Technical Bulletin

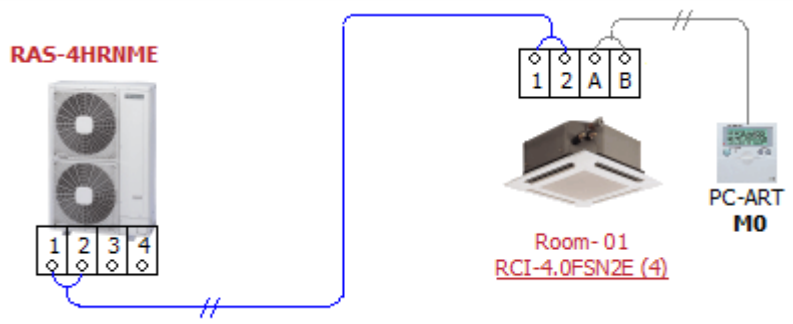
Number	042
Subject	Utopia IVX Single Split Models (to 6HP)
Date	08 March 2010

Wiring

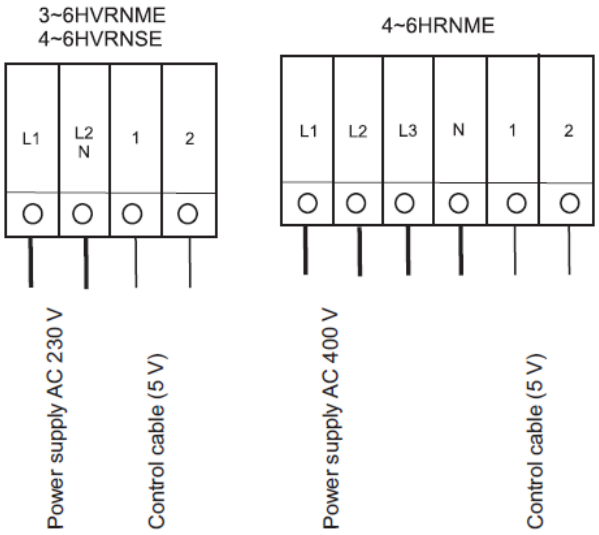
Hitachi Utopia IVX Models require a separate power supply to both the indoor and outdoor unit.

All indoor units require a 5 amp fused spur only.

Interconnecting cable is 2 core 0.75mm² screened.

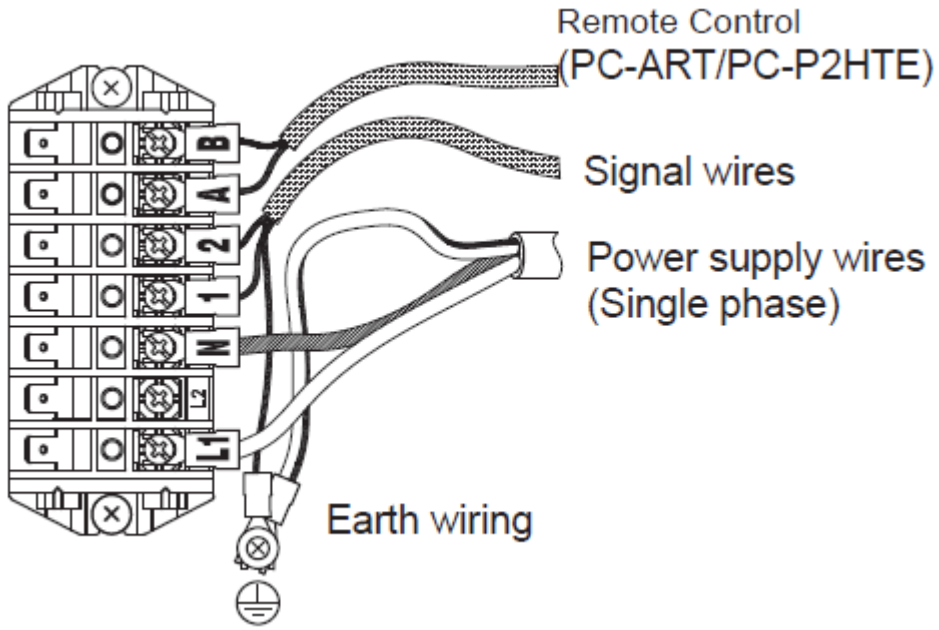


Power to the indoor unit can be taken from the outdoor unit. However, as there is only one terminal block (power in) the cable must be de-rated correctly and a local spur at the indoor unit location must be installed. This must be a separate cable to the 2-core data interconnecting.



Interconnecting cable between indoor and outdoor is to terminal blocks1 and 2.

Remote controller cable to the indoor unit/s is to terminal block A and B

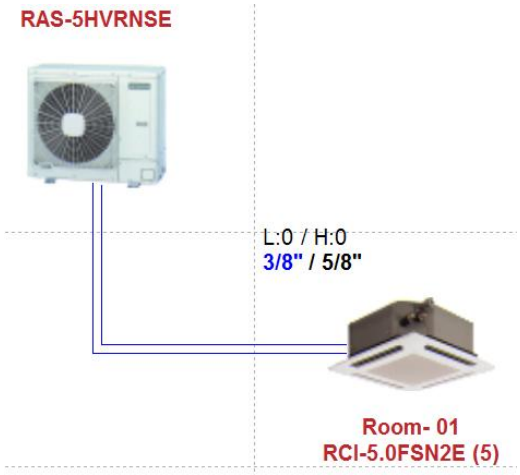


Piping Specifics

All Hitachi Utopia pipe sizing is as per the outdoor unit. Many indoor units come with a flare reducer. This is because the indoor units are common to R407C Split Outdoors (Europe), R410a Split Outdoors, IVX Systems and Set-Free VRF.

Please check pipe sizes before proceeding.

Logicool can provide schematics for anything from a simple split system to a large VRF.



Torque Settings

Pipe Size	Tightening Torque (Nm)
Ø 6.35 mm	20
Ø 9.53 mm	40
Ø 12.70 mm	60
Ø 15.88 mm	80

Optional H-Link Control

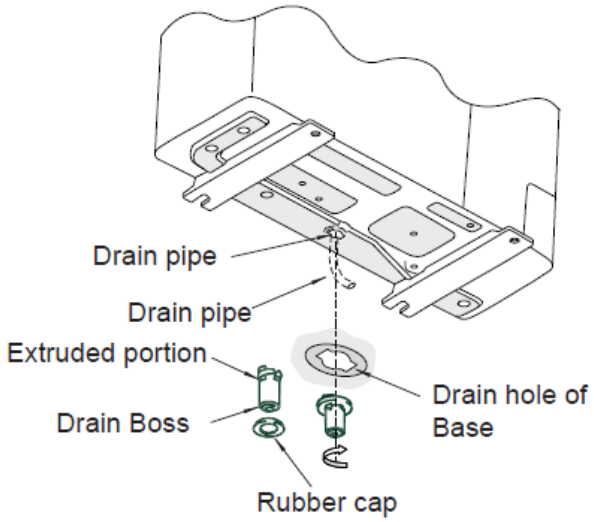
All Hitachi Utopia models communicate via H-Link and as such can interface with Hitachi Set-Free systems.

Refrigerant Charge

All models are pre-charged to 30 metres. Please check outdoor unit data for maximum piping length on each model.

Drain

Drain elbow is **optional** on all models.



Controls

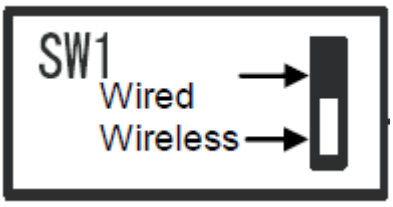
Hitachi Utopia systems do not come with a controller as standard. All controllers are optional and a variety of controls for all models can be selected including the following

PC-ART	-	Standard Controller with 7-Day Timer
PC-ARH	-	Simplified Controller
PC-AL**	-	Wireless Remote Controller

All systems can also interface with Hitachi Central and Web-Based controllers.

All Hitachi Indoor Units with the exception of RPK Wall Mounted are set up for Hard Wired Control.

In the case of RPK Wall units a dipswitch (DSW1) needs to be set to allow hard wired interface.



Model Specification – Models 3 – 6 Single Phase (IVX

Outdoor Unit Technical Data				
Model	**RAS-3HVRNME**	**RAS-4HVRNME**	**RAS-5HVRNME**	**RAS-6HVRNME**
Height (mm)	800	1380	1380	1380
Width (mm)	950	950	950	950
Depth (mm)	370	370	370	370
Weight (kG)	67	114	115	115
Airflow (m3/min)	45	80	90	100
Sound Pressure Cooling (dBA)	42	44	46	48
Sound Pressure - Set Back (dBA)	38	40	42	45
Liquid (mm(inches))	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Gas (mm(inches))	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Max Pipe Run (m)	50	70	75	75
Max Pipe Lift (m)	30m (20m)	30m (20m)	30m (20m)	30m (20m)
Pre-charged to (m)	30	30	30	30
Standing Charge (kG)	2.4	3.9	4.0	4.0
Refrigerant	R410a	R410a	R410a	R410a
Phase	Single	Single	Single	Single
Power Supply to	Outdoor *	Outdoor *	Outdoor *	Outdoor *
Start/Run Current (A)	--.--/8.20	--.--/10.30	--.--/15.00	--.--/8.20
Fuse Rating (A)	25	32	32	32
Interconnecting	2C Screen 0.75mm²	2C Screen 0.75mm²	2C Screen 0.75mm²	2C Screen 0.75mm²
System Power Input (Cool/Heat) - watts	1.94/1.90	2.44/2.54	3.53/3.40	4.25/4.23

Model Specification – Models 4 – 6 Three Phase (IVX

Outdoor Unit Technical Data			
Model	**RAS-4HRNME**	**RAS-5HRNME**	**RAS-6HRNME**
Height (mm)	1380	1380	1380
Width (mm)	950	950	950
Depth (mm)	370	370	370
Weight (kG)	119	120	120
Airflow (m3/min)	80	90	100
Sound Pressure Cooling (dBA)	44	46	48
Sound Pressure - Set Back (dBA)	40	42	45
Liquid (mm(inches))	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Gas (mm(inches))	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Max Pipe Run (m)	70	75	75
Max Pipe Lift (m)	30m (20m)	30m (20m)	30m (20m)
Pre-charged to (m)	30	30	30
Standing Charge (kG)	3.9	4.0	4.0
Refrigerant	R410a	R410a	R410a
Phase	Three	Three	Three
Power Supply to	Outdoor *	Outdoor *	Outdoor *
Start/Run Current (A)	--.--/3.70	--.--/5.30	--.--/6.40
Fuse Rating (A)	20	20	20
Interconnecting	2C Screen 0.75mm²	2C Screen 0.75mm²	2C Screen 0.75mm²
System Power Input (Cool/Heat) - watts	2.44/2.54	3.53/3.40	4.25/4.23