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MITSUBISHI ELECTRIC

Indoor unit E*SE-**D
Outdoor unit PUHZ-SHW230YKA2

	55 °C	35 °C
	A++	A++

A+++
A++
A+
A
B
C
D

45 dB

75 dB

23	**23**	23
kW		kW
25	**25**	23
kW		kW

2019

811/2013

RH79A041H08

MITSUBISHI ELECTRIC

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

		For medium-temperature application													For low-temperature application										
1	2	3	6	8	11	9	13	15	16	21	22	17	18	25	4	6	8	11	9	13	15	16	21	22	17	18	25
Outdoor unit	Indoor unit	Medium-temperature application	Seasonal space heating energy efficiency class	Rated heat output under average climate conditions	Seasonal space heating energy efficiency under average climate conditions	For space heating, annual energy consumption under average climate conditions	Sound power level L_{WA} indoor	Rated heat output under colder climate conditions	Rated heat output under warmer climate conditions	Seasonal space heating energy efficiency under colder climate conditions	Seasonal space heating energy efficiency under warmer climate conditions	For space heating, annual energy consumption under colder climate conditions	For space heating, annual energy consumption under warmer climate conditions	Sound power level L_{WA} outdoor	Low-temperature application	Seasonal space heating energy efficiency class	Rated heat output under average climate conditions	Seasonal space heating energy efficiency under average climate conditions	For space heating, annual energy consumption under average climate conditions	Sound power level L_{WA} indoor	Rated heat output under colder climate conditions	Rated heat output under warmer climate conditions	Seasonal space heating energy efficiency under colder climate conditions	Seasonal space heating energy efficiency under warmer climate conditions	For space heating, annual energy consumption under colder climate conditions	For space heating, annual energy consumption under warmer climate conditions	Sound power level L_{WA} outdoor
				kW	%	kWh	dB	kW	kW	%	%	kWh	kWh	dB			kW	%	kWh	dB	kW	kW	%	%	kWh	kWh	dB
PUHZ-SHW230YKA2	EHSE-****C	✔	A++	23	127	14615	45	23	23	123	149	17960	8037	75	✔	A++	25	164	12351	45	25	23	162	199	14904	6076	75
	ERSE-****C	✔	A++	23	128	14485	45	23	23	124	150	17848	7975	75	✔	A++	25	165	12270	45	25	23	164	202	14764	6009	75
	EHSE-****D	✔	A++	23	127	14615	45	23	23	123	149	17960	8037	75	✔	A++	25	164	12351	45	25	23	162	199	14904	6076	75
	ERSE-****D	✔	A++	23	128	14485	45	23	23	124	150	17848	7975	75	✔	A++	25	165	12270	45	25	23	164	202	14764	6009	75

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

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-****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
Rated heat output (*)	Prated	23.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	20.3	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	12.4	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	11.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	13.7	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	23.0	kW
Tj = operation limit temperature (***)	Pdh	23.0	kW
Bivalent temperature	Tbiv	-10	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	14615	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	127	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.10	-
Tj = + 2 °C	COPd	3.02	-
Tj = + 7 °C	COPd	4.54	-
Tj = +12 °C	COPd	5.79	-
Tj = bivalent temperature	COPd	1.85	-
Tj = operation limit temperature (***)	COPd	1.85	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

Contact details

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

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

Tomoyuki MIWA
General Manager, Quality Assuarance Department
Shizuoka JAPAN

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-****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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	22.1	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	13.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	25.0	kW
Tj = operation limit temperature (***)	Pdh	25.0	kW
Bivalent temperature	Tbiv	-10	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	12351	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	164	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.80	-
Tj = + 7 °C	COPd	5.32	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.19	-
Tj = operation limit temperature (***)	COPd	2.19	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-****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
Rated heat output (*)	Prated	23.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	13.9	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	8.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	11.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	19.4	kW
Tj = operation limit temperature (***)	Pdh	17.9	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	18.8	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	17960	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	123	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.20	-
Tj = + 7 °C	COPd	4.90	-
Tj = +12 °C	COPd	6.15	-
Tj = bivalent temperature	COPd	1.52	-
Tj = operation limit temperature (***)	COPd	1.39	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.72	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	5.1	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-****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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	9.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	21.1	kW
Tj = operation limit temperature (***)	Pdh	17.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	20.4	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	14904	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	162	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	5.00	-
Tj = + 2 °C	COPd	4.00	-
Tj = + 7 °C	COPd	5.56	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.09	-
Tj = operation limit temperature (***)	COPd	1.52	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.40	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	7.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-****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	22.8	kW	Seasonal space heating energy efficiency	ηs	149	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	22.8	kW	Tj = + 2 °C	COPd	1.66	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.7	kW	Tj = + 7 °C	COPd	3.16	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = +12 °C	Pdh	13.6	kW	Tj = +12 °C	COPd	5.33	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	22.8	kW	Tj = bivalent temperature	COPd	1.66	-
Tj = operation limit temperature (***)	Pdh	22.8	kW	Tj = operation limit temperature (***)	COPd	1.66	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	8037	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	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.

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-****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	23.0	kW	Seasonal space heating energy efficiency	ηs	199	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	23.0	kW	Tj = + 2 °C	COPd	2.47	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.8	kW	Tj = + 7 °C	COPd	4.63	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	14.3	kW	Tj = +12 °C	COPd	6.41	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	2.47	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	2.47	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	6076	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

Contact details

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

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

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

Tomoyuki MIWA
General Manager, Quality Assuarance Department
Shizuoka JAPAN

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-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	23.0	kW	Seasonal space heating energy efficiency	ηs	127	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	20.3	kW	Tj = - 7 °C	COPd	2.10	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	12.4	kW	Tj = + 2 °C	COPd	3.02	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	11.2	kW	Tj = + 7 °C	COPd	4.54	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	13.7	kW	Tj = +12 °C	COPd	5.79	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	1.85	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	1.85	-
Bivalent temperature	Tbiv	-10	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW				
Standby mode	P_{SB}	0.022	kW	Type of energy input		Electrical	
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	14615	kWh				
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	22.1	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	13.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	25.0	kW
Tj = operation limit temperature (***)	Pdh	25.0	kW
Bivalent temperature	Tbiv	-10	°C
Reference design conditions for space heating	Tdesignh	-10	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	164	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.80	-
Tj = + 7 °C	COPd	5.32	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.19	-
Tj = operation limit temperature (***)	COPd	2.19	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C

Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW

Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	12351	kWh
Rated air flow rate, outdoors	-	8400	m^3/h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	ηwh	-	%

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

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-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
Rated heat output (*)	Prated	23.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	13.9	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	8.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	11.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	19.4	kW
Tj = operation limit temperature (***)	Pdh	17.9	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	18.8	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	17960	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	123	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.20	-
Tj = + 7 °C	COPd	4.90	-
Tj = +12 °C	COPd	6.15	-
Tj = bivalent temperature	COPd	1.52	-
Tj = operation limit temperature (***)	COPd	1.39	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.72	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	5.1	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	9.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	21.1	kW
Tj = operation limit temperature (***)	Pdh	17.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	20.4	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	14904	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	162	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	5.00	-
Tj = + 2 °C	COPd	4.00	-
Tj = + 7 °C	COPd	5.56	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.09	-
Tj = operation limit temperature (***)	COPd	1.52	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.40	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	7.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-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	22.8	kW	Seasonal space heating energy efficiency	ηs	149	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	22.8	kW	Tj = + 2 °C	COPd	1.66	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.7	kW	Tj = + 7 °C	COPd	3.16	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = +12 °C	Pdh	13.6	kW	Tj = +12 °C	COPd	5.33	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	22.8	kW	Tj = bivalent temperature	COPd	1.66	-
Tj = operation limit temperature (***)	Pdh	22.8	kW	Tj = operation limit temperature (***)	COPd	1.66	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW				
Standby mode	P_{SB}	0.022	kW	Type of energy input		Electrical	
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	8037	kWh				
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	EHSE-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	23.0	kW	Seasonal space heating energy efficiency	ηs	199	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	23.0	kW	Tj = + 2 °C	COPd	2.47	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.8	kW	Tj = + 7 °C	COPd	4.63	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	14.3	kW	Tj = +12 °C	COPd	6.41	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	2.47	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	2.47	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	6076	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-****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	23.0	kW	Seasonal space heating energy efficiency	ηs	128	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	20.3	kW	Tj = - 7 °C	COPd	2.10	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	12.4	kW	Tj = + 2 °C	COPd	3.04	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	11.2	kW	Tj = + 7 °C	COPd	4.54	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	13.7	kW	Tj = +12 °C	COPd	5.79	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	1.85	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	1.85	-
Bivalent temperature	Tbiv	-10	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	14485	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

Contact details

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

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

Tomoyuki MIWA
General Manager, Quality Assuarance Department
Shizuoka JAPAN

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-****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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	22.1	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	13.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	25.0	kW
Tj = operation limit temperature (***)	Pdh	25.0	kW
Bivalent temperature	Tbiv	-10	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	12270	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	165	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.80	-
Tj = + 7 °C	COPd	5.32	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.19	-
Tj = operation limit temperature (***)	COPd	2.19	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-****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	23.0	kW	Seasonal space heating energy efficiency	ηs	124	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	13.9	kW	Tj = - 7 °C	COPd	3.40	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	8.5	kW	Tj = + 2 °C	COPd	3.23	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	11.6	kW	Tj = + 7 °C	COPd	4.90	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	14.2	kW	Tj = +12 °C	COPd	6.15	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	19.4	kW	Tj = bivalent temperature	COPd	1.52	-
Tj = operation limit temperature (***)	Pdh	17.9	kW	Tj = operation limit temperature (***)	COPd	1.39	-
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	18.8	kW	Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.72	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	5.1	kW
Thermostat-off mode	P_{TO}	0.022	kW				
Standby mode	P_{SB}	0.022	kW	Type of energy input		Electrical	
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	17848	kWh				
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-****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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	9.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	21.1	kW
Tj = operation limit temperature (***)	Pdh	17.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	20.4	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	14764	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	164	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	5.00	-
Tj = + 2 °C	COPd	4.04	-
Tj = + 7 °C	COPd	5.70	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.09	-
Tj = operation limit temperature (***)	COPd	1.52	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.40	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	7.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-****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	22.8	kW	Seasonal space heating energy efficiency	ηs	150	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	22.8	kW	Tj = + 2 °C	COPd	1.66	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.7	kW	Tj = + 7 °C	COPd	3.13	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = +12 °C	Pdh	13.6	kW	Tj = +12 °C	COPd	5.33	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	22.8	kW	Tj = bivalent temperature	COPd	1.66	-
Tj = operation limit temperature (***)	Pdh	22.8	kW	Tj = operation limit temperature (***)	COPd	1.66	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW				
Standby mode	P_{SB}	0.022	kW	Type of energy input		Electrical	
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	7975	kWh				
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	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.

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-****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	23.0	kW	Seasonal space heating energy efficiency	ηs	202	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	23.0	kW	Tj = + 2 °C	COPd	2.47	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.8	kW	Tj = + 7 °C	COPd	4.58	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	14.3	kW	Tj = +12 °C	COPd	6.41	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	2.47	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	2.47	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW				
Standby mode	P_{SB}	0.022	kW	Type of energy input		Electrical	
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	6009	kWh				
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	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.

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-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	23.0	kW	Seasonal space heating energy efficiency	ηs	128	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	20.3	kW	Tj = - 7 °C	COPd	2.10	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	12.4	kW	Tj = + 2 °C	COPd	3.04	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	11.2	kW	Tj = + 7 °C	COPd	4.54	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	13.7	kW	Tj = +12 °C	COPd	5.79	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	1.85	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	1.85	-
Bivalent temperature	Tbiv	-10	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	14485	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	22.1	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	13.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	25.0	kW
Tj = operation limit temperature (***)	Pdh	25.0	kW
Bivalent temperature	Tbiv	-10	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	12270	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	165	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.80	-
Tj = + 7 °C	COPd	5.32	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.19	-
Tj = operation limit temperature (***)	COPd	2.19	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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Tomoyuki MIWA
General Manager, Quality Assuarance Department
Shizuoka JAPAN

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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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-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
Rated heat output (*)	Prated	23.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	13.9	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	8.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	11.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	19.4	kW
Tj = operation limit temperature (***)	Pdh	17.9	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	18.8	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	17848	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	124	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.40	-
Tj = + 2 °C	COPd	3.23	-
Tj = + 7 °C	COPd	4.90	-
Tj = +12 °C	COPd	6.15	-
Tj = bivalent temperature	COPd	1.52	-
Tj = operation limit temperature (***)	COPd	1.39	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.72	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	5.1	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-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
Rated heat output (*)	Prated	25.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	9.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	12.2	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	14.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = bivalent temperature	Pdh	21.1	kW
Tj = operation limit temperature (***)	Pdh	17.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	20.4	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA
Annual energy consumption	Q_{HE}	14764	kWh
For heat pump combination heater:			
Declared load profile		-	
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	164	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	5.00	-
Tj = + 2 °C	COPd	4.04	-
Tj = + 7 °C	COPd	5.70	-
Tj = +12 °C	COPd	6.68	-
Tj = bivalent temperature	COPd	2.09	-
Tj = operation limit temperature (***)	COPd	1.52	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.40	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	7.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	8400	m^3/h
Water heating energy efficiency	ηwh	-	%

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-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	22.8	kW	Seasonal space heating energy efficiency	ηs	150	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	22.8	kW	Tj = + 2 °C	COPd	1.66	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.7	kW	Tj = + 7 °C	COPd	3.13	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = +12 °C	Pdh	13.6	kW	Tj = +12 °C	COPd	5.33	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	22.8	kW	Tj = bivalent temperature	COPd	1.66	-
Tj = operation limit temperature (***)	Pdh	22.8	kW	Tj = operation limit temperature (***)	COPd	1.66	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	7975	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

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Model(s):	Outdoor unit:	PUHZ-SHW230YKA2
	Indoor unit:	ERSE-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	23.0	kW	Seasonal space heating energy efficiency	ηs	202	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	23.0	kW	Tj = + 2 °C	COPd	2.47	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	14.8	kW	Tj = + 7 °C	COPd	4.58	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	14.3	kW	Tj = +12 °C	COPd	6.41	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	23.0	kW	Tj = bivalent temperature	COPd	2.47	-
Tj = operation limit temperature (***)	Pdh	23.0	kW	Tj = operation limit temperature (***)	COPd	2.47	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.022	kW	Type of energy input	Electrical		
Standby mode	P_{SB}	0.022	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	8400	m^3/h
Sound power level, indoors/outdoors	L_{WA}	45 / 75	dBA				
Annual energy consumption	Q_{HE}	6009	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

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