



# Product Bulletin

Date	Subject	Department
11/30/23	New Toshiba Carrier u-Series DX Interface	Product Marketing
Bulletin Number	Product Model Number(s)	Author Name/Email
VRF-23-013	TCB-IFDMR01UP-UL; RBM-A0601UPVA-UL; RBM-A1201UPVA-UL; RBM-A1921UPVA-UL	Steven Hunt steven.hunt2@carrier.com

## New u-Series DX Interface

As part of the Toshiba Carrier U-Series VRF product launch, we are introducing a new DX interface. The new u-Series DX Interface will have several upgrades to the operating range and control, as well as only three (3) different PMV kits that are used in several configurations up to 40 tons. With the new offering of PMV kits, the amount of single circuit ‘normal’ DX kits are available up to 36 tons. The PMV kits offered, and the tonnage range affiliated with each, are listed in the table below.

Table 1 – PMV Kit Sizes

kBtu/h	Tons	e-Series	u-Series
7	0.6		RBM-A0601UPVA
9	0.8		
12	1	RBM-A0121GUL	
15	1.25	RBM-A0301GUL	
18	1.5		
24	2		
27	2.25		
30	2.5	RBM-A0601GUL	
36	3		
48	4		
54	4.5		
60	5	RBM-A0961GUL	RBM-A1201UPVA
72	6		
96	8		
120	10		
144	12		RBM-A1921UPVA
168	14	RBM-A1921GUL	
192	16		



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Table 2 – PMV Kit Configurations

Dx coil type		Normal (TA, DDC and TF type)				Interlaced, Split face (TA type)					
Type		Dx-coil controller	Dx-valve kit			HEX number	Dx-coil controller	Dx-valve kit			HEX number
Model name			7-60k	72-120k	144-192k			7-60k	72-120k	144-192k	
Connectable Dx-coil Capacity	0.6Ton	1 (0.6)	1			1					
	0.8Ton	1 (0.8)	1			1					
	1.0Ton	1 (1.0)	1			1					
	1.3Ton	1 (1.3)	1			1					
	1.5Ton	1 (1.5)	1			1					
	2.0Ton	1 (2.0)	1			1					
	2.3Ton	1 (2.3)	1			1					
	2.5Ton	1 (2.5)	1			1					
	3.0Ton	1 (3.0)	1			1					
	4.0Ton	1 (4.0)	1			1					
	4.5Ton	1 (4.5)	1			1					
	5.0Ton	1 (5.0)	1			1					
	6.0Ton	1 (6.0)		1		1					
	8.0Ton	1 (8.0)		1		1					
	10Ton	1 (10)		1		1					
	12Ton	1 (12)			1	1	2 (6+6)	2		2	2
	14Ton	1 (14)			1	1	2 (8+6)	2		2	2
	16Ton	1 (16)			1	1	2 (8+8)	2		2	2
	18Ton						2 (10+8)	2		2	2
	20Ton	1 (20)		2		1	2 (10+10)	2		2	2
22Ton						3 (8+8+6)	3		3	3	
24Ton	1 (24)			2	1	2 (12+12)		2	2	2	
26Ton						3 (8+8+8)	3		3	3	
28Ton	1 (28)			2	1	2 (14+12)		2	2	2	
30Ton						2 (14+14)		2	2	2	
32Ton	1 (32)			2	1	3 (10+10+8)	3		3	3	
36Ton						2 (16+14)		2	2	2	
38Ton						3 (10+10+10)	3		3	3	
40Ton						2 (16+16)		2	2	2	
						3 (12+12+12)		3	3	3	
						3 (14+12+12)		3	3	3	
						3 (14+14+12)		3	3	3	

The e-Series DX kits are available with two (2) different types of controllers, both return air (RA) and 0-10V. The u-Series model will have both the return air (RA) and 0-10V control using one (1) single controller. The new controller will also have a mode of control for ventilation air (TF), which will control the PMV kit to accommodate for the conditioning of outside air for ventilation purposes. (Please note that operating the DX kit in ventilation mode will not enable the same performance as a true DOAS unit)



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Table 3 – DX Kit Controller Information

Model	Return Air (RA) Controller (Phasing Out)	0-10V Controller (Phasing Out)	Phasing In
		TCB-IFDA1GUL	TCB-IFDD1GUL
Image			
Protocol	E-Series Protocol	E-Series Protocol	<b>New U-Series Protocol</b>
Power	208-230 V AC 60 Hz	208-230 V AC 60 Hz	<b>208-230 V AC 60 Hz</b>
Dimensions (H x W x D)	16'' x 12'' x 6.8''	16'' x 12'' x 6.8''	<b>19.7'' x 8.1'' x 3.2''</b>
Control Type	Return Air	0-10V	<b>Return Air (TA) 0-10V (DDC) Outside (Ventilation) Air (TF)</b>
Available Sizes (tons)	1 ~ 32	5 ~ 16	<b>0.6 ~ 40 (RA) 0.6 ~ 36 (DDC / TF)</b>
ETL Cert	Y	Y	<b>Y</b>

The new DX kits will also have a slightly different range of operation than the previous version. In the table below are operating ranges for each of the different types of control.

	Return Air (TA)	0-10V (DDC)	Ventilation Control (TF)
Cooling	59°F ~ 75°F WB 64°F ~ 90°F DB		50°F ~ 90°F WB 66°F ~ 115°F DB
Heating	54°F ~ 82°F DB		14°F ~ 59°F DB

u-Series DX kits are currently compatible with both u-Series heat pumps and 3-phase e-Series systems. Future compatibility with u-Series heat recovery systems and e-Series single phase systems will be available with a software upgrade, anticipated June 2024.

The u-Series DX kits are currently available for sale. The new u-Series DX kits will only be able to be modeled in VPro and will be live in the software December 2023.

For questions contact your regional VRF Sales Manager. For additional product information please visit HVAC Partners or email [VRFApplications@carrier.com](mailto:VRFApplications@carrier.com).