

# **FREEBLOCK TN R404a**

**ENERGY EFFICIENCY  
DATA SHEETS**

Model	<b>FREEBLOCK - FB 3G</b>			
Refrigerating Fluid	<b>R404A</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>1,07</b>	kW
Nominal absorbed power		$D_A$	<b>0,75</b>	kW
<b>Nominal COP</b>		<b><math>COP_A</math></b>	<b>1,42</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>1,19</b>	kW
Nominal absorbed power		$D_B$	<b>0,73</b>	kW
<b>Declared COP</b>		<b><math>COP_B</math></b>	<b>1,64</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>0,91</b>	kW
Nominal absorbed power		$D_3$	<b>0,81</b>	kW
<b>Declared COP</b>		<b><math>COP_3</math></b>	<b>1,13</b>	
Control of capacity	<i>fixed</i>			
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				

Model	<b>FREEBLOCK - FB 7G</b>		
Refrigerating Fluid	<b>R404A</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>1,00</b>	kW
Nominal absorbed power	$D_A$	<b>0,77</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>1,30</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>1,11</b>	kW
Nominal absorbed power	$D_B$	<b>0,75</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,48</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>0,86</b>	kW
Nominal absorbed power	$D_3$	<b>0,82</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,04</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>FREEBLOCK - FB 13G</b>			
Refrigerating Fluid	<b>R404A</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>1,30</b>	kW
Nominal absorbed power		$D_A$	<b>0,91</b>	kW
<b>Nominal COP</b>		$COP_A$	<b>1,43</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>1,46</b>	kW
Nominal absorbed power		$D_B$	<b>0,88</b>	kW
<b>Declared COP</b>		$COP_B$	<b>1,67</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>		$COP_C$	<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>		$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>				
Nominal cooling capacity		$P_3$	<b>1,05</b>	kW
Nominal absorbed power		$D_3$	<b>0,97</b>	kW
<b>Declared COP</b>		$COP_3$	<b>1,08</b>	
Control of capacity	<i>fixed</i>			
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				

Model	<b>FREEBLOCK - FB 16G</b>			
Refrigerating Fluid	<b>R404A</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>1,87</b>	kW
Nominal absorbed power		$D_A$	<b>1,10</b>	kW
<b>Nominal COP</b>		$COP_A$	<b>1,70</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>2,06</b>	kW
Nominal absorbed power		$D_B$	<b>1,07</b>	kW
<b>Declared COP</b>		$COP_B$	<b>1,92</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>		$COP_C$	<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>		$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>				
Nominal cooling capacity		$P_3$	<b>1,55</b>	kW
Nominal absorbed power		$D_3$	<b>1,14</b>	kW
<b>Declared COP</b>		$COP_3$	<b>1,36</b>	
Control of capacity	<i>fixed</i>			
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				

Model	<b>FREEBLOCK - FB 20G</b>		
Refrigerating Fluid	<b>R404A</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>2,41</b>	kW
Nominal absorbed power	$D_A$	<b>1,25</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>2,66</b>	kW
Nominal absorbed power	$D_B$	<b>1,22</b>	kW
<b>Declared COP</b>	$COP_B$	<b>2,18</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>	$COP_C$	<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>	$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>			
Nominal cooling capacity	$P_3$	<b>2,02</b>	kW
Nominal absorbed power	$D_3$	<b>1,30</b>	kW
<b>Declared COP</b>	$COP_3$	<b>1,55</b>	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia			

Model	<b>FREEBLOCK - FB 26G</b>			
Refrigerating Fluid	<b>R404A</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>2,99</b>	kW
Nominal absorbed power		$D_A$	<b>1,49</b>	kW
<b>Nominal COP</b>		$COP_A$	<b>2,01</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>3,32</b>	kW
Nominal absorbed power		$D_B$	<b>1,45</b>	kW
<b>Declared COP</b>		$COP_B$	<b>2,29</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>		$COP_C$	<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>		$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>				
Nominal cooling capacity		$P_3$	<b>2,46</b>	kW
Nominal absorbed power		$D_3$	<b>1,54</b>	kW
<b>Declared COP</b>		$COP_3$	<b>1,60</b>	
Control of capacity		<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				

Model	<b>FREEBLOCK - FB 50G</b>			
Refrigerating Fluid	<b>R404A</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>3,62</b>	kW
Nominal absorbed power		$D_A$	<b>1,85</b>	kW
<b>Nominal COP</b>		$COP_A$	<b>1,96</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>4,04</b>	kW
Nominal absorbed power		$D_B$	<b>1,60</b>	kW
<b>Declared COP</b>		$COP_B$	<b>2,53</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>		$COP_C$	<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>		$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>				
Nominal cooling capacity		$P_3$	<b>2,91</b>	kW
Nominal absorbed power		$D_3$	<b>2,34</b>	kW
<b>Declared COP</b>		$COP_3$	<b>1,24</b>	
Control of capacity		<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				



Model	<b>FREEBLOCK - FB 70G</b>			
Refrigerating Fluid	<b>R404A</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>4,28</b>	kW
Nominal absorbed power		$D_A$	<b>2,13</b>	kW
<b>Nominal COP</b>		$COP_A$	<b>2,01</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>4,69</b>	kW
Nominal absorbed power		$D_B$	<b>1,88</b>	kW
<b>Declared COP</b>		$COP_B$	<b>2,50</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>		$COP_C$	<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>		$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>				
Nominal cooling capacity		$P_3$	<b>3,58</b>	kW
Nominal absorbed power		$D_3$	<b>2,62</b>	kW
<b>Declared COP</b>		$COP_3$	<b>1,37</b>	
Control of capacity	<i>fixed</i>			
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				

Model	<b>FREEBLOCK - FB SLIM 4G</b>			
Refrigerating Fluid	<b>R404A</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>1,01</b>	kW
Nominal absorbed power		$D_A$	<b>0,77</b>	kW
<b>Nominal COP</b>		$COP_A$	<b>1,31</b>	
<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>				
Nominal cooling capacity		$P_B$	<b>1,11</b>	kW
Nominal absorbed power		$D_B$	<b>0,74</b>	kW
<b>Declared COP</b>		$COP_B$	<b>1,50</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>		$COP_C$	<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>		$COP_D$	<b>x</b>	
<b>Parameters at full load and at a room temperature of 43°C</b>				
Nominal cooling capacity		$P_3$	<b>0,86</b>	kW
Nominal absorbed power		$D_3$	<b>0,82</b>	kW
<b>Declared COP</b>		$COP_3$	<b>1,05</b>	
Control of capacity	<i>fixed</i>			
Degradation coefficient of the units with a fixed and progressive capacity		$Cdc$	<b>0,25</b>	
EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia				

Model	<b>FREEBLOCK - FB SLIM 7G</b>
Refrigerating Fluid	<b>R404A</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>1,08</b>	kW
Nominal absorbed power	$D_A$	<b>0,75</b>	kW
<b>Nominal COP</b>	<b><math>COP_A</math></b>	<b>1,43</b>	

<b>Parameters at full load and at a room temperature of 25°C (Point B)</b>			
Nominal cooling capacity	$P_B$	<b>1,20</b>	kW
Nominal absorbed power	$D_B$	<b>0,72</b>	kW
<b>Declared COP</b>	<b><math>COP_B</math></b>	<b>1,66</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>0,92</b>	kW
Nominal absorbed power	$D_3$	<b>0,80</b>	kW
<b>Declared COP</b>	<b><math>COP_3</math></b>	<b>1,15</b>	

Control of capacity	<i>fixed</i>		
---------------------	--------------	--	--

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

EPTA S.p.A. Unità Locale Via delle Monachelle Vecchia, 7 00071 - Pomezia (RM) - Italia
---



**BUREAU  
VERITAS**  
PED Certification

