33.2.6.3 Autoclass

Type 3 and type 4 PSEs may choose to implement an extension of Physical Layer classification known as Auto class. The purpose of Auto class is to allow the PSE to determine the actual maximum power draw of the PD to which it is connected. Please see Annex 33-TBD for more information on Auto class.

PSEs implementing Auto class shall measure the power consumption of the connected PD throughout the period bounded by T_{AUTO_PSE1} and T_{AUTO_PSE2}, measured from the transition of the POWER_UP or SET_PARAMETERS state to the POWER_ON state. The power consumption shall be defined as the highest average power measured throughout the period bounded by T_{AUTO_PSE1} and T_{AUTO_PSE2}. Average power is calculated using any sliding window with a width in the range of T_{AUTO_Window}.

Table 33–10a—Autoclass electrical requirements

Item	Parameter	Symbol	Units	Min	Max	Additional information
1	Autoclass Power Measurement Start	T_{AUTO_PSE1}	s	1.45		Measured from transition to state POWER_ON
2	Autoclass Power Measurement End	T_{AUTO_PSE2}	s		3.2	Measured from transition to state POWER_ON
3	Autoclass average power sliding window	T_{AUTO_Window}	s	0.15	0.3	
4	Autoclass margin, Class 1, 2P		%	0.5		
	Autoclass margin, Class 1, 4P			0.5		
	Autoclass margin, Class 2, 2P			1.0		
	Autoclass margin, Class 2, 4P			0.5		
	Autoclass margin, Class 3, 2P			1.5		
	Autoclass margin, Class 3, 4P			1.0		
	Autoclass margin, Class 4, 2P			4.0		
	Autoclass margin, Class 4, 4P			1.5		
	Autoclass margin, Class 5			2.5		
	Autoclass margin, Class 6			4.0		
	Autoclass margin, Class 7			4.5		
	Autoclass margin, Class 8			6.0		