



**ENERG**  
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Y IJA  
IE IA



Indoor unit E\*ST30D-\*\*\*\*D  
Outdoor unit PUD-SHWM120VAA(-BS)



A++



A



41 dB

60 dB



- 12 kW
- 12 kW
- 12 kW

2019

811/2013

BH79V003K21





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.

1. SPACE HEATER

Table with columns for Outdoor unit, Indoor unit, and performance metrics for medium-temperature and low-temperature applications. Includes models like PUD-SWM60VAA(BS) and PUD-SWM140VAA(BS).

2. COMBINATION HEATER

Large table with columns for Outdoor unit, Indoor unit, and performance metrics for medium-temperature and low-temperature applications. Includes models like PUD-SWM60VAA(BS) and PUD-SHW140VAA(BS).

	English	Deutsch	Français	Italiano	Español
	Nederlands suomi	Svenska Čeština	Dansk Български	Português Polski	Ελληνικά -
1	Outdoor unit buitenunit Ulkoyksikkö	Außengerät Utomhusenhet Venkovní jednotka	unité extérieure Udendørs enhed Външно тяло	unità esterna unidade exterior jednostka zewnętrzna	unidad exterior Εξωτερική μονάδα -
2	Indoor unit binnenunit Sisäyksikkö	Innengerät Inomhusenhet Vnitřní jednotka	unité intérieure Indendørs enhed Вътрешно тяло	unità interna unidade interior jednostka wewnątrzna	unidad interior Εσωτερική μονάδα -
3	Medium-temperature application middentemperatuur-toepassing keskilämpötilan sovellus	Mitteltemperaturanwendung mediumentemperatuurapplikation středněteplotní aplikace	l'application à moyenne température middeltemperatuuravvendelsen среднотемпературното приложение	le applicazioni a media temperatura a aplicação a média temperatura zastosowania w średnich temperaturach	la aplicación de media temperatura η εφαρμογή σε μέση θερμοκρασία -
4	Low-temperature application lagetemperatuur-toepassing matalalämpötilan sovellus	Niedertemperaturanwendung lågtemperaturapplikation nizkoteplotní aplikace	l'application à basse température lavtemperaturavvendelsen нискотемпературни приложения	le applicazioni a bassa temperatura a aplicação a baixa temperatura zastosowania w niskich temperaturach	la aplicación de baja temperatura η εφαρμογή σε χαμηλή θερμοκρασία -
5	Declared load profile Opgegeven capaciteitsprofiel Ilmoitettu kuormitusprofiili	Angegebenes Lastprofil Deklarerad belastningsprofil Deklarovaný zátěžový profil	Profil de soutirage déclaré Angivet forbrugsprofil Объявлен товароv профиль	Profilo di carico dichiarato Perfil de carga declarado Deklarowany profil obciążenia	Perfil de carga declarado Δηλωμένο προφίλ φορτίου -
6	Seasonal space heating energy efficiency class de seizoensgebonden energie-efficiëntieklasse voor ruimteverwarming tilalämmityksen kausittainen energiatehokkuusluokka	die Klasse für die jahreszeitbedingte Raumheizungs-Energieeffizienz säsongrelaterade energieeffektivitetsklass vid rumsuppvärming třída sezonní energetické účinnosti vytápění	la classe d'efficacité énergétique saisonnière, pour le chauffage des locaux klassen for årsvirkningsgrad ved rumopvarming класът на сезонната отоплителна енергийна ефективност	la classe di efficienza energetica stagionale del riscaldamento d'ambiente A classe de eficiência energética do aquecimento ambiente sazonal A klasa sezonowej efektywności energetycznej ogrzewania pomieszczeń	la clase de eficiencia energética estacional de calefacción η τάξη ενεργειακής απόδοσης της εποχιακής θέρμανσης χώρου -
7	Water heating energy efficiency class de energie-efficiëntieklasse voor waterverwarming vedenlämmityksen energiatehokkuusluokka	die Klasse für die Warmwasserbereitungs-Energieeffizienz energieeffektivitetsklass vid vattenuppvärming třída energetické účinnosti ohřevu vody	la classe d'efficacité énergétique, pour le chauffage de l'eau klassen for årsvirkningsgrad ved vandopvarming класът на енергийната ефективност при подгряване на вода	la classe di efficienza energetica del riscaldamento dell'acqua A classe de eficiência energética do aquecimento de água Klasa efektywności energetycznej podgrzewania wody	la clase de eficiencia energética del caldeo de agua η τάξη ενεργειακής απόδοσης θέρμανσης νερού -
8	Rated heat output under average climate conditions de nominale warmteafgifte(onder gemiddelde klimaatomstandigheden) nimellislämpöteho(keskimääräisissä ilmastoloosuhteissa)	die Wärmenennleistung bei durchschnittlichen Klimaverhältnissen Den nominella avgivna värmeeffekten(under genomsnittliga klimatförhållanden) jmenovitý tepelný výkon(za průměrných klimatických podmínek)	la puissance thermique nominale dans les conditions climatiques moyennes den nominelle nytteeffekt(under gennemsnitlige klimaforhold) номиналната топлинна мощност(при средни климатични условия)	la potenza termica nominale(in condizioni climatiche medie) A potência calorífica nominal(em condições climáticas médias) znakomiona moc cieplna(w warunkach klimatu umiarkowanego)	la potencia calorífica nominal(en condiciones climáticas medias) η ονομαστική θερμική ισχύς(υπό μέσες κλιματικές συνθήκες) -
9	For space heating, annual energy consumption under average climate conditions voor ruimteverwarming, het jaarlijkse energieverbruik(onder gemiddelde klimaatomstandigheden) tilalämmityksestä vuotuinen energiankulutus(keskimääräisissä ilmastoloosuhteissa)	für die Raumheizung, den jährlichen Energieverbrauch bei durchschnittlichen Klimaverhältnissen För rumsuppvärming, årlig energiförbrukning(vid genomsnittliga klimatförhållanden) pro vytápění – roční spotřeba energie za průměrných klimatických podmínek	pour le chauffage des locaux, la consommation annuelle d'énergie(dans les conditions climatiques moyennes) for rumopvarming det årlige energiforbrug(under gennemsnitlige klimaforhold) за отопление, годишното потребление на енергия(при средни климатични условия)	per il riscaldamento d'ambiente, il consumo annuo di energia(in condizioni climatiche medie) Para o aquecimento ambiente, o consumo anual de energia(em condições climáticas médias) w odniesieniu do ogrzewania pomieszczeń, roczne zużycie energii(w warunkach klimatu umiarkowanego)	para calentar espacios, el consumo anual de energía(en condiciones climáticas medias) για τη θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας(υπό μέσες κλιματικές συνθήκες) -
10	For water heating, annual electricity consumption under average climate conditions voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder gemiddelde klimaatomstandigheden) vedenlämmityksestä vuotuinen sähkönkulutus(keskimääräisissä ilmastoloosuhteissa)	für die Warmwasserbereitung, den jährlichen Stromverbrauch bei durchschnittlichen Klimaverhältnissen För vattenuppvärming, årlig elförbrukning(vid genomsnittliga klimatförhållanden) pro ohřev vody – roční spotřeba elektrické energie za průměrných klimatických podmínek	pour le chauffage de l'eau, la consommation annuelle d'électricité(dans les conditions climatiques moyennes) for vandopvarming det årlige elforbrug(under gennemsnitlige klimaforhold) за подгряване на вода, годишното потребление(при средни климатични условия)	per il riscaldamento dell'acqua, il consumo annuo di energia(in condizioni climatiche medie) para o aquecimento de água, o consumo anual de electricidade(em condições climáticas médias) w odniesieniu do podgrzewania wody, roczne zużycie energii elektrycznej(w warunkach klimatu umiarkowanego)	para calentar agua, el consumo anual de electricidad(en condiciones climáticas medias) για την θέρμανση νερού, η ετήσια κατανάλωση ηλεκτρικής ενέργειας(υπό μέσες κλιματικές συνθήκες) -
11	Seasonal space heating energy efficiency under average climate conditions de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden) tilalämmityksen kausittainen energiatehokkuus(keskimääräisissä ilmastoloosuhteissa)	die jahreszeitbedingte Raumheizungs-Energieeffizienz bei durchschnittlichen Klimaverhältnissen Säsongmedelverkningsgrad för rumsuppvärming(vid genomsnittliga klimatförhållanden) sezonní energetická účinnost vytápění za průměrných klimatických podmínek	l'efficacité énergétique saisonnière pour le chauffage des locaux(dans les conditions climatiques moyennes) årsvirkningsgraden ved rumopvarming(under gennemsnitlige klimaforhold) сезонната енергийна ефективност при отопление(при средни климатични условия)	l'efficienza energetica stagionale di riscaldamento d'ambiente(in condizioni climatiche medie) A eficiência energética do aquecimento ambiente sazonal(em condições climáticas médias) sezonowa efektywność energetyczna ogrzewania pomieszczeń(w warunkach klimatu umiarkowanego)	la eficiencia energética estacional de calefacción(en condiciones climáticas medias) η ενεργειακή απόδοση της εποχιακής θέρμανσης χώρου(υπό μέσες κλιματικές συνθήκες) -
12	Water heating energy efficiency under average climate conditions de energie-efficiëntie voor waterverwarming(onder gemiddelde klimaatomstandigheden) vedenlämmityksen energiatehokkuus(keskimääräisissä ilmastoloosuhteissa)	die Warmwasserbereitungs-Energieeffizienz bei durchschnittlichen Klimaverhältnissen Energieeffektivität vid vattenuppvärming(vid genomsnittliga klimatförhållanden) energetická účinnost ohřevu vody za průměrných klimatických podmínek	l'efficacité énergétique pour le chauffage de l'eau(dans les conditions climatiques moyennes) energieeffektivitet ved vandopvarming(under gennemsnitlige klimaforhold) енергийната ефективност при подгряване на вода(при средни климатични условия)	l'efficienza energetica di riscaldamento dell'acqua(in condizioni climatiche medie) a eficiência energética do aquecimento de água(em condições climáticas médias) efektywność energetyczna podgrzewania wody(w warunkach klimatu umiarkowanego)	la eficiencia energética del caldeo de agua(en condiciones climáticas medias) η ενεργειακή απόδοση θέρμανσης νερού(υπό μέσες κλιματικές συνθήκες) -
13	Sound power level L <sub>WA</sub> indoor het geluidsvermogensniveau L <sub>WA</sub> binnen äänitehotaso L <sub>WA</sub> sisällä	der Schalleistungspegel L <sub>WA</sub> in Gebäuden Ljudeffektivitativ L <sub>WA</sub> i inomhus hladina akustického výkonu L <sub>WA</sub> ve vnitřním prostoru	le niveau de puissance acoustique L <sub>WA</sub> , à l'intérieur lydeeffektivitet L <sub>WA</sub> i inde нивото на звуковата мощност L <sub>WA</sub> на закрито	il livello di potenza sonora L <sub>WA</sub> all'interno O nível de potência sonora L <sub>WA</sub> no interior poziom mocy akustycznej L <sub>WA</sub> w pomieszczeniu	el nivel de potencia acústica L <sub>WA</sub> en interiores η στάθμη ηχητικής ισχύος L <sub>WA</sub> εσωτερικού χώρου -
14	Work only during off-peak hours werken uitsluitend in de daluren toimimaan ainoastaan kulutushuippujen ulkopuolella	dass ein ausschließlicher Betrieb des Kombiheizgerätes zu Schwachlastzeiten drivas uteslutande under perioder med låg belastning provouz pouze mimo špičku	fonctionner qu'en heures creuses fungere uden for spidsbelastningsperioder работи само в часовете извън върховото натоварване	funzionare soltanto durante le ore morte de funcionar unicamente fora das horas de pico pracować jedynie w godzinach poza szczytowym obciążeniem	funcionar solamente durante las horas de baja demanda λειτουργία μόνο εκτός των ωρών αιχμής -
15	Rated heat output under colder climate conditions de nominale warmteafgifte, onder koudere klimaatomstandigheden nimellislämpöteho, kylmissä ilmastoloosuhteissa	die Wärmenennleistung bei kälteren Klimaverhältnissen Nominell avgiven värmeeffekt vid kallare klimatförhållanden jmenovitý tepelný výkon za chladnějších klimatických podmínek	la puissance thermique nominale, dans les conditions climatiques plus froides den nominelle nytteeffekt under koldere klimaforhold номиналната топлинна мощност при по-студени климатични условия	A potencia calorífica nominal em condições climáticas mais frias Znakomiona moc cieplna w warunkach klimatu chłodnego	la potencia calorífica nominal en condiciones climáticas más frías η ονομαστική θερμική ισχύς υπό ψυχρότερες κλιματικές συνθήκες -
16	Rated heat output under warmer climate conditions de nominale warmteafgifte, onder warmere klimaatomstandigheden nimellislämpöteho, lämpimissä ilmastoloosuhteissa	die Wärmenennleistung bei wärmeren Klimaverhältnissen Nominell avgiven värmeeffekt vid varmare klimatförhållanden jmenovitý tepelný výkon za teplejších klimatických podmínek	la puissance thermique nominale, dans les conditions climatiques plus chaudes den nominelle nytteeffekt under varmere klimaforhold номиналната топлинна мощност при по-топли климатични условия	A potencia termica nominal, in condizioni climatiche più calde A potência calorífica nominal em condições climáticas mais quentes znacznosc mocy cieplna w warunkach klimatu cieplego	la potencia calorífica nominal en condiciones climáticas más cálidas η ονομαστική θερμική ισχύς υπό θερμότερες κλιματικές συνθήκες -
17	For space heating, annual energy consumption under colder climate conditions voor ruimteverwarming, het jaarlijkse energieverbruik onder koudere klimaatomstandigheden tilalämmityksestä vuotuinen energiankulutus kylmissä ilmastoloosuhteissa	für die Raumheizung, den jährliche Energieverbrauch bei kälteren Klimaverhältnissen För rumsuppvärming, årlig energiförbrukning under kallare klimatförhållanden pro vytápění – roční spotřeba energie za chladnějších klimatických podmínek	pour le chauffage des locaux, la consommation annuelle d'énergie, dans les conditions climatiques plus froides for rumopvarming det årlige energiforbrug under koldere klimaforhold за отопление, годишното потребление на енергия при по-студени климатични условия	per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche più fredde Para o aquecimento ambiente, o consumo anual de energia em condições climáticas mais frias w odniesieniu do ogrzewania pomieszczeń, roczne zużycie energii w warunkach klimatu chłodnego	para calentar espacios, el consumo anual de energía en condiciones climáticas más frías για θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας υπό ψυχρότερες κλιματικές συνθήκες -
18	For space heating, annual energy consumption under warmer climate conditions voor ruimteverwarming, het jaarlijkse energieverbruik onder warmere klimaatomstandigheden tilalämmityksestä vuotuinen energiankulutus lämpimissä ilmastoloosuhteissa	für die Raumheizung, den jährliche Energieverbrauch bei wärmeren Klimaverhältnissen För rumsuppvärming, årlig energiförbrukning under varmare klimatförhållanden pro vytápění – roční spotřeba energie za teplejších klimatických podmínek	pour le chauffage des locaux, la consommation annuelle d'énergie, dans les conditions climatiques plus chaudes for rumopvarming det årlige energiforbrug under varmere klimaforhold за отопление, годишното потребление на енергия при по-топли климатични условия	per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche più calde Para o aquecimento ambiente, o consumo anual de energia em condições climáticas mais quentes w odniesieniu do ogrzewania pomieszczeń, roczne zużycie energii w warunkach klimatu ciepłego	para calentar espacios, el consumo anual de energía en condiciones climáticas más cálidas για θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας υπό θερμότερες κλιματικές συνθήκες -
19	For water heating, annual energy consumption under colder climate conditions voor waterverwarming, het jaarlijkse elektriciteitsverbruik onder koudere klimaatomstandigheden vedenlämmityksestä vuotuinen sähkönkulutus kylmissä ilmastoloosuhteissa	für die Warmwasserbereitung, der jährliche Stromverbrauch bei kälteren Klimaverhältnissen För vattenuppvärming, årlig elförbrukning under kallare klimatförhållanden pro ohřev vody – roční spotřeba elektrické energie za chladnějších klimatických podmínek	pour le chauffage de l'eau, la consommation annuelle d'électricité, dans les conditions climatiques plus froides for vandopvarming det årlige elforbrug under koldere klimaforhold за подгряване на вода, годишното потребление на електроенергия при по-студени климатични условия	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più fredde para o aquecimento de água, o consumo anual de electricidade em condições climáticas mais frias w odniesieniu do podgrzewania wody, roczne zużycie energii elektrycznej w warunkach klimatu chłodnego	para calentar agua, el consumo anual de electricidad en condiciones climáticas más frías για θέρμανση νερού, η ετήσια κατανάλωση ηλεκτρικής ενέργειας υπό ψυχρότερες κλιματικές συνθήκες -
20	For water heating, annual energy consumption under warmer climate conditions voor waterverwarming, het jaarlijkse elektriciteitsverbruik onder warmere klimaatomstandigheden vedenlämmityksestä vuotuinen sähkönkulutus lämpimissä ilmastoloosuhteissa	für die Warmwasserbereitung, der jährliche Stromverbrauch bei wärmeren Klimaverhältnissen För vattenuppvärming, årlig elförbrukning under varmare klimatförhållanden pro ohřev vody – roční spotřeba elektrické energie za teplejších klimatických podmínek	pour le chauffage de l'eau, la consommation annuelle d'électricité, dans les conditions climatiques plus chaudes for vandopvarming det årlige elforbrug under varmere klimaforhold за подгряване на вода, годишното потребление на електроенергия при по-топли климатични условия	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più calde para o aquecimento de água, o consumo anual de electricidade em condições climáticas mais quentes w odniesieniu do podgrzewania wody, roczne zużycie energii elektrycznej w warunkach klimatu ciepłego	para calentar agua, el consumo anual de electricidad en condiciones climáticas más cálidas για θέρμανση νερού, η ετήσια κατανάλωση ηλεκτρικής ενέργειας υπό θερμότερες κλιματικές συνθήκες -
21	Seasonal space heating energy efficiency under colder climate conditions de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder koudere klimaatomstandigheden tilalämmityksen kausittainen energiatehokkuus kylmissä ilmastoloosuhteissa	die jahreszeitbedingte Raumheizungs-Energieeffizienz bei kälteren Klimaverhältnissen Säsongmedelverkningsgrad för rumsuppvärming under kallare klimatförhållanden sezonní energetická účinnost vytápění za chladnějších klimatických podmínek	l'efficacité énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides årsvirkningsgraden ved rumopvarming under koldere klimaforhold сезонната енергийна ефективност при отопление при по-студени климатични условия	l'efficienza energetica stagionale di riscaldamento d'ambiente in condizioni climatiche più fredde A eficiência energética do aquecimento ambiente sazonal em condições climáticas mais frias sezonowa efektywność energetyczna ogrzewania pomieszczeń w warunkach klimatu chłodnego	la eficiencia energética estacional de calefacción en condiciones climáticas más frías η ενεργειακή απόδοση της εποχιακής θέρμανσης χώρου υπό ψυχρότερες κλιματικές συνθήκες -
22	Seasonal space heating energy efficiency under warmer climate conditions de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder warmere klimaatomstandigheden tilalämmityksen kausittainen energiatehokkuus lämpimissä ilmastoloosuhteissa	die jahreszeitbedingte Raumheizungs-Energieeffizienz bei wärmeren Klimaverhältnissen Säsongmedelverkningsgrad för rumsuppvärming under varmare klimatförhållanden sezonní energetická účinnost vytápění za teplejších klimatických podmínek	l'efficacité énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus chaudes årsvirkningsgraden ved rumopvarming under varmere klimaforhold сезонната енергийна ефективност при отопление при по-топли климатични условия	l'efficienza energetica stagionale di riscaldamento d'ambiente in condizioni climatiche più calde A eficiência energética do aquecimento ambiente sazonal em condições climáticas mais quentes sezonowa efektywność energetyczna ogrzewania pomieszczeń w warunkach klimatu ciepłego	la eficiencia energética estacional de calefacción en condiciones climáticas más cálidas η ενεργειακή απόδοση της εποχιακής θέρμανσης χώρου υπό θερμότερες κλιματικές συνθήκες -
23	Water heating energy efficiency under colder climate conditions de energie-efficiëntie voor waterverwarming onder koudere klimaatomstandigheden vedenlämmityksen energiatehokkuus kylmissä ilmastoloosuhteissa	die Warmwasserbereitungs-Energieeffizienz bei kälteren Klimaverhältnissen Energieeffektivität vid vattenuppvärming under kallare klimatförhållanden energetická účinnost ohřevu vody za chladnějších klimatických podmínek	l'efficacité énergétique pour le chauffage de l'eau, dans les conditions climatiques plus froides energieeffektivitet ved vandopvarming under koldere klimaforhold енергийната ефективност при подгряване на вода при по-студени климатични условия	l'efficienza energetica di riscaldamento dell'acqua in condizioni climatiche più fredde a eficiencia energética do aquecimento de água em condições climáticas mais frias efektywność energetyczna podgrzewania wody w warunkach klimatu chłodnego	la eficiencia energética de caldeo de agua en condiciones climáticas más frías η ενεργειακή απόδοση της θέρμανσης νερού υπό ψυχρότερες κλιματικές συνθήκες -
24	Water heating energy efficiency under warmer climate conditions de energie-efficiëntie voor waterverwarming onder warmere klimaatomstandigheden vedenlämmityksen energiatehokkuus lämpimissä ilmastoloosuhteissa	die Warmwasserbereitungs-Energieeffizienz bei wärmeren Klimaverhältnissen Energieeffektivität vid vattenuppvärming under varmare klimatförhållanden energetická účinnost ohřevu vody za teplejších klimatických podmínek	l'efficacité énergétique pour le chauffage de l'eau, dans les conditions climatiques plus chaudes energieeffektivitet ved vandopvarming under varmere klimaforhold енергийната ефективност при подгряване на вода при по-топли климатични условия	l'efficienza energetica di riscaldamento dell'acqua in condizioni climatiche più calde a eficiencia energética do aquecimento de água em condições climáticas mais quentes efektywność energetyczna podgrzewania wody w warunkach klimatu ciepłego	la eficiencia energética de caldeo de agua en condiciones climáticas más cálidas η ενεργειακή απόδοση της θέρμανσης νερού υπό θερμότερες κλιματικές συνθήκες -
25	Sound power level L <sub>WA</sub> outdoor het geluidsvermogensniveau L <sub>WA</sub> buiten äänitehotaso L <sub>WA</sub> ulkona	der Schalleistungspegel L <sub>WA</sub> im Freien Ljudeffektivitativ L <sub>WA</sub> i utomhus hladina akustického výkonu L <sub>WA</sub> ve venkovním prostoru	le niveau de puissance acoustique L <sub>WA</sub> , à l'extérieur lydeeffektivitet L <sub>WA</sub> i ude нивото на звуковата мощност L <sub>WA</sub> на открито	il livello di potenza sonora L <sub>WA</sub> all'esterno O nível de potência sonora L <sub>WA</sub> no exterior poziom mocy akustycznej L <sub>WA</sub> na zewnątrz	el nivel de potencia acústica L <sub>WA</sub> en exteriores η στάθμη ηχητικής ισχύος L <sub>WA</sub> εξωτερικού χώρου -

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

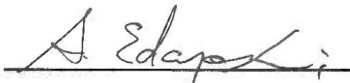
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	10.6	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 °C	COPd	3.24	-
Tj = + 2 °C	Pdh	6.5	kW	Tj = + 7 °C	COPd	4.82	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.94	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	1.87	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.87	-
Tj = +12 °C	Pdh	4.3	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Capacity control	variable			Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7170	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	121	%	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh				
Annual electricity consumption	AEC	1431	kWh				

Contact details: MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD. Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

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



Atsushi EDAYOSHI  
 Manager, Quality Assurance Department  
 UNITED KINGDOM

· 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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	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	10.6	kW	Tj = - 7 °C	COPd	2.85	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 °C	COPd	4.46	-
Tj = + 2 °C	Pdh	6.5	kW	Tj = + 7 °C	COPd	5.89	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	8.00	-
Tj = + 7 °C	Pdh	5.6	kW	Tj = bivalent temperature	COPd	2.77	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	2.77	-
Tj = +12 °C	Pdh	4.4	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Other items	Capacity control	variable	Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
	Sound power level, indoors/outdoors	L <sub>WA</sub> 41 / 60				dBA
	Annual energy consumption	Q <sub>HE</sub> 5453				kWh

For heat pump combination heater:						
Declared load profile	XL			Water heating energy efficiency	$\eta_{wh}$	121 %
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh			
Annual electricity consumption	AEC	1431	kWh			

Contact details  
 MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.      Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

The identification and signature of the person empowered to bind the supplier;  
 Atsushi EDAYOSHI  
 The signature is signed in the average climate / medium-temperature section.  
 Manager, Quality Assurance Department  
 UNITED KINGDOM

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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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.66	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.35	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	4.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.75	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	3.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.52	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.54	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	4.4	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Operation limit temperature	TOL	-28	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	10.1	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	9.7	kW	Supplementary heater			
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>d,h</sub>	10.2	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Bivalent temperature	T <sub>biv</sub>	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode							
Off mode	P <sub>OFF</sub>	0.015	kW				
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	10055	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	102	%	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.		Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.	
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The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

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

Manager, Quality Assurance Department

UNITED KINGDOM

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(\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	149	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.70	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.15	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.50	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.43	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	3.9	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.10	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.83	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	5.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.15	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Operation limit temperature	TOL	-28	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	10.1	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	9.7	kW	Supplementary heater			
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>d,h</sub>	10.2	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Bivalent temperature	T <sub>biv</sub>	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Power consumption in modes other than active mode			
Off mode				P <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7792	kWh				

For heat pump combination heater:							
Declared load profile				XL			
Daily electricity consumption				Q <sub>elec</sub>	7.730	kWh	
Annual electricity consumption				AEC	1700	kWh	
				Water heating energy efficiency			
				$\eta_{wh}$	102	%	

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.		Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.	
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Atsushi EDAYOSHI

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Manager, Quality Assurance Department

UNITED KINGDOM

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(\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	159	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>d,h</sub>	-	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.03	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	12.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.38	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.59	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	7.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	2.03	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	5.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	12.0	kW	Supplementary heater			
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	12.0	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Bivalent temperature	T <sub>biv</sub>	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Power consumption in modes other than active mode			
Power consumption in modes other than active mode				Off mode			
Off mode	P <sub>OFF</sub>	0.015	kW	Thermostat-off mode	P <sub>TO</sub>	0.015	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Standby mode	P <sub>SB</sub>	0.015	kW
Standby mode	P <sub>SB</sub>	0.015	kW	Crankcase heater mode	P <sub>CK</sub>	0.000	kW
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	Other items			
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA	2640			
Annual energy consumption	Q <sub>HE</sub>	3963	kWh	m <sup>3</sup> /h			

For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

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

Manager, Quality Assurance Department

UNITED KINGDOM

· 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(T<sub>j</sub>).

(\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.



**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	231	%
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	12.0	kW	Tj = + 7 °C	COPd	5.26	-
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	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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			
Power consumption in modes other than active mode				Off mode			
Off mode	P <sub>OFF</sub>	0.015	kW	Thermostat-off mode	P <sub>TO</sub>	0.015	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Standby mode	P <sub>SB</sub>	0.015	kW
Standby mode	P <sub>SB</sub>	0.015	kW	Crankcase heater mode	P <sub>CK</sub>	0.000	kW
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	Other items			
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA	2640 m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	2745	kWh				

For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

Contact details	MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-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:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
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	10.6	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 °C	COPd	3.24	-
Tj = + 2 °C	Pdh	6.5	kW	Tj = + 7 °C	COPd	4.82	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.94	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	1.87	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.87	-
Tj = +12 °C	Pdh	4.3	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Capacity control	variable			Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7170	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	121	%	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh				
Annual electricity consumption	AEC	1431	kWh				

Contact details: MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD. Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

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 Manager, Quality Assurance Department  
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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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-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:	yes	
Parameters for	low-temperature application.	
Parameters for	average climate conditions.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	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	10.6	kW	Tj = - 7 °C	COPd	2.85	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 °C	COPd	4.46	-
Tj = + 2 °C	Pdh	6.5	kW	Tj = + 7 °C	COPd	5.89	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	8.00	-
Tj = + 7 °C	Pdh	5.6	kW	Tj = bivalent temperature	COPd	2.77	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	2.77	-
Tj = +12 °C	Pdh	4.4	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Other items				Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	5453	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	121	%
Declared load profile	XL						
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh				
Annual electricity consumption	AEC	1431	kWh				

Contact details

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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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-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:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.66	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.35	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	4.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.75	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	3.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.52	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.54	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	4.4	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Operation limit temperature	TOL	-28	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	10.1	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	9.7	kW	Supplementary heater			
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>d,h</sub>	10.2	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Bivalent temperature	T <sub>biv</sub>	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode							
Off mode	P <sub>OFF</sub>	0.015	kW				
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	10055	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	102	%	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.		Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.	
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Manager, Quality Assurance Department

UNITED KINGDOM

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(\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-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:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	149	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d</sub> <sub>h</sub>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.70	-
Degradation co-efficient (**)	C <sub>d</sub> <sub>h</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.15	-
T <sub>j</sub> = + 2 °C	P <sub>d</sub> <sub>h</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.50	-
Degradation co-efficient (**)	C <sub>d</sub> <sub>h</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.43	-
T <sub>j</sub> = + 7 °C	P <sub>d</sub> <sub>h</sub>	3.9	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.10	-
Degradation co-efficient (**)	C <sub>d</sub> <sub>h</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.83	-
T <sub>j</sub> = +12 °C	P <sub>d</sub> <sub>h</sub>	5.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.15	-
Degradation co-efficient (**)	C <sub>d</sub> <sub>h</sub>	0.98	-	Operation limit temperature	TOL	-28	°C
T <sub>j</sub> = bivalent temperature	P <sub>d</sub> <sub>h</sub>	10.1	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>d</sub> <sub>h</sub>	9.7	kW	Supplementary heater			
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>d</sub> <sub>h</sub>	10.2	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Bivalent temperature	T <sub>biv</sub>	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode							
Off mode	P <sub>OFF</sub>	0.015	kW				
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7792	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	102	%	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-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:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	159	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>d,h</sub>	-	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.03	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	12.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.38	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.59	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	7.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	2.03	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	5.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	12.0	kW	Supplementary heater			
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	12.0	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Bivalent temperature	T <sub>biv</sub>	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	2	°C				
Power consumption in modes other than active mode							
Off mode	P <sub>OFF</sub>	0.015	kW				
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3963	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	145	%	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

**Contact details**

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Atsushi EDAYOSHI

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Manager, Quality Assurance Department

UNITED KINGDOM

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 (\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

 (\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

 (\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	EHST30D-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:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	231	%
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	12.0	kW	Tj = + 7 °C	COPd	5.26	-
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	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Capacity control	variable			Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	2745	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	145	%	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

Contact details

MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.      Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

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

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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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	ERST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.


Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
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	10.6	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 °C	COPd	3.24	-
Tj = + 2 °C	Pdh	6.5	kW	Tj = + 7 °C	COPd	4.82	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.94	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	1.87	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.87	-
Tj = +12 °C	Pdh	4.3	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	12.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.0	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Capacity control	variable			Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7170	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	121	%	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh				
Annual electricity consumption	AEC	1431	kWh				

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 UNITED KINGDOM

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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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	ERST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	10.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.85	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.46	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	6.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.89	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	8.00	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	5.6	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.77	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	2.77	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	4.4	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C <sub>d,h</sub>	0.97	-	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	12.0	kW	Supplementary heater			
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	12.0	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Power consumption in modes other than active mode			
Power consumption in modes other than active mode				Off mode			
Off mode	P <sub>OFF</sub>	0.015	kW	Thermostat-off mode	P <sub>TO</sub>	0.015	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Standby mode	P <sub>SB</sub>	0.015	kW
Standby mode	P <sub>SB</sub>	0.015	kW	Crankcase heater mode	P <sub>CK</sub>	0.000	kW
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	Other items			
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA	2640 m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	5453	kWh				

For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	$\eta_{wh}$	121	%
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh				
Annual electricity consumption	AEC	1431	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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Manager, Quality Assurance Department

UNITED KINGDOM

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(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	ERST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.66	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.35	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	4.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.75	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	3.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.52	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.54	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	4.4	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Operation limit temperature	TOL	-28	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	10.1	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	9.7	kW	Supplementary heater			
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>d,h</sub>	10.2	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Bivalent temperature	T <sub>biv</sub>	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode							
Off mode	P <sub>OFF</sub>	0.015	kW				
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	10055	kWh				

For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	$\eta_{wh}$	102	%
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	ERST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	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	3.70	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	4.15	-
Tj = + 2 °C	Pdh	4.5	kW	Tj = + 7 °C	COPd	5.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.43	-
Tj = + 7 °C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	2.10	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.83	-
Tj = +12 °C	Pdh	5.5	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	2.15	-
Degradation co-efficient (**)	Cdh	0.98	-	Operation limit temperature	TOL	-28	°C
Tj = bivalent temperature	Pdh	10.1	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	9.7	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	10.2	kW	Rated heat output (*)	Psup	2.4	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 <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7792	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	102	%	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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(\*\*\*) 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:	PUD-SHWM120VAA(-BS)
	Indoor unit:	ERST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	159	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>d,h</sub>	-	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.03	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	12.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.38	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.59	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	7.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	2.03	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	5.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	12.0	kW	Supplementary heater			
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	12.0	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Bivalent temperature	T <sub>biv</sub>	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Power consumption in modes other than active mode			
Off mode				P <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3963	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	145	%	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

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 (\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

 (\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUD-SHWM120VAA(-BS)
	Indoor unit:	ERST30D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	231	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>d,h</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>d,h</sub>	-	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.30	-
T <sub>j</sub> = + 2 °C	P <sub>d,h</sub>	12.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.26	-
Degradation co-efficient (**)	C <sub>d,h</sub>	1.00	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.46	-
T <sub>j</sub> = + 7 °C	P <sub>d,h</sub>	7.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.30	-
Degradation co-efficient (**)	C <sub>d,h</sub>	0.99	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	3.30	-
T <sub>j</sub> = +12 °C	P <sub>d,h</sub>	4.4	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C <sub>d,h</sub>	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = bivalent temperature	P <sub>d,h</sub>	12.0	kW	Supplementary heater			
T <sub>j</sub> = operation limit temperature (***)	P <sub>d,h</sub>	12.0	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Bivalent temperature	T <sub>biv</sub>	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Power consumption in modes other than active mode			
Off mode				P <sub>OFF</sub>			
Thermostat-off mode				P <sub>TO</sub>			
Standby mode				P <sub>SB</sub>			
Crankcase heater mode				P <sub>CK</sub>			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	2745	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	145	%	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.

Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

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

Atsushi EDAYOSHI

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

Manager, Quality Assurance Department

UNITED KINGDOM

· 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(T<sub>j</sub>).

 (\*\*) If C<sub>d,h</sub> is not determined by measurement then the default degradation coefficient is C<sub>d,h</sub> = 0,9.

 (\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.