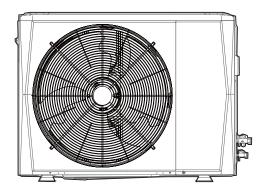




## MINI MVD V6M OUTDOOR UNIT

Information requirements manual

MVD-V6M80W/DN1 MVD-V6M100W/DN1 MVD-V6M120W/DN1 MVD-V6M140W/DN1 MVD-V6M160W/DN1





#### MVD-V6M80W/DN1

Name or trademark		MUNDOCLIMA
Indoor model		4x MVD-17T2
Outdoor model		MVD-V6M80W/DN1
harmonized standards		EN 60335-1;
		EN 60335-2-40;
		EN 14511;
		EN 14825
Specifics precautions		None
Testing conditions		Accroding to harmonized standards
Sound power level at standard rating	[dB]	60/65
conditions (indoor/outdoor)		
Refrigerant type		R410A
GWP	[kg CO2,	2088
	equivalents]	
SEER		5.12
Energy efficiency class in cooling		А
Annual electricity consumption in cooling QCE	[kWh/a]	492
Design load in cooling mode (Pdesignc)	[kW]	7.21
SCOP (heating average season)		3.80
Energy efficiency class in heating (average season)		А
Annual electricity consumption in heating	[kWh/a]	1760
QHE (average season)		
Declared capacity at reference design	[kW]	7.20
condition (heating average		
season/heating warmer season)		
Back up heating capacity at reference	[kW]	0.7
design condition (heating average season)		
D.C		

#### MVD-V6M80W/DN1

Name or trademark		MUNDOCLIMA
Indoor model		2x MVD-36Q4
Outdoor model		MVD-V6M80W/DN1
harmonized standards		EN 60335-1;
		EN 60335-2-40;
		EN 14511;
		EN 14825
Specifics precautions		None
Testing conditions		Accroding to harmonized
		standards
Sound power level at standard rating conditions (indoor/outdoor)	[dB]	60/65
Refrigerant type		R410A
GWP	[kg CO2, equivalents]	2088
SEER		5.78
Energy efficiency class in cooling		A+
Annual electricity consumption in	[kWh/a]	436
cooling QCE		
Design load in cooling mode (Pdesignc)	[kW]	7.2
SCOP (heating average season)		3.80
Energy efficiency class in heating		А
(average season)		
Annual electricity consumption in	[kWh/a]	1815
heating QHE (average season)		
Design load in heating mode (Pdesignh)	[kW]	4.92
Declared capacity at reference design	[kW]	7.20
condition (heating average season)		
Back up heating capacity at reference design condition (heating average season)	[kW]	0.5

#### MVD-V6M100W/DN1

Name or trademark		MUNDOCLIMA
		IVIONDOCLIIVIA
Indoor model		4x MVD-22T2
Outdoor model		MVD-V6M100W/DN1
harmonized standards		EN 60335-1;
		EN 60335-2-40;
		EN 14511 ;
		EN 14825
Specifics precautions		None
Testing conditions		Accroding to harmonized
		standards
Sound power level at standard rating	[dB]	60/68
conditions (indoor/outdoor)		
Refrigerant type		R410A
GWP	[kg CO2,	2088
	equivalents]	
SEER		5.44
Energy efficiency class in cooling		А
Annual electricity consumption in cooling QCE	[kWh/a]	580
Design load in cooling mode (Pdesignc)	[kW]	9.02
SCOP (heating average season)		3.8
Energy efficiency class in heating (average season)		А
Annual electricity consumption in heating QHE (average season)	[kWh/a]	2105
Design load in heating mode (Pdesignh)	[kW]	5.71
Declared capacity at reference design condition (heating average season)	[kW]	9.08
Back up heating capacity at reference design condition (heating average season/heating warmer season)	[kW]	0.2

#### MVD-V6M100W/DN1

Name or trademark		MUNDOCLIMA
Indoor model		2x MVD-45Q4
Outdoor model		MVD-V6M100W/DN1
harmonized standards		EN 60335-1;
		EN 60335-2-40;
		EN 14511 ;
		EN 14825
Specifics precautions		None
Testing conditions		Accroding to harmonized
		standards
Sound power level at standard rating	[dB]	60/68
conditions (indoor/outdoor)		
Refrigerant type		R410A
GWP	[kg CO2, equivalents]	2088
SEER		6.24
Energy efficiency class in cooling		A++
Annual electricity consumption in	[kWh/a]	504
cooling QCE		
Design load in cooling mode (Pdesignc)	[kW]	9.0
SCOP (heating average season)		4.37
Energy efficiency class in heating		A+
(average season)		
Annual electricity consumption in	[kWh/a]	1993
heating QHE (average season)		
Design load in heating mode (Pdesignh)	[kW]	6.22
Declared capacity at reference design	[kW]	9.08
condition (heating average season)		
Back up heating capacity at reference	[kW]	0.6
design condition (heating average		
season)		

#### MVD-V6M120W/DN1

Cooling mode: Table.1

## Information requirements for air-to-air conditioners

Model(s): MVD-V6M120W/DN1

Test matching indoor units form, Duct: MVD-36T2 + 3x MVD-28T2

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>	12.3	kW		Seasonal space cooling energy efficiency	$\eta_{ extsf{s,c}}$	229	%
Declared cooling capaci T <sub>j</sub> and in		oad at given °C(dry/wet l			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	12.314	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.72	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	9.233	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.42	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	6.165	kW		T <sub>j</sub> =+25℃	EERd	7.86	
T <sub>j</sub> =+20°C	P <sub>dc</sub>	5.137	kW		T <sub>j</sub> =+20℃	EERd	12	
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>	0.018	kW		Crankcase heater mode	P <sub>CK</sub>	0.008	kW
Thermosat-off mode	P <sub>TO</sub>	0.038	kW		Standby mode	P <sub>SB</sub>	0.018	kW
			C	Other item	ns			
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	_	4600	m³/h
Sound power level,outdoor	$L_{WA}$	70	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
			ı		<u> </u>			

Contact details

(\*)If C<sub>dc</sub> 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

## Information requirements for heat pumps

Model(s): MVD-V6M120W/DN1

Test matching indoor units form, Duct : MVD-36T2 + 3x MVD-28T2

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 deci	ared for the	e average nea	ating season,paramete	is for the	warmer and colder healing seas	soms are optional		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	P <sub>rated,h</sub>	14.2	kW		Seasonal space heating energy efficiency	$\eta_{s,h}$	169	%
Declared heating capac		load at indoor peratures T <sub>j</sub>	r teperature 20℃ and		Declared coefficient of efficiency/auxiliary energy tem			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	7.686	kW		T <sub>j</sub> =-7℃	COPd	2.64	
T <sub>j</sub> =+2°C	P <sub>dh</sub>	4.72	kW		Tj=+2℃	COPd	4.09	
T <sub>j</sub> =+7°C	P <sub>dh</sub>	3.141	kW		T <sub>j</sub> =+7℃	COPd	6.49	
T <sub>j</sub> =+12°C	P <sub>dh</sub>	3.834	kW		Tj=+12℃	COPd	8.3	
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	7.686	kW		T <sub>biv</sub> =bivalent temperature	COPd	2.64	
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	7.786	kW		T <sub>OL</sub> =operation temperature	COPd	2.39	
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 r	node"		Supple	mentary heater		
Off mode	P <sub>OFF</sub>	0.018	kW		Back-up heating capacity(*)	elbu	0.9	kW
Thermosat-off mode	P <sub>TO</sub>	0.009	kW		Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.008	kW		Standby mode	P <sub>SB</sub>	0.018	kW
			0	ther item	s			
Capacity control		varia	ble		For air-to-air heat pump:air flow rate,outdoor measured	_	4600	m³/h
Sound power level,outdoor	L <sub>WA</sub>	70	dB					
GWP of the refrigerant		2088	kgCO <sub>2 eq</sub> (100years)					
Contact details								

(\*)

(\*\*)If  $C_{dh}$  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

#### MVD-V6M120W/DN1

Cooling mode: Table.1

## Information requirements for air-to-air conditioners

Model(s): MVD-V6M120W/DN1
Test matching indoor units form, cassette: 2x MVD-36Q4 + 2x MVD-28Q4

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>	12.2	kW		Seasonal space cooling energy efficiency	$\eta_{ extsf{s,c}}$	230.6	%
Declared cooling capaci T <sub>j</sub> and in		oad at given °C(dry/wet l	•		Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	12.224	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.83	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	9.1	kW		T <sub>j</sub> =+30℃	EERd	4.98	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	5.937	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	8.54	
T <sub>j</sub> =+20℃	P <sub>dc</sub>	4.33	kW		T <sub>j</sub> =+20°C	EERd	9.06	
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
		F	Power consumption in	modes o	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.017	kW		Crankcase heater mode	P <sub>CK</sub>	0.009	kW
Thermosat-off mode	P <sub>TO</sub>	0.073	kW		Standby mode	P <sub>SB</sub>	0.017	kW
			C	Other item	ns			
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	_	4600	m³/h
Sound power level,outdoor	L <sub>WA</sub>	70	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
	l .		1		1	1	1	

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 unit, with a combination of indoor unit(s) recommended by the manufacturer or importer

## Information requirements for heat pumps

Model(s): MVD-V6M120W/DN1

Test matching indoor units form, Duct: 2x MVD-36Q4 + 2x MVD-28Q4

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	e average hea	ating season,parameter	s 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>	14.0	kW		nal space heating  v efficiency	$\eta_{s,h}$	169.8	%	
Declared heating capac		load at indoo peratures T <sub>j</sub>	r teperature 20℃ and	ef	Declared coefficient of ficiency/auxiliary energy tem				
T <sub>j</sub> =-7°C	$P_{dh}$	7.904	kW	T <sub>j</sub> =-7°0	2	COP <sub>d</sub>	3.01		
T <sub>j</sub> =+2°C	P <sub>dh</sub>	5.06	kW	T <sub>j</sub> =+2°	С	COPd	3.99		
T <sub>j</sub> =+7°C	P <sub>dh</sub>	3.337	kW	T <sub>j</sub> =+7°	С	COPd	6.01		
T <sub>j</sub> =+12°C	P <sub>dh</sub>	3.474	kW	T <sub>j</sub> =+12	2°℃	COPd	7.34		
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	7.904	kW	T <sub>biv</sub> =b	oivalent temperature	COP <sub>d</sub>	3.01		
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	7.836	kW	T <sub>OL</sub> =c	operation temperature	COPd	2.63		
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 ı	mode"		Supplementary heater				
Off mode	P <sub>OFF</sub>	0.017	kW	Back-u	up heating capacity(*)	elbu	1.1	kW	
Thermosat-off mode	P <sub>TO</sub>	0.011	kW	Туре с	of energy input		'		
Crankcase heater mode	P <sub>CK</sub>	0.009	kW	Standt	oy mode	P <sub>SB</sub>	0.017	kW	
			0	ther items					
Capacity control		varia	ble		-to-air heat pump:air te,outdoor measured	-	4600	m³/h	
Sound power level,outdoor	L <sub>WA</sub>	70	dB						
GWP of the refrigerant		2088	kgCO <sub>2 eq</sub> (100years)						
Contact details									

(\*)

(\*\*)If  $C_{dh}$  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

#### MVD-V6M140W/DN1

Cooling mode: Table.1

## Information requirements for air-to-air conditioners

Model(s): MVD-V6M140W/DN1
Test matching indoor units form, Duct: 2x MVD-28T2 + 2x MVD-45T2

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>	14.2	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	221.8	%
Declared cooling capaci T <sub>j</sub> and in		oad at given °C(dry/wet l			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	14.206	kW		T <sub>j</sub> =+35℃	EERd	2.31	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	10.193	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.3	
T <sub>j</sub> =+25℃	P <sub>dc</sub>	6.758	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	7.49	
T <sub>j</sub> =+20°C	P <sub>dc</sub>	5.286	kW		T <sub>j</sub> =+20°C	EER <sub>d</sub>	12.21	
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>	0.015	kW		Crankcase heater mode	P <sub>CK</sub>	0.01	kW
Thermosat-off mode	P <sub>TO</sub>	0.057	kW		Standby mode	$P_{SB}$	0.015	kW
			C	Other item				
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	-	5000	m³/h
Sound power level,outdoor	L <sub>WA</sub>	71	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					

Contact details

(\*)If  $C_{dc}$  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

## Information requirements for heat pumps

Model(s): MVD-V6M140W/DN1

Test matching indoor units form, Duct ∶ 2x MVD-28T2 + 2x MVD-45T2

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 decl	ared for the	e average hea	ating season,parameter	s 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>	16.2	kW	Seasonal space heating energy efficiency	$\eta_{ extsf{s}, extsf{h}}$	171.8	%		
Declared heating capac		load at indoor peratures T <sub>j</sub>	r teperature 20℃ and	Declared coefficient of efficiency/auxiliary energy tem					
T <sub>j</sub> =-7°C	P <sub>dh</sub>	7.925	kW	T <sub>j</sub> =-7°C	COPd	2.65			
T <sub>j</sub> =+2°C	P <sub>dh</sub>	4.804	kW	T <sub>j</sub> =+2°C	COPd	4.06			
T <sub>j</sub> =+7°C	P <sub>dh</sub>	3.45	kW	T <sub>j</sub> =+7°C	COPd	6.02			
T <sub>j</sub> =+12°C	P <sub>dh</sub>	3.597	kW	T <sub>j</sub> =+12°C	COPd	7.8			
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	8.312	kW	T <sub>biv</sub> =bivalent temperature	COPd	2.65			
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	7.925	kW	T <sub>OL</sub> =operation temperature	COPd	2.36			
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 r	node"	Supple	Supplementary heater				
Off mode	P <sub>OFF</sub>	0.015	kW	Back-up heating capacity(*)	elbu	0.9	kW		
Thermosat-off mode	P <sub>TO</sub>	0.009	kW	Type of energy input		•			
Crankcase heater mode	P <sub>CK</sub>	0.010	kW	Standby mode	P <sub>SB</sub>	0.015	kW		
			0	ther items					
Capacity control		varia	ble	For air-to-air heat pump:air flow rate,outdoor measured	_	5000	m³/h		
Sound power level,outdoor	L <sub>WA</sub>	71	dB						
GWP of the refrigerant		2088	kgCO <sub>2 eq</sub> (100years)						
Contact details									

(\*)

(\*\*)If  $C_{dh}$  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

#### MVD-V6M140W/DN1

Cooling mode: Table.1

#### Information requirements for air-to-air conditioners Test matching indoor units form, cassette: 2x MVD-28Q4 + 2x MVD-45Q4 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 Seasonal space cooling Rated cooling capacity $\mathsf{P}_{\mathsf{rated},\mathsf{c}}$ kW 14.0 $\eta_{\rm s,c}$ energy efficiency Declared cooling capacity for part load at given outdoor temperatures Declared energy efficiency ratio or gas utilisation efficiency/auxiliary T<sub>j</sub> and indoor 27/19°C (dry/wet bulb) energy factor for part load at given outdoor temperatures Ti T<sub>i</sub>=+35℃ T<sub>i</sub>=+35℃ $P_{dc}$ 13.99 **EER**d 3.07 kW T<sub>i</sub>=+30℃ T<sub>j</sub>=+30℃ **EER**d $P_{dc}$ kW 10.482 5.65 T<sub>i</sub>=+25℃ T<sub>i</sub>=+25℃ $P_{dc}$ 6.783 kW **EER**d 7.5 --T<sub>i</sub>=+20℃ T<sub>i</sub>=+20℃ $P_{dc}$ 5.6 kW **EER**d 10.01 Degradation co-efficient 0.25 $C_{\text{dc}}$ for air conditioners(\*) Power consumption in modes other than "active mode" kW $\mathsf{P}_{\mathsf{CK}}$ kW Off mode 0.016 0.010 Poff Crankcase heater mode $P_{SB}$ Thermosat-off mode $P_{\mathsf{TO}}$ 0.073 kW Standby mode 0.016 kW Other items For air-to-air air conditioner:air

Contact details

GWP of the refrigerant

Capacity control

Sound power

level,outdoor

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

kg CO<sub>2 eq</sub>(100years)

variable

71

2088

 $L_{\mathsf{WA}}$ 

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

flow rate,outdoor measured

5000

m<sup>3</sup>/h

#### Information requirements for heat pumps

Model(s): MVD-V6M140W/DN1

Test matching indoor units form, cassette ∶ 2x MVD-28Q4 + 2x MVD-45Q4

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

Rated heating capacity   Prated.h   16.0	Parameters shall be deci	ared for the	e average nea	ating season,parameter	is for the	warmer and colder healing seas	soms are optional		
Rated heating capacity Prated.h 16.0 KW energy efficiency 7s.h 175.4  Declared heating capacity for part load at indoor teperature 20°C and outdoor temperatures Tj Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given out temperatures Tj  Tj=-7°C Pdh 8.158 kW Tj=-7°C COPd 2.6  Tj=+2°C Pdh 5.477 kW Tj=+2°C COPd 4.34  Tj=+7°C Pdh 3.54 kW Tj=+7°C COPd 5.73  Tj=+12°C Pdh 43.497 kW Tj=+7°C COPd 8.68  T <sub>0+</sub> =bivalent temperature Pdh 8.158 kW T <sub>0+</sub> =bivalent temperature COPd 2.6  T <sub>0+</sub> =coperation temperature Pdh 8.846 kW ToL =operation temperature COPd 2.6  Bivalent temperature T <sub>0+</sub> 7°C Cdh 0.25  Degradation co-efficient for heat pumps(**) Cdh 0.25  Degradation to-efficient for heat pumps(**) Pose 0.016 kW Back-up heating capacity(*) elbu 0.4  Thermosat-off mode Pose 0.016 kW Standby mode PsB 0.016  Capacity control Variable For air-to-air heat pump:air flow rate, outdoor measured - 5000  Sound power 1 <sub>MM</sub> 71 dB	Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
## Secretary secretary factor for part load at given out temperatures Tj    Tj=-7°C	Rated heating capacity	P <sub>rated,h</sub>	16.0	kW			$\eta$ s,h	175.4	%
T <sub>j</sub> =+2°C				r teperature 20℃ and		efficiency/auxiliary energy	factor for part load a		
T <sub>j</sub> =+7°C	T <sub>j</sub> =-7°C	P <sub>dh</sub>	8.158	kW		T <sub>j</sub> =-7°C	COPd	2.6	
T <sub>i</sub> +12°C	T <sub>j</sub> =+2°C	P <sub>dh</sub>	5.477	kW		Tj=+2℃	COPd	4.34	
T <sub>biv</sub> =bivalent temperature         P <sub>dh</sub> 8.158         kW         T <sub>biv</sub> =bivalent temperature         COPd         2.6           T <sub>OL</sub> =operation temperature         P <sub>dh</sub> 8.846         kW         T <sub>OL</sub> =operation temperature         COPd         2.6           Bivalent temperature         T <sub>biv</sub> -7         °C         —         —         —           Degradation co-efficient for heat pumps(**)         C <sub>dh</sub> 0.25         —         —         Supplementary heater           Off mode         P <sub>OFF</sub> 0.016         kW         Back-up heating capacity(*)         elbu         0.4           Thermosat-off mode         P <sub>TO</sub> 0.011         kW         Type of energy input           Crankcase heater mode         P <sub>CK</sub> 0.010         kW         Standby mode         P <sub>SB</sub> 0.016           Capacity control         Variable         For air-to-air heat pump:air flow rate, outdoor measured         —         5000	T <sub>j</sub> =+7°C	P <sub>dh</sub>	3.54	kW		T <sub>j</sub> =+7℃	COP <sub>d</sub>	5.73	
temperature Pdh 8.158 kW Pdh 15iv =bivalent temperature COPd 2.6  ToL=operation temperature Pdh 8.846 kW ToL=operation temperature COPd 2.6  Bivalent temperature Tbiv -7 °C	T <sub>j</sub> =+12℃	P <sub>dh</sub>	43.497	kW		T <sub>j</sub> =+12°C	COPd	8.68	
temperature		P <sub>dh</sub>	8.158	kW		T <sub>biv</sub> =bivalent temperature	COP <sub>d</sub>	2.6	
Degradation co-efficient for heat pumps(**)  Power consumption in modes other than "active mode"  Supplementary heater  Off mode  POFF  0.016  kW  Back-up heating capacity(*)  elbu  0.4  Thermosat-off mode  PTO  0.011  kW  Type of energy input  Crankcase heater mode  PCK  0.010  kW  Standby mode  PSB  0.016  Other items  Capacity control  Variable  For air-to-air heat pump:air flow rate,outdoor measured  Sound power		P <sub>dh</sub>	8.846	kW		T <sub>OL</sub> =operation temperature	COPd	2.6	
for heat pumps(**)  Power consumption in modes other than "active mode"  Supplementary heater  Off mode  Poff  0.016  kW  Back-up heating capacity(*)  elbu  0.4  Thermosat-off mode  Poff  0.011  kW  Type of energy input  Crankcase heater mode  Poff  0.010  kW  Standby mode  Poff  Other items  Capacity control  Variable  For air-to-air heat pump:air flow rate,outdoor measured  Sound power  Thermosat-off mode  Poff  Other items  Capacity control  Variable  For air-to-air heat pump:air flow rate,outdoor measured  Sound power  Thermosat-off mode  Additional capacity of the position of th	Bivalent temperature	T <sub>biv</sub>	-7	℃					
Off mode		C <sub>dh</sub>	0.25	_					
Thermosat-off mode	Power consumption in m	odes other	than "active r	mode"		Supple	mentary heater		
Crankcase heater mode P <sub>CK</sub> 0.010 kW Standby mode P <sub>SB</sub> 0.016  Other items  Capacity control variable For air-to-air heat pump:air flow rate,outdoor measured Sound power I <sub>MA</sub> 71 dB	Off mode	P <sub>OFF</sub>	0.016	kW		Back-up heating capacity(*)	elbu	0.4	kW
Capacity control variable For air-to-air heat pump:air flow rate,outdoor measured Sound power Lwa 71 dB	Thermosat-off mode	P <sub>TO</sub>	0.011	kW		Type of energy input			
Capacity control variable For air-to-air heat pump:air flow rate,outdoor measured 5000  Sound power Lwa 71 dB	Crankcase heater mode	P <sub>CK</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.016	kW
Sound power Lwa 71 dB				0	ther items	s		•	
	Capacity control		varia	ble			-	5000	m³/h
	•	L <sub>WA</sub>	71	dB					
GWP of the refrigerant 2088 kgCO <sub>2 eq</sub> (100years)	GWP of the refrigerant		2088	kgCO <sub>2 eq</sub> (100years)					
Contact details	Contact details								

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(\*\*)If  $C_{dh}$  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: Table.1

## Information requirements for air-to-air conditioners

Model(s): MVD-V6M160W/DN1

Test matching indoor units form, Duct ∶2x MVD-36T2 + 2x MVD-45T2

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>	15.5	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	211.4	%	
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/auxiliar energy factor for part load at given outdoor temperatures T <sub>j</sub>				
T <sub>j</sub> =+35℃	P <sub>dc</sub>	15.591	kW		T <sub>j</sub> =+35℃	EER <sub>d</sub>	2.25		
T <sub>j</sub> =+30℃	P <sub>dc</sub>	11.671	kW		T <sub>j</sub> =+30℃	EER <sub>d</sub>	4.32		
T <sub>j</sub> =+25℃	P <sub>dc</sub>	7.391	kW		Tj=+25℃	EERd	6.85		
T <sub>j</sub> =+20°C	P <sub>dc</sub>	5.37	kW		T <sub>j</sub> =+20℃	EERd	10.66		
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_						
		ı	Power consumption in	modes o	ther than "active mode"				
Off mode	P <sub>OFF</sub>	0.015	kW		Crankcase heater mode	P <sub>CK</sub>	0.010	kW	
Thermosat-off mode	P <sub>TO</sub>	0.057	kW		Standby mode	$P_{SB}$	0.015	kW	
			C	Other item	ns				
Capacity control		varia	able		For air-to-air air conditioner:air flow rate,outdoor measured	-	5200	m³/h	
Sound power level,outdoor	L <sub>WA</sub>	71	dB						
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)						
0 1 1 1 1 1									

Contact details

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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

## Information requirements for heat pumps

Model(s):MVD-V6M160W/DN1

Test matching indoor units form, Duct: 2x MVD-36T2 + 2x MVD-45T2

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 decl	ared for the	e average hea	ating season,parameters f	or 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>	18.2	kW	Seasonal space heating energy efficiency	$\eta$ s,h	165.4	%			
Declared heating capac		oad at indoor	r teperature 20°C and	efficiency/auxiliary energy	Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures T <sub>j</sub>					
T <sub>j</sub> =-7°C	$P_{dh}$	8.626	kW	T <sub>j</sub> =-7°C	COPd	2.79				
T <sub>j</sub> =+2℃	P <sub>dh</sub>	5.14	kW	Tj=+2℃	COPd	4.04				
T <sub>j</sub> =+7℃	P <sub>dh</sub>	3.524	kW	T <sub>j</sub> =+7°C	COPd	5.98	1			
T <sub>j</sub> =+12℃	P <sub>dh</sub>	3.867	kW	T <sub>j</sub> =+12°C	COPd	7.88				
T <sub>biv</sub> =bivalent temperature	P <sub>dh</sub>	8.626	kW	T <sub>biv</sub> =bivalent temperature	COPd	2.79				
T <sub>OL</sub> =operation temperature	P <sub>dh</sub>	8.914	kW	T <sub>OL</sub> =operation temperature	COPd	2.46				
Bivalent temperature	T <sub>biv</sub>	-7	℃							
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>	0.016	kW	Back-up heating capacity(*)	elbu	0.8	kW			
Thermosat-off mode	P <sub>TO</sub>	0.011	kW	Type of energy input						
Crankcase heater mode	P <sub>CK</sub>	0.010	kW	Standby mode	P <sub>SB</sub>	0.016	kW			
			Othe	er items		•				
Capacity control	variable			For air-to-air heat pump:air flow rate,outdoor measured	_	5200	m³/h			
Sound power level,outdoor	L <sub>WA</sub>	71	dB							
GWP of the refrigerant		2088	kgCO <sub>2 eq</sub> (100years)							
Contact details										

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(\*\*)If  $C_{dh}$  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: Table.1

## Information requirements for air-to-air conditioners

Model(s): MVD-V6M160W/DN1

Test matching indoor units form, cassette: 2x MVD-36Q4 + 2x MVD-45Q4

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>	15.5	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	240.6	%
Declared cooling capac T <sub>j</sub> and in		oad at given °C(dry/wet l			Declared energy efficiency ra energy factor for part load			
T <sub>j</sub> =+35℃	P <sub>dc</sub>	15.539	kW		Tj=+35℃	EERd	2.9	
T <sub>j</sub> =+30℃	P <sub>dc</sub>	11.224	kW		Tj=+30℃	EERd	5.53	
T <sub>j</sub> =+25°C	P <sub>dc</sub>	6.757	kW		T <sub>j</sub> =+25℃	EER <sub>d</sub>	8	-
T <sub>j</sub> =+20℃	P <sub>dc</sub>	5.945	kW		T <sub>j</sub> =+20℃	EER <sub>d</sub>	9.5	-
Degradation co-efficient for air conditioners(*)	C <sub>dc</sub>	0.25	_					
	•	F	ower consumption in	modes o	ther than "active mode"			
Off mode	P <sub>OFF</sub>	0.016	kW		Crankcase heater mode	P <sub>CK</sub>	0.010	kW
Thermosat-off mode	P <sub>TO</sub>	0.073	kW		Standby mode	$P_{SB}$	0.016	kW
			C	Other item	ns			
Capacity control		varia	ble		For air-to-air air conditioner:air flow rate,outdoor measured	П	5200	m³/h
Sound power level,outdoor	L <sub>WA</sub>	71	dB					
GWP of the refrigerant		2088	kg CO <sub>2 eq</sub> (100years)					
0								1

Contact details

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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

## Information requirements for heat pumps

Model(s): MVD-V6M160W/DN1

Test matching indoor units form, cassette ∶ 2x MVD-36Q4 + 2x MVD-45Q4

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	e average hea	ating season,parameter	rs 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>	18.2	kW		Seasonal space heating energy efficiency	$\eta$ s,h	165.4	%	
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 <sub>j</sub>				
T <sub>j</sub> =-7℃	$P_{dh}$	8.561	kW		T <sub>j</sub> =-7℃	COPd	2.7		
T <sub>j</sub> =+2℃	$P_{dh}$	5.163	kW		T <sub>j</sub> =+2°C	COP <sub>d</sub>	4		
T <sub>j</sub> =+7℃	$P_{dh}$	3.943	kW		T <sub>j</sub> =+7°C	COP <sub>d</sub>	6.74		
T <sub>j</sub> =+12℃	$P_{dh}$	3.839	kW		T <sub>j</sub> =+12°C	COPd	8.51		
T <sub>biv</sub> =bivalent temperature	$P_{dh}$	8.561	kW		T <sub>biv</sub> =bivalent temperature	COPd	2.7		
T <sub>OL</sub> =operation temperature	$P_{dh}$	8.828	kW		T <sub>OL</sub> =operation temperature	COPd	2.1		
Bivalent temperature	T <sub>biv</sub>	-7	℃						
Degradation co-efficient for heat pumps(**)	C <sub>dh</sub>	0.25	_						
Power consumption in mo	odes other	than "active r	mode"		Supplementary heater				
Off mode	P <sub>OFF</sub>	0.016	kW		Back-up heating capacity(*)	elbu	0.9	kW	
Thermosat-off mode	P <sub>TO</sub>	0.011	kW		Type of energy input				
Crankcase heater mode	P <sub>CK</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.016	kW	
			0	ther items	3				
Capacity control	variable			For air-to-air heat pump:air flow rate,outdoor measured	-	5200	m³/h		
Sound power level,outdoor	$L_{WA}$	71	dB						
GWP of the refrigerant		2088	kgCO <sub>2 eq</sub> (100years)						
Contact details									

(\*)

(\*\*)If  $C_{dh}$  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

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