

# **MISASILENT BT R449a**

**ENERGY EFFICIENCY  
DATA SHEETS**

Model	<b>MISASILENT- GNS20</b>		
Refrigerating Fluid	<b>R449a</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,49</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>1,69</b>	kW
Nominal absorbed power	$D_A$	<b>1,52</b>	kW
<b>Nominal COP</b>	$COP_A$	<b>1,11</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>1,79</b>	kW
Nominal absorbed power	$D_B$	<b>1,36</b>	kW
<b>Declared COP</b>	$COP_B$	<b>1,31</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>1,91</b>	kW
Nominal absorbed power	$D_C$	<b>1,18</b>	kW
<b>Declared COP</b>	$COP_C$	<b>1,62</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>1,94</b>	kW
Nominal absorbed power	$D_A$	<b>1,15</b>	kW
<b>Declared COP</b>	$COP_D$	<b>1,69</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>1,52</b>	kW
Nominal absorbed power	$D_3$	<b>1,90</b>	kW
<b>Declared COP</b>	$COP_3$	<b>0,80</b>	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	
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Model	<b>MISASILENT- GNS28</b>		
Refrigerating Fluid	<b>R449a</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,71</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>2,09</b>	kW
Nominal absorbed power	$D_A$	<b>2,05</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>1,02</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>2,23</b>	kW
Nominal absorbed power	$D_B$	<b>1,77</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,26</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>2,40</b>	kW
Nominal absorbed power	$D_C$	<b>1,47</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>1,63</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>2,55</b>	kW
Nominal absorbed power	$D_A$	<b>1,26</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>2,02</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>1,85</b>	kW
Nominal absorbed power	$D_3$	<b>2,61</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>0,71</b>	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	

Model	<b>MISASILENT- GNS40</b>		
Refrigerating Fluid	<b>R449a</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,69</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>2,43</b>	kW
Nominal absorbed power	$D_A$	<b>2,21</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>1,10</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>2,60</b>	kW
Nominal absorbed power	$D_B$	<b>1,92</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,35</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>2,82</b>	kW
Nominal absorbed power	$D_C$	<b>1,64</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>1,72</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>3,00</b>	kW
Nominal absorbed power	$D_A$	<b>1,39</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>2,15</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>2,13</b>	kW
Nominal absorbed power	$D_3$	<b>2,80</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>0,76</b>	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	

Model	<b>MISASILENT- GNS41</b>
Refrigerating Fluid	<b>R449a</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,52</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>3,03</b>	kW
Nominal absorbed power	$D_A$	<b>3,29</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>0,92</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>3,26</b>	kW
Nominal absorbed power	$D_B$	<b>2,81</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,16</b>	

<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>3,57</b>	kW
Nominal absorbed power	$D_C$	<b>2,29</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>1,56</b>	

<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>3,86</b>	kW
Nominal absorbed power	$D_A$	<b>1,92</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>2,01</b>	

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>2,65</b>	kW
Nominal absorbed power	$D_3$	<b>4,28</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>0,62</b>	

Control of capacity	<i>fixed</i>		
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Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	
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Model	<b>MISASILENT- GNS50</b>
Refrigerating Fluid	<b>R449a</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,62</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>3,60</b>	kW
Nominal absorbed power	$D_A$	<b>3,87</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>0,93</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>3,91</b>	kW
Nominal absorbed power	$D_B$	<b>3,18</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,23</b>	

<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>4,30</b>	kW
Nominal absorbed power	$D_C$	<b>2,53</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>1,70</b>	

<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>4,63</b>	kW
Nominal absorbed power	$D_A$	<b>2,19</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>2,11</b>	

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>3,02</b>	kW
Nominal absorbed power	$D_3$	<b>5,49</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>0,55</b>	

Control of capacity	<i>fixed</i>		
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Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	
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Model	<b>MISASILENT- GNS75</b>		
Refrigerating Fluid	<b>R449a</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,71</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>4,61</b>	kW
Nominal absorbed power	$D_A$	<b>4,12</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>1,12</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>4,95</b>	kW
Nominal absorbed power	$D_B$	<b>3,62</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,37</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>5,42</b>	kW
Nominal absorbed power	$D_C$	<b>3,08</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>1,76</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>5,85</b>	kW
Nominal absorbed power	$D_A$	<b>2,69</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>2,17</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>4,05</b>	kW
Nominal absorbed power	$D_3$	<b>5,12</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>0,79</b>	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	

Model	<b>MISASILENT- GNS100</b>
Refrigerating Fluid	<b>R449a</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-35°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>1,71</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>6,03</b>	kW
Nominal absorbed power	$D_A$	<b>5,48</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>1,10</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>6,49</b>	kW
Nominal absorbed power	$D_B$	<b>4,81</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,35</b>	

<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>7,11</b>	kW
Nominal absorbed power	$D_C$	<b>4,04</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>1,76</b>	

<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>7,67</b>	kW
Nominal absorbed power	$D_A$	<b>3,49</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>2,20</b>	

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>5,28</b>	kW
Nominal absorbed power	$D_3$	<b>6,94</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>0,76</b>	

Control of capacity	<i>fixed</i>		
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Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	
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