PowerOptimal Elon® 100 kit easy selection guide

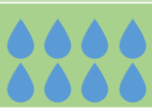
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Elon® 100 kit easy selection guide: element matching

Solar PV array size (kW_p)	Best matching geyser element size (kW)	2nd choice geyser element size (kW)	Geyser size – bigger is better (litres)
1 – 1.6	**4**	3	100 - 200
1.6 - 2	**3**	4 or 2	100 - 200
2 – 3	**3**	4	150 – 300
2 – 4 (two parallel PV strings)	**4**	NA	150 – 300

Short-Circuit Current @ STC I_{sc} < 20A **Open-Circuit Voltage @ STC V_{oc} < 250V**

Elon® 100 kit easy selection guide: how much hot water?

Solar PV array size (kW_p)	Showers per day*	50%+ of daily hot water use provided for how many people?	How many people off-grid for hot water?	Typical number of solar PV modules
1 – 1.6				2 -3 modules
1.6 – 2				3 - 4 modules
2 - 3				4 - 5 modules
3 – 4 (two parallel PV strings)				6 - 8 modules

* 6-minute showers at 40 ºC with 8 litre/min (low-flow) showerheads

Typical kit contents

Solar PV modules	Modules detail	Common components
2	1 string of 2 modules	• Elon 100 with controller, controller wire, element adapter and thermostat bridging wire • Mounting kit (corrugated/IBR or tile) • Solar cabling (4 mm² or larger) • Earth cabling (6 mm² bare copper) • MC4 connectors • 4-way distribution board (DB) • 2-pole DC circuit breaker (16A or 20A for one solar PV string; 32A for two strings) OR DC isolator + fuse • Non-insulated ring lugs x 3 * For high lightning strike density areas (such as parts of Gauteng and Mpumalanga), a **Surge Protection Device (SPD) is recommended**: 220V DC Surge Protection Device (SPD), Type 2. Refer to Appendix F in the Installation Manual for more details.
3	1 string of 3 modules	
4	1 string of 4 modules	
5	1 string of 5 modules	
6	2 strings of 3 modules (6 modules)	
8	2 strings of 4 modules (8 modules)	

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