

# **MISASILENT TN R449a**

**ENERGY EFFICIENCY  
DATA SHEETS**

Model	<b>MISASILENT- GPS15</b>		
Refrigerating Fluid	<b>R449a</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>3,34</b>	kW
Nominal absorbed power	$D_A$	<b>1,63</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,05</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>3,68</b>	kW
Nominal absorbed power	$D_B$	<b>1,39</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,64</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>x</b>	kW
Nominal absorbed power	$D_C$	<b>x</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>x</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>x</b>	kW
Nominal absorbed power	$D_A$	<b>x</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>2,78</b>	kW
Nominal absorbed power	$D_3$	<b>2,14</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,30</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- GPS20</b>
Refrigerating Fluid	<b>R449A</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>x</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>3,91</b>	kW
Nominal absorbed power	$D_A$	<b>1,92</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,03</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>4,22</b>	kW
Nominal absorbed power	$D_B$	<b>1,67</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,52</b>	

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

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

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>3,40</b>	kW
Nominal absorbed power	$D_3$	<b>2,43</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,40</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- GPS25</b>
Refrigerating Fluid	<b>R449a</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>3,21</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>4,92</b>	kW
Nominal absorbed power	$D_A$	<b>2,42</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,03</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>5,32</b>	kW
Nominal absorbed power	$D_B$	<b>2,10</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,54</b>	

<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>5,87</b>	kW
Nominal absorbed power	$D_C$	<b>1,71</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>3,43</b>	

<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>6,36</b>	kW
Nominal absorbed power	$D_A$	<b>1,43</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>4,46</b>	

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>4,25</b>	kW
Nominal absorbed power	$D_3$	<b>3,04</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,40</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- GPS26</b>		
Refrigerating Fluid	<b>R449a</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>3,05</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>5,61</b>	kW
Nominal absorbed power	$D_A$	<b>2,91</b>	kW
<b>Nominal COP</b>	$COP_A$	<b>1,93</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>6,08</b>	kW
Nominal absorbed power	$D_B$	<b>2,52</b>	kW
<b>Declared COP</b>	$COP_B$	<b>2,41</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>6,71</b>	kW
Nominal absorbed power	$D_C$	<b>2,07</b>	kW
<b>Declared COP</b>	$COP_C$	<b>3,25</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>7,32</b>	kW
Nominal absorbed power	$D_A$	<b>1,71</b>	kW
<b>Declared COP</b>	$COP_D$	<b>4,27</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>4,85</b>	kW
Nominal absorbed power	$D_3$	<b>3,62</b>	kW
<b>Declared COP</b>	$COP_3$	<b>1,34</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- GPS30</b>		
Refrigerating Fluid	<b>R449A</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>3,13</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>6,77</b>	kW
Nominal absorbed power	$D_A$	<b>3,02</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,24</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>7,25</b>	kW
Nominal absorbed power	$D_B$	<b>2,72</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,67</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>7,89</b>	kW
Nominal absorbed power	$D_C$	<b>2,37</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>3,33</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>8,44</b>	kW
Nominal absorbed power	$D_A$	<b>2,05</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>4,12</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>5,95</b>	kW
Nominal absorbed power	$D_3$	<b>3,61</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,65</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- GPS40</b>		
Refrigerating Fluid	<b>R449A</b>		
Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>3,16</b>	
<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>8,69</b>	kW
Nominal absorbed power	$D_A$	<b>4,04</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,15</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>9,39</b>	kW
Nominal absorbed power	$D_B$	<b>3,56</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,64</b>	
<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>10,34</b>	kW
Nominal absorbed power	$D_C$	<b>3,02</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>3,42</b>	
<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>11,23</b>	kW
Nominal absorbed power	$D_A$	<b>2,68</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>4,19</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>7,53</b>	kW
Nominal absorbed power	$D_3$	<b>5,05</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,49</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- GPS47</b>
Refrigerating Fluid	<b>R449a</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>3,27</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>10,07</b>	kW
Nominal absorbed power	$D_A$	<b>4,58</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,20</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>10,85</b>	kW
Nominal absorbed power	$D_B$	<b>3,96</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,74</b>	

<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>11,94</b>	kW
Nominal absorbed power	$D_C$	<b>3,37</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>3,54</b>	

<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>12,98</b>	kW
Nominal absorbed power	$D_A$	<b>2,99</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>4,34</b>	

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>8,78</b>	kW
Nominal absorbed power	$D_3$	<b>5,93</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,48</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- GPS70</b>
Refrigerating Fluid	<b>R449a</b>

Element	Symbol	Value	Unit
<b>Evaporation temperature</b>	$t$	<b>-10°C</b>	°C
<b>Annual consumption of electrical energy</b>	$Q$	<b>x</b>	kWh/a
<b>Seasonal energy efficiency ratio</b>	$SEPR$	<b>3,14</b>	

<b>Parameters at full load and at a room temperature of 32°C (Point A)</b>			
Nominal cooling capacity	$P_A$	<b>12,81</b>	kW
Nominal absorbed power	$D_A$	<b>5,72</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>2,24</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>13,78</b>	kW
Nominal absorbed power	$D_B$	<b>5,14</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>2,68</b>	

<b>Parameters at full load and at a room temperature of 15°C (Point C)</b>			
Nominal cooling capacity	$P_C$	<b>15,09</b>	kW
Nominal absorbed power	$D_C$	<b>4,46</b>	kW
<b>Declared COP</b>	<b><math>COP_C</math></b>	<b>3,38</b>	

<b>Parameters at full load and at a room temperature of 5°C (Point D)</b>			
Nominal cooling capacity	$P_D$	<b>16,27</b>	kW
Nominal absorbed power	$D_A$	<b>3,95</b>	kW
<b>Declared COP</b>	<b><math>COP_D</math></b>	<b>4,12</b>	

<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>11,21</b>	kW
Nominal absorbed power	$D_3$	<b>6,92</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,62</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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