

RUPSIABAGAR – KHASIYABARA H.E. PROJECT

SALIENT FEATURES

LOCATION

State	Uttaranchal
District	Pithoragarh
River	Goriganga (Sarda basin)
Dam site	Near village Paton on Goriganga river
Nearest Airport	Delhi
Nearest rail head	Tanakpur
Location of dam site	
Latitude	30°11' 06" N
Longitude	80°14' 16" E

HYDROLOGY

Catchment area at dam site	1235 sq km
Maximum average Discharge at dam site	82.71 cumec
Minimum average Discharge at dam site	32.72 cumec

RESERVOIR

Full reservoir level (FRL)	1720 m
Minimum drawdown level (MDDL)	1713 m
Gross storage at FRL	7.48 M cumec
Live storage	1.48 M cum
Area under Submergence at FRL	22.40 ha

DIVERSION TUNNEL

Number	1
Size	6.0 m dia
Length	715 m
Diversion discharge	287 cumec

DAM

Type	Concrete gravity
Top elevation of dam	1723 m
Height of dam above deepest foundation level	103 m
Length of dam at top	272 m
River bed level	1640 m

SPILLWAY

Design flood	4312.7 cumec
Type	Ogee spillway
Crest elevation	1703 m
Number of bays	3
Length of spillway	54 m
Energy dissipation	Ski jump bucket

INTAKE

Invert level	1704 m
Number	2
Size of gate opening	3.5 m x 3.5 m
Trash rack	5 m x 9 m x 4 nos.

DESILTING CHAMBER

Number	2
Size	9 m (w) x 15 m (d)
Length	266 m
Design discharge	40.22 cumec each
Particle size to be removed	0.2 mm and above

HEAD RACE TUNNEL

Number	1
Size	4.5 m dia
Shape	Horse shoe
Length	7.22 km

SURGE SHAFT

Number	1
Size	12 m dia
Height	80 m

PENSTOCK

Numbers	1
Size	3.9 m dia
Length	880 m

POWER HOUSE

Type	Surface
Installed capacity	260 MW



Number of units	2
Power house size	69 m x 19.5 m
Type of turbine	Vertical francis
C.L. of turbine	1232 m
Rated head	449.47 m

TAIL RACE

Size	12 m bed width
Type	Open channel
Length	45 m
Design discharge	64.35 cumec
River Bed Level	1235 m
Normal TWL	1240 m

SWITCHYARD

Size	150 m x 150 m
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POWER GENERATION

Installed capacity	260 MW
Annual energy generation	
i) 90% dependable year	1195.63 GWh
ii) Energy in 90% year on 95% availability	1157.58 GWh

CONSTRUCTION PERIOD	5 years
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