

PMT MEMPHYS

v2

One Shaft		
Shaft Dimension	<i>External Diameter (m)</i>	65,00
	<i>External Height (m)</i>	65,00
	<i>PMT distance (m)</i>	2,00
	<i>Veto extra distance (m)</i>	3,00
	Total Water Vol. (kT)	216
	Fiducial Volume (kT)	131
	PMT Surface (m2)	17535

20" parameters	<i>Coverage (%)</i>	40,00
	<i>Photocathode Surface (cm2)</i>	1660,00
	<i>Quantum efficiency (%)</i>	20,00
	<i>Collection efficiency (%)</i>	60,00
	<i>Price (€)</i>	2 500

12" parameters	Coverage deduced (%)	28,57
	<i>Photocathode Surface (cm2)</i>	615,00
	<i>Quantum efficiency (%)</i>	24,00
	<i>Collection efficiency (%)</i>	70,00
	<i>Price (€)</i>	800

Number of PMTs	Number of 20"	42253
	Granularity increment 12"/20"	1,93
	Number of 12"	81462

Prices	Total Price of 20" only (M€)	105,63
	Total Price of 12" only (M€)	65,17
	Electronic + HV + Mechanics upper limit (€)	1032
	Electronic + HV + Mechanics (€)	500
	Total Price of 20" + electronics + ... (M€)	126,76
	Total Price of 12" + electronics + ... (M€)	105,90

Multi Shafts				
Number of shafts	Total Fiducial Volume (kT)	Total Number of 12"	Total Price Photocaptor (M€)	
1	131	81462	106	
2	261	162925	212	
3	392	244387	318	
4	523	325850	424	
5	653	407312	530	