

COOLING ONLY SPLIT UNITS WITH LOW AMBIENT KIT (LAK) ON/OFF

APPLICATIONS

COMMERCIAL

R 410 A



WALL - MOUNTED

FLOOR/CEILING MOUNTED

CASSETTES

Cooling only operating up -15°C of outdoor air temperature

- 4 types of indoor units
- 13 models
- From 2.7 to 14.10 kW
- Easy matching : lot of possible combinations with all the indoor units.
- R 410 A
- Mainly A class

Direct expansion

ON/OFF

Cooling only monosplits with low ambient kit

Wall-mounted	CSMRF / CSMPF-L	138
Floor/ceiling mounted	SKPF-L	140
Floor/ceiling mounted	CSCF-LL	142
Cassettes	CSKF-L	144

WALL-MOUNTED SPLIT UNITS ON / OFF

R 410 A



CSMRF-L

CSMPF-L

COOLING

OUTDOOR LOW AMBIENT TEMPERATURE

- > Indoor units elegance and aesthetic
- > A class
- > GRF 98/128 L : very compact outdoor units

- Straight cooling split air conditioner
- Able to operate up -15°C of outdoor air temperature
- Infrared remote control with 24h digital timer and 4-addressing possibility
- Double temperature sensor (on the unit and inside the remote control)
- "I Feel" feature, granting the best comfort conditions
- Dry function
- Three-speed tangential fan by remote control
- Night set back capability
- Usable also without remote control
- Horizontal flap swinging or to be set to one of the six fixed positions by remote control
- Vertical flap by manual control
- Washable filters; active carbon filters (optional)
- Double condensate discharge (right/left) to make easier the installation
- Auto restart after a power supply black out
- Electronic protection against over-pressures
- Anti-freeze protection of the outdoor unit
- High efficiency rotary compressor
- Service contact to make the unit operating or not operating; alarm contact
- Self-diagnostic functions

ACCESSORIES

Type	Model	Code
Outdoor unit wall support	GRF 98/128	K 70 U 001 T
Outdoor unit wall support	GRF 188/228	K 60 U 035 T
Filter with active charcoal	MRAF 98/128 C	397021909
	MPAF 188 C/228 C	397021910



MRAF

MPAF



GRF 98/128 L

GRF 188/228 L

COOLING ONLY - L VERSION (for outdoor low ambient temperature)

Set		CSMRF 98 L 5	CSMRF 128 L 5	CSMPF 188 L 5/7	CSMPF 228 L 7
Indoor unit	230/1/50	MRAF 98 C 5 T	MRAF 128 C 5 T	MPAF 188 C 5 T	MPAF 228 C 5 T
Outdoor unit	230/1/50 or 400/3N/50	GRF 98 L 5 T	GRF 128 L 5 T	GRF 188 L 5 T GRF 188 L 7 T	- GRF 228 L 7 T
Cooling capacity (kW)	HS	2.70	3.40	5.20/5.30*	6.50
Input power (kW)	HS	0.77	1.05	1.60/1.65*	2.08
Energy class		A	A	A	B
Annual energy consumption in cooling - 500 h (kW/h)		385	525	800/825*	1 040
EER		3.51	3.24	3.25/3.21*	3.13
Internal air flow (m³/s-m³/h)	LS	0.103 - 370	0.109 - 390	0.161 - 580	0.161 - 580
	MS	0.111 - 400	0.119 - 430	0.197 - 710	0.197 - 710
	HS	0.125 - 450	0.130 - 470	0.244 - 880	0.244 - 880
Running current (A)		3.40	4.70	7.10/3.40*	4.20
Dehumidification (l/h)	HS	0.8	1.5	2	2.5
Deflection	horizontal	manual	manual	manual	manual
	vertical	auto	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 - 1/2	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)		7.5/15	7.5/15	10/20	12.5/30
Refrigerant additional charge (g/m)		20	20	20	25
Max. height difference between units (m)		7	7	15	15
Sound power level (dBA)	indoors SLS-DRY/LS/MS/HS	32 / 41 / 45 / 50	32 / 41 / 45 / 50	- / 47 / 52 / 55	- / 47 / 52 / 58
	condenser	57	60	63/64*	67
Sound pressure level (dBA)	at 2 m indoor SLS-DRY/LS/MS/HS	23 / 32 / 36 / 41	23 / 32 / 36 / 41	- / 38 / 43 / 46	- / 38 / 43 / 49
	4 m from condenser	37	40	43/44*	47
Indoor unit dimensions (height x width x depth) (mm)		270 x 805 x 214	270 x 805 x 214	285 x 995 x 240	285 x 995 x 240
Outdoor unit dimensions (height x width x depth) (mm)		540 x 700 x 265	540 x 700 x 265	630 x 830 x 305	735 x 940 x 340
Weight I.U. / O.U. (kg)		8/34	8/34	12/55	12/71

*Mono/Tri

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)	minimum	T indoor air	19°C (DB) / 14°C (WB)
	T outdoor air	43°C (DB)		T outdoor air	-15°C (DB)

FLOOR/CEILING MOUNTED SPLIT UNITS ON / OFF

R 410 A

SKPF-L

COOLING

OUTDOOR LOW AMBIENT TEMPERATURE



- > R 410 A
- > A and B Classes
- > Elegant and user friendliness
- > Easy installation

- Floor/ceiling mounted split units cooling only
- Able to operate up -15°C of outdoor air temperature
- Infrared remote control with 24h digital timer and 4-addressing possibility
- Double temperature sensor (on the unit and inside the remote control)
- "I Feel" feature, granting the best comfort conditions
- Dry function
- Three-speed centrifugal fan by remote control
- Night set back capability

- Horizontal flap swinging or to be set to one of the six fixed positions by remote control
- Vertical flap by manual control
- Washable filter
- Double condensate discharge (right/left) to make easier the installation
- Auto restart after a power supply black out
- Electronic protection against over-pressures
- High efficiency rotary compressor

ACCESSORIES

Type	Model	Code
Filter with active charcoal	KPAF 128 - 188 - 228	397021907
Outdoor unit wall support	GRF 128	K 70 U 001 T
Outdoor unit wall support	GRF 188 - 228	K 60 U 035 T



GRF 98/128 L

GRF 188/228 L

COOLING ONLY - L VERSION (FOR OUTDOOR LOW AMBIENT TEMPERATURE)

Set		SKPF 128 L 5	SKPF 188 L 5/7	SKPF 228 L 5/7
Indoor unit	230/1/50	KPAF 128 C 5 T	KPAF 188 C 5 T	KPAF 228 C 5 T
Outdoor unit	230/1/50 or 400/3N/50	GRF 128 L 5 T	GRF 188 L 5 T GRF 188 L 7 T	- GRF 228 L 7 T
Cooling capacity (kW)	HS	3.4	5.00	6.50
Input power in cooling mode (kW)	HS	1.05	1.55	2.08
Energy class		A	A	B
Annual energy consumption in cooling - 500 h (kW/h)		525	775	1 040
EER		3.24	3.23	3.13
Internal air flow (m ³ /s-m ³ /h)	LS	0.125 - 450	0.141 - 510	0.178 - 640
	MS	0.153 - 550	0.169 - 610	0.219 - 790
	HS	0.186 - 670	0.199 - 715	0.247 - 890
Running current (A)		4.70	7.00 / 3.20*	4.20
Dehumidification (l/h)	HS	1.5	1.8	2.0
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)	1/4 - 1/2	1/4 - 1/2	1/4 - 5/8
External Ø of condensate drain pipe	(mm)	18	18	18
Standard/max. distance between units (m)		7.5 / 15	10 / 20	12.5 / 30
Refrigerant additional charge	(g/m)	20	20	25
Max. height difference between units	(m)	7	15	15
Sound power level (dBA)	indoors LS/MS/HS	47 / 52 / 55	48 / 55 / 57	54 / 57 / 59
	condenser	60	63 / 64*	67
Sound pressure level (dBA)	at 2 m indoors LS/MS/HS	39 / 44 / 47	40 / 47 / 49	46 / 49 / 51
	4 m from condenser	40	43 / 44*	47
Indoor unit dimensions (height x width x depth)	(mm)	680 x 900 x 190	680 x 900 x 190	680 x 900 x 190
Outdoor unit dimensions (height x width x depth)	(mm)	540 x 700 x 265	630 x 830 x 305	735 x 940 x 340
Weight I.U. / O.U.	(kg)	23.5 / 34	23.5 / 55	23.5 / 71

*Mono/Tri

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)	minimum T indoor air	19°C (DB) / 14°C (WB)
	T outdoor air	43°C (DB)	T outdoor air	-15°C (DB)

SPLIT UNITS FOR LOW-TEMPERATURE PREMISES 12-18°C

R 410 A

CSCF-LL

COOLING

OUTDOOR LOW AMBIENT TEMPERATURE



The CSCF-LL range of split air-conditioners is designed for 'low-temperature' air conditioning, with temperatures between 12 and 18°C, for premises such as wine cellars, florists' storerooms, bin storage units, etc.

Maintaining a temperature of between 12 and 18°C helps to limit the growth of harmful bacteria, therefore ensuring better standards of hygiene.

The interior unit can be mounted vertically against a wall as standard, or ceiling mounted in order to keep maximum floor space free.

Remote control 70250076 ou K 60 D 025 Z, to control the temperature only

Remote hygrothermostat K 60 D 047 Z, To control :

- the dehumidifier (can be piloted by an humidifier - non supplied)
- and the temperature. In that case, the accessory "electrical heater" is obligatory

The unit works permanently in order to maintain the wanted temperature (differential \approx 1k)



Automatic remote control
K 60 D 025 Z



Manual remote control
70250076



Remote hygrothermostat
K 60 D 047 Z

ACCESSORIES

Type	Model	Code	
Manual remote control RAB 30	TAF 208 - 308 - 408	70250076	
Automatic remote control	TAF 208 - 308 - 408	K 60 D 025 Z	
Remote hygrothermostat	TAF 208 - 308 - 408	K 60 D 047 Z	
Remote sensor for electronic remote control	TAF 208 - 308 - 408	K 60 D 028 Z	
Remote sensor in a box for electronic remote control	TAF 208 - 308 - 408	K 60 D 033 Z	
Electrical heating	2 kW - 230/1/50	TAF 208 - 308	K 60 C 852 Z
		TAF 408	K 60 C 862 Z
	3 kW - 230/1/50	TAF 208 - 308	K 60 C 853 Z
		TAF 408	K 60 C 863 Z
Wall support for indoor unit	TAF 208	K 60 U 023 Z	
	TAF 308	K 60 U 024 Z	
	TAF 408	K 60 U 028 Z	
Wall support for outdoor unit	GRF 98/128	K 70 U 001 T	
	GRF 188	K 60 U 035 T	



GRF 98/128 L



GRF 188 L



Set		CSCF 208 LL 5	CSCF 308 LL 5	CSCF 408 LL 5/7
Indoor unit	230/1/50	TAF 208 L 8 Z	TAF 308 L 8 Z	TAF 408 L 8 Z
Outdoor unit	230/1/50 or 400/3N/50	GRF 98 L 5 T	GRF 128 L 5 T	GRF 188 L 5 T GRF 188 L 7 T
Cooling capacity (kW)	HS	1.84	2.61	3.72 / 3.82*
Input power (kW)	HS	0.86	1.16	1.68 / 1.73*
Heating capacity of electric heater (kW)		2 / 3	2 / 3	2 / 3
EER		2.14	2.25	2.21
Internal air flow (m³/s-m³/h)	HS	0.24 - 860	0.32 - 1 150	0.35 - 1 260
Running current cooling** (A)		5	6.7	10.1 / 4.8*
Refrigerant type		R 410 A	R 410 A	R 410 A
Ø refrigerant connections FLARE (inches)		1/4 - 3/8	1/4 - 1/2	1/4 - 1/2
External Ø of condensate drain pipe (mm)		16	16	16
Max. distance between units (m)		15	20	20
Max. height difference between units (m)		7	7	15
Sound power level (dBA)	indoors LS/MS/HS condenser	52 / 59 / 64 57	55 / 60 / 66 60	57 / 62 / 64 65
Sound pressure level (dBA)	at 2 m indoors LS/MS/HS 4 m from condenser	44 / 51 / 56 37	47 / 52 / 58 40	49 / 54 / 56 45
Indoor unit dimensions (height x width x depth) (mm)		600 x 950 x 235	600 x 1140 x 235	600 x 1260 x 235
Outdoor unit dimensions (height x width x depth) (mm)		540 x 700 x 265	540 x 700 x 265	630 x 830 x 305
Weight I.U. / O.U. (kg)		37 / 34	42 / 34	45 / 55

*1 phase / 3 phase - **for heating mode, see the installed heating capacity

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

Nominal conditions

T indoor air 12°C (DB) / 9°C (WB)
T outdoor air 35°C (DB)

OPERATING LIMITS

COOLING maximum	T indoor air 32°C (DB) / 23°C (WB) T outdoor air 43°C (DB)	minimum	T indoor air 12°C (DB) / 9°C (WB) T outdoor air -15°C (DB)
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Manual remote control 70250076

Electromechanical thermostat with 3 fan speeds
Manual selection of operating mode (heat/cool)
For units with "2 pipe coil" only or "2 pipe coil + electric heater"
or "4 pipe coil"

Main characteristics

- Supply voltage : 230Vac 50/60 Hz
- Fonctions : On/Off + 3-speed fan selector
Manual selection of operating mode
- Set-point adjustment range : 8/30°C
(possibility of mechanical limitation by jumpers on the knob)
- Permanent or slaved ventilation
- Contact breakers : 2 A inductive
- Differential : 1K maxi
- Electrical connections at screw terminal block
- Operating temperature : 0/+50°C
- Relative humidity < 95%
- Casing insulation : cl II - IP 30
- Colour : white RAL 9003



Automatic remote control K60D025Z

Electronic thermostat with 3 fan speeds
Automatic selection of operating mode (heat/cool)

Main characteristics

- Supply voltage : 230Vac 50/60Hz
- Functions : On/Off + 3-speed fan selector
Supplied with built-in air temperature sensor
Input remote air temperature sensor
(as accessories : uncased sensor for air intake
K60D028Z, or cased sensor K60D033Z)
- Set-point adjustment range : 5/30°C Factory set
to + 17°C/+ 30°C
(possibility of mechanical limitation by jumpers on the knob)
- Contact breakers : 3 A inductive for ventilation
10 A resistive, 6 A inductive for Heat or Cool mode
- Differential
- Neutral zone : adjustable 0,7 to 7,5 K
- Electrical connections at screw terminal block
- Operating temperature : 0/+50°C
- Relative humidity < 95%
- Casing insulation : cl II - IP 30
- Colour : white RAL 9010

CSKF-L

COOLING

OUTDOOR LOW AMBIENT TEMPERATURE



- > R 410 A
- > A class
- > Three-phase electrical supply

- Cassette straight cooling air conditioner with three-phase (400/3N/50) power supply
- Able to run with an outdoor air temperature up to -15°C
- Infrared remote control with 24h digital timer and 4-addressing possibility
- Temperature sensor inside the remote control
- "I Feel" feature, granting the best comfort conditions
- Dry function
- Three-speed centrifugal fan by remote control
- Special system to avoid condensate dripping from air outlet ribs
- Night set back capability
- Four horizontal flap swinging or to be set on a fixed position by remote control
- Washable filters
- Integrated pump for condensate discharge
- Auto restart after a power supply black out
- Electronic protection against over-pressures
- High efficiency rotary compressor
- Service contact to make the unit operating or not operating; alarm contact
- Self-diagnostic functions



COOLING ONLY - L VERSION (for outdoor low ambient temperature)

Set		CSKF 258 L 7	CSKF 368 L 7	CSKF 488 L 7
Indoor unit	230/1/50	CAF 258 C 5 T	CAF 368 C 5 T	CAF 488 C 5 T
Grille		K 70 N 130 T	K 70 N 131 T	K 70 N 131 T
Outdoor unit	400/3N/50	GRF 258 L 7 T	GRF 368 L 7 T	GRF 488 L 7 T
Cooling capacity (kW)		7.80	10.60	14.10
Input power in cooling mode (kW)	HS	2.58	3.30	5.00
Energy class		B	A	-
Annual energy consumption in cooling - 500 h (kW/h)		1 290	1 650	-
EER		3.02	3.21	2.82
Internal air flow (m ³ /s-m ³ /h)	LS	0.189 - 680	0.366 - 1 320	0.366 - 1 320
	MS	0.233 - 840	0.467 - 1 680	0.467 - 1 680
	HS	0.28 - 1 020	0.533 - 1 920	0.533 - 1 920
Running current (A)		5.10	6.60	9.70
Dehumidification (l/h)	HS	3.0	3.5	5.0
Fan speeds (IU/OU)		3+auto/2-3 (auto)	3+auto/2-3 (auto)	3+auto/2-3 (auto)
Deflection	vertical	automatique	automatique	automatique
Compressor type		Rotary	Rotary	Scroll
Refrigerant type		R 410 A	R 410 A	R 410 A
Ø refrigerant connections FLARE	(inches)	1/4 - 5/8	3/8 - 3/4	3/8 - 3/4
External Ø of condensate drain pipe	(mm)	32	32	32
Standard/max. distance between units	(m)	7.5/30	7.5/40	7.5/40
Refrigerant additional charge	(g/m)	25	55	55
Max. height difference between units	OU on Top/bottom	15	25	25
Sound power level (dBA)	indoors	55	60	62
	condenser	68	70	71
Sound pressure level (dBA)	at 2 m indoors	46	51	53
	4 m from condenser	48	50	51
Grille dimensions (height x width x depth)	(mm)	338 x 860 x 860	368 x 1150 x 860	368 x 1150 x 860
Dimensions (height x width x depth)	(mm)	735 x 940 x 340	1 235 x 940 x 340	1 235 x 940 x 340
Weight U.I. / grille / U.E.	(kg)	22/71	27/104	27/126

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)	minimum T indoor air	18°C (DB) / 14°C (WB)
	T outdoor air	43°C (DB)		T outdoor air