## DATASHEET - DMM-160/3/I5/C-R

Switch-disconnector, DMM, 160 A, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, cylinder lock, in CI-K5 enclosure



Part no.	DMM-160/3/I5/C-R
	172803
EL Number	1405709
(Norway)	

## **General specifications**

General specifications	
Product name	Eaton DMM Switch-disconnector
Part no.	DMM-160/3/I5/C-R
EAN	4015081693870
Product Length/Depth	280 millimetre
Product height	200 millimetre
Product width	200 millimetre
Product weight	2.485 kilogram
Certifications	CE VDE 0660 EAC IEC/EN 60947-3 KEMA Lloyds IEC/EN 60204 IEC/EN 60947 RoHS
Product Tradename	DMM
Product Type	Switch-disconnector
Product Sub Type	None
Catalog Notes	in CI-K5 enclosure Rated Short-time Withstand Current (Icw) for a time of 1 second
Features & Functions	
Features	Version as main switch Version as maintenance-/service switch Version as emergency stop installation
Fitted with:	Red rotary handle and yellow locking ring
Functions	Emergency switching off function Interlockable
Locking mechanism	Cylinder lock
Number of poles	Three-pole
General information	
Accessories	Auxiliary contact fitted by user.
Degree of protection	NEMA 12
Degree of protection (front side)	IP65
Lifespan, mechanical	10,000 Operations
Mounting method	Surface mounting
Mounting position	As required
Overvoltage category	III
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6000 V
Safety parameter (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
Suitable for	Ground mounting
Climatic environmental conditions	
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	40 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	80 °C
Terminal capacities	
Terminal capacity	6 - 70 mm <sup>2</sup> , flexible with ferrules to DIN 46228

Stripping length (main cable)	21 mm
Tightening torque	7 Nm, Screw terminals
Electrical rating	
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	1080 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	528 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	336 A
Rated insulation voltage (Ui)	1000 V
Rated operational current (Ie) at AC-21, 400 V, 415 V	160 A
Rated operational current (le) at AC-21, 500 V	160 A
Rated operational current (Ie) at AC-21, 690 V	160 A
Rated operational current (Ie) at AC-22, 380 V, 400 V, 415 V	160 A
Rated operational current (Ie) at AC-22, 500 V	160 A
Rated operational current (Ie) at AC-22, 690 V	160 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	140 A
Rated operational current (Ie) at AC-23A, 500 V	66 A
Rated operational current (Ie) at AC-23A, 690 V	42 A
Rated operational power at AC-23A, 400 V, 50 Hz	80 kW
Rated operational power at AC-23A, 500 V, 50 Hz	45 kW
Rated operational power at AC-23A, 690 V, 50 Hz	37 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	0 kW
Rated operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (lu)	160 A
Uninterrupted current	Rated uninterrupted current lu is specified for max. cross-section.
Short-circuit rating	
Breaking current	13.5 kA
Let-through energy	Max. 86,9 kA <sup>2</sup> s
Rated conditional short-circuit current (Iq)	50 kA
	30 kA at 415 V
Rated short-time withstand current (Icw)	2.5 kA 2,5 kA, Contacts, 1 second
Short-circuit protection rating	160, Fuse, Contacts
Contacts	
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Actuator	
Actuator color	Red
Actuator type	Short thumb-grip
Design verification	
Equipment heat dissipation, current-dependent Pvid	8 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	7.4 W
Rated operational current for specified heat dissipation (In)	160 A
Static heat dissipation, non-current-dependent Pvs	0 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.
10.2.3.3 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	UV resistance only in connection with protective shield.
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. Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact     10.2.7 Inscriptions	
· · · · · · · · · · · · · · · · · · ·	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements.

10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## **Technical data ETIM 9.0**

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

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03 [AKF060018])

Version and mixturbinImage: Section of Section Sectio			
Varian a sandy witchModel and witchVarian a sandy my vitch installationModel and witchVarian a sandy my vitch installationModel and witchNumber of witch installationModel and witchNumber of witch installationModel and witchNumber of witch installationModel and witchRated permanent current to AC-23, 400 VModel and Model And Mode	Version as main switch		Yes
Version as enversing workin       No         Named serversing workin       No         Named serversing workin       No         Name resourcing working working       No         Named serversing working       No         Named serversing working       No         Named serversing working       No         Named serversing working       No         Rated permanent current tAC-21,400 Y       No         Rated permanent current tAC-21,400 Y       No         Named opersing work AAC-23,400 Y       No         Stacking permanent current tAC-21,400 Y       No         Named opersing work AAC-23,400 Y       No         Stacking permanent current tAC-21,400 Y       No         Named opersing work AAC-23,400 Y       No         Stacking permanent current tAC-21,400 Y       No         Named opersing work AAC-23,400 Y       No         Named resource tax tax 21,400 Y       No         Named res	Version as maintenance-/service switch		Yes
Number of switches   Image: Section of switches   Image: Section of switches     Number of switches   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated persiton outgo Up OAC   Image: Section of switches   Image: Section of switches     Rated p	Version as safety switch		No
Number of soutchesImage: soutchesImage: soutchesMax. atco portation voltage Ue AG.V60Rated operation voltage Ue AG.V60Rated operation voltage Ue AG.6060Rated operation voltage Ue AG.60A0Rated operation voltage AG.60A0Number of power at AC.24,00V60A0Number of power at AC.24,00V70A0Number of power at AC.24,00V70A0Number of power at AC.24,00V70A0Number of power at AC.24,00V70	Version as emergency stop installation		Yes
Ax. rand operation voltage Ue AC   V   80     Rated operating voltage   V   80     Rated operating voltage   V   80     Rated permaent current AL A23, 400 V   V   80     Rated permaent current AL A23, 400 V   V   0     Rated permaent current AL A23, 400 V   V   0     Rated permaent current AL A23, 400 V   V   0     Rated permaent current AL A23, 400 V   V   0     Rated aperation power at AC-3, 400 V   V   0     Static diperation power at AC-3, 400 V   V   0     Conditioned rated short-tine withstad current law   V   0     Static diperation power at AC-3, 400 V   V   0     Conditioned rated short-tine withstad current law   V   0     Number of auxiliary contacts an normally closed contact   V   0     Number of auxiliary contacts an contact   V   0     Static for formounting contact   V   N <td< td=""><td>Version as reversing switch</td><td></td><td>No</td></td<>	Version as reversing switch		No
Red operanent current lu   60     Red operanent current lu   60     Red operanent current lu   60     Red operanent current at AC-23, 400 V   60     Switch operane at AC-30, 400 V   60     Number of power at AC-30, 400 V   60     Switch operanent current lo   60     Number of subjacy contacts as normally closed contact   60     Number of subjacy contacts as normally closed contact   60     Number of subjacy contacts as normally closed contact   60     Number of subjacy contacts as scheme-over contact   60     Number of subjacy contacts as scheme-over contact   60     Number of subjacy contacts as cheme-over contact   60     Number of subjacy contacts as cheme-over contact   60     Number of subjacy contacts as cheme-over contact   60     Number of subjacy contacts as normally closed contact   60     Number of subjacy contacts as cheme-over contact <td>Number of switches</td> <td></td> <td>1</td>	Number of switches		1
Rete permanent current at AC-23, 400 \   A   Bid     Rete permanent current at AC-23, 400 \   A   Bid     Reted permanent current at AC-21, 400 \   A   Bid     Reted permanent current at AC-21, 400 \   A   Bid     Reted permanent current at AC-21, 400 \   B   B     Reted permanent current at AC-21, 400 \   B   B     Reted permanent current at AC-21, 400 \   B   B     Reted permanent current at AC-21, 400 \   B   B     Reted permanent current at AC-21, 400 \   B   B     Nationation c	Max. rated operation voltage Ue AC	V	690
Retade permanent current at AC-23, 400 V     A     40       Retade permanent current at AC-21, 400 V     A     50       Retade permanent current at AC-23, 400 V     A     9       Retade permanent current at AC-33, 400 V     A     9       Retade permanent current at AC-33, 400 V     A     9       Retade permanent current at AC-33, 400 V     A     9       Stricting power at AC-23, 400 V     A     9       Number of auxiliary contract current lq     A     9       Number of auxiliary contracts an ormally close current     A     9       Number of auxiliary contracts an ormally close current     A     9       Number of auxiliary contracts an ormally close current     B     9       Number of auxiliary contracts an ormally close current     B     9       Number of auxiliary contracts an ormally close current     B     9       Number of auxiliary contracts an orm	Rated operating voltage	V	690 - 690
Red permanent current at AC-21, 400 V   Image: A (a)   60     Red operation power at AC-3, 400 V   M   0     Red operation power at AC-3, 400 V   M   50     Red operation power at AC-23, 400 V   M   0     Switching power at 400 V   M   0     Conditioned rated short-circuit current q   M   0     Number of polis   M   0     Number of auxiliary contacts as normally closed contact   M   0     Number of auxiliary contacts as change-over contact   M   0     Number of auxiliary contacts as change-over contact   M   0     Number of auxiliary contacts as change-over contact   M   0     Number of auxiliary contacts as change-over contact   M   M     Notor drive prioral   M   M   M     Notor drive prioral   M   M   M     Notard suble for find mounting 4-bite   M   M   M     Subble	Rated permanent current lu	А	160
Rete operation power at A2-3,40V   Image: Provide and Provide at A2-3,40V   Image: Provide at A2-3,40V     Rete operation power at A2-23,40V   Image: Provide at A2-3,40V   Image: Provide A1-1,100     Switch power at 40V   Image: Provide A1-1,100   Image: Provide A1-1,100     Switch power at 40V   Image: Provide A1-1,100   Image: Provide A1-1,100     Switch power at 40V   Image: Provide A1-1,100   Image: Provide A1-1,100     Switch power at 40V   Image: Provide A1-1,100   Image: Provide A1-1,100     Switch power at 40V   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40V   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 400 contact   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 400 contact   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40-1,100   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40-1,100   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40-1,100   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40-1,100   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40-1,100   Image: Provide A1-1,100   Image: Provide A1-1,100     Number of power at 40-1,100   Image: Provide A1-1,100   Image:	Rated permanent current at AC-23, 400 V	А	140
Retade operation power at AC-23, 400 V   IM   8     Reted operation power at AC-23, 400 V   IM   9     Switching power at 400 V   IM   0     Conditioned rated short-incuit current lq   IM   5     Number of auxiliary contacts as nomally closed contact   IM   0     Number of auxiliary contacts as nomally contact   IM   0     Number of auxiliary contacts as nomally contact   IM   0     Number of auxiliary contacts   IM   IM     Subter of front mounting of thome   IM   IM </td <td>Rated permanent current at AC-21, 400 V</td> <td>А</td> <td>160</td>	Rated permanent current at AC-21, 400 V	А	160
Relat operation power at AC-23, 400 V       Image: Relation power at 400 V       Relation power p	Rated operation power at AC-3, 400 V	kW	0
Switching power at 400 VImage: Switching power at 400 V<	Rated short-time withstand current lcw	kA	2.5
Conditioned rated short-circuit current lqImage: lq <th< td=""><td>Rated operation power at AC-23, 400 V</td><td>kW</td><td>80</td></th<>	Rated operation power at AC-23, 400 V	kW	80
Number of polesImage: some of auxiliary contacts as normally closed contactImage: some of auxiliary contacts as normally open contactImage: some of auxiliary contacts as normally open contactImage: some of auxiliary contacts as normally open contactImage: some of auxiliary contacts as change-over contactImage: some of auxiliary contactImage: some of auxiliary contactImage: some of auxiliary contactImage: some of auxiliary contactImage: some	Switching power at 400 V	kW	0
Number of auxiliary contacts as normally closed contactImage of auxiliary contacts as normally copen contactImage of auxiliary contacts and copen contactImage of auxiliary contacts and copen contactImage of auxiliary contactImage of aux	Conditioned rated short-circuit current Iq	kA	50
Number of auxiliary contacts as namely open contactImage: Solution of auxiliary contacts as change-over contactImage: Solution of auxiliary contact as change-over contactImage: Solution over contactImage: Solutio	Number of poles		3
Number of auxiliary contacts as change-over contact     Image: Contact as change-over contact       Motor drive optional     Sold       Motor drive integrated     Sold       Voltage release optional     Sold       Device construction     Complete device in housing       Suitable for floor mounting 4-hole     Sold       Suitable for find mounting centre     Sold       Suitable for instruction     Sold       Suitable for instruction appendix     Sold       Sold appendix     Sold </td <td>Number of auxiliary contacts as normally closed contact</td> <td></td> <td>0</td>	Number of auxiliary contacts as normally closed contact		0
Modr drive optional       No         Motor drive integrated       No         Voltage release optional       No         Device construction       Complete device in housing         Suitable for floor mounting 4-hole       Complete device in housing         Suitable for rint mounting centre       No         Suitable for rint mediate mounting       No         Suitable for rint mediate mounting       No         Suitable for rint mediate mounting       No         Suitable for intermediate mounting       No         Suitable for rint mediate mounting       No         Top of control element       Sich rint multi-sich         No       Screw connection         Vib re-easembled cabling       No         Supre of protection (IP, Front side       No         Supre of protection (IP, Mont side       No	Number of auxiliary contacts as normally open contact		0
Motor drive integrated     No       Votage release optional     No       Device construction     Complet device in housing       Suitable for floor mounting     Yes       Suitable for from mounting 4-hole     No       Suitable for from mounting 6-three     No       Suitable for from mounting 6-three     No       Suitable for fort mounting centre     No       Suitable for intermediate mounting     No       Suitable for intermediate mounting <td>Number of auxiliary contacts as change-over contact</td> <td></td> <td>0</td>	Number of auxiliary contacts as change-over contact		0
Voltage release optional     No       Device construction     Complete device in housing       Suitable for floor mounting     Yes       Suitable for front mounting 4-hole     No       Suitable for front mounting centre     No       Suitable for firth mounting centre     No       Suitable for intermediate mounting     No       Suitable for intermediate mounting     No       Colour control element     No       Type of control element     Soft thumb-grip       Interlockable     Yes       With pre-assembled cabling     Screw connection       Degree of protection (NEMA)     Yes       Vith third     To       With pre-assembled cabling     Yes       Degree of protection (NEMA)     Yes       With pre-assembled cabling     Yes       Degree of protection (NEMA)     Yes       With pre-assembled cabling     Yes       Degree of protection (NEMA)     Yes       With pre-assembled cabling     Yes       Degree of protection (NEMA)     Yes       With third     Yes       Mode     Yes       Mode     Yes       Yes     Yes </td <td>Motor drive optional</td> <td></td> <td>No</td>	Motor drive optional		No
Device constructionComplete device in housingSuitable for floor mountingKesSuitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationNoSuitable for intermediate mountingNoSuitable for intermediate mountingNoColour control elementNoType of control elementShort thumb-gripInterlockableYesWith pre-assembled cablingScrew connectionDegree of protection (IP), front sideMoDegree of protection (NEMA)ImmWith the set of protection (NEMA)ImmSuitable for intermediate mountingScrew connection frameDegree of protection (NEMA)ImmSuitable for intermediate mountingScrew connection frameSuitable for intermediate mountingScrew connectionSuitable for intermediate mountingScrew connect	Motor drive integrated		No
Suitable for floor 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     Suitable       Suite for intermediate mounting     Su	Voltage release optional		No
Suitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationNoSuitable for intermediate mountingNoSuitable for intermediate mountingNoColour control elementRedType of control elementYesInterlockableNoYuthy er assembled cablingSore connectionDegree of protection (NEMA)YesWithyYesInterlockableNoDegree of protection (NEMA)YesWithyYesDegree of protection (NEMA)YesWithyYesYethyYes	Device construction		Complete device in housing
Suitable for front mounting centre     No       Suitable for distribution board installation     No       Suitable for intermediate mounting     No       Suitable for intermediate mounting     No       Colour control element     No       Type of control element     Red       Interlockable     Yes       Type of electrical connection of main circuit     So       With pre-assembled cabling     So       Degree of protection (IP), front side     Interlockable       With M     Interlockable       Degree of protection (NEMA)     Interlockable       With M     Interlockable       Degree of protection (NEMA)     Interlockable       Degree of protection (NEMA)     Interlockable       With M     Interlockable       Degree of protection (NEMA)     Interlockable       Degree of protection (NEMA)     Interlockable       With M     Interlockable       Degree of protection (NEMA)     Interlockable	Suitable for floor mounting		Yes
Suitable for distribution board installation     No       Suitable for intermediate mounting     No       Colour control element     No       Type of control element     Red       Interlockable     Yes       Type of electrical connection of main circuit     Yes       With pre-assembled cabling     Yes       Degree of protection (NEMA)     Yes       With Model     Yes       With Model     Yes       Degree of protection (NEMA)     Yes       With Model     Yes       Model     Yes       Degree of protection (NEMA)     Yes       With Model     Yes       Yes     Y	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting     Image: Suitable for intermediate mounting     No       Colour control element     Red       Type of control element     Stort thumb-grip       Interlockable     Yes       Type of electrical connection of main circuit     Yes       With pre-assembled cabling     Yes       Degree of protection (NEMA)     Yes       Width     Yes       Width     Yes       Yes     Yes       Yes <td>Suitable for front mounting centre</td> <td></td> <td>No</td>	Suitable for front mounting centre		No
Colour control element   Red     Type of control element   Short thumb-grip     Interlockable   Yes     Type of electrical connection of main circuit   Serew connection     With pre-assembled cabling   Image: Serew connection (IP), front side     Degree of protection (NEMA)   Image: Serew connection circuit     Width   Image: Serew connection circuit	Suitable for distribution board installation		No
Type of control elementShort humb-gripInterlockableYesType of electrical connection of main circuitYesWith pre-assembled cablingNoDegree of protection (IP), front sideYesDegree of protection (NEMA)YesWidthmm200	Suitable for intermediate mounting		No
Interlockable   Interlockable   Yes     Type of electrical connection of main circuit   Image: Screw connection     With pre-assembled cabling   Image: Screw connection     Degree of protection (IP), front side   Image: Screw connection     Degree of protection (NEMA)   Image: Screw connection     With mage: Screw connection   Image: Screw connection     With mage: Screw connection   Image: Screw connection     Degree of protection (NEMA)   Image: Screw connection     With mage: Screw connection   Image: Screw connection     With mage: Screw connection   Image: Screw connection     Degree of protection (NEMA)   Image: Screw connection     With mage: Screw connection   Image: Screw connection     With mage: Screw connection   Image: Screw connection     Screw connection   Image: Screw connection     Screw connection   Image: Screw connection     With mage: Screw connection   Image: Screw connection     Screw connection   Image: Screw connecti	Colour control element		Red
Type of electrical connection of main circuitPagePageScrew connectionWith pre-assembled cablingNoNoDegree of protection (IP), front sideIP65Degree of protection (NEMA)ImmWidthImmDegree of protection (NEMA)Imm	Type of control element		Short thumb-grip
With pre-assembled cabling   Image: Constraint of the system of the syst	Interlockable		Yes
Degree of protection (IP), front sideIP65Degree of protection (NEMA)I2Widthmm	Type of electrical connection of main circuit		Screw connection
Degree of protection (NEMA)   Image: Comparison of the second of the sec	With pre-assembled cabling		No
Width mm 200	Degree of protection (IP), front side		IP65
	Degree of protection (NEMA)		12
Height mm 200	Width	mm	200
	Height	mm	200

Depth	mm	280
Width in number of modular spacings		