

Charging Rectifier type PRX3



- **Complete compact modular** charging rectifier with monitoring and rectifier modules.
- **Plug-in rectifier modules** for output power flexibility, easy service due to hot swap modules and high availability due to parallel operation.
- **Monitoring** of battery, rectifier and distribution. Status and alarms distinctly on display, settings by menus for easy handling. Remote alarms via relays. Battery circuit test and monitoring of battery symmetry for early warning of battery faults. Battery temperature is monitored and automatically adjusts the float charging voltage.
- **Safe operation and high availability** through powerful design with soft switch IGBT technology. Built-in active AC power protection for over- and under voltage. Long-life design with speed controlled and monitored fans. Low noise level and low weight.
- **Our product range for uninterruptible power** also covers complete DC systems, inverters, uninterruptible motor drive (UMD), distribution boards and batteries. We support you with design and training.

Charging Rectifier type PRX3

Technical data

General

PRX3 is a complete modular charging rectifier including rectifier modules and monitoring unit for systems with high reliability. It can be equipped with one or more rectifier modules of type PRM3 with possibility to be swapped during operation. The monitoring unit is a stand-alone unit and communicates with the modules through a serial interface. PRX3 is available in three types of cabinets where the choice mainly depends on the desired output power.

Enclosure

Type: Floor cabinet
 Cable inlet: Above and below
 Dimensions F27 (h/w/d): 1360/600/600 mm
 Dimensions F41 (h/w/d): 2000/600/480 mm
 Dimensions S39 (h/w/d): 2100/840/654 mm
 Colour: RAL 7035 light grey
 Class of enclosure: IP21
 Ventilation: Temperature controlled fans in rectifier modules, otherwise natural convection

Environmental data

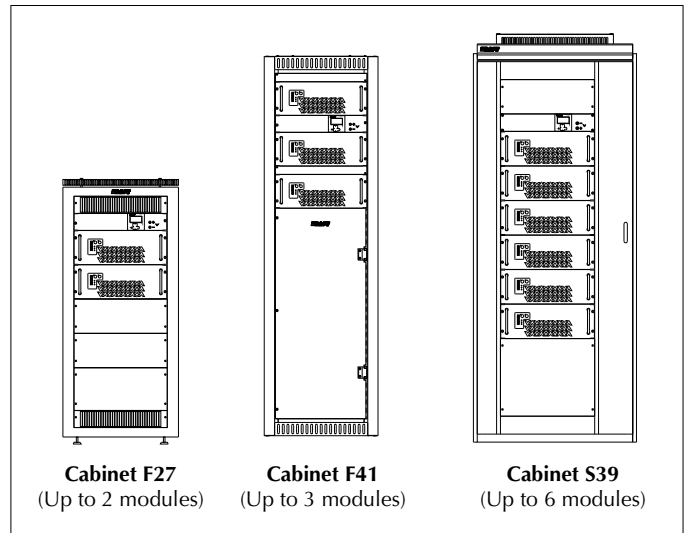
Ambient temperature: Operation, 0 till +40 °C
 Storage, -40 till +70 °C
 Humidity: < 90 % RH, non condensed
 Altitude a.s.l.: < 2000 m, may be extended with derating

Input AC

Frequency: 45 – 65 Hz
 Power factor: > 0.97 at 3x400 V_{AC}, full load
 Other: See table

Output DC

Output voltage, nominal: 110/220/440 V_{DC}
 Voltage regulation: < 0.5 % of nominal output voltage
 < 1% within 3 seconds, 0-100 / 100-10 % load change
 Current regulation: < 1 % of rated current
 Current limit range: 0 – 100 % of rated current
 Ripple voltage: < 0.2 %_{rms}
 Efficiency: >92%
 Other: See table



Monitoring unit type PCM2

Monitoring of the complete DC system. Clear graphical display for showing and setting of alarms, operating data, etc. Remote alarm via 4 freely configurable relays.



Monitoring unit type PCM2

Distribution: Fuse monitoring, earth fault monitoring, external alarm
 Battery: Temperature monitoring, battery circuit test, battery symmetry monitoring
 Rectifier: Over/under voltage, rectifier fault, temperature compensated float charge, automatic equalizing charge

Standards

Safety: EN 50178
 EMC, immunity: EN 61000-6-2
 EMC, emission: EN 61000-6-4



Rectifier module type PRM3

Model PRX3	Output data					Input data				Power loss**	Rect. module		Cabinet type/Weight		
	U _{NOM}	U _{MAX} *	I _{RATED}	Out-put power kW	Terminal	Mains power*	Mains current*	Mains fuse	Ter- minal		Number of	I _{RATED}	F27	F41	S39
	V _{DC}	V _{DC}	A	mm ²	mm ²	kVA	A _{rms}	A _{gI/gG}	mm ²		kW	A	kg	kg	kg
110/70	110	145	70	9	50	10.6	18	25	16	0.7	1	70	90	90	190
110/140			140	18	95	21.2	36	50	16	1.4	2		110	110	210
110/210			210	27	150	31.8	54	63	35	2.2	3		-	130	230
110/280			280	36	240	42.4	72	80	35	2.9	4		-	-	250
110/350			350	45	2x150	53.0	90	100	50	3.6	5		-	-	270
110/420			420	54	2x240	63.6	108	125	95	4.3	6		-	-	290
220/36	220	270	36	9	35	10.6	18	25	16	0.7	1	36	90	90	190
220/72			72	18	50	21.2	36	50	16	1.4	2		110	110	210
220/108			108	27	95	31.8	54	63	35	2.2	3		-	130	230
220/144			144	36	95	42.4	72	80	35	2.9	4		-	-	250
220/180			180	45	2x150	53.0	90	100	50	3.6	5		-	-	270
220/216			216	54	2x150	63.6	108	125	95	4.3	6		-	-	290
440/18	440	500	18	9	35	10.6	18	25	16	0.7	1	18	90	90	190
440/36			36	18	35	21.2	36	50	16	1.4	2		110	110	210
440/54			54	27	50	31.8	54	63	35	2.2	3		-	130	230
440/72			72	36	50	42.4	72	80	35	2.9	4		-	-	250
440/90			90	45	50	53.0	90	100	50	3.6	5		-	-	270
440/108			108	54	95	63.6	108	125	95	4.3	6		-	-	290

* max at 3x340 V_{AC}

** typical at 3x400 V_{AC} and full load



Specifications given herein may be changed at any time without prior notice



Kraftelektronik AB Phone +46 470-705200
 Verkstadsgatan 18 Fax +46 470-705201
 S-352 46 Växjö www.kraftelektronik.se
 Sweden