

## Johnson Controls – Hitachi Air Conditioning



**SET FREE  $\Sigma$  (Gen 2 ODU) : HAPQ  $\rightarrow$  JCH-IN**






**HITACHI**  
Air conditioning solutions

# New SET FREE $\Sigma$ Range

**HITACHI**  
Air conditioning solutions

HP		8	10	12	14	16	18	20	22	24		
SET FREE FSXNK	Appearance											
	Dimension (WxDxH)	950 x 765 x 1720		1210 x 765 x 1720								
	Compressor	INV-50CC	INV-65CC		INV-65 + Const-E655		INV-65 + Const-E855					
	Heat Exchanger	2 Row	3 Row	3 Row								
	Fan Quantity (Dia.)	1 No. (644 mm)										

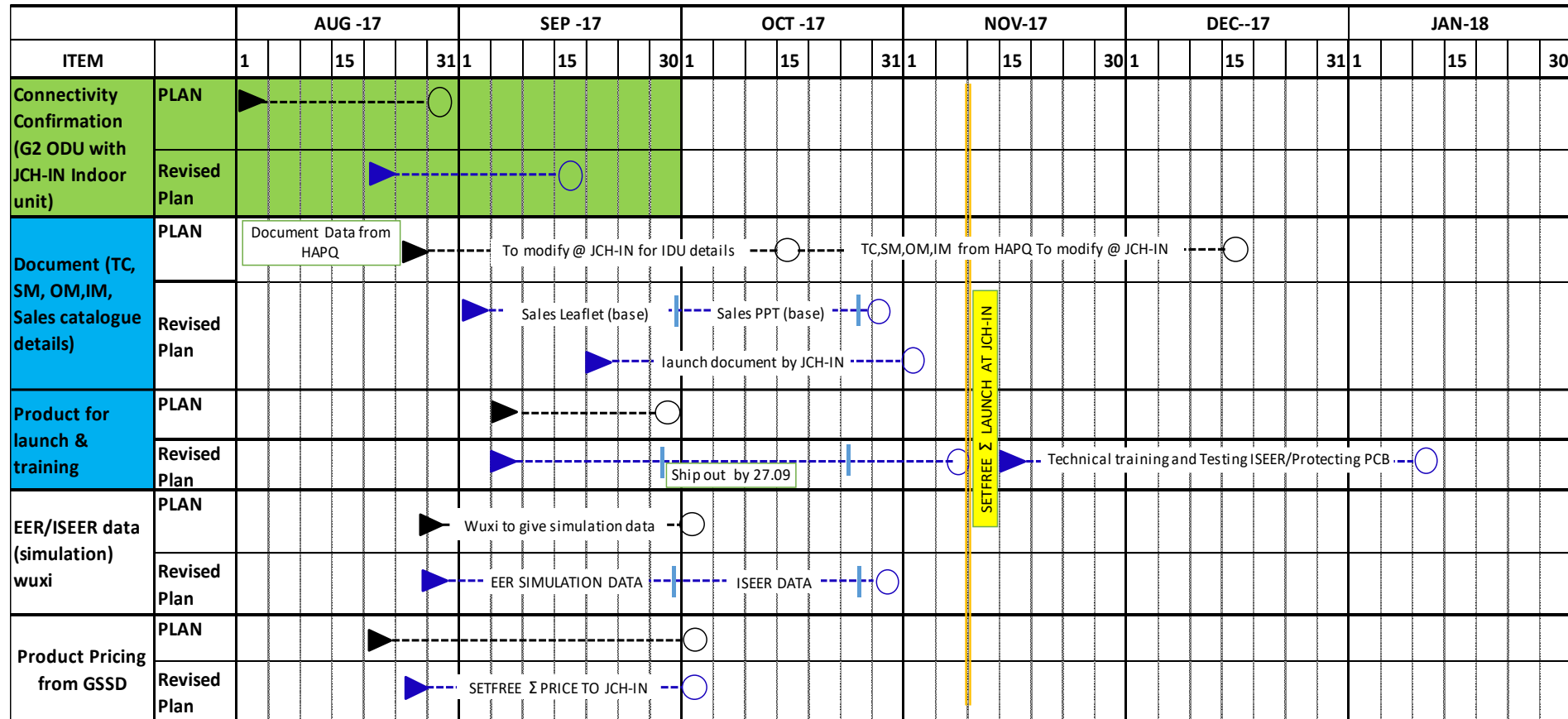
SET FREE $\Sigma$	Appearance						
	Dimension (WxDxH)	950 x 765 x 1725		1210 x 765 x 1725		1600 x 765 x 1725	
	Compressor	AA50PHD		DC80PHD		AA50PHD + AA50PHD	DC80PHD+DC80PHD
	Heat Exchanger	2 Row (U shape)		3 Row (U shape)	3 Row (W Shape)		3 Row (W Shape)
	Fan Quantity (Dia.)	1 No. (644mm)		2 No. (544 mm)		2 No. (644mm)	

➤ SET FREE  $\Sigma$  modular ODU combination goes upto 96 HP (24HPx4).

➤ SET FREE  $\Sigma$  modular ODU working range is upto 48 DegC (stable) and 52 DegC (Interval)

# SET FREE Σ launch activity plan

SETFREE Σ (WUXI base Design) to JCH-IN ( 8.0 HP to 24 HP )

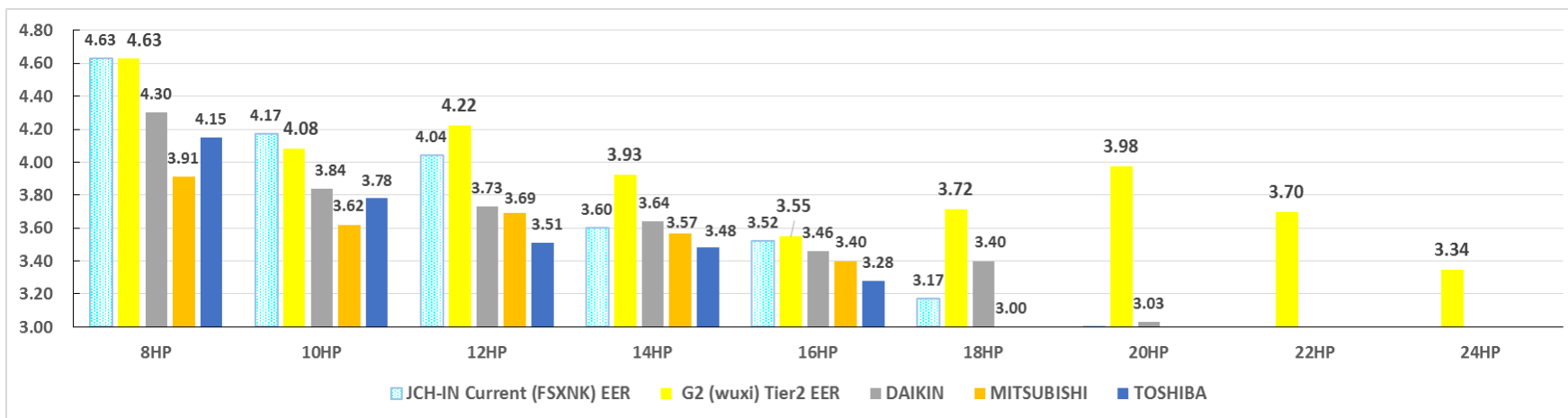


- HAPQ dispatched sample odu on 5<sup>th</sup> Oct'17 for launch.
- Global Marketing team provided sales leaflet by Sept' end and will provide base sales PPT by Oct' end. JCH-IN to modify content & prepare for launch sales catalogue and PPT.

# Performance Comparison

## Cooling EER

Item s	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP
DU Com bination	1.0HP x1	1.5HP x1	1.5HP x4	1.5HP x2	1.5HP x1	3.0HP x3	1.5HP x2	1.5HP x1	3.0HP x3
	1.5HP x1	3.0HP x3	3.3HP x2	3.0HP x4	3.0HP x4	3.3HP x3	3.0HP x6	3.0HP x6	3.3HP x5
	3.0HP x2				3.3HP x1			3.3HP x1	
G 2 (wuxi) Tier2 EER	4.63	4.08	4.22	3.93	3.55	3.72	3.98	3.70	3.34
JCH-N Current (FSXNK)	4.63	4.17	4.04	3.60	3.52	3.17	Module Com bination		
DAK N	4.30	3.84	3.73	3.64	3.46	3.40	3.03	Module Com bination	
M ITSUB SHI	3.91	3.62	3.69	3.57	3.40	3.00	Module Com bination		
TOSH BA	4.15	3.78	3.51	3.48	3.28	Module Com bination			



- SET FREE Σ series (G2 ODU) EER is simulation data considering HAPQ K3 4 way cassette unit.
- JCH – IN has asked to provide data using best cassette Indoor unit.

# Gen 2 ODU (Open discussion points)

## Sales price to JCH-IN:

- JCH-IN is waiting for final sales price of the Gen2 ODU from GSSD.

# Gen 2 ODU (Open discussion points)

## **ISEER Data from Wuxi:**

- Wuxi Shared ISEER data on 23<sup>rd</sup> Oct'17, Discussion is ON to understand the data as deration at 39 DegC seems to be higher than existing JCH-IN (FSXNK ) ODU
- We have asked Wuxi to share comparative EER/ISEER simulation data using similar configuration of cassette IDUs as used by SMZ for FSXNK data calculation.

## **Technical Training to JCH-IN Team:**

- We are discussing Wuxi/HAPQ technical member to visit JCH-IN to give technical training to Design/service and sales team members (sample odu received for Launch can be used for training).

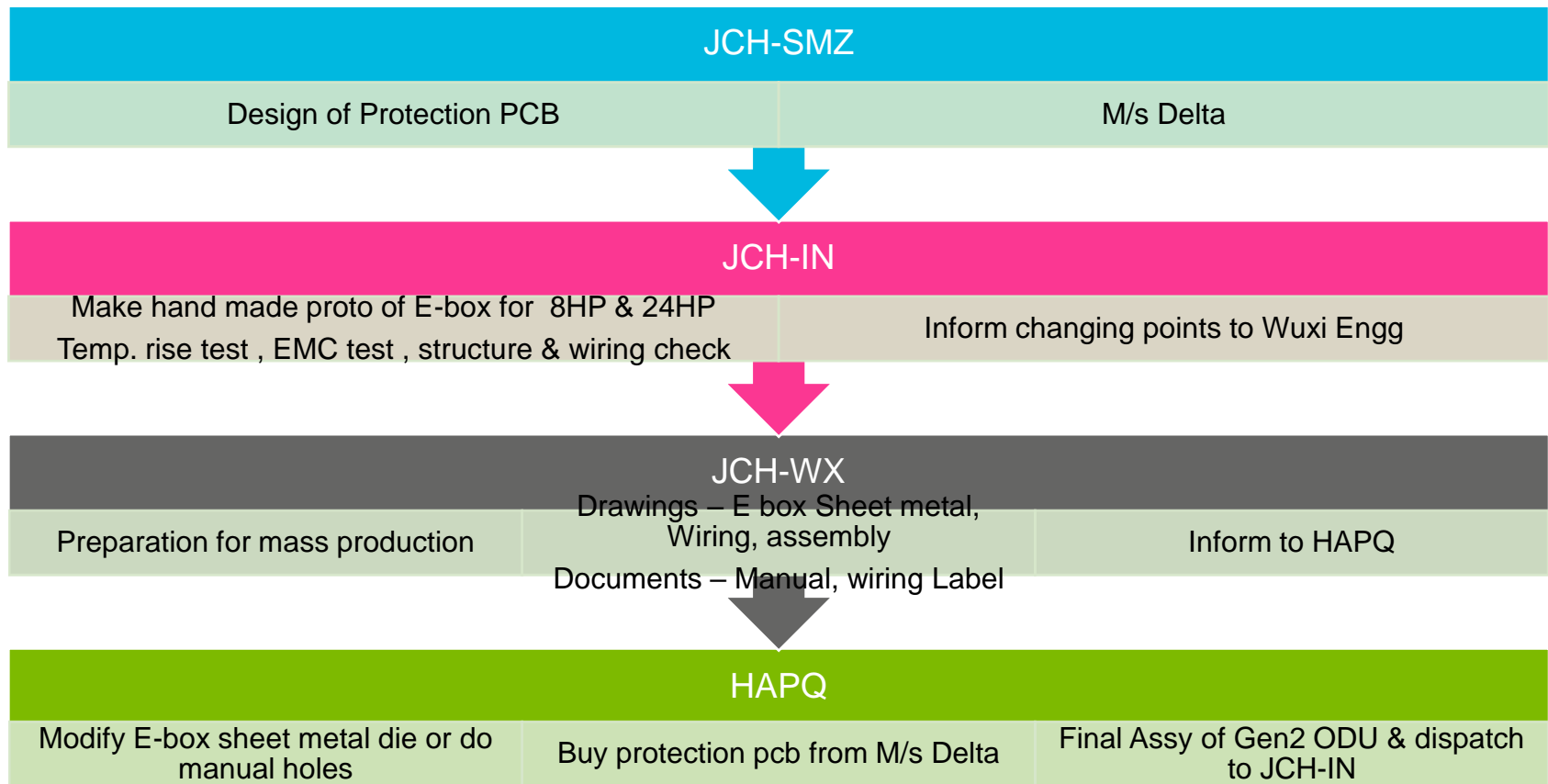
## **Packing style confirmation:**

- JCH-IN team will check packing style (strength) on sample ODUs once the ODU reach at Delhi for launch and will confirm to Wuxi if there is some need to improve.

# Gen 2 ODU (Open discussion points)

## Protection PCB :

- Small Protection PCB with Magnetic switch will be used for random power ON delay & under / over voltage protection on input mains supply.



- Full schedule of implementation of Protection PCB as running change will be shared by

JCH-IN.