper bar Fixed mounting Black mm 4x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the paritions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.  With vertical universal connection.	Heat dissipation at rated current $I_n$			
Fixed mounting  3-pole 4-pole 4-pole 56  Terminal capacities  Copper bar  Fixed mounting  Black  mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	Fixed mounting  3-pole  4-pole  8-g  56  Terminal capacities  Copper bar  Fixed mounting  Black  mm  4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.  With vertical universal connection.	Fixed mounting		W	600
3-pole kg 43 4-pole 56  Terminal capacities  Copper bar  Fixed mounting  Black mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	3-pole kg 43 4-pole 7  Terminal capacities  Copper bar  Fixed mounting  Black 7  mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.  With vertical universal connection.	Weight			
4-pole kg 56  Terminal capacities  Copper bar  Fixed mounting  Black  mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.	4-pole kg 56  Terminal capacities  Copper bar  Fixed mounting  Black mm 4 x 100 x 10  These are values used in separate switchgear. The actual values will depend on the temperature around the circuit-breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.  Permissible continuous current for circuit-breakers operating in switchboard's at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.  With vertical universal connection.	Fixed mounting			
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	Design varification on pay IEC/EN 61/20				at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	4000
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	600

Operating ambient temperature min.	°C	-25
Operating ambient temperature max.	°C	70
EC/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 6.0**

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation prot. (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@ss8.1-27-37-04-09 [AJZ716010])

Rated voltage  Rated short-circuit breaking capacity lcu at 400 V, 50 Hz  Overload release current setting  A 2000 - 4000  Adjustment range short-term delayed short-circuit release  A 8000 - 40000  Adjustment range undelayed short-circuit release  A 8000 - 48000  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  V 690 - 690  KA 105  A 2000 - 4000  A 8000 - 40000  Rail connection  Rail connection  Built-in device fixed built-in technique  No  No
Overload release current setting  A 2000 - 4000  Adjustment range short-term delayed short-circuit release  A 8000 - 40000  Adjustment range undelayed short-circuit release  A 8000 - 48000  Integrated earth fault protection  Type of electrical connection of main circuit  Device construction  Suitable for DIN rail (top hat rail) mounting  A 2000 - 4000  A 8000 - 48000  No  Rail connection  Built-in device fixed built-in technique  No
Adjustment range short-term delayed short-circuit release  A 8000 - 40000  Adjustment range undelayed short-circuit release  A 8000 - 48000  Integrated earth fault protection  Type of electrical connection of main circuit  Device construction  Suitable for DIN rail (top hat rail) mounting  A 8000 - 40000  No  Rail connection  Built-in device fixed built-in technique  No
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Device construction  Suitable for DIN rail (top hat rail) mounting  Built-in device fixed built-in technique  No
Suitable for DIN rail (top hat rail) mounting
DIN rail (top hat rail) mounting optional No
Number of auxiliary contacts as normally closed contact 0
Number of auxiliary contacts as normally open contact 0
Number of auxiliary contacts as change-over contact 2
Switched-off indicator available Yes
With under voltage release No
Number of poles 3
Position of connection for main current circuit  Back side
Type of control element Push button
Complete device with protection unit  Yes
Motor drive integrated No
Motor drive optional Yes

Degree of protection (IP)

IP20