



ENERG

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MHA-V16W/D2RN1 SMK-160/CSD45GN1-B



55°C

35



A⁺⁺

A⁺⁺



45dB



72dB

■ 15
■ **15**
■ 15
kW

■ 16
■ **16**
■ 16
kW



2015

811/2013

Technical parameters

Model(s):	Outdoor unit: MHA-V16W/D2RN1 Indoor unit: SMK-160/CSD45GN1-B
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _J			
T _J = -7 °C	P _d	13.1	kW
T _J = 2 °C	P _d	8.4	kW
T _J = 7 °C	P _d	5.4	kW
T _J = 12 °C	P _d	3.6	kW
T _J = bivalent temperature	P _d	12.7	kW
T _J = operating limit	P _d	11.3	kW
For air-to-water heat pumps: T _J = -15 °C	P _d	-	kW
Bivalent temperature	T _{biv}	-6	°C
Cycling interval capacity for heating	P _{cy}	-	kW
Degradation co-efficient (**)	C _{dh}	0.9	-
Power consumption in modes other than active mode			
Off mode	P _{off}	0.015	kW
Standby mode	P _{sb}	0.015	kW
Thermostat-off mode	P _{to}	0.063	kW
Crankcase heater mode	P _{ck}	0.027	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L _{WA}	45/72	dB
Annual energy consumption	Q _{HE}	9312	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	130	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _J			
T _J = -7 °C	COP _d	2.04	-
T _J = 2 °C	COP _d	3.11	-
T _J = 7 °C	COP _d	4.74	-
T _J = 12 °C	COP _d	7.04	-
T _J = bivalent temperature	COP _d	2.07	-
T _J = operating limit	COP _d	1.71	-
For air-to-water heat pumps: T _J = -15 °C	COP _d	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP _{cy}	-	-
Heating water operating limit temperature	W _{TOL}	60	°C
Supplementary heater			
Rated heat output (**)	P _{sup}	3.7	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m ³ /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η _{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_J).
(**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0.9.

Technical parameters

Model(s):	Outdoor unit: MHA-V16W/D2RN1 Indoor unit: SMK-160/CSD45GN1-B
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	16	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _J			
T _J = -7 °C	P _{d,h}	9.1	kW
T _J = 2 °C	P _{d,h}	6.2	kW
T _J = 7 °C	P _{d,h}	3.8	kW
T _J = 12 °C	P _{d,h}	3.4	kW
T _J = bivalent temperature	P _{d,h}	11.3	kW
T _J = operating limit	P _{d,h}	7.6	kW
For air-to-water heat pumps: T _J = -15 °C	P _{d,h}	-	kW
Bivalent temperature	T _{biv}	-11	°C
Cycling interval capacity for heating	P _{cy, ch}	-	kW
Degradation co-efficient (**)	C _{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P _{off}	0.015	kW
Standby mode	P _{sb}	0.015	kW
Thermostat-off mode	P _{to}	0.063	kW
Crankcase heater mode	P _{ck}	0.027	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L _{WA}	-	dB
Annual energy consumption	Q _{HE}	13924	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	109	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _J			
T _J = -7 °C	COP _d	2.22	-
T _J = 2 °C	COP _d	3.67	-
T _J = 7 °C	COP _d	5.09	-
T _J = 12 °C	COP _d	7.47	-
T _J = bivalent temperature	COP _d	1.91	-
T _J = operating limit	COP _d	1.32	-
For air-to-water heat pumps: T _J = -15 °C	COP _d	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP _{cy, c}	-	-
Heating water operating limit temperature	W _{TOL}	60	°C
Supplementary heater			
Rated heat output (**)	P _{sup}	7.4	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m ³ /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η _{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)						

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating P_{design,h}, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating sup(T_J).

(**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0.9.