

DCV/CV Range

Single 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 93% 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

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|-----------------------------------|--|
| Supply Phase & Voltage | Single Phase 230V - 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

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|------------------------------------|---|
| Standard Voltages Available | 24VDC, 48/50VDC, 110VDC - special voltages also available on request |
| 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 rating regulation characteristic when connected to a battery of Ah capacity 4 x charger output rating |
| Efficiency | 75% to 93% depending on rating & any options fitted |

Mechanical Specifications

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| Protection Rating | IP20-IP44 available |
| Enclosure Finish | Light grey RAL7035 textured |
| Cooling | Natural convection |
| Audible Noise Level | 55 - 65dBA depending on rating and load |
| Cable Entry | Top, bottom or custom arrangements available |

General

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|--------------------------------------|---|
| 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 |

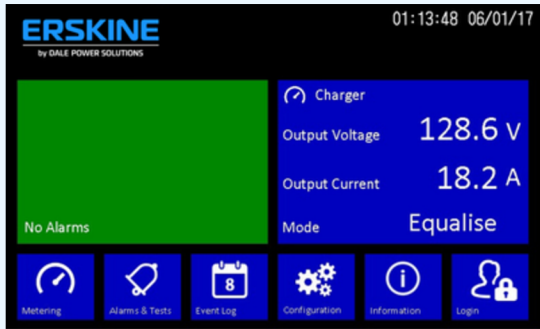
Standard Alarm & Monitoring DAU - LCD & LED Display Option

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|---------------------------------------|---|
| 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', '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 |

Standard Alarm & Monitoring DAU - LCD & LED Display Option

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|-------------------------------|--|
| <p>Display Example</p> |  |
|-------------------------------|--|

Alarm & Monitoring DAUS2 - Colour TFT Touch Screen Display Options

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|--|---|
| <p>Display</p> | <p>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.</p> |
| <p>Functionality</p> | <p>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.</p> |
| <p>Additional Functionality</p> | <p>Event Log Alarm history log, audible alarm, event & alarm log transferable via SD card.</p> |
| <p>Display Example</p> |  |

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) |
| 6 | 600 x 600 x 350 | 53 | 600 x 600 x 350 | 58 |
| 10 | 600 x 600 x 350 | 56 | 600 x 600 x 350 | 64 |
| 16 | 600 x 600 x 350 | 60 | 600 x 600 x 350 | 72 |
| 20 | 600 x 600 x 350 | 63 | 600 x 600 x 350 | 78 |
| 25 | 600 x 600 x 350 | 67 | 600 x 600 x 350 | 86 |
| 32 | 600 x 600 x 350 | 72 | 800 x 600 x 350 | 99 |
| 40 | 600 x 600 x 350 | 77 | 800 x 600 x 350 | 111 |
| 50 | 800 x 600 x 350 | 88 | 800 x 600 x 350 | 125 |
| 63 | 1000 x 600 x 350 | 100 | 2065 x 600 x 600 | 223 |
| 80 | 2065 x 600 x 600 | 158 | 2065 x 600 x 600 | 248 |
| 100 | 2065 x 600 x 600 | 172 | 2065 x 600 x 600 | 277 |
| 125 | 2065 x 600 x 600 | 189 | 2065 x 600 x 600 | 313 |
| 160 | 2065 x 600 x 600 | 214 | 2065 x 600 x 600 | 364 |
| 200 | 2065 x 600 x 600 | 242 | 2065 x 600 x 600 | 423 |
| 250 | 2065 x 600 x 600 | 277 | 2065 x 600 x 600 | 496 |

| Standard Range 110VDC | | |
|-----------------------|------------------------------|-------------|
| Current Rating (Amps) | 110VDC | |
| | Dimensions (mmH x mmW x mmD) | Weight (Kg) |
| 6 | 600 x 600 x 350 | 68 |
| 10 | 600 x 600 x 350 | 81 |
| 16 | 600 x 600 x 350 | 101 |
| 20 | 800 x 600 x 350 | 117 |
| 25 | 800 x 600 x 350 | 133 |
| 32 | 2065 x 600 x 600 | 205 |
| 40 | 2065 x 600 x 600 | 230 |
| 50 | 2065 x 600 x 600 | 626 |
| 63 | 2065 x 600 x 600 | 304 |
| 80 | 2065 x 600 x 600 | 322 |
| 100 | 2065 x 600 x 600 | 355 |
| 125 | 2065 x 600 x 600 | 404 |

OPTIONS

All DCV/CV 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, 220VDC, 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 24, or 48/50VDC
- Output blocking diodes for parallel operation
- 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
- 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
- Remote monitoring and control via MODBUS
- Panel lighting
- Battery string impedance
- Network Rail PADS approved
- National Grid Type Registered

Single Line Diagram

