



Single Phase String Inverter

ESV- 1.5 / 2.2 / 2.7 / 3 / 3.3 / 3.6 / 4.2 -1P



1 MPP tracker, Max,
efficiency up to 97.5%



Zero export application,
VSG application



String intelligent
monitoring



Wide output
voltage range



Anti-PID function
(Optional)



Low start-up
voltage of 80V



Technical Data

Model	ESV-1.5-1P	ESV-2.2-1P	ESV-2.7-1P	ESV-3-1P	ESV-3.3-1P	ESV-3.6-1P	ESV-4.2-1P
Input Side							
Max. DC Input Power (kW)	2	2.9	3.5	3.9	4.3	4.7	5.2
Max. DC Input Voltage (V)	550						
Start-up DC Input Voltage (V)	80						
MPPT Operating Range (V)	70-500						
Max. DC Input Current (A)	20						
Max. Short Circuit Current (A)	30						
No.of MPP Trackers	1						
No.of Strings per MPP Tracker	1						
Output Side							
Rated Output Power (kW)	1.5	2.2	2.7	3	3.3	3.6	4.2
Max. Active Power (kW)	1.65	2.42	2.97	3.3	3.63	3.96	4.4
Rated Output Voltage/Range (V)	3L/N/PE 220/380V, 230/400V 0.85Un-1.1Un (this may vary with grid standards)						
Rated Grid Frequency (Hz)	50 / 60 (Optional)						
Operating Phase	Single phase						
Rated AC Grid Output Current (A)	6.5	9.6	11.7	13	14.3	15.7	17.4
Max. AC Output Current (A)	7.2	10.5	12.9	14.3	15.8	17.2	19.1
Output Power Factor	0.8 leading to 0.8 lagging						
Total Harmonics Current Distortion (THDi)	<3%						
DC Injection Current (mA)	<0.5%						
Grid Frequency Range	45-55 or 55-65 (Optional)						
Efficiency							
Max. Efficiency	97.3%	97.3%	97.3%	97.5%	97.5%	97.5%	97.5%
Euro Efficiency	97.1%	97.1%	97.1%	97.3%	97.3%	97.3%	97.3%
MPPT Efficiency	>99%						
Protection							
DC Reverse-Polarity Protection	Yes						
AC Short Circuit Protection	Yes						
AC Output Overcurrent Protection	Yes						
Output Overvoltage Protection	Yes						
Insulation Resistance Protection	Yes						
Ground Fault Monitoring	Yes						
Anti-islanding Protection	Yes						
Temperature Protection	Yes						
Integrated DC Switch	Yes						
Remote software upload	Yes						
Remote change of operating parameters	Yes						
Surge protection	DC Type II / AC Type II						
General Data							
Size (mm)	280W×310H×184D (Excluding connectors and brackets)						
Weight (kg)	4.8						
Topology	Transformerless						
Internal Consumption	<1W (Night)						
Running Temperature	-25 to +60°C, >45°C derating						
Ingress Protection	IP65						
Noise Emission (Typical)	≤35 dB						
Cooling Concept	Natural cooling						
Max. Operating Altitude Without Derating	2000m						
Warranty	10years						
Grid Connection Standard	IEC 61727,IEC 62116,CEI 0-21,EN 50549 NRS 097,RD 140,UNE 217002,G98,G99,VDE-AR-N 4105						
Operating Surroundings Humidity	0-100%						
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						
Features							
Display	LCD1602						
Interface	RS485/RS232/Wifi/LAN						