

TOSHIBA

REPLACEMENT TECHNOLOGY PIPING SPECIFICATION RAV

Existing piping connection with different diameter gas and liquid line is possible using the criteria detailed below

Liquid Pipe Size in"		1/4 (STD)				3/8 (1-size larger)			
Gas Pipe Size in"		3/8 (STD)		1/2 (1-size larger)		3/8 (STD)		1/2 (1-size larger)	
Maximum Pipe Distance		Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged
		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
RAV-DI Series 4 R410A Series 1 R32	SM/GM30*	20	15	20	15	13	7.5	13	7.5

Liquid Pipe Size in"		1/4 (STD)				3/8 (1-size larger)					
Gas Pipe Size in"		3/8 (1-size smaller)		1/2 (STD)		5/8 (1-size larger)		1/2 (STD)		5/8 (1-size larger)	
Maximum Pipe Distance		Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged
		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
RAV-DI Series 4 R410A Series 1 R32	SM/GM40*	20	15	20	15	20	15	13	7.5	13	7.5
	SM/GM56*			30	20	30	20	20	10	20	10
RAV-SDI Series 4 R410A Series 1 R32	SP/GP40*	30	20	30	20	30	20	20	10	20	10
	SP/GP56*			50	20	50	20	20	10	20	10

Liquid Pipe Size in"		1/4 (1-size smaller)				3/8 (STD)				1/2 (1-size larger)					
Gas Pipe Size in"		1/2 (1-size smaller)		5/8 (STD)		1/2 (1-size smaller)		5/8 (STD)		3/4 (1-size larger)		5/8 (STD)		3/4 (1-size larger)	
Maximum Pipe Distance		Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged
		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
RAV-DI Series 4 R410A Series 1 R32	SM/GM80*	20	20	20	20	30	20	30	20	30	20				
	SM/GM110*							50	30	50	30	25	15	25	15
	SM/GM140*							50	30	50	30	25	15	25	15
RAV-DI Series 3 R410A	SM/160*							50	30	50	30	25	15	25	15
RAV-SDI Series 4 R410A Series 1 R32	SP/GP80*	30	20	30	20	50	30	50	30	50	30				
	SP/GP110*							75	30	75	30	25	15	25	15
	SP/GP140*							75	30	75	30	25	15	25	15
	SP/GP160*							75	30	75	30	25	15	25	15


Liquid Pipe Size in"		1/2 (STD)				5/8 (1-size larger)			
Gas Pipe Size in"		7/8 (1-size smaller)		1 1/8 (STD)		7/8 (1-size smaller)		1 1/8 (STD)	
Maximum Pipe Distance		Length	Pre-charged	Length	Pre-charged	Length	Pre-charged	Length	Pre-charged
		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
RAV-DI Series 4 R410A	SM224*	70	30	70	30	50	20	50	20
	SM280*	70	30	70	30	50	20	50	20
RAV-DI Series 1 R32	GM224*	60	30	60	30	50	20	50	20
	GM280*	60	30	60	30	50	20	50	20

Common Refrigerants For Existing Plant
R22
R407C

REPLACEMENT TECHNOLOGY PIPING SPECIFICATION RAS

Existing piping connection with same diameter gas and liquid line is possible using the criteria detailed below

Liquid Pipe Size in"		1/4 (STD)		3/8 (STD)	
Gas Pipe Size in"		3/8 (STD)		1/2 (STD)	
Maximum Pipe Distance		Length	Pre-charged	Length	Pre-charged
		(m)	(m)	(m)	(m)
MIRAI SEIYA	*10*	15	15		
	13	15	15		
	16			20	15
	18			20	15
	24			20	15
SHORAI	*10*	20	15		
	13	20	15		
	18			20	15
	22			20	15
	24			25	15

 Smaller Pipe Sizes (Performance capacity is reduced due to the effect of gas pipe size being smaller than standard connection)

 Normal Pipe Sizes

 Larger Pipe Sizes

 Not Compatible