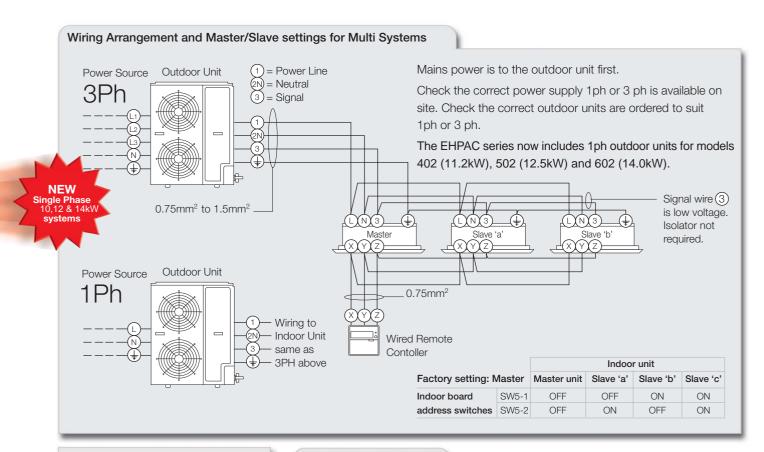
# FDA Multi Systems - Technical Data



# Power Supplies & Operating Current – Outdoor Units

Outdoor Unit	Clg/Htg kW	Power Supply to Outdoor Unit	Operating Current (clg.)
FDCA301HEN	7.2/7.3	1ph 20A	9.8A
FDCA301HES	7.2/7.3	3ph 15A/ph	3.6A/ph
5A start current	on following	nverter units	
FDCVA402HEN	11.2/11.2	1ph 20A	12.0A
FDCVA502HEN	14.0/16.0	1ph 25A	17.7A
FDCVA602HEN	14.8/16.8	1ph 30A	20.4A
FDCVA802HES	22.4/25.0	3ph 15A/ph	9.1A/ph
FDCVA1002HES	3 28.0/31.5	3ph 20A/ph	12.7A/ph

# Outdoor Unit FDT FDE FDUR FDK 151 0.3A 0.2A 0.2A

Indoor Units - Operating Current

201 0.3A 0.2A 0.9A 0.3A 0.4A 1.0A 0.2A 301 0.3A 0.4A 1.3A 0.5A 401 0.6A 0.5A 1.7A 501 0.7A 0.6A 2.0A

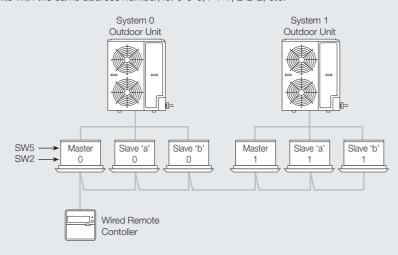
### **Indoor Unit Address**

Indoor units connected to FDA Multi Systems are required to be addressed, to enable the controls to recognise which units are connected to each system.

Power supplies to indoor units are connected from the outdoor unit, with an additional SIGNAL wire connected to the MASTER indoor unit - which also has the remote control connected. The other indoor units must be addressed as Slave 'a' and Slave 'b' units - see bottom of page .

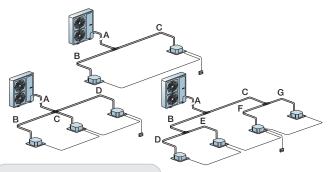
## **Group Control**

Where Multi Systems are controlled on a Group arrangement (up to 16 systems) using a single remote controller, it is necessary to adjust SW2 so each individual Multi System has indoor units with the same address number, ie. 0-0-0,1-1-1, 2-2-2, etc.



The Master/Slave addresses must also be adjusted using SW5 - see page opposite.

# FDA Multi Systems - Installation



# **Pipe Length Limitations**

# Height Difference (all systems)

Outdoor unit above max. height difference is 30m Outdoor unit below max. height difference is 15m

Difference between indoor units max. height difference is 0.5m

#### Twin Systems 7.2kW to 14.8kW

A = main piping, B = branch piping, C = branch piping						
A + B + C	Maximum is	50 metres				
Difference between B & C	No more than	10 metres				
В	Maximum is	20 metres				
C	Maximum is	20 metres				

# Triple Systems 14.8kW

Triple Systems 14.0kW		
A + B + C + D	Maximum is	50 metres
Difference between B & C or C & D	No more than	10 metres
В	Maximum is	20 metres
С	Maximum is	20 metres
D	Maximum is	20 metres

# Quad Systems 14.3kW Contact 3D for details

# Twin Systems 20.0 & 25.0 kW - FDCA802 & 1002

Outdoor unit to furthest indoor unit
Difference between B & C
B
C
Maximum is
no more than
Maximum is
Maximum is
Maximum is
30 metres
30 metres

# Triple Systems 20.0 & 25.0 kW - FDCA802 & 1002

Outdoor unit to furthest indoor unit Difference between B & C & D B C	no more than Maximum is Maximum is	70 metres 10 metres 30 metres 30 metres
D		30 metres

# Quad Systems 20.0 & 25.0 kW - FDCA802 & 1002

Outdoor unit to furthest indoor unit Difference between B & C Difference between D, E, F, G B + D B + E C + F	Maximum is no more than no more than Maximum is Maximum is	70 metres 10 metres 10 metres 30 metres 30 metres
C + G	Maximum is	30 metres
C + F	Maximum is	30 metre

# Refrigerant Pipe Sizes

Outdoor	Clg/Htg	System	Pipe sizes o.d. (in)			
Unit	kW	Type	Α	В	C(& D)	D,E,F,G
FDCA301HEN	7.2/7.3	TWIN	3/8 5/8	3/8 1/2	3/8 1/2	
FDCA301HES	7.2/7.3	TWIN	3/8 5/8	3/8 1/2	3/8 1/2	
INVERTER UNITS						
FDCVA402HEN	11.2/12.5	TWIN	3/8 5/8	3/8 1/2	3/8 1/2	
FDCVA502HEN	14.0/16.0	TWIN	3/8 5/8	3/8 5/8	3/8 5/8	
FDCVA602HEN	14.8/16.8	TWIN	3/8 5/8	3/8 5/8	3/8 5/8	
FDCVA602HEN	14.8/16.8	TRIPLE	3/8 5/8	3/8 1/2	3/8 1/2	
FDCVA802HEN	22.4/25.0	TWIN	3/8 7/8	3/8 5/8	3/8 5/8	
FDCVA802HES	22.4/25.0	TRIPLE	3/8 7/8	3/8 5/8	3/8 5/8	
FDCVA802HES	22.4/25.0	QUAD	3/8 7/8	3/8 5/8	3/8 5/8	3/8 1/2
FDCVA1002HES	28.0/31.5	TWIN	1/2 7/8	3/8 5/8	3/8 5/8	
FDCVA1002HES	28.0/31.5	TRIPLE	1/2 7/8	3/8 5/8	3/8 5/8*	
FDCVA1002HES	28.0/31.5	QUAD	1/2 7/8	3/8 5/8	3/8 5/8	3/8 5/8
*For 201 / 401 / 401 (indoors) Triple, use 3/8 & 1/2 for the 201 connection						

**Refrigerant Pipework** must be installed within limitations detailed in the table below. Each system is supplied with the appropriate branch pipe. Pipe connections to the branch kits must be brazed and it is essential to use nitrogen purge while making the connections.

# Outdoor Units for Multi Systems



## Outdoor Unit Dimensions & Weights

Outdoor Oil				
mm	Н	W	D	Kg
FDCA301	845	880	340	75
FDCVA402	845	970	370	61
FDCVA502	845	970	370	61
FDCVA602	845	970	370	63
FDCVA802	1300	970	370	122
FDCVA1002	1505	970	370	140