# DATASHEET - P3-63/M4/K2-PR/N



Main switch, P3, 63 A, rear mounting, 3 pole + N, Emergency switching off function, Lockable in the 0 (Off) position, With metal shaft for a control panel depth of 400 mm



Part no. P3-63/M4/K2-PR/N

**Catalog No.** 172812

EL-Nummer (Norway) 1417213

#### **Delivery progran**

Delivery program			
Product range			Main switch maintenance switch Repair switch
Part group reference			P3
Stop Function			Emergency switching off function
			with red rotary handle and yellow lock ring (K series)
Information about equipment supplied			auxiliary contact fitted by user.
Notes			With metal shaft for a control panel depth of 400 mm
Number of poles			3 pole + N
Auxiliary contacts			
1		N/0	0
7		N/C	0
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			Front IP65
Design			rear mounting
Contact sequence			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Front plate no.			FS 908
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	30
Rated uninterrupted current	Iu	Α	63
Note on rated uninterrupted current !u			Rated uninterrupted current $I_{u}$ is specified for max. cross-section.

### Technical data General

delleral	
Standards	IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Ambient temperature			
Open		°C	-25 - +50
Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Contacts			
Mechanical variables			
Number of poles			3 pole + N
Auxiliary contacts		11/0	
		N/O	0
Electrical characteristics		N/C	0
Rated operational voltage	U <sub>e</sub>	V AC	690
Rated uninterrupted current	I <sub>u</sub>	Α	63
Note on rated uninterrupted current !u			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Load rating with intermittent operation, class 12		w.l	
AB 25 % DF		x l <sub>e</sub>	2
AB 40 % DF		x I <sub>e</sub>	1.6
AB 60 % DF		x I <sub>e</sub>	1.3
Short-circuit rating			
Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	1260
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	4
Switching capacity cos φ rated making capacity as per IEC 60947-3		Α	800
Rated breaking capacity cos $\phi$ to IEC 60947-3		A	000
230 V		A	640
400/415 V		A	600
500 V		Α	590
690 V		Α	340
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l <sub>e</sub>		W	4.5
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	>0.1
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	P	kW	15
400 V 415 V	P	kW	30
500 V	P	kW	30
690 V	P	kW	30
Rated operational current motor load switch			
230 V	l <sub>e</sub>	Α	51
400V 415 V	l <sub>e</sub>	Α	55
500 V	l <sub>e</sub>	Α	44
690 V	l <sub>e</sub>	Α	22.1
AC-21A			
Rated operational current switch			
440 V	le	Α	63
AC-23A			

Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	18.5
400 V 415 V	Р	kW	30
500 V	Р	kW	45
690 V	Р	kW	55
Rated operational current motor load switch			
230 V	l <sub>e</sub>	Α	63
400 V 415 V	I <sub>e</sub>	Α	63
500 V	I <sub>e</sub>	Α	63
690 V	I <sub>e</sub>	Α	63
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	le	Α	63
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I <sub>e</sub>	Α	50
Contacts		Quantity	1
48 V			
Rated operational current	Ie	Α	50
Contacts		Quantity	2
60 V			
Rated operational current	I <sub>e</sub>	Α	50
Contacts		Quantity	2
120 V			
Rated operational current	I <sub>e</sub>	Α	25
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	< 10 <sup>-5</sup> ,< 1 failure in 100,000 switching operations
Terminal capacities			
Solid or stranded		mm <sup>2</sup>	1 x (2,5 - 35) 2 x (2,5 - 10)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (1.5 - 25) 2 x (1.5 - 6)
Tightening torque for terminal screw		Nm	3
Technical safety parameters:			

Design verification as per IEC/EN 61439

Notes

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	63
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	4.5
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
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.
10.2.3.3Verification of resistanceofinsulatingmaterialstoabnormalheatandfireduetointernalelectriceffects			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.

B10<sub>d</sub> values as per EN ISO 13849-1, table C1

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])

Version as safety switch Version as reversing switch Version as reversing switch Max. rated operation voltage Ue AC Rated operation voltage Ue AC Rated operating voltage Rated operating voltage Rated operating voltage Rated operating voltage Rated permanent current at AC-23,400 V Rated operating voltage Rated operating voltage Rated operating over at AC-3,400 V Rated operating power at AC-3,400 V Rated operation power at AC-3,400 V Rated operation power at AC-3,400 V Rated operation power at AC-3,400 V Rated short-time withstand current low Rated operation power at AC-3,400 V Rated short-time village use as a C-3,400 V Rated operation power at AC-3,400 V Rated short-time village use as a C-3,400 V Rated operation power at AC-3,400 V Rated poperation power at AC-3,40			
Version as safety switch         No           Version as emergency stop installation         No           Version as reversing switch         No           Number of switches         1           Max. rated operation voltage Ue AC         V         680           Rated operation voltage         V         690 - 690           Rated permanent current lu         A         63           Rated permanent current at AC-23,400 V         A         63           Rated permanent current at AC-23,400 V         A         63           Rated permanent current at AC-23,400 V         A         128           Rated operation power at AC-3,400 V         A         128           Rated operation power at AC-3,400 V         A         128           Rated operation power at AC-23,400 V         A         128           Rated operation power at AC-23,400 V         AW         30           Switching power at AC-3,400 V         AW         30           Number of operation power at AC-3,400 V         AW         30           Number of operation power at AC-3,400 V         AW         4           Number of operation power at AC-3,400 V         AW         4           Number of operation power at AC-3,400 V         AW         5           Number of	Version as main switch		Yes
Version as newgency stop installation         No           Version as reversing switch         No           Number of switches         1           Max. rated operation voltage Ue AC         V         690 - 890           Rated operating voltage         V         690 - 890           Rated permanent current at AC-22, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated short-time withstand current lcw         A         63           Switching power at AC-23, 400 V         WW         30           Switching power at 400 V         WW         30           Conditioned rated short-circuit current lq         A         4           Number of poles         WW         30           Number of auxiliary contacts as normally closed contact         WW         30           Number of auxiliary contacts as change-over contact         W         0           Number of auxiliary contacts as change-over contact         No         No           Motor drive integrated         No <t< td=""><td>Version as maintenance-/service switch</td><td></td><td>Yes</td></t<>	Version as maintenance-/service switch		Yes
Varsion as reversing switch         I           Number of switches         I           Max. rated operation voltage Ue AC         V         690 - 690           Rated operating voltage         V         690 - 690           Rated permanent current at AC-23, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated operation power at AC-3, 400 V         kW         30           Rated operation power at AC-3, 400 V         kW         30           Rated operation power at AC-3, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current Iq         kW         30           Number of poles         kA         4           Number of auxiliary contacts as normally closed contact         kA         4           Number of auxiliary contacts as change-over contact         kA         4           Motor drive integrated         kA         kA         4           Voltage release optional         kW         ka         kW         kW           Suitable for fron	Version as safety switch		No
Number of switches         1           Max. ratad operation voltage Ue AC         V         690 - 690           Rated operating voltage         V         690 - 690           Rated permanent current to Urrent to Urrent to Urrent to AC-23, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated operation power at AC-3, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current Iq         kA         4           Number of poles         LW         4           Number of suxiliary contacts as normally closed contact         D         0           Number of auxiliary contacts as normally open contact         D         No           Motor drive optional         No         No           Motor drive integrated         No         No           Voltage release optional         No         No           Buitable for front mounting 4-hole         No         No           Suitable for front mounting centre         No         No           Suitable for front mounting centre <td>Version as emergency stop installation</td> <td></td> <td>No</td>	Version as emergency stop installation		No
Max. rated operation voltage U a AC         V         690 - 690           Rated permanent current I U         A         63           Rated permanent current at AC-23, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated operation power at AC-3, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current Iq         kA         4           Number of poles         KA         4           Number of auxiliary contacts as normally closed contact         0         0           Number of auxiliary contacts as schange-over contact         No         No           Motor drive optional         No         No           Motor drive integrated         No         No           Voltage release optional         No         No           Suitable for front mou	Version as reversing switch		No
Rated operating voltage Rated permanent current lu 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 operation power at AC-23, 400 V Rated operation power at AC-3, 400 V Rated operation power at	Number of switches		1
Rated permanent current lu         A         63           Rated permanent current at AC-23, 400 V         A         63           Rated permanent current at AC-21, 400 V         A         63           Rated operation power at AC-3, 400 V         kW         30           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current lq         kA         4           Number of poles         KA         4           Number of auxiliary contacts as normally closed contact         0         0           Number of auxiliary contacts as normally poper contact         0         0           Number of auxiliary contacts as change-over contact         No         No           Motor drive optional         No         No           Motor drive integrated         No         No           Voltage release optional         No         No           Device construction         Yes         No           Suitable for front mounting 4-hole         No         No           Suitable for front mounting 6-hole         No         No           Suitable for intermediate mounting         No         No           Suitable for intermediate mounting	Max. rated operation voltage Ue AC	V	690
Rated permanent current at AC-23, 400 V         A         63           Rated permanent current at AC-21, 400 V         kW         30           Rated short-time withstand current lcw         kA         1.26           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current lq         kA         4           Number of poles         KA         4           Number of auxiliary contacts as normally closed contact         0         0           Number of auxiliary contacts as normally popen contact         0         0           Number of auxiliary contacts as normally popen contact         No         No           Number of auxiliary contacts as change-over contact         No         No           Motor drive optional         No         No           Motor drive optional         No         No           Motor drive integrated         No         No           Voltage release optional         Yes         No           Suitable for ground mounting         Yes         No           Suitable for front mounting 4-hole         No         No           Suitable for first mounting centre         No         No           Suitable f	Rated operating voltage	V	690 - 690
Rated permanent current at AC-21, 400 V         A         63           Rated operation power at AC-3, 400 V         kW         30           Rated short-time withstand current lcw         kA         1.26           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current lq         kA         4           Number of poles         4A         4           Number of auxiliary contacts as normally closed contact         0         0           Number of auxiliary contacts as normally open contact         0         0           Motor drive optional         No         No           Motor drive integrated         No         No           Voltage release optional         No         No           Device construction         Built-in device fixed built-in technique           Suitable for ground mounting         Yes           Suitable for front mounting centre         No           Suitable for front mounting centre         No           Suitable for first thution board installation         No           Suitable for intermediate mounting         Yes           Suitable for intermediate mounting         No           Suitable for intermediate mounti	Rated permanent current lu	Α	63
Rated operation power at AC-3, 400 V         kW         30           Rated short-time withstand current lcw         kA         1.26           Rated operation power at AC-23, 400 V         kW         30           Switching power at 400 V         kW         30           Conditioned rated short-circuit current lq         kA         4           Number of poles         4         4           Number of auxiliary contacts as normally closed contact         0         0           Number of auxiliary contacts as change-over contact         0         0           Motor drive optional         No         No           Motor drive integrated         No         No           Voltage release optional         No         Built-in device fixed built-in technique           Suitable for ground mounting         Yes         No           Suitable for front mounting 4-hole         No         No           Suitable for front mounting centre         No         No           Suitable for distribution board installation         No         No           Suitable for intermediate mounting         Yes         No           Suitable for intermediate mounting         Yes         No           Suitable for intermediate mounting         Yes         No	Rated permanent current at AC-23, 400 V	Α	63
Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Notor drive optional Notor drive integrated Notor drive integrated Notor ground mounting Suitable for ground mounting Suitable for front mounting 4-hole Suitable for distribution board installation Suitable for distribution board installation Suitable for intermediate mounting Colour control element  Ne Rate Na	Rated permanent current at AC-21, 400 V	Α	63
Rated operation power at AC-23, 400 V  Switching power at 400 V  Conditioned rated short-circuit current Iq  Number of poles  Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  No  No  Motor drive optional  Motor drive integrated  No  No  Voltage release optional  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting entre  Suitable for distribution board installation  Suitable for intermediate mounting  Colour control element  RW  No  Red  Red	Rated operation power at AC-3, 400 V	kW	30
Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally poen contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Notor drive optional Notor drive integrated Notor drive integrated Nototage release optional Notor drive construction Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Suitable for intermediate mounting	Rated short-time withstand current lcw	kA	1.26
Conditioned rated short-circuit current Iq kA 4  Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Notor drive optional  Motor drive integrated  Voltage release optional  Device construction  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting centre  Suitable for distribution board installation  Suitable for intermediate mounting  Colour control element  KA 4  4  4  4  4  4  4  4  4  4  4  4  4	Rated operation power at AC-23, 400 V	kW	30
Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Notor drive optional No No No No No Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for intermediate mounting	Switching power at 400 V	kW	30
Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Motor drive optional  Motor drive integrated  No  Voltage release optional  Device construction  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting centre  Suitable for front mounting centre  Suitable for intermediate mounting  Suitable for intermediate mounting  Suitable for intermediate mounting  Red  O  O  O  O  O  O  O  O  O  O  O  O  O	Conditioned rated short-circuit current Iq	kA	4
Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  No  Motor drive optional  Motor drive integrated  No  Voltage release optional  Device construction  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting centre  No  Suitable for distribution board installation  Suitable for intermediate mounting  Suitable for intermediate mounting  Colour control element  No  Red	Number of poles		4
Number of auxiliary contacts as change-over contact  Motor drive optional  Motor drive integrated  No  Voltage release optional  No  Device construction  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting centre  Suitable for front mounting centre  Suitable for distribution board installation  Suitable for intermediate mounting  Suitable for intermediate mounting  Suitable for intermediate mounting  Red	Number of auxiliary contacts as normally closed contact		0
Motor drive optional Motor drive integrated No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting	Number of auxiliary contacts as normally open contact		0
Motor drive integrated  No Voltage release optional  Device construction  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for distribution board installation  Suitable for intermediate mounting  Colour control element  No  No  No  No  No  Red	Number of auxiliary contacts as change-over contact		0
Voltage release optional       No         Device construction       Built-in device fixed built-in technique         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       Yes         Colour control element       Red	Motor drive optional		No
Device construction  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting centre  No  Suitable for distribution board installation  Suitable for intermediate mounting  Colour control element  Built-in device fixed built-in technique  Yes  No  No  Red	Motor drive integrated		No
Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Suitable for intermediate mounting Suitable for intermediate mounting Red	Voltage release optional		No
Suitable for front mounting 4-hole  Suitable for front mounting centre  No  Suitable for distribution board installation  Suitable for intermediate mounting  Colour control element  No  Red	Device construction		Built-in device fixed built-in technique
Suitable for front mounting centre  Suitable for distribution board installation  Suitable for intermediate mounting  Colour control element  No  Yes  Red	Suitable for ground mounting		Yes
Suitable for distribution board installation  Suitable for intermediate mounting  Yes  Colour control element  Red	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting Yes Colour control element Red	Suitable for front mounting centre		No
Colour control element Red	Suitable for distribution board installation		No
	Suitable for intermediate mounting		Yes
Type of control element Toggle	Colour control element		Red
	Type of control element		Toggle
Interlockable Yes	Interlockable		Yes

Type of electrical connection of main circuit	Screw connection	
Degree of protection (IP), front side	IP65	
Degree of protection (NEMA)	Other	

# **Dimensions**

