

Inputs to SLUC644 / UCC28780 design calculations for dc-dc converter
Well regulated 380v dc from PFC output

INPUT SPECIFICATIONS			
Input Voltage Type, AC or DC	DC		Choose either AC or DC
Brown-out Input Voltage, $V_{In_Brownout} =$	260	V	Brown-out (Instantaneous voltage)
Brown-in Input Voltage, $V_{In_Brownin} =$	350	V	Brown-in (Instantaneous voltage)
Maximum Line Input Voltage, $V_{In_max} =$	385	V	Instantaneous voltage
Input Voltage BUR, $V_{In_BUR} =$	385	V	Burst is normally set at high line (Instantaneous voltage)
Minimum Bulk Voltage, $V_{Bulk_min} =$	375	V	Instantaneous voltage
Minimum Line Input Voltage, $V_{In_min} =$	345	V	Instantaneous voltage
Minimum Line Frequency, $f_{LINE_min} =$	470	Hz	For universal line enter 47 Hz
Minimum Switching Frequency, $f_{SW_min} =$	160	kHz	Target frequency at maximum load, minimum line
Minimum Efficiency, $\eta_{min} =$	93	%	Target efficiency at maximum load, minimum line

Cbulk estimate- wrong

- What is the formula- seems different from data sheet- which requires hold-up duration

Output Cap and Input Cap Selection			
Recommended Input Capacitance, $C_{BULK_rec} =$	#NUM!	μF	Assumed 25% tolerance
Actual Input Capacitance, $C_{BULK_act} =$	78.000	μF	

R_opp

- What is the formula- seems there is no rule set up in data sheet

OPP Programming Resistor			
Recommended OPP Resistor	$R_{OPP_rec} =$	-12297.592	Ω
Actual OPP Resistor	$R_{OPP_act} =$	1870.000	Ω
OPP Resistor Used in Calculations	$R_{OPP} =$	1870.000	Ω