

SIRKARI BHYOL RUPSIABAGAR H.E. PROJECT

SALIENT FEATURES

LOCATION

State	Uttaranchal
District	Phitoragarh
River	Goriganga
Dam site	U/S of confluence of Ralam Gad With Goriganga river

Nearest Airport	Delhi
Nearest rail head	Tanakpur
Location of dam site	
Latitude	30°11' 6" N
Longitude	80°14' 16" E

HYDROLOGY

Catchment area at dam site	1160 sq kms
Maximum average Discharge at dam site	77.68 cumec
Minimum average Discharge at dam site	30.73 cumec

RESERVOIR

Full reservoir level (FRL)	2120 m
Minimum drawdown level (MDDL)	2110 m
Gross storage at FRL	3.74 M cum
Live storage	1.17 M cum
Area under Submergence at FRL	12.80 ha

DIVERSION TUNNEL

Number	1
Size	7.5 m dia
Length	550 m
Diversion discharge	274 cumec

DAM

Type	Concrete gravity
Top elevation of dam	2123 m
Height of dam above deepest foundation level	103 m

Length of dam at top	232 m
River bed level	2040 m

SPILLWAY

Design flood	3681.71 cumec
Type	Ogee
Crest elevation	2101 m
Number	2 bays in 3 blocks
Length of spillway	46 m
Energy dissipation	Ski jump bucket

INTAKE

Invert level	2102 m
Number	2
Size of gate opening	3.25 m x 3.25 m
Trash rack	4.5 m x 8 m x 10 nos.

DESILTING CHAMBER

Number	2
Size	9 m x 14 m
Length	250 m
Design discharge	37.54 cumec each
Particle size to be removed	0.20 mm and above

HEAD RACE TUNNEL

Number	1
Size	4.5 m dia
Shape	Horse shoe
Length	800 m

SURGE SHAFT

Number	Not required
Size	
Height	

PRESSURE SHAFT

Numbers	1
Size	3.75 m dia
Length	580 m

POWER HOUSE



Type	Underground
Installed capacity	210 MW (3 x 70)
Number of units	3
Power house cavern size	16.5 m x 88 m
Type of turbine	Vertical francis
C.L. of turbine	1711.50 m
Rated head	388.97 m

TAIL RACE

Size	4.5 m dia
Type	Tunnel
Length	370 m
Design discharge	60.06 cumec
River Bed Level	1716 m
Normal TWL	1720 m

SWITCHYARD

Size	GIS on the floor above the transformers in transformer cavern of 16 m x 58 m
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POWER GENERATION

Installed capacity	210 MW
Annual energy generation	
i) 90% dependable year	967.97 GWh
ii) Energy in 90% year	937.23 GWh
on 95% availability	

CONSTRUCTION PERIOD	5 ¾ years
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