

Information requirements for air-to-air air heat pumps

Model(s):	IH140
Outdoor side heat exchanger:	air
Indoor side heat exchanger:	air
Supplementary heater:	no
Type:	compressor driven vapour compression
Driver of compressor:	electric motor

Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	137.4	kW
Declared cooling capacity for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	P_{dh}	82.5	kW
$T_j = +2\text{ °C}$	P_{dh}	54.0	kW
$T_j = +7\text{ °C}$	P_{dh}	34.7	kW
$T_j = +12\text{ °C}$	P_{dh}	15.4	kW
$T_{biv} = -6\text{ °C}$	P_{dh}	84.9	kW
$T_{ol} = -10\text{ °C}$	P_{dh}	76.1	kW
Degradation co-efficient (**)	C_{dc}	0.25	—
Power consumption in modes other than 'active mode'			
Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.360	kW
Other items			
Capacity control	Staged		
Sound power level, outdoor	L_{WA}		dB(A)
GWP of the refrigerant		2088	kg CO2 eq (100 years)

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	$\eta_{s,h}$	140.6	%
Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	COP_d	2.48	kW/kW
$T_j = +2\text{ °C}$	COP_d	3.80	kW/kW
$T_j = +7\text{ °C}$	COP_d	4.23	kW/kW
$T_j = +12\text{ °C}$	COP_d	3.99	kW/kW
$T_{biv} = -6\text{ °C}$	COP_d	2.63	kW/kW
$T_{ol} = -10\text{ °C}$	COP_d	2.35	kW/kW
Crankcase heater mode			
	P_{CK}	0.360	kW
Standby mode			
	P_{SB}	0.400	kW
air flow rate, outdoor measured			
	—	52032	m ³ /h

Contact details TRANE 88190 Golbey - France

(*) If C_{dc} is not determined by measurement then the default degradation coefficient of air-conditioners shall be 0,25.

Information requirements for air-to-air air heat pumps

Model(s):	IH150
Outdoor side heat exchanger:	air
Indoor side heat exchanger:	air
Supplementary heater:	no
Type:	compressor driven vapour compression
Driver of compressor:	electric motor

Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	153.9	kW
Declared cooling capacity for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	P_{dh}	93.0	kW
$T_j = +2\text{ °C}$	P_{dh}	60.9	kW
$T_j = +7\text{ °C}$	P_{dh}	39.1	kW
$T_j = +12\text{ °C}$	P_{dh}	17.4	kW
$T_{biv} = -6\text{ °C}$	P_{dh}	95.7	kW
$T_{ol} = -10\text{ °C}$	P_{dh}	85.8	kW
Degradation co-efficient (**)	C_{dc}	0.25	—
Power consumption in modes other than 'active mode'			
Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.360	kW
Other items			
Capacity control	Staged		
Sound power level, outdoor	L_{WA}		dB(A)
GWP of the refrigerant		2088	kg CO2 eq (100 years)

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	$\eta_{s,h}$		%
Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	COP_d	2.42	kW/kW
$T_j = +2\text{ °C}$	COP_d	3.79	kW/kW
$T_j = +7\text{ °C}$	COP_d	4.15	kW/kW
$T_j = +12\text{ °C}$	COP_d	3.90	kW/kW
$T_{biv} = -6\text{ °C}$	COP_d	2.58	kW/kW
$T_{ol} = -10\text{ °C}$	COP_d	2.30	kW/kW

Crankcase heater mode	P_{CK}	0.360	kW
Standby mode	P_{SB}	0.400	kW

air flow rate, outdoor measured	—	52032	m ³ /h
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of air-conditioners shall be 0,25.

Information requirements for air-to-air air heat pumps

Model(s):	IH170
Outdoor side heat exchanger:	air
Indoor side heat exchanger:	air
Supplementary heater:	no
Type:	compressor driven vapour compression
Driver of compressor:	electric motor

Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	169.9	kW
Declared cooling capacity for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	P_{dh}	104.1	kW
$T_j = +2\text{ °C}$	P_{dh}	68.0	kW
$T_j = +7\text{ °C}$	P_{dh}	43.7	kW
$T_j = +12\text{ °C}$	P_{dh}	19.4	kW
$T_{biv} = -6\text{ °C}$	P_{dh}	106.9	kW
$T_{ol} = -10\text{ °C}$	P_{dh}	96.4	kW
Degradation co-efficient (**)	C_{dc}	0.25	—
Power consumption in modes other than 'active mode'			
Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.360	kW
Other items			
Capacity control	Staged		
Sound power level, outdoor	L_{WA}		dB(A)
GWP of the refrigerant		2088	kg CO2 eq (100 years)

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	$\eta_{s,h}$	139.0	%
Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	COP_d	2.38	kW/kW
$T_j = +2\text{ °C}$	COP_d	3.80	kW/kW
$T_j = +7\text{ °C}$	COP_d	4.15	kW/kW
$T_j = +12\text{ °C}$	COP_d	3.89	kW/kW
$T_{biv} = -6\text{ °C}$	COP_d	2.54	kW/kW
$T_{ol} = -10\text{ °C}$	COP_d	2.27	kW/kW
Crankcase heater mode			
	P_{CK}	0.360	kW
Standby mode			
	P_{SB}	0.400	kW
air flow rate, outdoor measured			
	—	52032	m ³ /h

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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of air-conditioners shall be 0,25.

Information requirements for air-to-air air heat pumps

Model(s):	IH190
Outdoor side heat exchanger:	air
Indoor side heat exchanger:	air
Supplementary heater:	no
Type:	compressor driven vapour compression
Driver of compressor:	electric motor

Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	195.6	kW
Declared cooling capacity for part load at given outdoor temperatures Tj			
T j = -7 °C	P_{dh}	120.1	kW
T j = + 2 °C	P_{dh}	73.1	kW
T j = + 7 °C	P_{dh}	47.0	kW
T j = + 12°C	P_{dh}	20.9	kW
T biv = -7 °C	P_{dh}	120.1	kW
T ol = -10 °C	P_{dh}	111.3	kW
Degradation co-efficient (**)	C_{dc}	0.25	—

Power consumption in modes other than 'active mode'

Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.360	kW

Other items

Capacity control	Staged		
Sound power level, outdoor	L_{WA}		dB(A)
GWP of the refrigerant		2088	kg CO2 eq (100 years)

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	$\eta_{s,h}$	129.8	%
Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures Tj			
T j = -7 °C	COP_d	2.25	kW/kW
T j = + 2 °C	COP_d	3.49	kW/kW
T j = + 7 °C	COP_d	3.91	kW/kW
T j = + 12°C	COP_d	3.70	kW/kW
T biv = -7 °C	COP_d	2.25	kW/kW
T ol = -10 °C	COP_d	2.14	kW/kW

Crankcase heater mode	P_{CK}	0.360	kW
Standby mode	P_{SB}	0.400	kW

air flow rate, outdoor measured	—	66814	m ³ /h
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(*) If Cdc is not determined by measurement then the default degradation coefficient of air-conditioners shall be 0,25.

Information requirements for air-to-air air heat pumps

Model(s):	IH220
Outdoor side heat exchanger:	air
Indoor side heat exchanger:	air
Supplementary heater:	no
Type:	compressor driven vapour compression
Driver of compressor:	electric motor

Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	218.3	kW
Declared cooling capacity for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	P_{dh}	134.7	kW
$T_j = +2\text{ °C}$	P_{dh}	94.5	kW
$T_j = +7\text{ °C}$	P_{dh}	60.8	kW
$T_j = +12\text{ °C}$	P_{dh}	27.0	kW
$T_{biv} = -5\text{ °C}$	P_{dh}	141.8	kW
$T_{ol} = -10\text{ °C}$	P_{dh}	125.1	kW
Degradation co-efficient (**)	C_{dc}	0.25	—
Power consumption in modes other than 'active mode'			
Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.360	kW
Other items			
Capacity control	Staged		
Sound power level, outdoor	L_{WA}		dB(A)
GWP of the refrigerant		2088	kg CO ₂ eq (100 years)

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	$\eta_{s,h}$	123.8	%
Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures T_j			
$T_j = -7\text{ °C}$	COP_d	2.18	kW/kW
$T_j = +2\text{ °C}$	COP_d	3.41	kW/kW
$T_j = +7\text{ °C}$	COP_d	3.67	kW/kW
$T_j = +12\text{ °C}$	COP_d	3.41	kW/kW
$T_{biv} = -5\text{ °C}$	COP_d	2.45	kW/kW
$T_{ol} = -10\text{ °C}$	COP_d	2.08	kW/kW
Crankcase heater mode			
	P_{CK}	0.360	kW
Standby mode			
	P_{SB}	0.400	kW
air flow rate, outdoor measured			
	—	66814	m ³ /h

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