



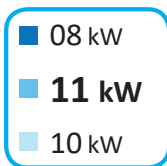
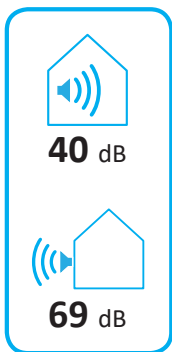
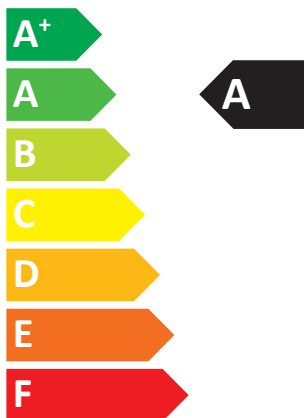
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Indoor unit
Outdoor unit

EHST20C-**D
PUMY-P112VKM4(-BS)



2019

811/2013

BH79V012K01

Model(s):	Outdoor unit:	PUMY-P112VKM4
	Indoor unit:	EHST20C-***D
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:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.2	kW	Seasonal space heating energy efficiency	η_s	121	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				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	P _{dh}	9.9	kW	T _j = - 7 °C	COP _d	1.80	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	6	kW	T _j = + 2 °C	COP _d	3.05	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	5.6	kW	T _j = + 7 °C	COP _d	4.20	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	6.9	kW	T _j = +12 °C	COP _d	5.83	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	9.9	kW	T _j = bivalent temperature	COP _d	1.80	-
T _j = operation limit temperature	P _{dh}	7.7	kW	T _j = operation limit temperature	COP _d	1.58	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.040	kW	Rated heat output (*)	P _{sup}	1.8	kW
Thermostat-off mode	P _{TO}	0.040	kW				
Standby mode	P _{SB}	0.040	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.010	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/69	dB(A)
Annual energy consumption	Q _{HE}	7387	kWh
Rated air flow rate, outdoors		6600	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	4.600	kWh
Annual electricity consumption	AEC	1019	kWh
Water heating energy efficiency	η_{wh}	106	%

Contact details

MITSUBISHI ELECTRIC CORPORATION SHIZUOKA WORKS 3-18-1, Oshika, Suruga-ku, Shizuoka 422-8528, Japan

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating P_{designh}, 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.

Model(s):	Outdoor unit:	PUMY-P112VKM4
	Indoor unit:	EHST20C-***D
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:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.2	kW	Seasonal space heating energy efficiency	η_s	169	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				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	P _{dh}	10.2	kW	T _j = - 7 °C	COP _d	2.74	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	6	kW	T _j = + 2 °C	COP _d	4.24	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	6.1	kW	T _j = + 7 °C	COP _d	5.61	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = +12 °C	P _{dh}	7.3	kW	T _j = +12 °C	COP _d	7.22	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	10.2	kW	T _j = bivalent temperature	COP _d	2.74	-
T _j = operation limit temperature	P _{dh}	7.9	kW	T _j = operation limit temperature	COP _d	1.72	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.040	kW	Rated heat output (*)	P _{sup}	1.5	kW
Thermostat-off mode	P _{TO}	0.040	kW				
Standby mode	P _{SB}	0.040	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.010	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	6600	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/69	dB(A)				
Annual energy consumption	Q _{HE}	5341	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	106	%	
Daily electricity consumption	Q _{elec}	4.600	kW/h				
Annual electricity consumption	AEC	1019	kW/h				

Contact details

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(*) 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(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUMY-P112VKM4
	Indoor unit:	EHST20C-***D
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:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	η_s	106	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				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	P _{dh}	4.9	kW	T _j = - 7 °C	COP _d	2.24	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	4.7	kW	T _j = + 2 °C	COP _d	3.23	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	5.6	kW	T _j = + 7 °C	COP _d	4.19	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	6.9	kW	T _j = +12 °C	COP _d	5.69	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	7.7	kW	T _j = bivalent temperature	COP _d	1.50	-
T _j = operation limit temperature	P _{dh}	7.7	kW	T _j = operation limit temperature	COP _d	1.50	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-20	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.040	kW	Rated heat output (*)	P _{sup}	8.0	kW
Thermostat-off mode	P _{TO}	0.040	kW				
Standby mode	P _{SB}	0.040	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.010	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/69	dB(A)
Annual energy consumption	Q _{HE}	7263	kWh
Rated air flow rate, outdoors		6600	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	6.200	kWh
Annual electricity consumption	AEC	1374	kWh
Water heating energy efficiency	η_{wh}	77	%

Contact details	
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(*) 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(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUMY-P112VKM4
	Indoor unit:	EHST20C-***D
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:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	η_s	133	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				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	P _{dh}	4.9	kW	T _j = - 7 °C	COP _d	2.77	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 2 °C	P _{dh}	5.2	kW	T _j = + 2 °C	COP _d	4.18	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = + 7 °C	P _{dh}	6.1	kW	T _j = + 7 °C	COP _d	5.34	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = +12 °C	P _{dh}	7.2	kW	T _j = +12 °C	COP _d	6.72	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	7.7	kW	T _j = bivalent temperature	COP _d	1.69	-
T _j = operation limit temperature	P _{dh}	7.7	kW	T _j = operation limit temperature	COP _d	1.69	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-20	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.040	kW	Rated heat output (*)	P _{sup}	8.0	kW
Thermostat-off mode	P _{TO}	0.040	kW				
Standby mode	P _{SB}	0.040	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.010	kW				

Other items				Rated air flow rate, outdoors	-	6600	m ³ /h
Capacity control		variable					
Sound power level, indoors/outdoors	L _{WA}	40/69	dB(A)				
Annual energy consumption	Q _{HE}	5844	kWh				

For heat pump combination heater:				Water heating energy efficiency	η_{wh}	77	%
Declared load profile		L					
Daily electricity consumption	Q _{elec}	6.200	kW/h				
Annual electricity consumption	AEC	1374	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUMY-P112VKM4
	Indoor unit:	EHST20C-***D
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:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	η_s	139	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				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	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	10.2	kW	T _j = + 2 °C	COP _d	1.51	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	6.4	kW	T _j = + 7 °C	COP _d	2.97	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	6.7	kW	T _j = +12 °C	COP _d	5.04	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	10.2	kW	T _j = bivalent temperature	COP _d	1.51	-
T _j = operation limit temperature	P _{dh}	7.7	kW	T _j = operation limit temperature	COP _d	1.50	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	2	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.040	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.040	kW				
Standby mode	P _{SB}	0.040	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.010	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	6600	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/69	dB(A)				
Annual energy consumption	Q _{HE}	3746	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	119	%	
Daily electricity consumption	Q _{elec}	4.100	kW/h				
Annual electricity consumption	AEC	910	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUMY-P112VKM4
	Indoor unit:	EHST20C-***D
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:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.2	kW	Seasonal space heating energy efficiency	η_s	208	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				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	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	11.2	kW	T _j = + 2 °C	COP _d	2.51	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	7.2	kW	T _j = + 7 °C	COP _d	4.85	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	7.2	kW	T _j = +12 °C	COP _d	6.67	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	11.2	kW	T _j = bivalent temperature	COP _d	2.51	-
T _j = operation limit temperature	P _{dh}	7.9	kW	T _j = operation limit temperature	COP _d	1.63	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	2	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.040	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.040	kW				
Standby mode	P _{SB}	0.040	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.010	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	6600	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/69	dB(A)				
Annual energy consumption	Q _{HE}	2830	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	119	%	
Daily electricity consumption	Q _{elec}	4.100	kW/h				
Annual electricity consumption	AEC	910	kW/h				

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(*) 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(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.