

Features

- 24V, 48/50V, 110V or 220V DC nominal
- From 25A to 1250A DC outputs
- Constant voltage, current limited output
- LCD/LED indication of status and metering
- Compatible with lead acid or nickel cadmium batteries
- Capable of being configured for parallel operation
- Input and output voltage options
- Custom alarm and monitoring configuration options
- Control and distribution options
- Enclosure, IP and paint colour options
- 12-pulse charger control option



Product Range

Standard Range & Base Enclosures

Current Rating	24VDC	48/50VDC	110VDC	220VDC
25A		FSA66	FSA66	FSA66
50A	FSA66	FSA66	FSA66	FSZ1
63A	FSA66	FSA66	FSZ1	FSZ1
80A	FSA66	FSA66	FSZ1	FSZ1
100A	FSA66	FSA66	FSZ1	FSZ1
125A	FSA66	FSZ1	FSZ1	FSZ1
160A	FSA66	FSZ1	FSZ1	FSZ2
200A	FSA66	FSZ1	FSZ1	FSZ4
250A	FSA66	FSZ1	FSZ1	FSZ4
320A	FSZ1	FSZ1	FSZ2	FSZ4
400A	FSZ1	FSZ1	FSZ4	FSZ1 & FSZ4
500A	FSZ2	FSZ2	FSZ4	FSZ1 & FSZ4
630A	FSZ2	FSZ2	FSZ4	
800A	FSZ4	FSZ4	FSZ1 & FSZ4	
1000A	FSZ4	FSZ4	FSZ1 & FSZ4	
1250A	FSZ4	FSZ4		

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Enclosure	Height	Width	Depth
FSA66	2050mm	600mm	623mm
FSZ1	2075mm	700mm	800mm
FSZ2	2075mm	1000mm	800mm
FSZ4	2075mm	1500mm	800mm

Standard Specifications

AC Input

Supply phase & voltage:	Three phase 400VAC
Supply voltage variation:	+/- 10% to meet output specification
Supply frequency:	50 / 60 Hz
Supply frequency variation:	+/-6% to meet output specification, +/- 10% transient
Protection and isolation:	MCB or MCCB 'D' characteristic
Power factor:	0.8 lagging at full load and float setting

DC Output

Nominal voltages available:	24V, 48/50V, 110V or 220V DC
Voltage setting ranges:	Float 100—125%, Equalise 110—135%, Commission 120—145%
Static voltage regulation:	+/-1% voltage, for output voltages up to 120% of nominal
Current limit setting range:	10 – 100% of rated current for float, equalise and commission settings
Static current regulation:	+/-2%
Regulation characteristic:	IU according to DIN41773
Ripple voltage:	<1% of nominal DC voltage with or without battery connected
Efficiency:	78 to 95% depending on rating and options fitted

General

Operating temperature range:	-10°C to +40°C
Operating temperature de-rate:	Up to 55°C de-rate output current by 1% per 1°C
Storage temperature range:	-20°C to +70°C
Operating altitude:	0 to 1000m
Operating altitude de-rate:	Up to 3000m de-rate output current by 1.9% per 500m
Operating humidity:	10% to 90% RH—non condensing
Safety:	BS EN 62040-1-2
EMC:	BS EN 62040-2

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Mechanical

Protection Rating:	IP40
Enclosure finish:	Pale grey RAL7035 textured
Cooling:	Natural cooling (systems over 63A the power electronics are fan cooled)
Audible noise level:	55—65dBA dependant on rating and load

Alarm & monitoring (Level 1) DAU

Standard systems:	Equipped with the Erskine DAU (DC Alarm Unit) module
Controls:	Equipped with 8 pushbuttons for display page navigation, configuration and charger mode control
Display:	LCD display with 4 line x 20 characters providing charger output voltage, current and status information
Alarm & status indications:	10 dedicated LED's providing 'Supply On', 'Supply Fail', 'Equalise', 'DC Low Volts', 'DC High Volts', 'Earth Fault', 'Charger Fail', 'High Voltage Trip', 'High Battery Impedance', and 'Fault' Indications.
Remote alarm:	Configurable SPCO volt free relay contact.
Automatic equalise charge:	Provides automatic timed equalise charge following a charge failure.
Flexible configuration:	Configurable alarm trip, reset and timers. Individual alarms selectable to be auto reset or latched. 5 spare auxiliary alarm inputs. Selectable mapping of alarms to remote relay.
Remote alarm relay option:	Optional remote alarm relay for up to 8 individual relay contacts.

Alarm & Monitoring (Level 2) DSM

Complex systems:	Optional Erskine DSM (DC Supervisory & Monitoring) module
User interface:	Equipped with a 128 X 64 pixel monochrome graphics LCD display and an 8 pushbutton keypad. Provides instrumentation, alarms, status, control and configuration display.
Instrumentation:	Charger output voltage & current, battery voltage & current, battery earth voltage (floating systems)
LED indications:	20 configurable bi-colour LED's (amber, green or red) for alarm and status indication with custom fascia LED labels.
Programmable functions:	Highly configurable monitoring, alarm and charger mode control system to meet customers system functionality requirements, based on: 16 analogue alarm functions, 32 logic alarm functions 15 un-committed auxiliary inputs, 13 voltage free SPCO remote relay contacts
History log:	A history log function allows the user to view the last 1000 events.
Optional remote communications:	RS232/485 MODBUS communications to allow for monitoring of the charger on SCADA systems.

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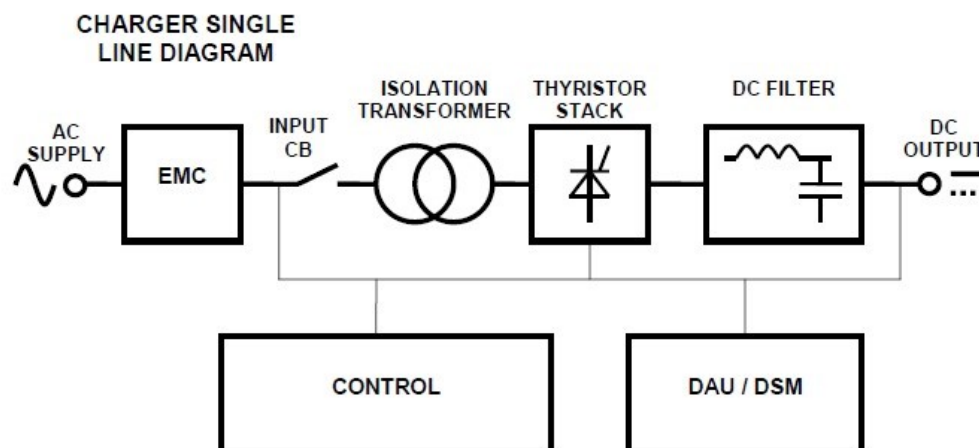
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Options

- Additional analogue metering
- Extra configurable remote alarm relay contacts
- Special DC output voltages, optional nominal 12VDC, 30VDC, 60VDC, 120VDC, 240VDC
- Special AC input voltages, optional nominal 220—250VAC, 380—440VAC, 480VAC, 660VAC
- Customer specific distribution isolators, circuit breakers or fuses
- Charger and/or battery isolation
- Anti condensation heaters
- 2mV CCITT smoothing for 12, 24, 30 or 48/50VDC output systems
- Parallel operation with load current sharing provide by droop voltage control
- Output blocking diodes for parallel operation
- Panel lighting
- Counter EMF diode systems for loads sensitive to high charge voltages
- Battery charge voltage temperature compensation (NTC)
- Different battery technologies i.e. VRLA, vented lead acid or wet nicad
- Low DC voltage load disconnect facility
- Battery autonomies to suit customer requirements
- Battery boxes and stands
- Battery fuse boxes
- Battery reverse polarity protection
- Increased panel protection ratings up to a maximum of IP54
- Top or bottom cable entry
- Custom enclosure paint colours
- Larger cubicle sizes for more complex solutions
- Custom designed options for customer requirements
- 12 pulse charger control
- Remote monitoring and control via MODBUS

6CV Charger—Single Line Diagram



Dale Power Solutions Ltd reserves the right to make changes in specification without notice or liability. All information is subject to Dale Power Solutions own data & is considered accurate at time of publishing.

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