

# DISCONNECTORS

CBD(E, EE) 72.5kV - 170kV  
Centre Break Disconnect



**ALPHA-ET**

Current and voltage – our passion



# General description

Centre Break Disconnectors from type CBD(E, EE) for 72.5kV - 170kV are available for rated currents from 1'600A up to 3'150A and short circuit currents up to 135/50kA, 1s.

The integration of one or two earthing switches with the same short circuit current ratings, as the main disconnectors, is possible. The three poles of the disconnectors and those of the earthing switches are linked. They are operated by motor or hand drives. Auxiliary switches for the remote control and signalisation of disconnector positions are installed in the drives as well as an anti-condensation heating element and motor circuit breaker (MCB).

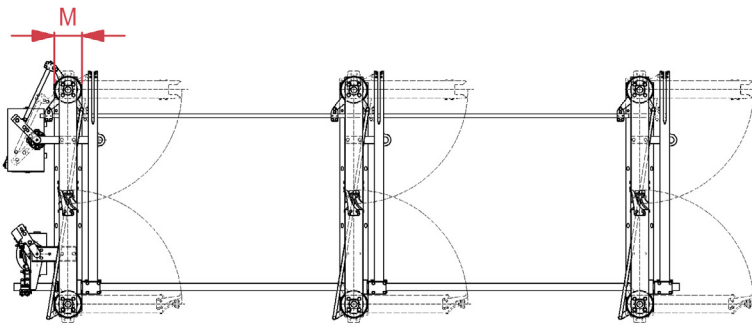
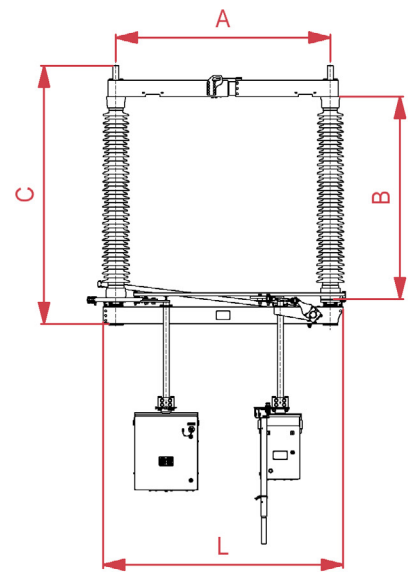
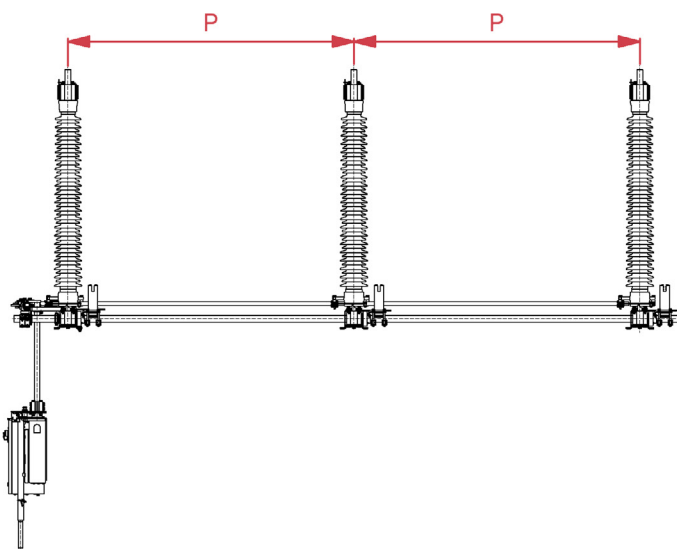
Due to the maintenance free contact system the disconnectors and earthing switches are specified for 10'000 operating cycles (class M2). The temperature rise of the current carrying parts is designed according to IEC 62271-102 ( $t = 75K$  for 50Hz and 60Hz).

Additional options like mechanical interlocking, bus transfer switching device, switching of induced currents, flat terminals, electromechanical interlocking, painting, etc. are available on demand.

## Benefits CBD(E, EE)

- Possibility to integrate one or two earthing switches
- Operation with motor or hand drive
- Reduced Life Cycle Cost due to maintenance free contact systems
- Short installation and assembly time
- Type tested acc. to IEC 62271-102
- From 72.5kV to 170kV
- Up to 3'150A
- Up to 135/50kA
- 50Hz and 60Hz
- Earthing switch type EF as stand-alone version
- Swiss quality

# Technical data



Rated voltage	$U_r$	kV		72.5	100	123	145	170
Rated frequency	$f_r$	Hz		50 and 60				
Rated lightning impulse withstand voltage	$U_p$	kV	1)	325	450	550	650	750
			2)	375	520	630	750	860
Rated short-duration power frequency withstand voltage	$U_d$	kV	1)	140	185	230	275	325
			2)	160	210	265	315	375
Rated continuous current	$I_r$	A		1600, 2500, 3150				
Rated short-time withstand current - 1s (in dependence of the rated continuous current)	$I_k$	kA		31.5, 40, 50				
Rated peak withstand current (in dependence of the rated continuous current)	$I_p$	kA		85, 108, 135				

Rated voltage	$U_r$	kV		72.5	100	123	145	170
Dimensions		mm	A	900	1150	1400	1600	1800
			B	770	1020	1220	1500	1700
			C	1246	1496	1696	1976	2176
			L	1112	1362	1612	1812	2012
			M	234	234	234	234	234
			P	1200	1550	1850	2150	2430

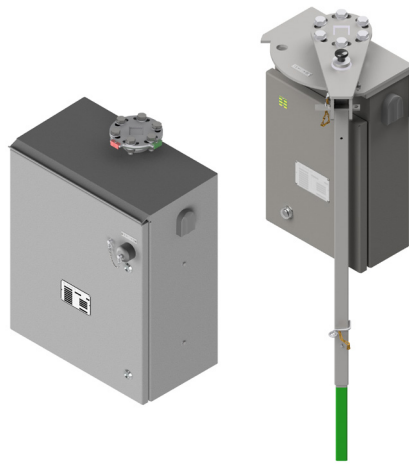
1) phase to earth and phase-phase  
2) across the isolating distance

# Highlights



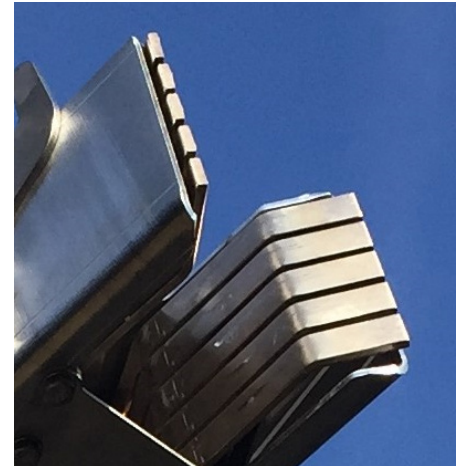
## Earthing switch EF

- 72.5kV to 170kV
- Up to 135/50kA
- Stand-alone as one or three pole version



## Drives MD30 and HD99

- Motor and hand drives
- Motor and control voltage: DC / AC
- Heating element: 230 VAC
- 90° and 70°



## Maintenance free contacts

- Reduction of operation costs
- Ensuring of lifetime lubrication
- Decreasing of abrasion of silver coating
- Increasing of resistance against welding during a short circuit

## Options

- Mechanical interlocking
- Bus transfer switching device
- Switching of induced currents
- Flat terminals acc. DIN and NEMA
- Electromechanical interlocking in drives
- Painting



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## Member of PFIFFNER Group

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ROLLING STOCK



DISCONNECTORS

