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THE FOLLOWING POWER PLANT IS AVAILABLE FOR SALE WITH US WITH IMMEDIATE DELIVERY:

1 No. 60 MW THERMAX Babcock & Wilcox Ltd. (2012) make Captive Power Plant, having the Following Technical Specifications:

TECHNICAL DETAILS:

BOILER	
Make	Thermax Babcock & Wilcox Ltd.
Year of make	2012 Operated till 2024.
Type	Internal Recycle circulating fluidized Bed Boiler (IR-CFB), Single Drum, Natural Circulation, Top supported and Membrane Wall Furnace.
Capacity	240 TPH
Hydraulic Test pressure (at site)	192 ATA
SH Steam outlet Pressure	110 ATA
SH Steam outlet temperature	540±5 °C
Flue gas Temperature at Air Heater O/L	240 °C
Feed water temperature at economizer inlet/spray water temperature	236 °C
Flue gas temperature at APH outlet	140 °C
Start up fuel	LDO
Fuel firing combination	100% Indian Coal & Mix of Indian/Imported coal
Boiler Performance testing procedure	ASME PTC 4.1
Furnace panels - Evaporating heating surface area	3136 m ²
Economiser - Evaporating heating surface area	4346
Super Heater Coil - Evaporating heating surface area	4104

Quantity	1 No. Boiler
No. of burners for boiler	3 No.
Burner mounting and inclination	Mounted on rear wall of the boiler at an elevation of about 1950mm from bed floor top at an inclination of 45°
FUEL FIRING EQUIPMENT	
3 Nos. Wesman D-455 compressed air atomized assisted pressure jet burners, each having of 1500kg/hr at 170psi while operating at register draught loss of 195mmWG with 10% excess air.	
BOILER FEED WATER PUMP	
Make	KSB
Type	HGC 5-10
Rated Flow	302 m ³ /Hr
Rated Head	1632 m
Rated RPM	2876
Quantity	2 x 100%
Motor make	ABB
DRAG CHAIN FEEDER	
Make	Kwality Conveying Systems (P) Ltd.
Conveyor rpm/Speed	0.516 to 3.48 rpm / 0.816 to 5.49 m/min
Geared Motor	7.5 kW with Variable Frequency Drive. Input Speed - 1440 rpm (3 Phase, 415 V & 50 Hz) Frame size- 132M4; Make: ABB
Gear Box (Frame Size/Make)	M-1330-125-BRC-7.5-4S / PBL
Chain	1.25" pitch/ Duplex Roller chain
Sprocket; head & tail	17 nos. teeth(Drive)/ 52 nos. teeth(driven)
ID FAN	
Make	Andrew Yule & Co. Ltd.
Rated Gas Flow	68.24 Kg/s
Fan Speed	946 RPM
Fan Shaft Power	375 kW
Motor make	ABB
Motor Rating	450 KW/6 pole
Quantity	2 X 60%
PA FAN	
Make	Andrew Yule & Co. Ltd.
Rated Flow	28.4 Kg/s
Fan Speed	1428 RPM
Fan Power	800 KW
Motor make	ABB
Motor Rating	800 KW
Quantity	2 X 60%
SA FAN	
Make	Andrew Yule & Co. Ltd.
Rated Flow	20.4 Kg/s
Fan Speed	1423 RPM

Fan Power	425 KW
Motor make	ABB
Motor Rating	425 KW
Quantity	2 X 60%
ASH COOLER FAN	
Make	Andrew Yule & Co. Ltd.
Rated Flow	20 Kg/s
Fan Speed	1480 RPM
Fan Shaft Power	313.5 KW
Motor make	ABB
Motor Rating	360 KW
Quantity	2 X 100%
BED ASH COOLER	
Make	Thermax
No. of Ash Coolers	6 Nos.
Capacity	1.5 Ton/hr @ 1100 kg/m ³
ESP	
Make	Thermax Ltd (Enviro Division)
Design gas volume (Indian Coal)	482400 am ³ /hr
Design gas volume (Waste Coal)	511200 am ³ /hr
Operating flue gas temp.	s
Dust type	Fly ash
Design pressure	±350 mm WC
No. of fields	5 Nos.
Collection area	16861.9 m ²
Maximum Inlet Dust loading	58 gm/Nm ³
Outlet Emission (All Field working at wet basis)	50 Mgm/Nm ³
Outlet Emission (N-1 Field working at wet basis)	100 Mgm/Nm ³
Unburnt carbon in Fly Ash	4%
No. of gas passages	30
Dust density for Power	1200 Kg/m ³
Dust Density for Discharge	800 Kg/m ³
ESP RAPPING SYSTEM	
Make	Thermax
Rapping type	Electro Magnetic impulse type gravity impact (EMIGI)
No. of trapping coils	185
DEAERATOR	
Make	Thermax
Operating Pressure	3.85 kgf/cm ² (g)
Design Pressure	4.30 kgf/cm ² (g)
Design temperature	270 °C
Deaeration capacity	264 TPH
Deaerator Storage capacity	48 m ³ (10 minutes at 100% rating)

Operating temperature -Feed water O/L temperature	150 °C
STEAM TURBINE	
Make	BHEL
Type	HNK 63/91-3
Design Output	60.0 MW
Speed	3000 RPM
Steam Pressure	105 ATA
Steam Temperature	535 °C
Vacuum	0.13 ATA
GENERATOR	
Make	BHEL
Type	TARI 860-33P1
Design Rating	60,000 KW
Nominal Power	75000 KVA
Hz	50
PF log	0.8
Operating Speed	3000 RPM
Cooling System	Water
SURFACE CONDENSER	
Make	BHEL
Type	2 Pass Divided (Sco -2-4192)
Condense ID	3800mm
Size	10300x4500x4400mm
CW flow	10200 m ³ /hr
Working Medium	Fresh Water
CONDENSATE EXTRACTION PUMP	
Make	BHEL
Type	Vertical (3 stage Impeller)
Capacity	223 m ³ /hr
Rated speed	1480 RPM
Rated head	124 m
Motor	150 KW
Quantity	2X 100%
EJECTOR	
Make	BHEL
Type	GJAE-10/300
Operating Steam	10kg/cm ² /300°C
Design Pressure	Shell Side: 3.5kg/Cm ² & Vacuum, Tube Side: 20kg/cm ²
No. of Passes	2
GLAND STEAM CONDENSER	
Make	BHEL
Type	One pass Horizontal
Design Pressure	Shell side: 25 kg/cm ² (g)& full vaccume,

	Tube side: 25kg/cm ²
No. of tubes	142, OD: 19.05mm x 20BWGX x 1500mm length
Design Temperature	Shell side: 235°C, Tube side: 100°
Condensate inlet Temperature	42.0/48.2°C
Condensate outlet temperature	43.5/49.7°C
GSC EJECTOR	
Make	BHEL
Type	One pass horizontal
Steam pressure	10kg/cm ²
Temperature	285°C
Suction pressure	0.9 ATA
Flow	160 m ³ /hr
OIL SYSTEM	
MAIN OIL PUMP (1 NO.)	
Make	Sulzer
Type	ZE-80-2315
Capacity	150 m ³ /hr
Pressure	16 kg/cm ²
Head	102.3 m
KW	75KW
Speed	2960 RPM
AUXILIARY OIL PUMP (1 NO.)	
Make	Sulzer
Type	ZE-80-2315
Capacity	150 m ³ /hr
Pressure	16 kg/cm ²
Head	102.3 m
KW	75KW
Speed	2960 RPM
EMERGENCY OIL PUMP (1 NO.)	
Make	Sulzer
Type	ZE-50-2200
Capacity	40 m ³ /hr
Pressure	16 kg/cm ²
Head	45.5 m
KW	11 KW
Speed	2900 RPM
JACK OIL PUMP (DC & AC) - (1 NO.)	
Make	Tushaco Pumps
Type	HPG-3E
Capacity	3 m ³ /hr
Pressure	147.5 kg/cm ²
KW	18.5 KW
Speed	1475 RPM

OIL COOLER	
Make	BHEL
Type	Vertical & Twin type
Shell side medium	Oil
Tube side medium	Water
Quantity	2 X 100%
WOOD WARD GOVERNOR	
Make	Wood Ward
Type	505
Speed range	0 to 400 RPM
Max Speed	3290 RPM
Controller	PID
OVER SPEED GOVERNOR	
Mechanical eccentric trip weight & electric signaling from governor	
Tripping speed	3300 RPM
COAL HANDLING SYSTEM	
Supplier	Belcosis
Reclaimer	125 TPH
Type	Rail mounted, pylon type scraper reclaimer, with ascending trough.
Reclaimer rated capacity	125 TPH
Reclaimer design capacity	200 TPH
Feed hopper – 1	11 T
Feed hopper – 2	4 T
BC -1	180 TPH
BC -2	130 TPH
BC -3	130 TPH
RBC	60 TPHr
RBF	130 TPH
Vibrating Feeders -1	125 TPH
Vibrating Feeders -1	35 TPH
COAL CRUSHER	
Make	Sayaji
Type	Impact type non reversible
Capacity	132 TPH
No. of decks	2 Nos.
PRIMARY VIBRATING SCREEN	
Make	Sayaji
Type	Double Deck Circular motion
Capacity	162 TPH
Location	Above crusher
Quantity	1 No.
SECONDARY VIBRATING SCREEN	
Make	Sayaji

Type	Flip flow
Capacity	132 TPH
Location	Below crusher
Quantity	1 No.
ASH HANDLING SYSTEM	
Supplier	Mecgale
System type	Pneumatic conveying system
Bed Ash removal up to Silo	14 TPH
Fly Ash removal upto Silo	29 TPH
Bed Ash Silo capacity	300 m ³
Bed Ash Silo size	6m diaX14m height
Fly Ash Silo Capacity	600 m ³
Fly Ash Silo size	8m diaX19m height
Silo type	Metallic
LONG DISTANCE ASH CONVEYOR	
Supplier	Mecgale
Capacity	40 TPH
Feed from	600 m ³ fly ash silo at CPP
Discharge to	Either of cement mill fly ash silos(2 No.s)
Type of system	D-Pump pressurized continuous conveying
COOLING TOWER	
Make	Paharpur cooling towers ltd.
Type	Induced draft, Concrete with PVC fills
Rated water flow through cooling tower	12000 m ³ /hr
No. of cells	4+1
COOLING TOWER FAN MOTOR	
Power	55KW
speed	1475 RPM
No. of fans	5 Nos.
MAIN COOLING WATER PUMP (1,2 & 3)	
Make	BHEL
Discharge	6000 m ³ /hr
Head	30.12MWC
Speed	741 RPM
Motor capacity	675 KW
Quantity	3X 50%
MAIN COOLING WATER PUMP - 4	
Make	WPIL Limited
Discharge	1500 m ³ /hr
Head	30m
Speed	1475 RPM
Motor capacity	180 KW
AUXILIARY COOLING WATER PUMP	
Make	WPIL Ltd
Discharge	600 m ³ /hr

Head	50.18m
Speed	1488 RPM
Motor capacity	132 KW
Quantity	2X 100%
WATER TREATMENT PLANT	
Supplier	M/S DOSHION VIOLIA SOLUTIONS
MB O/L	10 m ³ /hr
RO Unit	13.83 m ³ /hr
UF Unit	14.3 m ³ /hr
SERVICE AIR COMPRESSORS	
Make	Ingersoll Rand
Type	R160L - X 7.5AC
Capacity	29.49 m ³ /min
Operating pressure	7.0 bar G
Discharge pressure	7.5 bar G
Rating	160 KW
Quantity	2+1
INSTRUMENTATION AIR COMPRESSORS	
Make	Ingersoll Rand
Type	R110L - X 85AC
Capacity	19.2 m ³ /min
Operating pressure	8.0 bar G
Discharge pressure	8.5 bar G
Rating	110 KW
Quantity	2x 100%
EOT CRANE	
Make	Shivpra Cranes Pvt Ltd
Type of crane	Double Girder Box type EOT crane
Capacity	45/5 Ton
Span	19.50m
Height of lift (Main Hoist)	17.5m
Height of lift (Aux. Hoist)	17.5m
Bay Length	57.0 m
Location	Indoor
Operation	Push Button Pendent Operated
HVAC SYSTEM	
Supplier	SK Systems Pvt ltd
AIR WASHER UNIT	
Fan type	DIDW Centrifugal
Capacity	60000 m ³ /hr
Static pressure	50mmWG
Dynamic pressure	7.1mmWG
Fan speed	671 RPM
Shaft power	16 BHP
Motor rating	20 hp/4 pole

Drive arrangement	V belt
Quantity	1+1
DCS	
Make	Emerson
Software	Ovation
High speed (10 M Hz) serial data network and having Redundancy O-net : IEEE 802.3 standard Ethernet complaint, supports TCP / IP Communication protocol and operates at 100 mbps rate with redundant facilities.	
No. of controllers	10 Nos. (Including redundancy)

PHOTOS:

























