Air supply UNDER / OVER

Air supply (1)		U / O	U / O	U / O	U / O	U / O
MODEL		**029**	**040**	**051**	**052**	**067**
FRAME		**M**	**M**	**M**	**L**	**L**
COOLING CAPACITY (2)		**100%**	**100%**	**100%**	**100%**	**100%**
Total	[kW]	29,0	40,2	51,1	52,2	66,6
Sensible	[kW]	29,0	40,2	51,1	52,2	66,6
SHR (3)		1,00	1,00	1,00	1,00	1,00
Total power input (Comp. + Fans.)	[kW	7,23	10,7	15,6	13,1	18,4
"EC" SUPPLY FANS	[n]	1	1	1	2	2
Air flow	[m^3/h]	8000	10500	11000	14750	17000
Nominal external static pressure	[Pa]	20	20	20	20	20
Power input (4)	[kW]	0,80	1,61	1,85	2,16	3,20
COMPRESSOR		Scroll	Scroll	Scroll	Scroll	Scroll
BLDC compressor	[n]	1	1	1	1	1
ON/OFF compressor	[n]	0	0	0	0	1
Cooling capacity control		Modulating	Modulating	Modulating	Modulating	Modulating
Compressor power input	[kW]	6,43	9,08	13,7	11,0	15,2
AIR FILTERS	[n]	2	2	2	3	3
Efficiency (ISO EN 16890)	COARSE	60%	60%	60%	60%	60%
GAS circuits	[n]	1	1	1	1	1
POWER SUPPLY	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY INDEX (2)						
EER - Energy Efficiency Ratio (5)	[kW/kW]	4,01	3,76	3,28	3,98	3,62
DIMENSIONS						
Length	[mm]	1142	1142	1142	1600	1600
Width	[mm]	885	885	885	885	885
Height	[mm]	1980	1980	1980	1980	1980
NET WEIGHT Over	[kg]	363	372	375	459	502
NET WEIGHT Under	[kg]	372	380	383	477	520
REFRIGERANT CONNECTIONS						
gas supply	[mm Ø]	18	22	22	22	28
Liquid return	[mm Ø]	16	18	18	18	18
HYDRAULIC CONNECTIONS						
CONDENSATE DISCHARGE						
Rubber pipe – internal diameter	[mm Ø]	19	19	19	19	19

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. U = Under, Downflof / O = Over, Upflow
2. Gross value. Parameters referred to entering air at 30°C - 35% RH; condensing temperature 45°C; ESP=20Pa.
3. SHR = Sensible cooling capacity / Total cooling capacity
4. Corresponding to the nominal external static pressure.
5. The Energy Efficiency Index does not consider the remote air-cooled condenser.

The units highlighted in this publication contain <HFC R410A [GWP100 2088]> fluorinated greenhouse gas.

NOTE:
Below 30% of cooling capacity, the inverter compressor enters the "cycling" area in which the compressor operates with ON / OFF cycles below the minimum modulation frequency (operation only for short periods).
SELECT THE UNIT IN THE MODULATION FIELD.

Air supply (1)		U / O	U / O	U / O	U / O	U / O
MODEL		**076**	**078**	**090**	**108**	**140**
FRAME		**L**	**XL**	**XL**	**XL**	**XL**
COOLING CAPACITY (2)		**100%**	**100%**	**100%**	**100%**	**100%**
Total	[kW]	76,1	78,7	90,9	108	140
Sensible	[kW]	76,1	78,7	90,9	108	140
SHR (3)		1,00	1,00	1,00	1,00	1,00
Total power input (Comp. + Fans.)	[kW	22,3	19,4	23,7	30,1	44,8
"EC" SUPPLY FANS	[n]	2	2	2	3	3
Air flow	[m^3/h]	17000	21500	22500	25500	27000
Nominal external static pressure	[Pa]	20	20	20	20	20
Power input (4)	[kW]	3,22	3,21	3,66	5,15	6,24
COMPRESSOR		Scroll	Scroll	Scroll	Scroll	Scroll
BLDC compressor	[n]	1	2	2	2	2
ON/OFF compressor	[n]	1	0	0	2	2
Cooling capacity control		Modulating	Modulating	Modulating	Modulating	Modulating
Compressor power input	[kW]	19,1	16,1	20,1	24,9	38,5
AIR FILTERS	[n]	3	4	4	4	4
Efficiency (ISO EN 16890)	COARSE	60%	60%	60%	60%	60%
GAS circuits	[n]	1	2	2	2	2
POWER SUPPLY	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY INDEX (2)						
EER - Energy Efficiency Ratio (5)	[kW/kW]	3,41	4,06	3,84	3,59	3,12
DIMENSIONS						
Length	[mm]	1600	2550	2550	2550	2550
width	[mm]	885	885	885	885	885
Height	[mm]	1980	1980	1980	1980	1980
NET WEIGHT Over	[kg]	503	799	806	915	916
NET WEIGHT Under	[kg]	521	839	846	955	957
REFRIGERANT CONNECTIONS						
gas supply	[mm Ø]	28	22	22	28	28
Liquid return	[mm Ø]	18	18	18	18	18
HYDRAULIC CONNECTIONS						
CONDENSATE DISCHARGE						
Rubber pipe – internal diameter	[mm Ø]	19	19	19	19	19

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. U = Under, Downflof / O = Over, Upflow
2. Gross value. Parameters referred to entering air at 30°C - 35% RH; condensing temperature 45°C; ESP=20Pa.
3. SHR = Sensible cooling capacity / Total cooling capacity
4. Corresponding to the nominal external static pressure.
5. The Energy Efficiency Index does not consider the remote air-cooled condenser.

The units highlighted in this publication contain <HFC R410A [GWP100 2088]> fluorinated greenhouse gas.

NOTE:
Below 30% of cooling capacity, the inverter compressor enters the "cycling" area in which the compressor operates with ON / OFF cycles below the minimum modulation frequency (operation only for short periods).
SELECT THE UNIT IN THE MODULATION FIELD.

REFRIGERANT CHARGE

The air conditioner is supplied with a minimum R410A refrigerant charge. **Refrigerant must be charged.** The following table shows the refrigerant charge that must be introduced for the air conditioner only. Remote condenser, connections pipes and optional are excluded.

Air supply (1)		**U / O**	**U / O**	**U / O**	**U / O**	**U / O**
MODEL		**29**	**40**	**51**	**52**	**67**
FRAME		**M**	**M**	**M**	**L**	**L**
REFRIGERANT		R410A	R410A	R410A	R410A	R410A
Gas circuits x Refrigerant charge (2)	n x kg	1x5,5	1x6,6	1x6,7	1x7	1x8,9
HFC R410A - F Gas - CO_2 equivalent	t	11,5	13,7	14	14,6	18,6

Air supply (1)		**U / O**	**U / O**	**U / O**	**U**	**U**
MODEL		**76**	**78**	**90**	**108**	**140**
FRAME		**L**	**XL**	**XL**	**XL**	**XL**
REFRIGERANT		R410A	R410A	R410A	R410A	R410A
Gas circuits x Refrigerant charge (2)	n x kg	1x9	2x8,6	2x8,7	2x10,6	2x10,7
HFC R410A - F Gas - CO_2 equivalent	t	18,8	35,9	36,3	44,7	44,7

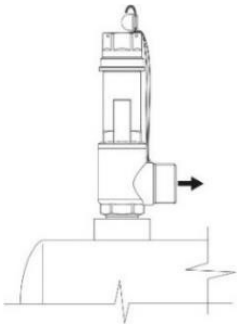
1. U = Under, downflow / O = Over, upflow
2. Refrigerant charge required for the air conditioner only operation. Remote condenser, connections pipes and optional are excluded.
For air conditioners with double refrigerant circuit is indicated the number of circuits x the charge of a single circuit.

PRESSURE RELIEF VALVE

The pressure relief valve of the refrigerant circuit is installed in the machines when required by Directive 2014/68/EU.
The valve is installed on liquid receiver and oil separator of each refrigerant circuit of the machine with the purpose to protect the circuit from overpressure.

It is up to the installer to check whether the system complies with the 2014/68 / EU standard regarding the installation of the pressure relief valve.
By plant we mean the complete system that includes the internal machine, the remote condenser and the connecting pipes
The installer must calculate the amount of refrigerant contained in the system and, if the refrigerant charge is higher than 10 kg, he must install the pressure relief valve.

	Pressure relief valve on liquid receiver	Pressure relief valve on oil separator	Possible pressure relief valve in addition (by the installer)
Model	**[bar]**	**[bar]**	**[bar]**
29	41,5	41,5	41,5
40	41,5	41,5	41,5
51	41,5	41,5	41,5
52	41,5	41,5	41,5
67	41,5	41,5	41,5
76	41,5	41,5	41,5
78	41,5	41,5	41,5
90	41,5	41,5	41,5
108	41,5	41,5	41,5



Exhaust flow
CONNECTION Ø 3/4" G - M