Buck-Wandler und potenzialfreier Buck-Wandler	Buck-Boost-Wandler	Gl.
Speicherinduktivität		
$D_{CCM-B} = \frac{V_{OUT}}{V_{IN-MIN}} = \frac{12}{360} = 0{,}033$	$D_{CCM-BB} = \frac{\lvert V_{OUT}\rvert}{V_{IN-MIN} + \lvert V_{OUT}\rvert} = \frac{12}{360+12} = 0{,}032$	1
$I_{L-MAX} = I_{O-MAX} = 0{,}2A$	$I_{L-MAX} = \frac{I_{O-MAX}}{1 - D_{CCM-BB}} = \frac{0{,}2A}{0{,}968} = 0{,}206A$	2
$\Delta i_L = 0{,}3 \times I_{L-MAX} = 0{,}06A_{P-P}$	$\Delta i_L = 0{,}3 \times I_{L-MAX} = 0{,}06A_{P-P}$	3
$L\min_{BUCK} = D_{CCM-B} \frac{V_{IN-MIN} - V_{OUT}}{\Delta i_L \times f_{SW}}$ $L\min_{BUCK} = 0{,}033 \frac{360V - 12V}{0{,}06A \times 60kHz} = 3{,}2mH$	$L\min_{BUCKBOOST} = D_{CCM-BB} \frac{V_{IN-MIN}}{\Delta i_L \times f_{SW}}$ $L\min_{BUCKBOOST} = 0{,}032 \frac{360V}{0{,}06A \times 60kHz} = 3{,}2mH$	4
$\Delta i_{L-BUCK} = D_{CCM-B} \frac{V_{IN-MIN} - V_{OUT}}{L1 \times f_{SW}}$ $\Delta i_{L-BUCK} = 0{,}033 \frac{360V - 12V}{3{,}3mH \times 60kHz} = 0{,}058A_{P-P}$	$\Delta i_{L-BUCKBOOST} = D_{CCM-BB} \frac{V_{IN-MIN}}{L1 \times f_{SW}}$ $\Delta i_{L-BUCKBOOST} = 0{,}032 \frac{360V}{3{,}3mH \times 60kHz} = 0{,}058A_{P-P}$	5
$I_{L-PK} = I_L + \frac{\Delta i_L}{2}$ $I_{L-PK-BUCK} = 0{,}2A + \frac{0{,}058A}{2} = 0{,}23A$	$I_{L-PK} = I_L + \frac{\Delta i_L}{2}$ $I_{L-PK-BUCKBOOST} = 0{,}206A + \frac{0{,}058A}{2} = 0{,}24A$	6
CCM-DCM-Grenze		
$L_{BCM-B} = \frac{V_O}{V_{IN}} \times \frac{V_{IN} - V_O}{2 \times f_{SW} \times I_{O-MAX}}$ $L_{BCM-B} = \frac{12V}{360V} \times \frac{360V - 12V}{2 \times 60kHz \times 0{,}2A} = 483\mu H$	$L_{BCM-BB} = \frac{V_{IN}}{V_O - V_{IN}} \times \frac{\lvert -V_O\rvert}{2 \times f_{SW} \times I_{O-MAX}}$ $L_{BCM-BB} = \frac{360}{12-360} \times \frac{-12}{2 \times 60kHz \times 0{,}2A} = 517\mu H$	7
$Io_{BCM-B} = \frac{V_O}{V_{IN}} \times \frac{V_{IN} - V_O}{2 \times f_{SW} \times L1}$ $Io_{BCM-B} = \frac{12V}{360V} \times \frac{360V - 12V}{2 \times 60kHz \times 2{,}2mH} = 44mA$	$Io_{BCM-BB} = \frac{V_{IN}}{V_O - V_{IN}} \times \frac{-V_O}{2 \times f_{SW} \times L1}$ $Io_{BCM-BB} = \frac{360}{12-360} \times \frac{-12}{2 \times 60kHz \times 2{,}2mH} = 47mA$	8
Auswahl der Speicherdrossel		
$D_{DCM-B} = \frac{V_O}{V_{IN}} \times \sqrt{\frac{\frac{2 \times f_{SW} \times L1}{R_O}}{1 - \frac{V_O}{V_{IN}}}}$ $D_{DCM-B} = \frac{12V}{360V} \times \sqrt{\frac{\frac{2 \times 60kHz \times 470\mu H}{60\Omega}}{1 - \frac{12}{360}}} = 0{,}033$	$D_{DCM-BB} = \frac{V_O}{V_{IN}} \times \sqrt{\frac{2 \times f_{SW} \times L1}{R_O}}$ $D_{DCM-BB} = \frac{12V}{360V} \times \sqrt{\frac{2 \times 60kHz \times 470\mu H}{60\Omega}} = 0{,}032$	9
$I_{L-PK-B} = \frac{(V_{IN} - V_O) \times D_{DCM-B}}{f_{SW} \times L1}$ $I_{L-PK-B} = \frac{(360V - 12V) \times 0{,}033}{60kHz \times 470\mu H} = 0{,}41A$	$I_{L-PK-BB} = \frac{V_{IN} \times D_{DCM-BB}}{f_{SW} \times L1}$ $I_{L-PK-BB} = \frac{360V \times 0{,}032}{60kHz \times 470\mu H} = 0{,}41A$	10