HELIX ENERGY PARTNERS LLC

CONSULTING ENGINEERS
Mechanical - Plumbing - Controls

HELIX-ENGINEERS.NET

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October 9, 2025

Esteemed Energy Modelers,

Please find within guidance and notes regarding the use of these Daikin energy model objects. We are continually adding more models as the need arises. Should you not find the model you are looking for, please contact us and we would be glad to provide them to you.

Sincerely

Mike Lovejoy, PE

Bookmark Summary

RXYQ72AATJB_AAYDB.pdf

Daikin RXYQ72AATJB/AAYDB NONDUCTED-VRF-OU,!- Name

Daikin RXYQ72AATJB/AAYDB DUCTED-VRF-OU,!- Name

	Energy Modeling Assumptions and Comments	Applicable Field
1	Coefficient of Performance is calculated assuming either Ducted or Non-Ducted indoor units, as specified in the field **!- Name** . If the project has a mix of ducted and non-ducted indoor units, it is recommended to modify these parameters to suit the project. A proportional calculation based on the ratio of ducted to non-ducted equipment is a good approximation.	!- Gross Rated **Cooling/Heating** COP {W/W}
2	Daikin does not publish information on operation below part load. EPLUS default is used. EPLUS Default curve has output of 1: It does not account for operational inefficiencies below minium plr (compressor cycling).	!- **Cooling/Heating** Part-Load Fraction Correlation Curve Name
3	No waste heat recovery for this model. Default EP Curves used as place holder. This model is not intended to be used to simulate heat recovery.	!- Heat Pump Waste Heat Recovery
4	30 meters. Adjust this parameter to suit your project conditions	!- Equivalent Piping Length used for Piping Correction Factor in Cooling Mode {m}
5	10 meters (ODU is lower than IDU) (Enter negative value for ODU higher than IDU)	!- Vertical Height used for Piping Correction Factor {m}
6	Published derate for height difference between IDU and ODU varies from positive to negative depending on position of ODU with relation to IDUs, but generally not significant; used EPLUS default (-0.00036)	!- Piping Correction Factor for Height in Cooling Mode Coefficient {1/m}
7	Daikin docs do not indicate any crank case heater.	!- Crankcase Heater Power per Compressor {W}
8	Daikin docs do not indicate any dependence on indoor wetbulb temperature.	!- Defrost Energy Input Ratio Modifier Function of Temperature Curve Name
9	Default (null value) for this field will use the weatherfile outdoor conditions. If condenser is located up high, or in some conditioned location that differs from outdoor ambient, another file may be necessary.	!- Condenser Inlet Node
10	No heat recovery for this model	!- Minimum Outdoor Temperature in Heat Recovery Mode {C} !- Maximum Outdoor Temperature in Heat Recovery Mode {C} !- Heat Recovery Cooling Capacity Modifier Curve Name !- Initial Heat Recovery Cooling Capacity Fraction {W/W} !- Heat Recovery Cooling Capacity Time Constant {hr} !- Heat Recovery Cooling Energy Modifier Curve Name !- Initial Heat Recovery Cooling Energy Fraction {W/W} !- Heat Recovery Cooling Energy Time Constant {hr} !- Heat Recovery Heating Capacity Modifier Curve Name !- Initial Heat Recovery Heating Capacity Fraction {W/W} !- Heat Recovery Heating Capacity Time Constant {hr} !- Heat Recovery Heating Energy Modifier Curve Name !- Initial Heat Recovery Heating Energy Fraction {W/W} !- Heat Recovery Heating Energy Time Constant {hr}

DAIKIN

Submittal Data Sheet

6 Ton, 230V, VRV EMERION HP

RXYQ72AATJB

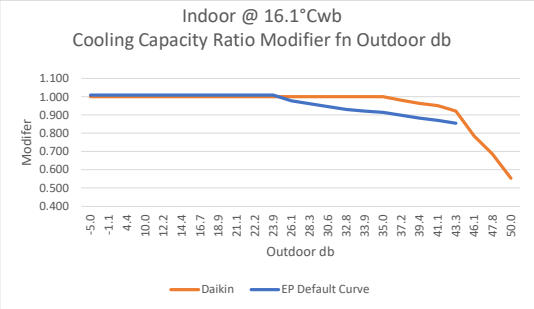
PERFORMANCE

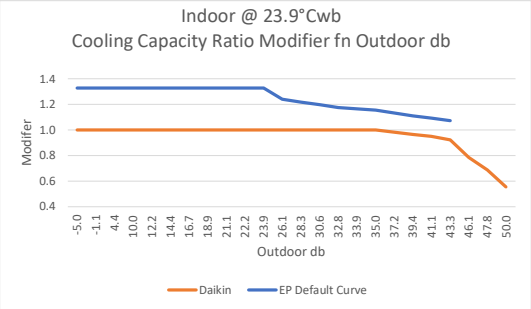
Outdoor Unit Model No.	RXYQ72AATJB	Outdoor Unit Name:	6 Ton, 230V, VRV EMERION HP
Type:	Heat Pump	Unit Combination:	
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	69,000	Rated Heating Capacity (Btu/hr):	69,000
Nom Cooling Capacity (Btu/hr):	72,000	Nom Heating Capacity (Btu/hr):	81,000
Cooling Input Power (kW):		Heating Input Power (kW):	
EER (Non-Ducted/Ducted):	/ 12.20	Heating COP (Non-Ducted/Ducted):	3.6 / 3.6
IEER (Non-Ducted/Ducted):	23.20 / 19.80	Heating COP 17F (Non-Ducted/Ducted):	2.4 / 2.4

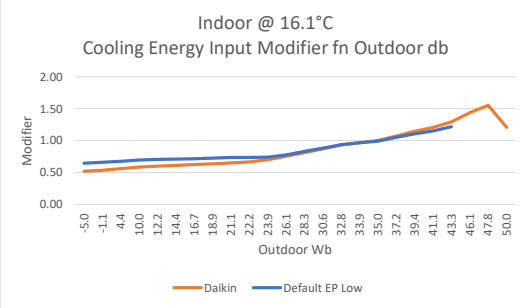
OUTDOOR UNIT DETAILS

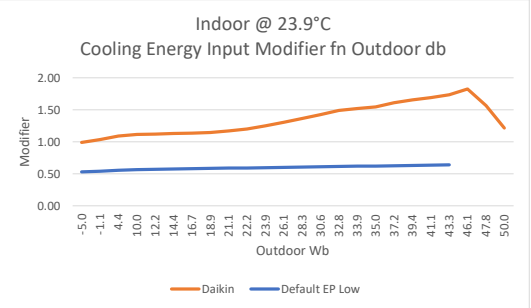
Power Supply (V/Hz/Ph):	208/230 / 60 / 3	Compressor Stage:	Inverter
Power Supply Connections:	L1, L2, L3, Ground	Capacity Control Range (%):	8 - 100

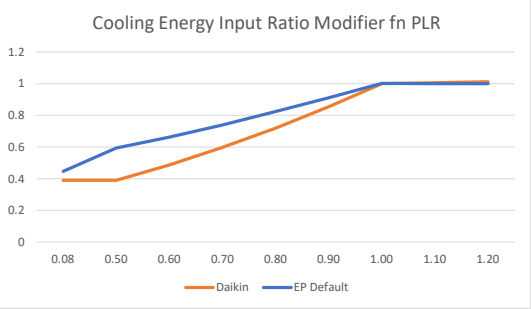
Min. Circuit Amps MCA (A):	27.3	Capacity Index Limit:	-
Max Overcurrent Protection (MOP) (A):	30	Airflow Rate (H) (CFM):	6210
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	3/4
Rated Load Amps RLA(A):	11.1	Liquid Pipe Connection (inch):	3/8
Dimensions (Height) (in):	65-3/8		
Dimensions (Width) (in):	36-5/8		
Dimensions (Depth) (in):	30-1/8	Sound Pressure (H) (dBA):	58
Net Weight (lb):	496	Sound Power Level (dBA):	

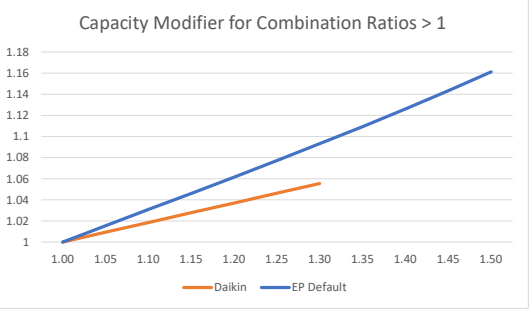


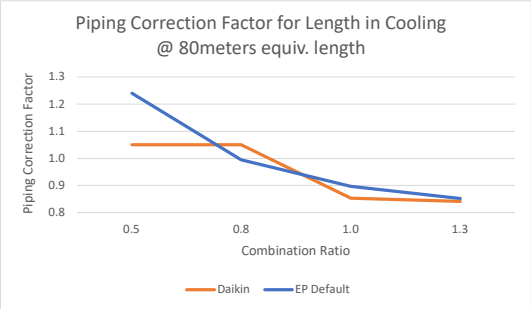


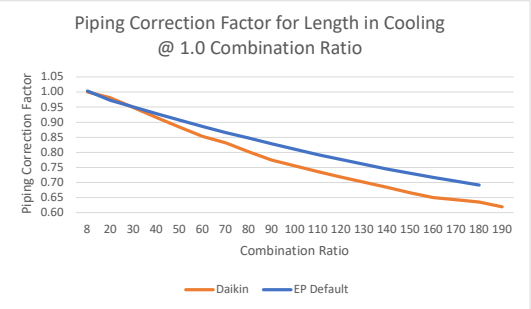


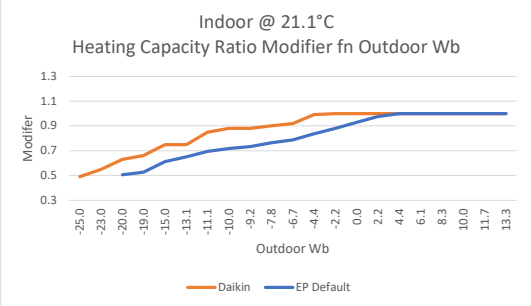


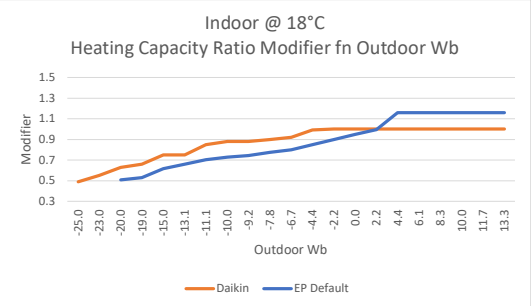


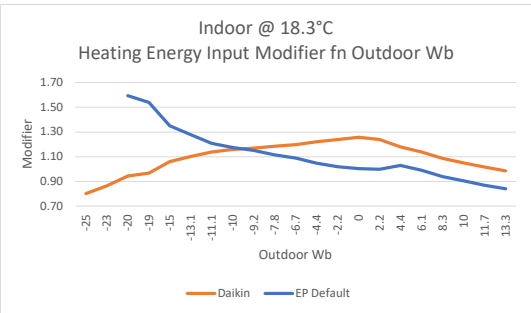


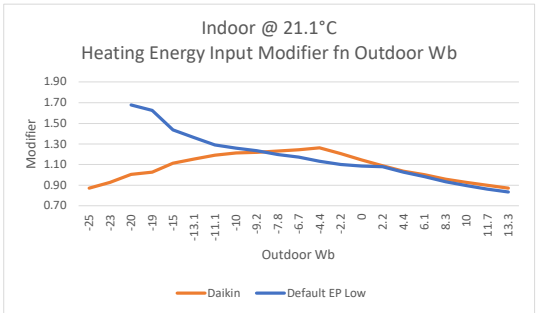

Piping Correction Factor for Length in Cooling
@ 80meters equiv. length
Piping Correction Factor
1.3
1.2
1.1
1.0
0.9
0.8
0.5
0.8
1.0
1.3
Combination Ratio
Daikin
EP Default

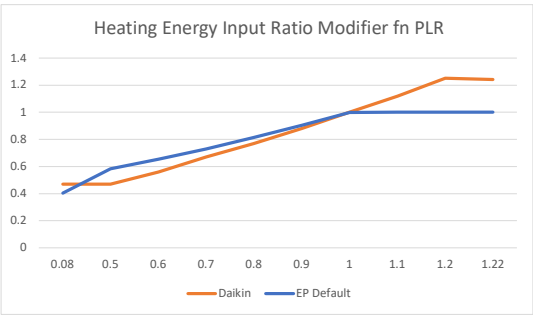

Piping Correction Factor for Length in Cooling
@ 1.0 Combination Ratio
Piping Correction Factor
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
8 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190
Combination Ratio
Daikin
EP Default

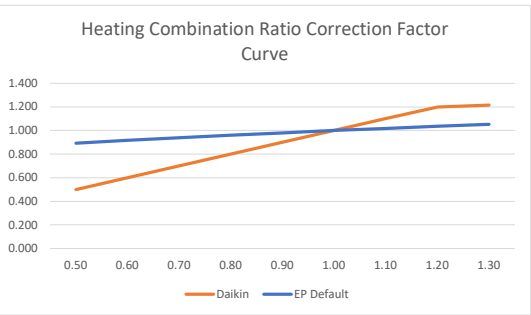

Indoor @ 21.1°C
Heating Capacity Ratio Modifier fn Outdoor Wb
Modifier
1.3
1.1
0.9
0.7
0.5
0.3
-25.0 -23.0 -20.0 -19.0 -15.0 -13.1 -11.1 -10.0 -9.2 -7.8 -6.7 -4.4 -2.2 0.0 2.2 4.4 6.1 8.3 10.0 11.7 13.3
Outdoor Wb
Daikin
EP Default

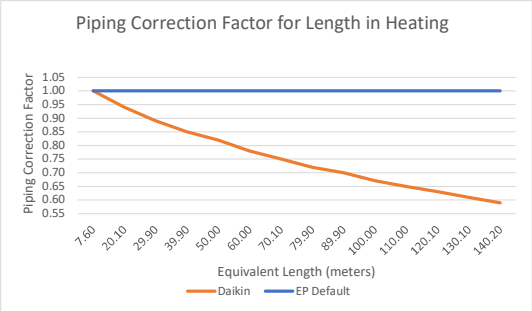

Indoor @ 18°C
Heating Capacity Ratio Modifier fn Outdoor Wb
Modifier
1.5
1.3
1.1
0.9
0.7
0.5
0.3
-25.0 -23.0 -20.0 -19.0 -15.0 -13.1 -11.1 -10.0 -9.2 -7.8 -6.7 -4.4 -2.2 0.0 2.2 4.4 6.1 8.3 10.0 11.7 13.3
Outdoor Wb
Daikin
EP Default

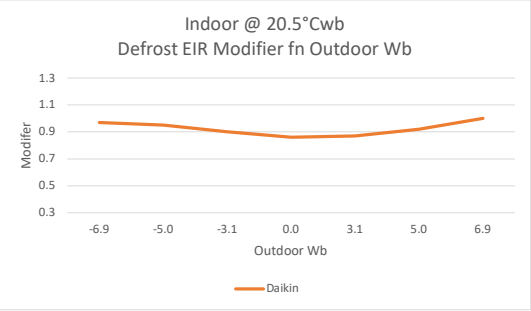

Indoor @ 18.3°C
Heating Energy Input Modifier fn Outdoor Wb
Modifier
1.70
1.50
1.30
1.10
0.90
0.70
-25 -23 -20 -19 -15 -13.1 -11.1 -10 -9.2 -7.8 -6.7 -4.4 -2.2 0 2.2 4.4 6.1 8.3 10 11.7 13.3
Outdoor Wb
Daikin
EP Default


Indoor @ 21.1°C
Heating Energy Input Modifier fn Outdoor Wb
Modifier
1.90
1.70
1.50
1.30
1.10
0.90
0.70
-25 -23 -20 -19 -15 -13.1 -11.1 -10 -9.2 -7.8 -6.7 -4.4 -2.2 0 2.2 4.4 6.1 8.3 10 11.7 13.3
Outdoor Wb
Daikin
Default EP Low


Heating Energy Input Ratio Modifier fn PLR
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.08 0.5 0.6 0.7 0.8 0.9 1 1.1 1.2 1.22
Daikin
EP Default


Heating Combination Ratio Correction Factor
Curve
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30
Daikin
EP Default


Piping Correction Factor for Length in Heating
Piping Correction Factor
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
7.60 20.10 29.90 39.90 50.00 60.00 70.10 79.90 89.90 100.00 110.00 120.10 130.10 140.20
Equivalent Length (meters)
Daikin
EP Default


Indoor @ 20.5°Cwb
Defrost EIR Modifier fn Outdoor Wb
Modifier
1.3
1.1
0.9
0.7
0.5
0.3
-6.9 -5.0 -3.1 0.0 3.1 5.0 6.9
Outdoor Wb
Daikin