

7 Efficiency measurements

Table 1: "Overall efficiency measured at 390 Vdc of input voltage" shows the overall efficiency readings at 390 Vdc input voltage and the same data is depicted *Figure 36: "Graph of the overall efficiency of the system"* in order to fully appreciate the benefits of the interleaved architecture.

Table 1: Overall efficiency measured at 390 Vdc of input voltage

Load [%]	Number of phases	I _{out,meas} [A]	V _{out,meas} [V]	P _{out,calc} [W]	P _{in,meas} [W]	Efficiency [%]
100%	3	7.47	132.676	991.09	1026.30	96.57
90%	3	6.75	132.676	895.56	928.31	96.47
80%	3	6	132.678	796.07	827.71	96.18
75%	3	5.625	132.674	746.29	776.69	96.09
70%	3	5.25	132.677	696.55	726.02	95.94
60%	2	4.5	132.679	597.06	619.73	96.34
50%	2	3.75	132.678	497.54	518.00	96.05
40%	2	3	132.677	398.03	416.68	95.52
30%	1	2.25	132.677	298.52	310.33	96.20
25%	1	1.875	132.678	248.77	259.35	95.92
20%	1	1.5	132.676	199.01	208.70	95.36
10%	Burst	0.75	132.678	99.51	105.48	94.34
5%	Burst	0.375	132.678	49.75	53.53	92.95
1%	Burst	0.075	132.675	9.95	11.05	90.08

Figure 36: Graph of the overall efficiency of the system

