

Medium Voltage Power Distribution Equipment









Harju Elekter manufactures medium voltage equipment for use in power distribution, metering and control applications up to 24 kV. The advantages of the switchgear include:

- Compact design with minimized enclosure dimensions
- Upgradeability through modularity and remote control options
- Ease of installation with standardized interconnections
- · Operational safety and reliability designed into each functional unit
- Tried-and-tested technology with countless applications worldwide

NEX Primary Switchgear

NEX is an air-insulated, medium voltage switchgear type with withdrawable vacuum circuit breakers. The sheet metal enclosed equipment is manufactured under license from the company Schneider Electric of France. NEX units are made up of separate compartments (sections for cables, circuit breakers and low voltage busbars) providing a high loss of service continuity category LSC2B / PM. The equipment has an increased ability to withstand internal arcs, thus, resulting in a high level of safety matched with overall reliability. The range provides a wide choice of diverse functional units with relay and automation components. The equipment has been type-tested and complies with the current standard IEC 62271-200.

SM6 Secondary Switchgear

SM6 is a medium voltage switchgear type that has been type-tested and is manufactured under license from Schneider Electric. The air-insulated equipment complies with the standard IEC 62271-200. The design is based on sheet metal enclosed compartments that results in LSC2A / PI loss of service continuity. A broad choice of functionalities is available; these can be simply combined together. SM6 has an air-insulated busbar system, SF6 switch disconnector, SF6 or vacuum circuit breakers, contactors, measuring transformers, as well as a wide range of relay and automation components.

CTVT Metering Cabinet

The CTVT metering cabinet has been designed for measuring currents and voltages at medium voltage distribution points. The equipment can be used as a connection point in metering systems. This solution has been tried and tested in countless applications and can be adapted to match diverse requirements. In addition, the unit has GOST-R certification.

Ring Main Units

In response to customer needs and to offer a matching complete solution, Harju Elekter distributes and installs in its transformer substations ring main units from various manufacturers: Scheider Electric RM6 and Unisarc, Siemens 8DJ20 and 8DH10, as well as Eaton Holec Xiria.















	SM6				NEX	
Rated voltage (kV)	7.2	12	17.5	24	12	17.5
Insulation level						
Internal arc withstand capability 50 Hz - 1 min (rms kV)	20	28	38	50	28	50
Impulse withstand capability 1.2/50 µs (kV peak)	60	75	95	125	75	95
Rated current and maximum short-time withstand current						
Maximum short-time current Ith. max	20 kA 3 s 25 kA 1 s 20 kA 1 s 12.5 kA 1 s				31.5 kA 3 s	
					25 kA 3 s	
Rated current (A)	4001)			630		
	630				1250	
	1250				2500	
Busbar system rated current (A)	400¹¹-630-1250					
Internal arc classification						
Internal arc classification (IAC-AFL)	12.5 kA 1 s					
Internal arc classification (IAC-AFLR)	16 kA 1 s			25 kA 0.5 s		
IP protection level						
External enclosure	IP3X				IP3X / IP4X	
Between compartments	IP2X			IP2X		
Cable connection point	top / bottom			top / bottom		
Insulating partition class	PI				PM	

1) only with 12.5 kA maximum short-time current

CTVT

HARJU ELEKTER

Medium voltage metering cabinet	CTVT 1	CTVT 2
Rated current	up to 630 A	up to 630 A
Rated voltage	12 kV	24 kV
IP protection level	IP20	IP20
Dimensions (W x H x D, mm)	650x1660x560	920x1660x670
Weight	~ 250 kg	~ 330 kg



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