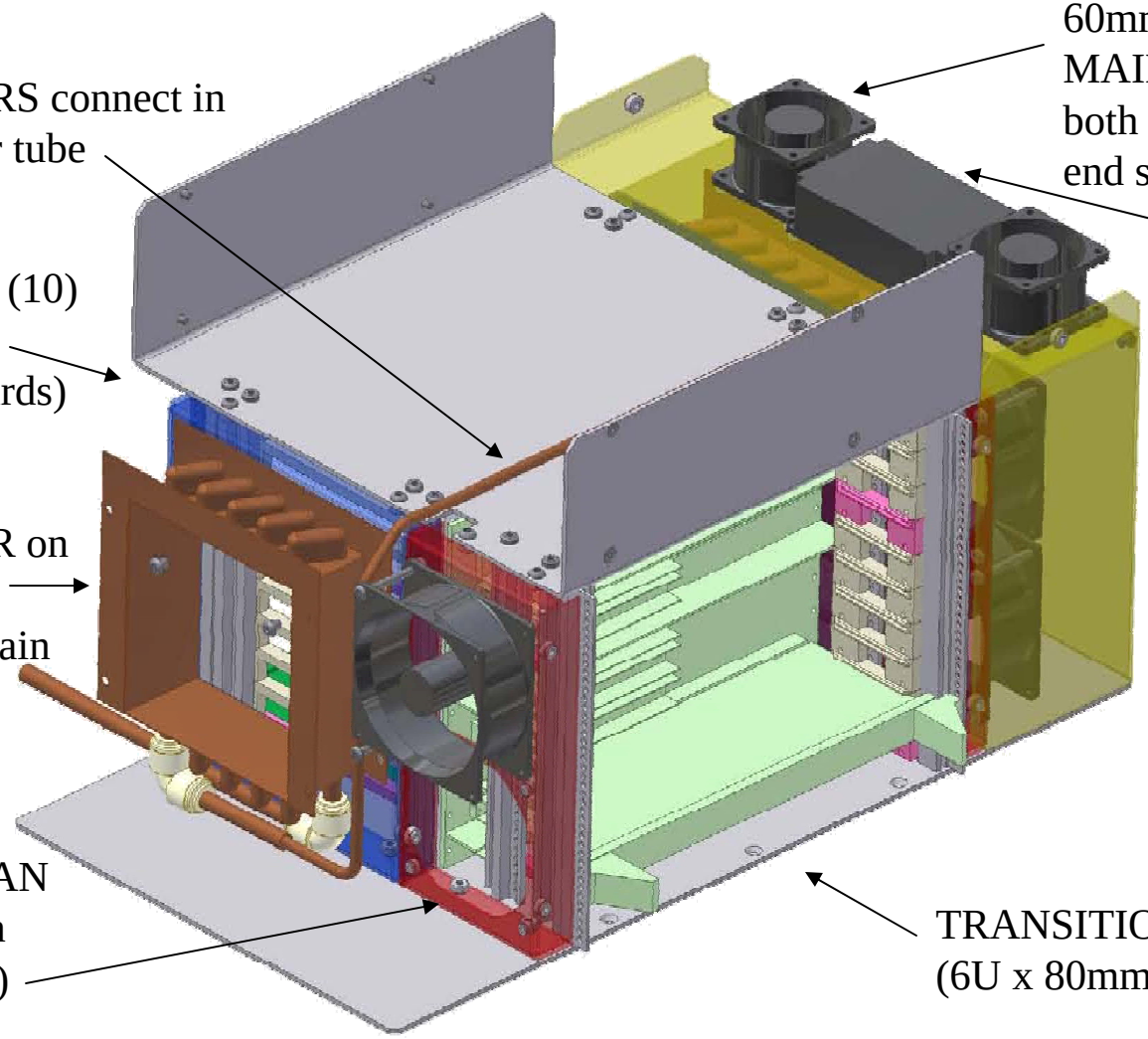
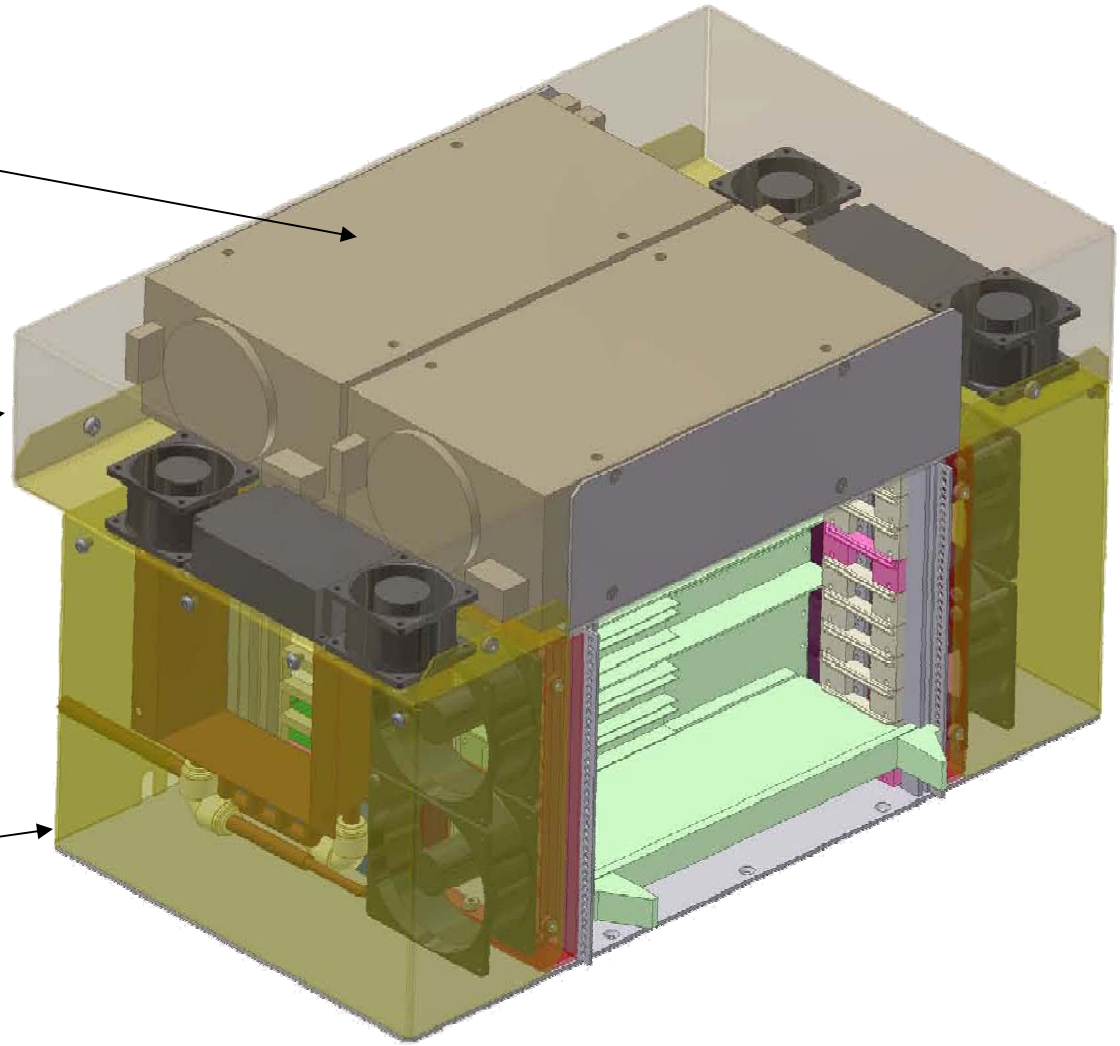
Monsoon 80mm Crate Air Flow

Crate Parts

DARK ENERGY SURVEY

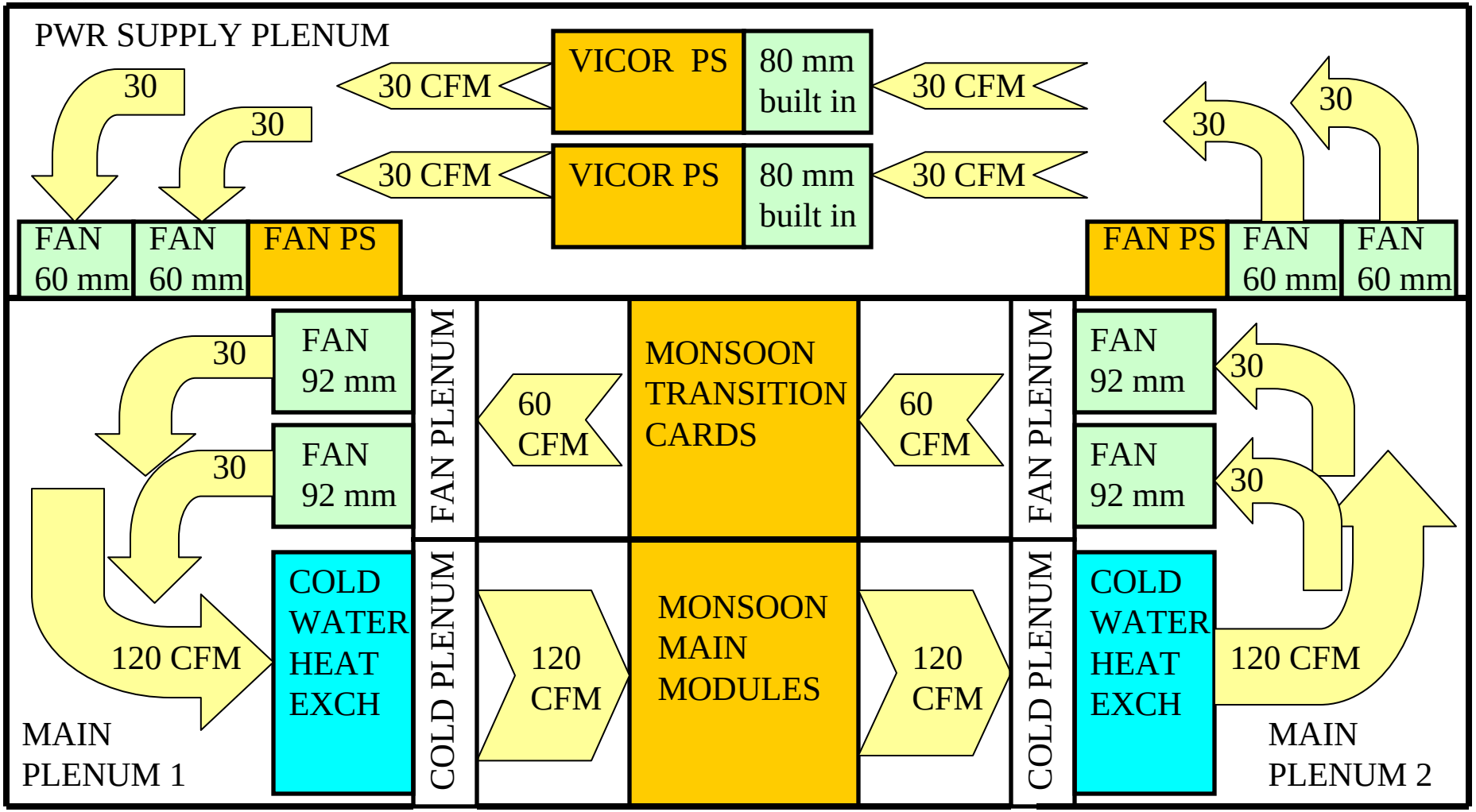


Crate (without shield)



Air Flow Diagram

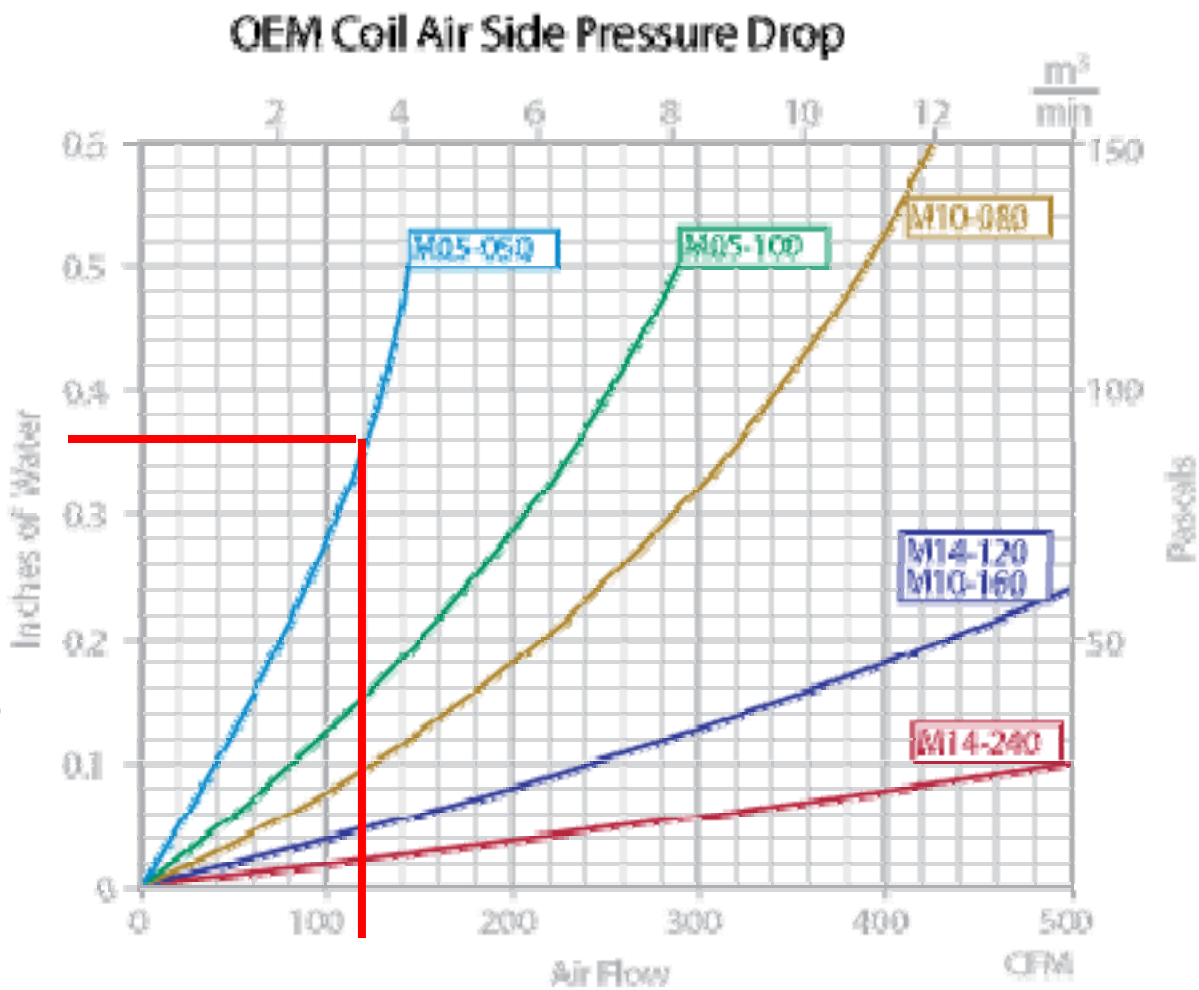
DARK ENERGY SURVEY



Heat Exchanger Air Side Pressure Drop

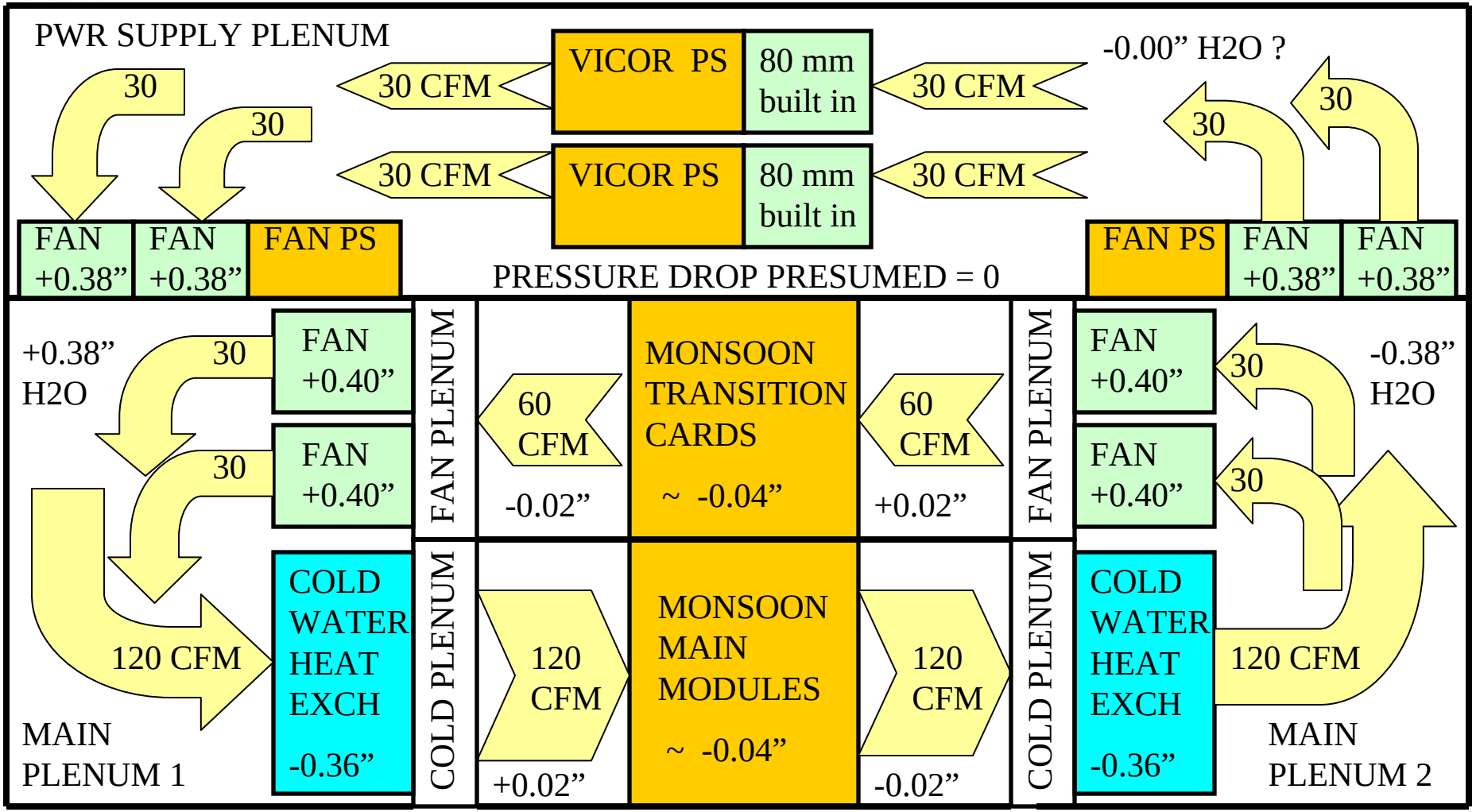
The design uses a Lytron M05-050 heat exchanger

For the target of 120 CFM air flow, the pressure drop is about 0.36 inches of water



Air Pressure Diagram

DARK ENERGY SURVEY



92 mm FAN Requirements

DARK ENERGY SURVEY

DELTA

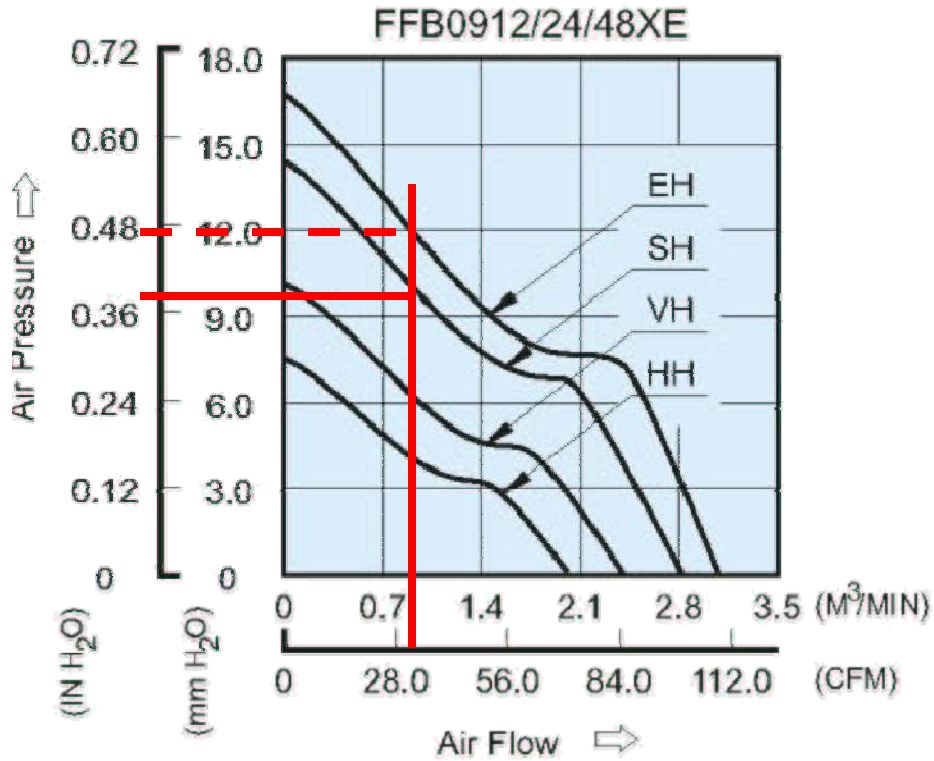
FFB 92 x 92 x 38 MM SERIES

■ P & Q CURVE (AT RATED VOLTAGE)

92mm FANS must do 0.40” H2O @ 30 CFM

FFB0924SHE should work

If necessary, FFB0924EHE works up to 0.48”



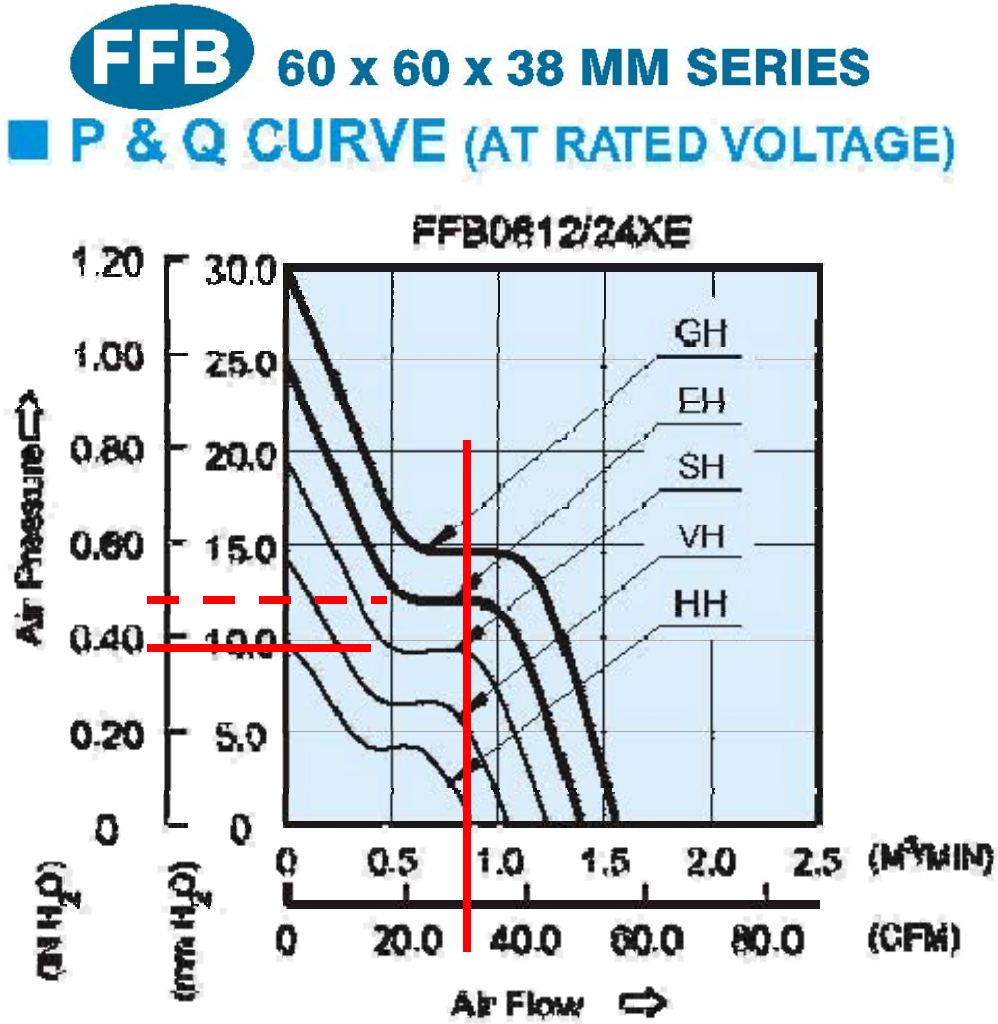
60 mm FAN Requirements

DARK ENERGY SURVEY

60 mm FANS must do 0.38” H2O @ 30 CFM

FFB0624SHE should work

If necessary, FFB0624EHE ok to 0.48”



92 & 60 mm DELTA fans available

DARK ENERGY SURVEY

92 mm

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m^3 /min	CFM	mmH_2O	IN H_2O	dB-A
FFB0912HHE	-R00 / -F00	12	7.0 to 13.8	0.35	4.20	3200	2.030	71.69	7.58	0.298	42.5
FFB0924HHE	-R00 / -F00	24	14.0 to 27.6	0.18	4.32						
FFB0948HHE	-R00 / -F00	48	28.0 to 56.0	0.10	4.80						
FFB0912VHE	-R00 / -F00	12	7.0 to 13.8	0.50	6.00	3800	2.420	85.46	10.30	0.406	47.5
FFB0924VHE	-R00 / -F00	24	14.0 to 27.6	0.28	6.72						
FFB0948VHE	-R00 / -F00	48	28.0 to 56.0	0.14	6.72						
FFB0912SHE	-R00 / -F00	12	7.0 to 13.8	0.75	9.00	4400	2.840	100.29	14.53	0.572	52.5
FFB0924SHE	-R00 / -F00	24	14.0 to 27.6	0.40	9.60						
FFB0948SHE	-R00 / -F00	48	28.0 to 53.0	0.20	9.60						
FFB0912EHE	-R00 / -F00	12	7.0 to 13.8	1.00	12.00	4800	3.120	110.18	16.90	0.665	55.0
FFB0924EHE	-R00 / -F00	24	14.0 to 27.6	0.50	12.00						

60 mm

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m^3 /min	CFM	mmH_2O	IN H_2O	dB-A
FFB0612HHE	-R00 / -F00	12	4.5 to 13.8	0.23	2.76	5000	0.870	30.72	9.87	0.388	40.5
FFB0624HHE	-R00 / -F00	24	14.0 to 26.4	0.13	3.12						
FFB0612VHE	-R00 / -F00	12	4.5 to 13.8	0.34	4.08	6000	1.040	36.73	13.34	0.525	46.5
FFB0624VHE	-R00 / -F00	24	14.0 to 26.4	0.17	4.08						
FFB0612SHE	-R00 / -F00	12	4.5 to 13.8	0.55	6.60	7000	1.230	43.44	19.45	0.766	50.5
FFB0624SHE	-R00 / -F00	24	14.0 to 26.4	0.27	6.48						
FFB0612EHE	-R00 / -F00	12	4.5 to 13.8	0.80	9.60	8000	1.420	50.15	24.70	0.972	54.5
FFB0624EHE	-R00 / -F00	24	14.0 to 26.4	0.38	9.12						
FFB0612GHE	-R00 / -F00	12	4.5 to 13.8	0.93	11.16	9000	1.550	54.74	30.02	1.182	60.0