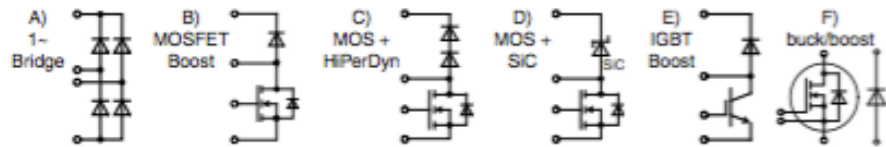


Rectifier Bridges for Power Factor Correction

Power Stage for Boost Converters (Power Factor Correction)

1-phase PFC



Type		Circuit and Technology	V_{DS} max V	I_D $T_C = 25^\circ\text{C}$ A	$R_{DS(on)}$ max Ω	V_{RRM} Boost Diode V	V_{RRM} Rectifier V	Fig. No.	Package style
○ Not for new design									Outline drawings on pages O-31...O-52
◇ Under development									
> New									
MOSFET									
○ FMD 21-05QC	C	HiPerFET	500	21	0.220	600	-	X024a	X024a ISOPLUS I4-PAC
MKE 11R600DCGFC	D	CoolMOS™ CP + SiC	600	15	0.165		-		
FMD 15-06KC5	C	CoolMOS™ CP		15	0.165		-		X030a
FMD 40-06KC	C	CoolMOS™ C3		38	0.070		-		
FMD 47-06KC5	C	CoolMOS™ CP		47	0.045		-		X030a
MKE 38RK600DFELB	B	CoolMOS™ CP		50	0.045		-		
◇ MKG 40RK600LB	F	CoolMOS™ C6		52	0.037		-		X030a
◇ MKG 17RK600DCGLB	2xD	CoolMOS™ C6 + SiC		52	0.037		-		
○ VUM 24-05N	A+B	HiPerFET	500	35	0.120	600	800	X105b	X030a SMPD-B
○ VUM 33-05N				47			1200		
VUM 33-06PH	A+B	Polar	600	50			1600		

Type		Circuit and Technology	V_{CES} max V	I_C $T_C = 25^\circ\text{C}$ A	$V_{CES} @ I_C$ V A	V_{RRM} Rectifier V	Fig. No.
IGBT							
FID 60-06D	E	NPT	600	65	1.6 30	-	X024a

Type		Circuit and Technology	V_{RRM} V	I_{DAV} A	@ T_C $^\circ\text{C}$	Fig. No.
Rectifier						
FBO 16-12N *	A	Standard	1200	22	90	X024a
FBO 40-12N *				40	90	
DLA 100B800LB **	A	low V_F	800	124	135	X030a
DLA 100B1200LB **	A	low V_F	1200	124	135	

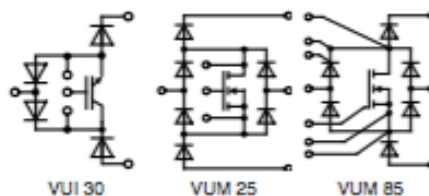
* Recommended in combination with FMD and FID
 ** Recommended in combination with MKE and MKG

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3-phase PFC

"Vienna Rectifier" circuit

- wide input voltage range
- sinusoidal mains input currents in phase with mains
- boost converter operation:
 - input: 3- AC mains without neutral conductor
 - output: stabilized DC link with center point
- one module used per phase



Type	PN / kW 3 ~ 400V. $T_C = 80^\circ\text{C}$	Configuration	Fig. No.
VUM 25-05E ①	10	Vienna rectifier current	X103
VUM 85-05A ①	30	Vienna rectifier current	X104
VUI 30-12N1 ①	15	IGBT stage for buck @ boost PWM converter	X103

① contact factory