04 - SITA 11kV Main Board Switchgear Datasheet - PFC Feeder Panel Requirements

SITA

Specification: 11KV Switchgear
Date: 29/01/2026
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Note (1): Bidder must complete/enter YELLOW cells only
Note (2): SITA reserves the right to verify Data Sheet information

ITEM	DESCRIPTION	UNIT	REQUIRED/OFFERED
1	**Board ratings**		
1.1	Rated voltage	kV	**11**
1.2	Maximum voltage	kV	**12**
1.3	Rated power frequency withstand voltage	kV	**28**
1.4	Rated lightning impulse withstand voltage	kV	**95**
1.5	Rated frequency	Hz	**50**
1.6	Main busbar rating	A	**1250**
2	**Circuit ratings**		
2.1	Panel Names	Names	**1.25MVAr Auto Power Factor**
2.2	Number of identical panels	Number	**1**
2.3	PFC Feeder Switch Type		**Fused Contactor**
2.4	Interrupting medium		**Vacuum Contactor/ HRC Fuse**
2.5	Insulating medium		**Air**
2.6	PFC feeder breaker rating	A	**400**
2.7	PFC Feeder HRC Fuse Rating	A	**100**
2.8	PFC Feeder HRC Fuse Breaking Capacity	kA	**20**
2.9	Low Voltage Compartment Height (max)	mm	
2.10	Busbar Coating		**Not required**
2.11	Minimum rated short time making current	kA/3s	**20kA/ 3s**
2.12	Internal ARC classification (AFLR)	kA/1s	**20kA/ 1s**
2.13	Specific creepage distance	mm/kV	**20**
2.14	Switchgear and Control Gear Assemblies- compliance with		**IEC62271-100**
2.15	Switchgear and Control Gear Assemblies: Internal Arc		**IEC612271-200 AFLR**
2.16	Loss of Service Continuity Category		**LSC-2,PM**
2.17	Earth Switch Interlocking Coil		**Yes**
2.18	Racking Interlocking Coil		**No**
2.19	Conventional CTs		**Yes**

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3	**Operating details**		
3,1	Operating sequence		**O-0.3s-CO-3min-CO**
3.2	Amount of Mechanical Operations	Quantity	**Less than 1000 per annum**
3.3	Operation Counter		**Yes**
4	**Control details**		
4,1	Tripping and closing voltage	V DC	**110**
4,2	Spring rewind motor	V DC	**110**
4.3	Back up Trip Coil		**No**
4.4	Undervoltage Release Trip Coil		**No**
4.5	Remote Control Panel		**No**
5	**Substation board cable connections**		
5,1	Power cabling entry		**Bottom back**
5,2	Control cabling entry		**Bottom back**
5.3	Cable Type: Feeders		**XLPE**
5.4	Cable Size: Feeders		**TBC**
5.5	Cable Configuration		**Three Core**
5.6	Number of Cores per Phase		**One**
5.7	Type pf termination		**Bolted Lugs**
5.8	Manufacturer of Termination		**Specify**
6	**Panel earthing requirements**		
6,1	Main earth bar	mm^2	**150**
6,2	Cable earth switch		**Yes**
6,3	Busbar earth switch		**No**
7	**Control equipment on panel**		
7,1	Trip/close/neutral switch		**Yes**
7,2	Local/remote switch (lockable)		**Yes**
7.3	Stand Off Open/Close Socket		**Yes**
7.4	Auto/ Manual Selection		**Yes**
7.5	Cable live LEDs, with interlocking contact		**Yes**
7.6	Circuit breaker status LEDs		**Yes**
7.7	Data sheets ad type test certificates attached		**Yes**

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ITEM	**DESCRIPTION**	**UNIT**	**REQUIRED/OFFERED**
8	**Panel Heaters**		
8.1	Location of Heaters - Switch Compartment, 50W		**Yes**
8.2	Location of Heaters - Busbar Compartment		**No**
8.3	Location of Heaters - Cable Compartment, 100W		**Yes**
9	**Auxiliary Breaker Contacts, not used internally**		
9.1	Normally Open 52a	min	**3**
9.2	Normally Closed 52b	min	**3**
9.3	Change Over 52a/b	min	**3**
9.4	HRC Fuse Blown	min	**3**
9.5	HRC Fuse not Blown	min	**3**
10	**Connected Position Limit Switches, not used internally**		
10.1	Closed when connected	min	**3**
10.2	Open when connected	min	**3**
10.3	Change Over 52a/b	min	**3**
11	**Disconnected Position Limit Switches, not used internally**		
11.1	Closed in disconnected position	min	**3**
11.2	Open in disconnected position	min	**3**
11.3	Change Over 52a/b	min	**3**
12	**Earth switch auxiliary contacts, not internally used**		
12.1	Normally Open 57a	min	**3**
12.2	Normally Closed 57b	min	**3**
12.3	Change Over 57a/b	min	**3**
13	**11kV CT Electrical Details**		
	Incomers		
13.1	CT Orientation		**P1 Facing Busbars**
13.2	**Core 0**		**Bay Controller, Protection**
13.2.1	Ratio		**100/1**
13.2.2	Secondary Rating	A	**1**
13.2.3	Burden	VA	**10**
13.2.4	Class		**5P20**
13.3	**Core 1**		**PQ Meter + PFC Controller**
13.3.1	Ratio		**100/1**
13.3.2	Seconday Rating	A	**1**
13.3.3	Burden	VA	**10**
13.3.4	Class		**0,5**

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ITEM	DESCRIPTION	UNIT	REQUIRED/OFFERED
14	**11kV PFC Feeder Protection**		
14.1	**General requirements**		
14.1.1	Manufacturer		
14.1.2	Type or designation		
14.1.3	Country of origin		
14.1.4	Onboard Indoor Protection		**Yes**
14.2	**Minimum Functionality**		
14.2.1	Neutral Current Unbalance Protection		**Yes**
14.2.2	3 Stage 3 Phase Over-current Protection (50/51)		**Yes**
14.2.3	3 Stage Earth Fault Protection (50/51 N)		**Yes**
14.2.4	Harmonic Overcurrent		**Yes**
14.2.5	Under / Over Voltage Protection		**Yes**
14.2.6	Fuse Fail Supervision		**Yes**
14.2.7	Voltage and Current Measuring Functions		**Yes**
14.2.8	3 Phase Power Measuring Functions		**Yes**
14.2.9	Number of Voltage Inputs		**4**
14.2.10	Maximum Power Consumption		
14.2.11	Attach Data Sheet, Technical Specifications and Type Test certificates		**Yes**
14.2.12	Conventional CT and VT inputs		**Yes**
14.2.13	Number of alarm outputs	min	**6**
14.2.14	Number of trip outputs	min	**2**
14.2.15	Number of Inputs	min	**10**
14.2.16	Auxiliary Voltage	V DC	**110**
14.2.17	Communication		**Modbus TCP IP/ BACnet Protocol**
14.2.18	Local time synchronisation via communication port		**Yes**
15	**Bay Control Unit**		
15.1	As per spec		**Yes**
16	**11kV PFC Controller**		
16.1	**General requirements**		
16.1.1	Manufacturer		
16.1.2	Model number		
16.1.3	Country of origin		

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ITEM	DESCRIPTION	UNIT	REQUIRED/OFFERED
16.2	**Minimum Functionality**		
16.2.1	Capacitor Bank Discharge Timer and Close Inhibit		**Yes**
16.2.2	CAP not discharged Alarm		**Yes**
16.2.3	PF target setpoint adjustment		**Yes**
16.2.4	Switching delay timer		**Yes**
16.2.5	Compatable with 12 x switching steps		**Yes**
16.2.6	Provison for key interlocking with capacitor bank door		**Yes**
16.2.7	Attach Data Sheet, Technical Specifications and Type Test certificates		**Yes**
17	**11kV PQ and Stats Metering**		
17.1	PQ and Stats Energy Meter		
17.2	Manufacturer (**PowerLogic PM8000 or similar**)		
17.3	Main Features		**Modbus TCP IPBACnet protocol, 0.5 Accuracy, 31st Harmonics, etc.**
17.4	Installation		**11kV 1.25MVAr Automatic PFC Feeder LV Cubicle Door**

I, the bidder, confirm that the details provided in this data sheet are true and accurate. I further accept that all goods and/or works will be delivered as specified herein. [**Note (1):** SITA reserves the right to verify Data Sheet information] [**Note (2):** First convert to PDF, then add signature]	
	Bidder's Name
	Signature (above)