

Horizontal Generation Units Option-2016.04.20

1. Basic Data	Large Generator	Small Generator	
	Large Turbine	Medium Turbine	Small Turbine
Rated Head	110 ft	110 ft	110 ft
Maximum Head	130	130	130
Minimum Head	70	70	70
Rated Flow	158-450 cfs	91-260 cfs	35-100 cfs
2. Turbine			
Type	Horizontal Francis	Horizontal Francis	Horizontal Francis
Runner Diameter D ₁	1380 mm	1050 mm	880 mm
Rated Speed	327.3 rpm	450 rpm	450 rpm
Runaway Speed	665 rpm	875 rpm	875 rpm
Cavitation σ_c	0.135	0.135	0.05
Turbine Setting	Above TWL 2.0m	Above TWL 2.0 m	Above TWL 2.0 m
Weight of Runner	2000 kg	1000 kg	700 kg
Weight of Elbow	4000 kg	2000 kg	1200 kg
3. Generator			
Type	Horizontal Synchronous	Horizontal Synchronous	
Rated Capacity	4444 kVA	3889 kVA	
Rated Power	4000 kW	3500 kW	
Rated Voltage	4160 V	4160 V	
Rated Current	616.8 A	539.7 A	
Rated Speed	327.3 rpm	450 rpm	
Runaway Speed	665 rpm	875 rpm	
Power Factor	0.9	0.9	
Frequency	60 Hz	60 Hz	
Rated Efficiency	96.0%	96.0%	
Exciting System	Static	Static	