

P1-40/I2H/N - On-Off switch, P1, 40 A, surface mounting, 3 pole + N, with black thumb grip and front plate, hard knockout version



199921  
P1-40/I2H/N



Overview



Specifications



Resources



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## DELIVERY PROGRAM

Product range  
On-Off switch

Part group reference  
P1

with black thumb grip and front plate

Information about equipment supplied  
auxiliary contact fitted by user.

Number of poles  
3 pole + N

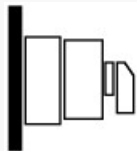
### Auxiliary contacts

0 NO

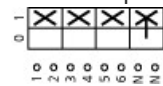
7  
0 NC

Degree of Protection  
IP65

Design  
surface mounting

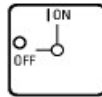


Contact sequence



Switching angle  
90 °

Front plate no.



FS 908

**Motor rating AC-23A, 50 - 60 Hz [P]**

400 V [P]  
22 kW

Rated uninterrupted current [ $I_u$ ]  
40 A

Note on rated uninterrupted current  $I_u$   
Rated uninterrupted current  $I_u$  is specified for max.  
cross-section.

## TECHNICAL DATA

## General

### 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

-25 - +40 °C

### Overvoltage category/pollution degree

III/3

### Rated impulse withstand voltage [ $U_{imp}$ ]

6000 V AC

### Mechanical shock resistance

15 g

### Mounting position

As required

## Contacts

### Mechanical variables

Number of poles

3 pole + N

### Mechanical variables

Auxiliary contacts



0 NO

### Mechanical variables

Auxiliary contacts



0 NC

### Electrical characteristics

Rated operational voltage [ $U_e$ ]

690 V AC

Electrical characteristics  
Rated uninterrupted current [ $I_u$ ]  
40 A

Electrical characteristics  
Note on rated uninterrupted current  $I_u$   
Rated uninterrupted current  $I_u$  is specified for max.  
cross-section.

Short-circuit rating  
Fuse  
50 A gG/gL

Rated short-time withstand current (1 s current)  
[ $I_{cw}$ ]  
640 A<sub>rms</sub>

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  
440 V AC

Safe isolation to EN 61140  
Current heat loss per contact at  $I_e$   
3.5 W

Lifespan, mechanical [Operations]  
> 0.3 x 10<sup>6</sup>

Maximum operating frequency [Operations/h]  
1200

AC  
AC-3  
Rating, motor load switch [P]  
220 V 230 V [P]  
7.5 kW

AC  
AC-3  
Rating, motor load switch [P]  
400 V 415 V [P]  
15 kW

AC  
AC-3  
Rating, motor load switch [P]  
690 V [P]  
15 kW

AC  
AC-3  
Rated operational current motor load switch  
230 V [ $I_e$ ]  
30 A

AC  
AC-3  
Rated operational current motor load switch  
400V 415 V [ $I_e$ ]  
30 A

AC  
AC-3  
Rated operational current motor load switch  
690 V [ $I_e$ ]  
17 A

AC  
AC-21A  
Rated operational current switch  
400 V 415 V [ $I_e$ ]  
40 A

AC  
AC-21A  
Rated operational current switch  
500 V [ $I_e$ ]  
40 A

AC  
AC-21A  
Rated operational current switch  
690 V [ $I_e$ ]  
40 A

AC  
AC-22A  
Rated operational current switch  
400 V 415 V [ $I_e$ ]  
40 A

AC  
AC-22A  
Rated operational current switch

500 V [ $I_e$ ]  
40 A

AC  
AC-22A  
Rated operational current switch  
690 V [ $I_e$ ]  
40 A

AC  
AC-23A  
Motor rating AC-23A, 50 - 60 Hz [P]  
230 V [P]  
11 kW

AC  
AC-23A  
Motor rating AC-23A, 50 - 60 Hz [P]  
400 V 415 V [P]  
22 kW

AC  
AC-23A  
Motor rating AC-23A, 50 - 60 Hz [P]  
690 V [P]  
17 kW

AC  
AC-23A  
Rated operational current motor load switch  
230 V [ $I_e$ ]  
40 A

AC  
AC-23A  
Rated operational current motor load switch  
400 V 415 V [ $I_e$ ]  
40 A

AC  
AC-23A  
Rated operational current motor load switch  
690 V [ $I_e$ ]  
20 A

Control circuit reliability at 24 V DC, 10 mA [Fault probability]  
<  $10^{-5}$ , < 1 failure in 100,000 switching operations  
H<sub>F</sub>

## Terminal capacities

Solid or stranded  
1 x (1,5 - 10)  
2 x (1,5 - 10) mm<sup>2</sup>

Flexible with ferrules to DIN 46228  
1 x (1 - 4)  
2 x (1 - 4) mm<sup>2</sup>

Terminal screw  
M4

Tightening torque for terminal screw  
1.6 Nm

### Rating data for approved types

Terminal capacity  
Solid or flexible conductor with ferrule  
14 - 8 AWG

Terminal capacity  
Flexible  
14.1 AWG

Terminal capacity  
Terminal screw  
M4

Terminal capacity  
Tightening torque  
14.1 lb-in

## DESIGN VERIFICATION AS PER IEC/EN 61439

Rated operational current for specified heat  
dissipation [ $I_n$ ]  
40 A

Heat dissipation per pole, current-dependent [ $P_{id}$ ]  
3.5 W

# TECHNICAL DATA ETIM 8.0

Low-voltage industrial components (EG000017) / Switch disconnecter (EO000216)

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  $U_e$  AC  
690 V

Rated operating voltage  
690 - 690 V

Rated permanent current  $I_u$   
40 A

Rated permanent current at AC-23, 400 V  
40 A

Rated permanent current at AC-21, 400 V  
40 A

Rated operation power at AC-3, 400 V  
15 kW



Rated short-time withstand current  $I_{cw}$   
0.64 kA

Rated operation power at AC-23, 400 V  
22 kW

Switching power at 400 V  
22 kW

Conditioned rated short-circuit current  $I_q$   
80 kA

Number of poles  
4

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

Degree of protection (NEMA)



