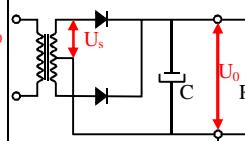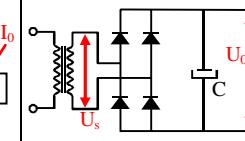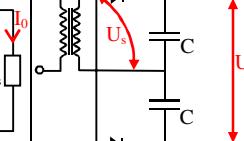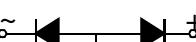**Typical phase rectifier diagrams**
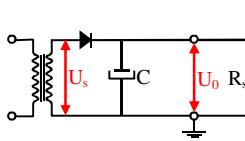
Parameters	Half-wave rectifier	Double rectifier alternation with outlet center	Alternating double rectifier bridge	Voltage doubler
Wiring diagram of rectifier				
Connection diagram of diode				
Number alternations redressed	1	2	2	1
Mean diode current	$I_m = I_0$	$I_m = 0,5\ I_0$	$I_m = 0,5\ I_0$	$I_m = I_0$
Peak current through the diode	$I_{vârf} = 7,8\ I_0$	$I_{vârf} = 4,75\ I_0$	$I_{vârf} = 4,75\ I_0$	$I_{vârf} = 3\ I_0$
Actual current through the diode	$I_{ef} = 2,5\ I_0$	$I_{ef} = 1,33\ I_0$	$I_{ef} = 1,33\ I_0$	$I_{ef} = 1,1\ I_0$
Rms voltage of the transformer secondary	$U_s = 0,91\ U_0$	$U_s = 0,82\ U_0$	$U_s = 0,8\ U_0$	$U_s = 0,55\ U_0$
Peak reverse voltage on the diode	$U_i = 2,56\ U_0$	$U_i = 2,34\ U_0$	$U_i = 1,14\ U_0$	$U_i = 1,56\ U_0$
The secondary transformer winding current	$I_s = 2,5\ I_0$	$I_s = 1,33\ I_0$	$I_s = 1,86\ I_0$	$I_s = 1,53\ I_0$
Wave voltage (ripple)	$U_{alt} = 0,12\ U_0$	$U_{alt} = 0,06\ U_0$	$U_{alt} = 0,06\ U_0$	$U_{alt} = 0,09\ U_0$
Power transformer secondary	$P_2 = 2,35\ P_0$	$P_2 = 2,16\ P_0$	$P_2 = 2,16\ P_0$	$P_2 = 1,22\ P_0$
Power consumption of the VAC network	$P_1 = 2,35\ P_0$	$P_1 = 3,05\ P_0$	$P_1 = 2,16\ P_0$	$P_1 = 1,72\ P_0$