

Change-over Disconnectors HUVS Range 7.2kV (630 to 6300Amp)

Changeover switches 7.2kV to 40.5kV

For more than 100 years, Mersen has been providing the market with safe, reliable and longer life time off-load disconnectors. These devices offer high performances and robustness for heavy duty requirements with very limited maintenance.

Mersen offers one of the largest product ranges on the market and is the global leader. Mersen has a switch solution that will meet your unique needs.

Our standard HUVS Change-over High Switches are rigorously engineered to meet your technical specifications.

Operation : They can be operated manually, with a pneumatic piston or with an adapted motor (see list) up to 50.000 cycles thanks to fixed cast copper connections.

Phase to Phase distance, Signaling, Terminal Box or Locking system can be studied and customized.

Small making or breaking capacity (on request)

Maximum frequency up to 175Hz

Indoor in a currentless state

Ambient air should not exceed +40°C (otherwise please consult)

Altitude should not exceed 1000 m

Relative humidity should not exceed 95%

List 1 following IEC 62271-1

Features Benefits

- No Load Operation
- Indoor Type - Horizontal axis mounting (Vertical under study)
- Configuration with 1, 2, 3 poles (more on request)
- Mechanical endurance : 25.000 less or equal than 1kAmp and 50.000 cycles above 1kAmp (1 cycle = open + close) thanks to its fixed cast copper contacts
- Maximum temperature withstand at 130°C without damage to the switch
- Electrical contact by contact blades with pressed-on Hard Silver Contact Rivets and silver-plated
- Supporting insulators made of cast epoxy resin (fire classification according to UL94-V1)
- Large isolation air and creepage path
- Self-cleaning blade contacts
- True opening and visible distance
- Rugged anti-torsion construction
- Full customisation with :
 - Manual (handle or gear box), motor, pneumatic drives operation
 - Quantity of Auxillary switches, safety blocking magnet, locking devices
 - Dimensions of the disconnector and Fittings/connexions to the busbar
- Installation of the disconnector can be done on the floor, on the wall and at the ceiling as long as the operation axis must stays horizontal

Applications

- Power conversion to disconnect or earth the rectifier or the drives
- High Power Motors

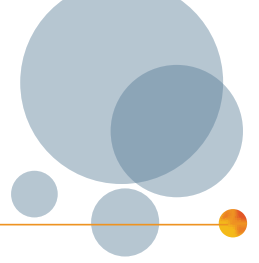


Standards

According to IEC 62271-102



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Technical data overview

Size per Standard	HUVS 630A to 6300A
Speed/Characteristic	Around 1 sec with pneumatic operation 3 to 4 seconds with motor operation (depend on the rating)
Number of Poles	1, 2, 3 or more under study
Working Temperature	-20°C to +40°C

Product range

HUVS Range 7.2kV

Catalog number	Rated current I _n	Rated peak current	RMS 1 sec short-time withstand current	Voltage drop	Weight
HUVS103P630A7KV	630 A	50 kA	20 kA	30 mV	26 kg
HUVS103P1000A7KV	1000 A	100 kA	40 kA	40 mV	35 kg
HUVS103P1600A7KV	1600 A	130 kA	52 kA	50 mV	46 kg
HUVS103P2000A7KV	2000 A	143 kA	57 kA	50 mV	50 kg
HUVS103P3150A7KV	3150 A	177 kA	71 kA	35 mV	57 kg
HUVS103P4000A7KV	4000 A	177 kA	71 kA	35 mV	66 kg
HUVS103P6300A7KV	6300 A	214 kA	81 kA	45 mV	75 kg

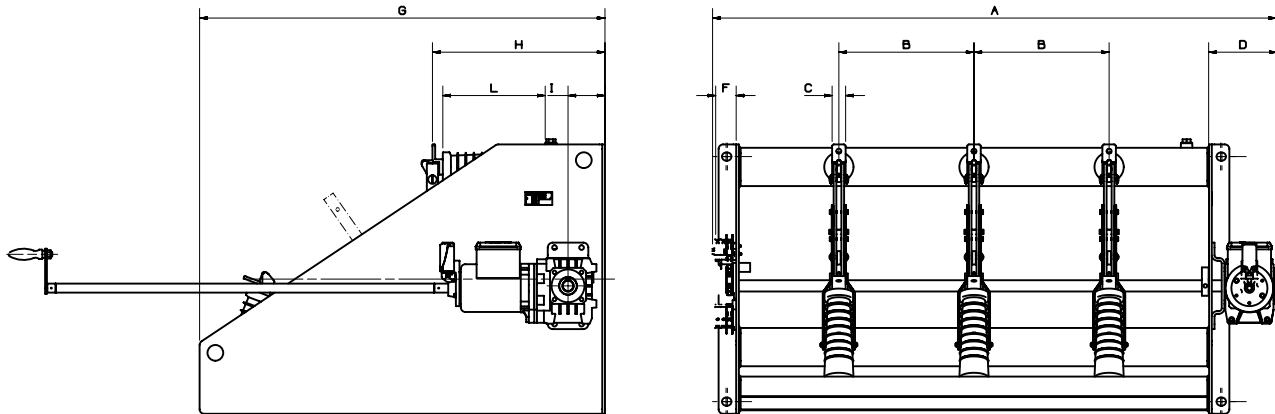
Technical Data

HUVS Range 7.2kV

Number of poles/phases	3
Degree of protection	IP 0
Rated voltage AC	7200 V
Rated impulse withstand voltage BIL Phase to earth and between poles	40 kV
Rated impulse withstand voltage BIL across the insulating distance	46 kV
Dielectric withstand voltage 1min/50Hz Phase to earth and between poles	20 kV
Dielectric withstand voltage 1min/50Hz Across the isolating distance	23 kV
Design	motorized on the right with 3 microswitches
Temperature rise at rated current (°K)	60 ° K
Package	1

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Dimensions



Rated current	A	B	C	D	F	G	H	I	J	K	L	Drawing N°
630 A	620	150	40	120	59	560	230	60	320	100	65	-
1000 A	620	150	40	120	59	560	230	60	320	100	65	-
1600 A	720	170	60	120	59	560	230	83	484	110	65	-
2000 A	950	200	80	120	59	610	267	93	500	110	65	1004345
3150 A	1180	250	100	230	59	788	333	112	580	110	65	1002924

Motors

Motor types	Code	Motor voltage rating
AC Mono	Code A 50Hz	230VAC
	Code B 60Hz	220VAC
AC 3 phases	Code C 50Hz	400VAC
	Code D 60Hz	400VAC
DC	Code G	110VDC
		220VDC

Functions



Customized signaling

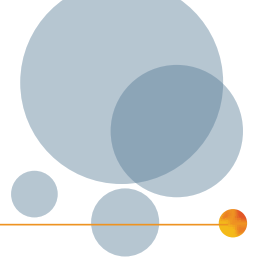
This range can be equipped with micro switches offering 10 Amp under 400VAC (or DC13 110VDC 0,5Amp) and 10 million cycles operation.

These microswitches are used to signal the switch position and also to cut the power of the motor when it arrives at the end of its operation.

The disconnectors can be equipped with 1, 2, 3 microswitches (more under study).

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Functions



Tropicalized version

This range can be designed to be installed in salty atmospheres and in tropical geographical zones using stainless steel and a tropicalized version of motor or microswitches and special paints.



Connection plate adaptation

To adapt the disconnector to the Busbar, we can adapt the orientation of the connecting plates (Vertically or Horizontally)



Manual operation locking

The disconnector in this range have their position secured in Open and Closed (or both) positions using various locking systems for complete security.

- Padlocking (1 padlock diam 6mm)
- Key locking using preferably a Ronis Lock
- Blocking Magnets



Blocking magnets

Blocking magnets are used to guarantee electromechanically the position of the Disconnector using remote control. This operation can be done for one or both position (open and closed).

Blocking magnet can be used missing Voltage or Voltage can be 24VDC, 48VDC, 110VDC, 230VDC and 230VAC (consumption GE40; TGN15; TGN17 between 20 to 45W)

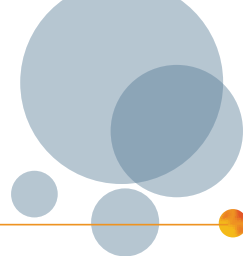


Connection box, Connection Terminal

This Disconnector range can be equipped with a wiring connection terminal or connection box.

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Functions



Control box

This Disconnector range can be equipped with a control box to operate the disconnector (open and close).



Mechanical Operation Counter

This Disconnector can be equipped with a mechanical operation counter (one complete cycle (open and close) = 1) to watch maintenance operations

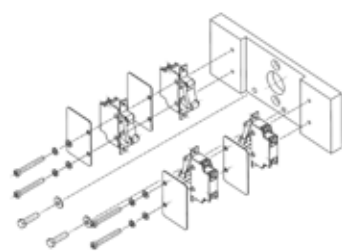
Accessories



W110902

Indication facilities

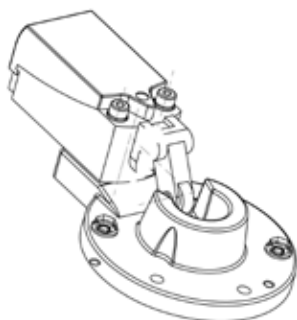
Catalog number	Reference number	Length	Weight kg ¹⁾	Package
MECHANICAL OPERATION COUNTER	W110902	63 mm	0,50	1 piece



D1027229

Microswitches

Catalog number	Reference number	Weight kg ¹⁾	Package
S/E SGN 2 CA SW11	D1030058	0,3	1 piece
S/E SGN 4 CA SW11	D1027229	0,35	1 piece
S/E SGN 6 CA SW11	L1027489	0,4	1 piece
S/E SGN 8 CA SW11	B1028952	0,5	1 piece
S/E SGN CDE DE SECOURS HAS	H820486	0,3	1 piece

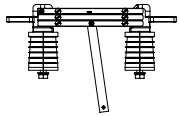


H820486

1) weight in kg per piece or set including package

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Accessories



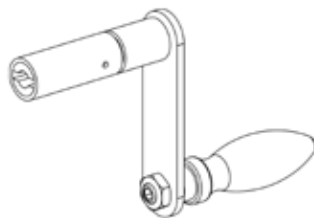
R1002907

Supplementary poles

Catalog number	Reference number	Rated current I _n	Weight kg ¹⁾	Package
S/E POLE HUVS 2000 U46 HH	Y1004638	2000 A	45	1 piece
S/E POLE HUVS 3150 U46 HH	R1002907	3150 A	50	1 piece

Lubricants

Catalog number	Reference number	Weight kg ¹⁾	Package
Copper Grease	L108501	1	1 piece



R817113

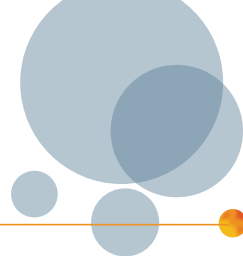
Removable handles for emergency manual operation

Catalog number	Reference number	Length	Weight kg ¹⁾	Package
ARB FLEX SSB-7 1043	P1013646	1.043 m	0,50	1 piece
LIMITING TORQUE MAN D10 L170	Z819305	0.17 m	0,46	1 piece
S/E MANIVELLE D10.2 170	R817113	0.17 m	0,27	1 piece
S/E MANIVELLE D10.2 170 Tropical	N827782	0.17 m	0,27	1 piece
S/E MANIVELLE D10.2 300	Z817143	0.3 m	0,29	1 piece
S/E MANIVELLE D10.2 480	Q822103	0.48 m	0,33	1 piece
S/E MANIVELLE D10.2 600	E834168	0.6 m	0,60	1 piece
S/E MANIVELLE D10.2 1000	L827688	1 m	0,60	1 piece
S/E SGN CDE SECOURS FLEX 1043	W1013652	1.043 m	0,70	1 piece

1) weight in kg per piece or set including package

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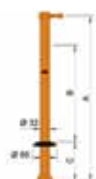
Accessories



G836240



H821728



V908380

Manual operation handles

Catalog number	Reference number	Length	Weight kg ¹⁾	Package
S/E MANUAL LEVER D20 LG290	G836240	290 mm	0,50	1 piece
S/E MANUAL LEVER D25 LG290	E834789	290 mm	0,70	1 piece
S/E MANUAL LEVER D30 LG360	J834862	360 mm	0,70	1 piece
S/E EYE LEVER D30/30 L450	H821728	450 mm	0,70	1 piece
ISOLATING STICK L1120 20KV	L820190	1120 mm	0,85	1 piece
ISOLATING STICK L1520 45KV	V908380	1520 mm	1,00	1 piece
ISOLATING STICK L2020 60KV	W908381	2020 mm	1,25	1 piece

1) weight in kg per piece or set including package