



SUSTAINABLE COLD SOLUTIONS

Transcritical CO₂ndensing units



Available with
VARISTEP
CRII



We know the art of achieving
a perfect temperature

BEIJER REF

Standard Accessories

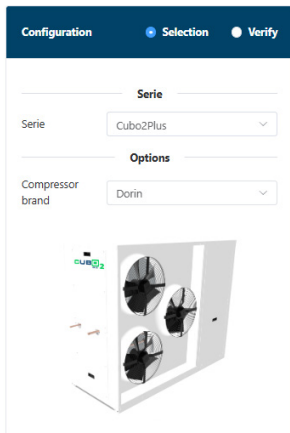
- Semihermetic reciprocating compressor
- Carel controller
- Inverter modulation for capacity control 60% - 140% or Bitzer crii for capacity modulation 10% - 100%
- Integrated gas cooler with EC fans
- Design pressure: 130 bar (high pressure side) | 80 bar (liquid line) | 80 bar (suction line)
- Power supply 400V/3+N/50Hz
- Liquid receiver 15 liters (PED III)
- K65 connections

Accessories on Request

- Liquid receiver 37 liters (PED III)
- Adiabatic kit water spray, including controller
- RDM/Danfoss/Wurm controller
- Epoxy or Electrofin gas cooler corrosion coil protection

Software Calculation Tool

Select your unit and check its CO2 charge



Input data

Selection

Required Capacity: kW [0,00]

Tolerance: % [10,00]

Input

Evaporation temperature: °C [-25,00]

Ambient temperature: °C [35,00]

charged Calculation Cubo2Plus UMT 055 BTDX

Ricevitore di liquido da 15 litri (PED III)

LIQUID LINE	m	kg
Liquid Line 3/8" (120 bar K65)	0,00	0,0000
Liquid Line 1/2" (120 bar K65)	0,00	0,0000
Liquid Line 5/8" (120 bar K65)	0,00	0,0000
Liquid Line 7/8" (120 bar K65)	0,00	0,0000
Sub Total Liquid		0,0000

SUCTION LINE	m	kg
Suction Line 3/8" (120 bar K65)	0,00	0,0000
Suction Line 1/2" (120 bar K65)	0,00	0,0000
Suction Line 5/8" (120 bar K65)	0,00	0,0000
Suction Line 7/8" (120 bar K65)	0,00	0,0000
Sub Total Suction		0,0000

EVAPORATORS	l	kg
Total evaporators volume	0,00	0,0000
Sub Total Evaps		0,0000

TOTALS	kg
Total Charge (minimum charge is 4kg)	4,1500
Pumpdown from EEV (MUST BE ≤ 25kg for 37L and ≤ 10 for 15L)	3,0000
Pumpdown from CU (MUST BE ≤ 25kg for 37L and ≤ 10 for 15L - if not fit ball valves on branch lines)	3,0000

Oil approved: POE Reniso Fuchs C85E, Fuchs BSE 85 K

STANDING CHARGE	kg
Receiver	3,0000
Gas Cooler/ PHE	1,1500
Sub Total CUBO	4,1500

AT THE FOLLOWING LINK YOU CAN CHECK THE UNIT CHARGE.

<https://cubo2calculation.scmfrigo.com/#/home>

Technical data Cubo₂ Plus (a)

LOW TEMPERATURE
Variable Speed Drive

Ambient temperature [°C]		Evaporation Temperature [°C]																
		-40				-35				-30				-25				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
min max		kW		min max		kW		min max		kW		min max		kW				
UMT 055 BTDX	Dorin CD2S 550	40	-	-	-	-	-	-	5,15	10,30	8,92	1,15	6,45	12,90	6,22	2,08		
		38	-	-	-	-	-	-	5,20	10,39	8,63	1,20	6,45	12,90	6,22	2,08		
		32	3,85	7,70	7,09	1,09	4,56	9,12	7,42	1,23	5,30	10,60	7,82	1,35	6,03	12,06	8,16	1,48
		25	3,94	7,87	6,40	1,23	4,60	9,20	6,70	1,37	5,40	10,80	7,02	1,54	6,21	12,42	7,32	1,70
		15	4,03	8,05	5,56	1,45	4,80	9,60	5,71	1,68	5,62	11,24	6,00	1,87	6,45	12,90	6,22	2,08
		5	4,18	8,35	4,62	1,81	4,97	9,94	4,82	2,06	5,80	11,59	4,98	2,33	-	-	-	-
N. of fans		2 x Ø 500 mm				MEPS ^(c)				1,80								
Weight		560 kg				Annual Energy Consumption				65817 kWh/year								
Sound pressure ^(b)		48 dB(A)				FLA/MRA/Pmax				18,9 A / 67,4 A / 9,4 kW								

Ambient temperature [°C]		Evaporation Temperature [°C]																
		-40				-35				-30				-25				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
min max		kW		min max		kW		min max		kW		min max		kW				
UMT 075 BTDX	Dorin CD2S 750	40	-	-	-	-	-	-	6,63	13,26	12,14	1,09	7,39	14,78	12,59	1,17		
		38	-	-	-	-	-	-	5,80	11,59	11,11	1,04	6,68	13,36	11,69	1,14		
		32	5,10	10,20	9,65	1,06	5,87	11,75	10,03	1,17	6,87	13,74	10,50	1,31	7,76	15,53	10,87	1,43
		25	5,18	10,37	8,58	1,21	6,03	12,06	8,94	1,35	6,96	13,92	9,29	1,50	8,12	16,24	9,48	1,71
		15	5,38	10,75	7,30	1,47	6,31	12,62	7,60	1,66	7,21	14,42	7,97	1,81	8,31	16,62	8,06	2,06
		5	5,53	11,05	6,04	1,83	6,55	13,10	6,26	2,09	7,53	15,06	6,47	2,33	-	-	-	-
N. of fans		2 x Ø 500 mm				MEPS ^(c)				1,85								
Weight		570 kg				Annual Energy Consumption				85345 kWh/year								
Sound pressure ^(b)		48 dB(A)				FLA/MRA/Pmax				23,9 A / 90,4 A / 12,1 kW								

Ambient temperature [°C]		Evaporation Temperature [°C]																
		-40				-35				-30				-25				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
min max		kW		min max		kW		min max		kW		min max		kW				
UMT 090 BTDX	Dorin CD2S 900	40	-	-	-	-	-	-	7,90	15,80	14,74	1,07	8,81	17,62	15,24	1,16		
		38	-	-	-	-	-	-	7,08	14,16	13,58	1,04	8,16	16,32	14,28	1,14		
		32	6,16	12,32	11,76	1,05	7,18	14,36	12,26	1,17	8,29	16,58	12,76	1,30	9,38	18,76	13,20	1,42
		25	6,26	12,53	10,46	1,20	7,38	14,76	10,91	1,35	8,51	17,03	11,32	1,50	9,62	19,25	11,66	1,65
		15	11,30	13,01	8,89	1,46	7,64	15,28	9,23	1,66	8,80	17,59	9,52	1,85	10,16	20,33	9,80	2,07
		5	6,70	13,40	7,34	1,83	7,84	15,68	7,57	2,07	9,11	18,23	7,84	2,33	-	-	-	-
N. of fans		3 x Ø 500 mm				MEPS ^(c)				1,87								
Weight		650 kg				Annual Energy Consumption				103011 kWh/year								
Sound pressure ^(b)		48 dB(A)				FLA/MRA/Pmax				29,6 A / 98,6 A / 14,8 kW								

Ambient temperature [°C]		Evaporation Temperature [°C]																
		-40				-35				-30				-25				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
min max		kW		min max		kW		min max		kW		min max		kW				
UMT 200 BTDX	Dorin CD2S 2000	40	-	-	-	-	-	-	9,79	19,57	16,82	1,16	11,15	22,31	17,64	1,26		
		38	-	-	-	-	-	-	8,50	17,00	15,36	1,11	9,88	19,75	16,28	1,21		
		32	7,39	14,78	13,39	1,10	8,66	17,33	14,08	1,23	10,07	20,14	14,78	1,36	11,60	23,21	15,52	1,50
		25	7,55	15,10	12,08	1,25	8,84	17,68	12,68	1,39	10,37	20,74	13,33	1,56	11,81	23,62	13,91	1,70
		15	7,81	15,61	10,44	1,50	9,21	18,42	10,94	1,68	10,79	21,58	11,45	1,88	12,39	24,78	11,88	2,09
		5	8,10	16,20	8,75	1,85	9,52	19,04	9,12	2,09	11,12	22,24	9,54	2,33	-	-	-	-
N. of fans		3 x Ø 500 mm				MEPS ^(c)				1,89								
Weight		655 kg				Annual Energy Consumption				125074 kWh/year								
Sound pressure ^(b)		50 dB(A)				FLA/MRA/Pmax				44,6 A / 183,6 A / 23,7 kW								

Ambient temperature [°C]		Evaporation Temperature [°C]																
		-40				-35				-30				-25				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
min max		kW		min max		kW		min max		kW		min max		kW				
UMT 250 BTDX	Dorin CD2S 2500	40	-	-	-	-	-	-	12,38	24,77	21,89	1,13	14,05	28,10	22,81	1,23		
		38	-	-	-	-	-	-	10,92	21,84	20,24	1,08	12,64	25,27	21,18	1,19		
		32	9,48	18,96	17,41	1,09	11,09	22,18	18,22	1,22	12,85	25,69	19,02	1,35	14,58	29,16	19,76	1,48
		25	9,74	19,49	15,49	1,26	11,40	22,80	16,31	1,40	13,04	26,09	16,94	1,54	14,97	29,94	17,58	1,70
		15	10,03	20,05	13,42	1,49	11,81	23,62	13,97	1,69	13,64	27,28	14,46	1,89	15,64	31,27	14,89	2,10
		5	10,33	20,65	11,17	1,85	12,13	24,25	11,56	2,10	14,14	28,27	11,99	2,36	-	-	-	-
N. of fans		3 x Ø 500 mm				MEPS ^(c)				1,90								
Weight		660 kg				Annual Energy Consumption				159585 kWh/year								
Sound pressure ^(b)		50 dB(A)				FLA/MRA/Pmax				51,6 A / 209,6 A / 27,6 kW								

NOTES

^(a) Inverter modulation from 30 to 60 Hz

^(b) Based on free field area with semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A)

^(c) Minimum Energy Performance Standards, calculated according to Ecodesign Directive EN 2009/125/EC

Technical data Cubo₂ Plus (a)

MEDIUM TEMPERATURE - DORIN

Variable Speed Drive

		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 036 MTDX	Dorin CD 360H	40	1,96	3,93	4,39	0,89	2,46	4,92	4,60	1,07	3,03	6,05	4,77	1,27	3,65	7,30	4,90	1,49	4,33	8,65	4,99	1,74
		38	2,07	4,14	4,32	0,96	2,59	5,17	4,51	1,15	3,18	6,35	4,66	1,36	3,83	7,65	4,77	1,60	4,53	9,05	4,83	1,88
		32	2,44	4,88	4,08	1,20	3,03	6,06	4,20	1,44	3,69	7,39	4,27	1,73	4,43	8,85	4,30	2,06	5,22	10,44	4,28	2,44
		25	2,90	5,80	4,04	1,44	3,60	7,20	3,98	1,81	4,39	8,77	4,21	2,08	5,26	10,52	4,23	2,49	6,21	12,41	4,19	2,96
		15	3,65	7,29	3,59	2,03	4,41	8,81	3,20	2,75	5,40	10,80	3,57	3,03	6,43	12,86	3,47	3,70	7,54	15,08	3,32	4,54
		5	4,46	8,93	3,00	2,97	5,41	10,83	2,63	4,12	6,48	12,96	2,78	4,67	7,66	15,32	2,58	5,95	8,93	17,87	2,31	7,75
N. of fans		2 x Ø 500 mm				MEPS ^(c)				2,56												
Weight		460 kg				Annual Energy Consumption				19150 kWh/year												
Sound pressure ^(b)		43 dB(A)				MRA/Pmax				15,9 A / 7,5 kW												
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 075 MTDX	Dorin CD 4 75-4.7 H	40	4,10	8,20	7,71	1,06	5,01	10,02	8,04	1,25	5,99	11,97	8,28	1,45	6,98	13,97	8,45	1,65	7,96	15,92	8,52	1,87
		38	4,27	8,55	7,53	1,14	5,20	10,40	7,81	1,33	6,18	12,36	8,02	1,54	7,17	14,33	8,15	1,76	8,11	16,22	8,18	1,98
		32	4,81	9,61	6,91	1,39	5,68	11,36	7,08	1,60	6,51	13,02	7,17	1,82	7,25	14,49	7,16	2,02	7,89	15,77	7,05	2,24
		25	5,88	11,77	6,82	1,73	7,14	14,28	6,97	2,05	8,49	16,98	7,04	2,41	9,85	19,70	7,01	2,81	11,13	22,25	6,88	3,23
		15	7,12	14,23	5,86	2,43	8,41	16,83	5,85	2,88	9,57	19,15	5,74	3,34	10,43	20,86	5,53	3,77	11,50	22,99	5,22	4,41
		5	7,98	15,96	4,71	3,39	9,17	18,33	4,53	4,05	10,86	21,73	4,25	5,11	12,72	25,44	3,86	6,58	14,72	29,43	3,37	8,74
N. of fans		2 x Ø 500 mm				MEPS ^(c)				2,67												
Weight		470 kg				Annual Energy Consumption				26174 kWh/year												
Sound pressure ^(b)		45 dB(A)				MRA/Pmax				20,5 A / 10,4 kW												
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 120 MTDX	Dorin CD4 90-6.4H	40	5,66	11,32	10,33	1,10	6,93	13,86	10,78	1,29	8,30	16,60	11,13	1,49	9,69	19,38	11,37	1,70	11,03	22,05	11,50	1,92
		38	5,91	11,82	10,08	1,17	7,21	14,42	10,48	1,38	8,58	17,16	10,78	1,59	9,94	19,88	10,97	1,81	11,21	22,43	11,04	2,03
		32	6,69	13,37	9,24	1,45	7,90	15,80	9,48	1,67	9,00	18,00	9,61	1,87	9,95	19,90	9,63	2,07	10,78	21,56	9,52	2,27
		25	8,10	16,21	9,11	1,78	9,86	19,72	9,33	2,11	11,73	23,47	9,43	2,49	13,58	27,16	9,41	2,89	15,20	30,40	9,27	3,28
		15	9,85	19,71	7,80	2,53	11,71	23,42	7,81	3,00	13,28	26,57	7,70	3,45	14,36	28,72	7,47	3,84	15,75	31,49	7,12	4,42
		5	11,74	23,49	6,27	3,75	12,55	25,10	6,08	4,13	14,86	29,72	5,79	5,13	17,38	34,75	5,38	6,46	20,08	40,15	4,88	8,24
N. of fans		2 x Ø 500 mm				MEPS ^(c)				2,75												
Weight		645 kg				Annual Energy Consumption				35268 kWh/year												
Sound pressure ^(b)		45 dB(A)				MRA/Pmax				26,3 A / 13,8 kW												
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 150 MTDX	Dorin CD4 120-9.2H	40	8,09	16,18	14,79	1,09	9,95	19,90	15,46	1,29	12,01	24,02	16,00	1,50	14,21	28,41	16,40	1,73	16,45	32,91	16,66	1,98
		38	8,46	16,91	14,43	1,17	10,38	20,76	15,03	1,38	12,50	24,99	15,50	1,61	14,73	29,46	15,83	1,86	16,98	33,95	16,00	2,12
		32	9,72	19,45	13,24	1,47	13,61	27,22	16,92	1,61	15,10	30,21	17,08	1,77	14,13	28,26	13,98	2,02	17,77	35,54	13,94	2,55
		25	11,56	23,13	13,06	1,77	14,10	28,21	13,40	2,10	16,92	33,85	13,60	2,49	19,95	39,91	13,65	2,92	23,05	46,11	13,56	3,40
		15	14,10	28,20	11,24	2,51	17,03	34,05	11,30	3,01	20,22	40,45	11,23	3,60	23,48	46,96	11,05	4,25	26,44	52,87	10,75	4,92
		5	16,75	33,51	9,15	3,66	19,94	39,88	9,03	4,42	23,05	46,10	8,81	5,23	25,73	51,47	8,51	6,05	28,31	56,61	8,13	6,97
N. of fans		3 x Ø 500 mm				MEPS ^(c)				2,83												
Weight		560 kg				Annual Energy Consumption				51217 kWh/year												
Sound pressure ^(b)		44 dB(A)				MRA/Pmax				33,4 A / 18,6 kW												
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 190 MTDX	Dorin CD 2000H	40	10,64	21,29	18,81	1,13	12,86	25,72	19,50	1,32	15,10	30,21	20,01	1,51	17,25	28,75	16,93	1,70	18,88	31,47	17,16	1,83
		38	11,05	22,10	18,27	1,21	13,25	26,50	18,88	1,40	15,42	30,84	19,31	1,60	17,44	29,07	16,24	1,79	18,86	31,44	16,38	1,92
		32	12,92	25,84	17,29	1,49	15,41	30,81	17,76	1,74	17,76	35,52	18,03	1,97	19,83	33,05	15,08	2,19	21,58	35,97	14,95	2,41
		25	15,23	30,45	16,31	1,87	18,22	36,45	16,62	2,19	21,08	42,16	16,74	2,52	22,78	37,97	13,64	2,78	24,42	40,71	13,48	3,02
		15	17,95	35,91	13,84	2,59	20,14	40,29	13,81	2,92	21,79	43,58	13,59	3,21	26,32	43,86	11,49	3,82	36,12	60,20	11,52	5,23
		5	19,84	39,67	11,05	3,59	23,73	47,45	10,71	4,43	28,03	56,07	10,20	5,50	30,99	51,64	9,63	5,36	35,21	58,68	9,68	6,07
N. of fans		3 x Ø 500 mm				MEPS ^(c)				2,85												
Weight		655 kg				Annual Energy Consumption				66470 kWh/year												
Sound pressure ^(b)		45 dB(A)				MRA/Pmax				42,4 A / 24 kW												

NOTES

- ^(a) Inverter modulation from 30 to 60 Hz
- ^(b) Based on free field area with semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A)
- ^(c) Minimum Energy Performance Standards, calculated according to Ecodesign Directive EN 2009/125/EC

Technical data Cubo₂ Plus (a)

MEDIUM TEMPERATURE - BITZER

Variable Speed Drive

		Evaporation Temperature [°C]																				
		-15				-10				-5				0			5					
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 036 MTDX	Bitzer 2MTE-5K	40	2,85	5,70	5,23	1,09	3,48	6,95	5,93	1,17	4,19	8,38	6,13	1,37	4,98	9,97	6,29	1,58	5,91	11,82	6,39	1,85
		38	2,98	5,97	5,09	1,17	3,65	7,29	5,77	1,26	4,40	8,81	5,96	1,48	5,24	10,48	6,09	1,72	6,20	12,40	6,15	2,02
		32	3,46	6,92	4,64	1,49	4,24	8,48	5,26	1,61	5,11	10,23	5,37	1,91	6,03	12,05	5,40	2,23	6,94	13,87	5,36	2,59
		25	4,09	8,18	4,58	1,79	5,04	10,08	5,19	1,94	6,15	12,31	5,28	2,33	7,45	14,90	5,30	2,81	8,87	17,75	5,24	3,39
		15	4,97	9,94	3,57	2,78	6,05	12,11	4,03	3,00	7,19	14,38	4,02	3,58	8,45	16,90	3,96	4,27	9,80	19,60	3,81	5,14
		5	5,93	11,86	2,97	3,99	7,21	14,42	3,34	4,32	8,55	17,11	3,24	5,28	10,09	20,17	3,10	6,51	11,69	23,37	2,86	8,17
N. of fans		2 x Ø 500 mm					MEPS ^(c)					2,75										
Weight		460 kg					Annual Energy Consumption					18927 kWh/year										
Sound pressure ^(b)		43 dB(A)					MRA/Pmax					15,9 A / 7,5 kW										
		Evaporation Temperature [°C]																				
		-15				-10				-5				0			5					
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 075 MTDX	Bitzer 2KTE-7K	40	4,11	8,22	7,88	1,04	5,05	10,09	8,24	1,23	6,13	12,26	8,54	1,44	7,35	14,69	8,77	1,68	8,65	17,30	8,91	1,94
		38	4,31	8,62	7,68	1,12	5,29	10,58	8,01	1,32	6,42	12,83	8,28	1,55	7,67	15,33	8,48	1,81	8,99	17,97	8,57	2,10
		32	5,00	10,00	7,04	1,42	6,09	12,19	7,27	1,68	7,25	14,49	7,42	1,95	8,36	16,73	7,49	2,23	9,37	18,73	7,43	2,52
		25	5,96	11,92	6,94	1,72	7,33	14,65	7,16	2,05	8,89	17,78	7,29	2,44	10,64	21,28	7,33	2,90	12,50	25,00	7,25	3,45
		15	7,11	14,21	5,58	2,55	8,48	16,96	5,67	2,99	9,99	19,98	5,70	3,51	11,64	23,28	5,64	4,12	13,43	26,86	5,50	4,88
		5	8,51	17,02	4,74	3,59	10,09	20,18	4,73	4,27	11,83	23,66	4,64	5,10	13,73	27,47	4,48	6,13	15,80	31,60	4,24	7,46
N. of fans		2 x Ø 500 mm					MEPS ^(c)					2,78										
Weight		470 kg					Annual Energy Consumption					26966 kWh/year										
Sound pressure ^(b)		44 dB(A)					MRA/Pmax					20,5 A / 10,4 kW										
		Evaporation Temperature [°C]																				
		-15				-10				-5				0			5					
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 120 MTDX	Bitzer 4MTE-10K	40	5,39	10,79	10,33	1,04	6,70	13,40	11,02	1,22	8,13	16,26	11,50	1,41	9,64	19,29	11,78	1,64	11,18	22,37	11,87	1,88
		38	5,70	11,39	10,20	1,12	7,04	14,08	10,78	1,31	8,48	16,95	11,16	1,52	9,97	19,94	11,34	1,76	11,43	22,87	11,34	2,02
		32	6,61	13,22	9,53	1,39	7,88	15,76	9,81	1,61	9,05	18,09	9,92	1,82	10,10	20,19	9,84	2,05	11,06	22,13	9,63	2,30
		25	8,02	16,04	9,41	1,70	9,86	19,71	9,65	2,04	11,86	23,72	9,72	2,44	13,89	27,79	9,62	2,89	15,72	31,45	9,36	3,36
		15	9,26	18,52	7,65	2,42	11,02	22,04	7,73	2,85	12,95	25,90	7,73	3,35	15,05	30,10	7,64	3,94	17,33	34,65	7,47	4,64
		5	11,07	22,14	6,44	3,44	13,00	26,00	6,28	4,14	15,37	30,74	6,37	4,82	17,82	35,64	6,24	5,71	20,47	40,95	6,05	6,77
N. of fans		2 x Ø 500 mm					MEPS ^(c)					2,68										
Weight		570 kg					Annual Energy Consumption					36104 kWh/year										
Sound pressure ^(b)		44 dB(A)					MRA/Pmax					26,3 A / 13,8 kW										
		Evaporation Temperature [°C]																				
		-15				-10				-5				0			5					
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 150 MTDX	Bitzer 4KTE-12K	40	8,18	16,35	15,20	1,08	10,13	20,27	15,80	1,28	12,24	24,48	16,32	1,50	14,44	28,88	16,72	1,73	16,64	33,29	16,96	1,96
		38	8,61	17,22	14,78	1,17	10,62	21,23	15,33	1,39	12,73	25,47	15,79	1,61	14,89	29,78	16,11	1,85	16,99	33,98	16,26	2,09
		32	9,80	19,59	13,45	1,46	11,66	23,31	13,82	1,69	13,35	26,69	14,06	1,90	14,86	29,72	14,11	2,11	16,25	32,51	13,95	2,33
		25	11,96	23,92	13,25	1,80	14,73	29,47	13,60	2,17	17,70	35,41	13,79	2,57	20,66	41,33	13,80	2,99	23,29	46,58	13,58	3,43
		15	13,83	27,66	10,80	2,56	16,41	32,82	11,01	2,98	19,26	38,51	11,10	3,47	22,38	44,76	11,06	4,05	25,79	51,58	10,85	4,76
		5	16,93	33,87	9,19	3,69	19,80	39,61	9,22	4,30	23,00	45,99	9,13	5,04	26,55	53,09	8,90	5,97	30,44	60,87	8,53	7,14
N. of fans		3 x Ø 500 mm					MEPS ^(c)					2,74										
Weight		645 kg					Annual Energy Consumption					52347 kWh/year										
Sound pressure ^(b)		45 dB(A)					MRA/Pmax					33,4 A / 18,6 kW										
		Evaporation Temperature [°C]																				
		-15				-10				-5				0			5					
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max		min	max		min	max		min	max		min	max		min	max		min	max		
UMT 190 MTDX	Bitzer 4HTE-20K	40	10,63	21,27	18,66	1,14	12,80	25,60	19,60	1,31	15,11	27,67	18,61	1,49	17,40	29,00	17,31	1,67	19,60	32,67	17,53	1,86
		38	11,12	22,25	18,20	1,22	13,26	26,53	19,01	1,40	15,49	28,38	17,96	1,58	17,65	29,41	16,62	1,77	19,68	32,80	16,75	1,96
		32	13,13	26,25	17,29	1,52	13,73	27,46	17,01	1,61	17,29	31,67	16,42	1,93	20,14	33,56	15,33	2,19	23,11	38,51	15,64	2,46
		25	15,54	31,08	16,32	1,90	18,47	36,93	16,70	2,21	21,40	39,19	15,46	2,54	23,92	39,87	14,02	2,84	25,97	43,29	13,85	3,13
		15	17,08	34,16	13,50	2,53	20,02	40,04	13,75	2,91	23,31	42,70	12,75	3,35	26,87	44,78	11,67	3,84	30,70	51,17	11,68	4,38
		5	20,22	40,44	11,58	3,49	23,66	47,33	11,65	4,06	27,51	50,39	10,72	4,70	31,63	52,72	9,76	5,40	36,05	60,08	9,74	6,17
N. of fans		3 x Ø 500 mm					MEPS ^(c)					2,71										
Weight		655 kg					Annual Energy Consumption					62283 kWh/year										
Sound pressure ^(b)		45 dB(A)					MRA/Pmax					42,4 A / 24 kW										

NOTES

^(a) Inverter modulation from 30 to 60 Hz

^(b) Based on free field area with semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A)

^(c) Minimum Energy Performance Standards, calculated according to Ecodesign Directive EN 2009/125/EC

Technical data Cubo₂ Plus (a)

MEDIUM TEMPERATURE - BITZER

Stepless capacity regulation

		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max	kW		min	max	kW		min	max	kW		min	max	kW		min	max	kW			
UMT 075 VS MTDX	Bitzer 4PTE-7K	40	0,69	6,85	6,26	1,10	0,84	8,42	6,55	1,29	1,02	10,25	6,81	1,51	1,23	12,35	7,00	1,76	1,47	14,71	7,13	2,06
		38	0,72	7,18	6,09	1,18	0,88	8,84	6,36	1,39	1,08	10,75	6,59	1,63	1,29	12,94	6,76	1,92	1,54	15,39	6,85	2,25
		32	0,84	8,36	5,55	1,51	1,03	10,28	5,74	1,79	1,24	12,45	5,88	2,12	1,48	14,82	5,94	2,50	1,72	17,19	5,91	2,91
		25	0,99	9,93	5,47	1,82	1,22	12,21	5,65	2,16	1,48	14,84	5,77	2,57	1,78	17,84	5,81	3,07	2,12	21,22	5,75	3,69
		15	1,22	12,23	4,23	2,89	1,46	14,64	4,28	3,42	1,73	17,30	4,28	4,05	2,02	20,24	4,21	4,81	2,34	23,45	4,07	5,76
		5	1,46	14,64	3,51	4,18	1,74	17,41	3,47	5,02	2,05	20,48	3,37	6,07	2,39	23,88	3,21	7,44	2,76	27,59	2,98	9,26
		N. of fans	2 x Ø 500 mm				MEPS ^(c)				3,14											
Weight	470 kg				Annual Energy Consumption				20096 kWh/year													
Sound pressure ^(b)	44 dB(A)				MRA/Pmax				20,5 A / 10,4 kW													
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max	kW		min	max	kW		min	max	kW		min	max	kW		min	max	kW			
UMT 120 VS MTDX	Bitzer 4MTE-10K	40	0,90	8,99	8,61	1,04	1,12	11,17	9,18	1,22	1,35	13,55	9,59	1,41	1,61	16,07	9,82	1,64	1,86	18,64	9,89	1,88
		38	0,95	9,50	8,50	1,12	1,17	11,73	8,98	1,31	1,41	14,13	9,30	1,52	1,66	16,61	9,45	1,76	1,91	19,06	9,45	2,02
		32	1,10	11,02	7,94	1,39	1,31	13,13	8,18	1,61	1,51	15,08	8,26	1,82	1,68	16,83	8,20	2,05	1,84	18,44	8,02	2,30
		25	1,34	13,37	7,84	1,70	1,64	16,43	8,04	2,04	1,98	19,77	8,10	2,44	2,32	23,16	8,01	2,89	2,62	26,21	7,80	3,36
		15	1,54	15,43	6,37	2,42	1,84	18,37	6,44	2,85	2,16	21,58	6,44	3,35	2,51	25,09	6,37	3,94	2,89	28,88	6,23	4,64
		5	1,85	18,45	5,37	3,44	2,17	21,66	5,23	4,14	2,56	25,61	5,31	4,82	2,97	29,70	5,20	5,71	3,41	34,12	5,04	6,77
		N. of fans	2 x Ø 500 mm				MEPS ^(c)				2,68											
Weight	570 kg				Annual Energy Consumption				30081 kWh/year													
Sound pressure ^(b)	44 dB(A)				MRA/Pmax				26,3 A / 13,8 kW													
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max	kW		min	max	kW		min	max	kW		min	max	kW		min	max	kW			
UMT 150 VS MTDX	Bitzer 4KTE-12K	40	1,36	13,63	12,67	1,08	1,69	16,89	13,17	1,28	2,04	20,40	13,60	1,50	2,89	28,88	13,94	2,07	3,33	33,29	14,14	2,35
		38	1,43	14,35	12,31	1,17	1,77	17,69	12,77	1,39	2,12	21,22	13,16	1,61	2,98	29,78	13,43	2,22	3,40	33,98	13,55	2,51
		32	1,63	16,33	11,21	1,46	1,94	19,43	11,52	1,69	2,22	22,25	11,72	1,90	2,97	29,72	11,76	2,53	3,25	32,51	11,63	2,80
		25	1,99	19,93	11,05	1,80	2,46	24,56	11,33	2,17	2,95	29,51	11,49	2,57	4,13	41,33	11,50	3,59	4,66	46,58	11,32	4,11
		15	2,31	23,05	9,00	2,56	2,74	27,35	9,18	2,98	3,21	32,09	9,25	3,47	4,48	44,76	9,21	4,86	5,16	51,58	9,04	5,71
		5	2,82	28,22	7,66	3,69	3,30	33,01	7,68	4,30	3,83	38,33	7,61	5,04	5,31	53,09	7,41	7,16	6,09	60,87	7,11	8,56
		N. of fans	3 x Ø 500 mm				MEPS ^(c)				2,80											
Weight	645 kg				Annual Energy Consumption				42608 kWh/year													
Sound pressure ^(b)	45 dB(A)				MRA/Pmax				33,4 A / 18,6 kW													
		Evaporation Temperature [°C]																				
		-15				-10				-5				0				5				
		Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	Capacity [kW]		Pe	COP	
Ambient temperature [°C]	min	max	kW		min	max	kW		min	max	kW		min	max	kW		min	max	kW			
UMT 190 VS MTDX	Bitzer 4HTE-20K	40	1,77	17,72	15,55	1,14	2,13	21,33	16,33	1,31	2,52	25,16	16,92	1,49	2,90	29,00	17,31	1,67	3,27	32,67	17,53	1,86
		38	1,85	18,54	15,17	1,22	2,21	22,11	15,84	1,40	2,58	25,80	16,33	1,58	2,94	29,41	16,62	1,77	3,28	32,80	16,75	1,96
		32	2,19	21,88	14,41	1,52	2,29	22,88	14,17	1,61	2,88	28,79	14,93	1,93	3,36	33,56	15,33	2,19	3,85	38,51	15,64	2,46
		25	2,59	25,90	13,60	1,90	3,08	30,78	13,91	2,21	3,56	35,63	14,05	2,54	3,99	39,87	14,02	2,84	4,33	43,29	13,85	3,13
		15	2,85	28,47	11,25	2,53	3,34	33,36	11,46	2,91	3,88	38,82	11,59	3,35	4,48	44,78	11,67	3,84	5,12	51,17	11,68	4,38
		5	3,37	33,70	9,65	3,49	3,94	39,44	9,71	4,06	4,58	45,81	9,74	4,70	5,27	52,72	9,76	5,40	6,01	60,08	9,74	6,17
		N. of fans	3 x Ø 500 mm				MEPS ^(c)				2,71											
Weight	655 kg				Annual Energy Consumption				51896 kWh/year													
Sound pressure ^(b)	45 dB(A)				MRA/Pmax				42,4 A / 24 kW													

NOTES

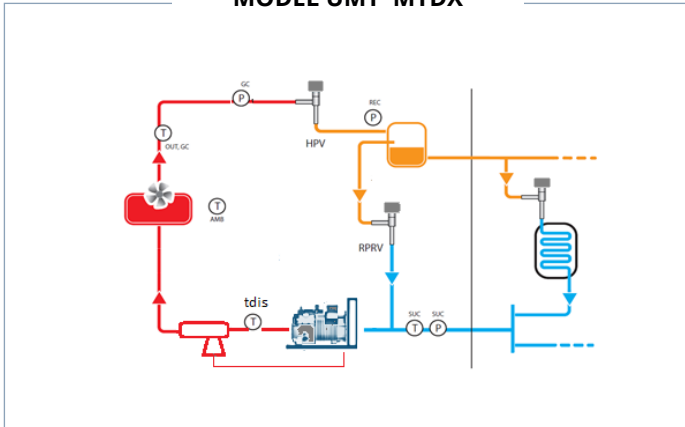
^(a) Varistep modulation from 10 to 100 % of the capacity @ 50 Hz

^(b) Based on free field area with semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A)

^(c) Minimum Energy Performance Standards, calculated according to Ecodesign Directive EN 2009/125/EC

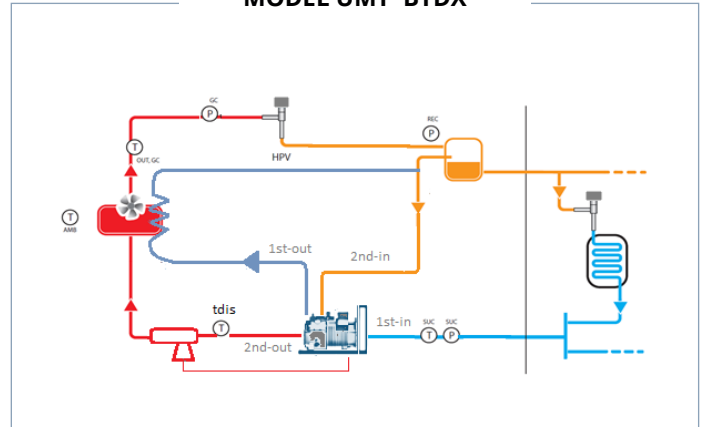
Unit Configuration

MODEL UMT MTDX



- One Semihermetic Compressor
- Oil management with: oil separator, oil reservoir, traxoil
- Receiver Pressure: Fixed SetPoint, adjustable by parameter (Factory Setting = 40 bar). Receiver pressure is managed by the flash valve.

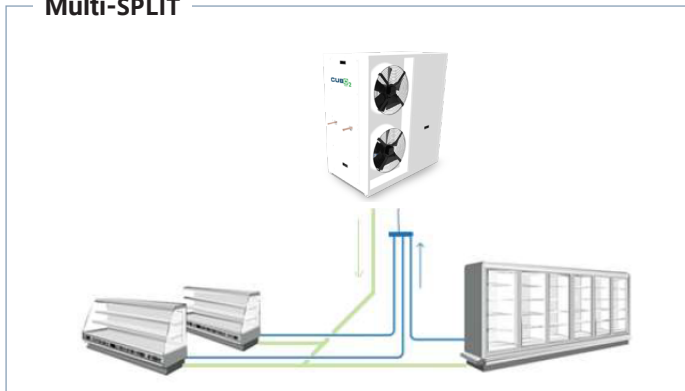
MODEL UMT BTDX



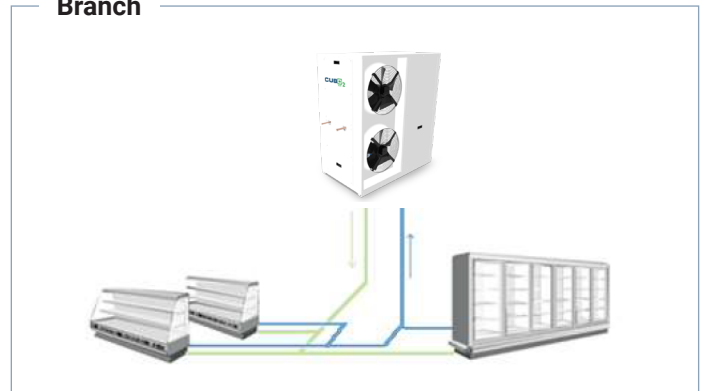
- One semihermetic compressor double stage
- Air cooled intercooler integrated in the gas cooler coil
- Oil management with: oil separator, oil reservoir, traxoil
- Receiver Pressure: variable pressure according to the operating conditions and to the model compressor (Open Flash Tank System)

Installation Design

Multi-SPLIT



Branch



Pipe Connections (Multi-Split or Branch)

The connection between the Condensing Unit and more remote evaporators can be the same one used for Multi-Split or branch system.

The preferred one is the one is able to guarantee the highest gas velocity in the suction line (for a good oil return) with a low pressure drop.

For Multi-Split layout, the system requires a dedicated suction line for each evaporator that will be collected by a manifold installed close to the condensing unit.

Please refer to the example reported in the pictures.

- Liquid line must be properly sized to supply the farther evaporators (liquid velocity < 1 m/s is suggested).
- Suction line must be properly sized to have a good oil return with a low pressure drop (gas velocity min 5m/s).





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