



**On-Off switch, P1, 40 A, surface mounting, 3 pole, with black thumb grip and front plate, hard knockout version**

**Part no. P1-40/I2H**  
**Catalog No. 199915**

### Delivery program

Product range			On-Off switch
Part group reference			P1
			with black thumb grip and front plate
Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
Number of poles			3 pole
<b>Auxiliary contacts</b>			
		N/O	0
		N/C	0
Degree of Protection			IP65
Design			surface mounting
Contact sequence			 1 2 3 0 0 0
Switching angle		°	90
Front plate no.			 <b>FS 908</b>
<b>Motor rating AC-23A, 50 - 60 Hz</b>			
400 V	P	kW	22
Rated uninterrupted current	$I_u$	A	40
Note on rated uninterrupted current $I_u$			Rated uninterrupted current $I_u$ is specified for max. cross-section.

### Technical data

<b>General</b>			
Standards			IEC/EN 60947, 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			
Enclosed		°C	-25 - +40
Overtoltage 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/O	0
		N/C	0
Electrical characteristics			
Rated operational voltage	$U_e$	V AC	690
Rated uninterrupted current	$I_u$	A	40
Note on rated uninterrupted current $I_u$			Rated uninterrupted current $I_u$ is specified for max. cross-section.
Short-circuit rating			
Fuse		A gG/gL	50
Rated short-time withstand current (1 s current)	$I_{cw}$	$A_{rms}$	640
Note on rated short-time withstand current $I_{cw}$			Current for a time of 1 second

## Switching capacity

Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at $I_e$		W	3.5
Lifespan, mechanical	Operations	$\times 10^6$	> 0.3
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	7.5
400 V 415 V	P	kW	15
690 V	P	kW	15
Rated operational current motor load switch			
230 V	$I_e$	A	30
400V 415 V	$I_e$	A	30
690 V	$I_e$	A	17
AC-21A			
Rated operational current switch			
400 V 415 V	$I_e$	A	40
500 V	$I_e$	A	40
690 V	$I_e$	A	40
AC-22A			
Rated operational current switch			
400 V 415 V	$I_e$	A	40
500 V	$I_e$	A	40
690 V	$I_e$	A	40
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	11
400 V 415 V	P	kW	22
690 V	P	kW	17
Rated operational current motor load switch			
230 V	$I_e$	A	40
400 V 415 V	$I_e$	A	40
690 V	$I_e$	A	20
Control circuit reliability at 24 V DC, 10 mA	Fault probability	$H_F$	$< 10^{-5}$ , < 1 failure in 100,000 switching operations

## Terminal capacities

Solid or stranded	mm <sup>2</sup>	1 x (1,5 - 10) 2 x (1,5 - 10)
Flexible with ferrules to DIN 46228	mm <sup>2</sup>	1 x (1 - 4) 2 x (1 - 4)
Terminal screw		M4
Tightening torque for terminal screw	Nm	1.6

## Rating data for approved types

Terminal capacity		
Solid or flexible conductor with ferrule	AWG	14 - 8
Flexible	AWG	14.1
Terminal screw		M4
Tightening torque	lb-in	14.1

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	40
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	3.5

## Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013])			
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 U <sub>e</sub> AC		V	690
Rated operating voltage		V	690 - 690
Rated permanent current I <sub>u</sub>		A	40
Rated permanent current at AC-23, 400 V		A	40
Rated permanent current at AC-21, 400 V		A	40
Rated operation power at AC-3, 400 V		kW	15
Rated short-time withstand current I <sub>cw</sub>		kA	0.64
Rated operation power at AC-23, 400 V		kW	22
Switching power at 400 V		kW	22
Conditioned rated short-circuit current I <sub>q</sub>		kA	80
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 floor mounting			No
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			Black
Type of control element			Short thumb-grip
Interlockable			No
Type of electrical connection of main circuit			Screw connection
Degree of protection (IP), front side			IP65

## Additional product information (links)

Technical overview cam switch, switch-disconnector	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.2">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.2</a>
System overview cam switch T	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.4">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.4</a>
System overview switch-disconnector P	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.6">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.6</a>
Key to part numbers Cam switch	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8</a>
Key to part numbers Switch-disconnector	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8</a>
Switches for ATEX	<a href="http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html">http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html</a>