

03 - SITA Centurion 11kV Main Board - Switchgear Datasheet - Transformer Feeder Panel Requirements



Project: SITA CENTURION
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

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	2.5MVA Transformer 1 Feeder, 2.5MVA Transformer 2 Feeder, 2.5MVA Transformer 3 Feeder, 2.5MVA Transformer 4 Feeder
2.2	Number of identical panels	Number	4
2.3	Transformer Feeder Switch Type		Circuit Breaker
2.4	Interrupting medium		Vacuum
2.5	Insulating medium		Air
2.6	Transformer feeder breaker current rating	A	630
2.7	Low Voltage Compartment Height (max)	mm	
2.8	Busbar Coating		Not required
2.9	Minimum rated short time making current	kA/3s	20kA/ 3s
2.10	Internal ARC classification (AFLR)	kA/1s	20kA/ 1s
2.11	Specific creepage distance	mm/kV	20
2.12	Switchgear and Control Gear Assemblies- compliance with		IEC62271-100
2.13	Switchgear and Control Gear Assemblies: Internal Arc		IEC612271-200 AFLR
2.14	Loss of Service Continuity Category		LSC-2,PM
2.15	Earth Switch Interlocking Coil		Yes
2.16	Racking Interlocking Coil		No
2.17	Conventional CTs and VTs		Yes

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ITEM	DESCRIPTION	UNIT	REQUIRED/OFFERED
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		Yes
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 of termination		Bolted Lugs
5.8	Manufacturer of Termination		
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	Cable live LEDs, with interlocking contact		Yes
7.5	Circuit breaker status LEDs		Yes
7.6	Buchholz Alarm Indication		Yes
7.7	Buchholz Trip Indication		Yes
7.8	Winding Temperature Alarm Indication		Yes
7.9	Winding Temperature Trip Indication		Yes
7.10	Data sheets and 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
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		
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		150/1
13.2.2	Secondary Rating	A	1
13.2.3	Burden	VA	10
13.2.4	Class		5P20
13.3	Core 1		PQ Meter
13.3.1	Ratio		150/1
13.3.2	Secondary 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 Transformer 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	Phase Segregated Differential Protection		No
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	Sustained Earth Fault Protection		No
14.2.5	Under Frequency Protection		No
14.2.6	Directional Over-current Protection		Yes
14.2.7	Directional Earth Fault Protection		Yes
14.2.8	Directional Sensitive Earth Fault Protection		No
14.2.9	Under / Over Voltage Protection		Yes
14.2.10	Fuse Fail Supervision		Yes
14.2.11	Main Trip Circuit Supervision (Dual State)		Yes
14.2.12	Backup Trip Circuit Supervision (Dual State)		Yes
14.2.13	Circuit Breaker Fail Protection		Yes
14.2.14	Voltage and Current Measuring Functions		Yes
14.2.15	3 Phase Power Measuring Functions		Yes
14.2.16	Circuit Breaker Wear Monitor		Yes
14.2.17	Number of Voltage Inputs		4
14.2.18	Maximum Power Consumption		
14.2.19	Attach Data Sheet, Technical Specifications and Type Test certificates		Yes
14.2.20	Conventional CT and VT inputs		Yes
14.2.21	Number of alarm outputs	min	6
14.2.22	Number of trip outputs	min	2
14.2.23	Number of Inputs	min	10
14.2.24	Auxiliary Voltage	V DC	110
14.2.25	Communication		Modbus TCO IP/ BACnet Protocol
14.2.26	Local time synchronisation via communication port		Yes
15	Bay Control Unit		
15.1	As per spec		Yes

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ITEM	DESCRIPTION	UNIT	REQUIRED/OFFERED
16	11kV PQ and Stats Metering		
16,1	PQ and Stats Energy Meter		
16,2	Manufacturer (PowerLogic PM8000 or similar)		
16,3	Main Features		Modbus TCP IP, BACnet protocol, 0.5 Accuracy, 31st Harmonics, etc.
16,4	Installation		11kV Transformer Feeder LV Cubicle Doors
17	Provision for Future Hardwired Downstream		
17,1	Downstream breaker open/ close, racking status and earth switch status displayed on Bay Controller Mimic		Yes
17,2	Circuit Breaker Close blocking when downstream Earth Switch is applied		Yes
17,3	Intertrip receive from downstream		Yes
17,4	Circuit breaker racking, open/close status and earth switch status send to downstream. (Dry contacts)		Yes
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)