DATASHEET - DMVS-160N/3



Switch-disconnector, DMVS, 160 A, 3 pole, Stop Function optional, Without rotary handle and drive shaft, 9 mm connection hole



Part no. DMVS-160N/3 Catalog No. 1814186

Delivery program			
Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DMVS
Stop Function			optional
			Without rotary handle and drive shaft
Notes			visible contacts
Information about equipment supplied			auxiliary contact fitted by user. including connection materials
Number of poles			3 pole
Auxiliary contacts			
1		N/0	0
7		N/C	0
Degree of Protection			IP00 IP20 with terminal cover
Design			surface mounting
Contact sequence			L1 L2 L3 $ \begin{array}{ccccccccccccccccccccccccccccccccccc$
Switching angle		o	90
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	90
Rated uninterrupted current	I _u	Α	160
Note on rated uninterrupted current !u			Rated uninterrupted current $I_{\rm u}$ is specified for max. cross-section.
Connection technique			9 mm connection hole
-			

Technical data General

Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHs, KEMA, EAC, Lloyds
Ambient temperature			
Operation	9	°C	-25 - +55

Some 10	Change	0	0.0	2000
Reset angular withstand violation (Storage	9	°C	-30 - +80
Rated invalation visitings				
Marchanish pending			kV	8
Machinaries of poles	Rated insulation voltage	Ui	V	1000
Member of polics Auralian of pol				As required
Manufairy contacts				
April Part				
Retiro of part of the part o				3 pole
Recipical characteristries	Auxiliary contacts			
Electrical characteristics U, VAC 690 Rated uninterrupted current I, Where on rated uninterrupted current I, Where One on rated with the current I was a second on the whitstand current I was a second on the whitstand current I was a second on rated disturbine whitstand current I was a second on rated disturbine whitstand current I was a second on the What I			N/0	0
Related operational voltage			N/C	0
Rated uninterrupted current				
Note on rated uninterrupted current l ₂ Final Content return l ₃ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return l ₄ is specified for mux. cross-section. Final Content return return l ₄ is specified for mux. cross-section. Final Content return return return return l ₄ is specified for mux. cross-section. Final Content return retur	Rated operational voltage	U _e	V AC	690
Short-circuit rating Items	Rated uninterrupted current	I _u	Α	160
Number N	Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Reted conditional short-circuit current In _ 100 50 10 1 1 200 100 1 1 200 100 1 1 200 100 1	Short-circuit rating			
In = 250-100 In =	fuse			500/250
Image	Rated conditional short-circuit current	Iq	kA	
Name of a short-time with stand current [1 s current] 1	Breaking current		kA	
Note on rated short-time withstand current low Paid W 2.3 Sovitching capacity Service Service Service Rated breaking capacity cos et to IEC 80947-3 A 1280 500 V A 1280 680 V A 1120 Safe isolation to EN 61140 W 2.3 Current heat loss per contact at I ₆ W 2.3 Lifespan, mechanical Operations W 2.3 AC-21A A 1600 AC-21A A 160 Risted operational current switch I ₆ A 160 AC-22A A 160 160 ADD V I ₆ A 160 ADD V I ₈ A 160 <t< td=""><td>max. let-through energy</td><td></td><td>kA²s</td><td></td></t<>	max. let-through energy		kA ² s	
Heat dissipation per pole, current-dependent Switching capacity Rated breaking capacity cos on IEC 60947-3 400/415 √ A 1280 500 √ A 1280 680 √ A 1280 Safe isolation to EN 61140 Current heat loss per contact at 1 ₈	Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	12000
Act of the parating capacity cose of IEC 60947-3 A 400/415 V A 1280 500 V A 1282 689 V A 1120 Safe isolation to EN 61140 W 2.3 Current heat loss per contact at I _e W 2.3 Lifespan, mechanical Operations 10000 AC T 10000 Bated operational current switch I _e A 160 Bated operational current switch I _e A 160 Based operational current switch I _e A 160 Based operational current switch I _e A 160 Based o	Note on rated short-time withstand current lcw			Current for a time of 0.3 seconds
Rated breaking capacity cos \(\) to IEC 60947-3 A A 1280 400/415 V A 1280 2484 280	Heat dissipation per pole, current-dependent	P _{vid}	W	2.3
400415 V A 1280 500 V 4 1248 680 V A 1248 Safe isolation to EN 61140 B A 1120 Current heat loss per contact at I ₀ B W 2.3 Lifespan, mechanical Operations B C AC - 21A B C C Reted operational current switch Io A 160 500 V Io A 160 690 V Io A 160 AC-22A Io Io Io 8 at do perational current switch Io A 160 6 90 V Io A 160 6 90 V Io A 160 6 90 V Io A 160 AC-23A Rated operational current switch Io A 160 AC-23A Rated operational current switch Io A 160 6 90 V Io A 160 6 90 V	Switching capacity			
S00 V	Rated breaking capacity $\cos\phi$ to IEC 60947-3		Α	
Safe isolation to EN 61140 Current heat loss per contact at I	400/415 V		Α	1280
Safe isolation to EN 61140 Water of the End Ioss per contact at I _e Water of the End Ioss per contact at I _e Water of the End Ioss per contact at I _e Water of End Ioss per contact at Ioss	500 V		Α	1248
Current heat loss per contact at I _e V 2.3 Lifespan, mechanical Operations 10000 AC 21A Feet Sepan, mechanical current switch Image: Contact Sepanding Sepand	690 V		Α	1120
Lifespan, mechanical Operations 100000 100000 100000 100000 100000 100000 100000 1000000 100000 100000 100000 100000 1000000 1000000 10000000 100000000	Safe isolation to EN 61140			
AC-21A Rated operational current switch 400 V 415 V 16	Current heat loss per contact at I _e		W	2.3
AC-21A Rated operational current switch Ie A 160 400 V 415 V Ie A 160 500 V Ie A 160 690 V Ie A 160 AC-22A Bated operational current switch Ie A 160 500 V Ie A 160 500 V Ie A 160 AC-23A Ie A 160 AC-23A Ie A 160 500 V Ie A 160 690 V Ie A 160 Motor rating AC-23A, 50 - 60 Hz P kW 400 V 415 V P kW 90 500 V P kW 110 690 V P kW 110	Lifespan, mechanical	Operations		10000
Rated operational current switch Ie A 160 500 V Ie A 160 690 V Ie A 160 AC-22A F A 160 AC-22A F A 160 400 V 415 V Ie A 160 500 V Ie A 160 690 V Ie A 160 AC-23A F A 160 A00 V 415 V Ie A 160 500 V Ie A 160 500 V Ie A 160 690 V Ie A 160 Motor rating AC-23A, 50 - 60 Hz Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 400 V 415 V P kW 110 690 V P kW 110 690 V P kW 112	AC			
400 \ \ 415 \ \ \ 690 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	AC-21A			
10	Rated operational current switch			
Figure F	400 V 415 V	I _e	Α	160
AC-22A Rated operational current switch 400 V 415 V 1e A 160 500 V 1e A 160 690 V 1e A 160 AC-23A Rated operational current switch 400 V 415 V 1e A 160 AC-23A Roted operational current switch 400 V 415 V 1e A 160 500 V 1e A 160 Motor rating AC-23A, 50 - 60 Hz P KW 400 V 415 V P KW 90 500 V P KW 10 690 V P KW 110	500 V	I _e	Α	160
AC-22A Rated operational current switch Ie A 160 400 V 415 V Ie A 160 500 V Ie A 160 690 V Ie A 160 AC-23A Ie A 160 A00 V 415 V Ie A 160 500 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 500 V P kW 10 690 V P kW 110 690 V P kW 132	690 V	I _e	Α	160
Rated operational current switch Ie A 160 500 V Ie A 160 690 V Ie A 160 AC-23A Fated operational current switch Fated operational current switch Fated operational current switch 400 V 415 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 400 V 415 V P kW 90 500 V P kW 110 690 V P kW 132	AC-22A			
A00 V 415 V Ie				
500 V Ie A 160 690 V Ie A 160 AC-23A Rated operational current switch 400 V 415 V Ie A 160 500 V Ie A 160 690 V Ie A 160 Motor rating AC-23A, 50 - 60 Hz P kW 90 400 V 415 V P kW 110 690 V P kW 132		l _e	Α	160
690 V Ie A 160 AC-23A Fated operational current switch V V 400 V 415 V Ie A 160 500 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 400 V 415 V P kW 110 500 V P kW 132				
AC-23A Rated operational current switch 400 V 415 V Ie A 160 500 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz 400 V 415 V P kW 500 V 690 V P kW 10 690 V P kW 110				
Rated operational current switch I I 400 V 415 V Ie A 160 500 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 400 V 415 V P kW 90 500 V P kW 110 690 V P kW 132		·e	^	
400 V 415 V Ie A 160 500 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW V 400 V 415 V P kW 90 500 V P kW 110 690 V P kW 132				
500 V Ie A 156 690 V Ie A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 400 V 415 V P kW 90 500 V P kW 110 690 V W 132			۸	160
690 V I _e A 140 Motor rating AC-23A, 50 - 60 Hz P kW 90 500 V P kW 110 690 V P kW 132				
Motor rating AC-23A, 50 - 60 Hz P kW 400 V 415 V P kW 90 500 V P kW 110 690 V P kW 132				
400 V 415 V P kW 90 500 V P kW 110 690 V P kW 132				140
500 V P kW 110 690 V P kW 132				
690 V P kW 132				
			kW	110
Terminal capacities		Р	kW	132
				400
Flat conductor connection with busbars mm ² 120	Flat conductor connection with busbars		mm ²	120

Terminal screw		M8 x 20
Tightening torque for terminal screw	Nm	14
Technical safety parameters:		
Notes		B10 _d values as per EN ISO 13849-1, table C1

Design verification as per IEC/EN 61439

Design verincation as per illo/liv 01433			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	160
Heat dissipation per pole, current-dependent	P _{vid}	W	2.3
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.	uiss	°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat			Meets the product standard's requirements.
and fire due to internal electric effects			noce do productivamento.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

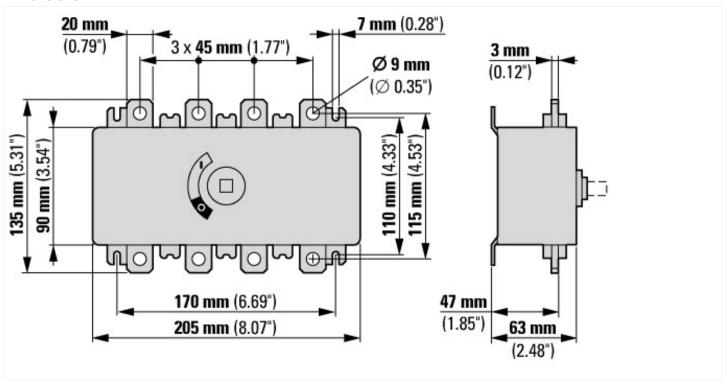
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

[AKI 000013])			
Version as main switch			No
Version as maintenance-/service switch			No
Version as safety switch			No
Version as emergency stop installation			Yes
Version as reversing switch			No
Number of switches			1
Max. rated operation voltage Ue AC	,	V	690
Rated operating voltage	,	V	690 - 690
Rated permanent current lu		A	160

Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Row by 90 Switching power at 400 V	
Rated operation power at AC-3, 400 V	
Rated short-time withstand current Icw kA 12 Rated operation power at AC-23, 400 V kW 90	
Rated operation power at AC-23, 400 V kW 90	
Switching agons at 400 V	
Switching power at 400 V kW 90	
Conditioned rated short-circuit current Iq kA 100	
Number of poles 3	
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 0	
Motor drive optional No	
Motor drive integrated No	
Voltage release optional No	
Device construction Complete device in housing	
Suitable for ground mounting Yes	
Suitable for front mounting 4-hole No	
Suitable for front mounting centre No	
Suitable for distribution board installation No	
Suitable for intermediate mounting No	
Colour control element Other	
Type of control element Other	
Interlockable No	
Type of electrical connection of main circuit Screw connection	
Degree of protection (IP), front side	
Degree of protection (NEMA) Other	

Dimensions



Additional product information (links)

IL008008Z Switch-disconnectors	
IL008008Z Switch-disconnectors	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL008008ZU2018_05.pdf