

F3

Filtered Battery Charger, 3-Phase Input



Higher power industrial-grade DC in a compact package

- **Applications** – process control, communications, utilities
- **Compact dimensions** – offers high output power in a small package
- **Wide model range** – 24, 48 and 120 DC nominal, up to 200 amps
- **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



SENS F3 charger is widely specified and used, together with batteries, to supply non-stop DC power to critical applications. SENS F3 users include a wide variety of engineering and consulting firms, energy companies, utilities, power generation equipment manufacturers and government entities such as the Department of Energy and US Navy.

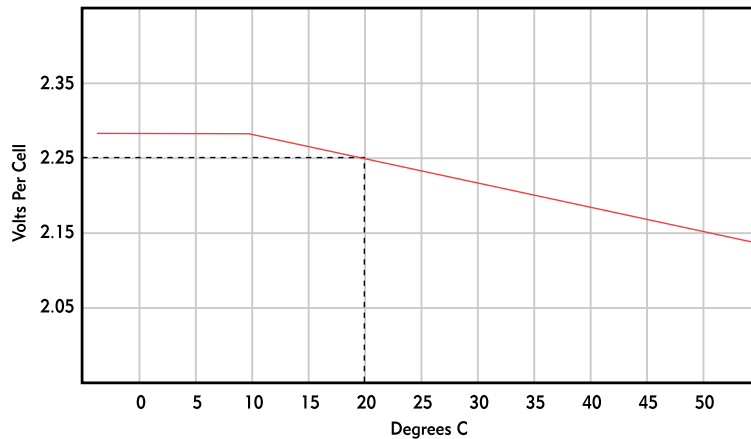
The F3 is a higher powered, three-phase input variant of SENS' popular DCT series.

F3 Filtered Charger specifications

AC input, three-phase

Standard 60 Hz inputs	Single input, 208 or 480 VAC, 60 Hz
Optional 60 Hz inputs	240, 208 or 480 VAC
Optional 50 Hz inputs	380 or 400 VAC, 50 Hz
Voltage, frequency tolerance	Voltage $\pm 10\%$, frequency $\pm 5\%$
Input protection	2-pole circuit breaker, soft start, transient protection

Charger Output



Nominal voltage ratings	24, 48 or 120 volts nominal
Line and load regulation	$\pm 1\%$ of the correct temperature compensated value
Current limit	105% typical, adjustable from 50% to 110%
Charge characteristic	Constant voltage, current limited, 2-rate
Charge mode control	User selectable float, manual equalize or battery-interactive automatic equalize modes
Standard output filtering	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
Temperature compensation	Standard local sensing, $-0.2\%/degree\ C$ slope. Remote sensor optional
Output protection	Current limit, 2-pole circuit breaker
Parallel operation	Load share standard

User interface, indication, alarms and controls



Normal status indicators Alarm status indicators

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

Environmental

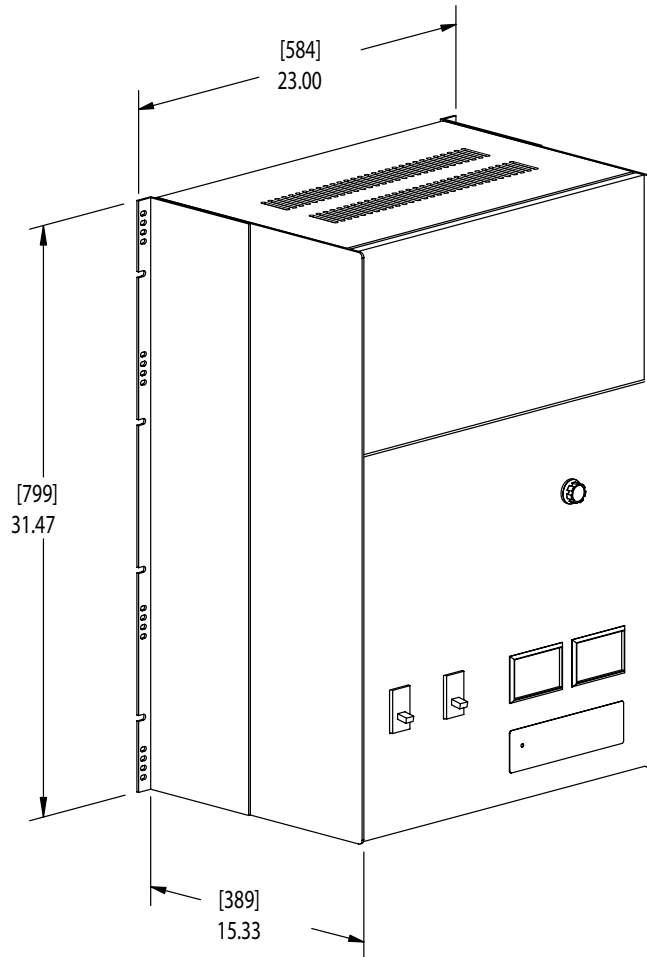
Operating temperature
Humidity
Seismic compliance

-20C to +50C
5% to 95%, non-condensing
UBC Seismic Zone 4

Mechanical/construction

Housing material
Configurations
Electrical connections
Cooling

Heavy gauge clear anodized aluminum with steel backbone.
Mounts on wall or in 23" relay rack. Optional free-standing configuration
Compression terminals
Convection cooled. Filter capacitors and circuit cards protected from internal heat sources.



Housing dimensions table

Housing	Width	Depth	Height
DC-3A	23.00" (584 mm)	15.33" (389 mm)	31.47" (799 mm)

Optional features

Input
Remote temp comp sensor
Equalize timer
Circuit board protection
Output filtering
Mounting
Drip shield

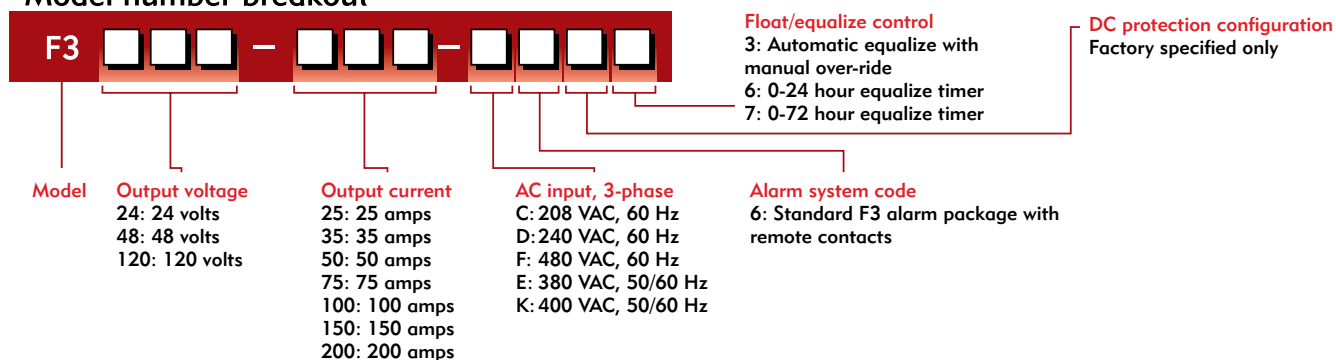
Optional input voltages as listed under AC input
Recommended where battery and charger are in different temperatures
0-24 or 0-72 hour equalize timer (60 Hz only)
Tropicalization of circuit cards
30 mV filter (on battery) in 120 VDC units
Optional floor mounting
Protects from dripping water to IP22

F3 Ordering information

Output Volts	Output Amps	Model	AC Input	Net Weight	
				Lbs	Kg
24	50	F324-50	208/60	230	105
24	75	F324-75	208/60	249	113
24	100	F324-100	208/60	256	116
24	150	F324-150	208/60	270	123
24	200	F324-200	208/60	285	130
48	50	F348-50	208/60	249	113
48	75	F348-75	208/60	265	120
48	100	F348-100	208/60	280	127
48	200	F348-200	208/60	330	150
120	25	F3120-25	480/60	263	120
120	35	F3120-35	480/60	260	118
120	50	F3120-50	480/60	385	175
120	75	F3120-75	480/60	461	210
120	100	F3120-100	480/60	535	243

Note: Not all configurations are available on all models.
Contact the factory for confirmation.

Model number breakout



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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