

## KHARTOLI LUMTI TALLI H.E. PROJECT

### SALIENT FEATURES

#### LOCATION

State	Uttaranchal
District	Pithoragarh
River	Goriganga (Sarda Basin)
Dam site	Near village Dhamigaon on Goriganga river D/s of confluence of Chipla Dhar Nala with Goriganga river
Nearest Airport	Delhi
Nearest rail head	Tanakpur
Location of dam site	
Latitude	29°54' 50" N
Longitude	80°18' 44" E

#### HYDROLOGY

Catchment area at dam site	1855 sq km
Maximum average Discharge at dam site	124.23 cumec
Minimum average Discharge at dam site	49.15 cumec

#### RESERVOIR

Full reservoir level (FRL)	976 m
Minimum drawdown level (MDDL)	970 m
Gross storage at FRL	13.2 M cum
Live storage	4.69 M cum
Area under Submergence at FRL	80 ha

#### DIVERSION TUNNEL

Number	1
Size	9.0 m
Length	705 m
Diversion discharge	390 cumec

#### DAM

Type	Concrete gravity
Top elevation of dam	980 m
Height of dam above deepest foundation level	60 m
Length of dam at top	294 m
River bed level	940 m

## SPILLWAY

Design flood	7968.95 cumec
Type	Ogee spillway
Crest elevation	960 m
Number of blocks	4 bays in 5 blocks
Length of spillway	75 m
Energy dissipation	Stilling basin

## INTAKE

Invert level of trashrack	957.4 m with intake invert at E.L. 961.0 m
Number	2
Size of gate opening	4.4m x 4.4m
Trash rack	5m x 12.6m x 5 nos.

## DESILTING CHAMBER

Number	2
Size	12.5m (W) x 18m (D)
Length	197 m
Design discharge	135.1 cumec
Particle size to be removed	0.3 mm and above

## HEAD RACE TUNNEL

Number	1
Size	5.75 m
Shape	Horse Shoe
Length	1 km

## SURGE SHAFT

Number	1
Size	16 m dia
Height	50 m

## PRESSURE SHAFT CUM PENSTOCK

Numbers	2
Size	3.5 m
Length	85 m

## POWER HOUSE

Type	Surface
Installed capacity	55 MW
Number of units	2



Power house size	59 m x 18 m
Type of turbine	Vertical Francis
C.L. of turbine	906 m
Rated Head	56.6 m

### **TAIL RACE**

Size	15.0 m x 3.0 m
Type	Open channel
Length	220 m
Design Discharge	109.6 cumec
River Bed Level	908 m
Normal TWL	913 m

### **SWITCHYARD**

Size	200 m x 150 m
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### **POWER GENERATION**

Installed capacity	55 MW
Annual energy generation	
i) 90% dependable year	241.51 GWh
ii) Energy in 90% year	234.41 GWh
on 95% availability	

<b>CONSTRUCTION PERIOD</b>	4 ½ years
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