

**Cooline<sup>®</sup>**  
AIR CONDITIONERS

from **Zamil**



## Free Standing Units

FML036 - FML090

3 TR - 6.6 TR

10 kW - 23 kW



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A member of Zamil Industrial Investment Company ( a joint stock company) C.R. 2050004215

## UNIT FEATURES

**COOL AND HEAT PUMP MODELS:** Cool only or heat pump models are available to suit all application needs.

**ONE TOUCH ELECTRIC CONTROL PANEL:** Allows easy set up of required functions and features for safe and smooth unit's operation. The control panel can be locked against unauthorized usage (**Child Lock function**).

**WIRELESS CONTROLLER:** Offered as a standard for remote control operations of the unit.

**MULTI MODE OPERATION:** Fan, Cool, Heat, Dry & Auto modes may be selected. The corresponding selected mode's icon will appear on the LCD screen.

**THREE SPEED FAN:** For comfortable airflow based on individual cooling/comfort requirements.

**ON/OFF TIMER:** The unit can be switched ON/OFF after a preset time period (maximum 15 hours). The unit electronic controls will memorize the last control settings.

**INDOOR DE-ICING:** Whenever the indoor coil temperature reaches 0°C, the ice prevention mode is activated and the compressor is switched off.

**OUTDOOR DE-FROST (HEAT PUMP MODELS):** During heating mode, the outdoor coil temperature may reach -5°C, the outdoor de-frost mode is activated. Once completed, the controls return back to the heat mode.

**AUTO RESTART:** Whenever the power is interrupted and restored back, the control reverts back to the last settings.

**MINIMUM INDOOR NOISE LEVEL:** Centrifugal fans are statically and dynamically balanced for quiet, pulse free air supply.

**EASY INSTALLATION AND MAINTENANCE:** Units are provided with orifice type refrigerant metering device (models 036 - 060). This provides easy serviceability, as there is no need for de-brazing/brazing for site replacements of the orifice pistons. Accurately sized pistons can be easily fitted for non-standard application like high rise buildings. It also eliminates the need for check valves in reverse cycle heat pump applications.

## STANDARD INDOOR / OUTDOOR UNITS

INDOOR UNIT (FREE STANDING UNITS)	MODE	MATCHING CONDENSING UNIT
FML036BACA	COOL	KQ036LSRCNANN
FML036BAHA	HEAT PUMP	KQ036LSRHNANN
FML042BACA	COOL	KQ042LSRCNANN
FML042BAHA	HEAT PUMP	KQ042LSRHNANN
FML048BACA	COOL	KQ048LSRCNANN
FML048BAHA	HEAT PUMP	KQ048LSRHNANN
FML060BACA	COOL	KQ060LSRCNANN
FML060BAHA	HEAT PUMP	KQ060LSRHNANN
FML075BACA	COOL	CL075LSSCNANN
FML075BAHA	HEAT PUMP	CL075LSSHANN
FML090BACA	COOL	CL090LSSCNANN
FML090BAHA	HEAT PUMP	CL090LSSHANN

# PHYSICAL DATA

MODEL NUMBER	INDOOR UNIT	FML036	FML042	FML048	FML060	FML075	FML090
	OUTDOOR UNIT	KQ036	KQ042	KQ048	KQ060	CL075	CL090

PERFORMANCE							
COOLING CAPACITY, BTUH *		36000	42000	47500	56000	70000	80000
POWER INPUT, WATTS *		4400	4500	5200	6300	8000	9100
EER		8.2	9.3	9.1	8.9	8.8	8.8
HEAT PUMP HEATING CAPACITY, BTUH **		35000	41000	45000	55000	68000	76000
HEATING POWER INPUT, WATTS **		4300	4400	5000	6200	7800	8400
CONDENSER AIRFLOW, CFM		1900	3600	3600	3600	6200	6200
EVAPORATOR AIRFLOW (HIGH/MEDIUM/LOW), CFM		1200/1100/1000	1350/1200/1100	1450/1350/1200	1500/1350/1200	2000/1650/1450	2000/1650/1450
SOUND PRESSURE LEVEL (3M), dBA		58/56/54	59/57/54	60/58/56	60/58/56	60/56/53	60/56/53
MINIMUM CIRCUIT AMPACITY, AMPS (INDOOR UNIT/OUTDOOR UNIT)		3.2/11.9	3.2/13.5	3.2/16.2	3.2/15.2	5.7/19.6	5.7/25.1
MAXIMUM CIRCUIT BREAKER, AMPS (INDOOR UNIT/OUTDOOR UNIT)		15/20	15/20	15/25	15/20	15/30	15/40

INDOOR UNIT							
POWER SUPPLY, V-Ph-Hz		220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50
BLOWER MOTOR	QUANTITY	TWO	TWO	TWO	TWO	SINGLE	SINGLE
	V-Ph-Hz	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50
	WATTS	250	250	260	260	860	860
	FLA/LRA	1.4/2.4	1.4/2.4	1.4/2.4	1.4/2.4	4.6/27	4.6/27
BLOWER WHEEL SIZE/QUANTITY		DD9-6/2	DD9-6/2	DD9-6/2	DD9-6/2	DD8-8.5/2	DD8-8.5/2
EVAPORATOR COIL	FACE AREA, SQ. FT.	4.53	4.53	4.53	4.53	9.6	9.6
	TUBE DIA., INCH	3/8	3/8	3/8	5/16	3/8	3/8
	NO. OF ROWS/FPI	3/14	3/14	4/14	5/14	4/14	4/14
SUCTION-LIQUID-DRAIN DIA., INCH		3/4-3/8-3/4	7/8-3/8-3/4	7/8-3/8-3/4	7/8-3/8-3/4	1 1/8-5/8-3/4	1 1/8-5/8-3/4
DIMENSIONS (DEPTH x WIDTH x HEIGHT), MM.		425x725x1890	425x725x1890	425x725x1890	425x725x1890	425x1360x1890	425x1360x1890
WEIGHT, KG.		115	115	115	115	210	210

OUTDOOR UNIT							
POWER SUPPLY, V-Ph-Hz		380/415-3-50	380/415-3-50	380/415-3-50	380/415-3-50	380/415-3-50	380/415-3-50
COMPRESSOR	V-Ph-Hz	380/415-3-50	380/415-3-50	380/415-3-50	380/415-3-50	380/415-3-50	380/415-3-50
	RLA/LRA	8.2/50	8.2/50	10.4/55	9.6/65	12/101	16.4/95
CONDENSER FAN MOTOR	V-Ph-Hz	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50
	FLA - HP	1.6 - 1/4	1.6 - 1/4	1.6 - 1/4	1.6 - 1/4	2.3 - 1/3	2.3 - 1/3
CONDENSER FAN	RPM	950	950	950	950	1100	1100
	QUANTITY/DIA., INCH	1/18	2/18	2/18	2/18	2/24	2/24
CONDENSER COIL	FACE AREA, SQ. FT.	6.5	10.5	10.5	10.5	21	21
	TUBE DIA., INCH	3/8	3/8	3/8	3/8	3/8	3/8
	NO. OF ROWS/FPI	3/16	2/16	2/16	2/16	2/16	2/16
FREON CHARGE, Oz. (COOL/HEAT PUMP MODELS)		121/127	125/142	132/147	134/149	320/345	324/350
DIMENSIONS (L x W x H), MM.		965x390x726	965x390x1158	965x390x1158	965x390x1158	1524x889x950	1524x889x950
WEIGHT, KG.		101	115	120	130	210	210
SUCTION-LIQUID LINE DIA., INCH		3/4-3/8	7/8-3/8	7/8-3/8	7/8-1/2	1 1/8-5/8	1 1/8-5/8

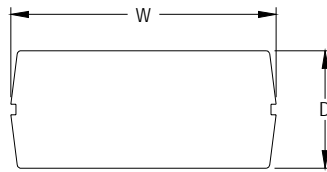
**NOTES:** \* Cooling capacity & power input data @ 80°F DB/67°F WB indoor and 95°F DB outdoor temperatures.

\*\* Heating capacity & power input data @ 70°F DB/60°F WB indoor and 47°F DB outdoor temperatures.

*CONTINUING RESEARCH RESULTS IN STEADY IMPROVEMENTS.  
THEREFORE, THESE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.*

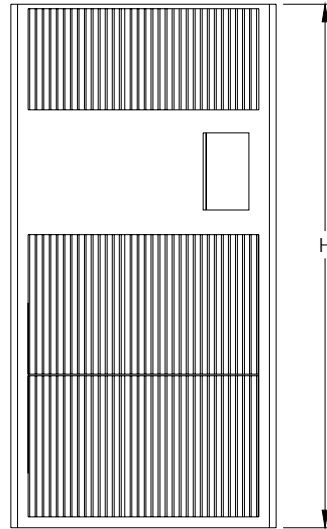
## DIMENSIONS - INDOOR UNITS

### FML036 - FML090



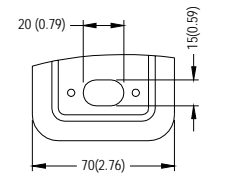
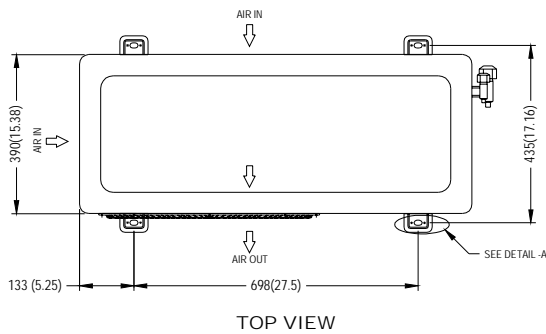
### DIMENSIONS

MODEL No.	D	W	H
FML036/042	425(16.73)	725(28.54)	1890(74.41)
FML048/060	425(16.73)	725(28.54)	1890(74.41)
FML075/090	425(16.73)	1360(53.54)	1890(74.41)

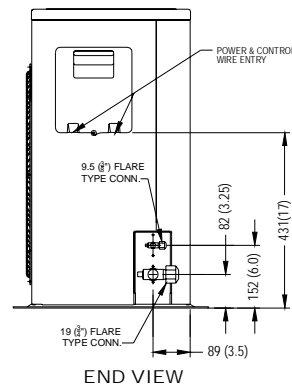
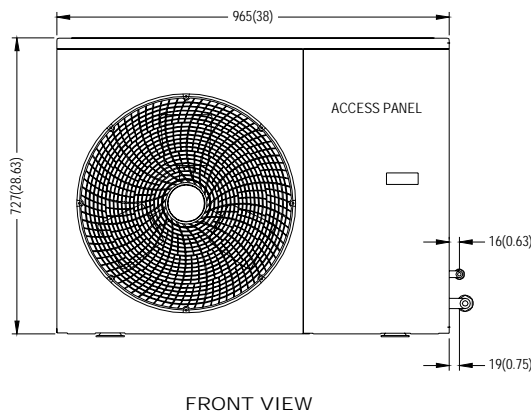


## DIMENSIONS - OUTDOOR UNITS

### KQ036



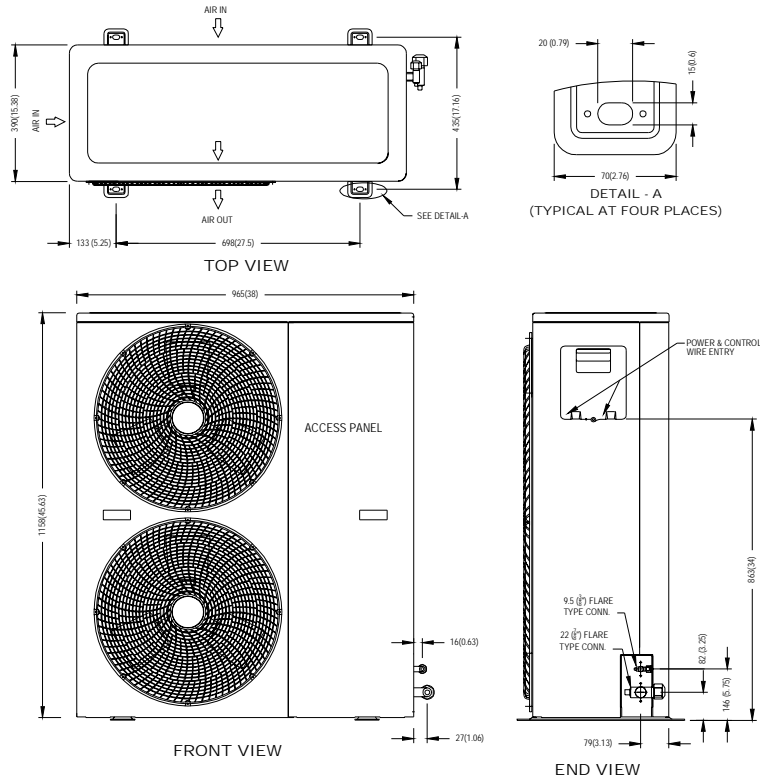
DETAIL - A  
(TYPICAL AT FOUR PLACES)



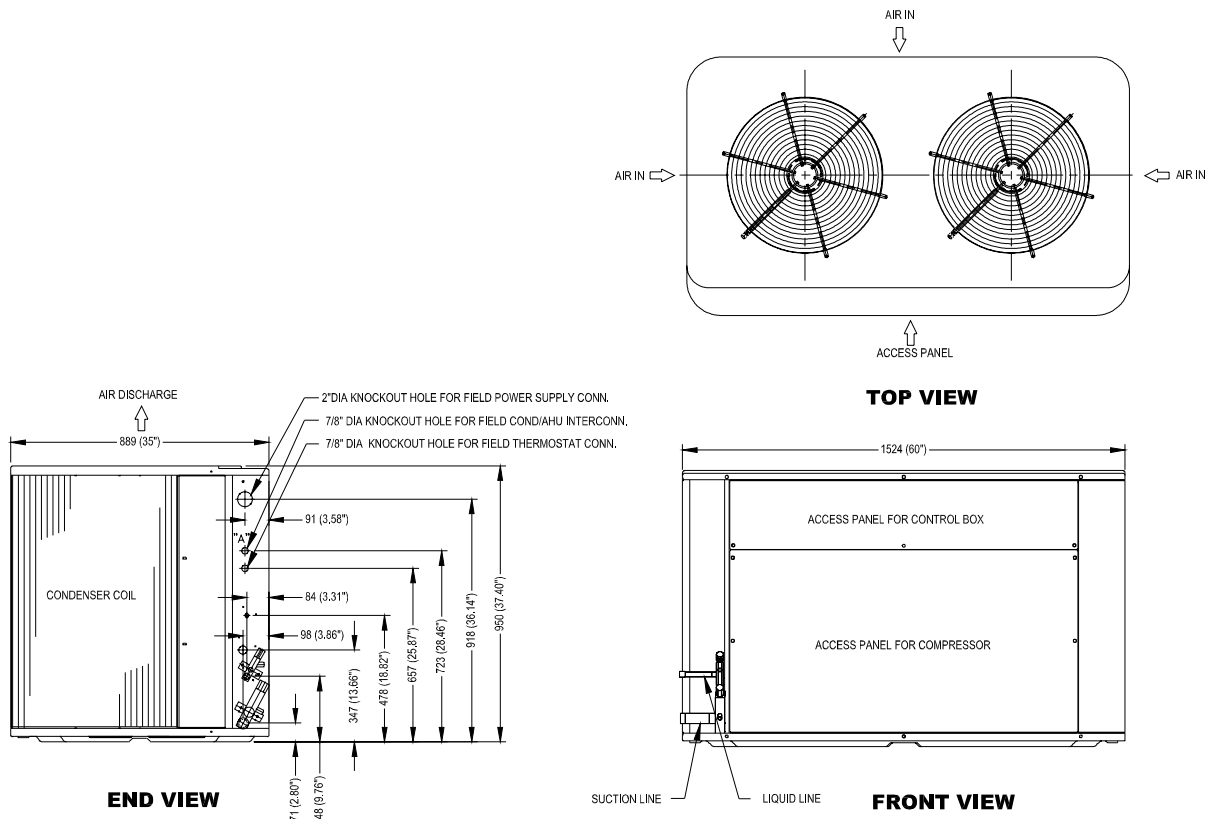
**NOTE:** All dimensions are in mm (dimensions in brackets are in inches).

# DIMENSIONS - OUTDOOR UNITS

## KQ042, KQ048 & KQ060



## CL075 & CL090



**NOTE:** All dimensions are in mm (dimensions in brackets are in inches).



FS-C45-07/02



from Zamil



**OEM**  
Original  
Equipment  
Manufacturers

In 1989, Zamil Air Conditioners introduced its international brand - Cooline, to the expanding world market. The brand gained rapid recognition and success and became Cooline Air Conditioners, a separate business unit, just a few years later. Today, Cooline supplies air conditioners to more than 55 countries worldwide, with major markets in GCC, The Middle East, Europe, Australia, USA and North Africa.

In addition to providing consumer products such as Room Air Conditioners (RAC and Mini Splits), Cooline Air Conditioners provides an array of Central Air Conditioners for residential, commercial and industrial use, including: concealed units up to 5 tons, ducted splits up to 30 tons, packaged units up to 70 tons, single and double skin air handling unit up to 130,000 CFM and water chillers up to 500 tons cooling capacity.

The manufacturer of Cooline Air Conditioners, Zamil, is the first company from the Middle East to receive Eurovent, a capacity/performance certification that has become mandatory in Europe and is fast becoming a standard requirement in all regions. With the addition of the Air Conditioning Technology Center (ATC), a facility that is ITS (Intertek Testing Services) built and certified, Cooline Air Conditioners is the only Middle East brand capable of guaranteeing product performance in compliance with local and international standards. It's no surprise that in 2003, Cooline received the Best GCC brand of the Decade Award.

