

# mSDF 80

Fuse switch disconnector

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## Fuse switch disconnecter

### Trennschalter mit Sicherungen

**mSDF 80** is the smallest fuse switch disconnecter in the **COMPASS** family designed for fuse size NH 000 to 80 A. The **COMPASS** fuse switch disconnecter family redefines safety of service and ergonomics. The name **COMPASS** is a combination of two words: **COMP**act and **AS**sembly, which characterise its main features.

The **mSDF** fuse switch disconnecter from the **COMPASS** family has been designed in accordance with applicable standards PN-EN 60947-31, PN-EN 60947-3, IEC 60947-1, and IEC 60947-3.

### FUNCTIONALITY

- Safety of service and easy installation
- Cover lock preventing removal of the fuse in „on“ position
- Self-extinguishing thermoplastics (VO flammability class)
- Operating shaft front side and drive side
- Possibility to directly install 3 microswitches (further can be installed on levels)
- Door interlock in „on“ position - release mechanism for opening using a tool
- Self-cleaning contacts
- High electrical and mechanical endurance
- High short-circuit making and breaking capacity
- Double, safe clearance between open contacts
- Complete isolation of fuse links in „off“ position
- Wide range of accessories

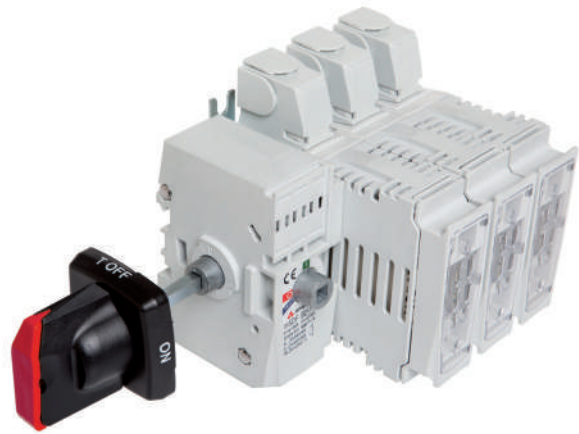
### APPLICATIONS

**COMPASS** fuse switch disconnecters are designed for distribution of electricity and protection against short circuits and overloads in three phase alternative current circuits. **mSDF 80** disconnecters can perform the following functions:

- Disconnectors for controlling and securing engines and other alternating current devices
- Switch disconnectors in switchgear

### OPERATING CONDITIONS

- To be installed in the room free of any dust, aggressive or explosive gases
- Altitude up to 2000 meters above sea level
- Outdoor – in cabinets with protection degree > IP 34
- Ambient temperature from -5°C to 40°C
- Transport and storage temperature from -25°C to 55°C
- Relative humidity of the air should not be higher than 50% at temperature of +40°



### CONSTRUCTION

**mSDF 80** fuse switch disconnecters of the **COMPASS** family are manufactured in two versions:

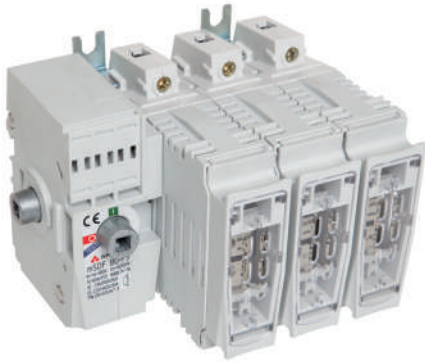
- Three pole (P3)
- Four pole (P4)

**mSDF 80** fuse switch disconnecter is characterised by its modular construction which enables assembling a version composed of three or four identical functional blocks - modules - fixed to the drive. **mSDF 80** disconnecter is characterised by small external dimensions facilitating its application in switchgear with pull-out trays.

**mSDF 80** fuse switch disconnecter is designed for currents up to 80 A for gG fuse size NH 000. **mSDF 80** disconnecters are designed for installation both on TH35 busbar system and on a mounting plate using special holders.

All plastic parts of **COMPASS** family disconnecters are made of halogen free, fibre glass strengthened, self-extinguishing materials. Thanks to the application of flame retardants the highest flammability class – VO is achieved. Disconnectors made from such thermoplastics self-extinguish in specified time after ignition source is removed. Also falling off and dripping of flaming parts of plastic does not occur.

**mSDF 80** fuse switch disconnecter has an operating shaft which can be installed from the front side of the disconnecter and from the drive side. Special construction of the handle indicates the position of the disconnecter, making it possible to achieve three positions (ON, OFF, and TEST). What is more, the handle is designed for locking by up to 3 padlocks  $\phi 6$  standard in OFF position. **mSDF 80** fuse switch disconnecter allows to connect wiring to clamps, which can be used to signal voltage or to control fuse link burnout. Silver plated contacts **mSDF 80** provide low power loss. Frame type clamps applied in **mSDF 80** facilitate direct connecting of isolated ends of wires up to 35 mm<sup>2</sup> section. The disconnecter provides IP 20 degree of protection. **mSDF 80** fuse switch disconnecter enables installation of two sizes of cover clamps - long or short - depending on the customer's demand.



mSDF 80-P3




Table 123. Technical data

Parameters	mSDF 80 disconnecter			
Rated thermal current $I_{th}=I_n$	A	80		
Rated voltage $U_n$	V	690	1000	
Utilization category	-	AC-23A	DC-22A	AC-20A DC-20A
Rated switching current $I_e$	A	80	80	- -
Rated switching voltage $U_e$	V	690	440	- -
Rated short-circuit breaking capacity $I_{cm}$	kA	7	16	- -
Rated impulse withstand voltage $U_{imp}$	kV	8		
Rated insulation voltage $U_i$	V	1000		
Rated frequency	Hz	50-60		
Mechanical durability	c.p.	10000		
Electrical durability	c. t.	1500		
Duty	Continuous duty			
Protection degree	IP 20			
Fuse links size	000			

Table 124. mSDF 80 versions

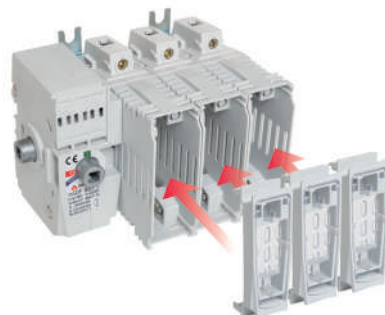
Version		Weight	Article no.
mSDF 80-P3	3-pole switch fuse disconnecter to be installed on a plate	1 kg	63-002264-001
mSDF 80-P3-E	3-pole switch fuse disconnecter to be installed on a TH 35 busbar	1 kg	63-002264-002
mSDF 80-P4	4-pole switch fuse disconnecter to be installed on a plate	1,3 kg	63-002264-003
mSDF 80-P4-E	4-pole switch fuse disconnecter to be installed on a TH 35 busbar	1,3 kg	63-002264-004

Table 125. mSDF 80 terminal clamps

Clamp	Frame
Drawing of clamp	
Cross-section of conductors	<b>rm</b>  2,5 - 25mm <sup>2</sup> <b>re</b>  2,5 - 35 mm <sup>2</sup>
Tightening torque	4 Nm



mSDF 80-P3 with an additional C1 cover

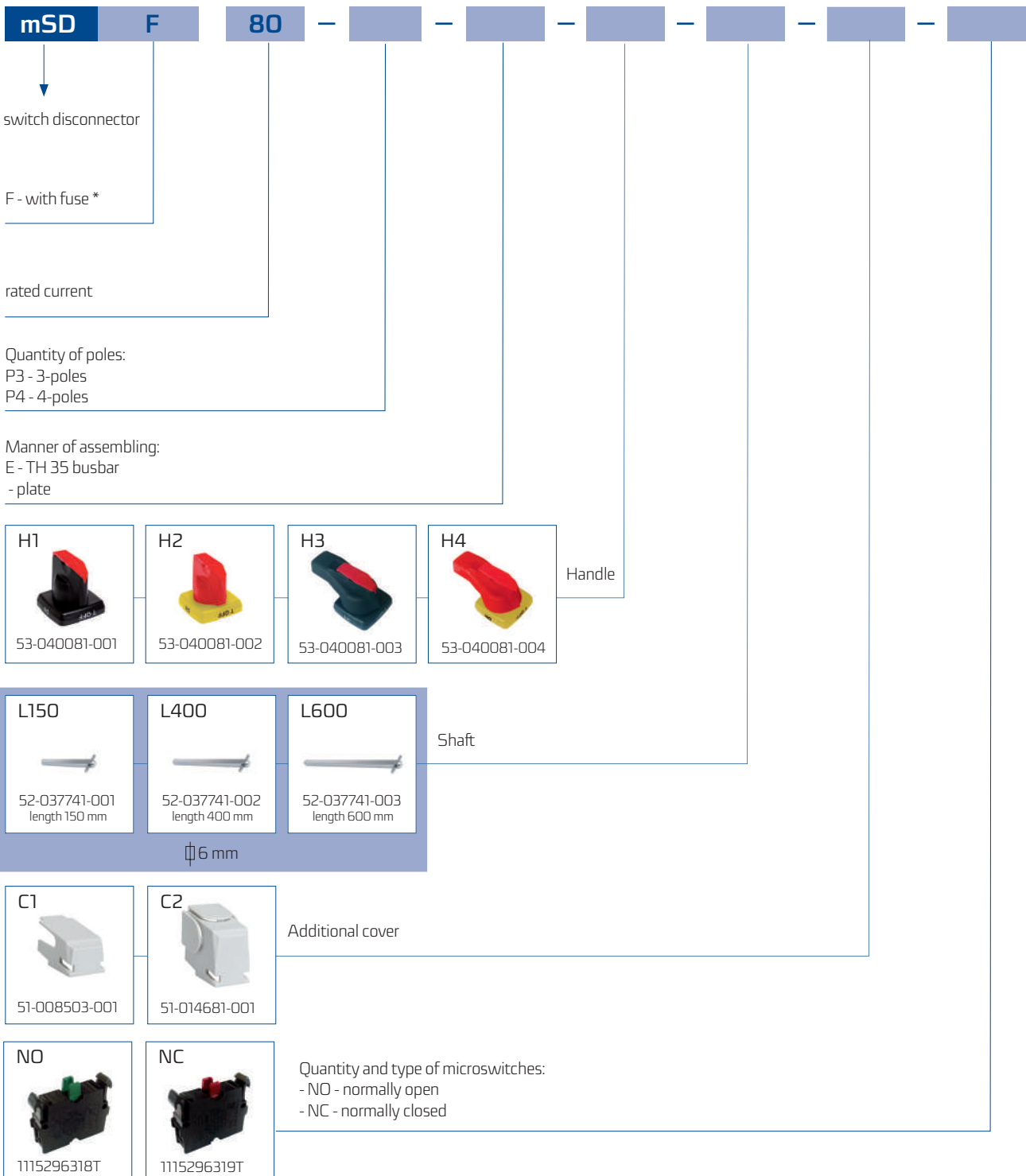


mSDF 80-P3



mSDF 80-P3 with an additional C2 cover

# ORDERING



\* a fuse switch disconnecter is sold without fuse links

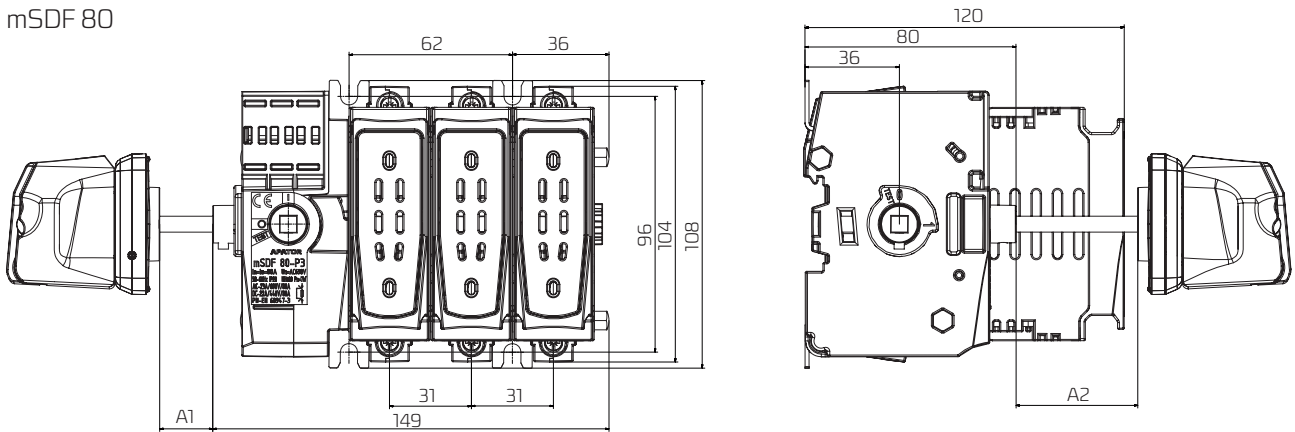
Example

**mSDF 80-P3-H2-L150-C2-2NO1NC**

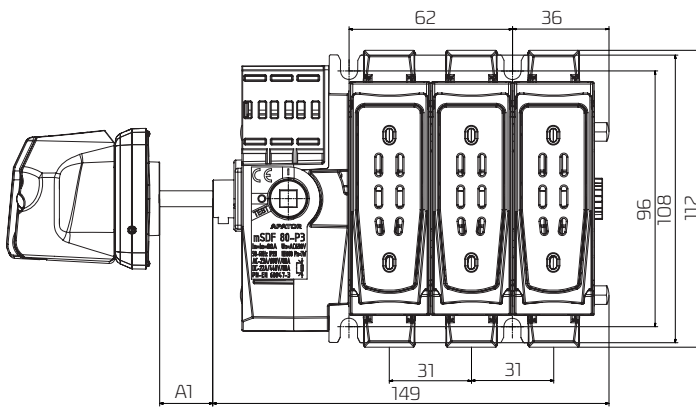
a fuse switch disconnecter, In = 80A, installed on a plate, with a H2 handle and a shaft 150 mm long with long C2 covers with 2 microswitches normally open and 1 microswitch normally closed

## DIMENSIONS

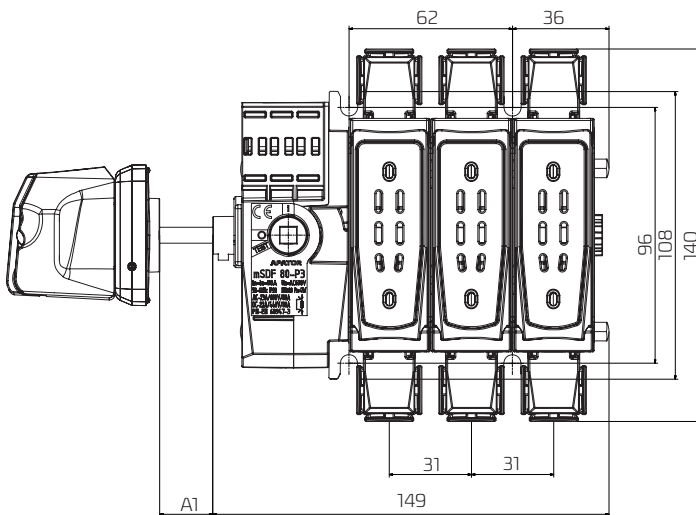
mSDF 80



mSDF 80 with a short additional cover C1



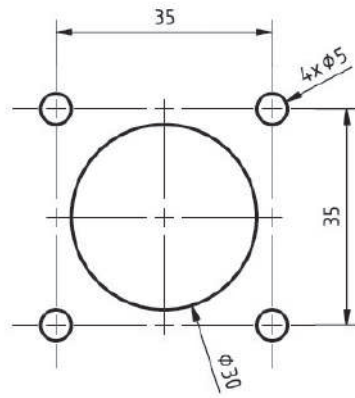
mSDF 80 with a long additional cover C2



Shaft* [mm]	A1 [mm]	A2 [mm]
150	10÷110	45÷110
400	10÷360	45÷360
600	10÷560	45÷560

\*A shaft going through a device shall be cut as needed.

Distribution of holes for handle assembly [mm]:



Fastening screws (4 pcs): M4 x h, where h[mm] = 8 + wall thickness

