

COOLING AND HEATING SPLIT UNITS DC INVERTER

R 410 A

APPLICATIONS

**RESIDENTIAL AND SERVICE SECTOR
(OFFICES, SHOPS)**

● WALL-MOUNTED

● CONSOLES

● FLOOR/CEILING MOUNTED

● UNDER-CEILING

● CASSETTE

● DUCTABLE

Technology DC Inverter by Technibel

Technibel presents its own N°26 DC Inverter technology,
100% sinusoidal (SVPWM 180°):

- 4 high-performance Air to Air heat pumps
- 6 indoor units: exceptional design and characteristics
- All parameters can be programmed remotely by infra-red
6 sets for the TECHNO indoor unit offering choice of colours

Monosplits DC Inverter : 29 models

- Air to Air heat pumps + indoor units
- Very high COP, up to 5
- Most models operate up to -15°C outdoor temperature
- Single-phase electric power

Direct expansion

DC Inverter

Cooling and heating split units

Wall-mounted

Techno Range	98
CSMRFI-R	102
CSMFI-R	104/106

Consoles	SKFI-R	108
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Floor/ceiling mounted	SKPFI-R	108
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Under-ceiling	SPFI-R	110
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Cassettes	CSKFI-R	112/114
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Ductable	DSFI-R	116/118
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WALL-MOUNTED SPLIT UNITS DC INVERTER - HIGH TECHNOLOGY

R 410 A

TECHNO range COOLING AND HEATING



- > Aesthetics, innovations and performance of the indoor units
- > TiO₂ active filter (bioxide of titanium)
- > SVPWM 180° modulation (sinusoidal)
- > COP from 3.81 to 5.04
- > Low Ambient -15°C



by TECHNIBEL

Outdoor units / air to air heat pumps – GR8F 98/128R5I and GRF 98/128 R5I

- Cooling, heating & dry mode
- COP up to 5,04 (GR8F 98 R5I)
- AA class (eef/cop)
- Twin rotary DC compressor (PMSM)
- DC fan (PMSM)
- Electronics Expansion Valve (EEV)
- SVPWM 180° sensor less (sinusoidal)
- 32 bit DSP (digital signal processor) & Micro processors
- Outdoor <-> indoor communication by digital interface (RS485) two wire shielded phone cable
- Double possibility to Power supply the unit: by indoor or directly on outdoor
- Heating/Cooling minimum set point = 10°C
- Low Ambient -15°C cooling & heating
- Non stop operation under -15°C outdoor
- Non stop operation during defrost
- De-Ice protection of compressor oil and bottom plate
- High reliability metallic chassis & low acoustic noise

ACCESSORIES

Type	Models	Code
Built-in kit	MTA8F - MTAF	387027114
Wall support for outdoor unit	GR8F 98/128 R5I	K 60 U 035 T
	GRF 98/128 R5I	K 60 U 035 T



- > Smart look
- > Aesthetic features and 2 colours front panel : satin white or glossy dark
- > Antistatic treatment
- > Pure air

Indoor unit features – MTA8F and MTAF

- Cooling / Heating / Dry / Ventilation
- Built in capability on the wall
- Tangential fan with 4 speed intelligent fan motor drive and 21dB(A) noise level (super low speed)
- Stepper motor on flap
- 6 position intelligent stepper motor drive
- Inside temperature sensor
- Wide angle infrared receiver
- MMI with software on/off switch
- Outdoor <-> indoor communication by digital interface (RS485) two wire shielded phone cable
- Home automation connection switch
- Double possibility to Power supply the unit: by indoor or from the outdoor
- Washable filters
- TiO₂ antibacteria & antiviral active filter (bioxide of titanium)
- High quality ABS plastics
- Compact dimensions
- Easy to install
- Condensate discharge right or left
- Easy to check in maintenance
- Service contact for on/off unit operation; alarm contact
- the electrical consumption in stand by mode is around 1 Watt



DCI remote control & MMI (man to machine interface) features

- Custom LCD digital display
- Wide area infrared transmitter (double IR transmitter)
- Integrated temperature sensor to enable Ifeel and room temperature control
- Progressive cooling
- Turbo cooling (high power mode) : can provide 130% of its nominal capacity
- Ifeel mode as standard configuration (could be switched off)
- Cooling / Heating / Dry / Ventilation mode
- TiO₂ filter activation
- 4 speed intelligent fan driver
- 6 position intelligent flap driver
- Intelligent Sleep mode (night set back) with "light off" feature
- 24h programmable digital timer
- 1h timer
- Set Point management from 10°C to 32°C
- Room temperature indication
- Set Point temperature indication
- Easy to use
- Wall support included
- Digital address for multi indoor units application
- Indoor unit MMI software remote switch



WALL-MOUNTED SPLIT UNITS DC INVERTER - HIGH TECHNOLOGY



TECHNO "8" 98/128 R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE



COOLING AND HEATING

SET		TECHNO "8" 98 R5	TECHNO "8" 128 R5
Indoor unit (white colour)	230/1/50	MTA8F 98 R5I	MTA8F 128 R5I
Indoor unit (black colour)	230/1/50	MTA8FB 98 R5I	MTA8FB 128 R5I
Outdoor unit - Air/air heat pump	230/1/50	GR8F 98 R5I	GR8F 128 R5I
Cooling capacity (kW)	(mini-maxi)	2.90 [1.2-3.95]	3.50 [1.25-4.25]
Energy class in cooling mode/in heating mode		A / A	A / A
Annual energy consumption in cooling mode (500h)		322.5	475
Input power in cooling mode (kW)	(mini-maxi)	0.645 [0.25-1.25]	0.950 [0.27-1.415]
Heating capacity (kW)	(mini-maxi)	3.30 [1.24-4.5]	3.90 [1.20-5.20]
Input power in heating mode (kW)	(mini-maxi)	0.655 [0.175-1.215]	0.930 [0.19-1.575]
EER / COP	(mini-maxi)	4.5 [4.80-3.16] / 5.04 [7.09-3.70]	3.68 [4.63-3.00] / 4.19 [6.32-3.30]
Internal air flow (m³/h)	SLS/LS/MS/HS	250 / 410 / 480 / 600	250 / 410 / 480 / 600
Running current in cooling mode/in heating mode (A)		ND	ND
Dehumidification (l/h)		1.2	1.5
Fan speeds (I.U./O.U.)		4 / auto	4 / auto
Deflection	horizontal	manual	manual
	vertical	auto	auto
Refrigerant type		R 410 A	R 410 A
Ø Refrigerant connections FLARE	(inches)	1/4 - 3/8	1/4 - 3/8
External Ø of condensate drain pipe	(mm)	18	18
Standard/max. distance between units	(m)	7.5 / 15	7.5 / 15
Max. height difference between units	(m)	7	7
Refrigerant additional charge	(g/m)	15	15
Sound power level (dBA)	indoors	30 / 41 / 45 / 50	30 / 41 / 45 / 50
	condenser		
Sound pressure level (dBA)	indoor unit	21 / 29 / 36 / 39	21 / 29 / 36 / 39
	outdoor unit		
Indoor unit dimensions (h x l x p/p I.U. built-in)	(mm)	305 x 895 x 195 / 110	305 x 895 x 195 / 110
Outdoor unit dimensions (h x l x p)	(mm)	630 x 830 x 305	630 x 830 x 305
Weight I.U. / O.U.	(kg)	12 / 39	12 / 40

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB)	HEATING	maximum	T indoor air	27° C (DB)
	minimum	T outdoor air	43°C (DB)		T outdoor air	24°C (DB)	
		T indoor air	10°C (DB)		T indoor air	5°C (DB)	
	T outdoor air	-15°C (DB)	T outdoor air		-15°C (DB)		

WALL-MOUNTED SPLIT UNITS DC INVERTER - HIGH TECHNOLOGY



TECHNO 98/128 R

COOLING AND HEATING
AND COOLING OUTDOOR
LOW AMBIENT TEMPERATURE



COOLING AND HEATING

SET	TECHNO 98 R5		TECHNO 128 R5	
Indoor unit (white colour)	230/1/50	MTAF 98 R5I	MTAF 128 R5I	
Indoor unit (black colour)	230/1/50	MTAFB 98 R5I	MTAFB 128 R5I	
Outdoor unit - Air/air heat pump	230/1/50	GRF 98 R5I	GRF 128 R5I	
Cooling capacity (kW)	2.85 (1.05-3.15)		3.25 (1.1-3.7)	
Energy class in cooling mode/in heating mode	A / A		A / A	
Annual energy consumption in cooling mode (500h)	390		527.5	
Input power in cooling mode (kW)	0.78 (0.23-1.1)		1.055	
Heating capacity (kW)	3.24 (1.15-4.0)		3.40 (1.25-4.65)	
Input power in heating mode (kW)	0.79 (0.21-1.25)		1.010	
EER / COP	3.65 (4.57-2.86) / 4.10 (5.48-3.20)		3.32 (4.4-2.78) / 3.82 (5.21-3.0)	
Internal air flow (m³/h)	SLS/LS/MS/HS	250 / 390 / 440 / 530	250 / 410 / 480 / 600	
Running current in cooling mode/in heating mode (A)	ND		ND	
Dehumidification (l/h)	1.2		1.5	
Fan speeds (I.U./O.U.)	4 / auto		4 / auto	
Deflection	horizontal	manual	manual	
	vertical	auto	auto	
Refrigerant type	R 410 A		R 410 A	
Ø Refrigerant connections FLARE	(inches)	1/4 - 3/8	1/4 - 3/8	
External Ø of condensate drain pipe	(mm)	18	18	
Standard/max. distance between units	(m)	7.5 / 15	7.5 / 15	
Max. height difference between units	(m)	7	7	
Refrigerant additional charge	(g/m)	15	15	
Sound power level (dBA)	indoors	SLS/LS/MS/HS	30 / 41 / 45 / 50	
	outdoor unit		57	
Sound pressure level (dBA)	indoor unit	SLS/LS/MS/HS	21 / 29 / 36 / 39	
	outdoor unit		37	
Indoor unit dimensions (h x l x p I.U. built-in)	(mm)	305 x 895 x 195 / 110		305 x 895 x 195 / 110
Outdoor unit dimensions (h x l x p)	(mm)	540 x 700 x 265		540 x 700 x 265
Weight I.U. / O.U.	(kg)	12 / 35		12 / 35

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB)	HEATING	maximum	T indoor air	27° C (DB)
	minimum	T outdoor air	43°C (DB)		T outdoor air	24°C (DB) / 18°C (WB)	
		T indoor air	10°C (DB)		T indoor air	5°C (DB)	
		T outdoor air	-15°C (DB)		T outdoor air	-15°C (DB)	

WALL-MOUNTED SPLIT UNITS DC INVERTER

R 410 A



By Technibel

CSMRFI

COOLING AND HEATING
AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE

- > SVPWM 180° modulation (sinusoidal)
- > COP from 3.82 to 4.10
- > A/A class
- > Compacts outdoor units

DC INVERTER indoor units

- Cooling / Heating / Dry / Ventilation
- Tangential fan with 4 speed intelligent fan motor drive and 23 dB(A) noise level (super low speed)
- Stepper motor on flap
- 6 position intelligent stepper motor drive
- Inside temperature sensor
- Wide angle infrared receiver
- MMI with software on/off switch
- Outdoor indoor communication by digital interface (RS485) two wire shielded phone cable
- Home automation connection switch
- Double possibility to Power supply the unit: by indoor or from the outdoor
- Washable filters
- Active Carbon filters (accessory)
- High quality ABS plastics
- Compact dimensions
- Easy to install
- Easy to check in maintenance
- the electrical consumption in stand by mode is around 1 Watt

DC INVERTER air to air heat pumps

- From 1 to 4.65 kW – cooling, heating & dry mode
- AA class (EER/COP)
- Twin rotary DC compressor (PMSM)
- DC fan (PMSM)
- Electronics Expansion Valve (EEV)
- SVPWM 180° sensor less (sinusoidal)
- PWM PFC (98% efficiency)
- 32 bit DSP & Micro processors
- Outdoor <> indoor communication by digital interface (RS485) two wire shielded phone cable
- Double possibility to Power supply the unit: by indoor or directly on outdoor
- Heating/Cooling minimum set point = 10°C
- Low Ambient -15°C cooling & heating
- Non stop operation under -15°C outdoor
- Non stop operation during defrost
- De-Ice protection of compressor oil and bottom plate
- Compact dimensions & low acoustic noise

ACCESSORIES

Type	Models	Code
Wall support for outdoor unit	GRF 98 / 128 R5I	K 60 U 035 T
Filter with active charcoal	MRAF 98/128 R5I	397021909



COOLING AND HEATING

Set		CSMRFI 98 R5	CSMRFI 128 R5
Indoor unit	230/1/50	MRAF 98 R5I	MRAF 128 R5I
Outdoor unit - Air/air heat pump	230/1/50	GRF 98 R5I	GRF 128 R5I
Cooling capacity (kW)	(mini-maxi)	2.85 [1.05-3.15]	3.25 [1.1-3.7]
Energy class in cooling mode/in heating mode		A / A	A / A
Annual energy consumption in cooling (500h)		390	490
Input power in cooling mode (kW)	(mini-maxi)	0.78 [0.23-1.1]	0.98 [0.25-1.33]
Heating capacity (kW)	(mini-maxi)	3.24 [1.15-4.0]	3.40 [1.25-4.65]
Input power in heating mode (kW)	(mini-maxi)	0.79 [0.21-1.25]	0.89 [0.24-1.55]
EER / COP	(mini-maxi)	3.65 [4.57-2.86] / 4.10 [5.48-3.20]	3.32 [4.4-2.78] / 3.82 [5.21-3.0]
Internal air flow (m³/h)	LS/MS/HS	370 / 400 / 450	390 / 430 / 470
Running current in cooling mode/in heating mode (A)		ND	ND
Dehumidification (l/h)		1.2	1.5
Fan speeds (I.U./O.U.)		4 / auto	4 / auto
Deflection	horizontal	manual	manual
	vertical	auto	auto
Refrigerant type		R 410 A	R 410 A
Ø Refrigerant connections FLARE (inches)		1/4 - 3/8	1/4 - 3/8
External Ø of condensate drain pipe (mm)		18	18
Standard/max. distance between units (m)		7.5 / 15	7.5 / 15
Max. height difference between units (m)		7	7
Refrigerant additional charge (g/m)		15	15
Sound power level (dBA)	indoors SLS/LS/MS/HS	32 / 38 / 45 / 48	32 / 38 / 45 / 48
	condenser	57	60
Sound pressure level (dBA)	indoor unit SLS/LS/MS/HS	23 / 29 / 36 / 39	23 / 29 / 36 / 39
	outdoor unit	37	40
Indoor unit dimensions (h x l x p) (mm)		270 x 805 x 214	270 x 805 x 214
Outdoor unit dimensions (h x l x p) (mm)		540 x 700 x 265	540 x 700 x 265
Weight I.U. / O.U. (kg)		8 / 35	8 / 35

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB)	HEATING	maximum	T indoor air	27°C (DB)
		T outdoor air	43°C (DB)			T outdoor air	24°C (DB)
	minimum	T indoor air	10°C (DB)		minimum	T indoor air	5°C (DB)
		T outdoor air	-15°C (DB)			T outdoor air	-15°C (DB)

DCI remote control & MMI (man to machine interface) features

- Custom LCD digital display
- Wide area infrared transmitter (double IR transmitter)
- Integrated temperature sensor to enable Ifeel and room temperature control
- Progressive cooling
- Ifeel mode as standard configuration (could be switched off)
- Cooling / Heating / Dry / Ventilation mode
- 4 speed intelligent fan driver
- 6 position intelligent flap driver
- Intelligent Sleep mode (night set back) with "light off" feature
- 24h programmable digital timer
- 1h timer
- Set Point management from 10°C to 32°C
- Room temperature indication
- Set Point temperature indication
- Easy to use
- Wall support included
- Digital address for multi indoor units application
- Indoor unit MMI software remote switch



WALL-MOUNTED SPLIT UNITS DC INVERTER

R 410 A

CSMFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE



- > DC Inverter
- > R 410 A
- > A and B classes
- > COP from 3.41 to 3.81

- Air to Air heat pump + wall-mounted indoor unit
- DC Inverter technology
- Infrared remote control with 24 H digital timer
- Temperature sensor enclosed in the Indoor units and in the remote control
- Automatic changeover between Heating and Cooling functions to maintain selected temperature
- "I Feel" feature, granting the best comfort conditions
- Dry function for dehumidification without cooling
- Programmable or automatic 3-speeds tangential fan
- Night setback program
- Special system when heating mode is starting and during defrosting cycle to avoid cool air emission in the room

- Horizontal flaps with automatic swinging or programmable on a fixed position
- Adjustable vertical flaps
- Washable filters
- Emission of negative ions thanks to the Natural ionizer Tape integrated system
- Automatic restart in case of power cut
- Electronic protection against over-pressures
- Condensate discharge right or left
- High efficiency rotary DC Inverter compressor

ACCESSORIES

Type	Models	Code
Wall support for outdoor unit	GRF 97 - 127	K 60 U 035 T
Wall support for outdoor unit	GRF 186 - 246	K 60 U 035 T



COOLING AND HEATING

Set		CSMFI 188 R5	CSMFI 248 R5
Indoor unit	230/1/50	MCAF 188 R5I	MCAF 248 R5I
Outdoor unit - Air/air heat pump	230/1/50	GRF 186 R5I	GRF 246 R5I
Cooling capacity (kW)	(mini-maxi)	5.15 (1.2 - 5.5)	7.10 (1.2- 8.0)
Energy class Cooling / Heating		A / A	B / B
Annual energy consumption in cooling - 500 h	(kW/h)	2 575	1 178
Input power in cooling (kW)	(mini-maxi)	1.5 (0.250 - 1.800)	2.355 (0.280 - 2.845)
Heating capacity (kW)	(mini-maxi)	6.00 (1.3 - 6.4)	8.50 (1.3 - 9.5)
Input power in heating mode (kW)	(mini-maxi)	1.575 (0.270- 1.930)	2.490 (0.290 - 3.150)
EER / COP		3.43 / 3.81	3.01 / 3.41
Internal air flow Cooling / Heating (m³/h)	LS/MS/HS	890/920	1020/920
Running current Cooling / Heating [A]		7.0 / 7.4	10.7 / 11.3
Dehumidification	l/h	2.30	3.3
Deflection	horizontal	manual	manual
	vertical	auto	auto
Refrigerant type		R 410 A	R 410 A
Ø Refrigerant connections FLARE	(inches)	1/4 - 1/2	1/4 - 5/8
External Ø of condensate drain pipe	(mm)	18	18
Standard/max. distance between units	(m)	10 / 30	10 / 30
Max. height difference between units	(m)	15	15
Refrigerant additional charge		25	25
Sound power level (dBA)	indoors LS/MS/HS	39 / 47 / 51	50 / 53 / 56
	condenser	71	75
Sound pressure (dBA)	Indoor unit LS/MS/HS	30 / 38 / 42	41 / 44 / 47
	Outdoor unit	51	55
Indoor unit dimensions (height x width x depth)	(mm)	298 x 1065 x 218	298 x 1065 x 218
Outdoor unit dimensions (height x width x depth)	(mm)	670 x 880 x 285	740 x 900 x 320
Weight I.U. / O.U.	(kg)	12 / 44	12 / 59

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB) / 23°C (WB)	HEATING	maximum	T indoor air	27° C (DB)
	minimum	T outdoor air	43°C (DB)		T outdoor air	24°C (DB) / 18°C (WB)	
		T indoor air	19°C (DB) / 14°C (WB)		T outdoor air	-15°C (WB)	
		T outdoor air	-15°C (DB)				

WALL-MOUNTED SPLIT UNITS DC INVERTER

R 410 A



CSMFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE

- > DC Inverter
- > R 410 A
- > B class
- > COP to 3.54

- DC Inverter technology
- Wide operating range with outdoor air temperatures up to -15°C in both cooling and heating modes
- New three-speed tangential fan by remote control, granting a better and low noise air diffusion
- Horizontal flap swinging or to be set to a fixed position by remote control
- Vertical flap by manual control
- Washable filter
- Dynamic refrigerant control by DC Inverter compressor and circuit, electronic valve and fuzzy logic managed by a powerful microprocessor
- Single-phase (230/1/50) power supply thanks to DC Inverter technology low consumption
- High efficiency DC Inverter twin rotary compressor

Infrared remote controls or wired remote controls are suggested with all models as accessory. So, please, specify which type of accessory you need when ordering your products.

Possible functions:

- Automatic changeover between Heating and Cooling functions to maintain selected temperature
- Special function during heat pump start-up and defrosting cycle to avoid cool air emission in the room
- Infrared remote control with digital 24h timer
- "I Feel" feature, granting the best comfort conditions
- Temperature sensor inside the remote control
- Controlled also by a special wired controller with configuration, diagnostic and weekly timer capabilities
- Dry function for dehumidification
- Night set back capability
- Auto restart after a power supply black out
- Electronic protection against over-pressures

ACCESSORIES



Infrared remote control
Code K 70 D 039 Z



Infrared remote control
Code K 70 D 041 Z



Wired remote control
Code K 70 D 052 Z



Simplified wired remote control
Code K 70 D 042 Z



COOLING AND HEATING

SET			CSMFI 255 R5
Indoor unit	230/1/50		MAFP 255 R5I
Outdoor unit - Air/air heat pump	230/1/50		GRFP 255 R5I
Cooling capacity (kW)	(mini - maxi)		7.10 (2.2 - 8.0)
Input power in cooling mode (kW)	HS		2.36
Heating capacity (kW)	(mini - maxi)		8.00 (2.2 - 9.0)
Input power in heating mode (kW)	HS		2.26
Energy class in cooling mode/in heating mode			B / B
Annual energy consumption in cooling mode - 500 h (kW/h)			1 180
EER / COP			3.01 / 3.54
Internal air flow (m³/s-m³/h)	LS		0.23 - 840
	MS		0.28 - 1 020
	HS		0.32 - 1 140
Running current (A)	cooling		12.7
	heating		12.2
Dehumidification cooling (l/h)	HS		4.0
Deflection	horizontal		manual
	vertical		auto
Refrigerant type			R 410 A
Ø Refrigerant connections FLARE	(inches)		3/8 - 5/8
External Ø of condensate drain pipe	(mm)		18
Standard/max. distance between units	(m)		30 / 50
Refrigerant additional charge (g/m)			40
Max. height difference between units (m) GR top/bottom			50 / 30
Sound power level (dBA)	indoors	LS/MS/HS	43 / 46 / 50
	condenser		69
Sound pressure level (dBA)	at 2 m indoors	LS/MS/HS	34 / 37 / 41
	4 m from condenser		49
Indoor unit dimensions (height x width x depth)	(mm)		330 x 1140 x 228
Outdoor unit dimensions (height x width x depth)	(mm)		780 x 940 x 340
Weight I.U. / O.U.	(kg)		21 / 58

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	35°C (DB) / 25°C (WB)	HEATING	maximum	T indoor air	27° C (DB)
		T outdoor air	43°C (DB)			T outdoor air	21°C (DB) / 15,5°C (WB)
	minimum	T indoor air	18°C (DB) / 14°C (WB)	minimum	T indoor air	15°C (DB)	
		T outdoor air	-15°C (DB)		T outdoor air	-15°C (WB)	

CONSOLES AND FLOOR/CEILING SPLIT UNITS - DC INVERTER

R 410 A

SKFI-R

SKPFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE

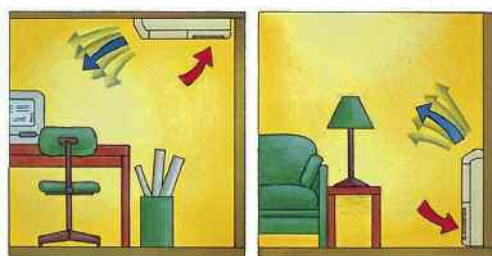


- > DC Inverter
- > R 410 A
- > COP from 3.08 to 3.64

The more performant solution and the most used unit in replacement of electrical heating installations

- Air/air Heat pump + floor/ceiling indoor unit
- DC Inverter technology on R 410 A with continuous regulation of the refrigerant flow rate
- Infrared remote control with 24 H digital timer
- Temperature sensor enclosed in the remote control and in the indoor unit
- Automatic changeover between Heating and Cooling functions to maintain selected temperature (reversible models)
- "I Feel" feature, granting the best comfort conditions
- Dry function for dehumidification without cooling
- Centrifugal programmable or automatic 3-speed fan

- Night setback program
- Special system when heating mode is starting and during defrosting cycle to avoid cool air emission in the room
- Vertical flap by manual control (KAF)
- Horizontal flaps with automatic swinging (KPAF)
- Adjustable vertical flaps
- Washable filters
- Automatic restart in case of power cut
- Electronic protection against over-pressures
- High efficiency rotary compressor



KPAF :

All types of installation are possible without modifying the unit: ceiling installation to maximize available space, wall mounting or on the floor below a window.

Automatic air flow sweep ensures perfect temperature stability under all circumstances.

ACCESSORIES

Type	Models	Code
Filter with active charcoal	KPAF 126 - 187 - 247	397021907
Wall support for outdoor unit	GRF 97 - 127 - 186 - 246	K 60 U 035 T



COOLING AND HEATING

Set		SKFI 97 R5	SKPFI 127 R5	SKPFI 187 R5	SKPFI 247 R5
Indoor unit	230/1/50	KAF 97 R5I	KPAF 127 R5I	KPAF 187 R5I	KPAF 247 R5I
Outdoor unit - Air/air heat pump	230/1/50	GRF 97 R5I	GRF 127 R5I	GRF 186 R5I	GRF 246 R5I
Cooling capacity (kW)	(mini-maxi)	2.55	3.35	5.15	6.15
Energy class	in cooling/in heating	A / B	B / A	A / B	A / D
Annual energy consumption in cooling - 500 h	(kW/h)	350	545	775	950
Input power in cooling (kW)		0.7	1.09	1.55	1.9
Heating capacity (kW)	(mini-maxi)	3.20	4.3	6.00	7.2
Input power in heating mode (kW)		0.93	1.18	1.71	2.34
EER / COP		3.64 / 3.44	3.07 / 3.64	3.32 / 3.51	3.24 / 3.08
Internal air flow (m³/h)	LS/MS/HS	320 / 390 / 425	500 / 590 / 700	515 / 615 / 720	650 / 800 / 900
Running current Cooling / Heating (A)		2.55 / 4.00	4.50 / 5.50	7.0 / 7.80	8.60 / 10.60
Dehumidification	l/h	1.5	1.8	2.0	2.0
Deflection	horizontal	manual	manual	manual	manual
	vertical	manual	auto	auto	auto
Refrigerant type		R 410 A	R 410 A	R 410 A	R 410 A
Ø Refrigerant connections FLARE	(inches)	1/4 - 3/8	1/4 - 3/8	1/4 - 1/2	1/4 - 5/8
External Ø of condensate drain pipe	(mm)	18	18	18	18
Standard/max. distance between units	(m)	7.5 / 10	7.5 / 15	10 / 30	10 / 30
Refrigerant additional charge	(g/m)	-	15	25	25
Max. height difference between units	(m)	7	7	15	15
Sound power level (dBA)	indoors LS/MS/HS	42 / 48 / 51	46 / 51 / 55	47 / 52 / 56	52 / 55 / 58
	condenser	67	69	71	67
Sound pressure (dBA)	at 2 m indoors LS/MS/HS	34 / 40 / 43	38 / 43 / 47	39 / 44 / 48	44 / 47 / 50
	4 m from condenser	47	49	51	47
Indoor unit dimensions (height x width x depth)	(mm)	700 x 560 x 200	680 x 900 x 190	680 x 900 x 190	680 x 900 x 190
Outdoor unit dimensions (height x width x depth)	(mm)	548 x 720 x 265	548 x 720 x 265	670 x 880 x 285	740 x 900 x 320
Weight I.U. / O.U.	(kg)	18.6 / 29	23.5 / 30	23.5 / 44	23.5 / 59

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB) / 23°C (WB)	HEATING	maximum	T indoor air	27° C (DB)	
		T outdoor air	43°C (DB)				T outdoor air	24°C (DB) / 18°C (WB)
	minimum	T indoor air	19°C (DB) / 14°C (WB)			minimum	T outdoor air	-15°C (WB)
		T outdoor air	19°C (DB) : GRF 97/127 R5I					
		T outdoor air	-15°C (DB) : GRF 186/246 R5I					

UNDER-CEILING SPLITS UNITS DC INVERTER

R 410 A

SPFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE

- > DC Inverter
- > R 410 A
- > B class
- > COP from 3.44 to 3.67

The under-ceiling split units are well suited to commercial premises where maximum floor space must be kept free or where there is no false ceiling.

- DC Inverter Technology
- Wide operating range with outdoor air temperatures up to -15°C in both cooling and heating modes
- New three-speed centrifugal fan by remote control, granting a better and low noise air diffusion
- Horizontal flap swinging or to be set to a fixed position by remote control
- Vertical flap by manual control
- Washable filter
- Possibility to have a connection for fresh air intake
- Dynamic refrigerant control by DC Inverter compressor and circuit, electronic valve and fuzzy logic managed by a powerful microprocessor
- Single-phase (230/1/50) power supply thanks to DC Inverter technology low consumption
- High efficiency DC Inverter twin rotary compressor

Infrared remote controls or wired remote controls are suggested with all models, as an accessory. So, please, specify which type of accessory you need when ordering your product.

Possible functions:

- Automatic changeover between Heating and Cooling functions to maintain selected temperature
- Special function during heat pump start-up and defrosting cycle to avoid cool air emission in the room
- Infrared remote control with digital 24h timer
- "I Feel" feature, granting the best comfort conditions
- Temperature sensor inside the remote control
- Controlled also by a special wired controller with configuration, diagnostic and weekly timer capabilities
- Dry function for dehumidification
- Night set back capability
- Auto restart after a power supply black out
- Electronic protection against over-pressures

ACCESSORIES



Infrared remote control
Code K 70 D 040 Z



Infrared remote control
Code K 70 D 039 Z



Wired remote control
Code K 70 D 052 Z



Simplified wired remote control
Code K 70 D 042 Z



COOLING AND HEATING

SET		SPFI 255 R 5	SPFI 365 R 5	SPFI 485 R 5
Indoor unit		230/1/50	SPAFP 255 R 5 I	SPAFP 365 R 5 I
Outdoor unit - Air/air heat pump		230/1/50	GRFP 255 R 5 I	GRFP 365 R 5 I
Cooling capacity (kW)	(mini - maxi)	7.10 [2.2 - 8.0]	10 [2.2 - 11.2]	12.50 [2.2 - 14.0]
Input power in cooling mode (kW)	HS	2.35	3.29	4.12
Heating capacity (kW)	(mini - maxi)	8.00 [2.2 - 9.0]	11.20 [2.2 - 12.50]	14.00 [2.2 - 16.0]
Input power in heating mode (kW)	HS	2.25	3.67	4.07
Energy class in cooling mode/in heating mode		B/B	B/A	B/B
Annual energy consumption in cooling mode - 500 h (kW/h)		1 175	1 645	2 060
EER / COP		3.02 / 3.56	3.04 / 3.67	3.03 / 3.44
Internal air flow (m³/s-m³/h)	LS	0.23 - 840	0.33 - 1 200	0.366 - 1 320
	MS	0.25 - 900	0.383 - 1 380	0.433 - 1 560
	HS	0.305 - 1 098	0.458 - 1 650	0.50 - 1 800
Running current (A)	cooling	12.8	16.2	20.3
	heating	12.3	15.1	20.0
Dehumidification cooling (l/h)	HS	3	3.9	5.6
Deflection	horizontal	manual	manual	manual
	vertical	auto	auto	auto
Refrigerant type		R 410 A	R 410 A	R 410 A
Ø Refrigerant connections FLARE	(inches)	3/8 - 5/8	3/8 - 5/8	3/8 - 5/8
External Ø of condensate drain pipe	(mm)	26	26	26
Standard/max. distance between units	(m)	30 / 50	30 / 50	30 / 50
Refrigerant additional charge (g/m)		40	40	40
Max. height difference between units (m) GR top/bottom		50 / 30	50 / 30	50 / 30
Sound power level (dBA)	indoors LS/MS/HS	41 / 44 / 46	43 / 46 / 49	45 / 48 / 51
	condenser	69	72	73
Sound pressure level (dBA)	at 2 m indoors LS/MS/HS	33 / 36 / 38	35 / 38 / 41	37 / 40 / 43
	4 m from condenser	49	52	53
Indoor unit dimensions (height x width x depth) (mm)		210 x 1180 x 680	210 x 1595 x 680	210 x 1595 x 680
Outdoor unit dimensions (height x width x depth) (mm)		780 x 940 x 340	780 x 940 x 340	1230 x 940 x 340
Weight I.U. / O.U. (kg)		25 / 58	33 / 65	35 / 100

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	35°C (DB) / 25°C (WB)	HEATING	maximum	T indoor air	27° C (DB)	
		T outdoor air	43°C (DB)				T outdoor air	21°C (DB) / 15,5°C (WB)
	minimum	T indoor air	18°C (DB) / 14°C (WB)			minimum	T indoor air	15°C (DB)
		T outdoor air	-15°C (DB)				T outdoor air	-15°C (WB)

SPLITS CASSETTE UNITS 600 X 600 DC INVERTER

R 410 A

CSKFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE



- > DC Inverter
- > R 410 A
- > A class
- > COP from 3.63 to 3.76

The split cassette range of air-conditioners provides the ideal solution for air-conditioning or heating commercial premises, where keeping maximum floor space free is of paramount importance.

For easy installation, these models can be set in 600 x 600 false ceiling panels.

- Air/air Heat pump + cassette indoor unit
- DC Inverter technology
- Infrared remote control with 24 H digital timer
- Temperature sensor enclosed in the Indoor units and the remote control
- Automatic changeover between Heating and Cooling functions to maintain selected temperature
- "I Feel" feature, granting the best comfort conditions

- Dry function for dehumidification without cooling
- Programmable or automatic 3-speeds fan
- Night setback program
- Special system when heating mode is starting and during defrosting cycle to avoid cool air emission in the room
- Horizontal flaps swinging or to be set to a fixed position by remote control
- Washable filter
- Equipped with a condensate drain pump
- Possibility to have a connection for fresh air intake
- Automatic restart in case of power cut
- Electronic protection against over-pressures
- High efficiency rotary DC Inverter compressor

ACCESSORIES

Type	Modèles	Code
Wall support for outdoor unit	GRF 97 - 127 - 186 - 246	K 60 U 035 T



COOLING AND HEATING

SET		CSKFI 97 R 5	CSKFI 127 R 5	CSKFI 187 R 5
Indoor unit	230/1/50	CAF 97 R 5 I	CAF 127 R 5 I	CAF 187 R 5 I
Grille		K 70 N 096 T	K 70 N 096 T	K 70 N 096 T
Outdoor unit - Air/air heat pump	230/1/50	GRF 97 R 5 I	GRF 127 R 5 I	GRF 186 R 5 I
Cooling capacity (kW)		2.6	3.3	5.15
Energy class		A / A	A / A	A / A
Annual energy consumption in cooling - 500 h (kW/h)		405	490	800
Input power in cooling (kW)		0.81	0.98	1.6
Heating capacity (kW)		3.5	4.5	6.00
Input power in heating mode (kW)		0.93	1.24	1.65
EER / COP		3.21 / 3.76	3.37 / 3.63	3.22 / 3.64
Internal air flow Cooling / Heating (m3/h)	LS/MS/HS	500 / 600 / 700	500 / 600 / 700	580 / 660 / 790
Running current Cooling / Heating [A]		3.7 / 4.0	4.5 / 5.3	7.2 / 7.4
Dehumidification	l/h	1.5	1.8	2.0
Deflection	vertical	auto	auto	auto
Refrigerant type		R 410 A	R 410 A	R 410 A
Ø Refrigerant connections FLARE	(inches)	1/4 - 3/8	1/4 - 3/8	1/4 - 1/2
External Ø of condensate drain pipe	(mm)	18	18	18
Standard/max. distance between units	(m)	7.5 / 10	7.5 / 15	10 / 30
Max. height difference between units	(m)	7	7	15
Refrigerant additional charge		15	15	25
Sound power level (dBA)	indoors LS/MS/HS condenser	46 / 49 / 53 67	46 / 49 / 53 69	46 / 49 / 54 71
Sound pressure (dBA)	Indoor unit LS/MS/HS Outdoor unit	37 / 40 / 44 47	37 / 40 / 44 49	37 / 40 / 45 51
Indoor unit dimensions (height x width x depth)	(mm)	273 x 575 x 575	273 x 575 x 575	273 x 575 x 575
Grille dimensions (height x width x depth)	(mm)	64 x 730 x 730	64 x 730 x 730	64 x 730 x 730
Outdoor unit dimensions (height x width x depth)	(mm)	548 x 720 x 265	548 x 720 x 265	670 x 880 x 285
Weight I.U. / grille / O.U.	(kg)	16.5 / 2.5 / 29	16.5 / 2.5 / 30	18 / 2.5 / 44

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB) / 23°C (WB)	HEATING	maximum	T indoor air	27°C (DB)	
		T outdoor air	43°C (DB)				T outdoor air	24°C (DB) / 18°C (WB)
	minimum	T indoor air	19°C (DB) / 14°C (WB)			minimum	T outdoor air	16°C (DB)
		T outdoor air	19°C (DB) : GRF 97/127 R5I -15°C (DB) : GRF 186 R5I				T outdoor air	-15°C (WB)

SPLITS CASSETTE UNITS FROM 7.1 TO 14 KW DC INVERTER

R 410 A

CSKFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE



- > DC Inverter
- > R 410 A
- > A class
- > COP from 3.66 to 3.86

The split cassette range of air-conditioners provides the ideal solution for air-conditioning or heating commercial premises, where keeping maximum floor space free is of paramount importance. These models feature an access point to the electrical components on the front of the unit, while cooling connectors can be accessed from the corner of the cassette without needing an additional opening.

DC Inverter Technology

- Wide operating range with outdoor air temperatures up to -15°C in both cooling and heating modes
- New three-speed centrifugal fan by remote control, granting a better and low noise air diffusion
- Special system to avoid condensate dripping from air outlet ribs

- Horizontal flaps swinging or to be set to a fixed position by remote control
- Washable filter
- Possibility to have a connection for fresh air intake
- Possibility, according to prepunched holes, to install a duct for air emission in an adjacent room
- Equipped with a condensate drain pump
- Dynamic refrigerant control by DC Inverter compressor and circuit, electronic valve and fuzzy logic managed by a powerful microprocessor
- Single-phase (230/1/50) power supply thanks to DC Inverter technology low consumption
- High efficiency DC Inverter twin rotary compressor

**Infrared remote controls or wired remote controls are suggested with all models, as an accessory.
So, please, specify which type of accessory you need when ordering your product.**

Possible functions:

- Automatic changeover between Heating and Cooling functions to maintain selected temperature
- Special function during heat pump start-up and defrosting cycle to avoid cool air emission in the room
- Infrared remote control with digital 24h timer
- "I Feel" feature, granting the best comfort conditions
- Temperature sensor inside the remote control
- Controlled also by a special wired controller with configuration, diagnostic and weekly timer capabilities
- Dry function for dehumidification
- Night set back capability
- Auto restart after a power supply black out
- Electronic protection against over-pressures

ACCESSORIES



Infrared remote control
Code K 70 D 038 Z



Standard wired remote control
Code K 70 D 052 Z



Simplified wired remote control
Code K 70 D 042 Z



COOLING AND HEATING

Set		CSKFI 255 R 5	CSKFI 365 R 5	CSKFI 485 R 5
Indoor unit	230/1/50	CAFP 255 R 5 I K 70 N 092 T	CAFP 365 R 5 I K 70 N 093 T	CAFP 485 R 5 I K 70 N 093 T
Grille				
Outdoor unit - Air/air heat pump	230/1/50	GRFP 255 R 5 I	GRFP 365 R 5 I	GRFP 485 R 5 I
Cooling capacity (kW)	(mini - maxi)	7.10 [2.2 - 8.0]	10 [2.2 - 11.20]	12.50 [2.2 - 14.00]
Input power in cooling mode (kW)	HS	2.13	3.12	3.86
Heating capacity (kW)	(mini - maxi)	8.00 [2.2 - 9.0]	11.20 [2.2 - 12.50]	14.00 [2.2 - 16.00]
Input power in heating mode (kW)	HS	2.07	2.96	3.83
Energy class in cooling mode/in heating mode		A/A	A/A	A/A
Annual energy consumption in cooling mode - 500 h (kW/h)		1 065	1 560	1 930
EER / COP		3.33 / 3.86	3.21 / 3.78	3.24 / 3.66
Internal air flow (m³/s-m³/h)	LS	0.23 - 840	0.366 - 1 320	0.366 - 1 320
	MS	0.28 - 1 020	0.467 - 1 680	0.467 - 1 680
	HS	0.317 - 1 140	0.533 - 1 920	0.533 - 1 920
Running current (A)	cooling	11.6	15.4	19.1
	heating	11.3	14.7	18.9
Dehumidification cooling (l/h)	HS	3.6	4.6	6.3
Deflection	vertical	auto	auto	auto
Refrigerant type		R 410 A	R 410 A	R 410 A
Ø Refrigerant connections FLARE	(inches)	3/8 - 5/8	3/8 - 5/8	3/8 - 5/8
External Ø of condensate drain pipe	(mm)	32	32	32
Standard/max. distance between units	(m)	30/50	30/50	30/50
Refrigerant additional charge (g/m)		40	40	40
Max. height difference between units (m) GR top/bottom		50/30	50/30	50/30
Sound power level (dBA)	indoors LS/MS/HS	50 / 54 / 56	55 / 59 / 62	55 / 59 / 62
	condenser	69	72	73
Sound pressure level (dBA)	at 2 m indoors LS/MS/HS	41 / 45 / 47	46 / 50 / 53	46 / 50 / 53
	4 m from condenser	49	52	53
Indoor unit dimensions with grille (height x width x depth)(mm)		338 x 860 x 860	368 x 1150 x 860	368 x 1150 x 860
Outdoor unit dimensions (height x width x depth) (mm)		780 x 940 x 340	780 x 940 x 340	1230 x 940 x 340
Weight I.U. / O.U.	(kg)	28 / 58	35 / 65	35 / 100

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	35°C (DB) / 25°C (WB)	HEATING	maximum	T indoor air	27° C (DB)
		T outdoor air	43°C (DB)			T outdoor air	21°C (DB) / 15,5°C (WB)
	minimum	T indoor air	18°C (DB) / 14°C (WB)	minimum	T indoor air	15°C (DB)	
		T outdoor air	-15°C (DB)		T outdoor air	-15°C (WB)	

DUCTABLE SPLIT UNITS DC INVERTER

R 410 A



DSFI-R

COOLING AND HEATING
AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE

- > DC Inverter
- > R 410 A
- > A class
- > Low sound level
- > COP from 3.22 to 3.80

These air cooled, ducted split system air conditioners represent a complete air conditioning solution for premises such as offices, halls, conference rooms, any room with a false ceiling or where a low sound level is required.

A receiver in its own housing is supplied as standard: fixed to the wall or in the ceiling, it receives messages from the infrared remote controller for a unit built into a false ceiling.
Length of the cable : 5 m.



- Air/air Heat pump + ductable indoor unit
- DC Inverter technology
- Infrared remote control with 24 H digital timer
- Temperature sensor enclosed in the Indoor units and the remote control
- Automatic changeover between Heating and Cooling functions to maintain selected temperature

- "I Feel" feature, granting the best comfort conditions
- Dry function for dehumidification without cooling
- 3-speed centrifugal fan by remote control and available pressure from 50 to 70 Pa (fan booster)
- Easy to modify the available pressure on site
- Night setback program
- Special system when heating mode is starting and during defrosting cycle to avoid cool air emission in the room
- Washable filters
- Equipped with a condensate drain pump
- Automatic restart in case of power cut
- Electronic protection against over-pressures
- High efficiency rotary DC Inverter compressor

ACCESSORIES

Type	Model	Code
Plenum with circular spiggots (discharge) - Ø 200 mm	2 spiggots DSAP 97 - 127	387027973
	3 spiggots DSAP 186 - 246	387027974
Outdoor unit wall support	GRF 97 - 127 - 186 - 246	K 60 U 035 T





COOLING AND HEATING

Set		DSFI 97 R 5	DSFI 127 R 5	DSFI 187 R 5	DSFI 247 R 5
Indoor unit	230/1/50	DSAF 97 R 5 I	DSAF 127 R 5 I	DSAF 187 R 5 I	DSAF 247 R 5 I
Outdoor unit - Air/air heat pump	230/1/50	GRF 97 R 5 I	GRF 127 R 5 I	GRF 186 R 5 I	GRF 246 R 5 I
Cooling capacity (kW)		2.6	3.5	5.40	7.15
Energy class		A / A	A / A	A / A	B / C
Annual energy consumption in cooling - 500 h (kW/h)		375	505	825	1185
Input power (kW)		0.75	1.01	1.65	2.37
Heating capacity (kW)		3.5	4.5	6.00	8.5
Input power heating mode (kW)	HS	0.92	1.25	1.6	2.64
EER / COP		3.47 / 3.8	3.47 / 3.61	3.27 / 3.75	3.02 / 3.22
Internal air flow (m³/h)	LS/MS/HS	470 / 560 / 620	470 / 560 / 620	455 / 645 / 865	530 / 760 / 985
Available pressure (Pa)	HS	50 / 70**	50 / 70**	50 / 70**	50 / 70**
Running current (A)	cooling / heating	3.5 / 4.2	4.6 / 5.7	7.4 / 7.3	10.9 / 12.00
Dehumidification (l/h)	HS	1.5	1.8	2.0	2.5
Refrigerant type		R 410 A	R 410 A	R 410 A	R 410 A
Ø refrigerant connections FLARE	(inches)	1/4 - 3/8	1/4 - 3/8	1/4 - 1/2	1/4 - 5/8
External Ø of condensate drain pipe	(mm)	18	18	18	18
Standard/max. distance between units	(m)	7.5 / 10	7.5 / 15	10 / 30	10 / 30
Max. height difference between units	(m)	7	7	15	15
Refrigerant additional charge	(g/m)	15	15	25	25
Sound power level (dBA)	indoors LS/MS/HS (1) condenser	49 / 52 / 54 67	49 / 52 / 54 69	42 / 47 / 54 71	46 / 49 / 57 67
Sound pressure level (dBA)	at 2 m indoors LS/MS/HS (2) (3) 4 m from condenser	40 / 43 / 45 <20 47	40 / 43 / 45 <20 49	33 / 38 / 45 <20 51	37 / 40 / 48 <20 47
Indoor unit dimensions (height x width x depth)	(mm)	266 x 926 x 571	266 x 926 x 571	266 x 1132 x 571	266 x 1132 x 571
I.U. dimensions with plenum (h. x w. x d.)	(mm)	266 x 926 x 771	266 x 926 x 771	266 x 1132 x 771	266 x 1132 x 771
Outdoor unit dimensions (height x width x depth)	(mm)	548 x 720 x 265	548 x 720 x 265	670 x 880 x 285	740 x 900 x 320
Weight I.U. / I.U. with plenum / O.U.	(kg)	30 / 36 / 29	30 / 36 / 30	35 / 42.5 / 44	35 / 42.5 / 59

** Fan booster

(1) at discharge

(2) at discharge plenum connection

(3) at ducts exit

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	32°C (DB) / 23°C (WB)	HEATING	maximum	T air intérieur	27° C (DB)
	minimum	T outdoor air	43°C (DB)		T outdoor air	24°C (DB) / 18°C (WB)	
		T indoor air	19°C (DB) / 14°C (WB)		T indoor air	16° C (DB)	
		T outdoor air	+19°C (DB) : 97/127 R5I		T outdoor air	-15°C (WB)	
	T outdoor air	-15°C (DB) : GRF 186/246 R5I					

DUCTABLE SPLITS UNITS FROM 7.1 TO 14 KW - DC INVERTER

R 410 A



DSFI-R

COOLING AND HEATING

AND COOLING OUTDOOR LOW AMBIENT TEMPERATURE

- > DC Inverter
- > R 410 A
- > A class
- > Low sound level
- > COP from 3.26 to 3.39

- DC Inverter Technology
- Wide operating range with outdoor air temperatures up to -15°C in both cooling and heating modes
- Three-speed centrifugal fan by remote control and feature to increase speed/pressure (from 50 to 100 Pa)
- Easy to modify the available pressure on site
- Possibility to have a connection for fresh air intake
- Equipped with a condensate drain pump

- Dynamic refrigerant control by DC Inverter compressor and circuit, electronic valve and fuzzy logic managed by a powerful microprocessor
- Single-phase (230/1/50) power supply thanks to DC Inverter technology low consumption
- High efficiency DC Inverter twin rotary compressor

Infrared remote controls or wired remote controls are suggested with all models, as an accessory. So, please, specify which type of accessory you need when ordering your product.

Possible functions:

- Automatic changeover between Heating and Cooling functions to maintain selected temperature
- Special function during heat pump start-up and defrosting cycle to avoid cool air emission in the room
- Infrared remote control with digital 24h timer
- "I Feel" feature, granting the best comfort conditions
- Temperature sensor inside the remote control
- Controlled also by a special wired controller with configuration, diagnostic and weekly timer capabilities
- Dry function for dehumidification
- Night set back capability
- Auto restart after a power supply black out
- Electronic protection against over-pressures

ACCESSORIES



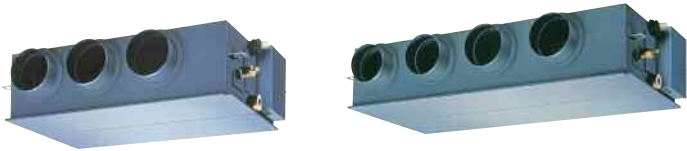
Infrared remote control
Code K 70 D 039 Z



Wired remote control
Code K 70 D 052 Z



Simplified wired remote control
Code K 70 D 042 Z



COOLING AND HEATING

Set		DSFI 255 R 5	DSFI 365 R 5	DSFI 485 R 5
Indoor unit	230/1/50	DSAFP 255 R 5 I	DSAFP 365 R 5 I	DSAFP 485 R 5 I
Outdoor unit - Air/air heat pump	230/1/50	GRFP 255 R 5 I	GRFP 365 R 5 I	GRFP 485 R 5 I
Cooling capacity (kW)	(mini - maxi)	7.10 [2.2 - 8.0]	10.00 [2.2 - 11.2]	12.50 [2.2 - 14.0]
Input power in cooling mode (kW)	HS	2.51	3.55	4.36
EER		2.83	2.82	2.87
Temperature conditions : T indoor air 20°C and T outdoor air intake 7/6°C (DB/WB)				
Heating capacity (kW)	HS	8.00	10.80	14.00
Input power in heating mode(kW)	HS	2.39	3.18	4.24
COP		3.35	3.39	3.31
Temperature conditions : T indoor air 20°C and T outdoor air intake -7/-8°C (DB/WB)				
Heating capacity (kW)	HS	4.03	5.20	7.05
Input power in heating mode (kW)		1.99	2.41	3.56
COP	HS	2	2.16	1.9
Energy class in cooling mode/in heating mode		C/C	C/C	C/C
Annual energy consumption in cooling mode-500 h (kW/h)		1 255	1 775	2 180
Indoor air flow (m³/s-m³/h)	LS	0.216 - 780	0.35 - 1 260	0.37 - 1 320
	MS	0.25 - 900	0.43 - 1 560	0.43 - 1 560
	HS	0.3 - 1 080	0.5 - 1 800	0.55 - 1 980
Available pressure (Pa)		50/100**	50/100**	50/100**
Running current (A)	cooling	13.3	17.1	21.1
	heating	12.7	16.0	20.7
Dehumidification (l/h)	HS	3.5	4.2	6.6
Number of duct outlets Ø 200 mm		3	4	4
Refrigerant type		R 410 A	R 410 A	R 410 A
Ø Refrigerant connections FLARE (inches)		3/8 - 5/8	3/8 - 5/8	3/8 - 5/8
External Ø of condensate drain pipe (mm)		32	32	32
Standard/max. distance between units (m)		30/50	30/50	30/50
Refrigerant additional charge (g/m)		40	40	40
Max. height difference between units (m)		50/30	50/30	50/30
Sound power level (dBA)	indoors HS (0)	58	60	64
	indoors HS (1)	54	56	60
	condenser (global sound)	63	68	68
Sound pressure level (dBA)	at 2 m indoors HS (2)	45	47	51
	(3)	<20	<20	<20
	4 m from condenser	43	48	48
Indoor unit dimensions (height x width x depth) (mm)		310 x 1000 x 630	310 x 1480 x 630	310 x 1480 x 630
Outdoor unit dimensions (height x width x depth) (mm)		780 x 940 x 340	780 x 940 x 340	1230 x 940 x 340
Weight I.U. / O.U. (kg)		32 / 58	47 / 65	47 / 100

** Fan booster

(0) Radiated from the casing and in the air intake (global sound level)

(1) at discharge

(2) at discharge plenum connection

(3) at ducts exit

The pressure levels here indicated are in compliance with the European standard EN 12102

OPERATING LIMITS

COOLING	maximum	T indoor air	35°C (DB) / 25°C (WB)	HEATING	maximum	T indoor air	27° C (DB)
	minimum	T outdoor air <td>43°C (DB) <td></td> <td>minimum</td> <td>T outdoor air <td>21°C (DB) / 15,5°C (WB)</td> </td></td>	43°C (DB) <td></td> <td>minimum</td> <td>T outdoor air <td>21°C (DB) / 15,5°C (WB)</td> </td>		minimum	T outdoor air <td>21°C (DB) / 15,5°C (WB)</td>	21°C (DB) / 15,5°C (WB)
		T indoor air <td>18°C (DB) / 14°C (WB)</td> <td></td> <td></td> <td>T indoor air <td>15°C (DB)</td> </td>	18°C (DB) / 14°C (WB)			T indoor air <td>15°C (DB)</td>	15°C (DB)
		T outdoor air <td>-15°C (DB)</td> <td></td> <td></td> <td>T outdoor air <td>-15°C (WB)</td> </td>	-15°C (DB)			T outdoor air <td>-15°C (WB)</td>	-15°C (WB)