



SUSTAINABLE COLD SOLUTIONS

# TRANSCRITICAL CO<sub>2</sub> CONDENSING 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 CR11 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

## Check the **Unit CO<sub>2</sub> Charge / Receiver Size**



### 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

CO<sub>2</sub> CHARGE CALCULATION  
CUBO PLUS V1.1



1\_ Enter our website [www.scmfrigo.com](http://www.scmfrigo.com)

2\_ Click on the 'Products' section at the top

3\_ Click within the product group 'CO<sub>2</sub> Condensing Units'.

4\_ Finally, click here!



English



user External

Air > CO<sub>2</sub> condensing units for medium temperature applications

Configuration	Selection	Verify
<p><b>Serie</b></p> <p>Serie: <input type="text" value="Cubo2Plus"/></p> <p><b>Options</b></p> <p>Compressor brand: <input type="text" value="Bitzer Inverter"/></p> 		
<p><b>Input data</b></p> <p><b>Selection</b></p> <p>Required Capacity: <input type="text" value="0,00"/> kW</p> <p>Tolerance: <input type="text" value="10,00"/> %</p> <p><b>Input</b></p> <p>Evaporation temperature: <input type="text" value="-5,00"/> °C</p> <p>Ambient temperature: <input type="text" value="35,00"/> °C</p>		

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

AT THE FOLLOWING LINK YOU CAN CHECK THE UNIT CHARGE/RECEIVER SIZE.  
*Ask our sales department for the password*

Evaporation Temperature[°C]

T amb [°C]	-15		Pe		COP		-10		Pe		COP		-5		Pe		COP		0		Pe		COP		5		Pe		COP	
	Cooling Capacity [kW]		Pe kW	COP	Cooling Capacity [kW]		Pe kW	COP	Cooling Capacity [kW]		Pe kW	COP	Cooling Capacity [kW]		Pe kW	COP	Cooling Capacity [kW]		Pe kW	COP	Cooling Capacity [kW]		Pe kW	COP	Cooling Capacity [kW]		Pe kW	COP		
	min	max			min	max			min	max			min	max			min	max			min	max			min	max			min	max
UMT 036 MTDX Bitzer 2MTE-5K	40	2,85	<b>5,70</b>	5,23	1,09	3,48	<b>6,95</b>	5,93	1,17	4,19	<b>8,38</b>	6,13	1,37	4,98	<b>9,97</b>	6,29	1,58	5,91	<b>11,82</b>	6,39	1,85									
	38	2,98	<b>5,97</b>	5,09	1,17	3,65	<b>7,29</b>	5,77	1,26	4,40	<b>8,81</b>	5,96	1,48	5,24	<b>10,48</b>	6,09	1,72	6,20	<b>12,40</b>	6,15	2,02									
	32	3,46	<b>6,92</b>	4,64	1,49	4,24	<b>8,48</b>	5,26	1,61	5,11	<b>10,23</b>	5,37	1,91	6,03	<b>12,05</b>	5,40	2,23	6,94	<b>13,87</b>	5,36	2,59									
	25	4,09	<b>8,18</b>	4,58	1,79	5,04	<b>10,08</b>	5,19	1,94	6,15	<b>12,31</b>	5,28	2,33	7,45	<b>14,90</b>	5,30	2,81	8,87	<b>17,75</b>	5,24	3,39									
	15	4,97	<b>9,94</b>	3,57	2,78	6,05	<b>12,11</b>	4,03	3,00	7,19	<b>14,38</b>	4,02	3,58	8,45	<b>16,90</b>	3,96	4,27	9,80	<b>19,60</b>	3,81	5,14									
	5	5,93	<b>11,86</b>	2,97	3,99	7,21	<b>14,42</b>	3,34	4,32	8,55	<b>17,11</b>	3,24	5,28	10,09	<b>20,17</b>	3,10	6,51	11,69	<b>23,37</b>	2,86	8,17									
	N. of fans 2x500																													
	Weight 460 kg																													
	Sound pressure 43 dB(A)*																													
	Minimum Energy Performance Standards 2,75 (according Ecodesign Directive EN 2009/125/EC)																													
Annual Energy Consumption 18927 kWh/year																														
MRA/Pmax 15,9 A / 7,5 kW																														
UMT 075 MTDX Bitzer 2KTE-7K	40	4,11	<b>8,22</b>	7,88	1,04	5,05	<b>10,09</b>	8,24	1,23	6,13	<b>12,26</b>	8,54	1,44	7,35	<b>14,69</b>	8,77	1,68	8,65	<b>17,30</b>	8,91	1,94									
	38	4,31	<b>8,62</b>	7,68	1,12	5,29	<b>10,58</b>	8,01	1,32	6,42	<b>12,83</b>	8,28	1,55	7,67	<b>15,33</b>	8,48	1,81	8,99	<b>17,97</b>	8,57	2,10									
	32	5,00	<b>10,00</b>	7,04	1,42	6,09	<b>12,19</b>	7,27	1,68	7,25	<b>14,49</b>	7,42	1,95	8,36	<b>16,73</b>	7,49	2,23	9,37	<b>18,73</b>	7,43	2,52									
	25	5,96	<b>11,92</b>	6,94	1,72	7,33	<b>14,65</b>	7,16	2,05	8,89	<b>17,78</b>	7,29	2,44	10,64	<b>21,28</b>	7,33	2,90	12,50	<b>25,00</b>	7,25	3,45									
	15	7,11	<b>14,21</b>	5,58	2,55	8,48	<b>16,96</b>	5,67	2,99	9,99	<b>19,98</b>	5,70	3,51	11,64	<b>23,28</b>	5,64	4,12	13,43	<b>26,86</b>	5,50	4,88									
	5	8,51	<b>17,02</b>	4,74	3,59	10,09	<b>20,18</b>	4,73	4,27	11,83	<b>23,66</b>	4,64	5,10	13,73	<b>27,47</b>	4,48	6,13	15,80	<b>31,60</b>	4,24	7,46									
	N. of fans 2x500																													
	Weight 470 kg																													
	Sound pressure 44 dB(A)*																													
	Minimum Energy Performance Standards 2,78 (according Ecodesign Directive EN 2009/125/EC)																													
Annual Energy Consumption 26966 kWh/year																														
MRA/Pmax 20,5 A / 10,4 kW																														
UMT 120 MTDX Bitzer 4MTE-10K	40	5,39	<b>10,79</b>	10,33	1,04	6,70	<b>13,40</b>	11,02	1,22	8,13	<b>16,26</b>	11,50	1,41	9,64	<b>19,29</b>	11,78	1,64	11,18	<b>22,37</b>	11,87	1,88									
	38	5,70	<b>11,39</b>	10,20	1,12	7,04	<b>14,08</b>	10,78	1,31	8,48	<b>16,95</b>	11,16	1,52	9,97	<b>19,94</b>	11,34	1,76	11,43	<b>22,87</b>	11,34	2,02									
	32	6,61	<b>13,22</b>	9,53	1,39	7,88	<b>15,76</b>	9,81	1,61	9,05	<b>18,09</b>	9,92	1,82	10,10	<b>20,19</b>	9,84	2,05	11,06	<b>22,13</b>	9,63	2,30									
	25	8,02	<b>16,04</b>	9,41	1,70	9,86	<b>19,71</b>	9,65	2,04	11,86	<b>23,72</b>	9,72	2,44	13,89	<b>27,79</b>	9,62	2,89	15,72	<b>31,45</b>	9,36	3,36									
	15	9,26	<b>18,52</b>	7,65	2,42	11,02	<b>22,04</b>	7,73	2,85	12,95	<b>25,90</b>	7,73	3,35	15,05	<b>30,10</b>	7,64	3,94	17,33	<b>34,65</b>	7,47	4,64									
	5	11,07	<b>22,14</b>	6,44	3,44	13,00	<b>26,00</b>	6,28	4,14	15,37	<b>30,74</b>	6,37	4,82	17,82	<b>35,64</b>	6,24	5,71	20,47	<b>40,95</b>	6,05	6,77									
	N. of fans 2x500																													
	Weight 570 kg																													
	Sound pressure 44 dB(A)*																													
	Minimum Energy Performance Standards 2,68 (according Ecodesign Directive EN 2009/125/EC)																													
Annual Energy Consumption 36104 kWh/year																														
MRA/Pmax 26,3 A / 13,8 kW																														
UMT 150 MTDX Bitzer 4KTE-12K	40	8,18	<b>16,35</b>	15,20	1,08	10,13	<b>20,27</b>	15,80	1,28	12,24	<b>24,48</b>	16,32	1,50	14,44	<b>28,88</b>	16,72	1,73	16,64	<b>33,29</b>	16,96	1,96									
	38	8,61	<b>17,22</b>	14,78	1,17	10,62	<b>21,23</b>	15,33	1,39	12,73	<b>25,47</b>	15,79	1,61	14,89	<b>29,78</b>	16,11	1,85	16,99	<b>33,98</b>	16,26	2,09									
	32	9,80	<b>19,59</b>	13,45	1,46	11,66	<b>23,31</b>	13,82	1,69	13,35	<b>26,69</b>	14,06	1,90	14,86	<b>29,72</b>	14,11	2,11	16,25	<b>32,51</b>	13,95	2,33									
	25	11,96	<b>23,92</b>	13,25	1,80	14,73	<b>29,47</b>	13,60	2,17	17,70	<b>35,41</b>	13,79	2,57	20,66	<b>41,33</b>	13,80	2,99	23,29	<b>46,58</b>	13,58	3,43									
	15	13,83	<b>27,66</b>	10,80	2,56	16,41	<b>32,82</b>	11,01	2,98	19,26	<b>38,51</b>	11,10	3,47	22,38	<b>44,76</b>	11,06	4,05	25,79	<b>51,58</b>	10,85	4,76									
	5	16,93	<b>33,87</b>	9,19	3,69	19,80	<b>39,61</b>	9,22	4,30	23,00	<b>45,99</b>	9,13	5,04	26,55	<b>53,09</b>	8,90	5,97	30,44	<b>60,87</b>	8,53	7,14									
	N. of fans 3x500																													
	Weight 645 kg																													
	Sound pressure 45 dB(A)*																													
	Minimum Energy Performance Standards 2,74 (according Ecodesign Directive EN 2009/125/EC)																													
Annual Energy Consumption 52347 kWh/year																														
MRA/Pmax 33,4 A / 18,6 kW																														
UMT 190 MTDX Bitzer 4HTE-20K	40	10,63	<b>21,27</b>	18,66	1,14	12,80	<b>25,60</b>	19,60	1,31	15,11	<b>27,67</b>	18,61	1,49	17,40	<b>29,00</b>	17,31	1,67	19,60	<b>32,67</b>	17,53	1,86									
	38	11,12	<b>22,25</b>	18,20	1,22	13,26	<b>26,53</b>	19,01	1,40	15,49	<b>28,38</b>	17,96	1,58	17,65	<b>29,41</b>	16,62	1,77	19,68	<b>32,80</b>	16,75	1,96									
	32	13,13	<b>26,25</b>	17,29	1,52	13,73	<b>27,46</b>	17,01	1,61	17,29	<b>31,67</b>	16,42	1,93	20,14	<b>33,56</b>	15,33	2,19	23,11	<b>38,51</b>	15,64	2,46									
	25	15,54	<b>31,08</b>	16,32	1,90	18,47	<b>36,93</b>	16,70	2,21	21,40	<b>39,19</b>	15,46	2,54	23,92	<b>39,87</b>	14,02	2,84	25,97	<b>43,29</b>	13,85	3,13									
	15	17,08	<b>34,16</b>	13,50	2,53	20,02	<b>40,04</b>	13,75	2,91	23,31	<b>42,70</b>	12,75	3,35	26,87	<b>44,78</b>	11,67	3,84	30,70	<b>51,17</b>	11,68	4,38									
	5	20,22	<b>40,44</b>	11,58	3,49	23,66	<b>47,33</b>	11,65	4,06	27,51	<b>50,39</b>	10,72	4,70	31,63	<b>52,72</b>	9,76	5,40	36,05	<b>60,08</b>	9,74	6,17									
	N. of fans 3x500																													
	Weight 655 kg																													
	Sound pressure 45 dB(A)*																													
	Minimum Energy Performance Standards 2,71 (according Ecodesign Directive EN 2009/125/EC)																													
Annual Energy Consumption 62283 kWh/year																														
MRA/Pmax 42,4 A / 24 kW																														

NOTE: Inverter modulation from 30 to 60 Hz except / cooling capacity min @30Hz - @60Hz except\*\* @50Hz  
 (\*based on free field area weed semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A))

T amb [°C]		Evaporation Temperature[°C]																					
		-15			-10			-5			0			5									
		Cooling Capacity [kW]		Pe	Cooling Capacity [kW]		Pe	Cooling Capacity [kW]		Pe	Cooling Capacity [kW]		Pe	Cooling Capacity [kW]		Pe							
		min	max	COP	min	max	COP	min	max	COP	min	max	COP	min	max	COP							
UMT 036 MTDX	Dorin CD 360H	40	1,96	<b>3,93</b>	4,39	0,89	2,46	<b>4,92</b>	4,60	1,07	3,03	<b>6,05</b>	4,77	1,27	3,65	<b>7,30</b>	4,90	1,49	4,33	<b>8,65</b>	4,99	1,74	
		38	2,07	<b>4,14</b>	4,32	0,96	2,59	<b>5,17</b>	4,51	1,15	3,18	<b>6,35</b>	4,66	1,36	3,83	<b>7,65</b>	4,77	1,60	4,53	<b>9,05</b>	4,83	1,88	
		32	2,44	<b>4,88</b>	4,08	1,20	3,03	<b>6,06</b>	4,20	1,44	3,69	<b>7,39</b>	4,27	1,73	4,43	<b>8,85</b>	4,30	2,06	5,22	<b>10,44</b>	4,28	2,44	
		25	2,90	<b>5,80</b>	4,04	1,44	3,60	<b>7,20</b>	3,98	1,81	4,39	<b>8,77</b>	4,21	2,08	5,26	<b>10,52</b>	4,23	2,49	6,21	<b>12,41</b>	4,19	2,96	
		15	3,65	<b>7,29</b>	3,59	2,03	4,41	<b>8,81</b>	3,20	2,75	5,40	<b>10,80</b>	3,57	3,03	6,43	<b>12,86</b>	3,47	3,70	7,54	<b>15,08</b>	3,32	4,54	
		5	4,46	<b>8,93</b>	3,00	2,97	5,41	<b>10,83</b>	2,63	4,12	6,48	<b>12,96</b>	2,78	4,67	7,66	<b>15,32</b>	2,58	5,95	8,93	<b>17,87</b>	2,31	7,75	
		N. of fans 2x500																					
		Weight 460 kg																					
		Sound pressure 43 dB(A)*																					
		Minimum Energy Performance Standards 2,56 (according Ecodesign Directive EN 2009/125/EC)																					
Annual Energy Consumption 19150 kWh/year																							
MRA/Pmax 15,9 A / 7,5 kW																							
UMT 075 MTDX	Dorin CD 4 75-4-7 H	40	4,10	<b>8,20</b>	7,71	1,06	5,01	<b>10,02</b>	8,04	1,25	5,99	<b>11,97</b>	8,28	1,45	6,98	<b>13,97</b>	8,45	1,65	7,96	<b>15,92</b>	8,52	1,87	
		38	4,27	<b>8,55</b>	7,53	1,14	5,20	<b>10,40</b>	7,81	1,33	6,18	<b>12,36</b>	8,02	1,54	7,17	<b>14,33</b>	8,15	1,76	8,11	<b>16,22</b>	8,18	1,98	
		32	4,81	<b>9,61</b>	6,91	1,39	5,68	<b>11,36</b>	7,08	1,60	6,51	<b>13,02</b>	7,17	1,82	7,25	<b>14,49</b>	7,16	2,02	7,89	<b>15,77</b>	7,05	2,24	
		25	5,88	<b>11,77</b>	6,82	1,73	7,14	<b>14,28</b>	6,97	2,05	8,49	<b>16,98</b>	7,04	2,41	9,85	<b>19,70</b>	7,01	2,81	11,13	<b>22,25</b>	6,88	3,23	
		15	7,12	<b>14,23</b>	5,86	2,43	8,41	<b>16,83</b>	5,85	2,88	9,57	<b>19,15</b>	5,74	3,34	10,43	<b>20,86</b>	5,53	3,77	11,50	<b>22,99</b>	5,22	4,41	
		5	7,98	<b>15,96</b>	4,71	3,39	9,17	<b>18,33</b>	4,53	4,05	10,86	<b>21,73</b>	4,25	5,11	12,72	<b>25,44</b>	3,86	6,58	14,72	<b>29,43</b>	3,37	8,74	
		N. of fans 2x500																					
		Weight 650 kg																					
		Sound pressure 45 dB(A)*																					
		Minimum Energy Performance Standards 2,67 (according Ecodesign Directive EN 2009/125/EC)																					
Annual Energy Consumption 26174 kWh/year																							
MRA/Pmax 20,5 A / 10,4 kW																							
UMT 120 MTDX	Dorin CD4 90-6-4H	40	5,66	<b>11,32</b>	10,33	1,10	6,93	<b>13,86</b>	10,78	1,29	8,30	<b>16,60</b>	11,13	1,49	9,69	<b>19,38</b>	11,37	1,70	11,03	<b>22,05</b>	11,50	1,92	
		38	5,91	<b>11,82</b>	10,08	1,17	7,21	<b>14,42</b>	10,48	1,38	8,58	<b>17,16</b>	10,78	1,59	9,94	<b>19,88</b>	10,97	1,81	11,21	<b>22,43</b>	11,04	2,03	
		32	6,69	<b>13,37</b>	9,24	1,45	7,90	<b>15,80</b>	9,48	1,67	9,00	<b>18,00</b>	9,61	1,87	9,95	<b>19,90</b>	9,63	2,07	10,78	<b>21,56</b>	9,52	2,27	
		25	8,10	<b>16,21</b>	9,11	1,78	9,86	<b>19,72</b>	9,33	2,11	11,73	<b>23,47</b>	9,43	2,49	13,58	<b>27,16</b>	9,41	2,89	15,20	<b>30,40</b>	9,27	3,28	
		15	9,85	<b>19,71</b>	7,80	2,53	11,71	<b>23,42</b>	7,81	3,00	13,28	<b>26,57</b>	7,70	3,45	14,36	<b>28,72</b>	7,47	3,84	15,75	<b>31,49</b>	7,12	4,42	
		5	11,74	<b>23,49</b>	6,27	3,75	12,55	<b>25,10</b>	6,08	4,13	14,86	<b>29,72</b>	5,79	5,13	17,38	<b>34,75</b>	5,38	6,46	20,08	<b>40,15</b>	4,88	8,24	
		N. of fans 2x500																					
		Weight 570 kg																					
		Sound pressure 45 dB(A)*																					
		Minimum Energy Performance Standards 2,75 (according Ecodesign Directive EN 2009/125/EC)																					
Annual Energy Consumption 35268 kWh/year																							
MRA/Pmax 26,3 A / 13,8 kW																							
UMT 150 MTDX	CD4 120-9-2H	40	8,09	<b>16,18</b>	14,79	1,09	9,95	<b>19,90</b>	15,46	1,29	12,01	<b>24,02</b>	16,00	1,50	14,21	<b>28,41</b>	16,40	1,73	16,45	<b>32,91</b>	16,66	1,98	
		38	8,46	<b>16,91</b>	14,43	1,17	10,38	<b>20,76</b>	15,03	1,38	12,50	<b>24,99</b>	15,50	1,61	14,73	<b>29,46</b>	15,83	1,86	16,98	<b>33,95</b>	16,00	2,12	
		32	9,72	<b>19,45</b>	13,24	1,47	13,61	<b>27,22</b>	16,92	1,61	15,10	<b>30,21</b>	17,08	1,77	14,13	<b>28,26</b>	13,98	2,02	17,77	<b>35,54</b>	13,94	2,55	
		25	11,56	<b>23,13</b>	13,06	1,77	14,10	<b>28,21</b>	13,40	2,10	16,92	<b>33,85</b>	13,60	2,49	19,95	<b>39,91</b>	13,65	2,92	23,05	<b>46,11</b>	13,56	3,40	
		15	14,10	<b>28,20</b>	11,24	2,51	17,03	<b>34,05</b>	11,30	3,01	20,22	<b>40,45</b>	11,23	3,60	23,48	<b>46,96</b>	11,05	4,25	26,44	<b>52,87</b>	10,75	4,92	
		5	16,75	<b>33,51</b>	9,15	3,66	19,94	<b>39,88</b>	9,03	4,42	23,05	<b>46,10</b>	8,81	5,23	25,73	<b>51,47</b>	8,51	6,05	28,31	<b>56,61</b>	8,13	6,97	
		N. of fans 3x500																					
		Weight 560 kg																					
		Sound pressure 44 dB(A)*																					
		Minimum Energy Performance Standards 2,83 (according Ecodesign Directive EN 2009/125/EC)																					
Annual Energy Consumption 51217 kWh/year																							
MRA/Pmax 33,4 A / 18,6 kW																							
UMT 190 MTDX	Dorin CD 2000H	40	10,64	<b>21,29</b>	18,81	1,13	12,86	<b>25,72</b>	19,50	1,32	15,10	<b>30,21</b>	20,01	1,51	17,25	<b>28,75</b>	16,93	1,70	18,88	<b>31,47</b>	17,16	1,83	
		38	11,05	<b>22,10</b>	18,27	1,21	13,25	<b>26,50</b>	18,88	1,40	15,42	<b>30,84</b>	19,31	1,60	17,44	<b>29,07</b>	16,24	1,79	18,86	<b>31,44</b>	16,38	1,92	
		32	12,92	<b>25,84</b>	17,29	1,49	15,41	<b>30,81</b>	17,76	1,74	17,76	<b>35,52</b>	18,03	1,97	19,83	<b>33,05</b>	15,08	2,19	21,58	<b>35,97</b>	14,95	2,41	
		25	15,23	<b>30,45</b>	16,31	1,87	18,22	<b>36,45</b>	16,62	2,19	21,08	<b>42,16</b>	16,74	2,52	22,78	<b>37,97</b>	13,64	2,78	24,42	<b>40,71</b>	13,48	3,02	
		15	17,95	<b>35,91</b>	13,84	2,59	20,14	<b>40,29</b>	13,81	2,92	21,79	<b>43,58</b>	13,59	3,21	26,32	<b>43,86</b>	11,49	3,82	36,12	<b>60,20</b>	11,52	5,23	
		5	19,84	<b>39,67</b>	11,05	3,59	23,73	<b>47,45</b>	10,71	4,43	28,03	<b>56,07</b>	10,20	5,50	30,99	<b>51,64</b>	9,63	5,36	35,21	<b>58,68</b>	9,68	6,07	
		N. of fans 3x500																					
		Weight 655 kg																					
		Sound pressure 45 dB(A)*																					
		Minimum Energy Performance Standards 2,85 (according Ecodesign Directive EN 2009/125/EC)																					
Annual Energy Consumption 66470 kWh/year																							
MRA/Pmax 42,4 A / 24 kW																							

NOTE: Inverter modulation from 30 to 60 Hz except / cooling capacity min @30Hz - @60Hz except\*\* @50Hz  
 (\*based on free field area weed semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A))

T amb [°C]		Evaporation Temperature[°C]																			
		-15				-10				-5				0				5			
		Cooling Capacity [kW]		Pe	COP	Cooling Capacity [kW]		Pe	COP	Cooling Capacity [kW]		Pe	COP	Cooling Capacity [kW]		Pe	COP	Cooling Capacity [kW]		Pe	COP
min	max			min	max			min	max			min	max			min	max				
UMT 075 VS MTDX Bitzer 4PTE-7K	40	0,69	<b>6,85</b>	6,26	1,10	0,84	<b>8,42</b>	6,55	1,29	1,02	<b>10,25</b>	6,81	1,51	1,23	<b>12,35</b>	7,00	1,76	1,47	<b>14,71</b>	7,13	2,06
	38	0,72	<b>7,18</b>	6,09	1,18	0,88	<b>8,84</b>	6,36	1,39	1,08	<b>10,75</b>	6,59	1,63	1,29	<b>12,94</b>	6,76	1,92	1,54	<b>15,39</b>	6,85	2,25
	32	0,84	<b>8,36</b>	5,55	1,51	1,03	<b>10,28</b>	5,74	1,79	1,24	<b>12,45</b>	5,88	2,12	1,48	<b>14,82</b>	5,94	2,50	1,72	<b>17,19</b>	5,91	2,91
	25	0,99	<b>9,93</b>	5,47	1,82	1,22	<b>12,21</b>	5,65	2,16	1,48	<b>14,84</b>	5,77	2,57	1,78	<b>17,84</b>	5,81	3,07	2,12	<b>21,22</b>	5,75	3,69
	15	1,22	<b>12,23</b>	4,23	2,89	1,46	<b>14,64</b>	4,28	3,42	1,73	<b>17,30</b>	4,28	4,05	2,02	<b>20,24</b>	4,21	4,81	2,34	<b>23,45</b>	4,07	5,76
	5	1,46	<b>14,64</b>	3,51	4,18	1,74	<b>17,41</b>	3,47	5,02	2,05	<b>20,48</b>	3,37	6,07	2,39	<b>23,88</b>	3,21	7,44	2,76	<b>27,59</b>	2,98	9,26
	N. of fans 2x500																				
	Weight 470 kg																				
	Sound pressure 44 dB(A)*																				
	Minimum Energy Performance Standards 3,14 (according Ecodesign Directive EN 2009/125/EC)																				
Annual Energy Consumption 20096 kWh/year																					
MRA/Pmax 20,5 A / 10,4 kW																					
UMT 120 VS MTDX Bitzer 4MTE-10K	40	0,90	<b>8,99</b>	8,61	1,04	1,12	<b>11,17</b>	9,18	1,22	1,35	<b>13,55</b>	9,59	1,41	1,61	<b>16,07</b>	9,82	1,64	1,86	<b>18,64</b>	9,89	1,88
	38	0,95	<b>9,50</b>	8,50	1,12	1,17	<b>11,73</b>	8,98	1,31	1,41	<b>14,13</b>	9,30	1,52	1,66	<b>16,61</b>	9,45	1,76	1,91	<b>19,06</b>	9,45	2,02
	32	1,10	<b>11,02</b>	7,94	1,39	1,31	<b>13,13</b>	8,18	1,61	1,51	<b>15,08</b>	8,26	1,82	1,68	<b>16,83</b>	8,20	2,05	1,84	<b>18,44</b>	8,02	2,30
	25	1,34	<b>13,37</b>	7,84	1,70	1,64	<b>16,43</b>	8,04	2,04	1,98	<b>19,77</b>	8,10	2,44	2,32	<b>23,16</b>	8,01	2,89	2,62	<b>26,21</b>	7,80	3,36
	15	1,54	<b>15,43</b>	6,37	2,42	1,84	<b>18,37</b>	6,44	2,85	2,16	<b>21,58</b>	6,44	3,35	2,51	<b>25,09</b>	6,37	3,94	2,89	<b>28,88</b>	6,23	4,64
	5	1,85	<b>18,45</b>	5,37	3,44	2,17	<b>21,66</b>	5,23	4,14	2,56	<b>25,61</b>	5,31	4,82	2,97	<b>29,70</b>	5,20	5,71	3,41	<b>34,12</b>	5,04	6,77
	N. of fans 2x500																				
	Weight 570 kg																				
	Sound pressure 44 dB(A)*																				
	Minimum Energy Performance Standards 2,68 (according Ecodesign Directive EN 2009/125/EC)																				
Annual Energy Consumption 30081 kWh/year																					
MRA/Pmax 26,3 A / 13,8 kW																					
UMT 150 VS MTDX Bitzer 4KTE-12K	40	1,36	<b>13,63</b>	12,67	1,08	1,69	<b>16,89</b>	13,17	1,28	2,04	<b>20,40</b>	13,60	1,50	2,89	<b>28,88</b>	13,94	2,07	3,33	<b>33,29</b>	14,14	2,35
	38	1,43	<b>14,35</b>	12,31	1,17	1,77	<b>17,69</b>	12,77	1,39	2,12	<b>21,22</b>	13,16	1,61	2,98	<b>29,78</b>	13,43	2,22	3,40	<b>33,98</b>	13,55	2,51
	32	1,63	<b>16,33</b>	11,21	1,46	1,94	<b>19,43</b>	11,52	1,69	2,22	<b>22,25</b>	11,72	1,90	2,97	<b>29,72</b>	11,76	2,53	3,25	<b>32,51</b>	11,63	2,80
	25	1,99	<b>19,93</b>	11,05	1,80	2,46	<b>24,56</b>	11,33	2,17	2,95	<b>29,51</b>	11,49	2,57	4,13	<b>41,33</b>	11,50	3,59	4,66	<b>46,58</b>	11,32	4,11
	15	2,31	<b>23,05</b>	9,00	2,56	2,74	<b>27,35</b>	9,18	2,98	3,21	<b>32,09</b>	9,25	3,47	4,48	<b>44,76</b>	9,21	4,86	5,16	<b>51,58</b>	9,04	5,71
	5	2,82	<b>28,22</b>	7,66	3,69	3,30	<b>33,01</b>	7,68	4,30	3,83	<b>38,33</b>	7,61	5,04	5,31	<b>53,09</b>	7,41	7,16	6,09	<b>60,87</b>	7,11	8,56
	N. of fans 2x500																				
	Weight 645 kg																				
	Sound pressure 45 dB(A)*																				
	Minimum Energy Performance Standards 2,80 (according Ecodesign Directive EN 2009/125/EC)																				
Annual Energy Consumption 42608 kWh/year																					
MRA/Pmax 33,4 A / 18,6 kW																					
UMT 190 MTDX Bitzer 4HTE-20K	40	1,77	<b>17,72</b>	15,55	1,14	2,13	<b>21,33</b>	16,33	1,31	2,52	<b>25,16</b>	16,92	1,49	2,90	<b>29,00</b>	17,31	1,67	3,27	<b>32,67</b>	17,53	1,86
	38	1,85	<b>18,54</b>	15,17	1,22	2,21	<b>22,11</b>	15,84	1,40	2,58	<b>25,80</b>	16,33	1,58	2,94	<b>29,41</b>	16,62	1,77	3,28	<b>32,80</b>	16,75	1,96
	32	2,19	<b>21,88</b>	14,41	1,52	2,29	<b>22,88</b>	14,17	1,61	2,88	<b>28,79</b>	14,93	1,93	3,36	<b>33,56</b>	15,33	2,19	3,85	<b>38,51</b>	15,64	2,46
	25	2,59	<b>25,90</b>	13,60	1,90	3,08	<b>30,78</b>	13,91	2,21	3,56	<b>35,63</b>	14,05	2,54	3,99	<b>39,87</b>	14,02	2,84	4,33	<b>43,29</b>	13,85	3,13
	15	2,85	<b>28,47</b>	11,25	2,53	3,34	<b>33,36</b>	11,46	2,91	3,88	<b>38,82</b>	11,59	3,35	4,48	<b>44,78</b>	11,67	3,84	5,12	<b>51,17</b>	11,68	4,38
	5	3,37	<b>33,70</b>	9,65	3,49	3,94	<b>39,44</b>	9,71	4,06	4,58	<b>45,81</b>	9,74	4,70	5,27	<b>52,72</b>	9,76	5,40	6,01	<b>60,08</b>	9,74	6,17
	N. of fans 3x500																				
	Weight 655 kg																				
	Sound pressure 45 dB(A)*																				
	Minimum Energy Performance Standards 2,71 (according Ecodesign Directive EN 2009/125/EC)																				
Annual Energy Consumption 51896 kWh/year																					
MRA/Pmax 42,4 A / 24 kW																					

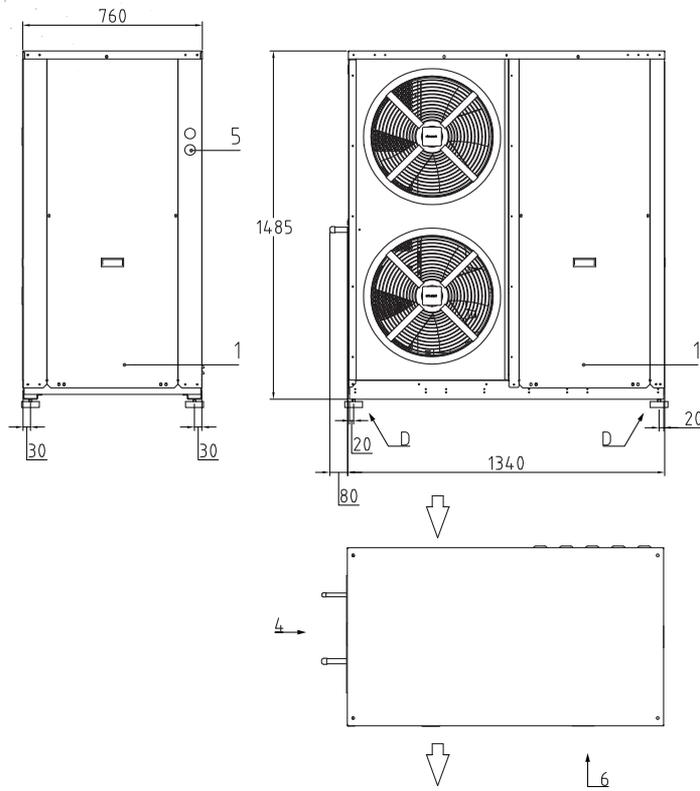
NOTE: Inverter modulation from 30 to 60 Hz except / cooling capacity min @30Hz - @60Hz except\*\* @50Hz  
 Varistep modulation from 10 to 100 % of the capacity @ 50 Hz  
 (\*based on free field area weed semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A))

		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					
T amb [°C]		-	-	-	-	-	-	1,38	<b>2,11</b>	0,97	1,58	<b>2,38</b>	1,05	
		40		-	-	-	-	-	-	1,38	<b>2,11</b>	0,97	1,58	<b>2,38</b>
38		-	-	-	1,22	<b>1,84</b>	0,94	1,42	<b>2,14</b>	1,02	1,64	<b>2,46</b>	1,11	
32		1,08	<b>1,62</b>	0,94	1,26	<b>1,90</b>	1,04	1,53	<b>2,29</b>	1,12	1,73	<b>2,59</b>	1,31	
20		1,17	<b>1,75</b>	1,25	1,37	<b>2,05</b>	1,39	1,66	<b>2,48</b>	1,60	1,90	<b>2,86</b>	1,77	
UMT 030 BTDX	Dorin CD2S 300	N. of fans 2x500												
		Weight 460 kg												
		Sound pressure 48 dB(A)*												
		Minimum Energy Performance Standards 0,96 (according Ecodesign Directive EN 2009/125/EC)												
		MRA/Pmax 10,4 A / 4,2 kW												
UMT 035 BTDX	Dorin CD2S 350	-	-	-	-	-	-	1,62	<b>2,42</b>	0,99	1,88	<b>2,82</b>	1,08	
	40		-	-	-	-	-	1,62	<b>2,42</b>	0,99	1,88	<b>2,82</b>	1,08	
	38		-	-	-	1,46	<b>2,18</b>	0,97	1,67	<b>2,51</b>	1,05	1,94	<b>2,92</b>	1,15
	32		1,30	<b>1,96</b>	1,03	1,54	<b>2,30</b>	1,14	1,78	<b>2,68</b>	1,12	2,06	<b>3,10</b>	1,36
	20		1,44	<b>2,16</b>	1,35	1,69	<b>2,53</b>	1,49	1,98	<b>2,98</b>	1,66	2,31	<b>3,47</b>	1,84
UMT 036 BTDX	Dorin CD2S 360	N. of fans 2x500												
		Weight 470 kg												
		Sound pressure 48 dB(A)*												
		Minimum Energy Performance Standards 1,01 (according Ecodesign Directive EN 2009/125/EC)												
		MRA/Pmax 11,7 A / 4,7 kW												
UMT 120 BTDX	Dorin CD2S 1200	-	-	-	-	-	-	8,05	<b>12,07</b>	1,01	9,24	<b>13,86</b>	1,09	
	40		-	-	-	-	-	8,05	<b>12,07</b>	1,01	9,24	<b>13,86</b>	1,09	
	38		-	-	-	7,07	<b>10,61</b>	0,98	8,28	<b>12,42</b>	1,07	9,51	<b>14,27</b>	1,15
	32		6,16	<b>9,24</b>	1,01	7,35	<b>11,03</b>	1,13	8,58	<b>12,86</b>	1,23	9,96	<b>14,94</b>	1,34
	20		6,56	<b>9,84</b>	1,29	7,78	<b>11,68</b>	1,45	9,14	<b>13,72</b>	1,59	10,57	<b>15,85</b>	1,73
UMT 120 BTDX	Dorin CD2S 1200	N. of fans 3x500												
		Weight 560 kg												
		Sound pressure 50 dB(A)*												
		Minimum Energy Performance Standards 1,70 (according Ecodesign Directive EN 2009/125/EC)												
		MRA/Pmax 32,4 A / 13,2 kW												

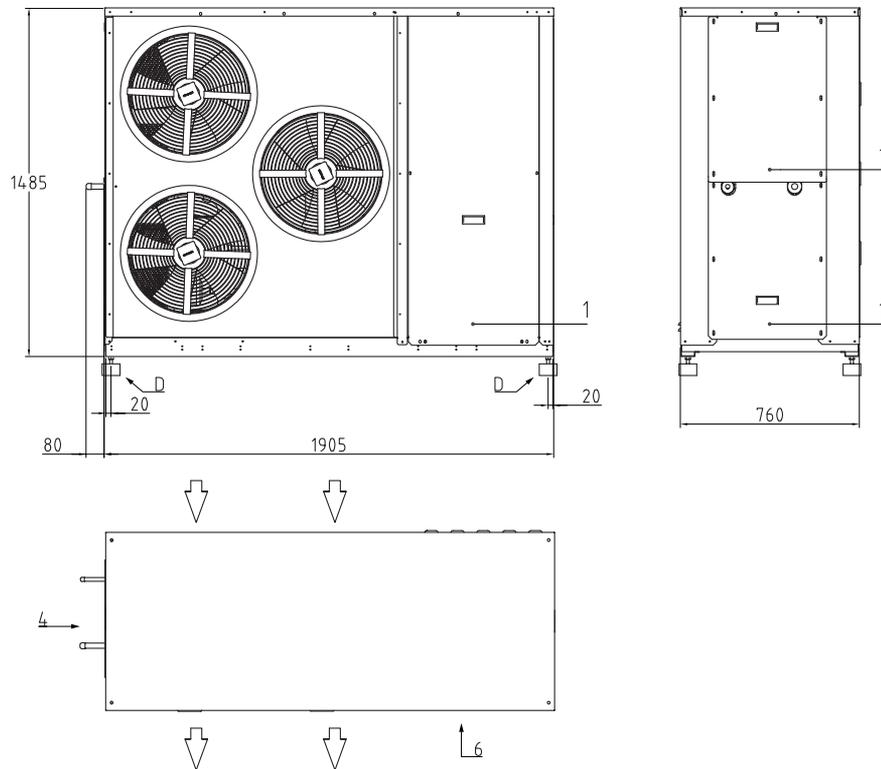
NOTE: Inverter modulation from 40 to 60 Hz / cooling capacity min @ 40 Hz - max @ 60 Hz  
 (\*based on free field area weed semi-spherical sound emission in 10m distance; tolerance ± 2 dB(A))

# Dimensional Data

## MTDX - 2 fans

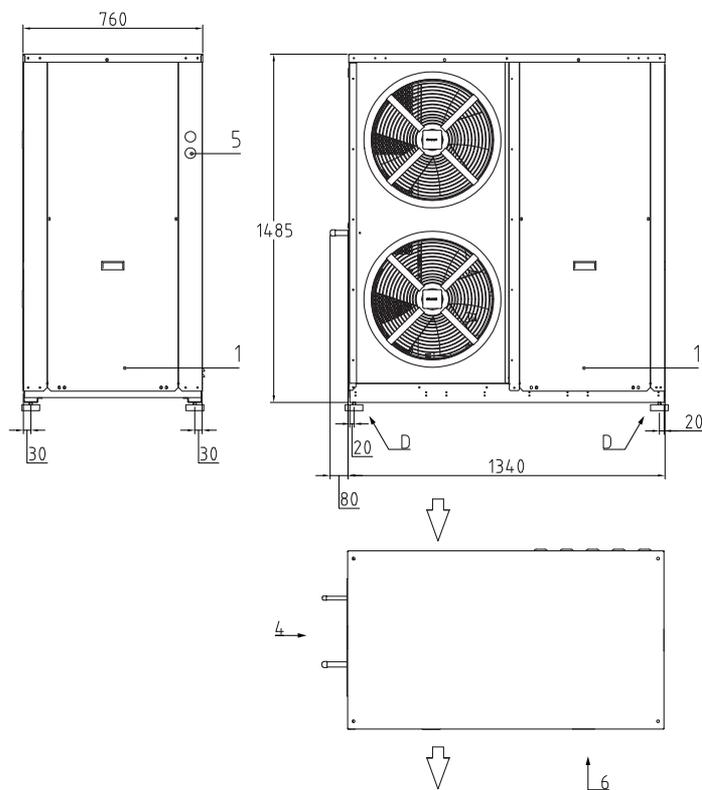


## MTDX - 3 fans



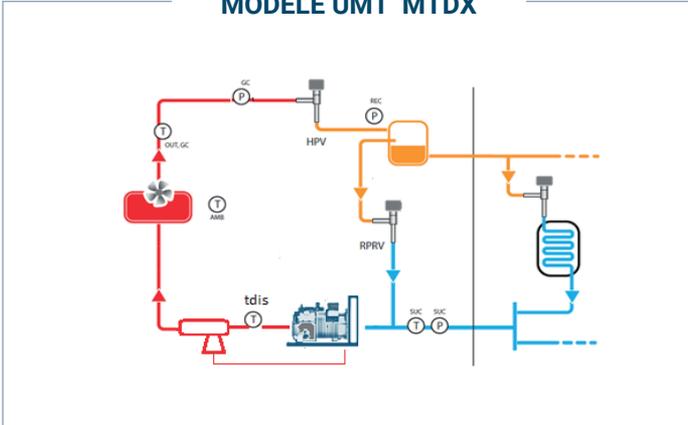
# Dimensional Data

**BTDX - 2 fans**



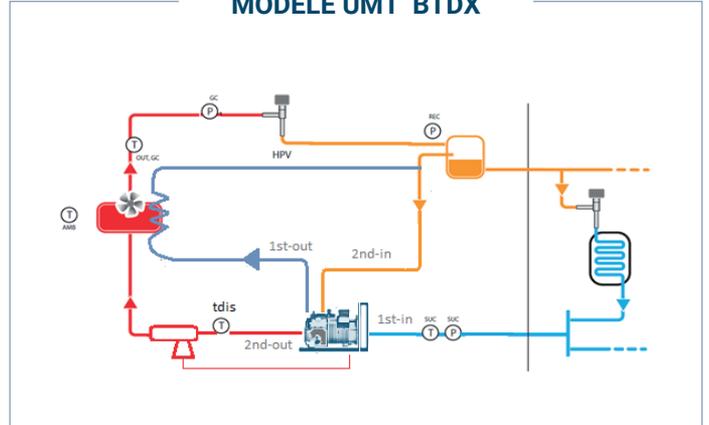
# Unit Configuration

MODELE 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.

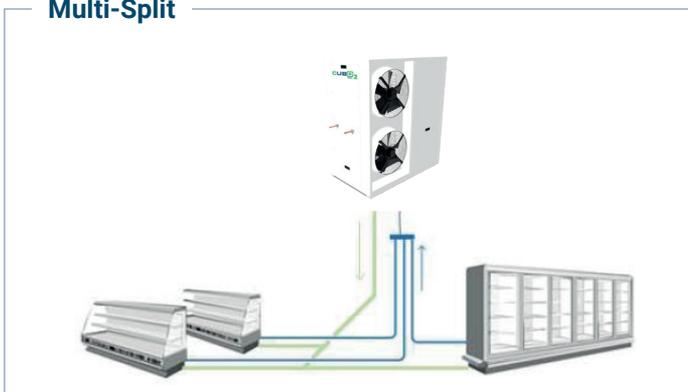
MODELE UMT BTDX



- 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

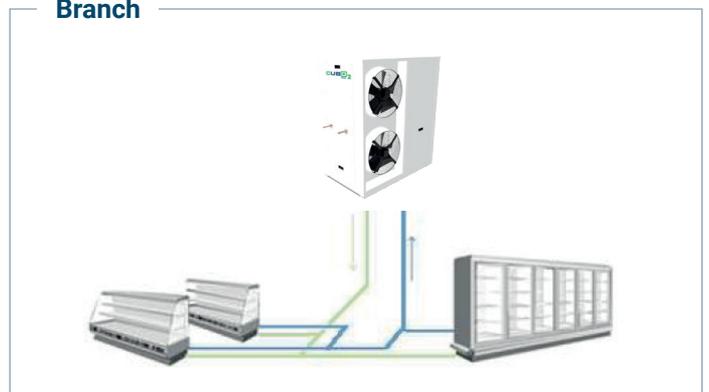


## Pipe Connections (Multi-Split or Branch)

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.

Branch

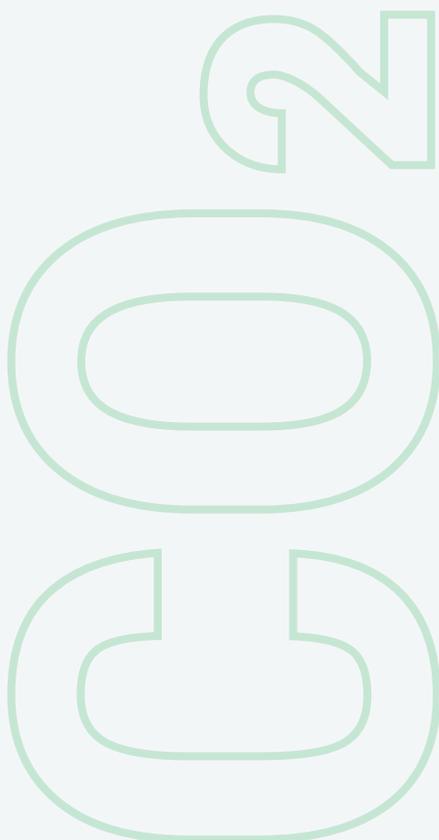


For Multi-Split layout, the system requires a dedicated suction line for each evaporator that will be collected by a manifold installed close to the condensing unit.

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).

# CO<sub>2</sub> INDUSTRIAL NATURAL REFRIGERATION CHOICE



## Non-flammable

which means the electrical panel can be in same room as the plant, saving on plant saving on plantroom and installation costs.

## Non-toxic

has no charge limitation/concerns and can be used across a wide platform.

## CO<sub>2</sub> packs will have multiple compressors

providing built-in resilience in case a compressor fails.

## Does not require regular compressor overhauls

saving on maintenance costs.

## Is now standard refrigerant in commercial installations

making it easily transferable to industrial settings. There is a larger pool of companies and engineers available to provide installation and service



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SCM FRIGO S.p.A. - Viale Andrea Palladio, 31 35020 Sant'Angelo di Piove di Sacco

