



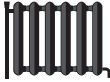
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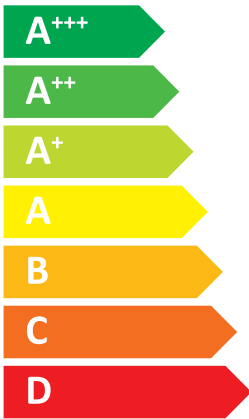
Indoor unit
Outdoor unit

E*SD-****D
PUZ-SHWM120VAA



55 °C

35 °C



A++

A+++



41 dB



58 dB

■ 12
■ **12**
■ 12
kW

■ 12
■ **12**
■ 12
kW



2019

811/2013

DG79V342H15



PRODUCT FICHE

Mitsubishi Electric Erp Directive Related Product Information: erp.mitsubishielectric.eu/erp
Details and precautions on installation, maintenance and assembly can be found in the installation and/or operation manuals.
This information is based on EU regulation No 811/2013 and No 813/2013.

DG79A02MH01

Table with 25 columns for model variants and 2 rows for outdoor and indoor units. It lists technical specifications for various space heater models under medium and low temperature applications.

Large table with 25 columns for model variants and 2 rows for outdoor and indoor units. It provides detailed technical specifications for combination heaters, including energy efficiency, power, and sound power level data.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

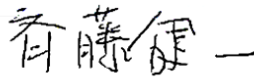
| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-****D |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 136 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.13 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 3.36 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 4.75 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 6.32 | - |
| Tj = + 7 ° C | Pdh | 5.0 | kW | Tj = bivalent temperature | COPd | 1.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 1.78 | - |
| Tj = +12 ° C | Pdh | 3.8 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7169 | kWh | | | | |

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

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY
 Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier:

 Kenichi SAITO
 Manager, Quality Assurance Department
 TURKEY

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
 · Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
 (*) 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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-****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: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|----------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 179 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.85 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 4.53 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 6.04 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.02 | - |
| Tj = + 7 ° C | Pdh | 5.2 | kW | Tj = bivalent temperature | COPd | 2.43 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 2.43 | - |
| Tj = +12 ° C | Pdh | 4.0 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | Power consumption in modes other than active mode | | | |
| Off mode | | | | P _{OFF} | | | |
| Thermostat-off mode | | | | P _{TO} | | | |
| Standby mode | | | | P _{SB} | | | |
| Crankcase heater mode | | | | P _{CK} | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|--|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | | dBA | | | |
| Annual energy consumption | Q _{HE} | 5481 | | kWh | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|--|---------------------------------|---|--|--|
| For heat pump combination heater: | | | | Water heating energy efficiency | | | |
| Declared load profile | - | | | η_{wh} | - | | |
| Daily electricity consumption | Q _{elec} | - | | kWh | | | |
| Annual electricity consumption | AEC | - | | kWh | | | |

Contact details

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The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

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· Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-****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: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 117 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 2.70 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 3.50 | - |
| Tj = + 2 ° C | Pdh | 4.4 | kW | Tj = + 7 ° C | COPd | 4.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.00 | - |
| Tj = + 7 ° C | Pdh | 3.8 | kW | Tj = bivalent temperature | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.54 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.2 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.9 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 9902 | kWh | | | | |

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

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-****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: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 149 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 3.67 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 4.30 | - |
| Tj = + 2 ° C | Pdh | 4.5 | kW | Tj = + 7 ° C | COPd | 5.38 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 8.02 | - |
| Tj = + 7 ° C | Pdh | 3.9 | kW | Tj = bivalent temperature | COPd | 2.08 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.56 | - |
| Tj = +12 ° C | Pdh | 4.6 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 2.04 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.7 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.4 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7843 | kWh | | | | |

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

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-****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: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 161 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 2.05 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 3.42 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 5.65 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 2.05 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 2.05 | - |
| Tj = +12 ° C | Pdh | 5.2 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 3952 | kWh | | | | |

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

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-****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: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 232 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 3.30 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 5.32 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 7.46 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 3.30 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 3.30 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 2753 | kWh | | | | |

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

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier;
 Kenichi SAITO
 Manager, Quality Assurance Department
 TURKEY

The signature is signed in the average climate / medium-temperature section.

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
 · Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
 (*) 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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

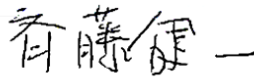
| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-****D |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 138 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.13 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 3.36 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 4.75 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 6.32 | - |
| Tj = + 7 ° C | Pdh | 5.0 | kW | Tj = bivalent temperature | COPd | 1.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 1.78 | - |
| Tj = +12 ° C | Pdh | 3.8 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7114 | kWh | | | | |

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

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY
 Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier:

 Kenichi SAITO
 Manager, Quality Assurance Department
 TURKEY

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
 · Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
 (*) 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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-****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: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|----------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 181 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.85 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 4.53 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 6.04 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.02 | - |
| Tj = + 7 ° C | Pdh | 5.2 | kW | Tj = bivalent temperature | COPd | 2.43 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 2.43 | - |
| Tj = +12 ° C | Pdh | 4.0 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | Power consumption in modes other than active mode | | | |
| Off mode | | | | P _{OFF} | | | |
| Thermostat-off mode | | | | P _{TO} | | | |
| Standby mode | | | | P _{SB} | | | |
| Crankcase heater mode | | | | P _{CK} | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|--|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | | dBA | | | |
| Annual energy consumption | Q _{HE} | 5426 | | kWh | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey

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Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-****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: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 118 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 2.70 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 3.50 | - |
| Tj = + 2 ° C | Pdh | 4.4 | kW | Tj = + 7 ° C | COPd | 4.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.00 | - |
| Tj = + 7 ° C | Pdh | 3.8 | kW | Tj = bivalent temperature | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.54 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.2 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.9 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 9869 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

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Kenichi SAITO

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TURKEY

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-****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: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 150 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 3.67 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 4.30 | - |
| Tj = + 2 ° C | Pdh | 4.5 | kW | Tj = + 7 ° C | COPd | 5.38 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 8.02 | - |
| Tj = + 7 ° C | Pdh | 3.9 | kW | Tj = bivalent temperature | COPd | 2.08 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.56 | - |
| Tj = +12 ° C | Pdh | 4.6 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 2.04 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.7 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.4 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7810 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

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TURKEY

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- (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.
- (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-****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: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 163 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 2.05 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 3.42 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 5.65 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 2.05 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 2.05 | - |
| Tj = +12 ° C | Pdh | 5.2 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 3886 | kWh | | | | |

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

Contact details

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TURKEY

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-****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: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 238 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 3.30 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 5.32 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 7.46 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 3.30 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 3.30 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 2687 | kWh | | | | |

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

| | | | | | | | |
|--|--|--|--|---|--|--|--|
| Contact details | | | | MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY | | | |
| | | | | Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey | | | |
| The identification and signature of the person empowered to bind the supplier; | | | | Kenichi SAITO | | | |
| The signature is signed in the average climate / medium-temperature section. | | | | Manager, Quality Assurance Department | | | |
| | | | | TURKEY | | | |

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

· Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.

(*) 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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

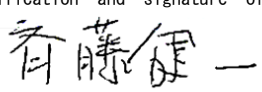
| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-MED |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 136 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.13 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 3.36 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 4.75 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 6.32 | - |
| Tj = + 7 ° C | Pdh | 5.0 | kW | Tj = bivalent temperature | COPd | 1.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 1.78 | - |
| Tj = +12 ° C | Pdh | 3.8 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7169 | kWh | | | | |

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

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY
 Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier:

 Kenichi SAITO
 Manager, Quality Assurance Department
 TURKEY

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
 · Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
 (*) 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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|----------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 179 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.85 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 4.53 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 6.04 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.02 | - |
| Tj = + 7 ° C | Pdh | 5.2 | kW | Tj = bivalent temperature | COPd | 2.43 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 2.43 | - |
| Tj = +12 ° C | Pdh | 4.0 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | Power consumption in modes other than active mode | | | |
| Off mode | | | | P _{OFF} | | | |
| Thermostat-off mode | | | | P _{TO} | | | |
| Standby mode | | | | P _{SB} | | | |
| Crankcase heater mode | | | | P _{CK} | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|--|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | | dBA | | | |
| Annual energy consumption | Q _{HE} | 5481 | | kWh | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|--|---------------------------------|---|--|--|
| For heat pump combination heater: | | | | Water heating energy efficiency | | | |
| Declared load profile | - | | | η_{wh} | - | | |
| Daily electricity consumption | Q _{elec} | - | | kWh | | | |
| Annual electricity consumption | AEC | - | | kWh | | | |

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

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 - Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
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- (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.
- (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 117 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 2.70 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 3.50 | - |
| Tj = + 2 ° C | Pdh | 4.4 | kW | Tj = + 7 ° C | COPd | 4.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.00 | - |
| Tj = + 7 ° C | Pdh | 3.8 | kW | Tj = bivalent temperature | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.54 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.2 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.9 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 9902 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 149 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 3.67 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 4.30 | - |
| Tj = + 2 ° C | Pdh | 4.5 | kW | Tj = + 7 ° C | COPd | 5.38 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 8.02 | - |
| Tj = + 7 ° C | Pdh | 3.9 | kW | Tj = bivalent temperature | COPd | 2.08 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.56 | - |
| Tj = +12 ° C | Pdh | 4.6 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 2.04 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.7 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.4 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7843 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

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TURKEY

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 161 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 2.05 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 3.42 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 5.65 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 2.05 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 2.05 | - |
| Tj = +12 ° C | Pdh | 5.2 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 3952 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

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TURKEY

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | EHSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 232 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 3.30 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 5.32 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 7.46 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 3.30 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 3.30 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 2753 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

· Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.

(*) 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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

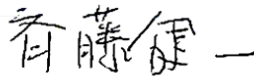
| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-MED |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 138 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.13 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 3.36 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 4.75 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 6.32 | - |
| Tj = + 7 ° C | Pdh | 5.0 | kW | Tj = bivalent temperature | COPd | 1.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 1.78 | - |
| Tj = +12 ° C | Pdh | 3.8 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7114 | kWh | | | | |

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

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY
 Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

The identification and signature of the person empowered to bind the supplier:

 Kenichi SAITO
 Manager, Quality Assurance Department
 TURKEY

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
 · Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
 (*) 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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|----------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 181 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 10.7 | kW | Tj = - 7 ° C | COPd | 2.85 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = + 2 ° C | COPd | 4.53 | - |
| Tj = + 2 ° C | Pdh | 6.5 | kW | Tj = + 7 ° C | COPd | 6.04 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.02 | - |
| Tj = + 7 ° C | Pdh | 5.2 | kW | Tj = bivalent temperature | COPd | 2.43 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 2.43 | - |
| Tj = +12 ° C | Pdh | 4.0 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | -10 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -10 | ° C | Power consumption in modes other than active mode | | | |
| Off mode | | | | P _{OFF} | | | |
| Thermostat-off mode | | | | P _{TO} | | | |
| Standby mode | | | | P _{SB} | | | |
| Crankcase heater mode | | | | P _{CK} | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|--|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | | dBA | | | |
| Annual energy consumption | Q _{HE} | 5426 | | kWh | | | |

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|-----------------------------------|-------------------|---|--|---------------------------------|---|--|--|
| For heat pump combination heater: | | | | Water heating energy efficiency | | | |
| Declared load profile | - | | | η_{wh} | - | | |
| Daily electricity consumption | Q _{elec} | - | | kWh | | | |
| Annual electricity consumption | AEC | - | | kWh | | | |

Contact details

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Kenichi SAITO

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TURKEY

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- (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.
- (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 118 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 2.70 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 3.50 | - |
| Tj = + 2 ° C | Pdh | 4.4 | kW | Tj = + 7 ° C | COPd | 4.78 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 7.00 | - |
| Tj = + 7 ° C | Pdh | 3.8 | kW | Tj = bivalent temperature | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.54 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 1.55 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.2 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.9 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 9869 | kWh | | | | |

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

Contact details

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Kenichi SAITO

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TURKEY

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- (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.
- (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 150 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | 7.3 | kW | Tj = - 7 ° C | COPd | 3.67 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = + 2 ° C | COPd | 4.30 | - |
| Tj = + 2 ° C | Pdh | 4.5 | kW | Tj = + 7 ° C | COPd | 5.38 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = +12 ° C | COPd | 8.02 | - |
| Tj = + 7 ° C | Pdh | 3.9 | kW | Tj = bivalent temperature | COPd | 2.08 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Tj = operation limit temperature (***) | COPd | 1.56 | - |
| Tj = +12 ° C | Pdh | 4.6 | kW | Tj = - 15 ° C (if TOL < - 20 ° C) | COPd | 2.04 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | Operation limit temperature | TOL | -30 | ° C |
| Tj = bivalent temperature | Pdh | 10.2 | kW | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = operation limit temperature (***) | Pdh | 8.7 | kW | Supplementary heater | | | |
| Tj = - 15 ° C (if TOL < - 20 ° C) | Pdh | 9.9 | kW | Rated heat output (*) | Psup | 3.4 | kW |
| Bivalent temperature | Tbiv | -16 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | -22 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 7810 | kWh | | | | |

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

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

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TURKEY

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- (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.
- (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | medium-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 163 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 2.05 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 3.42 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 5.65 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 2.05 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 2.05 | - |
| Tj = +12 ° C | Pdh | 5.2 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 3886 | kWh | | | | |

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

Contact details

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TURKEY

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUZ-SHWM120VAA |
| | Indoor unit: | ERSD-MED |
| 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: | | no |
| Heat pump combination heater: | | no |
| Parameters for | | low-temperature application. |
| Parameters for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|---|------------|-------|------|
| Rated heat output (*) | Prated | 12.1 | kW | Seasonal space heating energy efficiency | η_s | 238 | % |
| Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj | | | |
| Tj = - 7 ° C | Pdh | - | kW | Tj = - 7 ° C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | Tj = + 2 ° C | COPd | 3.30 | - |
| Tj = + 2 ° C | Pdh | 12.1 | kW | Tj = + 7 ° C | COPd | 5.32 | - |
| Degradation co-efficient (**) | Cdh | 1.00 | - | Tj = +12 ° C | COPd | 7.46 | - |
| Tj = + 7 ° C | Pdh | 7.7 | kW | Tj = bivalent temperature | COPd | 3.30 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | Tj = operation limit temperature (***) | COPd | 3.30 | - |
| Tj = +12 ° C | Pdh | 4.4 | kW | Operation limit temperature | TOL | -30 | ° C |
| Degradation co-efficient (**) | Cdh | 0.98 | - | Heating water operating limit temperature | WTOL | 60 | ° C |
| Tj = bivalent temperature | Pdh | 12.1 | kW | Supplementary heater | | | |
| Tj = operation limit temperature (***) | Pdh | 12.1 | kW | Rated heat output (*) | Psup | 0.0 | kW |
| Bivalent temperature | Tbiv | 2 | ° C | Type of energy input | Electrical | | |
| Reference design conditions for space heating | Tdesignh | 2 | ° C | | | | |
| Power consumption in modes other than active mode | | | | | | | |
| Off mode | P _{OFF} | 0.015 | kW | | | | |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|---------|-----|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41 / 58 | dBA | | | | |
| Annual energy consumption | Q _{HE} | 2687 | kWh | | | | |

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

Contact details

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The identification and signature of the person empowered to bind the supplier;

Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

· Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.

(*) 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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.