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DRIESCHER
Outdoor Switches for Railway applications
ModularCatenary**Switch** **MCS**

- Nominal voltage 15 kV and 25 kV
- Rated current 1250 A and 2000 A



DRIESCHER
Moosburg • Eisleben



General description

These DRIESCHER outdoor switches of the type *Modular*CatenarySwitch *MCS* are special catenary switches for railway application and comply with the relevant regulations according to EN 62505-2 and EN 50152-2.

The 1-pole or 2-pole switches can be used for a nominal voltage of 15 kV and 25 kV as well as a rated current of 1250 A and 2000 A. Due to the modular design, various versions are available:

- Disconnecter or switch-disconnector (Load-break switch)
- Actuated with central driving crank, left or right side
- Optional with arcing horns
- Optional with automatic earthing
- Optional with auxiliary switch
- 1-pole or 2-pole connected

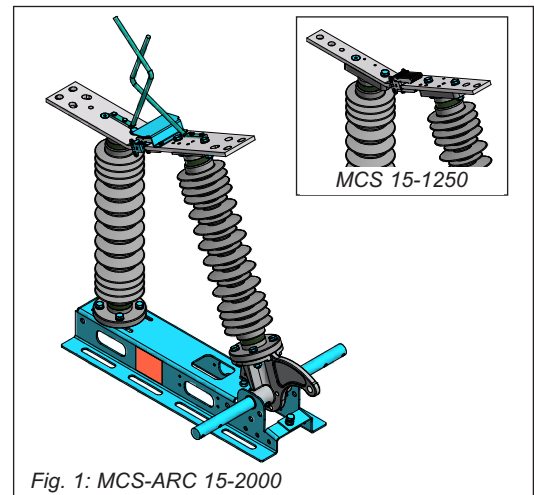
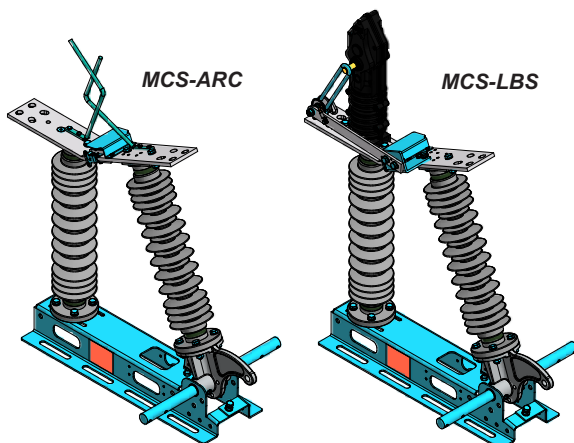


Fig. 1: MCS-ARC 15-2000

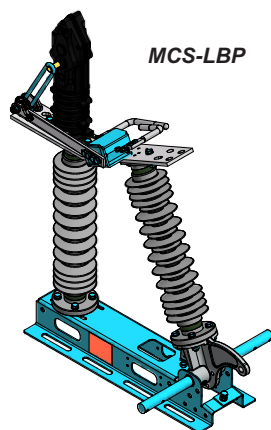
The current path is made of silver-plated copper. All other parts are made of rust-proof materials to achieve increased corrosion resistance.

Other components such as motor drives and rods are available on request. We are gladly to offer you a customer-specific complete solution.

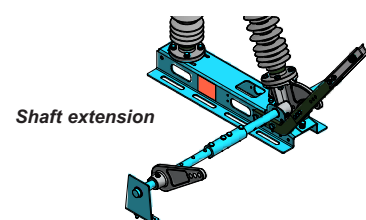
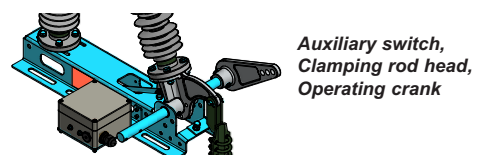
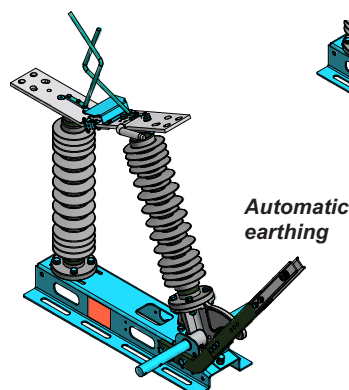
Type designation



MCS-ARC	= Arcing horn (Disconnecter)
MCS-LBS	= Load-break switch (Switch-disconnector)
MCS-LBP	= Load-break switch with pre arcing horn / (increased making capacity up to 40 kA _{peak})
+Accessories	(Automatic earthing, shaft extension, flexball preparation, etc.)



Accessories



Technical data

ModularCatenarySwitch MCS-	ARC		LBS		LBP	
Nominal voltage [kV] U_n	15	25	15	25	15	25
Rated voltage [kV] U_{Ne}	17.25	27.5	17.25	27.5	17.25	27.5
Rated current [A] I_n	1250 / 2000	1250 / 2000	1250 / 2000	1250 / 2000	2000	2000
Rated frequency [Hz] f_r	16.7	50	16.7	50	16.7	50
Rated transformer off-load breaking current [A] I_3	9	9	-	-	-	-
Rated breaking current [A] I_{load}	-	-	1250 / 2000	1250 / 2000	2000	2000
Rated cable-charging breaking current [A] I_{4a}	6	6	32	32	-	-
Rated short-time withstand current [kA] I_k	31.5 / 40	31.5 / 40	31.5 / 40	31.5 / 40	40	40
Rated duration of short-circuit current [s] t_k	3	3	3	3	3	3
Rated peak withstand current [kA] I_p	80 / 100	80 / 100	80 / 100	80 / 100	100	100
Rated short-circuit making current [kA] I_{ma}	-	-	16	16	40	40
Rated impulse withstand current [kV] U_{Ni}	170	250	170	250	170	250
Short-time power frequency test voltage level [kV] U_d	70	95	70	95	70	95
Mechanical life-time	class 3	class 3	class 3	class 3	class 3	class 3
Electrical life-time	-	-	E1	E1	E1	E1
Weight, approx. [kg]	31 / 34	32 / 35	37 / 40	38 / 41	41	42
Creepage distance, approx. [mm]	1150	1595	1150	1595	1150	1595

Switches according to EN 50152-2, IEC 62505-2, EN 62271-102, EN 62271-103, drawing 301700

Field of application

The types of ModularCatenarySwitch MCS are special constructed for railway applications. Possible applications include for example:

- Catenary switches for open line and tunnel,
- Visible disconnection under load of sectionings,
- Portal- or pole applications, etc.

Front- and sideview

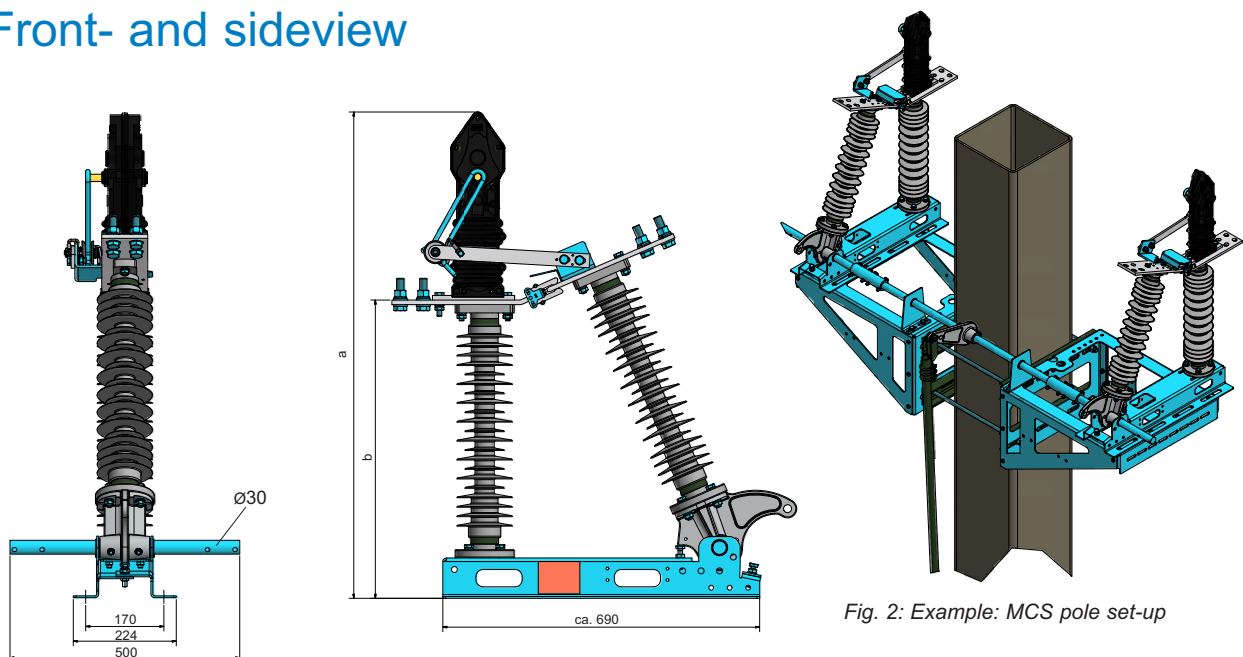


Fig. 2: Example: MCS pole set-up

	15 kV	25 kV
a	approx. 932	approx. 1055
b	approx. 524	approx. 647



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Dimensions, weights, diagrams and descriptions in this brochure are non-binding. Subject to change without notice.

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The cover picture (tunnel) is kindly provided by AlpTransit Gotthard AG.

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