

6CV Range

Three Phase Input Charger



Built for Demanding Industrial Applications

BATTERY FLEXIBILITY

Supports VRLA, vented lead-acid, or NiCad battery technologies, enabling flexible system configuration to suit site requirements.

INTELLIGENT CONTROL

Includes a monitoring and control interface with touchscreen option, and configurable alarms for effective remote supervision.

HIGH EFFICIENCY

Delivers up to 95% efficiency at full load, helping to reduce energy losses and operating costs.



Custom Engineering

Available in a wide range of output configurations, with adjustable current limits to meet specific load demands. Supported by in-house engineering expertise, enabling tailored system design, integration support, and adaptation to complex or non-standard requirements.

Standard Specifications - AC Input

Supply Phase & Voltage	Three Phase 400VAC - special voltages also available on request
Supply Voltage Variation	± 10%
Supply Frequency	50 / 60Hz
Supply Frequency Variation	± 6% to meet output specification, ± 10% transient
Protection & Isolation	MCCB or MCB 'D' characteristic
Power Factor	0.8 lagging at full load & float voltage setting

Standard Specifications - DC Output

Nominal Voltages Available	24VDC, 48/50VDC, 110VDC, 220VDC - special voltages also available on request
Voltage Setting Ranges	Float 100 - 125%, Equalise 110 - 135%, Commission 120 - 140%
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	81 - 95% depending on rating & any options fitted

Mechanical Specifications

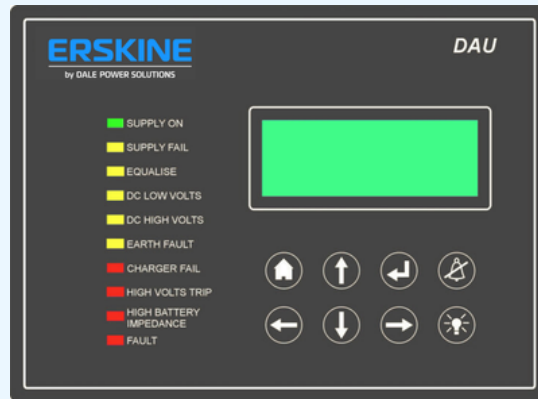
Protection Rating	IP20-IP44 available
Enclosure Finish	Light grey RAL7035 textured
Cooling	Natural convection. For systems over 100A, the power electronics are fan cooled
Audible Noise Level	55 - 65dBA depending on rating and load
Cable Entry	Top, bottom or custom arrangements available

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
EMC	BS EN 62040-2

Standard Alarm & Monitoring DAU - LCD & LED Display Option	
Standard Systems	Equipped with the Erskine DAU (DC Alarm Unit) module with 8 push buttons for display
Controls	Page navigation, configuration and charger mode control. LCD display with 4 line x 20 characters
Display	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', 'Fault' indications, and 'High Battery Impedance' (as an additional option)
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

Standard Alarm & Monitoring DAU - LCD & LED Display Option

Display Example



Alarm & Monitoring DAUS2 - Colour TFT Touch Screen Display Options

Display

Colour high resolution (800 x 480 dpi) touch screen graphics display in 7 inch size format. Display also available in an optional 10 inch format.

Functionality

Provides the same capability as the LCD/LED DAU display in terms of alarms, controls and configurability with the added benefits of a modern touch screen interactive colour TFT display and intuitive navigation.

Additional Functionality

Event Log Alarm history log, audible alarm, event & alarm log transferable via SD card.

Display Example



Standard Range 24VDC & 48/50VDC

Current Rating (Amps)	24VDC		48/50VDC	
	Dimensions (mmH x mmW x mmD)	Weight (Kg)	Dimensions (mmH x mmW x mmD)	Weight (Kg)
25	2065 x 600 x 600	180	2065 x 600 x 600	210
50	2065 x 600 x 600	200	2065 x 600 x 600	260
63	2065 x 600 x 600	215	2065 x 600 x 600	280
80	2065 x 600 x 600	230	2065 x 600 x 600	300
100	2065 x 600 x 600	250	2065 x 600 x 600	330
125	2065 x 600 x 600	265	2065 x 600 x 800	340
160	2065 x 600 x 600	285	2065 x 600 x 800	370
200	2065 x 600 x 600	315	2065 x 600 x 800	415
250	2065 x 600 x 800	335	2065 x 600 x 800	560
320	2065 x 600 x 800	355	2065 x 600 x 800	675
400	2065 x 600 x 800	400	2065 x 1000 x 800	500
500	2065 x 800 x 800	500	2065 x 1000 x 800	600
630	2065 x 1000 x 800	670	2065 x 1000 x 800	815
800	2065 x 1200 x 800	700	2065 x 1000 x 800	850
1000	2065 x 1500 x 800	715	2065 x 1000 x 800	875

Standard Range 110VDC & 220VDC

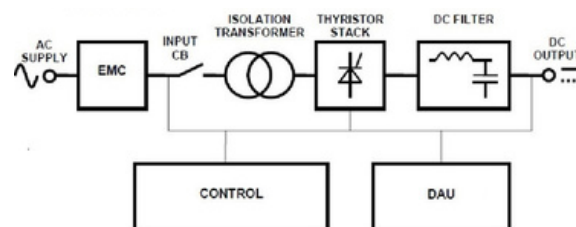
Current Rating (Amps)	110VDC		220VDC	
	Dimensions (mmH x mmW x mmD)	Weight (Kg)	Dimensions (mmH x mmW x mmD)	Weight (Kg)
25	2065 x 600 x 600	260	2065 x 600 x 600	330
50	2065 x 600 x 600	325	2065 x 600 x 800	450
63	2065 x 600 x 800	350	2065 x 600 x 800	670
80	2065 x 600 x 800	385	2065 x 600 x 800	690
100	2065 x 600 x 800	450	2065 x 1000 x 800	700
125	2065 x 600 x 800	646	2065 x 1000 x 800	750
160	2065 x 600 x 800	690	2065 x 1000 x 800	825
200	2065 x 1000 x 800	671	2065 x 1500 x 800	860
250	2065 x 1000 x 800	750	2065 x 1500 x 800	900
320	2065 x 1000 x 800	825	2065 x 1500 x 800	1125
400	2065 x 1500 x 800	860	2065 x 2300 x 800	1200
500	2065 x 1500 x 800	900	2065 x 2300 x 800	1350
630	2065 x 1500 x 800	1100		
800	2065 x 2300 x 800	1200		
1000	2065 x 2300 x 800	1350		

OPTIONS

All 6CV range products can be custom designed to customer requirements.

- Additional analogue metering
- Extra configurable remote alarm relay contacts
- Special DC output voltages available, optional 12VDC, 30VDC, 60VDC, 125VDC, 240VDC
- Special AC input voltage available, optional 380VAC, 415VAC, 440VAC, 480VAC, 690VAC.
- Customer specific distribution isolators, circuit breakers, & 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, NiCad or Lithium Ion
- Low DC voltage battery/load disconnect facility
- Battery autonomies to suit customer requirements
- Battery fuse boxes, enclosures and stands
- Battery reverse polarity protection.
- Increased panel protection (IP) ratings available
- Battery reverse polarity protection
- Top and/or bottom cable entry
- Custom cubicle sizes for more complex solutions
- Custom enclosure paint colours to meet specifications
- 12 pulse charger control.
- Remote monitoring and control via MODBUS
- Battery string impedance
- Network Rail PADS approved
- National Grid Type Registered

Single Line Diagram





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