Cooling mode:

		mormation	requirements	s for air-to-air condi	uoners		
Model(s): SDV4-140 Test matching indoc		non-duct:2×S	DV4-40CAF* +	2×SDV4-28CAF*			
Outdoor side heat e	xchanger of a	ir conditioner	air				
Indoor side heat exc	changer of air	conditioner:a	ir				
Type:compressor dr	riven						
If applicable:driver c	of compressor:	electric moto	r				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	P _{rated,c}	14	kW	Seasonal space cooling energy efficiency	η _{s,c}	233.8	%
Declared cooling ca temperatures Tj ar				Declared energy efficie energy factor for part lo			
Tj=+35°C	P _{dc}	14.000	kW	Tj=+35°C	EER₫	2.87	-
Tj=+30°C	P _{dc}	10.016	kW	Tj=+30°C	EER₫	4.69	-
Tj=+25°C	P _{dc}	6.629	kW	Tj=+25°C	EER₫	7.53	-
Tj=+20°C	P _{dc}	5.176	kW	Tj=+20°C	EER₫	10.19	-
			· · · · ·				<u> </u>
Degradation co-efficient for air conditioners(*)	C _{dc}	0.25	-				
I		Power cons	sumption in mod	les other than "active m	node"		I
Off mode	POFF	0.023	kW	Crankcase heater mode	Рск	0.023	kW
Thermosat-off mode	P _{TO}	0	kW	Standby mode	P _{SB}	0.023	kW
			Othe	r items			
Capacity control		variable		For sin to sin sin			
Sound power level,outdoor	L _{WA}	73	dB	For air-to-air air conditioner:air flow rate,outdoor	-	6500	m³/h
GWP of the refrigerant		2088	kg CO _{2 eq} (100years)	measured			
Contact details: Ma info@sinclair-eu.co			p. Ltd., 1-4 Argy	/II St., London, UK			
(*)If Cdc is not dete	rmined by me	asurement th	en the default d	egradation coefficient o	f heat pumps	shall be 0.25	

Information requirements for air-to-air conditioners

Model(s): SDV4-140EAA

Test matching indoor units from2,non-duct:2×SDV4-40CAF* + 2×SDV4-28CAF*

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 anerage heating season, parameters for the warmer and colder heating seasoms are optional

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	P _{rated,h}	15.4	kW	Seasonal space heating energy efficiency	η _{s,h}	151.4	%
Declared heating of 20°C and outdoor			or teperature	Declared coefficient of energy factor for part lo			
Tj=-7°C	P _{dh}	8.067	kW	Tj=-7°C	COPd	2.27	-
Tj=+2°C	P _{dh}	4.917	kW	Tj=+2°C	COPd	3.87	-
Tj=+7°C	P _{dh}	3.399	kW	Tj=+7°C	COPd	5.27	-
Tj=+12°C	P _{dh}	3.654	kW	Tj=+12°C	COPd	6.28	-
T _{biv} =bivalent temperature	P _{dh}	8.067	kW	T _{biv} =bivalent temperature	COPd	2.27	-
T _{OL} =operation temperature	P _{dh}	6.436	kW	T _{OL} =operation temperature	COPd	2.04	-
Bivalent temperature	P _{biv}	-7	°C				
Degradation co-efficient for heat pumps(**)	C _{dh}	0.25	-				
Power consumpti	on in modes o	ther than "activ	ve mode"		Supple	ementary heat	er
Off mode	P _{OFF}	0.023	kW	Back-up heating capacity(*)	elbu	0.023	kW
Thermosat-off mode	P _{TO}	0.023	kW	Type of energy input			
Crankcase heater mode	Рск	0.023	kW	Standby mode	P _{SB}	0.023	kW
		-	Othe	er items			
Capacity control		variable		For air-to-air heat			
Sound power level,outdoor	L _{WA}	73	dB	pump:air flow rate,outdoor	-	6500	m³/h
GWP of the refrigerant		2088	kg CO _{2 eq} (100years)	measured			
Contact details: M info@sinclair-eu.c			o. Ltd., 1-4 Arg	yll St., London, UK			

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

Cooling mode:

	I	nformation	requirements	s for air-to-air condi	tioners		
Model(s):SDV4-160 Test matching indoc		non-duct:2×S	DV4-45CAF* +	2×SDV4-36CAF*			
Outdoor side heat e	xchanger of a	ir conditioner	air:				
Indoor side heat exc	changer of air	conditioner:a	ir				
Type:compressor dr	riven						
If applicable:driver c	of compressor:	electric moto	r				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	P _{rated,c}	15.5	kW	Seasonal space cooling energy efficiency	η _{s,c}	239.0	%
Declared cooling ca temperatures Tj ar				Declared energy efficient energy factor for part le			
Tj=+35°C	P _{dc}	15.500	kW	Tj=+35°C	EER₫	2.96	-
Tj=+30°C	P _{dc}	10.891	kW	Tj=+30°C	EER₫	4.63	-
Tj=+25°C	P _{dc}	6.981	kW	Tj=+25°C	EER₀	7.51	-
Tj=+20°C	P _{dc}	5.118	kW	Tj=+20°C	EERd	10.96	-
•	•						
Degradation co-efficient for air conditioners(*)	C _{dc}	0.25	-				
		Power cons	sumption in mod	les other than "active n	node"		
Off mode	P _{OFF}	0.023	kW	Crankcase heater mode	Рск	0.023	kW
Thermosat-off mode	Рто	0	kW	Standby mode	P _{SB}	0.023	kW
			Othe	r items			
Capacity control		variable		For air to air air	-		
Sound power level,outdoor	L _{WA}	73	dB	For air-to-air air conditioner:air flow rate,outdoor		6500	m³/h
GWP of the refrigerant		2088	kg CO _{2 eq} (100years)	measured			
Contact details: Ma info@sinclair-eu.co			p. Ltd., 1-4 Argy	Il St., London, UK			-
(*)If Cdc is not dete	rmined by me	asurement th	en the default de	egradation coefficient o	f heat pumps	shall be 0.25	

Information requirements for air-to-air conditioners

Model(s):SDV4-160EAA

Test matching indoor units from2,non-duct:2×SDV4-45CAF* + 2×SDV4-36CAF*

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

P _{rated.h}				-		
rated,h	17	kW	Seasonal space heating energy efficiency	η _{s,h}	142.6	%
	t load at indoo	or teperature	Declared coefficient of			
P _{dh}	10.407	kW	Tj=-7°C	COPd	2.13	-
P _{dh}	6.366	kW	Tj=+2°C	COPd	3.49	-
P _{dh}	4.324	kW	Tj=+7°C	COPd	5.42	-
P _{dh}	4.791	kW	Tj=+12°C	COPd	6.24	-
P _{dh}	10.407	kW	T _{biv} =bivalent temperature	COPd	2.13	-
P _{dh}	7.816	kW	T _{OL} =operation temperature	COPd	1.76	-
P _{biv}	-7	°C				
C _{dh}	0.25	-				
in modes ot	her than "activ	/e mode"		Supple	ementary heate	ər
P _{OFF}	0.023	kW	Back-up heating capacity(*)	elbu	0.023	kW
P _{TO}	0.023	kW	Type of energy input			
Рск	0.023	kW	Standby mode	P _{SB}	0.023	kW
		Othe	ritems			
	variable		_ · · · · · ·			
L _{WA}	73	dB	pump:air flow rate,outdoor	-	6500	m³/h
	2088	kg CO _{2 eq} (100years)	measured			
	nperatures T Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pbiv Cdh in modes ot POFF Рто Рск	nperatures Tj Pdh 10.407 Pdh 6.366 Pdh 4.324 Pdh 4.791 Pdh 10.407 Pdh 7.816 Pbiv -7 Cdh 0.25 in modes other than "activ PoFF 0.023 PTO 0.023 PTO 0.023 PTO 0.023 PCK 0.023 PCK 0.023	Pah 10.407 KW Pah 6.366 KW Pah 4.324 KW Pah 4.324 KW Pah 4.791 KW Pah 10.407 KW Pah 4.791 KW Pah 10.407 KW Pah 7.816 KW Pbiv -7 °C Cah 0.25 - in modes other than "active mode" PoFF 0.023 KW PTO 0.023 KW PCK 0.023 KW PCK 0.023 KW LWA 73 dB 2088 kg CO2 eq (100years) (100years)	nperatures Tj energy factor for part lo Pdh 10.407 kW Tj=-7°C Pdh 6.366 kW Tj=+2°C Pdh 4.324 kW Tj=+7°C Pdh 4.791 kW Tj=+12°C Pdh 10.407 kW Tj=+12°C Pdh 10.407 kW Tj=+12°C Pdh 7.816 kW ToL=operation Pbiv -7 °C ToL=operation Model 0.25 - Imperature PoFF 0.023 kW Back-up heating capacity(*) Pro 0.023 kW Type of energy input PcK 0.023 kW Standby mode Other items Variable For air-to-air heat pump:air flow rate, outdoor measured	Imperatures Tjenergy factor for part load at given outd Tj=-7°C P_{dh} 10.407KWTj=-7°CCOPd P_{dh} 6.366KWTj=+2°CCOPd P_{dh} 4.324KWTj=+12°CCOPd P_{dh} 4.791KWTj=+12°CCOPd P_{dh} 10.407KWTj=+12°CCOPd P_{dh} 7.816KWToL=operation temperatureCOPd P_{biv} -7°CToL=operation temperatureCOPd P_{biv} -7°CSupple P_{OFF} 0.023KWBack-up heating capacity(*)elbu P_{OFF} 0.023KWType of energy inputStandby modePsBOther itemsVariable L_{WA} 73dBFor air-to-air heat purp:air flow rate,outdoor measured-	Imperatures Tj energy factor for part load at given outdoor temperatures P_{dh} 10.407 kW Tj=-7°C COPd 2.13 P_{dh} 6.366 kW Tj=+2°C COPd 3.49 P_{dh} 4.324 kW Tj=+12°C COPd 5.42 P_{dh} 4.791 kW Tj=+12°C COPd 6.24 P_{dh} 10.407 kW Tj=+12°C COPd 2.13 P_{dh} 10.407 kW Tj=+12°C COPd 6.24 P_{dh} 7.816 kW Tot=operation COPd 1.76 P_{biv} -7 °C Imperature COPd 1.76 P_{off} 0.25 - Imperature COPd 0.023 Imperature Supplementary heate P_{OFF} 0.023 kW Back-up heating capacity(*) elbu 0.023 P_{CK} 0.023 kW Standby mode P_SB 0.023 $Variable$ 2088

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

Cooling mode:

	I	nformation	requirements	for air-to-air cond	itioners		
Model(s):SDV4-180 Test matching indo		non-duct:4×S	DV4-45CAF*				
Outdoor side heat e	exchanger of a	ir conditioner	:air				
ndoor side heat ex	changer of air	conditioner:a	ir				
Type:compressor d	riven						
f applicable:driver of	of compressor	electric moto:	r				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	P _{rated,c}	17.5	kW	Seasonal space cooling energy efficiency	η _{s,c}	202.2	%
Declared cooling c temperatures Tj a				Declared energy effici energy factor for part l			
Tj=+35°C	P _{dc}	17.500	kW	Tj=+35°C	EER₫	2.41	-
Tj=+30°C	P _{dc}	11.784	kW	Tj=+30°C	EER₫	4.50	-
Tj=+25°C	P _{dc}	7.817	kW	Tj=+25°C	EER₫	6.29	-
Tj=+20°C	P _{dc}	5.203	kW	Tj=+20°C	EERd	7.20	-
Degradation co-efficient or air conditioners(*)	C _{dc}	0.25	-				
·		Power con	sumption in mod	les other than "active r	node"		
Off mode	POFF	0.023	kW	Crankcase heater mode	Рск	0.023	kW
Thermosat-off mode	Ρτο	0	kW	Standby mode	P _{SB}	0.023	kW
			Other	ritems			
Capacity control		variable		For sir to sir sir	-		
Sound power level,outdoor	L _{WA}	74	dB	For air-to-air air conditioner:air flow rate,outdoor		6500	m³/h
GWP of the refrigerant		2088	kg CO _{2 eq} (100years)	measured			
Contact details: M info@sinclair-eu.c				Il St., London, UK			
(*)If Cdc is not dete	ermined by me	asurement th	en the default de	egradation coefficient o	of heat pumps	shall be 0.25	

Information requirements for air-to-air conditioners

Model(s):SDV4-180EA

Test matching indoor units from2,non-duct:4×SDV4-45CAF *

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 anerage heating season, parameters for the warmer and colder heating seasoms are optional	ameters shall be declared for the anerage heating season, parameters for the warmer and colder heat	ating seasoms are optional
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Symbol	Value	Unit	Item	Symbol	Value	Unit
P _{rated,h}	19	kW	Seasonal space heating energy efficiency	η _{s,h}	151.4	%
		or teperature				
P_{dh}	10.238	kW	Tj=-7°C	COPd	2.42	-
P_{dh}	6.584	kW	Tj=+2°C	COPd	3.80	-
P_{dh}	4.181	kW	Tj=+7°C	COPd	5.05	-
P_{dh}	4.697	kW	Tj=+12°C	COPd	5.86	-
P_{dh}	10.238	kW	T _{biv} =bivalent temperature	COPd	2.42	-
P_{dh}	8.407	kW	T _{OL} =operation temperature	COPd	1.86	-
P _{biv}	-7	°C				
C_{dh}	0.25	-				
on in modes of	ther than "activ	ve mode"		Supple	ementary heat	er
P _{OFF}	0.023	kW	Back-up heating capacity(*)	elbu	0.023	kW
P _{TO}	0.023	kW	Type of energy input			
Рск	0.023	kW	Standby mode	P _{SB}	0.023	kW
		Othe	r items			-
	variable		For air-to-air beat			
L _{WA}	74	dB	pump:air flow rate,outdoor	-	6500	m³/h
	2088	kg CO _{2 eq} (100years)	measured			
	Prated,h capacity for para camperatures Pdh Pdh Pdh Pdh Pdh Pdh Pdh Cdh on in modes of POFF PTO PCK	Prated,h19Prated,h19capacity for part load at indo temperatures TjPdh10.238Pdh6.584Pdh4.181Pdh4.697Pdh10.238Pdh8.407Pdh0.238Pdh0.25On in modes other than "actiPOFF0.023PTO0.023PCK0.023VariableLWA74	Prated,h19KWPrated,h19KWcapacity for part load at indoor teperature temperatures TjKWPdh10.238KWPdh6.584KWPdh4.697KWPdh10.238KWPdh4.697KWPdh10.238KWPdh0.238KWPdh0.25-Cdh0.25-On in modes other than "active mode"POFF0.023KWPro0.023KWPcK0.023KWCtwa74dBLWA74dB2088kg CO2 eq	Prated,h 19 KW Seasonal space heating energy efficiency Papacity for part load at indoor teperature emperatures Tj Declared coefficient of energy factor for part load Pdh 10.238 KW Pdh 6.584 KW Pdh 4.181 KW Pdh 4.697 KW Pdh 10.238 KW Pdh 4.697 KW Pdh 4.697 KW Pdh 8.407 KW Pdh 8.407 KW Pbiv -7 °C Cdh 0.25 - Cdh 0.25 - PorF 0.023 KW Pck 0.023 KW Pck 0.023 KW Pck 0.023 KW Standby mode Standby mode	Prated,h19KWSeasonal space heating energy efficiency $\eta_{s,h}$ Parated,h19KWSeasonal space heating energy efficiency $\eta_{s,h}$ Parated,h10.238KWDeclared coefficient of performance or energy factor for part load at given outoPdh10.238KWTj=-7°CCOPdPdh6.584KWTj=+2°CCOPdPdh4.181KWTj=+12°CCOPdPdh4.697KWTj=+12°CCOPdPdh10.238KWTou=operationCOPdPdh8.407KWTou=operationCOPdPdh8.407KWTou=operationCOPdPdh0.25-Image: comparisonCOPdPorF0.023KWStandby modePsBOther itemsOther itemsOther itemsVariableVariableFor air-to-air heat pump:air flow rate,outdoor measured-	Prated,h19KWSeasonal space heating energy efficiency $\eta_{s,h}$ 151.4Prated,h10.238KWDeclared coefficient of performance or gas utilisation eff energy factor for part load at given outdoor temperaturesPdh10.238KWTj=-7°CCOPd2.42Pdh6.584KWTj=+7°CCOPd3.80Pdh4.181KWTj=+7°CCOPd5.05Pdh4.697KWTj=+12°CCOPd5.86Pdh10.238KWTj=+12°CCOPd2.42Pdh8.407KWTj=+12°CCOPd2.42Pdh8.407KWToL=operationCOPd2.42Pdh8.407KWToL=operationCOPd1.86Pbiv-7°CSupplementary heatToL=operationCOPd1.86Porr0.023KWBack-up heating capacity(*)elbu0.023Pro0.023KWStandby modeP_SB0.023PCK0.023KWFor air-to-air heat pump:air flow rate,outdoor measured-6500

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

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