



## 19" SUB-RACK UNITS

*2400W modular rugged power system  
for Military and Heavy Duty Applications*



RMSR 7110 R, 19" 2U subrack, 2400W / 3 modules



### 2400 W modular power system

Power supply or battery charging systems  
Parallel n+1 connection, up to 90A  
Series connection, up to 360VDC  
Multi outputs, ± outputs  
Hot-swap plug-in modules  
Module fail and mains alarms  
Operating temperature  $-40^{\circ}\text{C} \dots +55^{\circ}\text{C}$

### Approved for heavy environment

Vibration, sin, IEC60068-2-6,  $20\text{-}50\text{m/s}^2$  (2-5  $g_n$ )  
Vibration, broad-band random, IEC60068-2-64  
Bump, IEC60068-2-29,  $250\text{m/s}^2$  (25  $g_n$ )  
Shock, IEC60068-2-27,  $400\text{m/s}^2$  (40  $g_n$ )  
Cold test, IEC60068-2-1  
Damp heat, cyclic, IEC60068-2-30  
Dry heat, IEC60068-2-2

### 19" SUB-RACK UNITS

Type	Modules per rack	Power	Mechanics (w x h x d) in mm
RMSR 7110 R	1...3 pcs	800W...2400W	19" (482mm) / 2U (88mm) / 360mm
RCP 8171178A	Cover plate for empty module place		25TE / 2U

### RECTIFIER MODULES

Type	Input voltage (*)	Nominal output voltage	Voltage setting range	Max output current	Current limit setting	Max power	Mechanics (w x h x d) in mm
RADC 7180R/12	50...260 VAC	12 VDC	12-15VDC	30 A	0-30A	800W	25TE / 2U / 230
RADC 7180R/24	50...260 VAC	24 VDC	24-30VDC	30 A	0-30A	800W	25TE / 2U / 230
RADC 7180R/36	50...260 VAC	36 VDC	36-54VDC	20 A	0-20A	800W	25TE / 2U / 230
RADC 7180R/48	50...260 VAC	48 VDC	48-60VDC	15 A	0-15A	800W	25TE / 2U / 230
RADC 7180R/72	50...260 VAC	72 VDC	72-108VDC	10 A	0-10A	800W	25TE / 2U / 230
RADC 7180R/96	50...260 VAC	96 VDC	90-120VDC	7.5A	0-7.5A	800W	25TE / 2U / 230

\*) Reduced power 50...200VAC, also DC input 50...260VDC, max power 600W



## TECHNICAL DATA

### INPUT

Input voltage	50...260 VAC 50...260 VDC / max 600W	50...200VAC reduced power 50...200VDC reduced power
Frequency		45...65Hz
Power factor		Electrically corrected to 1
Safety		According to EN60950, Class I
Isolation	Input / ground Input / outputs Output / ground	1500VAC 3750VAC 500VDC

### OUTPUT

Voltage	Nominal voltages	12... 120VDC / max 3 x 800W
Short circuit protection	RADC 7180 R modules RMSR 7110 R power rack	Electrical current limit 3 x 30A MCB, connected to negative output
Hot swap	Output serial diode in each rectifier	Hot-swap allowed
Series/parallel operations	All modules can be connected in series or in parallel	

### CONTROLS AND ALARMS

Input switch	On the front panel	Power switch with ON/OFF light
Output switch	On the front panel	MCB ON/OFF safety switch
Input failure	$U_{in nom} < \text{appr. } 150\text{VAC}$	Normally open and closed relay contacts
Output failure	Module failure or output switch off	Relay contact and MCB auxiliary relay

### ENVIRONMENTAL

Temperature range	Operating Storage	-40°C...+70 °C, derating at +50°C...+70 °C -40°C...+85 °C
Cooling	RADC 7180 R modules	Temperature controlled fan in front panel
Shock and vibration	IEC60068-2	See approvals below

### STANDARDS / APPROVALS

Safety	EN60950	Class I
EMC emissions	EN50081-1 EN55022 class B	Main standard Conducted emissions 150 kHz ... 30 MHz Radiated emissions 30 MHz ... 1000 MHz
EMC immunity	EN50082-2 EN61000-4-2 EN61000-4-3, ENV50204 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-11	Main standard Electrostatic Discharge Electromagnetic field immunity Fast Transients Surge Conductive Immunity Power Frequency Magnetic Field Power Line Quality
Product Family Standard	EN61000-3-2 EN61000-3-3	Harmonic Currents Emissions Voltage Fluctuation and Flicker Sensation
Environmental	IEC60068-2	Main Standard
Vibration sinusoidal	IEC60068-2-6, Test Fc	20m/s <sup>2</sup> (2gn) 9-200Hz, 50m/s <sup>2</sup> (5gn) 200-500Hz
Vibr. broad-band random	IEC60068-2-64, Test Fh	Spectral acceleration 3.57gnrms 5-500Hz
Bump	IEC60068-2-29, Test Eb	250m/s <sup>2</sup> (25gn) 6ms
Shock	IEC60068-2-27, Test Ea	400m/s <sup>2</sup> (40gn) 6ms
Cold test	IEC60068-2-1, Test Ab	-40°C ±3 °C, transportation and operation
Damp Heat, Cyclic	IEC60068-2-30, Test Db	+55°C ±2 °C, transportation and operation
Dry Heat	IEC60068-2-2, Test Bb	+70°C ±2 °C, transportation and storage

### MECHANICAL

Power Rack	19" sub-rack	Positions for 3 pcs of RADC 7180 modules
Dimensions	Height Width Depth	2U 19" 300mm, excluding handles and connectors
Weight	Rack without rectifiers Rectifier	5.5 kg 1.35kg
Enclosure	Steel	IP20

