

High voltage 170 kV 50 kA Equipment list for Outdoor installation

This document contains a list of main equipment 170kV 50kA intended for Outdoor installation (AIS) which have undergone technical inspection procedure by the system operator (NOGA-ISO) as part of equipment approval for private customers and/or IECo. For other instructions regarding the installation of equipment not listed in table below, please refer to the instructions appearing in the Israeli Grid Code and the Customer Connection Procedure, which are published on the NOGA-ISO website. The equipment will be provided in accordance with the relevant SLD approved by the system operator (NOGA-ISO).

The equipment installation for a specific project is conditional upon the submission of all documents as specified in the Israeli Grid Code and Main Technical Requirements Guides.

Equipment	Manufacturer	Country	Type	Note
<i>SF6 Circuit Breakers</i>				
For O.H.L with three mechanisms (single-phase operation)	HITACHI ENERGY (ABB)	Sweden	LTB 245 E1 (BLK222)	
	SIEMENS	Germany	3AP1FI-245/50	
	GE	France	GL 314 F3 (FK3-1)	
		Italy	GL 313 F3 5031P (FK3-1)	
	Sieyuan Electric	China	LW58-252	Equipped with 170kV insulators
For transformer/coupler bays with single mechanism (three-phase operation)	HITACHI ENERGY (ABB)	Sweden	LTB 245 E1 (BLG1002A)	
	SIEMENS	Germany	3AP1FG-245/50	
	GE	France	GL 314 F3 (FK3-1)	Supplied with three operation mechanisms, proposed for three-phase operation
		Italy	GL 313 F1 5031P (FK3-1)	
	Sieyuan Electric	China	LW58-252	Equipped with 170kV insulators

Equipment	Manufacturer	Country	Type	Note
<i>Disconnectors and Earthing Switches</i>				
Earthing Switches	HAPAM BV	Netherlands	ASB	
	GE	Italy	STA	
Disconnector without Earthing switch	HAPAM BV	Netherlands	SSBII-170	
	GE	Italy	S2DA	
Disconnectors with one Earthing Switch	HAPAM BV	Netherlands	SSBII-1AM-170	
	GE	Italy	S2DAT	
Disconnectors with two Earthing Switches	HAPAM BV	Netherlands	SSBII-2AM-170	
	GE	Italy	S2DA2T	
<i>Current transformer (oil)</i>				
For transformer bay Accuracy class: revenue metering - 0.2S metering - 0.5 protection - 5P30 ----- For O.H.L and coupler bay Accuracy class: metering - 0.5 protection - 5P30	ARTECHE	Spain	CA 170	
	KONCAR	Croatia	AGU 170	
	PFIFFNER	Turkey	JOF(AYH) 170	
	HITACHI ENERGY (ABB)	Sweden	IMB 170	Supplied with guard enclosure

Equipment	Manufacturer	Country	Type	Note
<i>Voltage transformer (oil)</i>				
For O.H.L./busbar/transformer bays Accuracy class: revenue metering - 0.2 metering - 0.5 protection - 3P	ARTECHE	Spain	UTF 170	
	KONCAR	Croatia	VPU 170	
	PIFFNER	Switzerland	EOF 170	
	HITACHI ENERGY (ABB)	Sweden	EMF 170	
	TRENCH (SIEMENS)	France	VEOT 170	
<i>Support insulators</i>				
Porcelain	LAPP	Germany	C12.5-750-II	
		Rumania	C16-750-5270	Required a compliance for seismic forces withstand
Porcelain	CERISOL	Portugal	COL C12.5-750 5600 HL558ML	
Synthetic	ZIBO	China	FZS-252-12.5	Supplied with grading rings
<i>Surge arresters</i>				
108kV For the transformer's HV star grounding	SIEMENS	Germany	3EP2 108-3SF41-3YZ1	
	HITACHI ENERGY (ABB)	Sweden	EXLIM P108 GN170	
	TRIDELTA	Germany	SB 108/SH-A-I	
	TYCO	UK	MDA4 108	

Equipment	Manufacturer	Country	Type	Note
132 kV For O.H.L./transformer bay Standard installation	SIEMENS	Germany	3EP6 132-4PF51-4YZ1-Z	
	HITACHI ENERGY (ABB)	Sweden	EXLIM P132-GV170-M	
			EXLIM P132-GV170	Supplied with grading rings
	TRIDELTA	Germany	SB 132/SH-A-I	
	TYCO	UK	MDA4 132	

Best regards,



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