DATASHEET - P3-63/XZ



P3, 63 A, Basic switch

Part no. P3-63/XZ Catalog No. 046314



Similar to illustration

Delivery program			
Product range			Main switch maintenance switch Repair switch
Part group reference			P3
Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
Number of poles			3 pole
Auxiliary contacts			
4		N/0	0
7		N/C	0
Degree of Protection			Front IP65
Design			Basic switch
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	30
Rated uninterrupted current	I _u	Α	63
Note on rated uninterrupted current !u			Rated uninterrupted current $I_{\rm u}$ is specified for max. cross-section.

Technical data

General Standards

uelleral			
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 _{imp}	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Contacts			
Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/0	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	Iu	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			
AB 25 % DF		x I _e	2
AB 40 % DF		x I _e	1.6
AB 60 % DF		x I _e	1.3
Short-circuit rating			

Fuse		A gG/gL	80
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	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	ч		
$\cos \phi$ rated making capacity as per IEC 60947-3		Α	800
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	640
400/415 V		Α	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 I _e		W	4.5
Lifespan, mechanical	Operations	x 10 ⁶	> 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	I _e	Α	51
400V 415 V	I _e	Α	55
500 V	I _e	Α	44
690 V	I _e	Α	22.1
AC-21A			
Rated operational current switch			
440 V	I _e	Α	63
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	18.5
400 V 415 V	P	kW	30
500 V	P	kW	45
690 V	P	kW	55
Rated operational current motor load switch			
230 V	I _e	Α	63
400 V 415 V	I _e	Α	63
500 V	I _e	Α	63
690 V	I _e	Α	63
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	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 _e	Α	50
Contacts		Quantity	1
48 V			
Rated operational current	I _e	Α	50
Contacts		Quantity	2
60 V			

Part				
120		l _e	Α	50
Reted operational current	Contacts		Quantity	2
Contracts	120 V			
Park	Rated operational current	l _e	Α	25
Part	Contacts		Quantity	3
Solid or stranded mm² 1 x 1.5 - 80 2 x (2.5 - 10) Flexible with ferrules to DIN 46228 mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 1 x 1.5 - 25 2 2 x (1.5 - 6) Inferrula screw mm² 9 x 10 x (1.5 - 1.5	Control circuit reliability at 24 V DC, 10 mA		H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
Flexible with ferroles to DIN 46228	Terminal capacities			
	Solid or stranded		mm ²	
None	Flexible with ferrules to DIN 46228		mm ²	
Schein Cals a sety parameters: Secundation of the proved types Secundation of the provided types	Terminal screw			M5
Notes Blody values as per EN ISO 13849-1, table C1 Bating data for approved types VAC 600 Rated operational voltage Ua VAC 600 Rated uninterrupted current max. ABACTION CONTROL TO THE CONTROL	Tightening torque for terminal screw		Nm	3
Nation Action A				
Contacts Uo VAC 600 Rated operational voltage Uo VAC 600 Rated uninterrupted current max. VAC Female uninterrupted current max. General Use Auxiliary contacts VAC 600 Auxiliary contacts Io A600 Pilot Duty A 600 P600 Switching capacity A 600 P600 Single-phase HP 3 200 V AC HP 3 200 V AC HP 10 Three-phase HP 15 240 V AC HP 15 240 V AC HP 15 480 V AC HP 16 480 V AC HP 16 600 V AC HP 10 480 V AC HP 10 600 V AC HP 10 600 V AC HP 10 8 sic Rating KP 10 8 sic Rating KP 10 8 sic Rating KP<	Notes			B10 _d values as per EN ISO 13849-1, table C1
Rated operational voltage Ue VAC 600 Rated uninterrupted current max. Free Common of Main conducting paths Common of Main conducting paths Common of Main conducting paths 60 Auxiliary contacts Iu A 00 To T				
Rated uninterrupted current max. Head of the conducting paths A main conducting paths				
Main conducting paths A 60 Auxiliary contacts Iu A 10 General Use Iu A 600 Pe 600 Pilot Duty A 600 Pe 600 Pe 600 Switching capacity Image: Contact of the contact of		U _e	V AC	600
General use A 60 Auxiliary contacts Iu A 10 Pilot Duty A 600 P 600 A 600 P 600 Switching capacity A 600 P 600 Maximum motor rating B 7 5 Single-phase HP 3.5 200 V AC HP 15 240 V AC HP 15 200 V AC HP 15 240 V AC HP 15 480 V AC HP 15 480 V AC HP 50 Short Circuit Current Rating SCCR HP 50 Basic Rating KA 10 max. Fuse A 10 Terminal capacity AW6 14-2				
Auxiliary contacts Iu A 10 Pilot Duty A 600 P 600 A 600 P 600 Switching capacity A 600 P 600 A 600 P 600 Maximum motor rating A 600 P 600 A 600 P 600 Single-phase B P 600 A 7 5 A 7				
Filot Duty			Α	60
Pilot Duty A 600 P 600 Switching capacity Common motor rating Common motor rating Single-phase Single-phase Single-phase 120 V AC HP 3 240 V AC HP 7.5 240 V AC HP 10 Three-phase HP 15 240 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR SCCR Basic Rating KA 10 max. Fuse A 150 Terminal capacity AWS 14-2	Auxiliary contacts			
Switching capacity P 600 Maximum motor rating P 600 Single-phase P 600 120 V AC HP 3 240 V AC HP 7.5 240 V AC HP 10 Three-phase HP 15 200 V AC HP 15 480 V AC HP 40 480 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating KA 10 max. Fuse A 150 Ferminal capacity AWG 14-2	General Use	I _U	Α	10
Maximum motor rating Image: Companies Image: Compan	Pilot Duty			
Single-phase HP 3 200 V AC HP 7.5 240 V AC HP 10 Three-phase Three-phase 200 V AC HP 15 240 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating KA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	Switching capacity			
120 V AC HP 3 200 V AC HP 7.5 240 V AC HP 10 Three-phase **** **** 200 V AC HP 15 240 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating kA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	Maximum motor rating			
200 V AC HP 7.5 240 V AC HP 10 Three-phase HP 15 200 V AC HP 15 480 V AC HP 15 600 V AC HP 40 Short Circuit Current Rating SCCR SCCR Basic Rating KA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	Single-phase			
240 V AC HP 10 Three-phase HP 15 200 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating kA 10 max. Fuse A 150 Terminal capacity AWG 14-2	120 V AC		HP	3
Three-phase HP 15 240 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating KA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	200 V AC		HP	7.5
200 V AC HP 15 240 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating KA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	240 V AC		HP	10
240 V AC HP 15 480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR Basic Rating kA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	Three-phase			
480 V AC HP 40 600 V AC HP 50 Short Circuit Current Rating SCCR SCCR Basic Rating kA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	200 V AC		HP	15
600 V AC HP 50 Short Circuit Current Rating SCCR Company Basic Rating kA 10 max. Fuse A 150 Terminal capacity AWG 14 - 2	240 V AC		HP	15
Short Circuit Current Rating Basic Rating MA 10 max. Fuse A 150 Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 2	480 V AC		HP	40
Basic Rating kA 10 max. Fuse A 150 Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 2	600 V AC		HP	50
max. Fuse A 150 Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 2	Short Circuit Current Rating		SCCR	
Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 2	Basic Rating		kA	10
Solid or flexible conductor with ferrule AWG 14 - 2	max. Fuse		Α	150
Solid or flexible conductor with ferrule AWG 14 - 2	Terminal capacity			
Terminal screw M5	Solid or flexible conductor with ferrule		AWG	14 - 2
······································	Terminal screw			M5

Design verification as per IEC/EN 61439

Tightening torque

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	63
Heat dissipation per pole, current-dependent	P _{vid}	W	4.5
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.		°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.

lb-in

26.5

10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	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.
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 0000 TO])		
Version as main switch		No
Version as maintenance-/service switch		No
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	690
Rated operating voltage	V	690 - 690
Rated permanent current lu	Α	63
Rated permanent current at AC-23, 400 V	Α	63
Rated permanent current at AC-21, 400 V	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 Iq	kA	4
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		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	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	IP65
Degree of protection (NEMA)	Other

Assets (links)

Declaration of CE Conformity

00003104

Additional product information (links)

Ordering form for SOND switches and SOND front plates(DE_EN)	$ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf$
Ordering form for SOND switches and SOND front plates(DE_EN)	$ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf$