#### Information requirements for air-to-air conditioners

Model(s):SDV5-252EAI;

Test matching indoor units form, Duct: 2×SDV5-56DA+2×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

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Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	25.2	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	222.2	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet l			Declared energy efficiency rate energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	25.2	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	3.48	
T <sub>j</sub> =+30°C	P <sub>dc</sub>	17.277	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.61	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	11.507	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	6.46	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	6.688	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	11.41	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		ı	Power consumption in i	modes ot	her than "active mode"			
Off mode	P <sub>OFF</sub>	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	$P_{SB}$	0.064	kW
			0	ther item	S			
Capacity control		varia	able		For air-to-air air conditioner:air flow rate,outdoor measured	_	10500	m³/h
Sound power level,outdoor	L <sub>WA</sub>	78	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					

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(\*)If C<sub>dc</sub>is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-252EAI;

Test matching indoor units form, Duct: 2×SDV5-56DA+2×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Item         Symbol           Rated heating capacity         Prated,h           Declared heating capacity for part looutdoor temporary         Outdoor temporary           Tj=-7°C         Pdh           Tj=+2°C         Pdh           Tj=+7°C         Pdh           Tj=+12°C         Pdh           Tbiv=bivalent temperature         Pdh           Tol=operation temperature         Pdh		Unit kW  teperature 20°C and	Seasonal space heating energy efficiency  Declared coefficient of efficiency/auxiliary energy ter	factor for part load				
Declared heating capacity for part Ic outdoor temporary for part Ic outdoor for part Ic outfor for	oad at indoor peratures T <sub>j</sub> 17.176	teperature 20°C and	energy efficiency  Declared coefficient of efficiency/auxiliary energy	of performance or ga y factor for part load a	s utilisation	n		
outdoor temporal outdo	17.176		efficiency/auxiliary energy	factor for part load				
$T_j$ =+2°C $P_{dh}$ $T_j$ =+7°C $P_{dh}$ $T_j$ =+12°C $P_{dh}$ $T_{biv}$ =bivalent temperature $P_{dh}$ $T_{OL}$ =operation $P_{dh}$		k/\//		mperatures T <sub>j</sub>	at giveir ou	itdoor		
$T_j$ =+7°C $P_{dh}$ $T_j$ =+12°C $P_{dh}$ $T_{biv}$ =bivalent temperature $P_{dh}$ $T_{OL}$ =operation $P_{dh}$	11 706	LVV	T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.32			
$T_{j}$ =+12°C $P_{dh}$ $T_{biv}$ =bivalent temperature $P_{dh}$ $T_{OL}$ =operation $P_{dh}$	11.700	kW	T <sub>j</sub> =+2°C	COP <sub>d</sub>	3.40	-		
$T_{\text{biv}}$ =bivalent temperature $P_{\text{dh}}$	7.071	kW	T <sub>j</sub> =+7℃	COP <sub>d</sub>	4.50			
temperature  T <sub>OL</sub> =operation	4.381	kW	T <sub>j</sub> =+12°C	COP <sub>d</sub>	5.15	-		
I Pah	17.176	kW	T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.32			
temperature	19.313	kW	T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.89			
Bivalent temperature T <sub>biv</sub>	-7	℃						
Degradation co-efficient for heat pumps(**)	0.25	-						
Power consumption in modes other th	than "active r	node"	Suppl	Supplementary heater				
Off mode P <sub>OFF</sub>	0.064	kW	Back-up heating capacity(*)	elbu	0	kW		
Thermosat-off mode P <sub>TO</sub>	0.064	kW	Type of energy input					
Crankcase heater mode P <sub>CK</sub>	0.124	kW	Standby mode	P <sub>SB</sub>	0.064	kW		
		Othe	r items					
Capacity control	varia	ble	For air-to-air heat pump:air flow rate,outdoor measured	_	10500	m³/h		
Sound power level,outdoor LWA	78	dB						
GWP of the refrigerant		·		+	++			
Contact details SINCLAIR	2088	kg CO <sub>2 eq</sub> (100years)						

(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-280EAI;

Test matching indoor units form, Duct: 4×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

Symbol	Value	Unit		Item	Symbol	Value	Unit
P <sub>rated,c</sub>	28	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	220.6	%
	•	•		Declared energy efficiency rate energy factor for part load	tio or gas utilisatior d at given outdoor t	n efficiency emperatur	/auxiliary es T <sub>j</sub>
P <sub>dc</sub>	28	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	3.26	
P <sub>dc</sub>	19.137	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.44	
P <sub>dc</sub>	13.246	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	6.40	
P <sub>dc</sub>	6.688	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	11.41	
C <sub>dc</sub>	0.25	-					
	F	Power consumption in	modes ot	ther than "active mode"			
P <sub>OFF</sub>	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
P <sub>TO</sub>	0	kW		Standby mode	$P_{SB}$	0.064	kW
		C	ther item	ns			
	varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	_	10500	m³/h
L <sub>WA</sub>	78	dB					
	2088	kg CO <sub>2 eq</sub> (100years)					
	Prated,c ty for part lidoor 27/19 Pdc Pdc Pdc Cdc Pdc	Prated,c         28           ty for part load at given door 27/19°C (dry/wet be door 27/19°C)         (dry/wet be door 27/19°C)           Pdc         28           Pdc         19.137           Pdc         13.246           Pdc         6.688           Cdc         0.25           FOFF         0.064           PTO         0           variated         Variated           LWA         78	Prated,c 28 kW  ty for part load at given outdoor temperatures door 27/19°C (dry/wet bulb)  Pdc 28 kW  Pdc 19.137 kW  Pdc 13.246 kW  Pdc 6.688 kW  Cdc 0.25 —  Power consumption in POFF 0.064 kW  PTO 0 kW  Variable  LWA 78 dB	Prated,c 28 kW  ty for part load at given outdoor temperatures door 27/19°C (dry/wet bulb)  Pdc 28 kW  Pdc 19.137 kW  Pdc 13.246 kW  Pdc 6.688 kW  Cdc 0.25 —  Power consumption in modes of POFF 0.064 kW  PTO 0 kW  Other item variable  LWA 78 dB	Prated,c       28       kW       Seasonal space cooling energy efficiency         ty for part load at given outdoor temperatures door 27/19℃ (dry/wet bulb)       Declared energy efficiency rate energy factor for part load         Pdc       28       kW       Tj=+35℃         Pdc       19.137       kW       Tj=+30℃         Pdc       13.246       kW       Tj=+25℃         Pdc       6.688       kW       Tj=+20℃         Cdc       0.25       —         Power consumption in modes other than "active mode"         PoFF       0.064       kW       Crankcase heater mode         PTO       0       kW       Standby mode         Other items         For air-to-air air conditioner:air flow rate,outdoor measured         LWA       78       dB	Prated,c  Prated,c  Prated,c  Prated,c  Prated,c  Propert load at given outdoor temperatures door 27/19°C (dry/wet bulb)  Pdc  Pdc  19.137  RW  Tj=+35°C  EERd  Pdc  19.137  RW  Tj=+25°C  EERd  Pdc  13.246  RW  Tj=+20°C  EERd  Pdc  O.025  Power consumption in modes other than "active mode"  Poff  Poff  0.064  RW  Crankcase heater mode  Porf  PTD  O  RW  Cother items  Variable  For air-to-air air conditioner:air flow rate,outdoor measured  Pdc  Possible Propertics of past utilisation or gas utilisation energy efficiency ratio or gas utilisation energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy factor for part load at given outdoor to energy efficiency  EERd  Catherine mode  Porf  Other items  Variable  For air-to-air air conditioner:air flow rate,outdoor measured  LWA  78  dB	Prated,c         28         kW         Seasonal space cooling energy efficiency         r/s,c         220.6           ty for part load at given outdoor temperatures door 27/19°C (dry/wet bulb)         Declared energy efficiency ratio or gas utilisation efficiency energy factor for part load at given outdoor temperature.           Pdc         28         kW         Tj=+35°C         EERd         3.26           Pdc         19.137         kW         Tj=+30°C         EERd         4.44           Pdc         13.246         kW         Tj=+25°C         EERd         6.40           Pdc         6.688         kW         Tj=+20°C         EERd         11.41           Cdc         0.25         —         Crankcase heater mode         PCK         0.064           PTO         0         kW         Crankcase heater mode         PSB         0.064           Other items           Variable         For air-to-air air conditioner:air flow rate,outdoor measured         —         10500

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(\*)If C<sub>dc</sub> is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-280EAI;

Test matching indoor units form, Duct: 4×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be declared for the average heating season, parameters for the warmer and colder heating seasoms are optional

Parameters shall be declar	red for the	average hea	ting season,parameters	for the warmer and colder heating seas	soms are optional		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	28	kW	Seasonal space heating energy efficiency	η <sub>s,h</sub>	134.2	%
Declared heating capacity out		oad at indoor eratures T <sub>j</sub>	teperature 20°C and	Declared coefficient of efficiency/auxiliary energy ter			
T <sub>j</sub> =-7℃	P <sub>dh</sub>	17.176	kW	T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.32	
T <sub>j</sub> =+2℃	P <sub>dh</sub>	11.706	kW	T <sub>j</sub> =+2°C	COP <sub>d</sub>	3.40	
T <sub>j</sub> =+7℃	P <sub>dh</sub>	7.071	kW	T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.50	
T <sub>j</sub> =+12℃	P <sub>dh</sub>	4.381	kW	T <sub>j</sub> =+12°C	COP <sub>d</sub>	5.15	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	17.176	kW	T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.32	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	19.313	kW	T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.89	
Bivalent temperature	T <sub>biv</sub>	-7	℃				
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_				
Power consumption in mod	des other t	han "active n	node"	Suppl	ementary heater		
Off mode	P <sub>OFF</sub>	0.064	kW	Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.064	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.124	kW	Standby mode	P <sub>SB</sub>	0.064	kW
			Oth	ner items			
Capacity control		varia	ble	For air-to-air heat pump:air flow rate,outdoor measured	_	10500	m <sup>3</sup> /h
Sound power level,outdoor	L <sub>WA</sub>	78	dB				
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)				
				K; info@sinclair-solutions.com / www.			

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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for air-to-air conditioners

Model(s):SDV5-335EAI; Test matching indoor units form, Duct: 6×SDV5-56DA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	33.5	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	203.8	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet b			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	33.5	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.57	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	23.276	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.07	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	15.186	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	6.65	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	8.719	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	8.62	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.064	kW
			C	Other item	ns			
Capacity control variable					For air-to-air air conditioner:air flow rate,outdoor measured	1	11000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	81	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
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(\*)If C<sub>dc</sub>is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

Table.6

# Information requirements for heat pumps

Model(s):SDV5-335EAI;

Test matching indoor units form, Duct: 6×SDV5-56DA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	ared for the	average hea	ting season,parameter	s for the v	warmer and colder heating seaso	oms are optional			
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit	
Rated heating capacity	P <sub>rated,h</sub>	33.5	kW		Seasonal space heating energy efficiency	ηs,h	133.4	%	
Declared heating capac		oad at indoor peratures T <sub>j</sub>	teperature 20°C and		Declared coefficient o efficiency/auxiliary energy tem				
T <sub>j</sub> =-7℃	P <sub>dh</sub>	17.346	kW		T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.44		
T <sub>j</sub> =+2℃	P <sub>dh</sub>	10.544	kW		T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.24		
T <sub>j</sub> =+7℃	P <sub>dh</sub>	7.080	kW		T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.49		
T <sub>j</sub> =+12℃	P <sub>dh</sub>	5.589	kW		T <sub>j</sub> =+12°C	COP <sub>d</sub>	4.99		
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	17.346	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.44		
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	19.730	kW		T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	2.34		
Bivalent temperature	T <sub>biv</sub>	-7	℃						
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_						
Power consumption in me	odes other	than "active r	node"		Supplementary heater				
Off mode	P <sub>OFF</sub>	0.064	kW		Back-up heating capacity(*)	elbu	0	kW	
Thermosat-off mode	P <sub>TO</sub>	0.064	kW		Type of energy input				
Crankcase heater mode	P <sub>CK</sub>	0.124	kW		Standby mode	P <sub>SB</sub>	0.064	kW	
			C	ther item	S				
Capacity control		varia	ble		For air-to-air heat pump:air flow rate,outdoor measured	_	11000	m³/h	
Sound power level,outdoor	L <sub>WA</sub>	81	dB						
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)						
Contact details	SINCLAIF	R Corp. Ltd.,	1-4 Argyll St., London,	UK; info@	sinclair-solutions.com / www.s	sinclair-solutions.cor	n		
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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

## Information requirements for air-to-air conditioners

Model(s):SDV5-400EAI:

Test matching indoor units form, Duct: 2×SDV5-56DA+4×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

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Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	40	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	196.2	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet b			Declared energy efficiency rate energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	40	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.65	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	29.504	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.11	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	18.187	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.58	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	9.939	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	8.91	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	her than "active mode"			
Off mode	P <sub>OFF</sub>	0.064	kW		Crankcase heater mode	Pck	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.064	kW
			C	Other item	IS			
Capacity control		varia	ible		For air-to-air air conditioner:air flow rate,outdoor measured	_	13000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	85	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					Ì
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(\*)If Cdc is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-400EAI;

Test matching indoor units form, Duct: 2×SDV5-56DA+4×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	ared for the	average hea	ting season,parameter	s for the v	varmer and colder heating seaso	oms are optional			
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit	
Rated heating capacity	P <sub>rated,h</sub>	40	kW		Seasonal space heating energy efficiency	η <sub>s,h</sub>	137.8	%	
Declared heating capac		oad at indoor peratures T <sub>j</sub>	teperature 20℃ and		Declared coefficient or efficiency/auxiliary energy tem				
T <sub>j</sub> =-7°C	P <sub>dh</sub>	25.931	kW		T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.54		
T <sub>j</sub> =+2℃	P <sub>dh</sub>	15.791	kW		T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.30		
T <sub>j</sub> =+7℃	P <sub>dh</sub>	10.318	kW		T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.66		
T <sub>j</sub> =+12℃	P <sub>dh</sub>	9.548	kW		T <sub>j</sub> =+12°C	COP <sub>d</sub>	5.49		
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	25.931	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.54		
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	29.325	kW		T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	2.14		
Bivalent temperature	T <sub>biv</sub>	-7	℃						
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_						
Power consumption in m	odes other	than "active n	node"		Supplementary heater				
Off mode	P <sub>OFF</sub>	0.064	kW		Back-up heating capacity(*)	elbu	0	kW	
Thermosat-off mode	P <sub>TO</sub>	0.064	kW		Type of energy input				
Crankcase heater mode	P <sub>CK</sub>	0.124	kW		Standby mode	P <sub>SB</sub>	0.064	kW	
			C	ther item	S				
Capacity control		varia	ble		For air-to-air heat pump:air flow rate,outdoor measured	_	13000	m <sup>3</sup> /h	
Sound power level,outdoor	L <sub>WA</sub>	85	dB						
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)						
Contact details	SINCLAIF	R Corp. Ltd., 1	I-4 Argyll St., London,	UK; info@	sinclair-solutions.com / www.s	inclair-solutions.cor	m		
(*)									

(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-450EAI:

Test matching indoor units form, Duct: 4×SDV5-71DHA+2×SDV5-80DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	45	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	193.0	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet l			Declared energy efficiency rate energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	45	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.40	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	31.412	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	3.70	1
T <sub>j</sub> =+25℃	P <sub>dc</sub>	20.145	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.83	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	9.939	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	8.91	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in i	modes of	ther than "active mode"			
Off mode	Poff	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.064	kW
			0	ther item	ns			
Capacity control		varia	able		For air-to-air air conditioner:air flow rate,outdoor measured	_	13000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	88	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
Otttttttttttt-	ID 0 14	al	Ot 1 11K: ! f- @	0 -!I -!		14!		

Contact details: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK; info@sinclair-solutions.com / www.sinclair-solutions.com

(\*)If Cdc is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

## Information requirements for heat pumps

Model(s):SDV5-450EAI;

Test matching indoor units form, Duct: 4×SDV5-71DHA+2×SDV5-80DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	meters shall be declared for the average heating season,parameters for the warmer and colder heating seasoms are optional										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit			
Rated heating capacity	P <sub>rated,h</sub>	45	kW		Seasonal space heating energy efficiency	η <sub>s,h</sub>	137.8	%			
Declared heating capac		load at indoor peratures T <sub>j</sub>	teperature 20℃ and		Declared coefficient or efficiency/auxiliary energy tem						
T <sub>j</sub> =-7°C	P <sub>dh</sub>	25.931	kW		T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.54				
T <sub>j</sub> =+2°C	P <sub>dh</sub>	15.791	kW		T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.30				
T <sub>j</sub> =+7°C	P <sub>dh</sub>	10.318	kW		T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.66				
T <sub>j</sub> =+12℃	P <sub>dh</sub>	9.548	kW		T <sub>j</sub> =+12°C	COP <sub>d</sub>	5.49				
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	25.931	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.54				
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	29.325	kW		T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	2.14				
Bivalent temperature	T <sub>biv</sub>	-7	°C								
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_								
Power consumption in m	odes other	than "active n	node"		Supplementary heater						
Off mode	P <sub>OFF</sub>	0.064	kW		Back-up heating capacity(*)	elbu	0	kW			
Thermosat-off mode	P <sub>TO</sub>	0.064	kW		Type of energy input						
Crankcase heater mode	P <sub>CK</sub>	0.124	kW		Standby mode	P <sub>SB</sub>	0.064	kW			
			C	Other item	s						
Capacity control		varia	ble		For air-to-air heat pump:air flow rate,outdoor measured	_	13000	m³/h			
Sound power level,outdoor	L <sub>WA</sub>	88	dB								
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)								
Contact details	SINCLAIF	R Corp. Ltd., 1	-4 Argyll St., London,	UK; info@	sinclair-solutions.com / www.s	inclair-solutions.cor	n	_			
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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-500EAI;

Test matching indoor units form, Duct: 4×SDV5-56DA+4×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

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Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	50	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	197.4	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet b			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	50	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.55	
T <sub>j</sub> =+30°C	P <sub>dc</sub>	36.091	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	3.86	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	22.777	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.89	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	10.928	kW		T <sub>j</sub> =+20°C	EER <sub>d</sub>	8.50	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	her than "active mode"			
Off mode	Poff	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.064	kW
			C	Other item	ns			
Capacity control		varia	ible		For air-to-air air conditioner:air flow rate,outdoor measured	-	13000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	88	dB					<u> </u>
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					

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(\*)If Cdc is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-500EAI;

Test matching indoor units form, Duct: 4×SDV5-56DA+4×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	meters shall be declared for the average heating season,parameters for the warmer and colder heating seasoms are optional									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Rated heating capacity	P <sub>rated,h</sub>	50	kW		Seasonal space heating energy efficiency	η <sub>s,h</sub>	134.2	%		
Declared heating capac		load at indoor peratures T <sub>j</sub>	teperature 20°C and		Declared coefficient or efficiency/auxiliary energy tem					
T <sub>j</sub> =-7°C	P <sub>dh</sub>	27.878	kW		T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.46			
T <sub>j</sub> =+2℃	P <sub>dh</sub>	18.272	kW		T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.18			
T <sub>j</sub> =+7℃	P <sub>dh</sub>	11.923	kW		T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.64			
T <sub>j</sub> =+12℃	P <sub>dh</sub>	9.535	kW		T <sub>j</sub> =+12℃	COP <sub>d</sub>	5.43			
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	27.878	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.46			
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	31.575	kW		T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.95			
Bivalent temperature	T <sub>biv</sub>	-7	°C							
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_							
Power consumption in m	odes other	than "active n	node"		Supplementary heater					
Off mode	P <sub>OFF</sub>	0.064	kW		Back-up heating capacity(*)	elbu	0	kW		
Thermosat-off mode	P <sub>TO</sub>	0.064	kW		Type of energy input					
Crankcase heater mode	P <sub>CK</sub>	0.124	kW		Standby mode	P <sub>SB</sub>	0.064	kW		
			C	Other item	S					
Capacity control		varia	ble		For air-to-air heat pump:air flow rate,outdoor measured	_	13000	m³/h		
Sound power level,outdoor	L <sub>WA</sub>	88	dB							
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)							
Contact details	SINCLAIF	R Corp. Ltd., 1	-4 Argyll St., London,	UK; info@	sinclair-solutions.com / www.s	sinclair-solutions.cor	m			
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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-560EAI; Test matching indoor units form, Duct: 8×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	56	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	196.6	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet l			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	56	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	3.10	
T <sub>j</sub> =+30°C	P <sub>dc</sub>	39.039	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	3.95	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	23.261	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.65	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	11.429	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	7.55	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	ther than "active mode"		•	
Off mode	Poff	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.064	kW
			C	Other item	ns			
Capacity control		varia	able		For air-to-air air conditioner:air flow rate,outdoor measured	_	17000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	88	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					

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(\*)If Cdc is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

## Information requirements for heat pumps

Model(s):SDV5-560EAI;

Test matching indoor units form, Duct: 8×SDV5-71DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	ared for the	average hea	iting season,parameters for	or the warmer and colder heating seas	oms are optional		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	56	kW	Seasonal space heating energy efficiency	η <sub>s,h</sub>	133.0	%
Declared heating capac		oad at indoor peratures T <sub>j</sub>	teperature 20℃ and	Declared coefficient of efficiency/auxiliary energy ten			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	29.294	kW	T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.06	
T <sub>j</sub> =+2℃	P <sub>dh</sub>	18.293	kW	T <sub>j</sub> =+2°C	COP <sub>d</sub>	3.29	
T <sub>j</sub> =+7℃	P <sub>dh</sub>	11.917	kW	T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.80	
T <sub>j</sub> =+12°C	P <sub>dh</sub>	10.498	kW	T <sub>j</sub> =+12℃	COP <sub>d</sub>	5.61	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	29.294	kW	T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.06	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	33.107	kW	T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.64	
Bivalent temperature	T <sub>biv</sub>	-7	℃				
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_				
Power consumption in me	odes other	than "active r	node"	Supple	ementary heater		
Off mode	P <sub>OFF</sub>	0.064	kW	Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.064	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.124	kW	Standby mode	P <sub>SB</sub>	0.064	kW
			Othe	er items			
Capacity control		varia	ble	For air-to-air heat pump:air flow rate,outdoor measured	_	17000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	88	dB				
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)				
Contact details	SINCLAIF	R Corp. Ltd.,	1-4 Argyll St., London, UK	K; info@sinclair-solutions.com / www.	sinclair-solutions.co	m	
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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-615FAI:

Test matching indoor units form, Duct: 4×SDV5-71DHA+4×SDV5-80DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

applicable all to to to	p. 0000o.							
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	61.5	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	194.2	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet b			Declared energy efficiency ra energy factor for part load	•		•
T <sub>j</sub> =+35℃	P <sub>dc</sub>	61.5	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.79	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	43.022	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	3.86	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	27.726	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.70	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	12.137	kW		T <sub>j</sub> =+20℃	EERd	7.55	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.064	kW		Crankcase heater mode	P <sub>CK</sub>	0.064	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.064	kW
			C	Other item	ns			
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	-	17000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	88	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
			•		•			

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(\*)If C<sub>dc</sub> is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for heat pumps

Model(s):SDV5-615EAI;

Test matching indoor units form, Duct: 4×SDV5-71DHA+4×SDV5-80DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor Parameters shall be declared for the average heating season,parameters for the warmer and colder heating seasoms are optional Item Symbol Value Unit Item Symbol Value Unit Seasonal space heating Rated heating capacity P<sub>rated,h</sub> kW %  $\eta_{\,\text{s},\text{h}}$ 61.5 133.0 energy efficiency Declared coefficient of performance or gas utilisation Declared heating capacity for part load at indoor teperature 20°C and efficiency/auxiliary energy factor for part load at given outdoor outdoor temperatures Ti temperatures T<sub>i</sub> T<sub>i</sub>=-7℃ kW T<sub>i</sub>=-7°C  $COP_d$  $P_{dh}$ 29.294 2.06 T<sub>i</sub>=+2℃ kW T<sub>i</sub>=+2℃  $P_{dh}$ COPd 18.293 3.29 T<sub>j</sub>=+7℃  $\mathsf{P}_{\mathsf{dh}}$ kW T<sub>i</sub>=+7℃ COPd 11.917 4.80 kW T<sub>i</sub>=+12°C T<sub>i</sub>=+12℃  $P_{dh}$ COPd 10.498 T<sub>biv</sub>=bivalent kW  $P_{dh}$ T<sub>biv</sub> =bivalent temperature COPd 29.294 2.06 temperature T<sub>OL</sub>=operation  $COP_d$  $P_{dh}$ kW T<sub>OL</sub> =operation temperature temperature 33.107 1.64 Bivalent temperature  $T_{biv}$ °C -7 Degradation co-efficient  $C_{\text{dh}}$ 0.25 for heat pumps(\*\*) Power consumption in modes other than "active mode" Supplementary heater Off mode Poff kW Back-up heating capacity(\*) elbu 0 kW 0.064  $\mathsf{P}_{\mathsf{TO}}$ Thermosat-off mode kW Type of energy input 0.064 Crankcase heater mode Pck kW Standby mode PsB 0.064 kW 0.124 Other items For air-to-air heat pump:air Capacity control variable m<sup>3</sup>/h 17000 flow rate, outdoor measured Sound power  $\mathsf{L}_{\mathsf{WA}}$ dΒ 88 level,outdoor kg CO<sub>2 eq</sub>(100years) GWP of the refrigerant 2088  $SINCLAIR\ Corp.\ Ltd.,\ 1-4\ Argyll\ St.,\ London,\ UK;\ info@sinclair-solutions.com\ /\ www.sinclair-solutions.com$ Contact details

(\*)

(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

## Information requirements for air-to-air conditioners

Model(s):SDV5-670EAI;
Test matching indoor units form, Duct: 4×SDV5-80DHA+4×SDV5-90DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	67	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	205.8	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet l	•		Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	67	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.41	
T <sub>j</sub> =+30°C	P <sub>dc</sub>	44.6	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	3.72	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	30.31	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	6.52	
T <sub>j</sub> =+20°C	P <sub>dc</sub>	12.94	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	9.57	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.085	kW		Crankcase heater mode	P <sub>CK</sub>	0.085	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.085	kW
			C	Other item	ns			
Capacity control		varia	able		For air-to-air air conditioner:air flow rate,outdoor measured	_	24500	m³/h
Sound power level,outdoor	L <sub>WA</sub>	89	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
					1			

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(\*)If C<sub>dc</sub> is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

## Information requirements for heat pumps

Model(s):SDV5-670EAI;

Test matching indoor units form, Duct: 4×SDV5-80DHA+4×SDV5-90DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be declared for the average heating season, parameters for the warmer and colder heating seasoms are optional

Parameters shall be decla	ared for the	average hea	ting season,parameter	s for the v	varmer and colder heating seas	oms are optional		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	67	kW		Seasonal space heating energy efficiency	η <sub>s,h</sub>	133.0	%
Declared heating capaci		oad at indoor peratures T <sub>j</sub>	teperature 20°C and		Declared coefficient of performance or gas utilisat efficiency/auxiliary energy factor for part load at given temperatures T <sub>j</sub>			
T <sub>j</sub> =-7℃	$P_{dh}$	40.63	kW		T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.31	
T <sub>j</sub> =+2°C	P <sub>dh</sub>	25.21	kW		T <sub>j</sub> =+2°C	COP <sub>d</sub>	3.14	
T <sub>j</sub> =+7℃	P <sub>dh</sub>	16.21	kW		T <sub>j</sub> =+7°C	COP <sub>d</sub>	4.83	
T <sub>j</sub> =+12℃	P <sub>dh</sub>	9.21	kW		T <sub>j</sub> =+12°C	COP <sub>d</sub>	5.05	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	43.25	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	1.90	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	43.25	kW		T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.90	
Bivalent temperature	T <sub>biv</sub>	-10	°C					
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	-					
Power consumption in mo	odes other	than "active n	node"		Supplementary heater			
Off mode	P <sub>OFF</sub>	0.085	kW		Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.085	kW		Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.085	kW		Standby mode	P <sub>SB</sub>	0.085	kW
			C	ther items	S			
Capacity control		varia	ble		For air-to-air heat pump:air flow rate,outdoor measured	_	24500	m³/h
Sound power level,outdoor	L <sub>WA</sub>	89	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
Contact details	SINCLAIF	R Corp. Ltd., 1	I-4 Argyll St., London,	UK; info@	esinclair-solutions.com / www.s	sinclair-solutions.com	n	

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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-730EAI; Test matching indoor units form, Duct: 8×SDV5-90DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

''	•							
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	73	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	201	%
Declared cooling capaci T <sub>j</sub> and in		oad at given C (dry/wet b	•		Declared energy efficiency rate energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	73	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.25	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	48.88	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.21	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	32.9	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.68	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	14.13	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	9.30	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	her than "active mode"			
Off mode	P <sub>OFF</sub>	0.085	kW		Crankcase heater mode	P <sub>CK</sub>	0.085	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.085	kW
			C	Other item	ns			
Capacity control		varia	ible		For air-to-air air conditioner:air flow rate,outdoor measured	ı	24500	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
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Contact details: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK; info@sinclair-solutions.com / www.sinclair-solutions.com

(\*)If Cdc is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-730EAI;

Test matching indoor units form, Duct: 8×SDV5-90DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	ared for the	average hea	ating season,parameters for	r the warmer and colder heating seaso	oms are optional		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	73	kW	Seasonal space heating energy efficiency	η <sub>s,h</sub>	133.0	%
Declared heating capac		oad at indoor peratures T <sub>j</sub>	teperature 20°C and	Declared coefficient of efficiency/auxiliary energy tem			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	40.63	kW	T <sub>j</sub> =-7℃	COPd	2.31	
T <sub>j</sub> =+2℃	P <sub>dh</sub>	25.21	kW	T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.14	
T <sub>j</sub> =+7℃	P <sub>dh</sub>	16.21	kW	T <sub>j</sub> =+7℃	COP <sub>d</sub>	4.83	
T <sub>j</sub> =+12°C	P <sub>dh</sub>	9.21	kW	T <sub>j</sub> =+12℃	COP <sub>d</sub>	5.05	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	43.25	kW	T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	1.90	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	43.25	kW	T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.90	
Bivalent temperature	T <sub>biv</sub>	-10	°C				
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_				
Power consumption in me	odes other	than "active r	node"	Supple	mentary heater		
Off mode	P <sub>OFF</sub>	0.085	kW	Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.085	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.085	kW	Standby mode	P <sub>SB</sub>	0.085	kW
			Other	ritems			
Capacity control		varia	able	For air-to-air heat pump:air flow rate,outdoor measured	_	24500	m <sup>3</sup> /h
Sound power level,outdoor	L <sub>WA</sub>	90	dB				
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)				
Contact details	SINCLAIF	R Corp. Ltd.,	1-4 Argyll St., London, UK;	info@sinclair-solutions.com / www.s	inclair-solutions.co	m	
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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-785EAI; Test matching indoor units form, Duct: 8×SDV5-100DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

in applicable arrect of cor	11p1 00001.01	Cottio motor						
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	78.5	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	195.0	%
Declared cooling capaci T <sub>j</sub> and in		oad at given o			Declared energy efficiency ra energy factor for part load	•		•
T <sub>j</sub> =+35℃	P <sub>dc</sub>	78.5	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.10	-
T <sub>j</sub> =+30℃	P <sub>dc</sub>	52.42	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.19	1
T <sub>j</sub> =+25℃	P <sub>dc</sub>	33.78	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.45	1
T <sub>j</sub> =+20℃	P <sub>dc</sub>	15.44	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	9.00	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>		_					
		F	Power consumption in	modes of	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.085	kW		Crankcase heater mode	P <sub>CK</sub>	0.085	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	P <sub>SB</sub>	0.085	kW
			C	Other item	ns			
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	_	25000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					

Contact details: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK; info@sinclair-solutions.com / www.sinclair-solutions.com

(\*)If C<sub>dc</sub> is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-785EAI;

Test matching indoor units form, Duct: 8×SDV5-100DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

		- ''					
If applicable:driver of com	•						
Parameters shall be decla	ared for the	average hea	ting season,parameters	s for the warmer and colder heating seas	oms are optional		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	78.5	kW	Seasonal space heating energy efficiency	η <sub>s,h</sub>	133.0	%
Declared heating capaci oเ		oad at indoor peratures T <sub>j</sub>	teperature 20°C and	Declared coefficient of efficiency/auxiliary energy ten			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	40.63	kW	T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.31	
T <sub>j</sub> =+2℃	P <sub>dh</sub>	25.21	kW	T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.14	
T <sub>j</sub> =+7°C	P <sub>dh</sub>	16.21	kW	T <sub>j</sub> =+7℃	COP <sub>d</sub>	4.83	
T <sub>j</sub> =+12℃	P <sub>dh</sub>	9.21	kW	T <sub>j</sub> =+12℃	COP <sub>d</sub>	5.05	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	43.25	kW	T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	1.90	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	43.25	kW	T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.90	
Bivalent temperature	T <sub>biv</sub>	-10	°C				
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_				
Power consumption in mo	odes other	than "active n	node"	Suppl	ementary heater		
Off mode	P <sub>OFF</sub>	0.085	kW	Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.085	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.085	kW	Standby mode	P <sub>SB</sub>	0.085	kW
			0	ther items			
Capacity control		varia	ble	For air-to-air heat pump:air flow rate,outdoor measured	_	25000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB				
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)				
Contact details	SINCLAIR	R Corp. Ltd., 1	-4 Argyll St., London, l	JK; info@sinclair-solutions.com / www.	sinclair-solutions.co	om	

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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-850EAI; Test matching indoor units form, Duct: 4×SDV5-100DHA+4×SDV5-112DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

''	•							
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	85	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	203.4	%
Declared cooling capaci T <sub>j</sub> and in		oad at given ℃ (dry/wet b			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	85	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	1.90	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	56.76	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.17	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	36.41	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	6.35	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	16.4	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	8.95	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.085	kW		Crankcase heater mode	P <sub>CK</sub>	0.085	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	$P_{SB}$	0.085	kW
			C	Other item	_			
Capacity control		varia	able		For air-to-air air conditioner:air flow rate,outdoor measured	_	24000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
							1	

Contact details: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK; info@sinclair-solutions.com / www.sinclair-solutions.com

(\*)If Cdc is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

## Information requirements for heat pumps

Model(s):SDV5-850EAI;

Test matching indoor units form, Duct: 4×SDV5-100DHA+4×SDV5-112DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of compressor:electric motor

Parameters shall be decl	ared for the	average hea	ating season,parameters fo	or the warmer and colder heating seaso	oms are optional		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	85	kW	Seasonal space heating energy efficiency	η <sub>s,h</sub>	133.4	%
Declared heating capac		oad at indoor peratures T <sub>j</sub>	teperature 20°C and	Declared coefficient or efficiency/auxiliary energy tem			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	39.85	kW	T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.32	
T <sub>j</sub> =+2℃	P <sub>dh</sub>	24.62	kW	T <sub>j</sub> =+2°C	COP <sub>d</sub>	3.10	
T <sub>j</sub> =+7°C	P <sub>dh</sub>	16.84	kW	T <sub>j</sub> =+7°C	COP <sub>d</sub>	5.00	
T <sub>j</sub> =+12℃	P <sub>dh</sub>	13.01	kW	T <sub>j</sub> =+12°C	COP <sub>d</sub>	5.46	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	45.19	kW	T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	1.85	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	45.19	kW	T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.85	
Bivalent temperature	T <sub>biv</sub>	-10	°C				
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	-				
Power consumption in me	odes other	than "active r	node"	Supple	ementary heater		
Off mode	P <sub>OFF</sub>	0.085	kW	Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.085	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.085	kW	Standby mode	P <sub>SB</sub>	0.085	kW
	•		Othe	er items			
Capacity control		varia	able	For air-to-air heat pump:air flow rate,outdoor measured	_	24000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB				
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)				
Contact details	SINCLAIF	R Corp. Ltd.,	1-4 Argyll St., London, UK;	; info@sinclair-solutions.com / www.s	sinclair-solutions.co	m	

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(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

#### Information requirements for air-to-air conditioners

Model(s):SDV5-900EAI;

Test matching indoor units form, Duct: 8×SDV5-112DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Type:compressor driven

If applicable:driver of compressor:electric motor

ii applicable.uriver or cor	iipi essoi .ei	ectric motor						
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	P <sub>rated,c</sub>	90	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	197.8	%
Declared cooling capaci T <sub>j</sub> and in		oad at given occupant			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	90	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	1.88	1
T <sub>j</sub> =+30℃	P <sub>dc</sub>	60.69	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.14	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	38.72	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	5.82	-
T <sub>j</sub> =+20℃	P <sub>dc</sub>	18.14	kW		T <sub>j</sub> =+20°C	EER <sub>d</sub>	9.20	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes of	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.085	kW		Crankcase heater mode	P <sub>CK</sub>	0.085	kW
Thermosat-off mode	P <sub>TO</sub>	0	kW		Standby mode	$P_{SB}$	0.085	kW
			C	Other item	ns			
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	_	24000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					

Contact details: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK; info@sinclair-solutions.com / www.sinclair-solutions.com

(\*)If C<sub>dc</sub> is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25

# Information requirements for heat pumps

Model(s):SDV5-900EAI;

Test matching indoor units form, Duct: 8×SDV5-112DHA;

Outdoor side heat exchanger of air conditioner:air

Indoor side heat exchanger of air conditioner:air

Idication if the heater is equipped with a supplementary heater:no

If applicable:driver of con	npressor:ele	ectric motor						
Parameters shall be decla	ared for the	average hea	ting season,parameter	s for the v	varmer and colder heating seaso	oms are optional		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	90	kW		Seasonal space heating energy efficiency	η <sub>s,h</sub>	133.4	%
Declared heating capacity for part load at indoor teperature 20°C and outdoor temperatures T <sub>j</sub>					Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	39.85	kW		T <sub>j</sub> =-7℃	COP <sub>d</sub>	2.32	
T <sub>j</sub> =+2°C	P <sub>dh</sub>	24.62	kW		T <sub>j</sub> =+2℃	COP <sub>d</sub>	3.10	
T <sub>j</sub> =+7°C	P <sub>dh</sub>	16.84	kW		T <sub>j</sub> =+7℃	COP <sub>d</sub>	5.00	
T <sub>j</sub> =+12℃	P <sub>dh</sub>	13.01	kW		T <sub>j</sub> =+12℃	COP <sub>d</sub>	5.46	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	45.19	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	1.85	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	45.19	kW		T <sub>OL</sub> =operation temperature	COP <sub>d</sub>	1.85	
Bivalent temperature	T <sub>biv</sub>	-10	℃					
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_					
Power consumption in modes other than "active mode"					Supplementary heater			
Off mode	P <sub>OFF</sub>	0.085	kW		Back-up heating capacity(*)	elbu	0	kW
Thermosat-off mode	P <sub>TO</sub>	0.085	kW		Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.085	kW		Standby mode	P <sub>SB</sub>	0.085	kW
			0	Other items	3			
Capacity control	variable				For air-to-air heat pump:air flow rate,outdoor measured	_	24000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	90	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
Contact details	SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK; info@sinclair-solutions.com / www.sinclair-solutions.com							

(\*\*)If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25