

ENERGY EFFICIENCY TEST REPORT																																																																																																														
Brand: LEOV																																																																																																														
Model: LEOV AD 10L																																																																																																														
Type:																																																																																																														
Storage									YES																																																																																																					
Instantaneous									/																																																																																																					
Data									unit																																																																																																					
Rated Power									1500	W																																																																																																				
Hot Water Storage Volume									10	L																																																																																																				
Test Voltage									230/50	V/Hz																																																																																																				
Water Supply Temperature									15	°C																																																																																																				
Ambient Temperature									20	°C																																																																																																				
Water Supply Pressure									5	bar																																																																																																				
V ₄₀		$V_{40}[\text{litres}] = V_{40\text{exp}} * \frac{(v_p - 10)}{30}$							20	L																																																																																																				
Load Profile		<table><tr><td>Declared load profile</td><td>M</td><td>L</td><td>XL</td><td>XXL</td><td>3XL</td><td>4XL</td></tr><tr><td>Mixed water at 40°C</td><td>65 litres</td><td>130 litres</td><td>210 litres</td><td>300 litres</td><td>520 litres</td><td>1040 litres</td></tr></table>							Declared load profile	M	L	XL	XXL	3XL	4XL	Mixed water at 40°C	65 litres	130 litres	210 litres	300 litres	520 litres	1040 litres	XXS	-																																																																																						
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Mixed water at 40°C	65 litres	130 litres	210 litres	300 litres	520 litres	1040 litres																																																																																																								
T _{set} declared									70	°C																																																																																																				
T _{set} measured									72	°C																																																																																																				
Q _{testelec} kWh/d									2.9	kWh/d																																																																																																				
Electricity consumption (Q _{elec})		$Q_{\text{elec}} = \left(\frac{Q_{\text{ref}}}{Q_{\text{H2O}}} \right) * \{ Q_{\text{testelec}} + \frac{1,163 * C_{\text{act}} * (T_3(t_3) - T_5(t_5))}{1000} \}$							2.7	kWh/d																																																																																																				
C _{act}		$C_{\text{act}} = \frac{m_{\text{act}}}{0.9997}$							9.8	L																																																																																																				
Q _{ref}									5.845	kWh																																																																																																				
Q _{H2O}									5.892	kWh																																																																																																				
Specific Energy Efficiency (η _{wh})		$\eta = \frac{Q_{\text{ref}}}{CC * (Q_{\text{elec}} * (1 - \text{SCF} * \text{smart}) + Q_{\text{cor}})}$							33	%																																																																																																				
Energy Efficiency class		<table><tr><td></td><td>3XS</td><td>XXS</td><td>XS</td><td>S</td><td>M</td><td>L</td><td>XL</td><td>XXL</td></tr><tr><td>A+++</td><td>η_{wh} ≥ 62</td><td>η_{wh} ≥ 62</td><td>η_{wh} ≥ 69</td><td>η_{wh} ≥ 90</td><td>η_{wh} ≥ 163</td><td>η_{wh} ≥ 188</td><td>η_{wh} ≥ 200</td><td>η_{wh} ≥ 213</td></tr><tr><td>A++</td><td>53 ≤ η_{wh} ≤ 62</td><td>53 ≤ η_{wh} ≤ 62</td><td>61 ≤ η_{wh} ≤ 69</td><td>72 ≤ η_{wh} ≤ 90</td><td>130 ≤ η_{wh} ≤ 163</td><td>150 ≤ η_{wh} ≤ 188</td><td>160 ≤ η_{wh} ≤ 200</td><td>170 ≤ η_{wh} ≤ 213</td></tr><tr><td>A+</td><td>44 ≤ η_{wh} ≤ 53</td><td>44 ≤ η_{wh} ≤ 53</td><td>53 ≤ η_{wh} ≤ 61</td><td>55 ≤ η_{wh} ≤ 72</td><td>100 ≤ η_{wh} ≤ 130</td><td>115 ≤ η_{wh} ≤ 150</td><td>123 ≤ η_{wh} ≤ 160</td><td>131 ≤ η_{wh} ≤ 170</td></tr><tr><td>A</td><td>35 ≤ η_{wh} ≤ 44</td><td>35 ≤ η_{wh} ≤ 44</td><td>38 ≤ η_{wh} ≤ 53</td><td>38 ≤ η_{wh} ≤ 55</td><td>65 ≤ η_{wh} ≤ 100</td><td>75 ≤ η_{wh} ≤ 115</td><td>80 ≤ η_{wh} ≤ 123</td><td>85 ≤ η_{wh} ≤ 131</td></tr><tr><td>B</td><td>32 ≤ η_{wh} ≤ 35</td><td>32 ≤ η_{wh} ≤ 35</td><td>35 ≤ η_{wh} ≤ 38</td><td>35 ≤ η_{wh} ≤ 38</td><td>39 ≤ η_{wh} ≤ 65</td><td>50 ≤ η_{wh} ≤ 75</td><td>55 ≤ η_{wh} ≤ 80</td><td>60 ≤ η_{wh} ≤ 85</td></tr><tr><td>C</td><td>29 ≤ η_{wh} ≤ 32</td><td>29 ≤ η_{wh} ≤ 32</td><td>32 ≤ η_{wh} ≤ 35</td><td>22 ≤ η_{wh} ≤ 35</td><td>36 ≤ η_{wh} ≤ 39</td><td>37 ≤ η_{wh} ≤ 50</td><td>38 ≤ η_{wh} ≤ 55</td><td>40 ≤ η_{wh} ≤ 60</td></tr><tr><td>D</td><td>26 ≤ η_{wh} ≤ 29</td><td>26 ≤ η_{wh} ≤ 29</td><td>29 ≤ η_{wh} ≤ 32</td><td>29 ≤ η_{wh} ≤ 32</td><td>33 ≤ η_{wh} ≤ 36</td><td>34 ≤ η_{wh} ≤ 37</td><td>35 ≤ η_{wh} ≤ 38</td><td>36 ≤ η_{wh} ≤ 40</td></tr><tr><td>E</td><td>22 ≤ η_{wh} ≤ 26</td><td>22 ≤ η_{wh} ≤ 26</td><td>26 ≤ η_{wh} ≤ 29</td><td>26 ≤ η_{wh} ≤ 29</td><td>30 ≤ η_{wh} ≤ 33</td><td>30 ≤ η_{wh} ≤ 34</td><td>30 ≤ η_{wh} ≤ 35</td><td>32 ≤ η_{wh} ≤ 36</td></tr><tr><td>F</td><td>19 ≤ η_{wh} ≤ 22</td><td>19 ≤ η_{wh} ≤ 22</td><td>23 ≤ η_{wh} ≤ 26</td><td>23 ≤ η_{wh} ≤ 26</td><td>27 ≤ η_{wh} ≤ 30</td><td>27 ≤ η_{wh} ≤ 30</td><td>27 ≤ η_{wh} ≤ 30</td><td>28 ≤ η_{wh} ≤ 32</td></tr><tr><td>G</td><td>η_{wh} < 19</td><td>η_{wh} < 20</td><td>η_{wh} < 23</td><td>η_{wh} < 23</td><td>η_{wh} < 27</td><td>η_{wh} < 27</td><td>η_{wh} < 27</td><td>η_{wh} < 28</td></tr></table>									3XS	XXS	XS	S	M	L	XL	XXL	A+++	η _{wh} ≥ 62	η _{wh} ≥ 62	η _{wh} ≥ 69	η _{wh} ≥ 90	η _{wh} ≥ 163	η _{wh} ≥ 188	η _{wh} ≥ 200	η _{wh} ≥ 213	A++	53 ≤ η _{wh} ≤ 62	53 ≤ η _{wh} ≤ 62	61 ≤ η _{wh} ≤ 69	72 ≤ η _{wh} ≤ 90	130 ≤ η _{wh} ≤ 163	150 ≤ η _{wh} ≤ 188	160 ≤ η _{wh} ≤ 200	170 ≤ η _{wh} ≤ 213	A+	44 ≤ η _{wh} ≤ 53	44 ≤ η _{wh} ≤ 53	53 ≤ η _{wh} ≤ 61	55 ≤ η _{wh} ≤ 72	100 ≤ η _{wh} ≤ 130	115 ≤ η _{wh} ≤ 150	123 ≤ η _{wh} ≤ 160	131 ≤ η _{wh} ≤ 170	A	35 ≤ η _{wh} ≤ 44	35 ≤ η _{wh} ≤ 44	38 ≤ η _{wh} ≤ 53	38 ≤ η _{wh} ≤ 55	65 ≤ η _{wh} ≤ 100	75 ≤ η _{wh} ≤ 115	80 ≤ η _{wh} ≤ 123	85 ≤ η _{wh} ≤ 131	B	32 ≤ η _{wh} ≤ 35	32 ≤ η _{wh} ≤ 35	35 ≤ η _{wh} ≤ 38	35 ≤ η _{wh} ≤ 38	39 ≤ η _{wh} ≤ 65	50 ≤ η _{wh} ≤ 75	55 ≤ η _{wh} ≤ 80	60 ≤ η _{wh} ≤ 85	C	29 ≤ η _{wh} ≤ 32	29 ≤ η _{wh} ≤ 32	32 ≤ η _{wh} ≤ 35	22 ≤ η _{wh} ≤ 35	36 ≤ η _{wh} ≤ 39	37 ≤ η _{wh} ≤ 50	38 ≤ η _{wh} ≤ 55	40 ≤ η _{wh} ≤ 60	D	26 ≤ η _{wh} ≤ 29	26 ≤ η _{wh} ≤ 29	29 ≤ η _{wh} ≤ 32	29 ≤ η _{wh} ≤ 32	33 ≤ η _{wh} ≤ 36	34 ≤ η _{wh} ≤ 37	35 ≤ η _{wh} ≤ 38	36 ≤ η _{wh} ≤ 40	E	22 ≤ η _{wh} ≤ 26	22 ≤ η _{wh} ≤ 26	26 ≤ η _{wh} ≤ 29	26 ≤ η _{wh} ≤ 29	30 ≤ η _{wh} ≤ 33	30 ≤ η _{wh} ≤ 34	30 ≤ η _{wh} ≤ 35	32 ≤ η _{wh} ≤ 36	F	19 ≤ η _{wh} ≤ 22	19 ≤ η _{wh} ≤ 22	23 ≤ η _{wh} ≤ 26	23 ≤ η _{wh} ≤ 26	27 ≤ η _{wh} ≤ 30	27 ≤ η _{wh} ≤ 30	27 ≤ η _{wh} ≤ 30	28 ≤ η _{wh} ≤ 32	G	η _{wh} < 19	η _{wh} < 20	η _{wh} < 23	η _{wh} < 23	η _{wh} < 27	η _{wh} < 27	η _{wh} < 27	η _{wh} < 28	B	
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Conversion Coefficient To Primary Energy CC									2.5	-																																																																																																				
"k" value		<table><tr><td></td><td>3XS</td><td>XXS</td><td>XS</td><td>S</td><td>M</td><td>L</td><td>XL</td><td>XXL</td><td>3XL</td><td>4XL</td></tr><tr><td>k</td><td>0.23</td><td>0.23</td><td>0.23</td><td>0.23</td><td>0.23</td><td>0.23</td><td>0.23</td><td>0.23</td><td>0.0</td><td>0.0</td></tr></table>										3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL	k	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.0	0.0	0.23	-																																																																												
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k	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.0	0.0																																																																																																				
Ambient Correction Term Q _{cor}		$Q_{\text{cor}} = -k * (CC * (Q_{\text{elec}} * (1 - \text{SCF} * \text{smart}) - Q_{\text{ref}}))$									- 0.75	-																																																																																																		
Annual Electricity Consumption AEC		$AEC = 0.6 * 366 * (Q_{\text{elec}} * (1 - \text{SCF} * \text{smart}) + \frac{Q_{\text{cor}}}{CC})$									527	kWh/y																																																																																																		
Sound Power Level											15	dB(A)																																																																																																		
Insulation Harmonised Standard Regulations (EU)											Polyurethane																																																																																																			