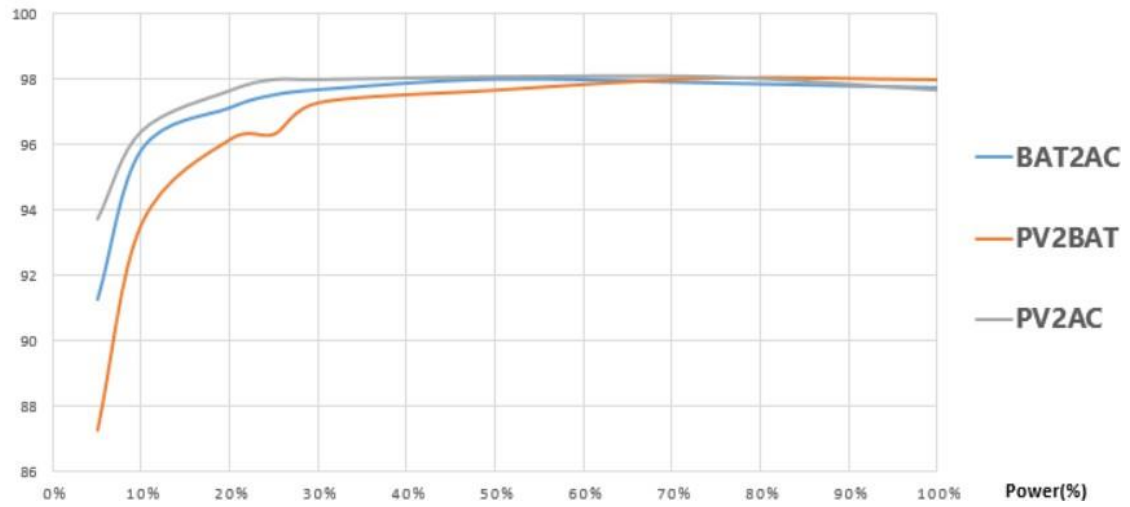


# Application Note-Energy Efficiency of Smart String Energy Storage System LUNA2000

Revision History  
 Version 1.0 March 4, 2022 – Initial release

<p>Application Solution</p>	<p>Energy Efficiency of Smart String Energy Storage System LUNA2000</p>																																												
<p>Solution Diagram</p>	<p>Technical Data according to the efficiency guideline for PV Storage Systems</p> <p>Test detail:              Inverters: SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-3/4/5/6/8/10KTL-M1              Inverter Test Conditions: Standard Test              Environment Battery Storage System: LUNA2000-10-S0              Battery Test Conditions: Standard Test Environment</p>																																												
<p>Solution Configuration</p>	<p><math>\eta(\%)</math> SUN2000-3/4/5/6/8/10KTL-M1 + LUNA2000-10-S0</p> <table border="1"> <caption>Approximate Efficiency Data from Graph</caption> <thead> <tr> <th>Power (%)</th> <th>BAT2AC (%)</th> <th>PV2BAT (%)</th> <th>PV2AC (%)</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>91</td> <td>89</td> <td>91</td> </tr> <tr> <td>20</td> <td>96</td> <td>95</td> <td>96</td> </tr> <tr> <td>30</td> <td>97</td> <td>97</td> <td>97</td> </tr> <tr> <td>40</td> <td>97.5</td> <td>97.5</td> <td>97.5</td> </tr> <tr> <td>50</td> <td>98</td> <td>98</td> <td>98</td> </tr> <tr> <td>60</td> <td>98.2</td> <td>98.2</td> <td>98.2</td> </tr> <tr> <td>70</td> <td>98.3</td> <td>98.3</td> <td>98.3</td> </tr> <tr> <td>80</td> <td>98.3</td> <td>98.3</td> <td>98.3</td> </tr> <tr> <td>90</td> <td>98.2</td> <td>98.2</td> <td>98.2</td> </tr> <tr> <td>100</td> <td>98.1</td> <td>98.1</td> <td>98.1</td> </tr> </tbody> </table>	Power (%)	BAT2AC (%)	PV2BAT (%)	PV2AC (%)	10	91	89	91	20	96	95	96	30	97	97	97	40	97.5	97.5	97.5	50	98	98	98	60	98.2	98.2	98.2	70	98.3	98.3	98.3	80	98.3	98.3	98.3	90	98.2	98.2	98.2	100	98.1	98.1	98.1
Power (%)	BAT2AC (%)	PV2BAT (%)	PV2AC (%)																																										
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	<p><b>n(%) SUN2000-2/3/3.68/4/4.6/5/6KTL-L1 + LUNA2000-10-S0</b></p>  <table border="1" data-bbox="303 806 1452 1041"> <tr> <td colspan="2" style="text-align: center;">Euro Efficiency For SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-3/4/5/6/8/10KTL-M1 +LUNA2000-10-S0</td> </tr> <tr> <td colspan="2">Calculating Formula for Euro Efficiency:</td> </tr> <tr> <td colspan="2">Euro Eff = 0.03 x Eff5% + 0.06 x Eff10% + 0.13 x Eff20% + 0.1 x Eff30% + 0.48 x Eff50% + 0.2 x Eff100%.</td> </tr> <tr> <td>Result</td> <td style="text-align: center;">92.24% (BAT2AC)</td> </tr> </table>	Euro Efficiency For SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-3/4/5/6/8/10KTL-M1 +LUNA2000-10-S0		Calculating Formula for Euro Efficiency:		Euro Eff = 0.03 x Eff5% + 0.06 x Eff10% + 0.13 x Eff20% + 0.1 x Eff30% + 0.48 x Eff50% + 0.2 x Eff100%.		Result	92.24% (BAT2AC)
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Solution Notes	This document only shows the test result of energy efficiency of LUNA2000 system on 24 Feb 2022 Please contact our local support for more details								