

Comments on Draft 1 Version 2.0 ENERGY STAR External Power Supplies Specification

Submitted by:

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Comments:

Background:

Energy Star is proposing changes to the program for single output external PSUs. The changes are now circulating as Draft 1 for Version 2.0 of the program requirements. Below is a comparison chart showing the differences between Energy Star proposals and CEC "tier 2" and International "level IV." Key differences are in both categorization of nameplate ratings for criteria and actual limits for both active mode and no-load. Also, the Energy Star requirements are more stringent for all categories. Energy Star further proposes PFC requirements. Finally, Energy Star proposes different no-load requirements for transformers than for DC-PSUs.

Position Statement:

SLPE has advocated and continues to advocate for harmonized requirements globally to ease the burden on manufacturers. Since CEC is mandated for tier 2 implementation for July 2008, we would ask that Energy Star match the CEC requirements (incidentally, CEC and International are exactly in agreement).

SLPE requests that PFC requirement should be re-drafted to state compliance with IEC 61000-3-2 rather than 0.9PF. This would harmonize with international standards currently in use in the EU. Below Table 1, 2 and 3 is Table 4, 5 and 6 of SLPE recommended Energy Star Version 2.0 requirements.

Table 1: Minimum Efficiency in Active Mode

Nameplate Output	CEC Tier 2 (July 1, 2008)	International Level IV	E-Star Proposed
0 to \leq 1 watt	--	--	$\geq 0.44 \cdot P_{no} + 0.145$
< 1 watt	$0.5 \cdot \text{Nameplate Output}$	$0.5 \cdot \text{Nameplate Output}$	--
>1 to \leq 36 watts	--	--	$\geq [0.08 \cdot \ln(P_{no}) + 0.585]$
≥ 1 and \leq 51 watts	$0.09 \cdot \ln(\text{Nameplate Output}) + 0.5$	$0.09 \cdot \ln(\text{Nameplate Output}) + 0.5$	--
> 36 watts	--	--	≥ 0.870
> 51 watts	≥ 0.85	≥ 0.85	--

Table 2: Minimum Power in No-Load Mode

Nameplate Output	CEC Tier 2 (July 1, 2008)	International Level IV	E-Star Proposed
Any output	0.5 watt	--	--
0 to < 10 watts	--	≤ 0.5 watt	--
10 to 250 watts	--	< 0.5 watt	--
0 to < 50 watts	--	--	≤ 0.5 watt (AC-AC) ≤ 0.3 watt (AC-DC)
≥ 50 to ≤ 250 watt	--	--	≤ 0.5 watt (AC-AC) ≤ 0.5 watt (AC-DC)

Table 3: Power Factor Correction

Nameplate Output	CEC Tier 2 (July 1, 2008)	International Level IV	E-Star Proposed
≤ 75 watts	NR	NR	0.9 PF

Table 4: Minimum Efficiency in Active Mode, SLPE Proposal

Nameplate Output	CEC Tier 2 (July 1, 2008)	International Level IV	E-Star 2.0
< 1 watt	$0.5 \cdot P_{no}$	$0.5 \cdot P_{no}$	$0.5 \cdot P_{no}$
≥ 1 and ≤ 51 watts	$0.09 \cdot \ln(P_{no}) + 0.5$	$0.09 \cdot \ln(P_{no}) + 0.5$	$0.09 \cdot \ln(P_{no}) + 0.5$

> 51 watts	≥ 0.85	≥ 0.85	≥ 0.85
Table 5: Minimum Power in No-Load Mode, SLPE Proposal			
Nameplate Output	CEC Tier 2 (July 1, 2008)	International Level IV	E-Star2.0
Any output	0.5 watt	0.5 watt	0.5 watt
Table 6: Power Factor Correction, SLPE Proposal			
Nameplate Output	CEC Tier 2 (July 1, 2008)	International Level IV	E-Star 2.0
≤ 75 watts	NR	NR	IEC 61000-3-2