

DEVASARI H.E. PROJECT (3X100 =300MW)

SALIENT FEATURES

LOCATION

State	Uttaranchal
District	Chamoli
River	Pindar

DAM SITE

Location	D/S of confluence of Kail Ganga with Pindar river
Latitude	30° 02' 40"N
Longitude	79° 34' 25"E
Nearest Airport	Dehradun
Nearest rail head	Rishikesh

HYDROLOGY

Catchment area at dam site	1115 sq km
Maximum average discharge at dam	211.0 cumec
Minimum average discharge at dam site	10.0 cumec

RESERVOIR

Full Reservoir Level (FRL)	El 1370.0 m
Minimum Drawdown level (MDDL)	El 1355.0 m
Gross storage at FRL	192 M cum
Live storage	83.5 M cum
Area under Submergence at FRL	522 ha

DIVERSION TUNNEL

Number	1
Size	4.0 m
Length	450 m
Diversion discharge	55.0 cumec

DAM

Type	Gravity Concrete Dam
Top elevation of dam	El 1375 m
Height of dam above river bed level	90 m
Length of dam at top	314 m
River bed level	El1285 m

SPILLWAY

Design flood	9010 cumec
Type	Sluice
Sluice Crest elevation	El 1330.0 m
Number of sluice	8 of 5.5 m x 8.0 m
Length of water way	44 m
Energy dissipation type	Stilling basin
No. of ogee spillway	1 of 15.0 m x 11 m
Ogee crest elevation	1362 m

INTAKE

Invert level	EL 1341.0 m
Number	1
Size of gate	7.0 m x 7.0 m
Trash rack	5 Nos. x 6.5 m x 20.0 m
Design discharge	149.35 cumecs

HEAD RACE TUNNEL

Number	1
Size	6.75 m
Shape	Horse shoe
Length	7.37 km
Design discharge	149.35 cumecs

SURGE SHAFT

Number	1
Size	14 m
Height	127 m

PRESSURE SHAFT

Numbers	1
Size	5.5 m
Length	450 m

POWER HOUSE

Type	Underground
Installed capacity	300 MW
Number of units	3
Power house cavern size	100 m x 20 m x 36 m
Type of turbine	Vertical Axis Francis
C.L. of turbine	El 1113 m
Rated Head	227.5 m

TAIL RACE

Size	7 m
Type	Horse - shoe
Length	1080 m
Design Discharge	149.35 cumecs
River Bed Level	1115 m
Maximum TWL	1120.0 m

SWITCHYARD

Size	Gas Insulated Switchyard (GIS) on the floor above the transformer/s in P/H cavern
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POWER GENERATION

Installed capacity	300 MW (3x100 MW)
Annual energy generation	
i) 90% dependable year	878.50 GWh
ii) Energy in 90% year on 95% availability	856.54 GWh

CONSTRUCTION PERIOD

5 years