

ENG



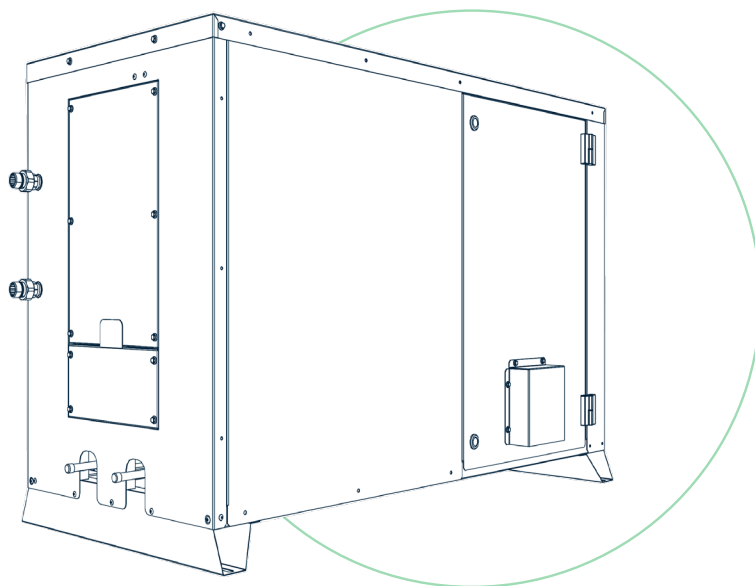
SUSTAINABLE COLD SOLUTIONS

Transcritical CO₂ndensing units



We know the art of achieving
a perfect temperature

BEIJER REF



Condensing unit for transcritical CO₂ applications, equipped with a TOSHIBA BLDC compressor, water/brine brazed plate heat exchanger (BHE) gas cooler, and inverter. Its compact design ensures easy installation, and it can communicate directly with refrigeration units. These features guarantee high efficiency, even at part load.

MAIN ADVANTAGES



CO₂ REFRIGERANT



EFFICIENT SOLUTION



SMALL FOOTPRINT



EASY START-UP



DC BRUSHLESS ROTARY COMPRESSOR



WATER COOLER EQUIPPED



PLUG & PLAY HYDRAULIC CONNECTIONS

Cooling Capacity

Transcritical Condensing Units DX

UMT T MTDX



UMT T BTDX



Standard Accessories

- Toshiba BLDC compressors
- Carel controller
- Inverter modulation for capacity control 25 – 100%
- BHPE water/brine gas cooler
- Design pressure 130 bar (high pressure side) | 80 bar (liquid line) | 80 bar (suction line)
- Liquid receiver 12 liters
- K65 connections

Accessories on Request

- Oil management (oil separator + reservoir, oil level control, oil return solenoid valve)
- Winter kit (suggested for ambient temperature < -20°C)

Software Calculation Tool

Select your unit and check its CO2 charge

Configuration

Selection

Verify

Serie

Serie

Cubo2ACQUA

Options

Compressor brand

Toshiba BLDC



Input data

Selection

Required Capacity

Tolerance

Evaporation temperature

Fluid temperature In

Fluid temperature Out

Fluid

Input

kW

5.00

10.00

°C

-10.00

°C

35.00

°C

45.00

Water

There are no warnings

Model

Options

Working Point

Limits

Envelope

Series

Unit

Min Load

Max Load

Compressor Model

Cubo2ACQUA

UMTWGTN45BTDX

0.97 kW

2.66 kW

NY45D1F-10GU

Cofanatura standard

Carel controller

Gas cooler ad acqua

Inverter with modulation 25-100%

Design pressure 120/80/80

Power supply 230V/1+N/50Hz

Liquid receiver 8 liters (PED II)

Ricevitore di liquido da 12 litri (PED II)

Capacity

Absorbed power

COP

Flow Rate

Current

Recommended protection

Discharge Temperature

2.66 kW

1.73 kW

1.54

39.49 kg/h

16.10 A

-

85.56 °C

Cond. Pressure [bar A]

Evap. Pressure [bar A]

140

120

100

80

60

40

20

0

5

10

15

20

25

30

AT THE FOLLOWING LINK YOU CAN CHECK THE UNIT CHARGE.

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



Ambient Temperature [°C]		Evaporation Temperature [°C]											
		-35		-30		-25		-20					
		Capacity [W]		COP	Capacity [W]		COP	Capacity [W]		COP			
		min	max		min	max		min	max		min	max	
UMT WG T N045 BTDX	40	690	1191	1,18	830	2290	1,37	970	2660	1,54	1140	3100	1,76
	38	710	1930	1,23	860	2320	1,42	1000	2690	1,60	1180	3130	1,83
	32	770	2020	1,41	940	2410	1,64	1110	2780	1,86	1310	3222	2,13
	25	810	2080	1,57	990	2480	1,83	1170	2850	2,07	1390	3290	2,38
	15	910	2230	2,05	1110	2630	2,39	1310	3010	2,73	1560	3450	3,17
	5	970	2290	2,32	1180	2700	2,75	1400	3080	3,17	1650	3520	3,73
	Water flow	720 L/h	MEPS ^(c)				2,29 (according to Ecodesign Directive EN 2009/125/EC)						
Weight	155 kg	Annual Energy Consumption				7846 kWh/year							
Pressure drop	15 kPa	Power Supply				230/1+N+PE/60							
Sound pressure ^(b)	38,8 dB(A)												
Ambient Temperature [°C]		Evaporation Temperature [°C]											
		-35		-30		-25		-20					
		Capacity [W]		COP	Capacity [W]		COP	Capacity [W]		COP			
		min	max		min	max		min	max		min	max	
UMT WG N067 BTDX	40	1120	3050	1,27	1360	3640	1,45	1600	4180	1,62	1870	4800	1,80
	38	1140	3070	1,32	1380	3670	1,51	1620	4220	1,69	1890	4840	1,89
	32	1210	3160	1,51	1450	3780	1,75	1690	4360	1,96	1960	5000	2,21
	25	1250	3230	1,68	1500	3870	1,95	1740	4460	2,20	2010	5120	2,49
	15	1350	3400	2,19	1610	4060	2,57	1850	4680	2,93	2120	5370	3,37
	5	1400	3470	2,50	1670	4150	2,97	1920	4780	3,44	2190	5490	4,02
	Water flow	1080 L/h	MEPS ^(c)				2,47 (according to Ecodesign Directive EN 2009/125/EC)						
Weight	155 kg	Annual Energy Consumption				11406 kWh/year							
Pressure drop	20 kPa	Power Supply				230/1+N+PE/60							
Sound pressure ^(b)	38,8 dB(A)												
Ambient Temperature [°C]		Evaporation Temperature [°C]											
		-35		-30		-25		-20					
		Capacity [W]		COP	Capacity [W]		COP	Capacity [W]		COP			
		min	max		min	max		min	max		min	max	
UMT WG T 067 BTDX	40	950	4380	0,88	1190	5320	1,06	1360	6030	1,17	1660	7210	1,40
	38	950	4380	0,91	1190	5320	1,07	1360	6030	1,18	1660	7210	1,41
	32	950	4380	1,09	1190	5320	1,20	1360	6030	1,37	1660	7210	1,57
	25	950	4380	1,24	1190	5320	1,37	1360	6030	1,57	1660	7210	1,71
	15	950	4380	1,68	1190	5320	1,88	1360	6030	2,13	1660	7210	2,35
	5	950	4380	2,04	1190	5320	2,32	1360	6030	2,59	1660	7210	2,68
	Water flow	1400 L/h	MEPS ^(c)				1,87 (according to Ecodesign Directive EN 2009/125/EC)						
Weight	195 kg	Annual Energy Consumption				21217 kWh/year							
Pressure drop	25 kPa	Power Supply				400/3+N+PE/60							
Sound pressure ^(b)	41,7 dB(A)												
Ambient Temperature [°C]		Evaporation Temperature [°C]											
		-35		-30		-25		-20					
		Capacity [W]		COP	Capacity [W]		COP	Capacity [W]		COP			
		min	max		min	max		min	max		min	max	
UMT WG T 100 BTDX	40	1520	6540	0,89	1890	7900	1,08	2140	8940	1,17	2600	10650	1,40
	38	1520	6540	0,90	1890	7900	1,09	2140	8940	1,18	2600	10650	1,41
	32	1520	6540	1,18	1890	7900	1,27	2140	8940	1,43	2600	10650	1,58
	25	1520	6540	1,36	1890	7900	1,47	2140	8940	1,65	2600	10650	1,77
	15	1520	6540	1,91	1890	7900	2,08	2140	8940	2,33	2600	10650	2,51
	5	1520	6540	2,35	1890	7900	2,66	2140	8940	2,92	2600	10650	2,93
	Water flow	1800 L/h	MEPS ^(c)				2,08 (according to Ecodesign Directive EN 2009/125/EC)						
Weight	195 kg	Annual Energy Consumption				28560 kWh/year							
Pressure drop	32 kPa	Power Supply				400/3+N+PE/60							
Sound pressure ^(b)	41,7 dB(A)												

NOTES

^(a) Interstage SST variable from -5 °C to 0°C according to operating conditions. Inverter modulation from 25 - 100%, corresponding to 1500-6000 rpm

^(b) Based on free field area weed 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

UMT WG T 030 MTDX	Ambient Temperature [°C]	Evaporation Temperature [°C]															
		-15		COP	-10		COP	-5		COP	0		COP	5		COP	
		Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			
		min	max		min	max		min	max		min	max		min	max		
	40	300	1720	1,24	390	2080	1,48	490	2500	1,75	600	2960	2,06	730	3490	2,42	
	38	330	1880	1,35	420	2280	1,61	530	2730	1,92	660	3240	2,26	800	3820	2,65	
	32	400	2120	1,74	510	2560	2,08	630	3050	2,48	770	3620	2,94	930	4270	3,47	
	25	460	2290	2,11	570	2740	2,53	700	3270	3,02	850	3870	3,58	1030	4560	4,24	
	15	620	2860	3,43	760	3410	4,13	920	4050	4,95	1110	4790	5,92	1330	5630	7,05	
	5	770	3390	4,99	930	4030	6,01	1130	4780	7,22	1350	5650	8,66	-	-	-	
	Water flow	720 L/h		MEPS ^(c)		3,80 (according to Ecodesign Directive EN 2009/125/EC)											
	Weight	151 kg		Annual Energy Consumption		4141 kWh/year											
	Pressure drop	15 kPa		Power Supply		230/1+N+PE/60											
	Sound pressure ^(b)	37,3 dB(A)															

UMT WG T 045MTDX	Ambient Temperature [°C]	Evaporation Temperature [°C]															
		-15		COP	-10		COP	-5		COP	0		COP	5		COP	
		Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			
		min	max		min	max		min	max		min	max		min	max		
	40	520	2880	1,19	650	3430	1,41	810	4050	1,65	980	4740	1,93	1190	5520	2,24	
	38	560	3150	1,30	710	3750	1,54	880	4430	1,81	1080	5190	2,11	1300	6050	2,45	
	32	680	3490	1,68	840	4140	1,98	1030	4880	2,33	1250	5720	2,74	1500	6670	3,20	
	25	760	3700	2,03	940	4380	2,4	1140	5160	2,83	1370	6060	3,34	1640	7070	3,91	
	15	1000	4510	3,30	1220	5330	3,92	1470	6270	4,66	1750	7360	5,52	2080	8610	6,53	
	5	1220	5260	4,81	1470	6220	5,74	1770	7330	6,84	2100	8610	8,15	-	-	-	
	Water flow	1080 L/h		MEPS ^(c)		3,63 (according to Ecodesign Directive EN 2009/125/EC)											
	Weight	151 kg		Annual Energy Consumption		7007 kWh/year											
	Pressure drop	20 kPa		Power Supply		230/1+N+PE/60											
	Sound pressure ^(b)	37,3 dB(A)															

UMT WG T 067MTDX	Ambient Temperature [°C]	Evaporation Temperature [°C]															
		-15		COP	-10		COP	-5		COP	0		COP	5		COP	
		Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			
		min	max		min	max		min	max		min	max		min	max		
	40	710	3820	1,08	900	4640	1,29	1130	5550	1,52	1380	6590	1,80	1680	7760	2,11	
	38	770	4180	1,18	990	5070	1,41	1230	6080	1,67	1520	7220	1,97	1840	8510	2,31	
	32	920	4720	1,52	1160	5690	1,81	1460	6800	2,16	1750	8060	2,56	2110	9490	3,02	
	25	1030	5090	1,84	1280	6110	2,2	1570	7280	2,62	1910	8620	3,12	2300	10140	3,69	
	15	1380	6350	2,99	1690	7590	3,59	2050	9010	4,31	2470	10650	5,15	2950	12520	6,14	
	5	1710	7530	4,34	2080	8970	5,23	2500	10640	6,29	2850	12020	6,77	-	-	-	
	Water flow	1440 L/h		MEPS ^(c)		3,30 (according to Ecodesign Directive EN 2009/125/EC)											
	Weight	152 kg		Annual Energy Consumption		10585 kWh/year											
	Pressure drop	25 kPa		Power Supply		230/1+N+PE/60											
	Sound pressure ^(b)	40,2 dB(A)															

UMT WG T 100 MTDX	Ambient Temperature [°C]	Evaporation Temperature [°C]															
		-15		COP	-10		COP	-5		COP	0		COP	5		COP	
		Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			Capacity [W]			
		min	max		min	max		min	max		min	max		min	max		
	40	1170	5840	1,1	1470	7030	1,29	1820	8360	1,51	2220	9870	1,76	2660	11560	2,04	
	38	1280	6390	1,2	1610	7680	1,41	1990	9150	1,65	2430	10810	1,93	2920	12670	2,23	
	32	1510	7170	1,55	1880	8580	1,83	2300	10180	2,15	2780	12010	2,51	3340	14080	2,92	
	25	1680	7690	1,89	2060	9160	2,23	2510	10850	2,62	3030	12790	3,07	3620	14980	3,59	
	15	2200	9480	3,11	2680	11260	3,69	3230	13310	4,37	3870	15680	5,16	4600	18380	6,09	
	5	2690	11150	4,6	3250	13230	5,48	3900	15620	6,52	4660	18400	7,75	-	-	-	
	Water flow	1800 L/h		MEPS ^(c)		3,42 (according to Ecodesign Directive EN 2009/125/EC)											
	Weight	152 kg		Annual Energy Consumption		15444 kWh/year											
	Pressure drop	32 kPa		Power Supply		400/3+N+PE/60											
	Sound pressure ^(b)	40,2 dB(A)															

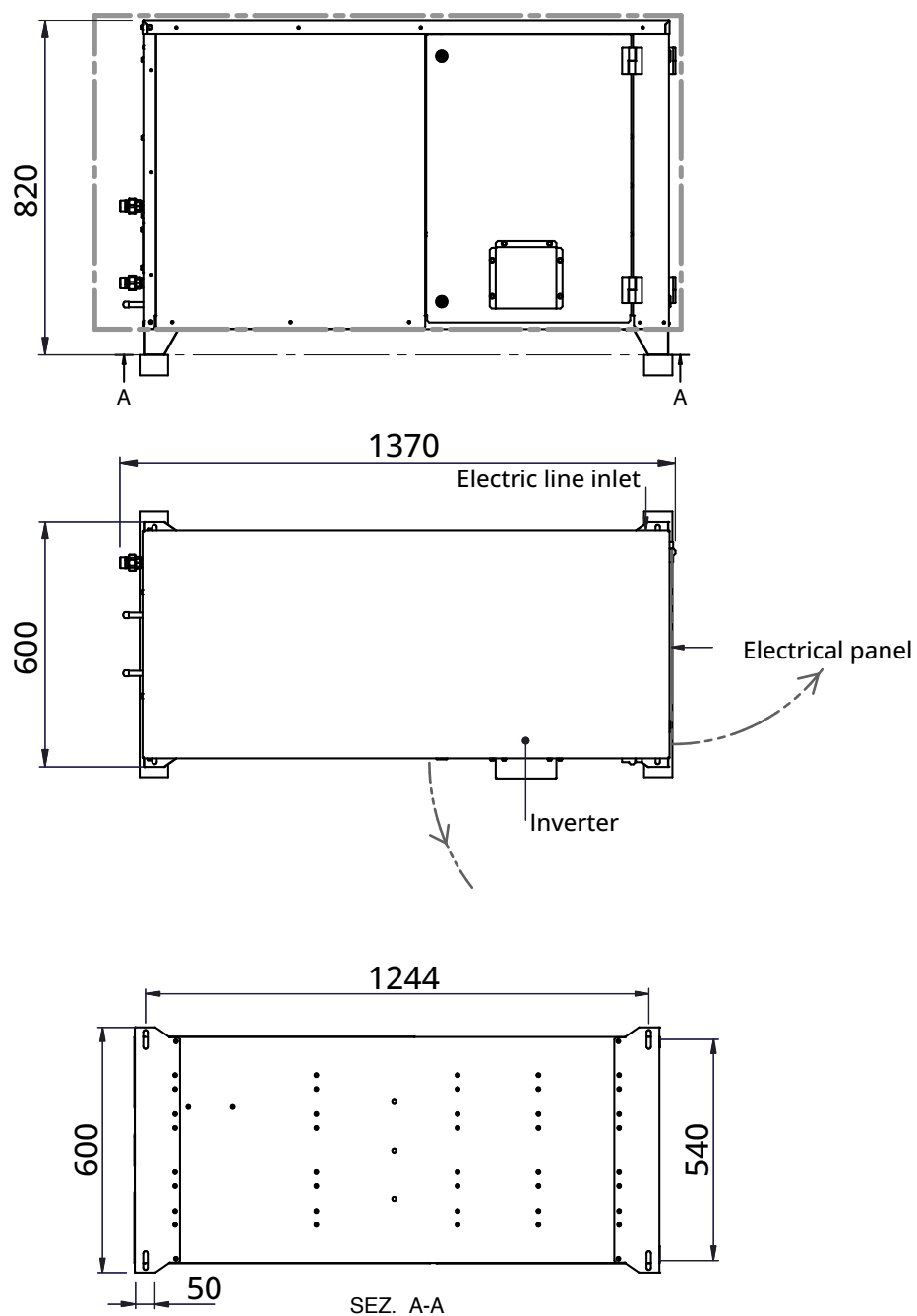
NOTES

^(a) Interstage SST variable from -5 °C to 0°C according to operating conditions. Inverter modulation from 25 - 100%, corresponding to 1500-6000 rpm

^(b) Based on free field area weed 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

Dimensional Data



[illegible]



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