

FlexKraft™ 2

Air-Cooled SiC Rectifier



92 % typical efficiency

Up to 100 kW power output per stack

Typical 1 % output current and voltage ripple and accuracy

Fully digitalized control and monitoring of modules

Option to integrate polarity reversal function

Up to 10 rectifiers, each with dual output per stack

FlexKraft 2 stack max output *

Max voltage (V)	Number of power modules									
	1	2	3	4	5	6	7	8	9	10
Max current (A)										
12.5	800 ^D	1600 ^D	2400 ^D	3200 ^D	4000 ^D	4800 ^D	5600 ^D	6400 ^D	7200 ^D	8000 ^D
15	668 ^D	1336 ^D	2004 ^D	2672 ^D	3340 ^D	4008 ^D	4676 ^D	5344 ^D	6012 ^D	6680 ^D
25	400	800 ^D	1200	1600 ^D	2000	2400 ^D	2800	3200 ^D	3600	4000 ^D
30	334	668 ^D	1002	1336 ^D	1670	2004 ^D	2338	2672 ^D	3006	3340 ^D
37.5			800 ^D			1600 ^D			2400 ^D	
45			668 ^D			1336 ^D			2004 ^D	
50		400		800 ^D		1200		1600 ^D		2000
60		334		668 ^D		1002		1336 ^D		1680
62.5					800 ^D					1600 ^D
75			400		668 ^D	800 ^D			1200	1336 ^D
87.5							800 ^D			
90			334			668 ^D			1002	
100				400				800 ^D		
105							668 ^D			
112.5									800 ^D	
120				334				668 ^D		
125					400					800 ^D
135									668 ^D	
150					334					668 ^D
Height	450 mm	590 mm	730 mm	870 mm	1010 mm	1150 mm	1290 mm	1570 mm	1710 mm	1850 mm
Width	500 mm									
Depth	600 mm; with PRU: 763 mm									
Weight	54 kg	82 kg	109 kg	142 kg	170 kg	200 kg	234 kg	267 kg	303 kg	333 kg

* For voltages above 150 V and currents above 8000 A, contact KraftPowercon.

** The red 'D' symbol indicates that the rectifier can have dual output. The amperage value shown is halved for each output.

Specifications are subject to change without notice

FlexKraft™ 2

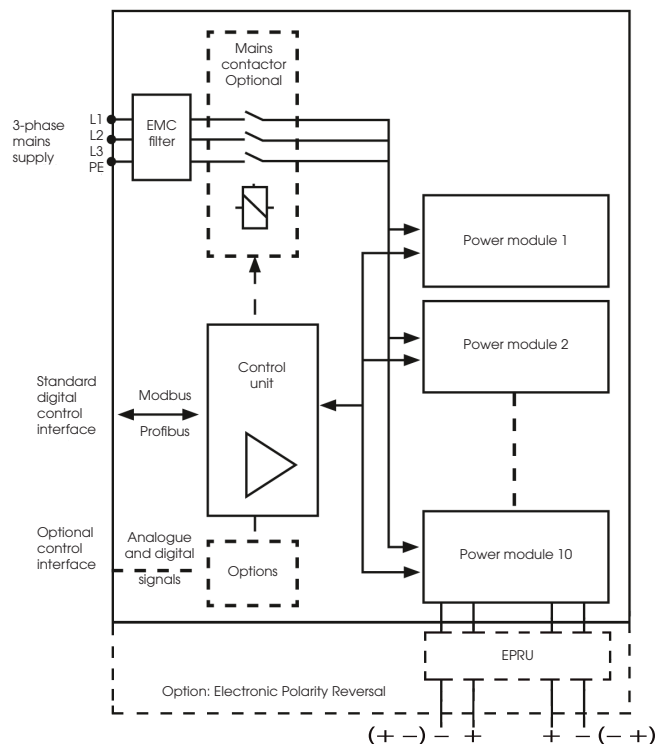
Air-Cooled SiC Rectifier

FlexKraft 2 is a modular SiC switched-mode rectifier that converts three-phase AC input to DC voltage and current for industrial applications that require high reliability, energy efficiency, and easy servicing and maintenance.

TECHNICAL DATA

Supply voltage:	AC 400-520V +/- 10 %, 50/60 Hz, 3 phase
EMC conformity:	According to EN 61000-6-4, Emissions, and EN 61000-6-2, Immunity
LVD conformity:	According to EN 62477-1
Protection class:	IP32 (except for fan)
Power factor:	≥ 0.9 at rated load
Efficiency:	Typically 0.92 at rated output
THDi:	<30 %
Stack max output power:	100 kW
Stack max output voltage:	150 V
Max number of stacks in parallel:	10
Power module max output current:	2 x 400 A
Power module max output voltage:	2 x 15 V
Ambient temp.:	Max. 45 °C, de-rated operation up to 55 °C
Cooling:	Forced air cooling
Humidity:	Max. 95 % RH, non-condensing
DC V/I accuracy:	1 %/1 %
DC V/I ripple:	1 %/1 %
Regulation range:	Stepless at constant voltage or current 0-100 %
Duty rating:	Designed for continuous operation at rated load up to 2000 m altitude
HMI and digital interface:	Digital Display with Keypad; Modbus RTU/RS-485; Profibus DP/RS-485
Protection:	AC input: under-voltage, over-voltage DC: over-current, under-current, over-voltage, open circuit Unit: over-temperature
Setting parameters:	Current, Voltage, On/Off, Start/Stop, Standby/Run, Ah, Run time, Clear counters
Measurement parameters:	Actual current, Actual voltage, On signal, Run signal, Actual Ah, Actual run time, Alarm status (cause of alarm), End of process
Expected operation time:	≥ 100 000 hours

BLOCK SCHEMATIC DIAGRAM



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OPTIONS

- RS-232C interface for control of one power supply.
- Non-isolated Master/Slave Analogue/Digital control interface.
- Isolated Master/Slave Analogue/Digital control interface.
- Digital interface to connect ControlKraft Digital.
- Emergency stop connection interface to disconnect the AC mains using an additional contactor.
- Polarity reversal.
- Raise/Lower function.

ACCESSORIES

- External reference shunt, 60 mV.
- ControlKraft Digital (CKD) and ControlKraft Analog (CKA) box.