

CUBO₂ PLUS 2

SCM FRIGO

Transcritical CO₂ Condensing Units



available with

VARISTEP
CRII



CO₂
REFRIGERANT

Efficiency
EFFICIENT
SOLUTION

LOW NOISE

SMALL
FOOTPRINT

EASY
START-UP

SEMI
HERMETIC
RECIPROCATING
COMPRESSOR

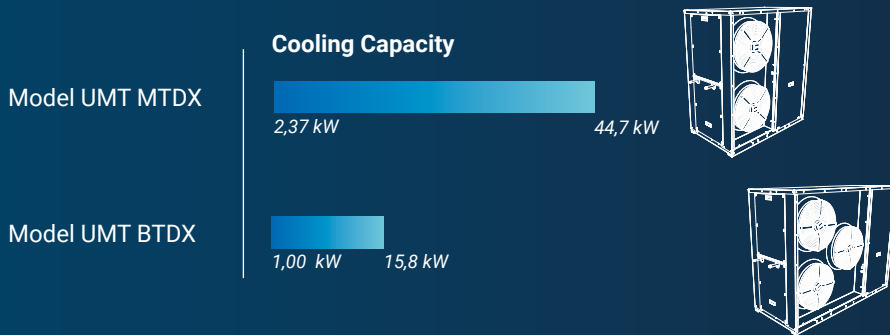
GAS
COOLER
EQUIPPED

BEIJER REF

We know the art of achieving
a perfect temperature.

CO₂ Systems for medium and low temperature applications

Transcritical condensing units DX



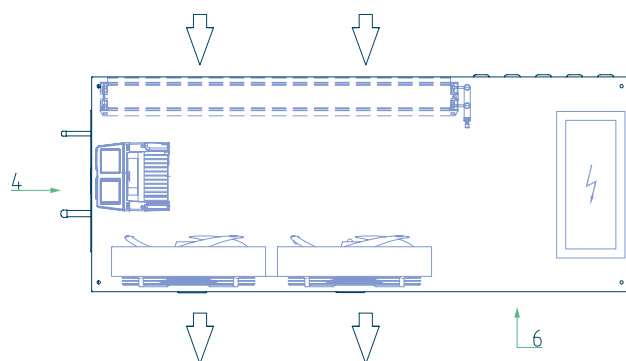
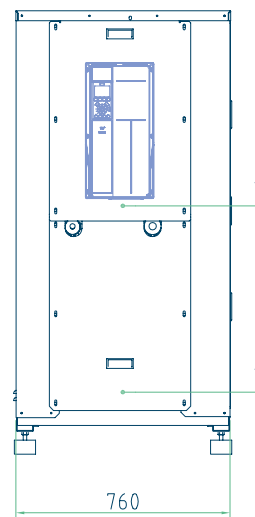
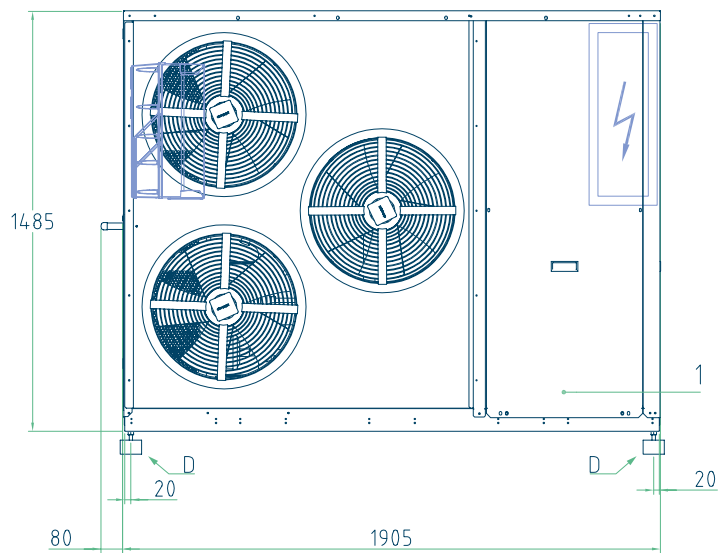
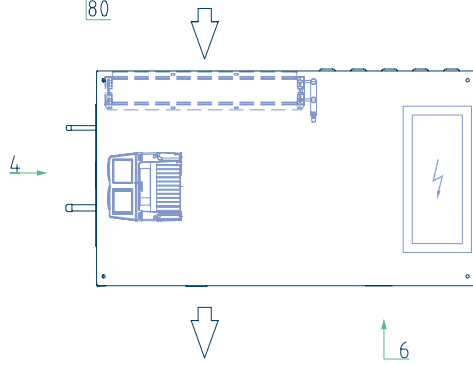
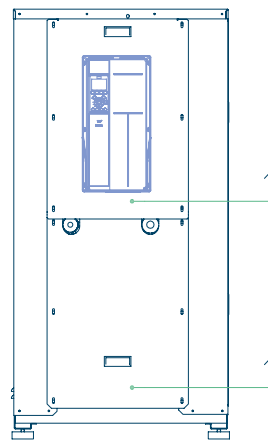
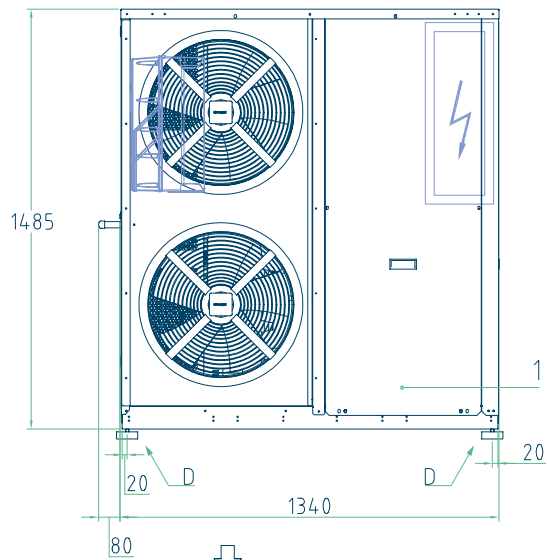
Design is compact and units are easy to install and maintain.
Units are equipped with gas cooler and electrical panel, tested and factory programmed for an easy start-up.

- Semi Hermetic reciprocating compressor
- EC fans
- K65 connections
- Liquid Receiver 15 litres
- Design pressure:
 - 120 bar (high pressure side)
 - 80 bar (liquid line)
 - 80 bar (suction)

OPTION ON REQUEST

- Frequency controlled compressor on LT line
- Adiabatic System
(suggested for ambient temperatures > +38°)
- RDM Controller
- Danfoss Controller
- WURM Controller
- Liquid Receiver 37 litres

Dimensional data of the units



Preliminary Data

MEDIUM TEMPERATURE

| UMT 036 MTDX* | Dorin CD 360H | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|---------------|--------------------|--------------------------------------------------------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| | | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | | min | max | min | max | min | max | min | max | min | max | | | | | |
| T amb [°C] | | | | | | | | | | | | | | | | |
| | | 2,37 | 3,55 | 1,03 | 2,97 | 4,45 | 1,21 | 3,64 | 5,46 | 1,42 | 4,37 | 6,55 | 1,65 | 5,15 | 7,73 | 1,91 |
| | | 2,54 | 3,82 | 1,31 | 3,18 | 4,78 | 1,31 | 3,90 | 5,86 | 1,55 | 3,97 | 7,01 | 1,80 | 5,51 | 8,27 | 2,10 |
| | | 2,99 | 4,49 | 1,42 | 3,71 | 5,57 | 1,70 | 4,52 | 6,78 | 2,03 | 5,38 | 8,08 | 2,40 | 6,33 | 9,49 | 2,85 |
| | | 4,15 | 6,23 | 2,31 | 5,08 | 7,62 | 2,81 | 5,91 | 8,87 | 3,32 | 7,27 | 10,91 | 4,25 | 8,50 | 12,74 | 5,31 |
| MEPS | | 2,57 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | | 13,8A / 4,8 kW | | | | | | | | | | | | | | |
| UMT 075 MTDX* | Dorin CD 4 75-4.7H | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
| | | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | | min | max | min | max | min | max | min | max | min | max | | | | | |
| T amb [°C] | | | | | | | | | | | | | | | | |
| | | 5,11 | 7,67 | 1,12 | 6,29 | 9,43 | 1,31 | 7,54 | 11,30 | 1,52 | 8,78 | 13,18 | 1,74 | 10,39 | 15,59 | 2,02 |
| | | 5,40 | 8,10 | 1,21 | 6,64 | 9,96 | 1,42 | 7,94 | 11,92 | 1,65 | 9,37 | 14,05 | 1,90 | 10,94 | 16,40 | 2,23 |
| | | 6,20 | 9,30 | 1,54 | 7,57 | 11,35 | 1,84 | 8,96 | 13,44 | 2,15 | 10,79 | 16,19 | 2,51 | 12,31 | 18,47 | 3,04 |
| | | 8,28 | 12,42 | 2,47 | 9,87 | 14,81 | 2,93 | 13,66 | 20,48 | 3,57 | 13,66 | 20,48 | 4,27 | 15,82 | 23,74 | 5,30 |
| MEPS | | 2,65 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | | 24,4 A / 8,7 kW | | | | | | | | | | | | | | |
| UMT 120 MTDX | Dorin CD4 90-6.4H | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
| | | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | | min | max | min | max | min | max | min | max | min | max | | | | | |
| T amb [°C] | | | | | | | | | | | | | | | | |
| | | 5,10 | 10,20 | 1,09 | 6,28 | 12,55 | 1,28 | 7,57 | 15,13 | 1,48 | 8,96 | 17,92 | 1,72 | 10,49 | 20,99 | 1,98 |
| | | 5,45 | 10,90 | 1,18 | 6,70 | 13,39 | 1,39 | 7,98 | 15,96 | 1,61 | 9,45 | 18,90 | 1,87 | 11,05 | 22,10 | 2,16 |
| | | 6,22 | 12,44 | 1,50 | 7,60 | 15,20 | 1,79 | 9,11 | 18,22 | 2,09 | 10,75 | 21,50 | 2,48 | 12,56 | 25,12 | 2,90 |
| | | 8,25 | 16,50 | 2,36 | 9,97 | 19,94 | 2,86 | 11,73 | 23,46 | 3,39 | 13,79 | 27,58 | 4,15 | 15,78 | 31,56 | 4,98 |
| MEPS | | 2,71 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | | 27,4 A / 13,2 kW | | | | | | | | | | | | | | |
| UMT 150 MTDX | Dorin CD4 120-9.2H | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
| | | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | | min | max | min | max | min | max | min | max | min | max | | | | | |
| T amb [°C] | | | | | | | | | | | | | | | | |
| | | 7,41 | 14,82 | 1,07 | 9,11 | 18,23 | 1,26 | 11,31 | 22,62 | 1,47 | 12,68 | 25,37 | 1,64 | 14,81 | 29,62 | 1,89 |
| | | 7,91 | 15,82 | 1,17 | 9,72 | 19,44 | 1,37 | 11,73 | 23,46 | 1,61 | 13,37 | 26,74 | 1,78 | 15,60 | 31,20 | 2,06 |
| | | 9,22 | 18,43 | 1,49 | 11,26 | 22,52 | 1,76 | 13,54 | 27,07 | 2,08 | 15,55 | 31,09 | 2,34 | 18,10 | 36,20 | 2,75 |
| | | 12,43 | 24,85 | 2,48 | 14,99 | 29,99 | 3,01 | 17,42 | 34,84 | 3,49 | 13,79 | 27,58 | 4,15 | 23,11 | 46,21 | 4,97 |
| MEPS | | 3,67 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | | 37,2 A / 14,9 kW | | | | | | | | | | | | | | |
| UMT 190 MTDX | Dorin CD 2000H | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
| | | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | | min | max | min | max | min | max | min | max | min | max | | | | | |
| T amb [°C] | | | | | | | | | | | | | | | | |
| | | 9,29 | 18,59 | 1,05 | 11,43 | 22,86 | 1,25 | 13,80 | 27,60 | 1,47 | 16,08 | 26,80 | 1,67 | 18,53 | 30,88 | 1,90 |
| | | 9,92 | 19,84 | 1,15 | 12,19 | 24,37 | 1,36 | 14,70 | 29,40 | 1,60 | 17,14 | 28,56 | 1,83 | 19,51 | 32,52 | 2,08 |
| | | 11,31 | 22,62 | 1,47 | 13,97 | 27,94 | 1,76 | 16,77 | 33,54 | 2,09 | 19,40 | 32,34 | 2,38 | 22,02 | 36,70 | 2,64 |
| | | 15,17 | 30,35 | 2,37 | 18,08 | 36,17 | 2,82 | 21,24 | 42,48 | 3,34 | 21,61 | 36,01 | 3,10 | 25,06 | 41,77 | 3,75 |
| MEPS | | 2,69 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | | 41,2 A / 20,9 kW | | | | | | | | | | | | | | |

Inverter modulation from 30 to 60 Hz except * from 40 to 60 Hz / cooling capacity min @30 Hz - max @ 60 Hz except ** @ 50 Hz

N° of fans / Dimensions & Weight / Noise

| | 2x500 | 2x500 | 2x500 | 3x500 |
|-------|----------------|------------------------------------------------------|---------------------|------------------------------------------------------|
| PEDII | CD360H | mm1340x760x1485 Weight 460 Kg **Noise 43 dB(A) | CD4 120-9.2H | mm1340x760x1485 Weight 560 Kg **Noise 44 dB(A) |
| | CD2000H | mm1895x760x1485 Weight 655 Kg **Noise 45 dB(A) | CD4 90-6.4H | mm1340x760x1485 Weight 570 Kg **Noise 45 dB(A) |
| | | | CD4 75-4.7H | mm1895x760x1485 Weight 650 Kg **Noise 45 dB(A) |

Preliminary Data

MEDIUM TEMPERATURE

UMT 036 MTDX

Bitzer 2MTE-5K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | | | | | |
| 40 | 2,55 | 5,10 | 1,09 | 3,14 | 6,29 | 1,28 | 3,79 | 7,58 | 1,49 | 4,52 | 9,04 | 1,69 | 5,38 | 10,75 | 1,99 |
| 38 | 2,67 | 5,34 | 1,18 | 3,30 | 6,60 | 1,39 | 3,98 | 7,96 | 1,61 | 4,79 | 9,58 | 1,89 | 5,64 | 11,28 | 2,19 |
| 32 | 3,11 | 6,22 | 1,54 | 3,87 | 7,74 | 1,81 | 4,64 | 9,29 | 2,13 | 5,52 | 11,04 | 2,48 | 6,55 | 13,09 | 2,99 |
| 20 | 4,34 | 8,68 | 2,51 | 5,30 | 10,60 | 3,05 | 6,20 | 12,41 | 3,55 | 7,24 | 14,48 | 4,16 | 8,58 | 17,16 | 5,24 |
| MEPS | 2,65 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 15,9 A / 7,5 kW | | | | | | | | | | | | | | |

UMT 075 MTDX

Bitzer 2KTE-7K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|-------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | | | | | |
| 40 | 3,74 | 7,48 | 1,09 | 4,58 | 9,16 | 1,28 | 5,54 | 11,09 | 1,47 | 6,62 | 13,25 | 1,73 | 7,88 | 15,76 | 1,99 |
| 38 | 3,97 | 7,94 | 1,17 | 4,79 | 9,58 | 1,39 | 5,99 | 11,99 | 1,59 | 6,92 | 13,85 | 1,89 | 8,68 | 17,36 | 2,16 |
| 32 | 4,60 | 9,19 | 1,53 | 5,56 | 11,11 | 1,81 | 6,76 | 13,52 | 2,13 | 8,01 | 16,02 | 2,51 | 6,55 | 13,09 | 3,01 |
| 20 | 6,28 | 12,56 | 2,51 | 7,70 | 15,41 | 3,05 | 9,02 | 18,05 | 3,55 | 7,24 | 14,48 | 4,23 | 12,46 | 24,91 | 5,24 |
| MEPS | 2,65 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 20,5 A / 10,4 kW | | | | | | | | | | | | | | |

UMT 120 MTDX

Bitzer 4MTE-10K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | | | | | |
| 40 | 4,91 | 9,82 | 1,06 | 6,16 | 12,32 | 1,23 | 7,38 | 14,76 | 1,43 | 8,93 | 17,86 | 1,65 | 10,42 | 20,84 | 1,95 |
| 38 | 5,17 | 10,34 | 1,14 | 6,53 | 13,07 | 1,33 | 7,78 | 15,56 | 1,56 | 9,67 | 19,34 | 1,80 | 11,00 | 22,01 | 2,15 |
| 32 | 6,14 | 12,28 | 1,46 | 7,58 | 15,17 | 1,75 | 9,04 | 18,07 | 2,10 | 10,87 | 21,73 | 2,48 | 12,70 | 25,40 | 2,99 |
| 20 | 8,38 | 16,76 | 2,35 | 10,24 | 20,48 | 2,89 | 12,21 | 24,42 | 3,52 | 14,32 | 28,64 | 4,20 | 16,69 | 33,37 | 5,23 |
| MEPS | 2,71 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 26,3 A / 13,8 kW | | | | | | | | | | | | | | |

UMT 150 MTDX

Bitzer 4KTE-12K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | | | | | |
| 40 | 7,80 | 15,60 | 1,15 | 9,36 | 18,72 | 1,33 | 11,46 | 22,92 | 1,52 | 13,44 | 26,88 | 1,77 | 15,93 | 31,86 | 2,03 |
| 38 | 8,34 | 16,68 | 1,25 | 9,90 | 19,80 | 1,45 | 12,30 | 24,60 | 1,65 | 14,07 | 28,14 | 1,94 | 17,43 | 34,86 | 2,20 |
| 32 | 9,37 | 18,73 | 1,62 | 11,50 | 22,99 | 1,80 | 13,68 | 27,36 | 2,20 | 16,05 | 32,10 | 2,61 | 19,02 | 38,04 | 3,04 |
| 20 | 12,66 | 25,32 | 2,53 | 15,00 | 30,00 | 3,07 | 18,06 | 36,12 | 3,66 | 21,27 | 42,54 | 4,42 | 24,37 | 48,74 | 5,22 |
| MEPS | 2,67 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 33,4 A / 18,6 kW | | | | | | | | | | | | | | |

UMT 190 MTDX

Bitzer 4HTE-20K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | | | | | |
| 40 | 9,71 | 19,43 | 1,12 | 11,68 | 23,36 | 1,30 | 14,23 | 28,46 | 1,50 | 16,72 | 27,86 | 1,72 | 19,17 | 31,95 | 2,01 |
| 38 | 10,35 | 20,70 | 1,21 | 12,30 | 24,60 | 1,41 | 15,34 | 30,67 | 1,62 | 17,44 | 29,06 | 1,89 | 21,25 | 35,42 | 2,23 |
| 32 | 11,92 | 23,84 | 1,58 | 14,20 | 28,39 | 1,85 | 16,94 | 33,89 | 2,17 | 19,96 | 33,26 | 2,54 | 23,76 | 39,60 | 2,97 |
| 20 | 15,67 | 31,34 | 2,46 | 18,68 | 37,37 | 2,91 | 22,06 | 44,12 | 3,84 | 22,95 | 38,25 | 3,42 | 26,84 | 44,74 | 4,22 |
| MEPS | 2,69 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 42,4 A / 24 kW | | | | | | | | | | | | | | |

Inverter modulation from 30 to 60 Hz except / cooling capacity min @30 Hz - max @ 60 Hz except ** @ 50 Hz

N° of fans / Dimensions & Weight / Noise

| PEDII | 2x500 | | 2x500 | | 2x500 | | 3x500 | |
|-------|------------------|------------------|------------------|------------------|------------------|--|-------|--|
| | 2MTE-5K | 2KTE-7K | 4MTE-10K | 4KTE-12K | 4HTE-20K | | | |
| | mm1340x760x1485 | mm1340x760x1485 | mm1340x760x1485 | mm1895x760x1485 | mm1895x760x1485 | | | |
| | Weight 460 Kg | Weight 470 Kg | Weight 570 Kg | Weight 645 Kg | Weight 655 Kg | | | |
| | **Noise 43 dB(A) | **Noise 44 dB(A) | **Noise 44 dB(A) | **Noise 45 dB(A) | **Noise 45 dB(A) | | | |

UMT 075 VS MTDX

Bitzer 4PTE-7K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | min | max | | | |
| 40 | 0,47 | 4,68 | 0,96 | 0,64 | 6,38 | 1,18 | 0,78 | 7,83 | 1,39 | 0,95 | 9,45 | 1,64 | 1,13 | 11,27 | 1,95 |
| 38 | 0,53 | 5,27 | 1,07 | 0,67 | 6,72 | 1,28 | 0,82 | 8,23 | 1,52 | 0,99 | 9,92 | 1,80 | 1,18 | 11,81 | 2,15 |
| 32 | 0,64 | 6,38 | 1,41 | 0,79 | 7,90 | 1,69 | 0,96 | 9,60 | 2,02 | 1,15 | 11,51 | 2,44 | 1,36 | 13,64 | 2,96 |
| 20 | 0,86 | 8,64 | 2,20 | 1,15 | 11,48 | 2,92 | 1,29 | 12,85 | 3,30 | 1,54 | 15,38 | 4,08 | 1,82 | 18,24 | 5,13 |
| MEPS | 2,65 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 20,5 A / 10,4 kW | | | | | | | | | | | | | | |

UMT 120 VS MTDX

Bitzer 4MTE-10K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | min | max | | | |
| 40 | 0,85 | 8,49 | 1,07 | 1,06 | 10,62 | 1,24 | 1,29 | 12,90 | 1,44 | 1,55 | 15,45 | 1,70 | 1,83 | 18,29 | 2,03 |
| 38 | 0,90 | 9,02 | 1,14 | 1,12 | 11,15 | 1,33 | 1,35 | 13,52 | 1,57 | 1,62 | 16,18 | 1,86 | 1,92 | 19,17 | 2,24 |
| 32 | 1,05 | 10,52 | 1,44 | 1,29 | 12,92 | 1,72 | 1,56 | 15,62 | 2,07 | 1,87 | 18,68 | 2,53 | 2,21 | 22,10 | 3,12 |
| 20 | 1,40 | 13,96 | 2,22 | 1,71 | 17,13 | 2,73 | 2,08 | 20,80 | 3,39 | 2,50 | 25,00 | 4,26 | 2,98 | 29,80 | 5,46 |
| MEPS | 2,71 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 26,3 A / 13,8 kW | | | | | | | | | | | | | | |

UMT 150 VS MTDX

Bitzer 4KTE-12K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | min | max | | | |
| 40 | 1,27 | 12,70 | 1,09 | 1,59 | 15,86 | 1,30 | 1,94 | 19,40 | 1,54 | 2,34 | 23,40 | 1,82 | 2,78 | 27,80 | 2,15 |
| 38 | 1,35 | 13,47 | 1,18 | 1,68 | 16,78 | 1,42 | 2,05 | 20,50 | 1,68 | 2,46 | 24,60 | 1,98 | 2,92 | 29,20 | 2,36 |
| 32 | 1,57 | 15,73 | 1,52 | 1,95 | 19,47 | 1,83 | 2,37 | 23,70 | 2,20 | 2,83 | 28,30 | 2,65 | 3,36 | 33,60 | 3,22 |
| 20 | 2,08 | 20,80 | 2,35 | 2,55 | 25,50 | 2,87 | 3,10 | 31,00 | 3,52 | 3,73 | 37,30 | 4,38 | 4,44 | 44,40 | 5,58 |
| MEPS | 2,67 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 33,4 A / 18,6 kW | | | | | | | | | | | | | | |

UMT 190 VS MTDX

Bitzer 4HTE-20K

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | | | | |
|------------|--------------------------------------------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|
| | -15 | | -10 | | -5 | | 0 | | 5 | | | | | | |
| | min | max | min | max | min | max | min | max | min | max | min | max | | | |
| 40 | 1,70 | 16,98 | 1,15 | 2,06 | 20,60 | 1,33 | 2,49 | 24,90 | 1,56 | 2,86 | 28,60 | 1,69 | 3,38 | 33,80 | 1,98 |
| 38 | 1,78 | 17,79 | 1,24 | 2,16 | 21,60 | 1,44 | 2,61 | 26,10 | 1,70 | 2,98 | 29,80 | 1,83 | 3,52 | 35,20 | 2,16 |
| 32 | 2,06 | 20,60 | 1,59 | 2,49 | 24,90 | 1,88 | 2,98 | 29,80 | 2,24 | 3,39 | 33,90 | 2,43 | 4,01 | 40,10 | 2,91 |
| 20 | 2,70 | 27,00 | 2,46 | 3,26 | 32,60 | 2,97 | 3,92 | 39,20 | 3,63 | 4,69 | 46,90 | 4,49 | 5,57 | 55,70 | 5,63 |
| MEPS | 2,69 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | | | | |
| MRA/Pmax | 42,4 A / 24 kW | | | | | | | | | | | | | | |

VARISTEP capacity control for high full and part load efficiency

Compressor capacity modulation with stepless capacity control from 10 to 100% @ 50 Hz

N° of fans / Dimensions & Weight / Noise

PEDII

2x500
2KTE-7K
mm1340x760x1485
Weight 470 Kg
**Noise 44 dB(A)

2x500
4MTE-10K
mm1340x760x1485
Weight 570 Kg
**Noise 44 dB(A)

3x500
4KTE-12K
mm1895x760x1485
Weight 645 Kg
**Noise 45 dB(A)

3x500
4HTE-20K
mm1895x760x1485
Weight 655 Kg
**Noise 45 dB(A)

Preliminary Data

LOW TEMPERATURE

UMT 030 BTDX

Dorin CD2S 300

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | |
|------------|--------------------------------------------------------|------|------|-----------------------|------|------|-----------------------|------|------|-----------------------|------|------|
| | -40 | | | -35 | | | -30 | | | -25 | | |
| | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP |
| | min | max | | min | max | | min | max | | min | max | |
| 40 | - | - | - | - | - | - | 1,38 | 2,11 | 0,97 | 1,58 | 2,38 | 1,05 |
| 38 | - | - | - | 1,22 | 1,84 | 0,94 | 1,42 | 2,14 | 1,02 | 1,64 | 2,46 | 1,11 |
| 32 | 1,08 | 1,62 | 0,94 | 1,26 | 1,90 | 1,04 | 1,53 | 2,29 | 1,12 | 1,73 | 2,59 | 1,31 |
| 20 | 1,17 | 1,75 | 1,25 | 1,37 | 2,05 | 1,39 | 1,66 | 2,48 | 1,60 | 1,90 | 2,86 | 1,77 |
| MEPS | 0,96 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | |
| MRA/Pmax | 10,4 A / 4,2 kW | | | | | | | | | | | |

UMT035 BTDX

Dorin CD2S 350

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | |
|------------|--------------------------------------------------------|------|------|-----------------------|------|------|-----------------------|------|------|-----------------------|------|------|
| | -40 | | | -35 | | | -30 | | | -25 | | |
| | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP |
| | min | max | | min | max | | min | max | | min | max | |
| 40 | - | - | - | - | - | - | 1,62 | 2,42 | 0,99 | 1,88 | 2,82 | 1,08 |
| 38 | - | - | - | 1,46 | 2,18 | 0,97 | 1,67 | 2,51 | 1,05 | 1,94 | 2,92 | 1,15 |
| 32 | 1,30 | 1,96 | 1,03 | 1,54 | 2,30 | 1,14 | 1,78 | 2,68 | 1,12 | 2,06 | 3,10 | 1,36 |
| 20 | 1,44 | 2,16 | 1,35 | 1,69 | 2,53 | 1,49 | 1,98 | 2,98 | 1,66 | 2,31 | 3,47 | 1,84 |
| MEPS | 1,01 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | |
| MRA/Pmax | 11,7 A / 4,7 kW | | | | | | | | | | | |

UMT 036 BTDX

Dorin CD2S 360

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | |
|------------|--------------------------------------------------------|------|------|-----------------------|------|------|-----------------------|------|------|-----------------------|------|------|
| | -40 | | | -35 | | | -30 | | | -25 | | |
| | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP |
| | min | max | | min | max | | min | max | | min | max | |
| 40 | - | - | - | - | - | - | 2,09 | 3,13 | 0,99 | 2,44 | 3,66 | 1,09 |
| 38 | - | - | - | 1,86 | 2,80 | 0,97 | 2,16 | 3,24 | 1,05 | 2,50 | 3,76 | 1,14 |
| 32 | 1,67 | 2,51 | 1,03 | 1,97 | 2,95 | 1,13 | 2,29 | 3,43 | 1,23 | 2,68 | 4,02 | 1,36 |
| 20 | 1,86 | 2,78 | 1,34 | 2,19 | 3,29 | 1,50 | 2,55 | 3,83 | 1,64 | 2,97 | 4,45 | 1,81 |
| MEPS | 1,60 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | |
| MRA/Pmax | 11,9 A / 5 kW | | | | | | | | | | | |

UMT 120 BTDX

Dorin CD2S 1200

| T amb [°C] | Evaporation Temperature [°C] | | | | | | | | | | | |
|------------|--------------------------------------------------------|------|------|-----------------------|-------|------|-----------------------|-------|------|-----------------------|-------|------|
| | -40 | | | -35 | | | -30 | | | -25 | | |
| | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP | Cooling Capacity [kW] | | COP |
| | min | max | | min | max | | min | max | | min | max | |
| 40 | - | - | - | - | - | - | 8,05 | 12,07 | 1,01 | 9,24 | 13,86 | 1,09 |
| 38 | - | - | - | 7,07 | 10,61 | 0,98 | 8,28 | 12,42 | 1,07 | 9,51 | 14,27 | 1,15 |
| 32 | 6,16 | 9,24 | 1,01 | 7,35 | 11,03 | 1,13 | 8,58 | 12,86 | 1,23 | 9,96 | 14,94 | 1,34 |
| 20 | 6,56 | 9,84 | 1,29 | 7,78 | 11,68 | 1,45 | 9,14 | 13,72 | 1,59 | 10,57 | 15,85 | 1,73 |
| MEPS | 1,70 (according to Ecodesign Directive EN 2009/125/EC) | | | | | | | | | | | |
| MRA/Pmax | 32,4 A / 13,2 kW | | | | | | | | | | | |

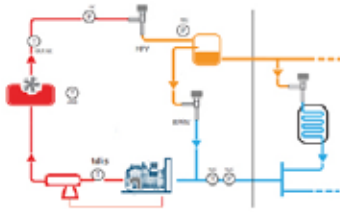
inverter modulation from 40 to 60 Hz / cooling capacity min @ 40Hz - max @ 60 Hz

N° of fans / Dimensions & Weight / Noise

| | | | | |
|-------|------------------|------------------|------------------|------------------|
| PEDII | 2x500 | 2x500 | 2x500 | 2x500 |
| | CD2S300 | CD2S350 | CD2S360 | CD2S1200 |
| | mm1340x760x1485 | mm1340x760x1485 | mm1340x760x1485 | mm1340x760x1485 |
| | Weight 460 Kg | Weight 465 Kg | Weight 470 Kg | Weight 560 Kg |
| | **Noise 48 dB(A) | **Noise 48 dB(A) | **Noise 48 dB(A) | **Noise 50 dB(A) |

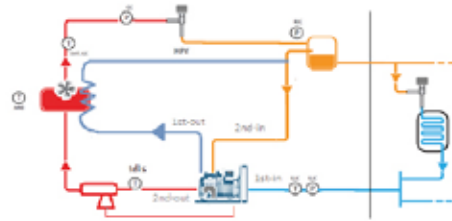
Unit Configuration

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.

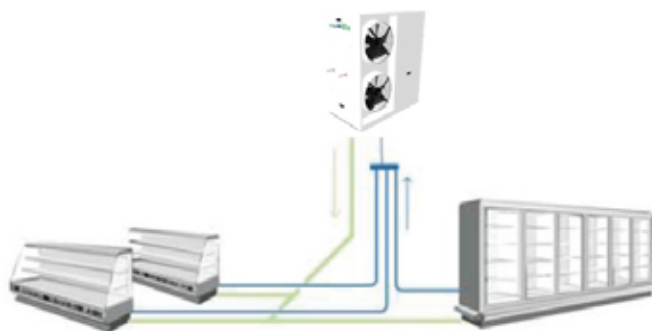
Model UMT BTDX



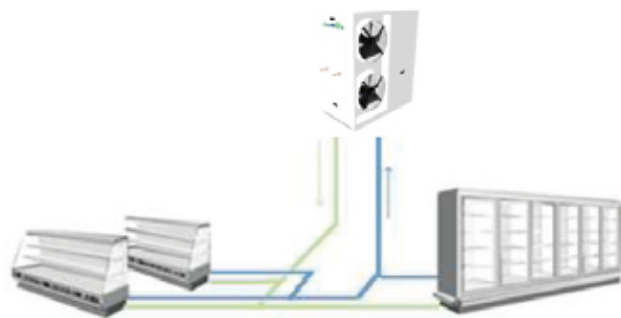
- One semihermetic compressor double stage
- Air cooled intercooler integrated in the gas cooler coil
- Oil management with: oil separator, oil reservoir, traxoil
- Receiver Pressure: variable pressure according to the operating conditions and to the model compressor (Open Flash Tank System)

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).*

Check the unit charge/receiver size

| CUBO ₂ PLUS Refrigerant Charge Calculator V 1.1 | | | |
|------------------------------------------------------------|-----------|-------------|-----------|
| Unit Model | MT 100 | Refrigerant | R404A |
| Condenser Type | Water | Receiver | Yes |
| Sub Total Liquid | | kg | 5,00 |
| Sub Total Suction | | kg | 0,00 |
| Sub Total CU&R | | kg | 5,00 |
| Sub Total Charge | | kg | 5,00 |
| Total Charge | kg | 5,00 | OK |
| Receiver from CU | kg | 3,00 | OK |
| Receiver from CU | kg | 3,00 | OK |
| Oil Charge | kg | 0,00 | OK |

In our website at the following link:
www.scmfrigo.com/en/products/co2-condensing-unit/



Cooling Capacity:
 MT from 4,6 kW up to 34 kW - BT from 1,1 kW up to 12,5 kW

Design is compact and units are easy to install and maintain. Units are equipped with gas cooler and electrical panel, tested and factory programmed for an easy start-up.

DOWNLOAD BROCHURE

Click here to download >

CO2 CHARGE CALCULATION CUBO PLUS V1.1

F.A.Q. Section

Visit FAQ section on the SCM Frigo website:



scmfrigo.com/en/faq/