DC PowerRack™

Complete Non-stop DC Power System

Complete non-stop DC power system – includes charger, battery, DC distribution
Single source convenience – means simple ordering, single shipment & no-excuses service
Open rack with battery shelves – cost effective; uses minimum floor space
Optional breakers for each battery shelf – enable isolation for maintenance
12, 24 & 48 volt systems – suits most lower voltage applications
Configurable – built to customer requirements, yet arrives pre-assembled ready for install

ISO 9000 · EMC IEC 61000-6-2 IMMUNITY · FC · NEMA

SENS®
STORED ENERGY SYSTEMS

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DC PowerRack Details

Highly configurable, with multiple battery options & rack heights

Top terminal battery system – maximum configuration (Showing 7′ rack height choice)

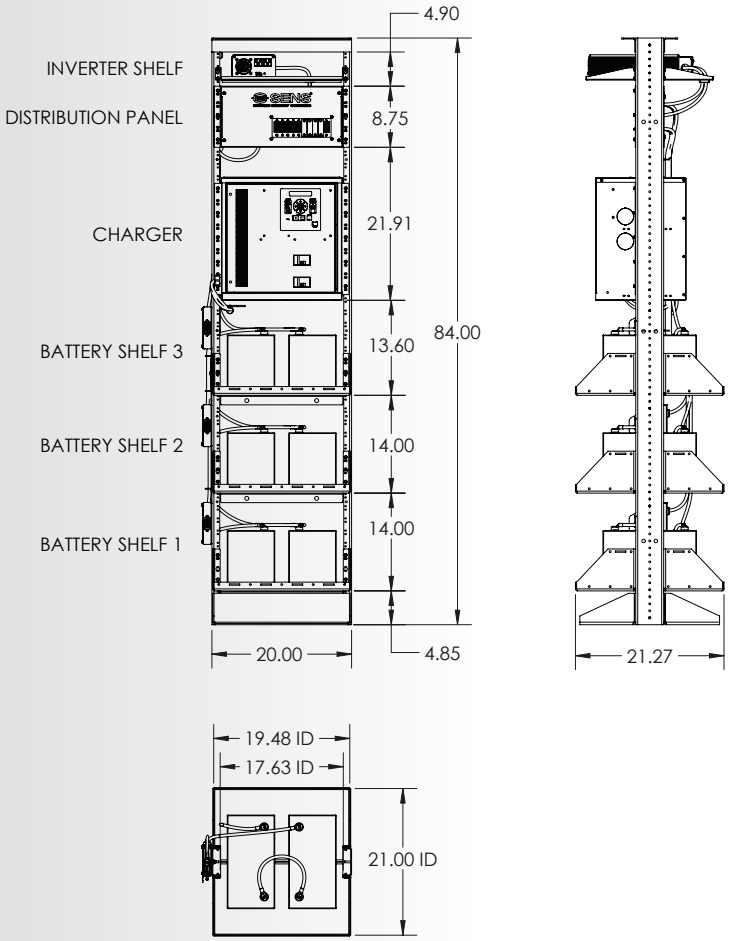
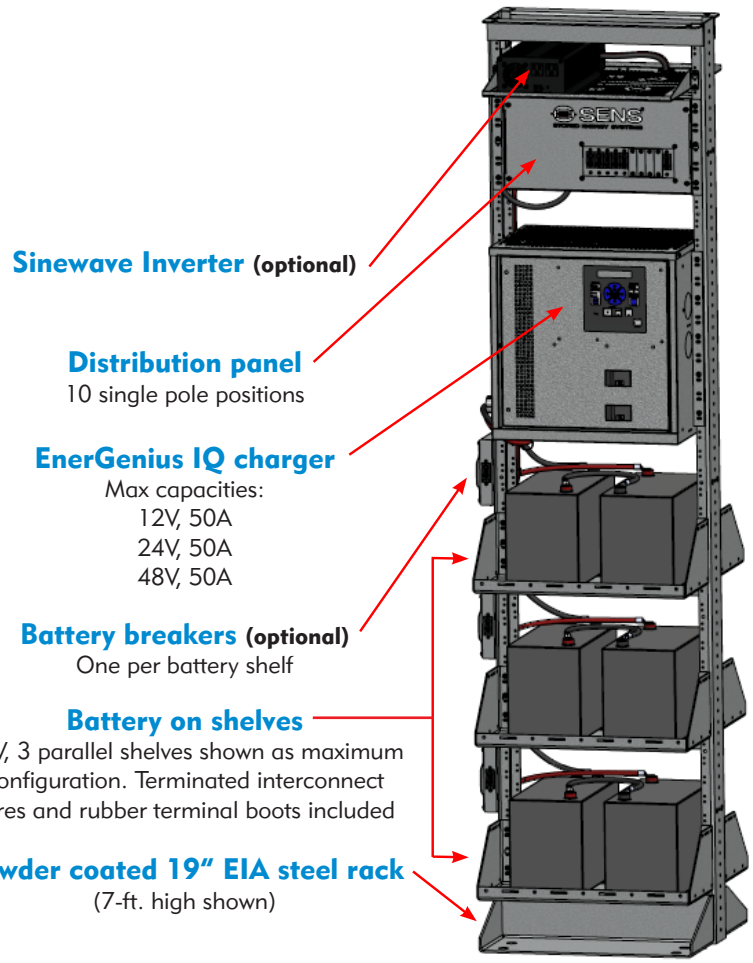


Table 1
Typical top-terminal VRLA batteries (showing 7′ rack choice)

Battery Capacity Per Shelf (up to 3 shelves in rack)			
DC volts	**Battery choices**	**Strings**	**Max AH**
12	35 or 70 AH*	1 to 4	280
	85, 90 or 120 AH	1 or 2	240
24	35 or 70 AH	1 or 2	140
	85, 90 or 120 AH	1	120
48	35 or 70 AH	1	70

*AH rating at the 8-hr rate to 1.75 volts per cell, at 77 deg. F.



Sinewave Inverter (optional)

Distribution panel
10 single pole positions

EnerGenius IQ charger
Max capacities:
12V, 50A
24V, 50A
48V, 50A

Battery breakers (optional)
One per battery shelf

Battery on shelves
24V, 3 parallel shelves shown as maximum configuration. Terminated interconnect wires and rubber terminal boots included

Powder coated 19" EIA steel rack
(7-ft. high shown)

Battery shelf notes

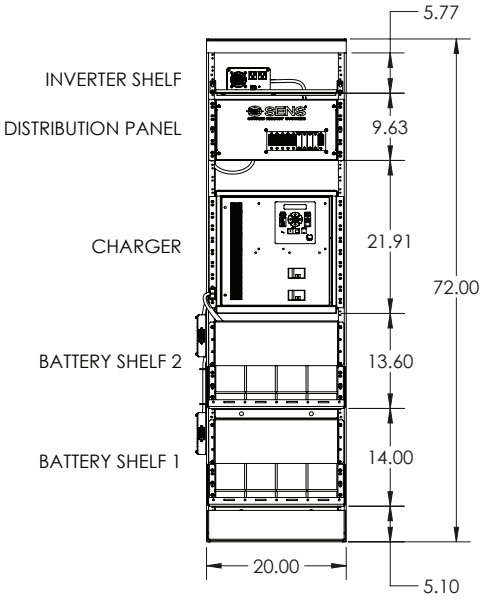
1. Shelf capacity: 325 lbs
2. Total rack capacity: 700 lbs
3. Interconnect wiring with lugs included
4. Rubber battery terminal boots included with top terminal batteries
5. Lexan terminal covers optional with front terminal batteries

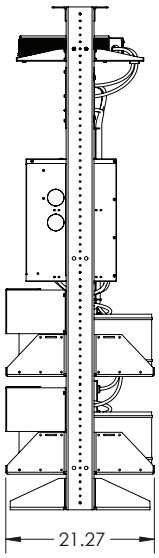
System ships fully assembled except for batteries, which are strapped to system pallet for installation on site.

Cuts Risk, Saves Time and Money

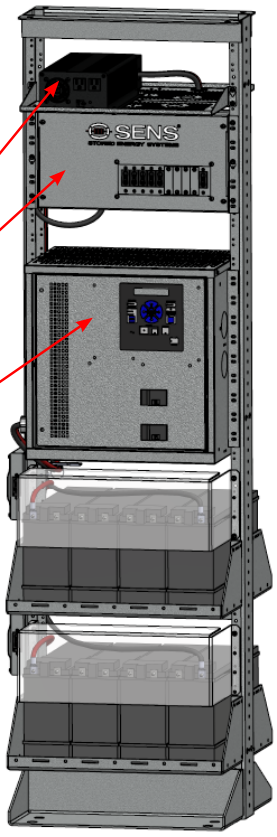
SENS DC PowerRack is configured to order, factory engineered, and arrives assembled and ready to bolt into place. Batteries, battery shelves and all necessary interconnect cables are included. To reduce risk of transportation damage, batteries are shipped on the system pallet for on-site installation. Reduce your project risk with DC PowerRack by SENS.

Risks & costs	SENS DC Rack	Conventional system
Suppliers	Single source solution	Multiple suppliers need coordination
Engineering	Factory engineered, assembled & tested	Surprises and costly job site delays
Battery rack	Included in 19" rack	Some assembly needed!
Space	Efficiently uses vertical space	Excessive, unpredictable space need
Ease of use	Single point of contact; standardized system	Multiple suppliers, missing parts





Front terminal battery system (Showing 6' rack height choice)



Sinewave Inverter (optional)

Distribution panel
10 single pole positions

EnerGenius IQ charger
Max capacities:
12V, 50A
24V, 50A
48V, 50A

Battery breakers (optional)
One per battery shelf

Battery on shelves
48V, 2 parallel shelves shown as maximum configuration. Terminated interconnect wires are standard. Drawing shows optional Lexan front terminal covers

Powder coated 19" EIA steel rack
(6-ft. high shown)

Table 2
Typical front-terminal VRLA batteries

Battery Capacity Per Shelf (1 or 2 shelves in rack)			
DC volts	**Battery choices**	**Strings**	**Max AH**
12	90 or 100 AH*	1 to 4	400
24	90 or 100 AH	1 or 2	200
48	90 or 100 AH	1	100
*AH rating at the 8-hr rate to 1.75 volts per cell, at 77 deg. F.			

DC PowerRack Model Number

	Parameter	Code	Value
A	Product Family	R19	DC Rack 19" EIA
B	Rack height	6 7	6 foot high rack 7 foot high rack
C	Charger	1	SENS EnerGenius IQ charger (choose model from SENS IQ charger data sheet & add "R" for rack mount)
D	Battery shelves	1 A 2 B 3 C	1 shelf, no shelf disconnect 1 shelf w/ 1 disconnect per shelf 2 shelves, no shelf disconnect 2 shelves w/ 1 disconnect per shelf 3 shelves, no shelf disconnect 3 shelves w/ 1 disconnect per shelf
E	System voltage	12 24 48	12 VDC 24 VDC 48 VDC Std. configuration: 12 & 24V systems negative ground. 48V systems positive ground. Non-standard configurations available.
F	12V blocks per shelf	1 A 2 B 3 C 4 D	1 top terminal block 1 front terminal block 2 top terminal blocks 2 front terminal blocks 3 top terminal blocks 3 front terminal blocks 4 top terminal blocks 4 front terminal blocks
G	DC field connections / distribution panel	00 01	Termination panel without distribution breakers Distribution panel with space for up to 10 ea. 1-pole distribution breakers
H	Configuration	00 XX	Factory-assigned configuration code Standard configuration; includes: • Steel rack, mock rock (similar to ANSI 61) powder coat • Rack confirms to EIA-310 spacing • 12V battery blocks Factory-assigned non-standard configurations

R	1	9	7	–	1	A	–	2	4	–	B	0	1	–	0	0
A			B	–	C	D	–	E		–	F	G		–	H	

Creation of a rack system involves specifying three basic elements and then adding options. Here are the steps:

1. Configure the base rack itself, using the table above. Note that installation of all components ordered, except the battery, is included. Select and order charger, batteries and options separately from the base DC PowerRack part number.
2. Specify the SENS EnerGenius IQ charger model number (e.g. Q024025TL512CR). See separate IQ data sheet for ordering details.
3. Specify top terminal or front terminal batteries (Refer to Tables 1 and 2). Other battery options are available.
4. Specify options:
   - Quantity and size of branch circuit breakers (available sizes include 15, 20, 30, 40, 50, 70 and 100 Ampere)
   - DC to AC inverter (600 and 1100W available)
   - Cover for front terminal batteries

Contact information

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