

The Salient Features of the Project

1	Location	
	State	Arunachal Pradesh
	District	Lohit
	Village	Parasuram Kund/ Brahma Kund
	Access	
	Airport	Dibrugarh - 215 km (Guwahati to Dibrugarh = 550 Km)
	Rail Head	Tinsukia - 160 km
	Road Head	Parasuram Kund – 1 km
	Geographical co-ordinates of Dam Site	
	Latitude (N)	270 52' 48"
	Longitude (E)	960 22' 39"
	Map reference	Survey of India topo-sheet 92A/5
2	Meteorology	
	Average Rainfall	3000 mm
	Maximum Rainfall	5000 mm
	Minimum Rainfall	2500 mm
	Atmospheric Temperature	
	Average Maximum Temp.	39 degree C (at Tezu)
	Average Minimum Temp.	8 degree C (at Tezu)
3	Hydrology	
	Catchment Area	20,174 sq. km
	PMF	28,500 cumecs
4	Reservoir	
	Maximum Water Level	EL. 424.80 m
	Full Reservoir Level	EL. 424.80 m
	Minimum Drawdown Level	EL. 408.00 m
	Water Spread at FRL	1131 Hectare

	Storage at MWL	516.38 MCM
	Storage at FRL	516.38 MCM
	Storage at MDDL	345.18 MCM
	Live Storage	171.20 MCM
5	Dam	
	Type	Concrete Gravity
	Length at top	474.35 m
	Overflow	219.70 m
	Non-overflow	254.65 m
	Top Width	6.00 m
	Top of Dam	EL. 426.80 m
	Maximum Height above deepest foundation	163.12 m
	River Bed Level (average)	EL. 300.00 m
6	Coffer Dam	
	a. Upstream Coffer Dam	
	Type	Dumped Rockfill with upstream face R.C.C. membrane and Concrete core wall and jet grouting in foundation
	Maximum Height	31.10 m
	Length	229.15 m
	Top Width	6.00 m
	b. Downstream Coffer Dam	
	Type	Dumped Rockfill with R.C.C membrane on downstream face
	Maximum Height	7.00 m
	Length	252.89 m
	Top Width	6.00 m
7	Spillway	
	Type	Sluice spillway / Surface Spillway type

	No. Of Gates	Surface Ogee type– 1No. Sluice type – 12 Nos.
	Size of Gates	Surface Ogee -12.5m(W) X18.0 m(H) Sluice type-8.6m (W) X 11.0 m (H)
	Crest Level	Surface Ogee type – EL. 406.80 m Sluice type – EL. 360.00 m
8	Diversion Tunnels	
	Nos, Size & Shape	5Nos.-14.0m diameter Horse Shoe shaped on right bank and 1No.-6.00m diameter Horse Shoe shaped on left bank.
	Length	Average length of 14.0m diameter horse shoe shaped tunnels - 1025.0m 6.0m diameter – 900.0 m
	Diversion Discharge	12600.00Cumecs
9	Power Intake	
	Type and Location	Rectangular forebay type with inclined trash rack on right bank of Lohit River and inclined at 105 degree to dam axis.
	Size	160 m long, 32.57m wide and 48.8 m high
10	Pressure Shafts	
	Nos., Diameter and type	5 Nos.,10.0 m diameter, Underground
	Length	Length varying from 550.0m to 640.0m
	Liner	Steel liner of varying thickness of 28 mm to 36 mm
11	Power House	
	Type and Location	Surface powerhouse on right bank of Lohit River about 650.0 m downstream of dam axis
	Design Discharge	1729 cumecs at design head of 112.0m
	Design Head	112.0 m (net)
	Size	PH Hall:200.57 m (l) x 28m (w) x 50m(h)
	Type of Turbine and no. of units	Vertical Francis, 5 units of 342 MW each

		+ 1 unit of 40 MW
	Installed Capacity	1750 MW
	Turbine Centre Line Level	EL. 291.90 m
	Service Bay Level	EL. 306.60 m
	Minimum Tail Water Level	EL. 297.90 m
12	Tailrace	
	Details	Open channel, 165 m wide, 130 m long
13	Power Generation	
	Rated net head at Design Discharge	112.0 m
	Installed Capacity	5 X 342 MW +1 X 40 MW = 1750 MW
	Design Energy: Annual generation in 90% Dependable Year at 95% plant availability	6322 Million Units