

10295

11 - 2020

ISPK

**Ecodesign manual
(2281/2016 Regulation)**



COOLING MODE ^[0]

Model ^[1]	
Air conditioner type ^[2]	Air-to-Air ^[3]
Type ^[4]	Compressor driven vapour compression ^[5]

Rated cooling capacity, kW ^[6]	Prated,c	
Seasonal space cooling energy efficiency, % ^[7]	$\eta_{s,c}$	
Seasonal Coefficient Of Performance, kWh/kWh ^[8]	SEER	
Sound power level, outdoor, dB ^[9]	LWA	

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb) ^[10]

Climate: ^[11]	Average (Strasbourg) ^[12]		
Tj, °C	Cooling capacity Pdc, kW ^[13]	EERd, %	Degradation coef, Cdc ^[14]
+ 35			
+ 30			
+ 25			
+ 20			

Power consumption in modes other than 'active mode' ^[15]

Off mode, kW ^[16]	POFF	
Thermostat-off mode, kW ^[17]	PTO	
Crankcase heater mode, kW ^[18]	PCK	
Standby mode, kW ^[19]	PSB	

Other items ^[20]

Capacity control ^[21]	fixed/Staged/variable ^[22]
GWP of the refrigerant, kg CO2 eq (100 years) ^[23]	

For air-to-air air conditioner ^[24]

Air flow rate, outdoor measured, m3/h ^[25]	
--	--

Contact details ^[26]	
--	--

ENGLISH

[0]	COOLING mode
[1]	Model
[2]	Air conditioner type
[3]	Air to Air
[4]	Type:
[5]	Compressor driven vapour compression
[6]	Rated cooling capacity
[7]	Seasonal space capacity energy efficiency
[8]	Seasonal coefficient of performance
[9]	Sound power level, dB(A)
[10]	Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)
[11]	Climate
[12]	Average (Strasbourg)
[13]	Cooling capacity
[14]	Degradation coeff
[15]	Power consumption in modes other than 'active mode'
[16]	Off mode
[17]	Thermostat off-mode
[18]	Crankcase heater mode
[19]	Standby mode
[20]	Other items
[21]	Capacity control
[22]	Fixed/Staged/variable
[23]	GWP of the refrigerant, kg CO2 eq (100 years)
[24]	For air-to-air air conditioner
[25]	Nominal air flow rate, outdoor measured, m³/h
[26]	Contact details

ESPAÑOL

[0]	Modo FRÍO
[1]	Modelo
[2]	Tipo de acondicionador de aire
[3]	Aire-aire
[4]	Tipo:
[5]	Compresión de vapor por compresor
[6]	Potencia nominal de refrigeración
[7]	Eficiencia energética estacional de refrigeración de espacios
[8]	Coefficiente de rendimiento estacional
[9]	Nivel de potencia acústica, dB(A)
[10]	Potencia frigorífica y factor de eficiencia energética declarados para carga parcial a las temperaturas exteriores dadas Tj y a una temperatura interior de 27°/19°C (bulbo seco/húmedo)
[11]	Clima
[12]	Condiciones climáticas medias (Estrasburgo)
[13]	Potencia frigorífica
[14]	Coefficiente de degradación
[15]	Consumo de energía en modos distintos del 'modo activo'
[16]	Modo desactivado
[17]	Modo desactivado por termostato
[18]	Modo de calentador del cárter
[19]	Modo de espera
[20]	Otros elementos
[21]	Control de potencia
[22]	Fijo/gradual/variable
[23]	PCA del refrigerante, kg CO2 eq (100 años)
[24]	Para acondicionador de aire aire-aire
[25]	Caudal de aire nominal, exterior
[26]	Datos de contacto

FRANÇAIS

[0]	Mode FROID
[1]	Modèle
[2]	Type de climatiseur
[3]	Air-air
[4]	Type:
[5]	Compresseur à cycle à compression de vapeur
[6]	Puissance frigorifique nominale
[7]	Efficacité énergétique saisonnière pour le refroidissement des locaux
[8]	Coefficient saisonnier de performance
[9]	Niveau de puissance acoustique, dB(A)
[10]	Puissance frigorifique et coefficient d'efficacité énergétique déclarés à charge partielle pour des températures extérieures données Tj et intérieure de 27 °C/19 °C (bulbe sec/ bulbe humide)
[11]	Climat
[12]	Moyennes (Strasbourg)
[13]	Puissance frigorifique
[14]	Coefficient de dégradation
[15]	Consommation d'énergie dans les modes autres que le 'mode actif'
[16]	Mode arrêt
[17]	Mode arrêt par thermostat
[18]	Mode résistance de carter active
[19]	Mode veille
[20]	Autres caractéristiques
[21]	Régulation de la puissance
[22]	fixe/étagée/variable
[23]	PRP du fluide frigorigène, kg CO2 eq (100 ans)
[24]	Pour les climatiseurs air-air
[25]	Débit d'air nominal, mesuré à l'extérieur
[26]	Coordonnées de contact

PORTUGUÊS

[0]	Modo ARREFECIMENTO
[1]	Modelo
[2]	Tipo de aparelho de ar condicionado
[3]	Ar-ar
[4]	Tipo:
[5]	Compressão de vapor acionada por compressor
[6]	Potência de arrefecimento nominal
[7]	Eficiência energética sazonal de arrefecimento ambiente
[8]	Coefficiente de desempenho sazonal
[9]	Nível de potência sonora, dB(A)
[10]	Potência de arrefecimento e rácio de eficiência energética declarados para carga parcial a determinadas temperaturas exteriores Tj e temperaturas interiores de 27/19 °C (bolbo seco/húmido)
[11]	Clima
[12]	Condições climáticas médias (Estrasburgo)
[13]	Potência de arrefecimento
[14]	Coefficiente de degradação
[15]	Consumo energético em modos distintos do «modo ativo»
[16]	Modo desligado
[17]	Modo termostato desligado
[18]	Modo de resistência do cárter
[19]	Modo espera
[20]	Outros parâmetros
[21]	Regulação da potência
[22]	Fixa/faseada/variável
[23]	PAG do refrigerante, kg CO2 eq (100 anos)
[24]	Para aparelhos de ar condicionado ar-ar
[25]	Débito de ar, medido no exterior
[26]	Dados de contacto

TÜRK

[0]	SOĞUTMA modü
[1]	Model
[2]	Klima tipi
[3]	Havadan Havaya
[4]	Tip:
[5]	Kompresör tahrikli buhar kompresyonu
[6]	Nominal soğutma kapasitesi
[7]	Mevsimsel alan kapasitesi enerji verimi
[8]	Mevsimsel Performans Katsayısı, kWh/kWh
[9]	Ses gücü seviyesi, dB(A)
[10]	Verilen dış ortam sıcaklığı Tj ve iç mekan 27°/19°C'deki (kuru/yaş termometre sıcaklığı) kısmi yük için belirtilen soğutma kapasitesi ve enerji verim oranı
[11]	İklim
[12]	Ortalama (Strasbourg)
[13]	Soğutma kapasitesi
[14]	Azalma katsayısı
[15]	"Etkin modu"nun dışındaki enerji tüketimi
[16]	Kapalı modü
[17]	Termostat kapalı modü
[18]	Karter ısıtıcısı modü
[19]	Bekleme modü
[20]	Diğer öğeler
[21]	Kapasite kontrolü
[22]	Sabit/Kademeli/değişken
[23]	Soğutucu akışkanın küresel ısınmaya neden olma potansiyeli (GWP), kg CO2 eşdeğer (100 yıl)
[24]	Havadan havaya iklimler için
[25]	Dış ortamda ölçülen nominal hava akış debisi, m³/saat
[26]	İletişim bilgileri

РУССКИЙ

[0]	Режим ОХЛАЖДЕНИЯ
[1]	Модель
[2]	Тип кондиционера
[3]	Воздух-воздух
[4]	Тип:
[5]	Сжатие паров хладагента с помощью компрессора
[6]	Номинальная холодопроизводительность
[7]	Сезонная энергоэффективность в режиме охлаждения
[8]	Сезонная энергоэффективность, кВт/кВт
[9]	Корректированный уровень звуковой мощности, дБА
[10]	Заявленная холодопроизводительность и показатель энергоэффективности при работе с частичной нагрузкой при данной температуре наружного воздуха Tj и температуре воздуха в помещении 27 °C/19 °C (по сух./влаж. термометру)
[11]	Климат
[12]	Средняя (Страсбург)
[13]	Холодопроизводительность
[14]	Коэффициент деградации
[15]	Потребляемая мощность в других режимах, кроме рабочего
[16]	Режим «Откл.»
[17]	Режим «Термостат отключен»
[18]	Режим подогрева картера
[19]	Дежурный режим
[20]	Прочее
[21]	Регулирование производительности
[22]	Фиксированное/ступенчатое/плавное
[23]	GWP хладагента, килограмм-эквивалентов CO2 (100 лет)
[24]	Для кондиционера типа «воздух-воздух»
[25]	Номинальный расход воздуха (понаружному воздуху), м³/ч
[26]	Контактная информация

HEATING MODE ^[0]

Model ^[1]	
Heat pump type ^[2]	Air-to-Air ^[3]
Equipped with supplementary heater ^[4]	Yes/No ^[5]

Rated heating capacity, kW ^[6]	Prated,h	
Seasonal space heating energy efficiency, % ^[7]	$\eta_{s,h}$	
Seasonal Coefficient Of Performance, kWh/kWh ^[8]	SCOP	
Sound power level, outdoor, dB ^[9]	LWA	

Declared heating capacity and coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature T_j ^[10]

Climate: ^[11]	Average (Strasbourg) ^[12]		
Bivalent temperature T_{biv}, °C ^[13]			
T_j, °C	Heating capacity P_{dh}, kW ^[14]	COP_d, %	Degradation coef, C_{dh} ^[15]
- 7			
+ 2			
+ 7			
+ 12			
Bivalent temperature ^[16]			
Operating limit temperature ^[17]			

Power consumption in modes other than 'active mode' ^[18]

Off mode, kW ^[19]	POFF	
Thermostat off mode, kW ^[20]	PTO	
Crankcase heater mode, kW ^[21]	PCK	

Supplementary heater ^[22]

Back-up heating capacity, kW ^[23]	elbu	
Type of energy input ^[24]		
Standby mode, kW ^[25]	PSB	

Other items ^[26]

Capacity control ^[27]	fixed/Staged/variable ^[28]
GWP of the refrigerant, kg CO₂ eq (100 years) ^[29]	

For air-to-air heat pumps ^[30]

Air flow rate, outdoor measured, m³/h ^[31]	
---	--

Contact details ^[32]	
--	--

ENGLISH

[0]	HEATING mode
[1]	Model
[2]	Heat pump type
[3]	Air to Air
[4]	Equipped with supplementary heater
[5]	Yes/No
[6]	Rated heating capacity
[7]	Seasonal space heating energy efficiency
[8]	Seasonal coefficient of performance
[9]	Sound power level, dB(A)
[10]	Declared heating capacity and coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj
[11]	Climate
[12]	Average (Strasbourg)
[13]	Bivalent temperature, °C
[14]	Heating capacity
[15]	Degradation coeff
[16]	Bivalent temperature
[17]	Operation limit temperature
[18]	Power consumption in modes other than 'active mode'
[19]	Off mode
[20]	Thermostat off-mode
[21]	Crankcase heater mode
[22]	Supplementary heater
[23]	Back-up heating capacity
[24]	Type of energy input
[25]	Standby mode
[26]	Other items
[27]	Capacity control
[28]	Fixed/Staged/variable
[29]	GWP of the refrigerant, kg CO2 eq (100 years)
[30]	For air-to-air heat pumps
[31]	Nominal air flow rate, outdoor measured, m³/h
[32]	Contact details

ESPAÑOL

[0]	Modo CALOR
[1]	Modelo
[2]	Tipo de bomba de calor
[3]	Aire-aire
[4]	Equipado con calefacción complementaria
[5]	Sí/No
[6]	Potencia nominal de calefacción
[7]	Eficiencia energética estacional de calefacción de espacios
[8]	Coefficiente de rendimiento estacional
[9]	Nivel de potencia acústica, dB(A)
[10]	Potencia calorífica y coeficiente de rendimiento declarados para carga parcial a una temperatura interior de 20°C y una temperatura exterior Tj
[11]	Clima
[12]	Condiciones climáticas medias (Estrasburgo)
[13]	Temperatura bivalente, °C
[14]	Potencia calorífica
[15]	Coefficiente de degradación
[16]	Temperatura bivalente
[17]	Temperatura límite de funcionamiento
[18]	Consumo de energía en modos distintos del 'modo activo'
[19]	Modo desactivado
[20]	Modo desactivado por termostato
[21]	Modo de calentador del cárter
[22]	Calefactor complementario
[23]	Potencia de calefacción de apoyo
[24]	Tipo de energía consumida
[25]	Modo de espera
[26]	Otros elementos
[27]	Control de potencia
[28]	Fijo/gradual/variable
[29]	PCA del refrigerante, kg CO2 eq (100 años)
[30]	Para bombas de calor aire-aire
[31]	Caudal de aire nominal, exterior
[32]	Datos de contacto

FRANÇAIS

[0]	Mode CHAUD
[1]	Modèle
[2]	Type de pompe à chaleur
[3]	Air-air
[4]	Équipé d'un chauffage supplémentaire
[5]	Oui/Non
[6]	Puissance calorifique nominale
[7]	Efficacité énergétique saisonnière pour le chauffage des locaux
[8]	Coefficient saisonnier de performance
[9]	Niveau de puissance acoustique, dB(A)
[10]	Puissance calorifique et coefficient de performance déclarés à charge partielle pour une température intérieure de 20°C et une température extérieure Tj
[11]	Climat
[12]	Moyennes (Strasbourg)
[13]	Température bivalente, °C
[14]	Puissance calorifique
[15]	Coefficient de dégradation
[16]	Température bivalente
[17]	Température limite de fonctionnement
[18]	Consommation d'énergie dans les modes autres que le 'mode actif'
[19]	Mode arrêt
[20]	Mode arrêt par thermostat
[21]	Mode résistance de carter active
[22]	Dispositif de chauffage d'appoint
[23]	Puissance calorifique du dispositif de chauffage d'appoint
[24]	Type d'énergie utilisée
[25]	Mode veille
[26]	Autres caractéristiques
[27]	Régulation de la puissance
[28]	fixe/étagée/variable
[29]	PRP du fluide frigorigène, kg CO2 eq (100 ans)
[30]	Pour les pompes à chaleur air-air
[31]	Débit d'air nominal, mesuré à l'extérieur
[32]	Coordonnées de contact

PORTUGUÊS

[0]	Modo AQUECIMENTO
[1]	Modelo
[2]	Tipo de bomba de calor
[3]	Ar-ar
[4]	Equipado com um aquecedor suplementar
[5]	Sim/não
[6]	Potência de aquecimento nominal
[7]	Eficiência energética sazonal de aquecimento ambiente
[8]	Coefficiente de desempenho sazonal
[9]	Nível de potência sonora, dB(A)
[10]	Potência de aquecimento e coeficiente de desempenho declarados para carga parcial a uma temperatura interior de 20 °C e a uma temperatura exterior Tj
[11]	Clima
[12]	Condições climáticas médias (Estrasburgo)
[13]	Temperatura bivalente, °C
[14]	Potência de aquecimento
[15]	Coefficiente de degradação
[16]	Temperatura bivalente
[17]	Temperatura limite de funcionamento
[18]	Consumo energético em modos distintos do «modo ativo»
[19]	Modo desligado
[20]	Modo termostato desligado
[21]	Modo de resistência do cárter
[22]	Aquecedor suplementar
[23]	Potência de aquecimento de apoio
[24]	Tipo de alimentação de energia
[25]	Modo espera
[26]	Outros parâmetros
[27]	Regulação da potência
[28]	Fixa/faseada/variável
[29]	PAG do refrigerante, kg CO2 eq (100 anos)
[30]	Para bombas de calor ar-ar
[31]	Débito de ar, medido no exterior
[32]	Dados de contacto

TÜRK

[0]	ISITMA modu
[1]	Model
[2]	Isı pompası tipi
[3]	Havadan Havaya
[4]	Ek ısıtıcıya sahip
[5]	Evet/Hayır
[6]	Nominal ısıtma kapasitesi
[7]	Mevsimsel alan ısıtma enerji verimi
[8]	Mevsimsel Performans Katsayısı, kWh/kWh
[9]	Ses gücü seviyesi, dB(A)
[10]	Dış ortam sıcaklığı Tj ve iç mekan sıcaklığı 20°C'deki kısmi yük için belirtilen ısıtma kapasitesi ve performans katsayısı
[11]	İklim
[12]	Ortalama (Strasbourg)
[13]	İki değerli sıcaklık, °C
[14]	Isıtma kapasitesi
[15]	Azalma katsayısı
[16]	İki değerli sıcaklık
[17]	Çalışma sınırı sıcaklığı
[18]	"Etkin modu"nun dışındaki enerji tüketimi
[19]	Kapalı modu
[20]	Termostat kapalı modu
[21]	Karter ısıtıcısı modu
[22]	Ek ısıtıcı
[23]	Yedek ısıtma kapasitesi
[24]	Enerji girişi tipi
[25]	Bekleme modu
[26]	Diğer öğeler
[27]	Kapasite kontrolü
[28]	Sabit/Kademeli/değişken
[29]	Soğutucu akışkanın küresel ısınmaya neden olma potansiyeli (GWP), kg CO2 eşdeğer (100 yıl)
[30]	Havadan havaya ısı pompaları için
[31]	Dış ortamda ölçülen nominal hava akış debisi, m³/saat
[32]	İletişim bilgileri

РУССКИЙ

[0]	Режим НАГРЕВА
[1]	Модель
[2]	Тип теплового насоса
[3]	Воздух-воздух
[4]	С дополнительным нагревателем
[5]	Да/Нет
[6]	Номинальная теплопроизводительность
[7]	Сезонная энергоэффективность в режиме обогрева
[8]	Сезонная энергоэффективность, кВт/кВт
[9]	Корректированный уровень звуковой мощности, дБА
[10]	Заявленная теплопроизводительность и показатель эффективности при работе с частичной нагрузкой при температуре воздуха в помещении 20 °C и температуре наружного воздуха Tj
[11]	Климат
[12]	Усредненные климатические условия (Страсбург)
[13]	Температура на входе и выходе, °C
[14]	Теплопроизводительность
[15]	Коэффициент деградации
[16]	Температура на входе и выходе
[17]	Предельные значения рабочей температуры
[18]	Потребляемая мощность в других режимах, кроме рабочего
[19]	Режим «Откл.»
[20]	Режим «Термостат отключен»
[21]	Режим подогрева картера
[22]	Дополнительный нагреватель
[23]	Теплопроизводительность резервных электронагревателей
[24]	Тип подводимой энергии
[25]	Дежурный режим
[26]	Прочее
[27]	Регулирование производительности
[28]	Фиксированное/ступенчатое/плавное
[29]	GWP хладагента, килограмм-эквивалентов CO2 (100 лет)
[30]	Для тепловых насосов типа «воздух-воздух»
[31]	Номинальный расход воздуха (по наружному воздуху), м³/ч
[32]	Контактная информация

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-090
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	19,10
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	143%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,64
Sound power level, outdoor, dB	LWA	84,7

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	19,10	2,47	-
+ 30	14,07	3,47	-
+ 25	12,61	4,26	0,25
+ 20	13,12	4,86	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,02
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,02

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	7000
---------------------------------------	------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-090
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	19,27
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	127%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,25
Sound power level, outdoor, dB	LWA	84,7

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	13,87	2,40	-
+ 2	9,71	3,44	-
+ 7	11,21	4,00	0,25
+ 12	12,77	5,34	0,25
Bivalent temperature	14,57	2,57	-
Operating limit temperature	12,57	2,29	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,12
Crankcase heater mode, kW	PCK	0,10

Supplementary heater

Back-up heating capacity	elbu	5,47
Type of energy input	Electric	
Standby mode, kW	PSB	0,12

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	7000
---------------------------------------	------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-120
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	25,33
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	139%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,55
Sound power level, outdoor, dB	LWA	88,2

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	25,33	2,54	-
+ 30	18,66	3,02	-
+ 25	15,53	4,22	0,25
+ 20	16,25	4,88	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,02
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,02

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	10000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-120
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	27,63
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	129%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,29
Sound power level, outdoor, dB	LWA	88,2

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature T _{biv} , °C	-5		
T _j , °C	Heating capacity P _{d,h} , kW	COP _d , %	Degradation coef, C _{d,h}
- 7	18,26	2,53	–
+ 2	12,82	3,58	–
+ 7	14,06	3,96	0,250
+ 12	16,02	4,66	0,25
Bivalent temperature	19,22	2,65	–
Operating limit temperature	16,87	2,38	–

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,12
Crankcase heater mode, kW	PCK	0,10

Supplementary heater

Back-up heating capacity	elbu	6,93
Type of energy input	Electric	
Standby mode, kW	PSB	0,12

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO ₂ eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m ³ /h	10000
--	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-160
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	33,94
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	138%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,53
Sound power level, outdoor, dB	LWA	88,5

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	33,94	2,38	-
+ 30	25,01	3,21	-
+ 25	20,48	4,15	0,25
+ 20	21,00	4,74	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,02
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,02

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	13000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-160
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	37,16
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	130%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,33
Sound power level, outdoor, dB	LWA	88,5

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	24,73	2,50	-
+ 2	17,18	3,65	-
+ 7	18,79	4,00	0,250
+ 12	21,34	4,40	0,25
Bivalent temperature	25,77	2,71	-
Operating limit temperature	22,75	2,43	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,12
Crankcase heater mode, kW	PCK	0,10

Supplementary heater

Back-up heating capacity	elbu	9,16
Type of energy input	Electric	
Standby mode, kW	PSB	0,12

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	13000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-180
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	39,74
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	139%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,54
Sound power level, outdoor, dB	LWA	88,8

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	39,74	2,53	-
+ 30	29,28	3.10	-
+ 25	26,40	4.19	0,25
+ 20	27,62	5,03	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,02
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,02

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	13000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-180
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	44,64
Seasonal space heating energy efficiency, %	η_s ,h	129%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,31
Sound power level, outdoor, dB	LWA	88,8

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	28,22	2,46	-
+ 2	16,75	3,66	-
+ 7	22,71	4,24	0,25
+ 12	29,62	5,36	0,25
Bivalent temperature	25,13	2,31	-
Operating limit temperature	18,79	1,77	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,12
Crankcase heater mode, kW	PCK	0,10

Supplementary heater

Back-up heating capacity	elbu	12,33
Type of energy input	Electric	
Standby mode, kW	PSB	0,12

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	13000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-200
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	47,23
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	138%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,53
Sound power level, outdoor, dB	LWA	89,5

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	47,23	2,35	-
+ 30	34,80	3,31	-
+ 25	22,37	3,88	-
+ 20	15,95	4,35	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,03
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,03

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	19000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-200
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	51,99
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	125%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,21
Sound power level, outdoor, dB	LWA	89,5

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	49,39	3,12	-
+ 2	28,71	2,75	-
+ 7	18,45	4,38	-
+ 12	14,94	4,46	0,25
Bivalent temperature	43,06	2,83	-
Operating limit temperature	44,03	2,89	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,25
Crankcase heater mode, kW	PCK	0,20

Supplementary heater

Back-up heating capacity	elbu	9,28
Type of energy input	Electric	
Standby mode, kW	PSB	0,25

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	19000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-240
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	52,07
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	154%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,93
Sound power level, outdoor, dB	LWA	89,1

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	52,07	2,78	-
+ 30	38,37	3,14	-
+ 25	24,66	4,62	-
+ 20	17,25	4,91	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,03
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,03

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	23000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-240
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	57,49
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	127%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,25
Sound power level, outdoor, dB	LWA	89,1

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	34,03	2,37	-
+ 2	23,35	3,38	-
+ 7	15,01	3,86	-
+ 12	17,20	3,87	0,25
Bivalent temperature	35,03	2,50	-
Operating limit temperature	30,88	2,31	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,25
Crankcase heater mode, kW	PCK	0,20

Supplementary heater

Back-up heating capacity	elbu	12,48
Type of energy input	Electric	
Standby mode, kW	PSB	0,25

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	23000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-280
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	60,59
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	153%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,89
Sound power level, outdoor, dB	LWA	89,4

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	60,59	2,75	-
+ 30	44,65	3,13	-
+ 25	28,70	4,57	-
+ 20	19,54	4,77	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,03
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,03

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	23000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-280
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	64,65
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	125%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,21
Sound power level, outdoor, dB	LWA	89,4

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	38,32	2,23	-
+ 2	26,13	3,26	-
+ 7	16,80	3,96	-
+ 12	19,25	4,77	0,25
Bivalent temperature	39,19	2,42	-
Operating limit temperature	34,60	2,20	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,25
Crankcase heater mode, kW	PCK	0,20

Supplementary heater

Back-up heating capacity	elbu	13,93
Type of energy input	Electric	
Standby mode, kW	PSB	0,25

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	23000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-320
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	69,66
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	151%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,85
Sound power level, outdoor, dB	LWA	89,5

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	69,66	2,68	-
+ 30	51,33	2,86	-
+ 25	33,00	4,57	-
+ 20	21,15	5,07	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,03
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,03

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	24400
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-320
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	74,07
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	127%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,25
Sound power level, outdoor, dB	LWA	89,5

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	45,53	2,32	-
+ 2	30,62	3,27	-
+ 7	19,69	4,05	-
+ 12	21,10	4,50	0,25
Bivalent temperature	45,93	2,53	-
Operating limit temperature	41,19	2,36	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,25
Crankcase heater mode, kW	PCK	0,20

Supplementary heater

Back-up heating capacity	elbu	15,68
Type of energy input	Electric	
Standby mode, kW	PSB	0,25

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	24400
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-360
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	81,52
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	148%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,78
Sound power level, outdoor, dB	LWA	89,8

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	81,52	2,53	-
+ 30	60,07	2,91	-
+ 25	38,61	4,43	-
+ 20	25,69	4,96	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,03
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,03

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	24400
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-360
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	84,77
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	126%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,21
Sound power level, outdoor, dB	LWA	89,8

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	54,58	2,28	-
+ 2	37,11	3,17	-
+ 7	23,85	4,05	-
+ 12	26,81	4,87	0,25
Bivalent temperature	55,66	2,48	-
Operating limit temperature	50,48	2,35	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,25
Crankcase heater mode, kW	PCK	0,20

Supplementary heater

Back-up heating capacity	elbu	18,44
Type of energy input	Electric	
Standby mode, kW	PSB	0,25

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	24400
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-420
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	104,61
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	157%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	4,01
Sound power level, outdoor, dB	LWA	91,1

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	104,61	2,55	-
+ 30	77,45	4,45	-
+ 25	49,79	4,21	-
+ 20	36,56	4,59	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,05
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,05

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	30000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-420
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	108,00
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	126%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,22
Sound power level, outdoor, dB	LWA	91,1

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	68,93	2,38	-
+ 2	46,66	3,16	-
+ 7	30,00	4,05	-
+ 12	33,58	3,98	0,25
Bivalent temperature	69,99	2,62	-
Operating limit temperature	63,45	2,48	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,35
Crankcase heater mode, kW	PCK	0,30

Supplementary heater

Back-up heating capacity	elbu	23,20
Type of energy input	Electric	
Standby mode, kW	PSB	0,35

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	30000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

COOLING MODE

Model	ISPK-485
Air conditioner type	Air-to-Air
Type	Compressor driven vapour compression

Rated cooling capacity, kW	Prated,c	114,90
Seasonal space cooling energy efficiency, %	$\eta_{s,c}$	155%
Seasonal Coefficient Of Performance, kWh/kWh	SEER	3,98
Sound power level, outdoor, dB	LWA	93,3

Declared cooling capacity and energy efficiency ratio for part load at given outdoor temperatures Tj and indoor 27°/19°C (dry/wet bulb)

Climate: Tj, °C	Average (Strasbourg)		
	Cooling capacity Pdc, kW	EERd, %	Degradation coef, Cdc
+ 35	114,90	2,50	-
+ 30	84,08	3,93	-
+ 25	54,05	4,24	-
+ 20	38,65	4,96	0,25

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,05
Crankcase heater mode, kW	PCK	0,00
Standby mode, kW	PSB	0,05

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air air conditioner

Air flow rate, outdoor measured, m3/h	35000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

MODULAR COMPACT HEAT PUMPS WITH EC PLUG-FANS

HEATING MODE

Model	ISPK-485
Heat pump type	Air-to-Air
Equipped with supplementary heater	No

Rated heating capacity, kW	Prated,h	121,40
Seasonal space heating energy efficiency, %	$\eta_{s,h}$	125%
Seasonal Coefficient Of Performance, kWh/kWh	SCOP	3,20
Sound power level, outdoor, dB	LWA	93,3

Declared heating capacity and energy efficiency ratio for part load at indoor temperature 20 °C and outdoor temperature Tj

Climate:	Average (Strasbourg)		
Bivalent temperature Tbiv, °C	-5		
Tj, °C	Heating capacity Pdh, kW	COPd, %	Degradation coef, Cdh
- 7	78,38	2,39	-
+ 2	52,44	3,13	-
+ 7	33,71	4,01	-
+ 12	38,05	4,32	0,25
Bivalent temperature	78,67	2,53	-
Operating limit temperature	71,52	2,35	-

Power consumption in modes other than 'active mode'

Off mode, kW	POFF	0,00
Thermostat-off mode, kW	PTO	0,35
Crankcase heater mode, kW	PCK	0,30

Supplementary heater

Back-up heating capacity	elbu	25,88
Type of energy input	Electric	
Standby mode, kW	PSB	0,35

Other items

Capacity control	Staged
GWP of the refrigerant, kg CO2 eq (100 years)	2088

For air-to-air heat pumps

Air flow rate, outdoor measured, m3/h	35000
---------------------------------------	-------

Contact details	Manufactured by CIAT- 14550 Montilla SPAIN
-----------------	--

