

DCT

Filtered Battery Charger



Reliable and compact industrial-grade DC power

- **Applications** –process control, utilities, communications, engine starting
- **Accurate temperature compensated charging** – makes batteries last longer
- **Filtered DC output** – is ideal for electronic loads
- **Standard AC and DC breakers** – eliminate need for spare fuses
- **Standard alarm system** – provides complete status on charger and battery
- **Anodized aluminum housing** – offers inherent corrosion protection



SENS DCT charger is widely specified and used, together with batteries, to supply non-stop DC power to critical applications. SENS DCT users include a wide variety of energy companies, utilities, power generation equipment manufacturers and government entities such as the Department of Energy and US Navy.

SENS also offers its model F3, a variant of the DCT that accepts three-phase inputs and offers higher power outputs than the DCT.

DCT Filtered Charger specifications

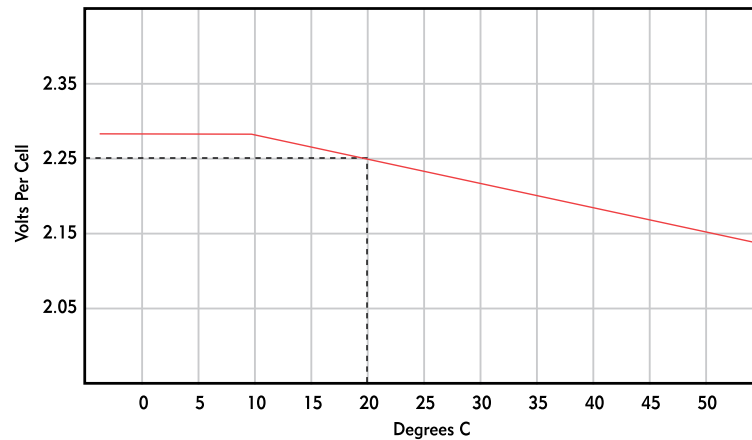
AC input, single-phase

Standard 50/60 Hz input

Optional 60 Hz inputs
Input voltage selection
Voltage, frequency tolerance
Input protection

< 3,500 W output: Field selectable 115/230 VAC, 50/60 Hz
≥ 3,500 W output: 230 VAC, 50/60 Hz
208 and 480 VAC, 60 Hz
Field accessible terminal block
Voltage $\pm 10\%$, frequency $\pm 5\%$
2-pole circuit breaker, soft start, transient protection

Charger output



Nominal voltage ratings
Line and load regulation
Current limit
Charge characteristic
Charge mode control
Standard output filtering

Temperature compensation
Output protection
Parallel operation

12, 24, 48, 120, 240 volts
 $\pm 1\%$ of the correct temperature compensated value
105% typical, adjustable from 50% to 110%
Constant voltage, current limited, 2-rate
User selectable float, manual equalize or battery-interactive automatic equalize modes
12, 24, 48V: 30 mV rms on battery 4 times AH of charger's amp rating; 100 mV rms without battery
120V: 150 mV rms on battery
240V: 300 mV rms on battery
Standard local sensing, -0.2% /degree C slope. Remote sensor optional
Current limit, 2-pole circuit breaker
Load share standard

User interface, indication, alarms and controls



Normal status indicators

Alarm status indicators

Output meters
Status indication
Alarm indications

Alarm contacts rating
Equalize control
Output voltage adjustments
Alarm test

3.5" scale 2% accuracy analog meters for output volts and amps
LED indicators for AC good, float mode, equalize mode
LED indicators plus Form C contacts for AC fail, low DC volts, high DC volts, charger fail, ground fault, overvoltage shutdown, summary alarm
2A at 26 VDC, 0.5A at 120 VAC, resistive
Select float only, manual equalize or automatic equalize
Separately adjustable float and equalize voltages
Alarm LED test button activates all LEDs

Environmental

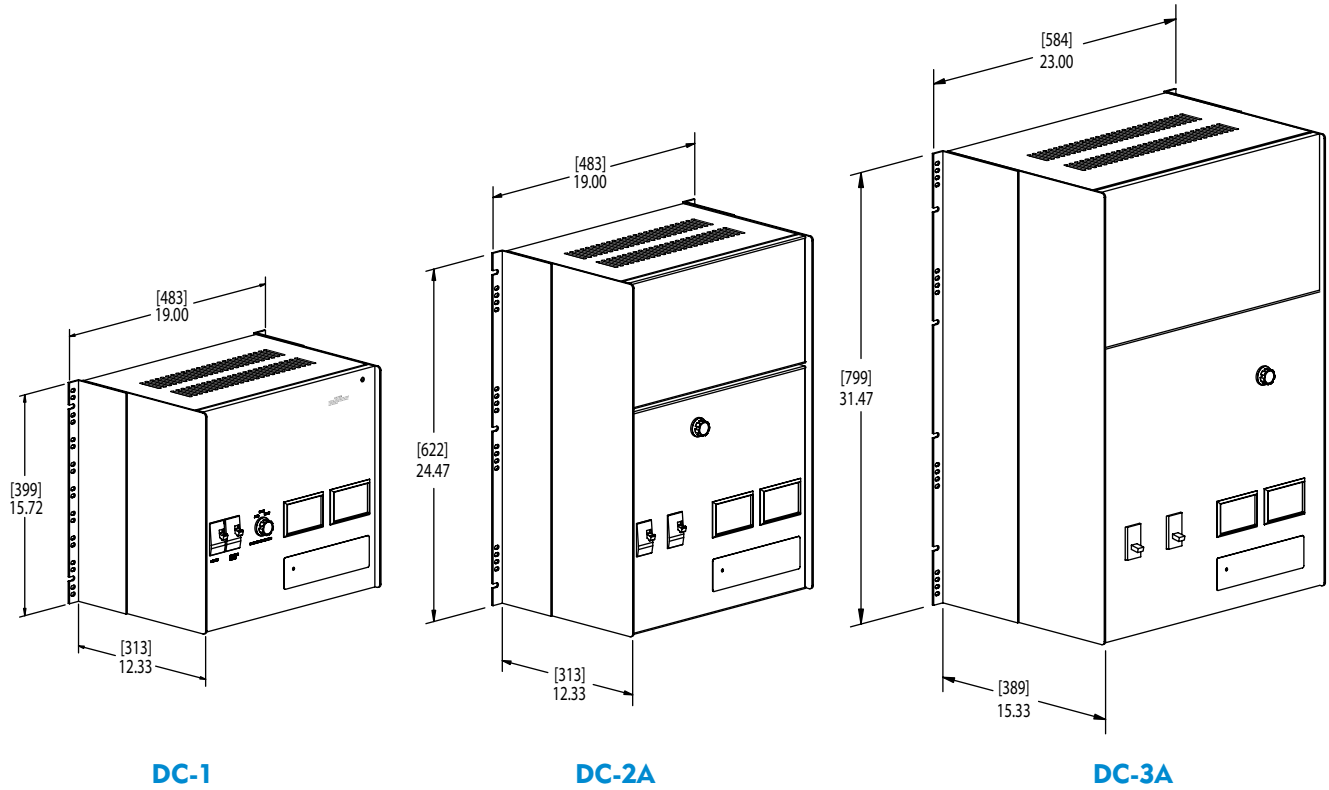
Operating temperature	-20C to +50C
Humidity	5% to 95%, non-condensing
Seismic compliance	Tested compliant to UBC Seismic Zone 4

Agency compliance

Safety	Designed in accordance with UL 1012
Agency marking	24-volt units \geq 25A output with standard input are UL listed
Other	NFPA-110 compliant alarm system

Mechanical and construction

Housing material	Heavy gauge clear anodized aluminum. Steel backbone in sizes 2 and 3
Configurations	Size 1 and 2 mount on wall or in 19" relay rack. Size 3 mounts on wall or in 23" relay rack
Electrical connections	Compression terminals
Cooling	Convection cooled. Filter capacitors and circuit cards protected from internal heat sources.










Housing dimensions table

Housing	Width	Depth	Height
DC-1	19.00" (483 mm)	12.33" (313 mm)	15.72" (399 mm)
DC-2A	19.00" (483 mm)	12.33" (313 mm)	24.47" (622 mm)
DC-3A	23.00" (584 mm)	15.33" (389 mm)	31.47" (799 mm)

Optional features

Input	Optional input voltages as listed under AC input
Remote temp comp sensor	Recommended where battery and charger are in different temperatures
Equalize timer	0-24 or 0-72 hour equalize timer (60 Hz only)
Circuit board protection	Tropicalization of circuit cards
Output filtering	30 mV filter (on battery) in 120 VDC units
Mounting	Optional floor mounting
Drip shield	Protects from dripping water to IP22

Ordering information

Output Volts	Output Amps	Model	AC Input Voltage, Frequency	Housing Size	Net Lbs	Weight Kg
12	12	DCT12-12	115/230, 50/60	DC-1	53	24
12	25	DCT12-25	115/230, 50/60	DC-1	68	31
12	50	DCT12-50	115/230, 50/60	DC-1	78	35
12	100	DCT12-100	115/230, 50/60	DC-2A	162	74
12	200	DCT12-200	115/230, 50/60	DC-3A	280	127
24	6	DCT24-6	115/230, 50/60	DC-1	44	20
24	12	DCT24-12	115/230, 50/60	DC-1	54	25
24	25	DCT24-25	115/230, 50/60 	DC-1	75	34
24	35	DCT24-35	115/230, 50/60 	DC-1	94	43
24	50	DCT24-50	115/230, 50/60 	DC-1	98	45
24	75	DCT24-75	115/230, 50/60 	DC-2A	185	84
24	100	DCT24-100	115/230, 50/60 	DC-2A	215	98
24	150	DCT24-150	230, 50/60 	DC-3A	290	132
24	200	DCT24-200	230, 50/60 	DC-3A	345	157
48	6	DCT48-6	115/230, 50/60	DC-1	55	25
48	12	DCT48-12	115/230, 50/60	DC-1	73	33
48	25	DCT48-25	115/230, 50/60	DC-1	90	41
48	35	DCT48-35	115/230, 50/60	DC-1	105	48
48	50	DCT48-50	115/230, 50/60	DC-2A	183	83
48	75	DCT48-75	230, 50/60	DC-2A	202	92
48	100	DCT48-100	230, 50/60	DC-3A	300	136
120	6	DCT120-6	115/230, 50/60	DC-1	87	40
120	12	DCT120-12	115/230, 50/60	DC-1	100	45
120	25	DCT120-25	115/230, 50/60	DC-2A	186	85
120	35	DCT120-35	230, 50/60	DC-2A	225	102
120	50	DCT120-50	230, 50/60	DC-3A	310	141
240	6	DCT240-6	115/230, 50/60	DC-1	115	52
240	12	DCT240-12	115/230, 50/60	DC-2A	188	85
240	25	DCT240-25	230, 50/60	DC-3A	310	141

 UL listed to UL 1012

Model number breakout



Model

Output voltage
 12: 12 volts
 24: 24 volts
 48: 48 volts
 120: 120 volts
 240: 240 volts

Output current

6: 6 amps
 12: 12 amps
 25: 25 amps
 35: 35 amps
 50: 50 amps
 75: 75 amps
 100: 100 amps
 150: 150 amps
 200: 200 amps

AC input, single phase

A: 115/230 VAC, 50/60 Hz
 3: 208 VAC, 60 Hz
 4: 230 VAC, 50/60 Hz
 8: 480 VAC, 60 Hz

Float/equalize control

3: Automatic equalize with manual over-ride
 6: 0-24 hour equalize timer
 7: 0-72 hour equalize timer

DC protection configuration

Factory specified only

Alarm system code

0: No alarms, indicators or remote contacts
 6: Standard DCT alarm package with remote contacts

Additional Information

Contact SENS or your local sales representative for additional specification, engineering and installation information. Check the SENS web site for latest available data. Specification is subject to change without notice.



Contact Information

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