

Project :2X500MW thermal power extension project Unit-3 & 4 at Sagardighi- 400KV Switchyard		
Customer :The West Bengal Power Development Corporation Ltd.		
Mandatory Spare /Special Tools and tackles		
S.No.	Description	Quantity
A	420kV Circuit Breaker	
1.	Complete Set of Breaker	1Set(one set means 3-phase
2.	Accumulator with it's Accessories	1Set
3.	Complete Mechanism Box for Breaker	1No.
4.	Closing Coil	10Nos.
5.	Tripping Coil	10Nos.
6.	Power Contactor	2Nos. for each type & rating
7.	Auxiliary Relay Contactor	5Nos. each type
8.	Gas Density Monitor	1No.
9.	Double Interrupter Assembly Complete Set	1Sets
10.	Set of Seals	5Sets
11.	Set of Dynamic Seals	3Sets
12.	Aero-shell Fluid	25Ltrs.
13.	Hollow Column Insulators	2Nos.
14.	SF6 Gas filled Cylinder	3Nos.
15.	Terminal block of Power circuit	100 Nos.
16.	Terminal block of Control circuit	50 Nos.
17.	Complete set of Push Button Switch	2 Nos. for each colour and area of application
18.	Locable Type Switch	5 Nos.
19.	Selector Switch	2 Nos. for each type and area of application
20.	SF6 gas filling & evacuating equipment	1 No.
21.	Portable SF6 gas leakage detectors	2 Nos.
22.	20 % spare SF6 gas plus additional quantities of SF6 gas required for two years operation of all breakers	1 lot
B	420kV Isolator	
1	Isolator Complete Set	1Set. each type(One set means 3 -phase unit)
2	Complete Set of Gear Mechanism along with Link & Nut	3Sets for each type
3	Limit Switch	10Nos.
4	Auxiliary Switch (6 NO + 6 NC) or as applicable)	3Sets for each type
5	Copper contact finger for female contact (applicable for non-pantograph type Isolator)	3Sets for each type
6	Drive Motor	1No.
7	Power Contactor	5Nos.
8	Auxiliary Relay Contactor	10Nos.

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S.No.	Description	Quantity
9	Thermal Over Load Relay	5Nos.
10	Terminal block of Power circuit	100 Nos.
11	Terminal block of Control circuit	50 Nos.
12	Complete set of Push Button Switch	2 Nos. for each colour and area of application
13	Locable Type Switch	5 Nos.
14	Selector Switch	2 Nos. for each type and area of application
C	360kV Surge Arrester	
1	Gapless Lightning Arrestor(360kV, 10kA, class -3) with surge Counter and terminal connector suitable for Twin Moose ACSR conductor	3 nos.
D	420kV post Insulator	
1	420kV Post Insulator Without Corona Rings	6 Nos.
E	400kV Current Transformer	
1	400KV, 2000A ,40kA, 5 core Current Transformer, 1 Phase	1 no
F	CVT (400kV)	
1	400KV , 4400pF CVT, 3 core capacitor voltage transformer , 1 Phase	2 nos
G	500kVA LT Transformer	
1	Special tools & tackles	1 Lot
H	Control and Relay panel	
(i)	Protective relaying	
(a)	Line Protection Relay	1 no. of each type
(b)	Transformer Protection Relay	1 no. of each type
(c)	Busbar Protection Relay	1 no. of each type
(d)	Bay controller	2 nos. of each type
(ii)	Indicating lamps/Switches /Relay /Contactor/MCB/MCCB	1 Lot
(iii)	Special Tools and tackles	1 Lot
Notes:		
1	Loading / Unloading, verification, handling, shifting to & from stores, proper storage, assembly and handing over to customer only are included in the scope for the quantities mentioned under 'Mandatory Spare /Special Tools and tackles.	