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Universal Power Converter Performance Charts

The Universal Power Converter delivers a high power to weight and power to volume ratio .when using the converter at its limits changes in the operating conditions of supply voltage, output voltage, output current and temperature affect the continuous and intermittant output capacity. There are many ways of improving the performance detailed in the graphs and tables below but these are best discussed with Ablemail Technical support.

These are continuous results but for intermittent operation higher currents are often achieved particularly when boosting the input voltage

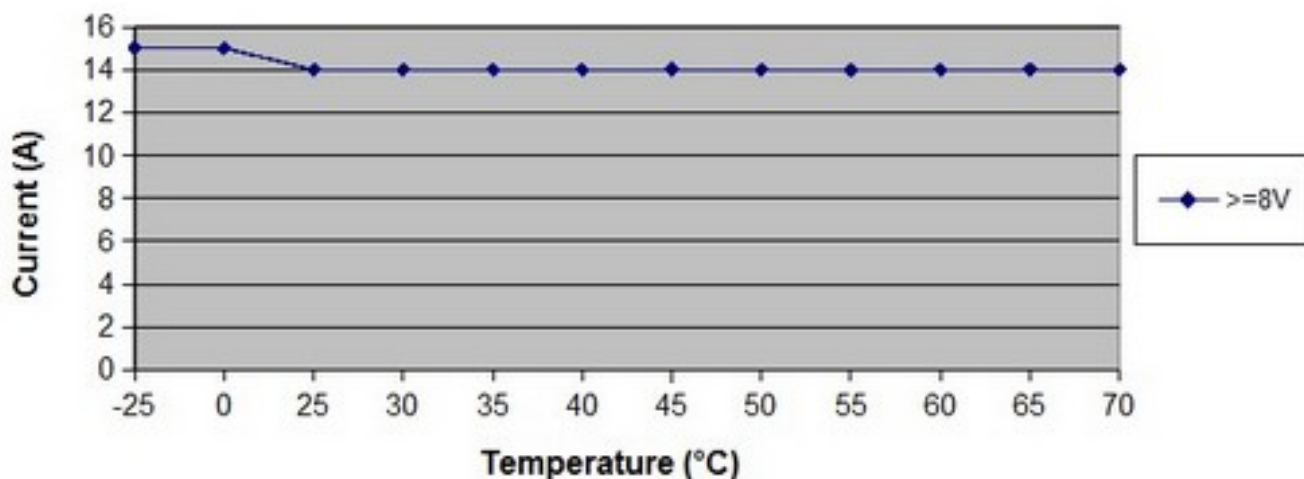
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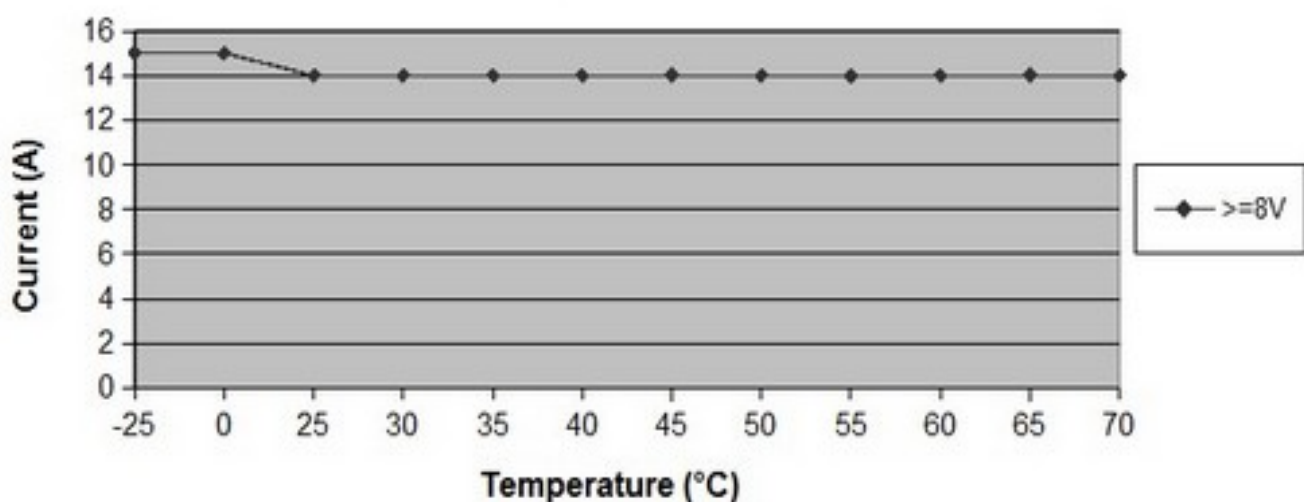


Temperature tests at 15A - 15A-1.5V Output

Maximum Current at 1.5V Output
[8V,14V]



Maximum Current at 1.5V Output
[18V,32V]



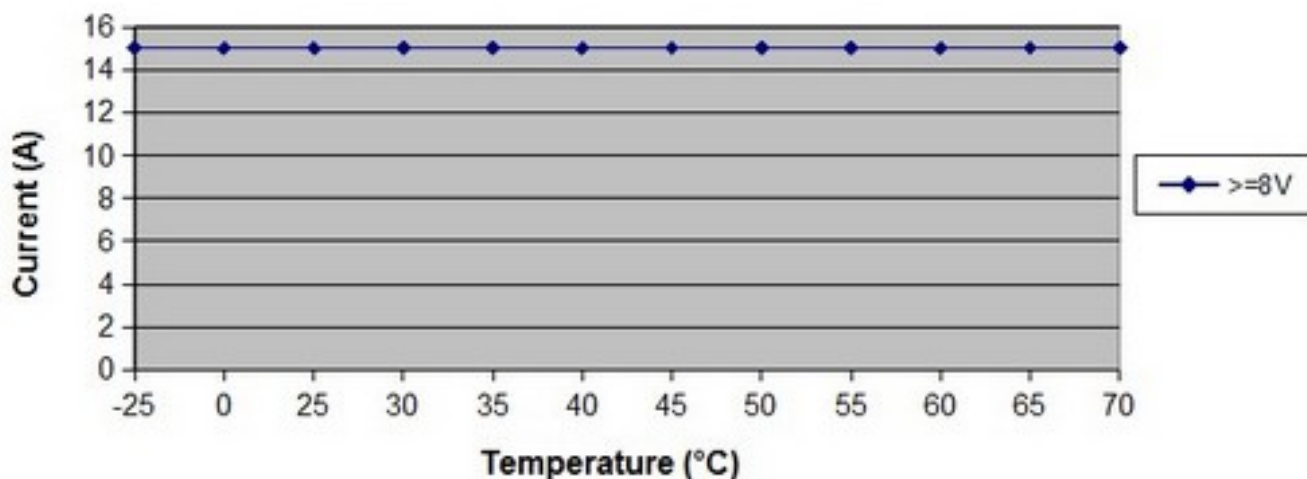
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	21	21	21	21	21	21	21	21	21	21
Efficiency (%)	69	65	65	65	65	63	62	62	60	60

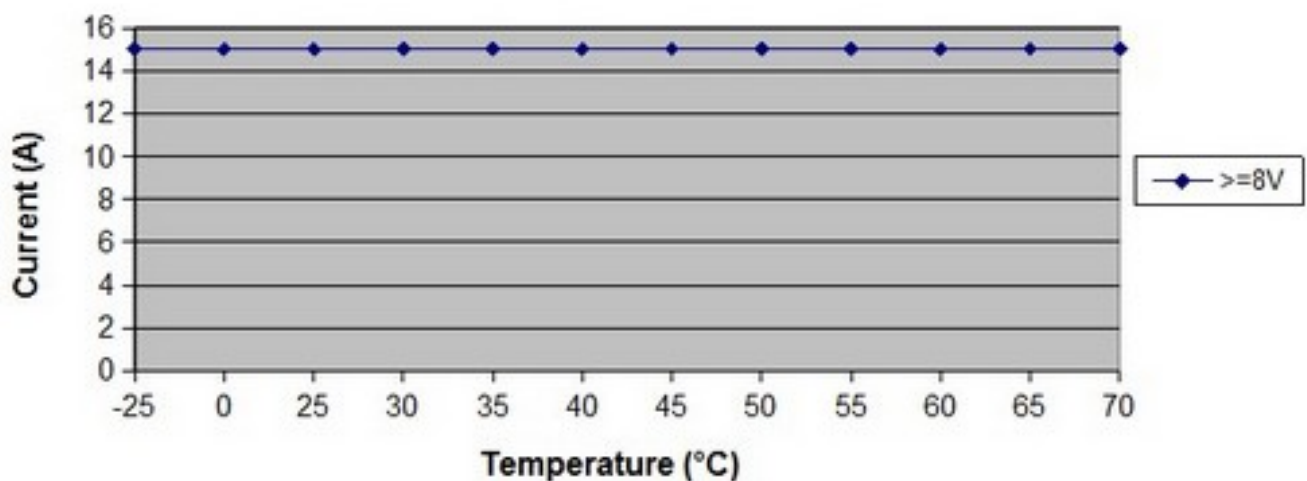


15A-6.1V Output

Maximum Current at 6.1V Output
[8V,14V]



Maximum Current at 6.1V Output
[18V,32V]



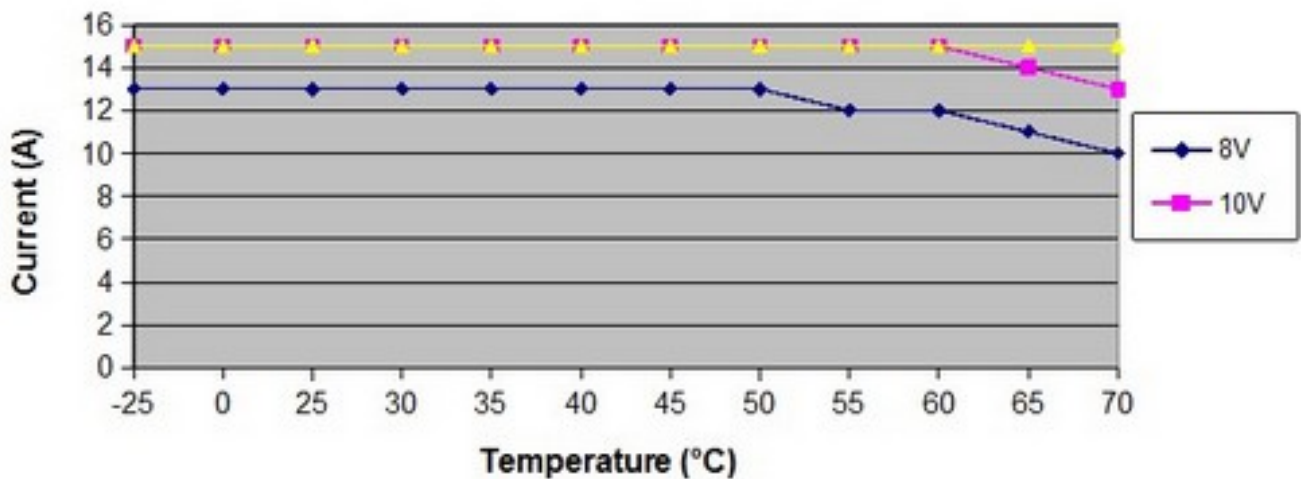
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	91,5	91,5	91,5	91,5	91,5	91,5	91,5	91,5	91,5	91,5
Efficiency (%)	85	86	87	87	88	86	86	86	85	85

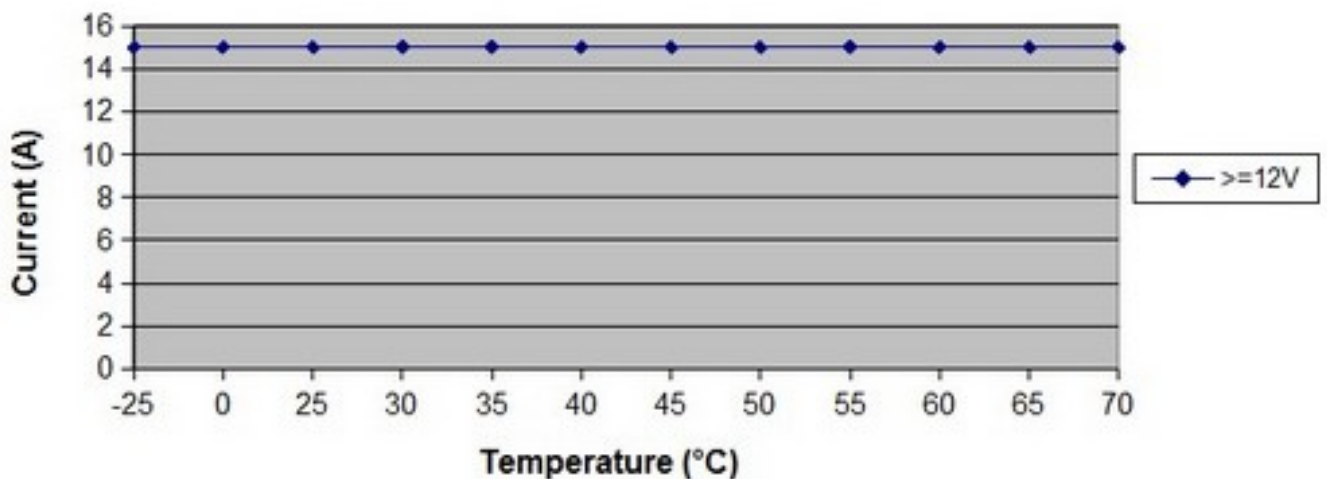


15A-12V Output

Maximum Current at 12V Output
[8V,14V]



Maximum Current at 12V Output
[18V,32V]



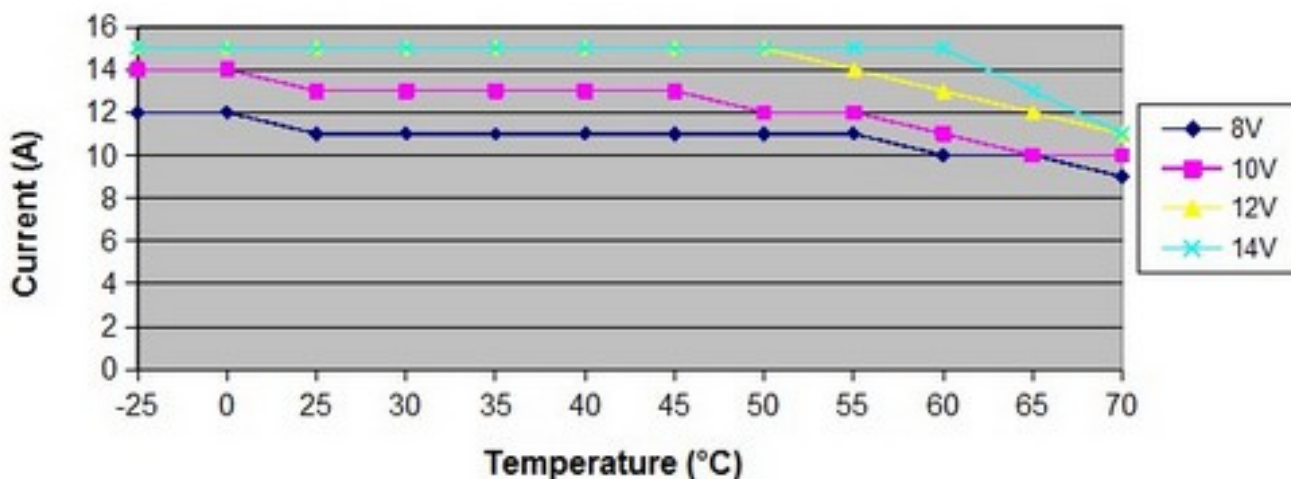
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	156	180	180	180	180	180	180	180	180	180
Efficiency (%)	77	83	88	91	93	92	91	92	92	92

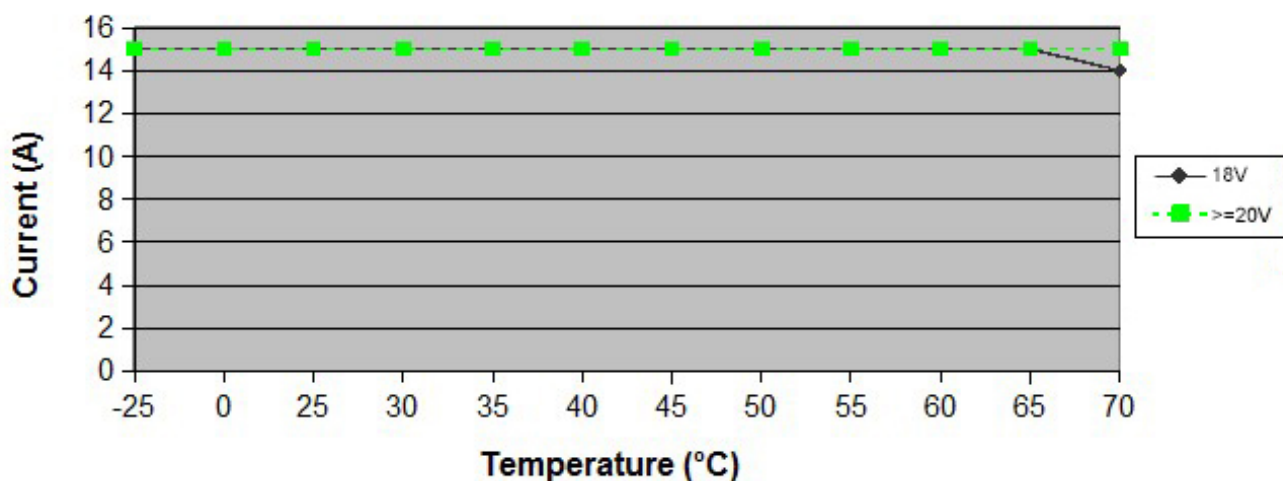


15A-13.6 Output

Maximum Current at 13.6V Output
[8V,14V]



Maximum Current at 13.6V Output
[18V,32V]



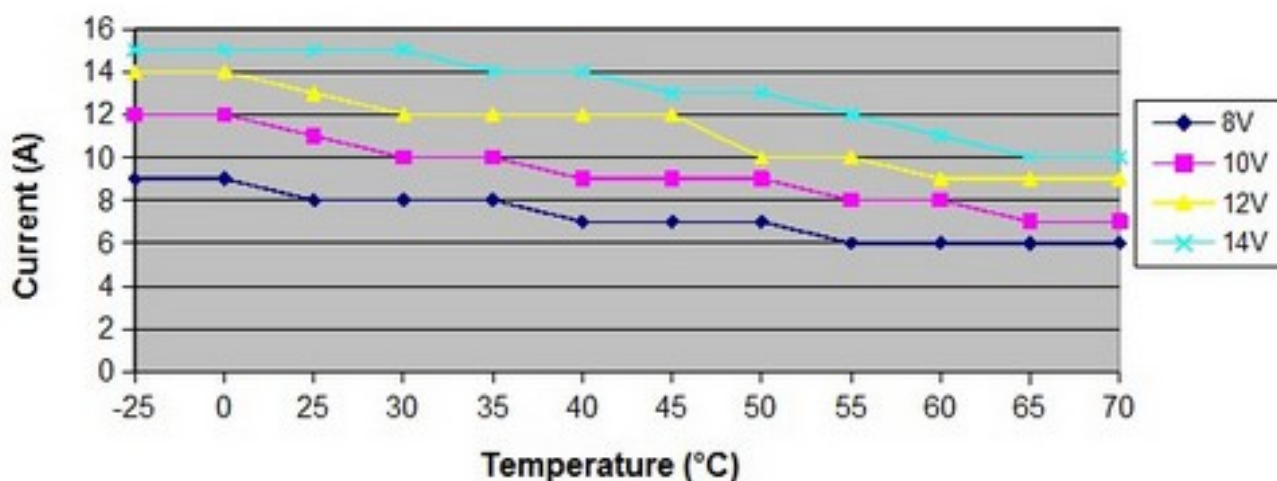
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	149,5	176,8	204	204	204	204	204	204	204	204
Efficiency (%)	79	84	87	90	91	92	89	92	92	92

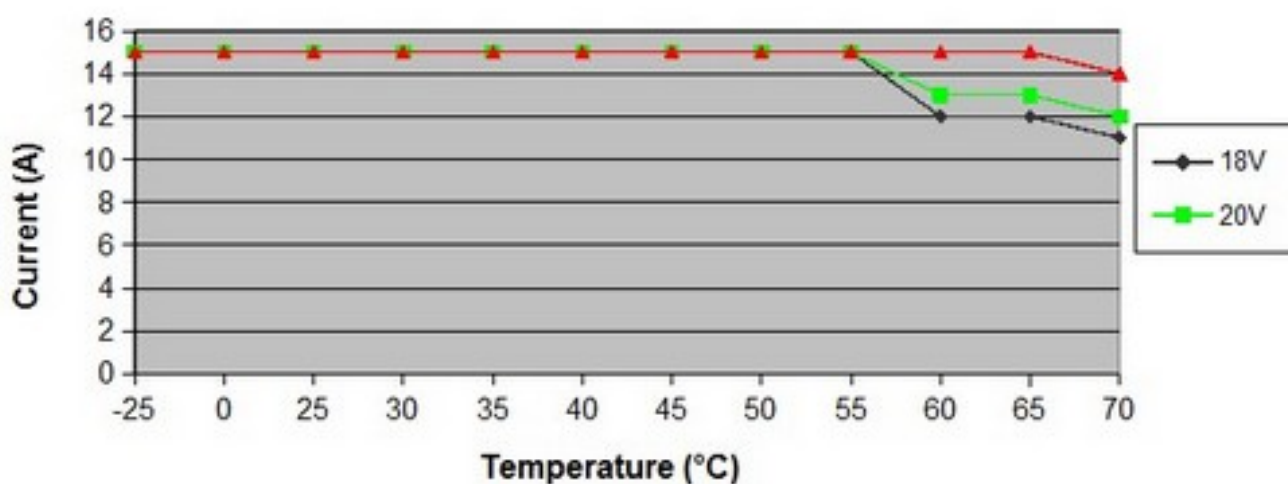


15A-18.4V Output

Maximum Current at 18.4V Output
[8V,14V]



Maximum Current at 18.4V Output
[18V,32V]



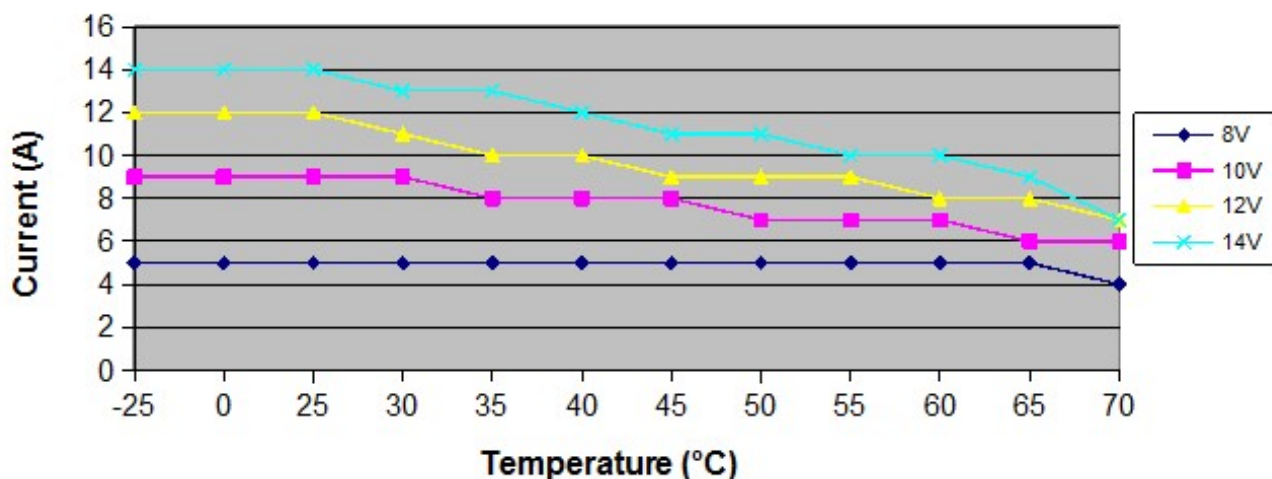
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	147,2	202,4	239,2	276	276	276	276	276	276	276
Efficiency (%)	70	68	77	81	85	90	91	92	92	93

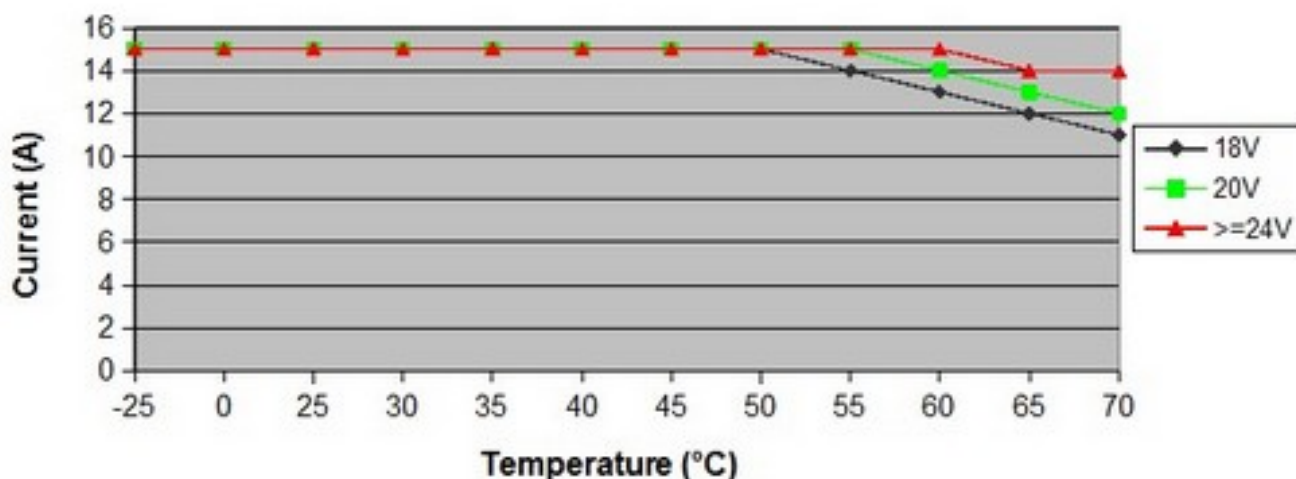


15A-24V Output

Maximum Current at 24V Output
[8V,14V]



Maximum Current at 24V Output
[18V,32V]



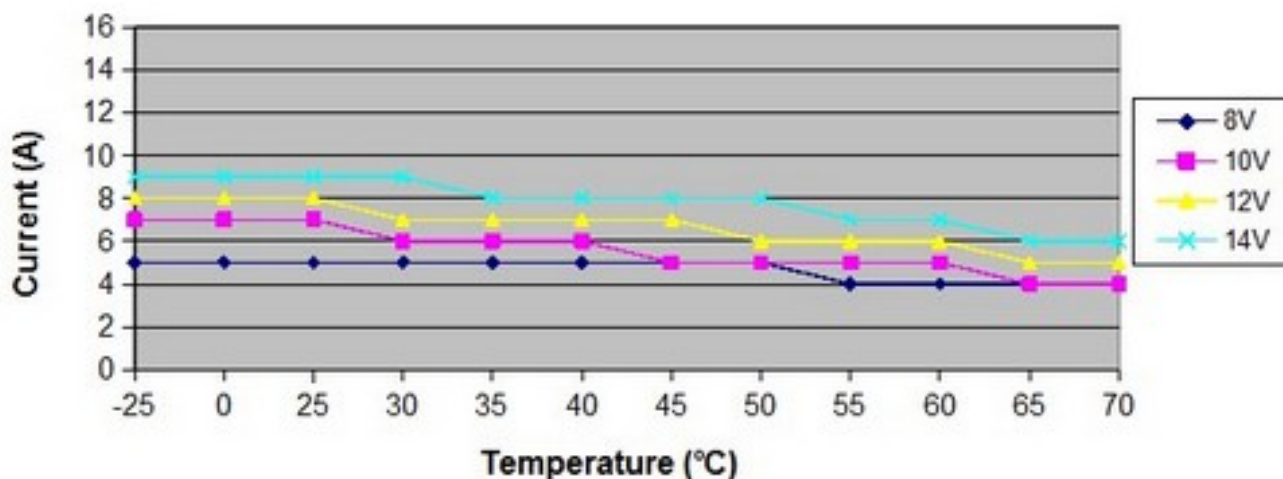
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	120	216	288	336	360	360	360	360	360	360
Efficiency (%)	80	74	79	82	89	91	93	94	94	95

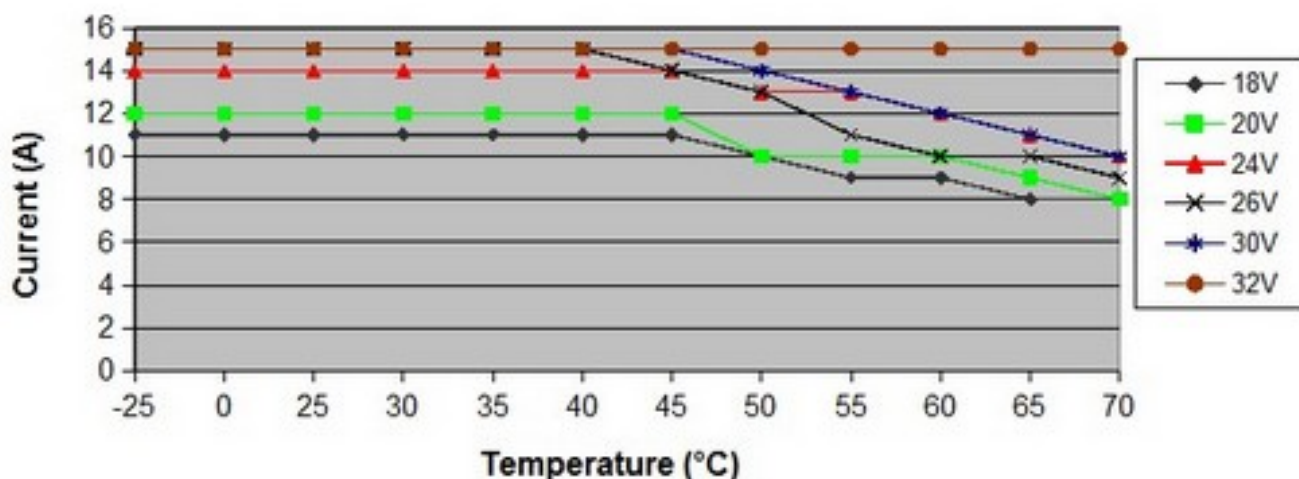


15A-27.2V Output

Maximum current at 27.2V output
[8V,14V]



Maximum current at 27.2V output
[18V,32V]



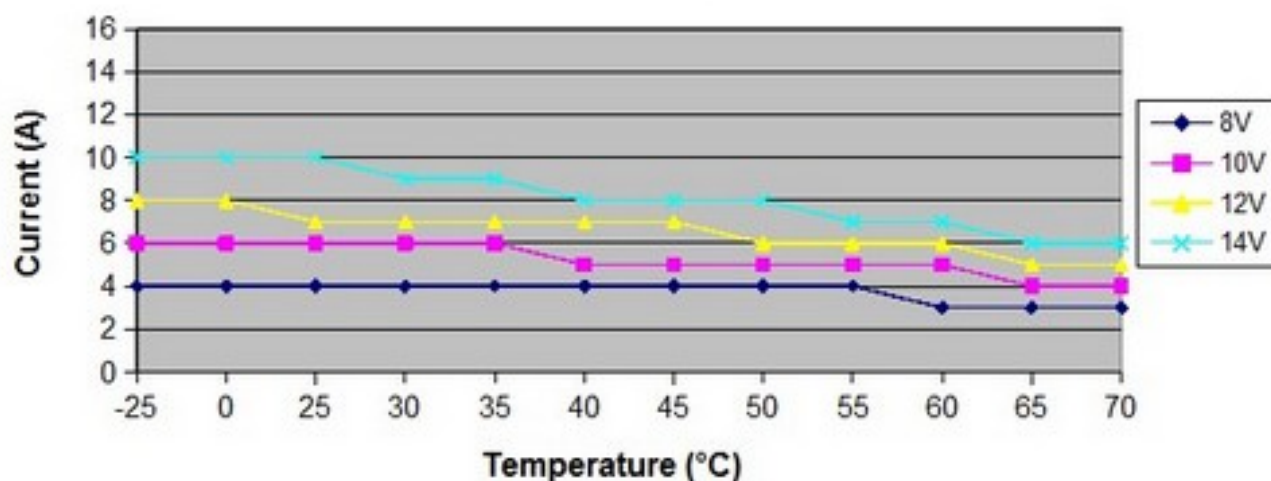
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	136	190,4	217,6	244,8	299,2	326,4	380,8	408	408	408
Efficiency (%)	69	65	65	65	65	63	62	62	60	60

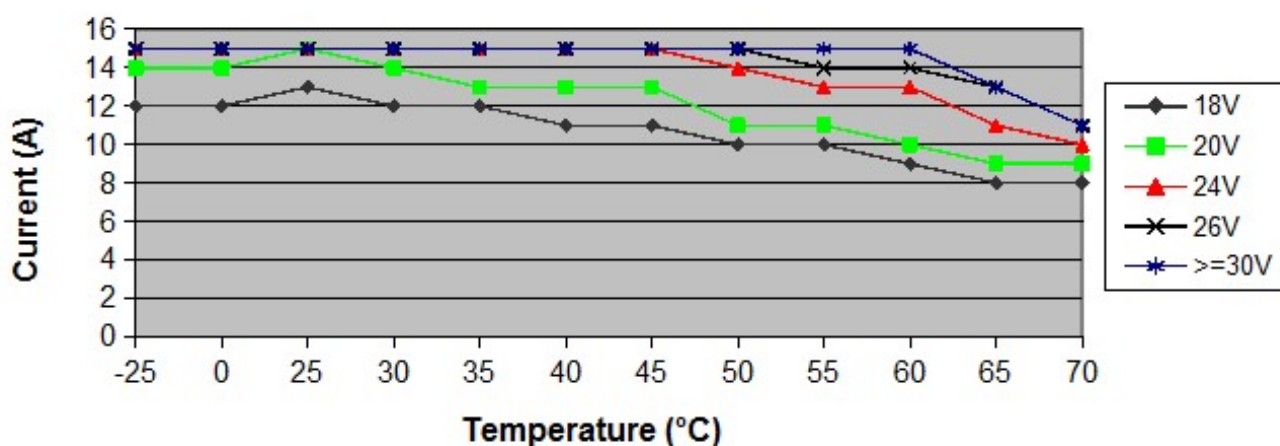


15A-32V Output

Maximum Current at 32V Output
[8V,14V]



Maximum Current at 32V Output
[18V,32V]



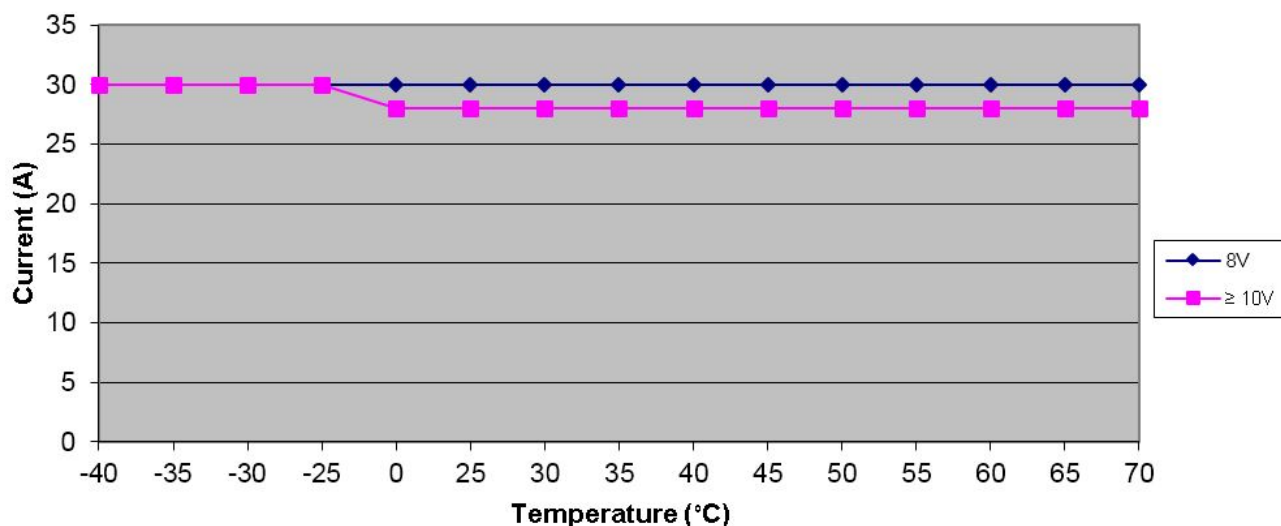
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	128	192	256	320	448	480	480	480	480	480
Efficiency (%)	80	78	79	81	85	87	91	92	93	93

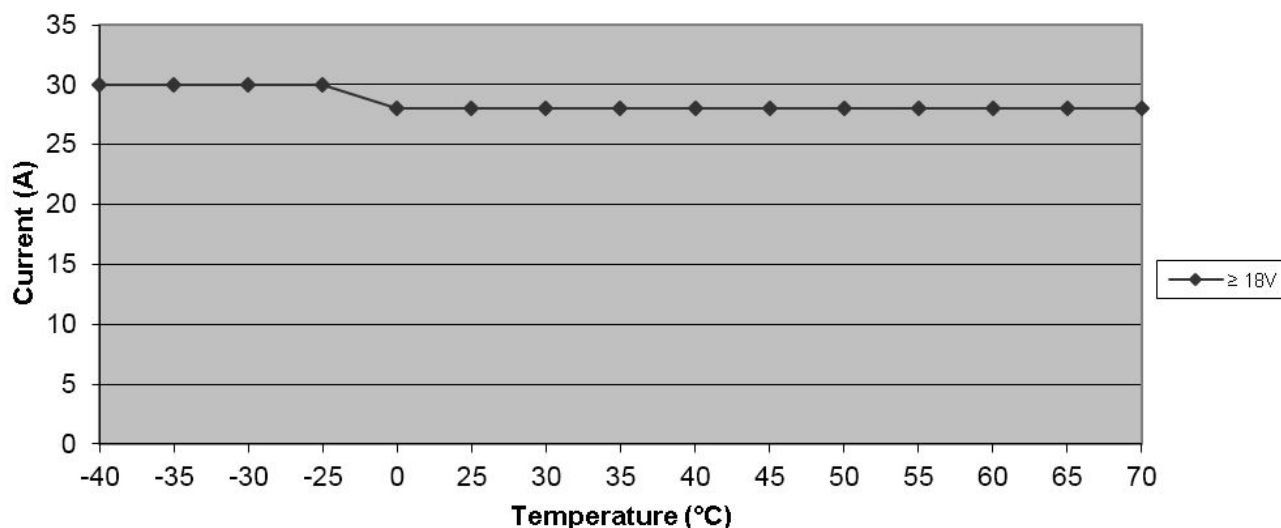


Temperature Testes at 30A - 30A-1.5V

Maximum current at 1.5V output
[8V,14V]



Maximum current at 1.5V output
[18V,32V]



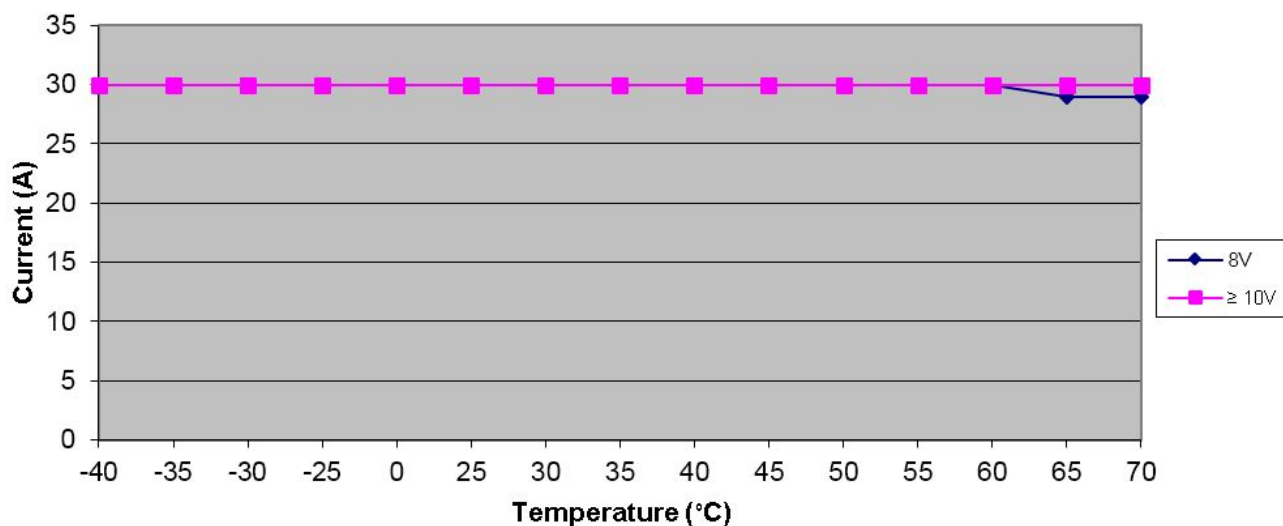
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	45	42	42	42	42	42	42	42	42	42
Efficiency (%)	60	64	64	63	63	62	60	60	58	60

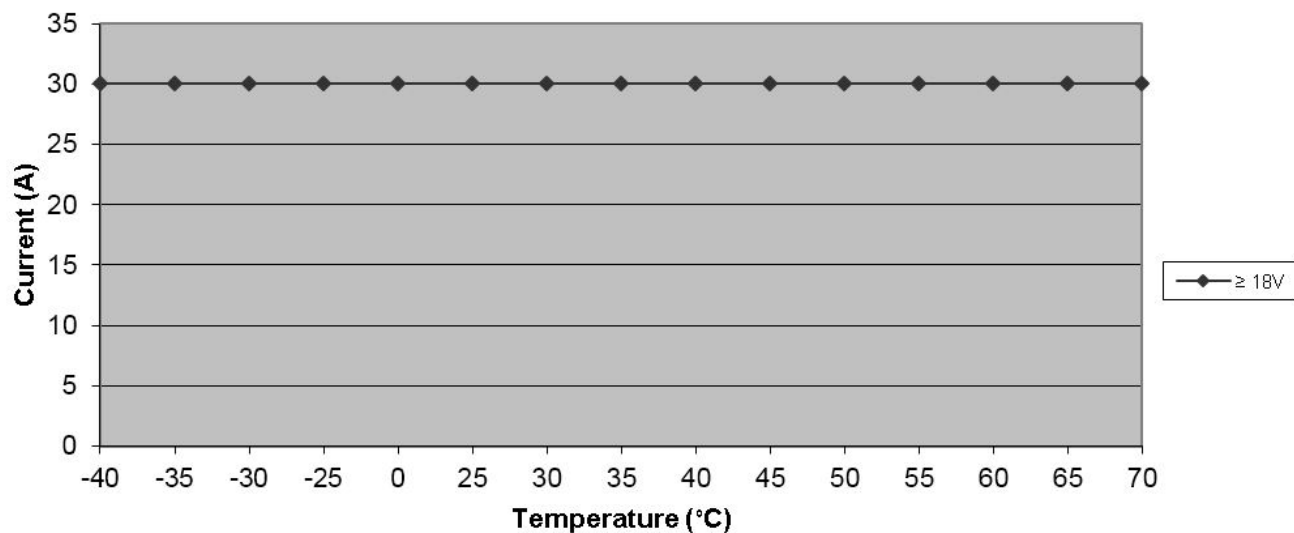


30A-6.1V Output

Maximum current at 6.1V output
[8V,14V]



Maximum current at 6.1V output
[18V,32V]



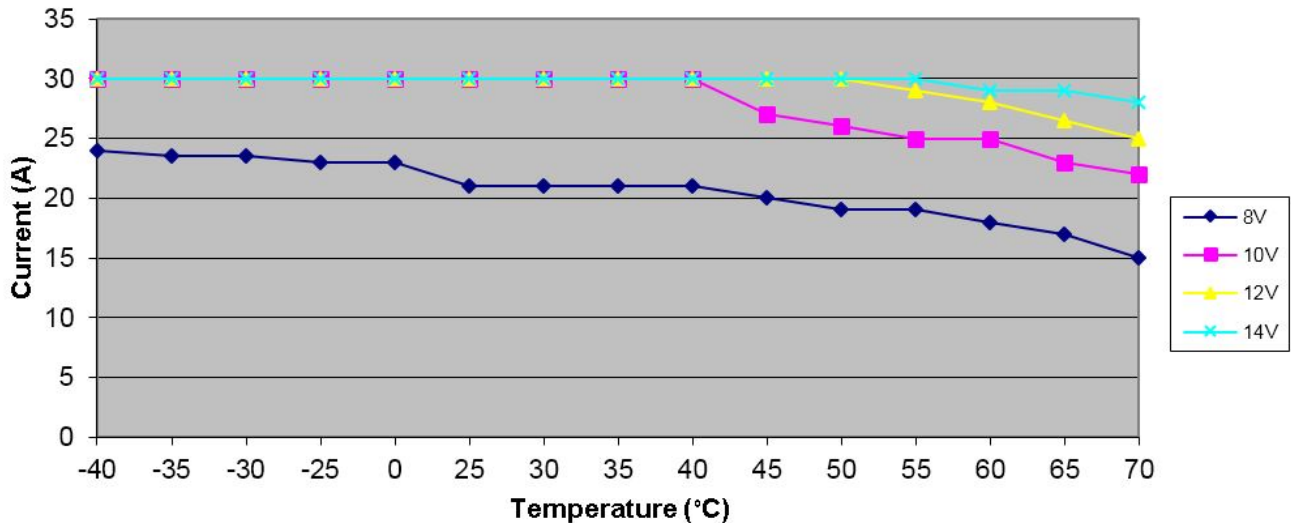
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	183	183	183	183	183	183	183	183	183	183
Efficiency (%)	84	85	86	86	86	86	86	85	85	85

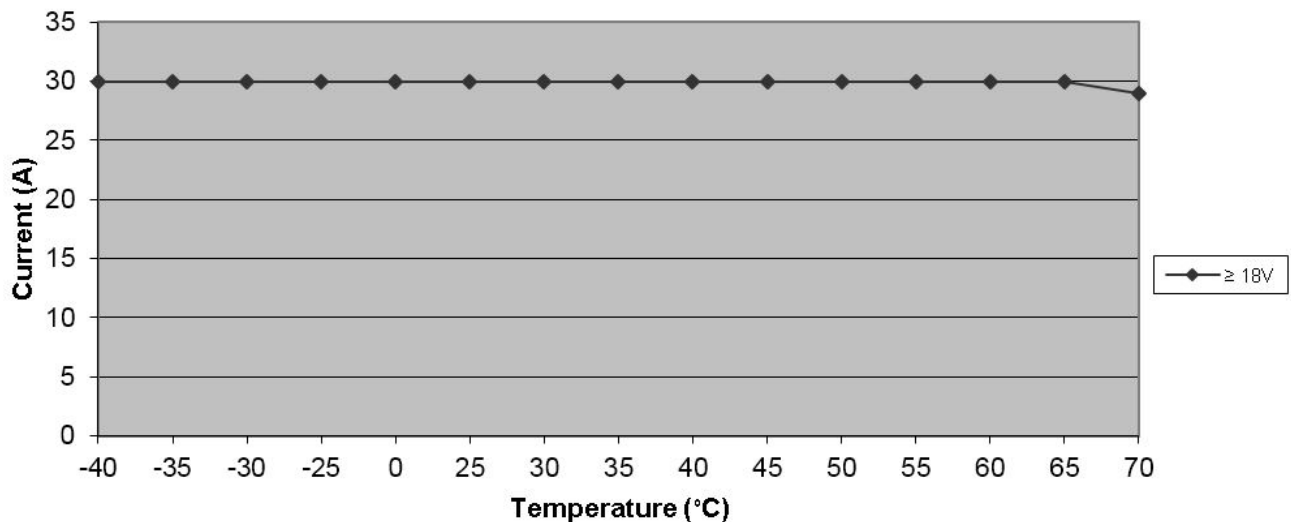


30A-12V Output

Maximum current at 12V output
[8V,14V]



Maximum current at 12V output
[18V,32V]



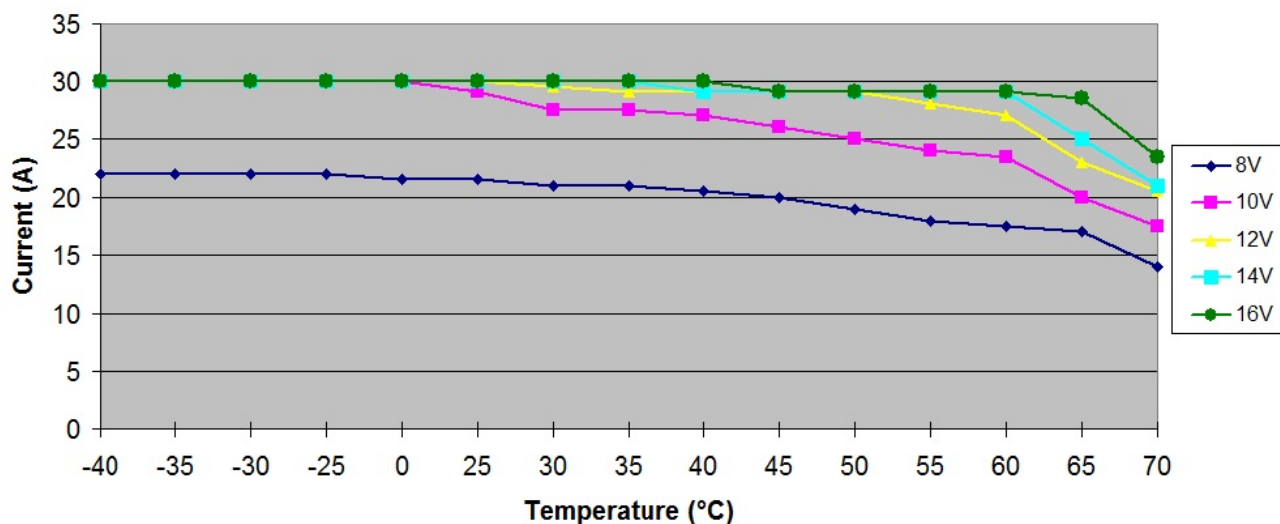
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	252	324	360	360	360	360	360	360	360	360
Efficiency (%)	75	79	84	87	89	91	92	92	92	92

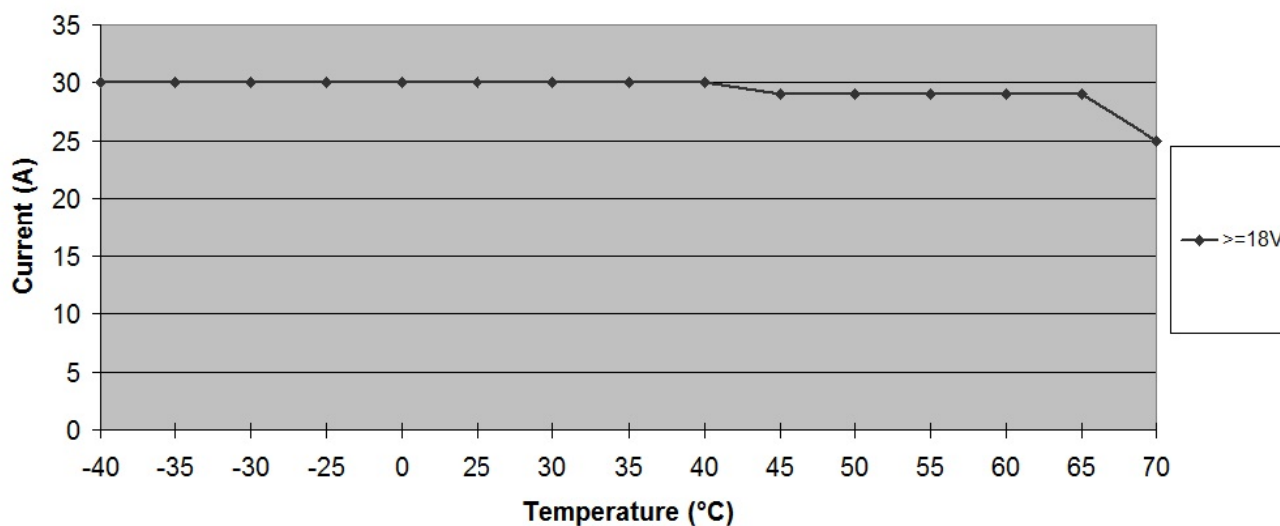


30A-13.6V Output

Maximum continuous current at 13.6V output
[8V,16V]



Maximum continuous current at 13.6V output
[18V,32V]



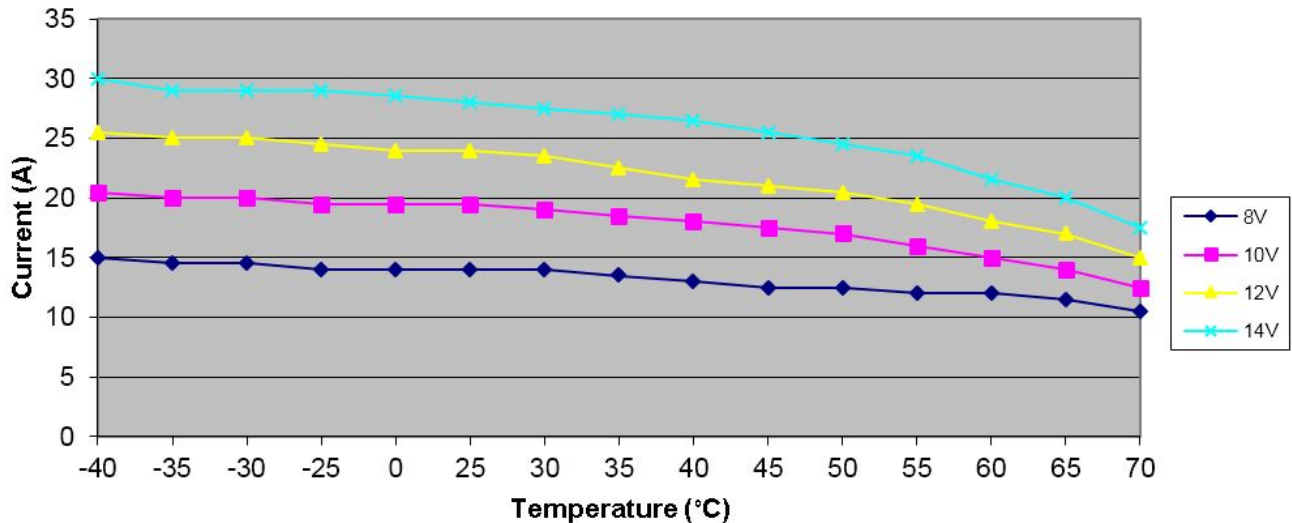
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	231,2	408	408	408	408	408	408	408	408	408
Efficiency (%)	69	68	77	81	86	88	89	90	90	90

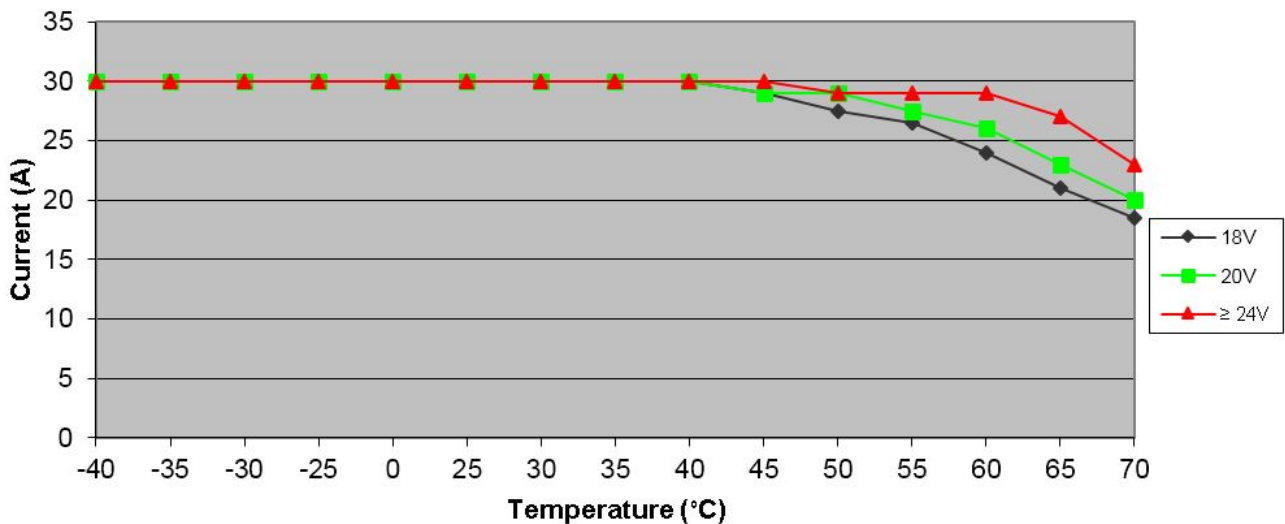


30A-18.4V Output

Maximum current at 18.4V output
[8V,14V]



Maximum current at 18.4V output
[18V,32V]



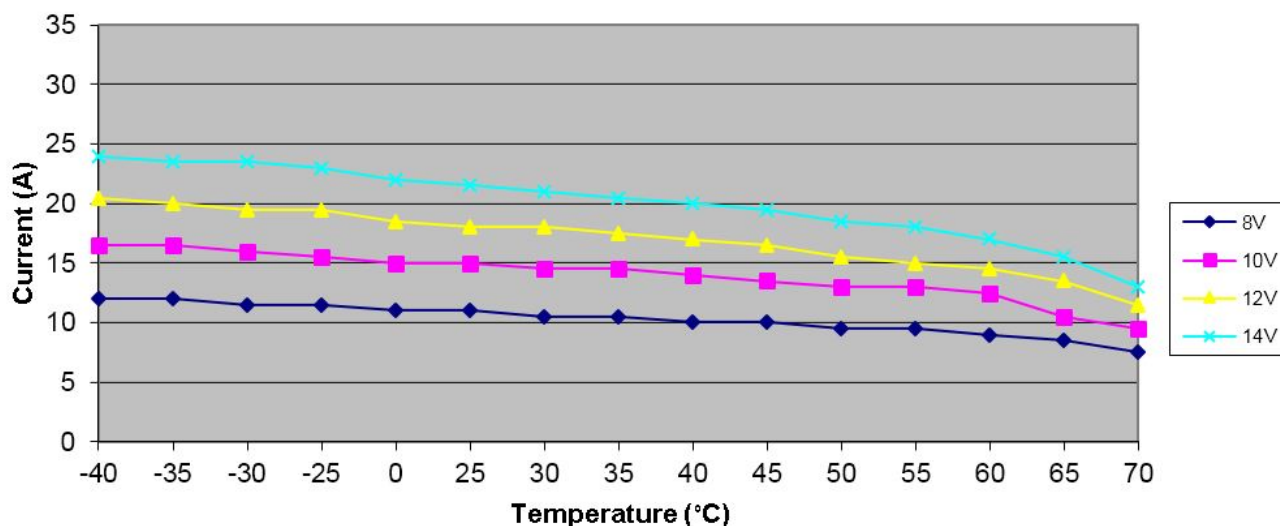
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	220,8	368	460	552	552	552	552	552	552	552
Efficiency (%)	68	77	75	79	85	89	89	91	91	91

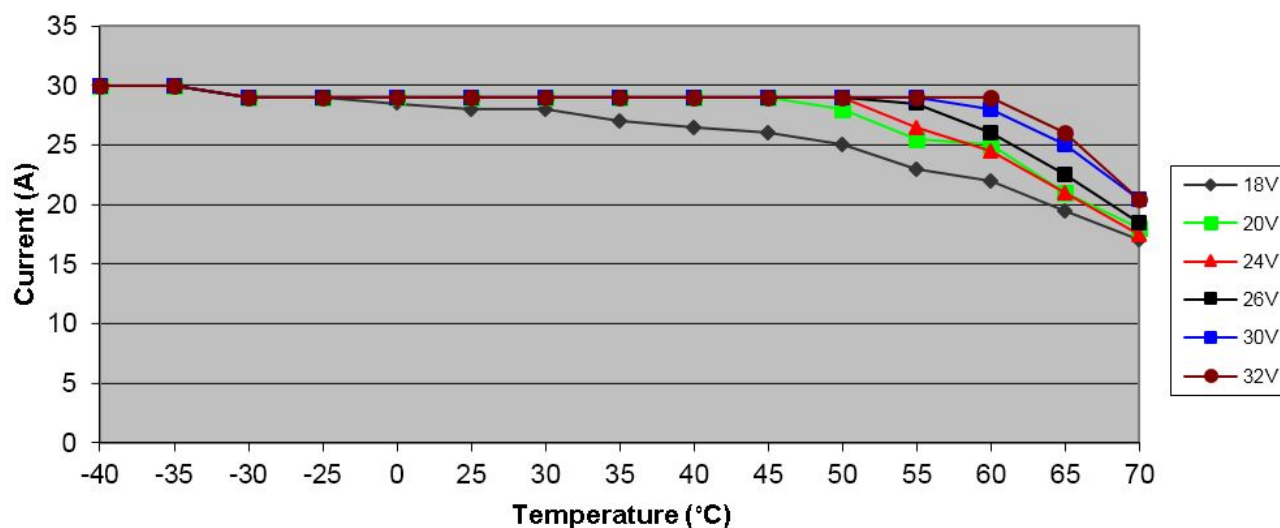


30A-24V Output

Maximum current at 24V output
[8V,14V]



Maximum current at 24V output
[18V,32V]



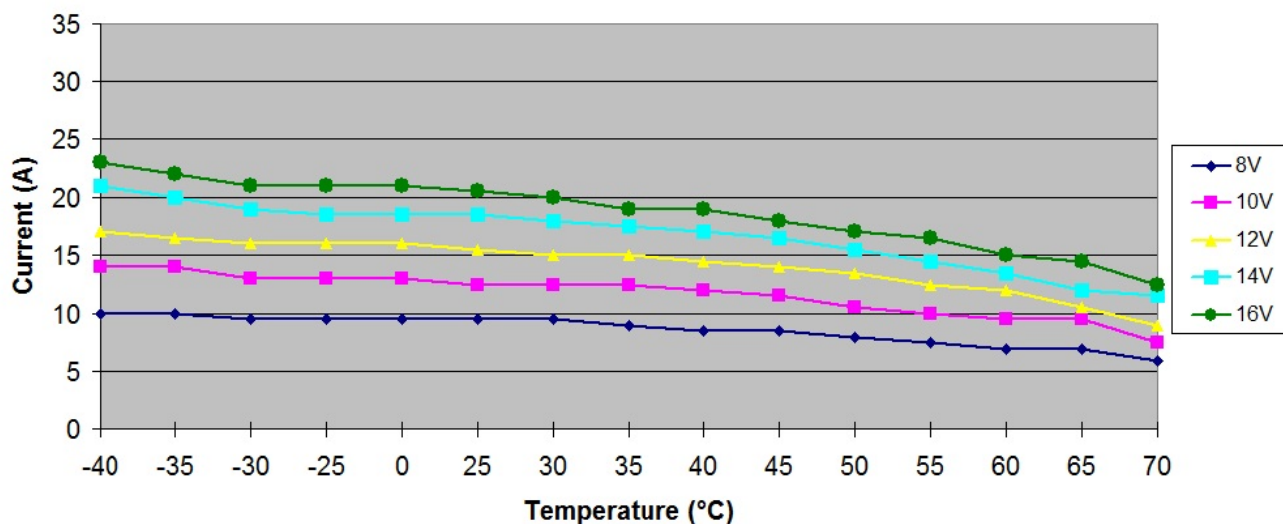
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	192	312	432	552	720	720	720	720	720	720
Efficiency (%)	78	76	77	81	85	88	90	92	93	93

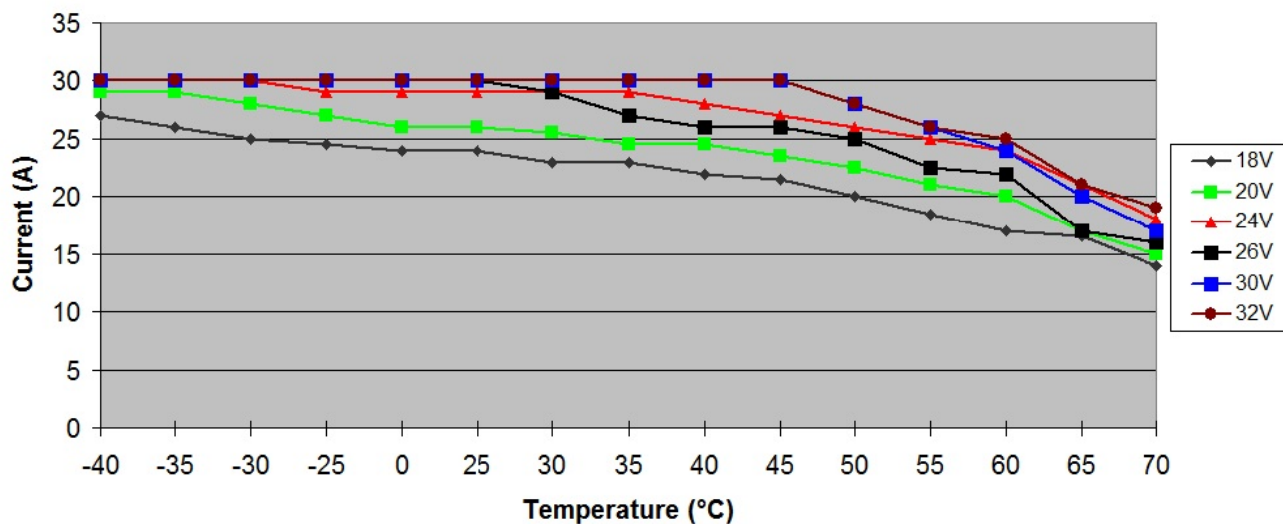


30A-27.6V Output

Maximum continuous current at 27.6V output
[8V,16V]



Maximum continuous current at 27.6V output
[18V,32V]



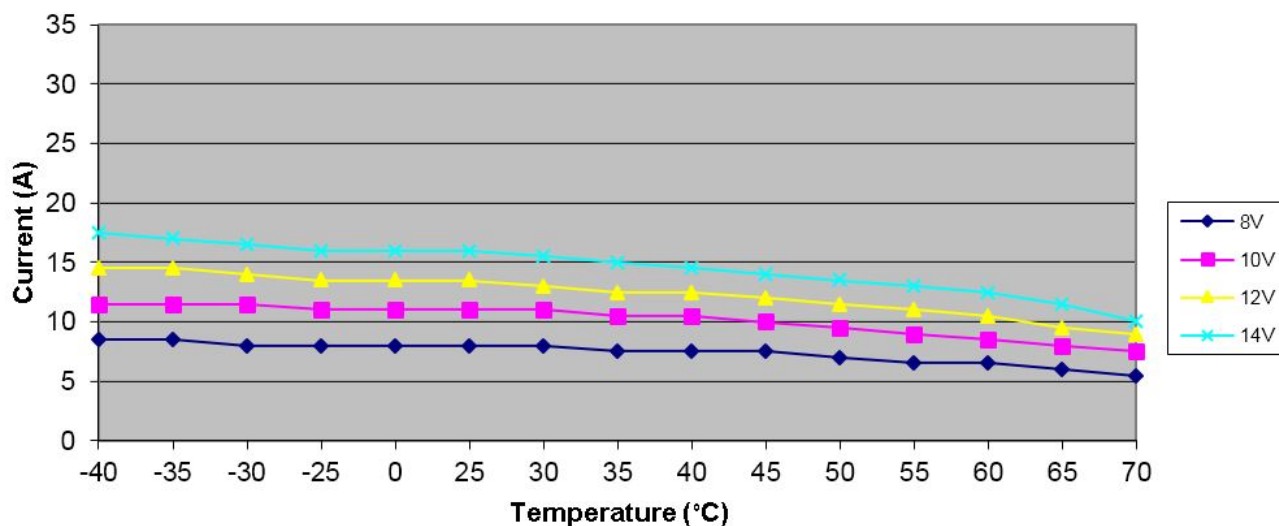
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	190,4	353,6	408	462,4	680	761,6	816	816	816	816
Efficiency (%)	78	82	85	87	89	90	92	92	93	94

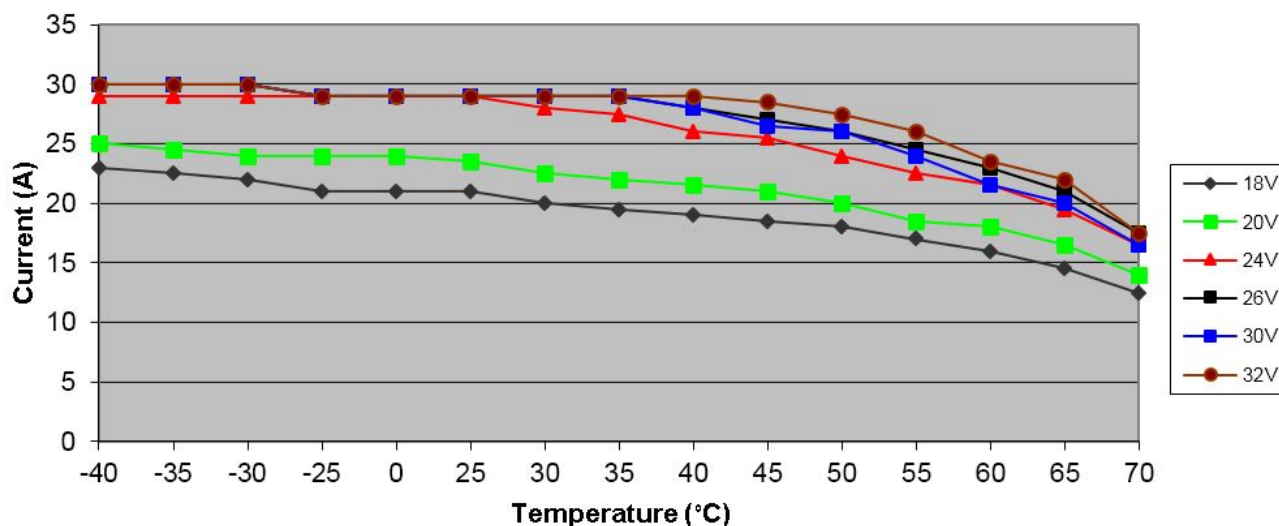


30A-32V Output

Maximum current at 32V output
[8V,14V]



Maximum current at 32V output
[18V,32V]



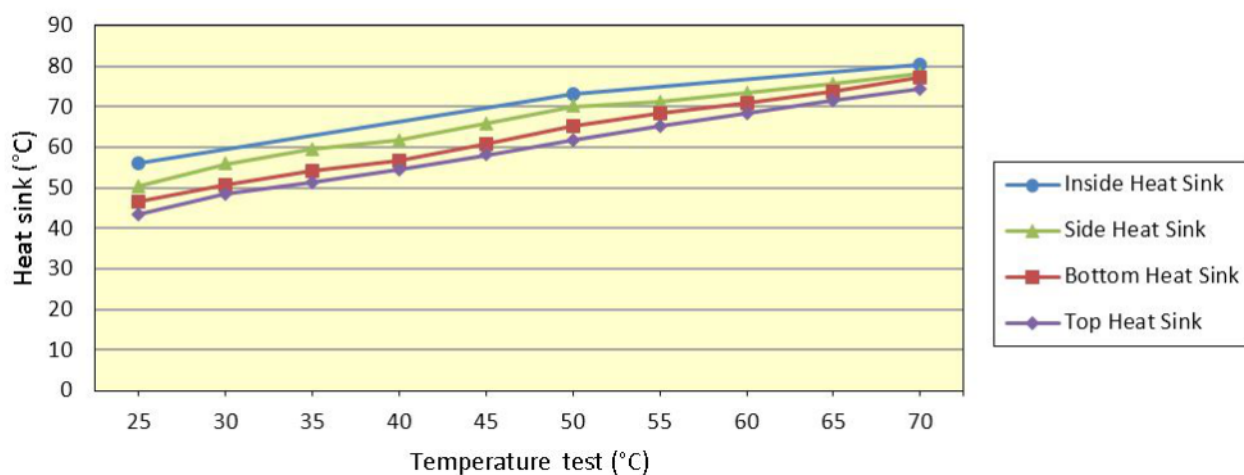
Efficiency

	8V	10V	12V	14V	18V	20V	24V	26V	30V	32V
Output Power (W)	192	320	384	480	672	768	928	960	960	960
Efficiency (%)	76	73	79	82	85	87	89	90	92	92

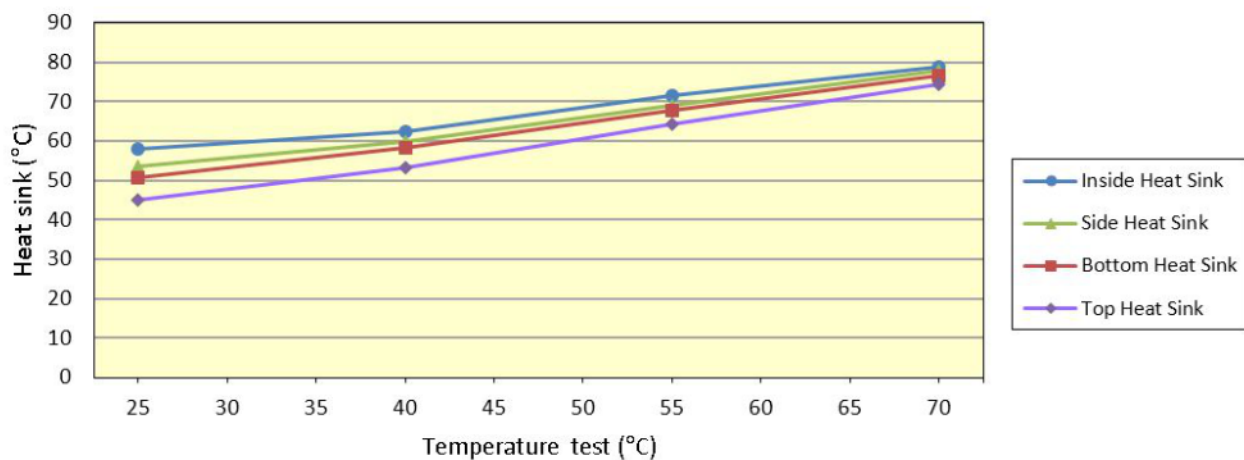


30A-HEATSINK SURFACE TEMPERATURE Maximum Output

Heat sink tests with 12,5 V input - 13,6 V output



Heat sink tests with 12,5 V input - 24 V output



Heat sink tests with 24 V input - 27,6 V output

