

# PRODUCT INFORMATION<sup>(1)</sup>

Model(s): Information to identify the model(s) to which the information relates:

Outdoor: PUZ-ZM140VKA

Indoor: PLA-M140EA

Outdoor side heat exchanger of air conditioner: air

Indoor side heat exchanger of air conditioner: air

Type: compressor driven vapour compression

If applicable: driver of compressor: electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	$P_{\text{rated,c}}$	13,40	kW		Seasonal space cooling energy efficiency	$\eta_{\text{s,c}}$	261,2	%
Declared cooling capacity for part load at given outdoor temperatures $T_j$ and indoor 27°/19 °C (dry/wet bulb)					Declared energy efficiency ratio for part load at given outdoor temperatures $T_j$			
$T_j = + 35 \text{ °C}$	$P_{\text{dc}}$	13,40	kW		$T_j = + 35 \text{ °C}$	$\text{EER}_{\text{d}}$	3,58	–
$T_j = + 30 \text{ °C}$	$P_{\text{dc}}$	9,90	kW		$T_j = + 30 \text{ °C}$	$\text{EER}_{\text{d}}$	5,26	–
$T_j = + 25 \text{ °C}$	$P_{\text{dc}}$	6,40	kW		$T_j = + 25 \text{ °C}$	$\text{EER}_{\text{d}}$	7,48	–
$T_j = + 20 \text{ °C}$	$P_{\text{dc}}$	4,50	kW		$T_j = + 20 \text{ °C}$	$\text{EER}_{\text{d}}$	10,68	–
Degradation co-efficient for air conditioners(*)								
	$C_{\text{dc}}$	0,25	–					

### Power consumption in modes other than 'active mode'

Off mode	$P_{\text{OFF}}$	0,015	kW		Crankcase heater mode	$P_{\text{CK}}$	0,000	kW
Thermostat-off mode	$P_{\text{TO}}$	0,003	kW		Standby mode	$P_{\text{SB}}$	0,015	kW

### Other items

Capacity control	variable				For air-to-air air conditioner: air flow rate, outdoor measured	–	7200	$\text{m}^3/\text{h}$
Sound power level, indoor/outdoor	$L_{\text{WA}}$	65,0 / 70,0	dB					
If engine driven: Emissions of nitrogen oxides	$\text{NO}_x(\text{**})$	–	mg/kWh fuel input GCV					
GWP of the refrigerant		675	kg $\text{CO}_2\text{eq}$ (100 years)					
Contact details	MITSUBISHI ELECTRIC CORPORATION SHIZUOKA WORKS 3-18-1, Oshika, Suruga-ku, Shizuoka 422-8528, Japan							

(\*) If  $C_{\text{dc}}$  is not determined by measurement then the default degradation coefficient air conditioners shall be 0,25.

(\*\*) From 26 September 2018.

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

(1) This information is based on COMMISSION REGULATION (EU) 2016/2281

## Recycle

Your MITSUBISHI ELECTRIC product is designed and manufactured with high quality materials and components which can be recycled and reused.

Electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.

Please, dispose of this equipment at your local community waste collection/recycling center.

In the European Union there are separate collection systems for used electrical and electronic product.

Please, help us to conserve the environment we live in!

## PRODUCT INFORMATION<sup>(1)</sup>

Information to identify the model(s) to which the information relates:

Outdoor: PUZ-ZM140VKA

Indoor: PLA-M140EA

Outdoor side heat exchanger of heat pump: air

Indoor side heat exchanger of heat pump: air

Indication 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	$P_{rated,h}$	16,00	kW		Seasonal space heating energy efficiency	$\eta_{s,h}$	161,9	%
Declared heating capacity for part load at indoor temperature 20 °C and outdoor temperature $T_j$					Declared coefficient of performance for part load at given outdoor temperatures $T_j$			
$T_j = -7\text{ °C}$	$P_{dh}$	9,30	kW		$T_j = -7\text{ °C}$	$COP_d$	2,49	–
$T_j = +2\text{ °C}$	$P_{dh}$	5,70	kW		$T_j = +2\text{ °C}$	$COP_d$	4,09	–
$T_j = +7\text{ °C}$	$P_{dh}$	4,00	kW		$T_j = +7\text{ °C}$	$COP_d$	5,51	–
$T_j = +12\text{ °C}$	$P_{dh}$	3,90	kW		$T_j = +12\text{ °C}$	$COP_d$	6,79	–
$T_{biv}$ = bivalent temperature	$P_{dh}$	10,60	kW		$T_{biv}$ = bivalent temperature	$COP_d$	1,98	–
$T_{OL}$ = operation limit	$P_{dh}$	7,90	kW		$T_{OL}$ = operation limit	$COP_d$	1,70	–
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $T_{OL} < -20\text{ °C}$ )	$P_{dh}$	–	kW		For water-to-air heat pumps: $T_j = -15\text{ °C}$ (if $T_{OL} < -20\text{ °C}$ )	$COP_d$	–	–
Bivalent temperature	$T_{biv}$	-10	°C		For water-to-air heat pumps: Operation limit temperature	$T_{ol}$	–	°C
Degradation co-efficient heat pumps(**)	$C_{dh}$	0,25	–					
Power consumption in modes other than 'active mode'					Supplementary heater			
Off mode	$P_{OFF}$	0,015	kW		Back-up heating capacity (*)	$e_{bu}$	0,000	kW
Thermostat-off mode	$P_{TO}$	0,015	kW		Type of energy input			
Crankcase heater mode	$P_{CK}$	0,000	kW		Standby mode	$P_{SB}$	0,015	kW
Other items								
Capacity control	variable				For air-to-air heat pumps: air flow rate, outdoor measured	–	7200	m <sup>3</sup> /h
Sound power level, indoor/outdoor	$L_{WA}$	65,0 / 72,0	dB		For water/brine-to-air heat pumps: Rated brine or water flow rate, outdoor side heat exchanger	–	–	m <sup>3</sup> /h
Emissions of nitrogen oxides (if applicable)	$NO_x$ (***)	–	mg/kWh fuel input GCV					
GWP of the refrigerant		675	kg CO <sub>2</sub> eq (100 years)					
Contact details	MITSUBISHI ELECTRIC CORPORATION SHIZUOKA WORKS 3-18-1, Oshika, Suruga-ku, Shizuoka 422-8528, Japan							

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(\*\*) If  $C_{dh}$  is not determined by measurement then the default degradation coefficient of heat pumps shall be 0,25.

(\*\*\*) From 26 September 2018.

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

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