## **DATASHEET - DILER-31(230V50HZ,240V60HZ)**



Contactor relay, 230 V 50 Hz, 240 V 60 Hz, N/O = Normally open: 3 N/O, N/C= Normally closed: 1 NC, Screw terminals, AC operation



DILER-31(230V50HZ,240V60HZ) Part no.

051768

**EL Number** 

4130362

(Norway)

Fatan Madilar and a DUFD Control value
Eaton Moeller® series DILER Control relay
DILER-31(230V50HZ,240V60HZ)
4015080517689
52 millimetre
58 millimetre
45 millimetre
0.17 kilogram
UL Category Control No.: NKCR EN 60947-5-1 VDE 0660 IEC/EN 60947-4-1 CSA File No.: 012528 IEC/EN 60947 CSA Class No.: 3211-03 UL 508 CE UL File No.: E29184 CSA-C22.2 No. 14-05 CSA UL
DILER
Control relay
None
Coil terminal markings according to EN 50005 Contact numbers according to EN 50011 Rated operational current: Switch-on and switch-off conditions based on DC-13, time constant as specified.
Positive operating contacts to EN 60947-5-1 appendix L, including auxiliary contac module
Interlocked opposing contacts
Contactor relays
IP20
10,000,000 Operations (AC operated)
DIN-rail/screw
As required (except vertical with terminals A1/A2 at the bottom)
9000 Operations/h
III
3
DILER Mini-contactors
Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
6000 V AC
10 g, N/O auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 8 g, N/C auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
AC
-25 °C
50 °C
50 °C -25 °C

Climatic proofing	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
Terminal capacities	Damp hous, constant, to 1EO 00000-2-70
Terminal capacity (flexible with ferrule)	1 x (0.75 - 1.5) mm <sup>2</sup>
rominal capacity (nexible with letture)	2 x (0.75 - 1.5) mm <sup>2</sup>
Terminal capacity (solid)	2 x (0.75 - 2.5) mm <sup>2</sup> 1 x (0.75 - 2.5) mm <sup>2</sup>
Terminal capacity (solid/stranded AWG)	1 x (18 - 14) 18 - 14 2 x (18 - 14)
Stripping length (main cable)	8 mm
Screw size	M3.5, Terminal screw
Screwdriver size	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
Electrical rating	
Rated operational voltage (Ue) at AC - max	600 V
Rated insulation voltage (Ui)	690 V
Rated operational current (le)	2.5 A at 24 V, DC L/R $\leq$ 15 ms (with 1 contact in series) 0.5 A at 220 V, DC L/R $\leq$ 15 ms (with 3 contacts in series) 2.5 A at 60 V, DC L/R $\leq$ 15 ms (with 2 contacts in series) 1.5 A at 110 V, DC L/R $\leq$ 15 ms (with 3 contacts in series) 10 A
Rated operational current (le) at AC-15, 220 V, 230 V, 240 V	6 A
Rated operational current (le) at AC-15, 380 V, 400 V, 415 V	3 A
Rated operational current (Ie) at AC-15, 500 V	1.5 A
Safe isolation	300 V AC, Between coil and auxiliary contacts, According to EN 61140 300 V AC, Between auxiliary contacts, According to EN 61140
Chort-circuit rating	
Short-circuit protection rating	10 A fast, 500V, Maximum fuse, Short-circuit rating without welding, Contacts
Short-circuit protection rating without welding	6 A gG/gL, 500 V, Max. Fuse, Contacts
witching capacity	
Switching capacity (auxiliary contacts, general use)	0.5 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)
Magnet system	
Duty factor	100 %
Pick-up voltage	0.85 - 1.1 V AC x Uc (voltage tolerance - dual frequency coil 50/60 Hz) 0.8 - 1.1 V AC x Uc (voltage tolerance - single-voltage coil 50 Hz and dual-voltag
Power consumption, pick-up, 50 Hz	25 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Power consumption, pick-up, 60 Hz	25 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Power consumption, sealing, 50 Hz	1.3 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz 4.6 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Power consumption, sealing, 60 Hz	1.3 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Rated control supply voltage (Us) at AC, 50 Hz - min	230 V
Rated control supply voltage (Us) at AC, 50 Hz - max	230 V
Rated control supply voltage (Us) at AC, 60 Hz - min	240 V
Rated control supply voltage (Us) at AC, 60 Hz - max	240 V
Rated control supply voltage (Us) at DC - min	0 V
Rated control supply voltage (Us) at DC - max	0 V
Switching time (AC operated, make contacts, closing delay) - min	14 ms
Switching time (AC operated, make contacts, closing delay) - max	21 ms
Switching time (AC operated, make contacts, opening delay) - min	8 ms
Switching time (AC operated, make contacts, opening delay) - max	18 ms
Switching time (AC operated, N/O, with auxiliary contact module, closing delay)	45 ms
Contacts	
Code number	31E
Control circuit reliability	$<$ 2 $\lambda,<$ 1 failure at 100,000,000 Operations (at U# = 24 V DC, Umin = 17 V, Imin = 5 mA)
Number of auxiliary contacts (change-over contacts)	0

Number of auxiliary contacts (normally closed contacts)  Number of contacts (normally open contacts)  Number of contacts (normally open contacts)  Design verification  Equipment heat dissipation, current-dependent Pvid  Heat dissipation capacity Pdiss  Heat dissipation parpoine, current-dependent Pvid  Auxiliary of the addissipation of specification or current-dependent Pvid  Reted operational current for specified heat dissipation (in)  Static heat dissipation or prole, current-dependent Pvid  Auxiliary of the addissipation or prole, current-dependent Pvid  Reted operational current for specified heat dissipation (in)  Static heat dissipation, non-current-dependent Pvis  Reted operational current for specified heat dissipation (in)  Static heat dissipation, non-current-dependent Pvis  10.2.2 Corrosion resistance  10.2.3.1 Verification of thermal stability of enclosures  Meets the product standard's requirements.  10.2.3.2 Verification of thermal stability of enclosures  10.2.3.2 Verification of thermal stability of enclosures  10.2.3.3 Resist on insul. nat. to abnormal heat/fire by internal elect. effects  10.2.3 Resistance to ultra-violet (IV) radiation  10.2.4 Resistance to ultra-violet (IV) radiation  10.2.5 Lifting  Does not apply, since the entire switchgear needs to be evaluated.  10.2.5 Inscriptions  Meets the product standard's requirements.  10.2.5 Dees not apply, since the entire switchgear needs to be evaluated.  10.4 Cloarances and crepage distances  Meets the product standard's requirements.  10.5 Protection of assemblies  10.6 Incorporation of switching devices and components  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.  10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  10.8 Thermal electrical circuits and connections  10.9 Thermal electrical circuits and connections  10.9 Thermal electrical circ		
Number of contacts (normally closed contacts)  Number of contacts (normally open contacts)  Design verification  Equipment heat dissipation, current-dependent Pvid  Asstation per pole, current-dependent Pvid  Rated operational current for specified heat dissipation (In)  Static heat dissipation per pole, current-dependent Pvid  Rated operational current for specified heat dissipation (In)  Static heat dissipation, non-current-dependent Pvid  Rated operational current for specified heat dissipation (In)  Static heat dissipation, non-current-dependent Pvid  Rated operational current for specified heat dissipation (In)  Static heat dissipation, non-current-dependent Pvs  1.8.W  Meats the product standard's requirements.  10.2.3.1 Verification of thermal stability of enclosures  Meats the product standard's requirements.  10.2.3.2 Verification of resistance of insulating materials to normal heat  Meats the product standard's requirements.  10.2.3.8 Resistance to ultra-violet (IUV) radiation  Meats the product standard's requirements.  10.2.5 Utring  10.2.6 Mechanical impact  10.2.7 Inscriptions  Meats the product standard's requirements.  10.2.8 Desenct apply, since the entire switchpear needs to be evaluated.  10.2.7 Inscriptions  Meats the product standard's requirements.  10.3 Degree of protection of assemblies  10.4 Clearances and recepage distances  Meats the product standard's requirements.  10.5 Protection against electric shock  Does not apply, since the entire switchpear needs to be evaluated.  10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  10.8 Connections for external conditions  10.9 Protection against electric shock  10.9 Romections for external conditions  10.9 Protection against electric shock  10.9 Romections for external conditions  10.9	Number of auxiliary contacts (normally closed contacts)	1
Design verification  Equipment heat dissipation, current-dependent Pvid OW Heat dissipation per pole, current-dependent Pvid OAW Rated operational current for specified heat dissipation (III) 6 A Static heat dissipation, non-current-dependent Pvid OAW Rated operational current for specified heat dissipation (III) 6 A Static heat dissipation, non-current-dependent Pvs 13 W 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 Nerification of resistance of insulating materials to normal heat Meets the product standard's requirements. 10.2.3.2 Nerification of resistance of insulating materials to normal heat Meets the product standard's requirements. 10.2.3.2 Nerification of resistance of insulating materials to normal heat Meets the product standard's requirements. 10.2.3 Nerification of resistance of insulating materials to normal heat Meets the product standard's requirements. 10.2.4 Resistance to ultra-violut (UV) radiation Meets the product standard's requirements. 10.2.5 Lifting Does not apply, since the entire switchgare needs to be evaluated. 10.2.6 Meets the product standard's requirements. 10.3 Degree of protection of assemblies Does not apply, since the entire switchgare needs to be evaluated. 10.4 Cloarances and croepege distances Meets the product standard's requirements. 10.5 Protection against electric shock Does not apply, since the entire switchgare needs to be evaluated. 10.6 Incorporation of switching devices and components Does not apply, since the entire switchgare needs to be evaluated. 10.6 Incorporation of switching devices and components Does not apply, since the entire switchgare needs to be evaluated. 10.7 Internal electrical circuits and connections Internal Meets the product standard's requirements. 10.8 Protection against electric shock Does not	Number of auxiliary contacts (normally open contacts)	3
Design verification  Equipment heat dissipation, current-dependent Pvid  Heat dissipation, capacity Pdiss  0 W  Rated operational current for specified heat dissipation (In)  Rated operational current for specified heat dissipation (In)  Static heat dissipation, non-current-dependent Pvid  1.8 W  10.22 Corrosion resistance  10.23.1 Verification of thermal stability of enclosures  10.23.2 Verification of tremal stability of enclosures  10.23.2 Verification of resistance of insulating materials to normal heat  10.23.3 Resist of insul. mat. to abnormal heat/five by internal elect. effects  10.24.4 Resistance to ultra-violet (IVI) radiation  10.25 Lifting  10.26 Machanical impact  10.26 Machanical impact  10.27 Internal electric shock  10.3 Degree of protection against electric shock  10.4 Clearances and creepage distances  10.5 Protection against electric shock  10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  10.8 Connections for external conductors  10.9 Power-frequency electric strength  10.9 Impulse withstand voltage  10.9 Internal electric strength  10.9 Internal electric streng	Number of contacts (normally closed contacts)	1
Equipment heat dissipation, current-dependent Pvid  Heat dissipation par pole, current-dependent Pvid  Asted operational current for specified heat dissipation (In)  Static heat dissipation, per pole, current-dependent Pvid  Asted dissipation, per pole, current-dependent Pvid  Static heat dissipation, non-current-dependent Pvid  1.8 W  1.0.2.2 Corrosion resistance  Meets the product standard's requirements.  1.0.2.3.1 Verification of thermal stability of enclosures  Meets the product standard's requirements.  1.0.2.3.2 Verification of resistance or insulating materials to normal heat  1.0.2.3.3 Resist of insul. mat. to abnormal heat/fire by internal elect. effects  1.0.2.4 Resistance to ultra-violet (UV) radiation  1.0.2.5 Liffication  1.0.2.5 Liffication  1.0.2.5 Liffication  1.0.2.5 Liffication of assemblies  1.0.2.6 Mechanical impact  1.0.2.7 Inscriptions  Meets the product standard's requirements.  1.0.3 Degree of protection of assemblies  1.0.4 Clearances and creepage distances  1.0.5 Protection against electric shock  1.0.6 Incorporation of switching devices and components  1.0.7 Internal electrical circuits and connections  1.0.8 Connections for external conductors  1.0.9 Power-frequency electric strength  1.0.9 Connections for external conductors  1.0.9 Power-frequency electric strength  1.0.9 Power-frequency electric strength  1.0.10 Temperature rise  1.0.11 Short-circuit rating  1.0.12 Electromagnetic compatibility  1.0.13 Mechanical function  The device meets the requirements, provided the information in the instruction observed.  1.0.13 Mechanical function  The device meets the requirements, provided the information in the instruction observed.	Number of contacts (normally open contacts)	3
Heat dissipation capacity Pdiss  Heat dissipation per pole, current-dependent Pvid  Rated operational current for specified heat dissipation (In)  Rated operational current for specified heat dissipation (In)  Static heat dissipation, non-current-dependent Pvs  1.8 W  10.22 Corrosion resistance  Meets the product standard's requirements.  10.23.1 Verification of thermal stability of enclosures  Meets the product standard's requirements.  10.23.2 Verification of resistance of insulating materials to normal heat  Meets the product standard's requirements.  10.23.3 Resist, of insul, mat. to abnormal heat/fire by internal elect. effects  Meets the product standard's requirements.  10.24 Resistance to ultra-violat (UV) radiation  Meets the product standard's requirements.  10.25 Lifting  Does not apply, since the entire switchgear needs to be evaluated.  10.27 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.  10.9.1 Temperature rise  The panel builder's responsibility.  10.9.3 Impulse withstand voltage  Is the panel builder's responsibility.  10.1 Temperature rise  The panel builder's responsibility.  10.1 Temperature rise  The panel builder's responsibility.  10.1 Electromagnetic compatibility  Is the panel builder's responsibility.  10.1 Electromagnetic compatibility  The device meets the requirements, provided the information in the instruction observed.	Design verification	
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Rated operational current for specified heat dissipation (In)  Static heat dissipation, non-current-dependent Pvs  1.8 W  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 esistance 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.  10.2.7 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.  10.5 Protection against electric shock  Does not apply, since the entire switchgear needs to be evaluated.  10.6 Incorporation of switching devices and components  10.8 Connections of switching devices and components  10.9 Power-frequency electric strength  10.9 Connections for external conductors  10.9 Internal electrical circuits and connections  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Temperature rise  The panel builder's responsibility.  10.15 the panel builder's responsibility.  10.16 the panel builder's responsibility.  10.17 Temperature rise  The panel builder's responsibility.  10.18	Heat dissipation capacity Pdiss	0 W
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10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects  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.  Does not apply, since the entire switchgear needs to be evaluated.  Meets the product standard's requirements.  Does not apply, since the entire switchgear needs to be evaluated.  Meets the product standard's requirements.  Does not apply, since the entire switchgear needs to be evaluated.  Does not apply, since the entire switchgear needs to be evaluated.  Does not apply, since the entire switchgear needs to be evaluated.  Does not apply, since the entire switchgear needs to be evaluated.  Does not apply, since the entire switchgear needs to be evaluated.  In Internal electrical circuits and connections  Is the panel builder's responsibility.  Does not apply, since the entire switchgear needs to be evaluated.  In Internal electrical circuits and connections  Is the panel builder's responsibility.  In It the panel builder's responsibility. The specifications for the switchgear must be observed.  In It short-circuit rating  In It short-circuit rating  In It short-circuit responsibility. The specifications for the switchgear must be observed.  In It device meets the requirements, provided the information in the instruction.	10.2.3.1 Verification of thermal stability of enclosures	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.  Meets the product standard's requirements.  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.  10.9.2 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's responsibility.  10.11 Short-circuit rating  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  10.12 Electromagnetic compatibility  10.13 Mechanical function  The device meets the requirements, provided the information in the instruction	10.2.3.2 Verification of resistance of insulating materials to normal heat	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.  10.9.2 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 responsibility.  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.	10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	Meets the product standard's requirements.
10.2.6 Mechanical impact  10.2.7 Inscriptions  Meets the product standard's requirements.  10.3 Degree of protection of assemblies  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.  10.10 Temperature rise  The panel builder's responsibility.  10.11 Short-circuit rating  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  10.12 Electromagnetic compatibility  10.13 Mechanical function  The device meets the requirements, provided the information in the instruction	10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.27 Inscriptions  10.3 Degree of protection of assemblies  10.4 Clearances and creepage distances  10.5 Protection against electric shock  10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  10.8 Connections for external conductors  10.9.2 Power-frequency electric strength  10.9.3 Impulse withstand voltage  10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Mechanical function  Meets the product standard's requirements.  Does not apply, since the entire switchgear needs to be evaluated.  Does not apply, since the entire switchgear needs to be evaluated.  Incorporation of switching devices and components  Is the panel builder's responsibility.  Is the panel builder's responsibility.  Incorporation of switching devices and components  Is the panel builder's responsibility.  Incorporation of switching and connections  Is the panel builder's responsibility.  Incorporation of switching and connections  Is the panel builder's responsibility.  Incorporation of switching and connections for the switchgear must be observed.  Incorporation of switching and connections  Incorporation of switching and connections for the switchgear must be observed.  Incorporation of switching and connections  Incorporation of switching devices and components  Incorporation of switching devices and components  Incorporation of switching devices and components  Incorporation of switching devices and connections  Incorporation of switching devices and connections  Incorporation of switching device	10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
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.  10.10 Temperature rise  The panel builder's responsibility.  10.11 Short-circuit rating  Is the panel builder's responsibility.  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	10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances  10.5 Protection against electric shock  10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  10.8 Connections for external conductors  10.9 Power-frequency electric strength  10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Mechanical function  Meets the product standard's requirements.  Does not apply, since the entire switchgear needs to be evaluated.  10.5 Does not apply, since the entire switchgear needs to be evaluated.  Is the panel builder's responsibility.  The panel builder's responsibility.  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  Is the panel builder's responsibility. The specifications for the switchgear must be observed.	10.2.7 Inscriptions	Meets the product standard's requirements.
10.5 Protection against electric shock  10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  10.8 Connections for external conductors  10.9.2 Power-frequency electric strength  10.9.3 Impulse withstand voltage  10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Mechanical function  Does not apply, since the entire switchgear needs to be evaluated.  10 be evaluated.  10 be evaluated.  10 be evaluated.  10 ls the panel builder's responsibility.  11 ls the panel builder's responsibility.  12 ls the panel builder's responsibility.  13 the panel builder's responsibility.  14 panel builder is responsibility.  15 the panel builder is responsibility.  16 ls the panel builder's responsibility.  17 the panel builder's responsibility. The specifications for the switchgear must be observed.  18 the panel builder's responsibility. The specifications for the switchgear must be observed.  19 Is the panel builder's responsibility. The specifications for the switchgear must be observed.  10 Is the panel builder's responsibility. The specifications for the switchgear must be observed.  10 Is the panel builder's responsibility. The specifications for the switchgear must be observed.	10.3 Degree of protection of assemblies	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components  10.7 Internal electrical circuits and connections  1s the panel builder's responsibility.  10.8 Connections for external conductors  1s the panel builder's responsibility.  10.9.2 Power-frequency electric strength  1s the panel builder's responsibility.  1s the panel builder's responsibility. The specifications for the switchgear must be observed.  1s the panel builder's responsibility. The specifications for the switchgear must be observed.  1s the panel builder's responsibility. The specifications for the switchgear must be observed.  1s the panel builder's responsibility. The specifications for the switchgear must be observed.  1s the panel builder's responsibility. The specifications for the switchgear must be observed.	10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.7 Internal electrical circuits and connections  1s the panel builder's responsibility.  10.8 Connections for external conductors  1s the panel builder's responsibility.  10.9.2 Power-frequency electric strength  1s the panel builder's responsibility.  1o.9.3 Impulse withstand voltage  1s the panel builder's responsibility.  1s the panel builder is responsibility.  1c panel builder is responsibility. The specifications for the switchgear must be observed.  1c panel builder's responsibility. The specifications for the switchgear must be observed.  1c panel builder's responsibility. The specifications for the switchgear must be observed.  1c panel builder's responsibility. The specifications for the switchgear must be observed.  1c panel builder's responsibility. The specifications for the switchgear must be observed.  1c panel builder's responsibility. The specifications for the switchgear must be observed.	10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.8 Connections for external conductors  10.9.2 Power-frequency electric strength  10.9.3 Impulse withstand voltage  10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Mechanical function  10.14 We hand is strength builder's responsibility. The specifications for the switchgear must be observed.  10.15 Mechanical function  10.16 The panel builder's responsibility. The specifications for the switchgear must be observed.  10.17 The panel builder's responsibility. The specifications for the switchgear must be observed.  10.19 Mechanical function  10.10 The device meets the requirements, provided the information in the instruction	10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.9.2 Power-frequency electric strength  10.9.3 Impulse withstand voltage  10.9.4 Testing of enclosures made of insulating material  10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Mechanical function  10.13 Mechanical function  Is the panel builder's responsibility.  Is the panel builder is responsibility. The specifications for the switchgear must be observed.  10.13 Mechanical function  The device meets the requirements, provided the information in the instruction	10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage  10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  10.11 Short-circuit rating  10.12 Electromagnetic compatibility  10.13 Mechanical function  Is the panel builder's responsibility.  The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  Is the panel builder's responsibility. The specifications for the switchgear must be observed.  The device meets the requirements, provided the information in the instruction	10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise  The panel builder is responsibility.  The panel builder is responsibility is responsibility. The specifications for the switchgear must be observed.  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	10.9.2 Power-frequency electric strength	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	10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
provide heat dissipation data for the devices.  10.11 Short-circuit rating  1s the panel builder's responsibility. The specifications for the switchgear must be observed.  10.12 Electromagnetic compatibility  1s 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	10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
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	10.10 Temperature rise	
observed.  10.13 Mechanical function  The device meets the requirements, provided the information in the instruction	10.11 Short-circuit rating	
	10.12 Electromagnetic compatibility	
	10.13 Mechanical function	

## **Technical data ETIM 9.0**

	oomiour data Erim 0.0					
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)						
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss13-27-37-10-01 [AAB716019])						
Rated control supply voltage AC 50 Hz		V	230 - 230			
Rated control supply voltage AC 60 Hz		V	240 - 240			
Rated control supply voltage DC		V	0 - 0			
Voltage type for actuating			AC			
Rated operation current		Α	10			
Rated operation current le, 400 V		Α	3			
Mounting method			DIN-rail/screw			
With LED indication			No			
Suitable for manual operation			No			
Interface			No			
Number of auxiliary contacts as normally closed contact			1			
Number of auxiliary contacts as normally open contact			3			
Number of auxiliary contacts as normally closed contact, delayed switching			0			
Number of auxiliary contacts as normally open contact, leading			0			
Number of auxiliary contacts as change-over contact			0			
Operating voltage AC 50 Hz		V	17 - 500			
Operating voltage AC 60 Hz		V	17 - 500			
Operating voltage DC		V	24 - 220			

Voltage type (operating voltage)		AC/DC
Rated switch current	А	10
Connection type auxiliary circuit		Screw connection
Width	mm	45
Height	mm	58
Depth	mm	52