# Cooling mode:

# Information requirements for air-to-air conditioners

Model(s): K3F-450 DN4S

Test matching indoor units form, ducted

Outdoor side heat exchanger of air conditioner: air

Indoor side heat exchanger of air conditioner: air

Type: compressor driven

Driver of compressor: electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Rated cooling capacity	Prated,c	45.0	kW		Seasonal space cooling energy efficiency	ηs,c	264	%		
Declared cooling capacity for part load at given outdoor temperatures T <sub>j</sub> and indoor 27/19°C (dry/wet bulb)					Declared energy efficiency ratio or gas utilisation efficiency /auxiliary energy factor for part load at given outdoor temperatures T <sub>j</sub>					
Tj=+35°C	Pdc	45.00	kW		Tj=+35°C	EERd	3.75			
Tj=+30°C	Pdc	33.16	kW		Tj=+30°C	EERd	4.69			
Tj=+25°C	Pdc	21.32	kW		Tj=+25°C	EERd	7.11			
Tj=+20°C	Pdc	11.53	kW		Tj=+20°C	EERd	13.45			
Degradation co-efficient for air conditioners(*)	Cdc	0.25								
	Power consumption in modes other than "active mode"									
Off mode	Poff	0.05	kW		Crankcase heater mode	Рск	0.005	kW		
Thermosat-off mode	Рто	0.005	kW		Standby mode	PsB	0.05	kW		
	'		Oth	er it	ems	'				
Capacity control		variable			For air-to-air air conditioner: air flow rate, outdoor measured		14900	m³/h		
Sound power level, outdoor	Lwa	88	dB							
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)							

#### Contact details

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

Where information relates to multi-split air conditioners, the test result and performance data may be obtained on the basis of performance of the outdoor uni, with a combination of indoor unit(s) recommended by the manufacturer or importer.



### **Heating mode:**

Information requirements for heat pumps										
Model(s): K3F-450 DN4S Test matching indoor units form, ducted										
Outdoor side heat exchanger of air conditioner: air										
Indoor side heat exchanger of air conditioner: air										
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 seasons are optional.										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Rated heating capacity	Prated,h	45.0	kW		Seasonal space heating energy efficiency	ηs,h	170	%		
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 <sub>j</sub>					
Tj=-7°C	Pdh	23.09	kW		Tj=-7°C	COPd	2.58			
Tj=+2°C	Pdh	14.05	kW		Tj=+2°C	COPd	4.22			
Tj=+7°C	Pdh	9.28	kW		Tj=+7°C	COPd	5.88			
Tj=+12°C	Pdh	8.76	kW		Tj=+12°C	COPd	7.74			
T <sub>biv</sub> =bivalent temperature	Pdh	26.10	kW		T <sub>biv</sub> =bivalent temperature	COPd	2.24			
ToL=operation temperature	Pdh	26.10	kW		ToL =operation temperature	COPd	2.24			
Bivalent temperature	Tbiv	-10	°C							
Degradation co-efficient for heat pumps(**)	Cdh	0.25								
Power consumption in modes other than "active mode"					Supplementary heater					
Off mode	Poff	0.05	kW		Back-up heating capacity(*)	elbu	0	kW		
Thermosat-off mode	Рто	0.05	kW		Type of energy input					
Crankcase heater mode	Рск	0.005	kW		Standby mode	PsB	0.05	kW		
Other items										
Capacity control		variable			For air-to-air heat pump: air flow rate, outdoor measured		14900	m³/h		
Sound power level, outdoor	Lwa	88	dB							
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)							
Contact details										
(*)										
(**)If Cdh is not determined by measurement, then the default degradation coefficient of heat pumps shall be 0.25.										

Where information relates to multi-split heat pumps, the test result and performance data may be obtained on the basis of performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.

### Cooling mode:

# Information requirements for air-to-air conditioners

Model(s): K3F-450 DN4S

Test matching indoor units form2, cassette

Outdoor side heat exchanger of air conditioner: air

Indoor side heat exchanger of air conditioner: air

Type: compressor driven

Driver of compressor: electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Rated cooling capacity	Prated,c	45.0	kW		Seasonal space cooling energy efficiency	ηs,c	245	%		
Declared cooling capacity for part load at given outdoor temperatures T <sub>j</sub> and indoor 27/19°C (dry/wet bulb)					Declared energy efficiency ratio or gas utilisation efficiency /auxiliary energy factor for part load at given outdoor temperatures T <sub>j</sub>					
Tj=+35°C	Pdc	45.00	kW		Tj=+35°C	EERd	3.20			
Tj=+30°C	Pdc	33.16	kW		Tj=+30°C	EERd	4.23			
Tj=+25°C	Pdc	21.32	kW		Tj=+25°C	EERd	6.68			
Tj=+20°C	Pdc	11.64	kW		Tj=+20°C	EERd	13.66			
Degradation co-efficient for air conditioners(*)	Cdc	0.25								
	F	ower consu	ımption in mo	odes	s other than "active mode"					
Off mode	Poff	0.05	kW		Crankcase heater mode	Рск	0.005	kW		
Thermosat-off mode	Рто	0.005	kW		Standby mode	PsB	0.05	kW		
	Other items									
Capacity control		variable			For air-to-air air conditioner: air flow rate, outdoor measured		14900	m³/h		
Sound power level, outdoor	Lwa	88	dB							
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)							

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

Where information relates to multi-split air conditioners, the test result and performance data may be obtained on the basis of performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.



Contact details

### **Heating mode:**

	Infori	mation	require	nents for heat pum	ıps						
Model(s): K3F-450 DN4			•	•	•						
Test matching indoor ur	nits form2, c	assette									
Outdoor side heat exchanger of air conditioner: air											
Indoor side heat exchanger of air conditioner: air											
If the heater is equipped with a supplementary heater: no											
Driver of compressor: electric motor											
Parameters shall be declared for the average heating season, parameters for the warmer and colder heating seasons are optional.											
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heating capacity	Prated,h	45.0	kW	Seasonal space heating energy efficiency	ηs,h	169	%				
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 <sub>j</sub>							
Tj=-7°C	Pdh	23.09	kW	Tj=-7°C	COPd	2.56					
Tj=+2°C	Pdh	14.05	kW	Tj=+2°C	COPd	4.20					
Tj=+7°C	Pdh	9.14	kW	Tj=+7°C	COPd	5.87					
Tj=+12°C	Pdh	8.46	kW	Tj=+12°C	COPd	7.29					
T <sub>biv</sub> =bivalent temperature	Pdh	26.10	kW	T <sub>biv</sub> =bivalent temperature	COPd	2.36					
ToL=operation temperature	Pdh	26.10	kW	ToL =operation temperature	COPd	2.36					
Bivalent temperature	Tbiv	-10	°C								
Degradation co-efficient for heat pumps(**)	Cdh	0.25									
Power consumption in modes other than "active mode"				Supplementary heater							
Off mode	Poff	0.05	kW	Back-up heating capacity(*)	elbu	0	kW				
Thermosat-off mode	Рто	0.05	kW	Type of energy input							
Crankcase heater mode	Рск	0.005	kW	Standby mode	PsB	0.05	kW				
		1	Othe	er items							
Capacity control		variable		For air-to-air heat pump: air flow rate, outdoor measured		14900	m³/h				
Sound power level, outdoor	Lwa	88	dB		•						
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)								
Contact details											
(*)											

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

Where information relates to multi-split heat pumps, the test result and performance data may be obtained on the basis of performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.