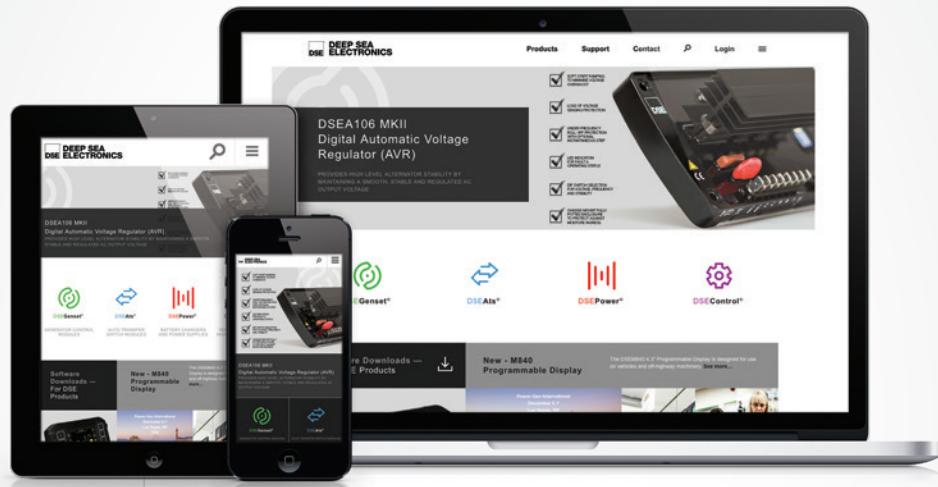




PRODUCT GUIDE





View the complete
DSE product
range

Register a
website account
and download
full product
documentation
& PC software

Keep up to
date with
the latest
company news
and product
releases

Watch company
and product
testing
videos



Genuine UK Quality

Our commitment to delivering premium quality products and services is as strong today as it was when we began our journey in 1975.

Manufacturing is our passion and we understand what it takes to consistently deliver industry leading products.

Our customers have total confidence in our market-leading solutions and know that when they need them most, they never let them down.



INDUSTRY LEADING GENERATOR CONTROL MODULES

MANUAL/AUTO START CONTROL MODULES



DSE402MKII



DSE701MKII



DSE3110



DSE3210



DSE4210



DSE4510 MKII



DSE6010 MKII



DSE6110 MKII



DSE7110 MKII



DSE7310 MKII



DSE7410 MKII

AUTO MAINS (UTILITY) FAILURE CONTROL MODULES



DSE4220



DSE4520 MKII



DSE6020 MKII



DSE6120 MKII



DSE7120 MKII



DSE7320 MKII



DSE7420 MKII

SYNCHRONISING AND LOAD SHARING CONTROL MODULES



DSE8610 MKII



DSE8620



DSE8660 MKII



DSE8661



DSE8680



DSE8710/60



DSE8721



DSE8810



DSE8860



DSE8711/8716



EXPANSION MODULES



DSE123
ANALOGUE LOAD SHARE
LINES INTERFACE



DSE124
CANBUS EXTENDER



DSE125
MSC CONVERTER



DSE2130
DSENET® INPUT
EXPANSION MODULE



DSE2131
DSENET® RATIOMETRIC
INPUT EXPANSION
MODULE



DSE2133
DSENET® RTD/
THERMOCOUPLE INPUT
EXPANSION MODULE



DSE2152
DSENET® ANALOGUE
OUTPUT EXPANSION
MODULE



DSE2157
DSENET® OUTPUT
EXPANSION MODULE



DSE2548
DSENET® OUTPUT
EXPANSION MODULE

LIGHTING TOWER
CONTROL MODULE



DSEL401 MKII

DC/HYBRID
GENERATOR
CONTROL MODULE



DSE7450

MAINS/UTILITY
DECOPPLING RELAY



DIGITAL AUTOMATIC
VOLTAGE REGULATOR



NEW

DSEA106 MKII

REMOTE COMMUNICATIONS & OVERVIEW DISPLAYS



DSE8004



DSE8003



DSE8005



DSE855/857



DSE890 & DSE891
DSEWebNet®
Gateway



DSE892 SNMP
Gateway



DSEWebNet®



DSEWebNet®
Mobile App

DEDICATED AUTO TRANSFER SWITCH
CONTROL MODULES



AUTOMATIC TRANSFER SWITCH CONTROL MODULES



DSE330



DSE331



DSE334



DSE335

SELF-SEEKING POWER SUPPLIES



DSE160

DSEPower®

INTELLIGENT BATTERY CHARGERS
AND POWER SUPPLIES



INTELLIGENT BATTERY CHARGERS



DSE9470 MKII, DSE9472 MKII
DSE9480 MKII, DSE9481 MKII
DSE9473
DSE9483



ENCLOSED
DSE9460
DSE9461



HIGH POWERED
DSE9474



DUAL
OUTPUT
DSE9462

BATTERY CHARGERS

SWITCH
MODE



DSE9130
DSE9150
DSE9155
DSE9255



DSE9701
DSE9702

POWER
SUPPLY



DSE160

REMOTE
DISPLAY



DSE2541



VEHICLE & OFF-HIGHWAY MACHINERY CONTROL SYSTEMS



DSE M840



DSE M870



DSE M640



DSE M040

NEW



DSE E100



DSE E400



DSE E800



DSE 103 MKII

NEW

ACCESSORIES



DSE M640
Connector Set
007-035



DSE M64X
Connector Harness Set
007-036



DT16 Deutsch
Connector A
007-850



DT16 Deutsch
Connector C
007-851



DSE E400
Connector Harness Set
007-852



Ethernet
Programming Cable
016-160



USB Interface
Cable
016-161



DSE M870
Connector Harness Set
016-167



DSE M840
Connector Harness Set
016-168

Simple Upgrade Path



PANEL CUT-OUT
220mm x 160mm
8.7" x 6.3"

Key:

AS
AMF
LS
ATS
AS/L
MS/AS

- Auto Start
- Auto Mains Failure
- Load Sharing
- Automatic Transfer Switch
- Auto Start/Lighting
- Manual Start/Auto Start

DSE7XXX & 8XXX Range



DSE7110 MKII AS
DSE7120 MKII AMF



DSE7210
DSE7220

AS
AMF



DSE335 ATS



DSE7310 MKII AS
DSE7320 MKII AMF



DSE7410 MKII AS
DSE7420 MKII AMF
DSE7450



DSE8610 MKII LS
DSE8620 LS
DSE8660 MKII LS
DSE8661 LS
DSE8680 LS



DSE8810
DSE8860

LS
LS

The DSE simple upgrade path offers the most flexible and efficient approach to panel design.

Step 1

Select the right product range for your business.

Step 2

Implement the cut-out size into your panel designs.

Step 3

Choose the product within the range that matches your application requirements and fit this to all panels as standard.

Step 4

When greater or lesser functionality is required, replace your standard product with another product from the same range. There is no need to alter the cut-out size.



PANEL CUT-OUT
182mm x 137mm
7.2" x 5.4"



PANEL CUT-OUT
118mm x 92mm
4.6" x 3.6"



PANEL CUT-OUT
80mm x 68mm
3.1" x 2.7"

DSE6XXX Range	DSE4XXX Range	DSE3XXX Range
DSE6010 MKII AS DSE6020 MKII AMF	DSE4210 AS DSE4220 AMF	DSE3110 MS/AS
DSE6110 MKII AS DSE6120 MKII AMF	DSE4510 MKII AS DSE4520 MKII AMF	DSE3210 MS/AS
DSE334 ATS	DSEL401 MKII AS/L	DSE330 ATS

MANUAL/AUTO START CONTROL MODULES

**DSE402 MKII**

- Key start
- Low oil pressure protection
- High engine temperature protection
- Auxiliary shutdown
- PC configurable via DSE813 interface and DSE Configuration Suite PC Software
- Automatic engine pre-heat
- Overspeed protection
- + many more features

**DSE701 MKII**

- Configurable auto and manual start versions
- Remote start input available (when in auto start mode)
- Auxiliary shutdown input available (when in manual start mode)
- Engine monitoring and protection
- LED status indication
- Automatic engine pre-heat
- Overspeed protection
- Front panel mounting
- + many more features

**DSE3110**

- Back-lit icon LCD display
- Front panel editing
- LED and LCD alarm indication
- Power save mode
- CAN and magnetic pick-up/ Alt. versions available (specify on ordering)
- PC configurable
- 6 digital inputs
- 4 outputs (2 configurable on magnetic pick up/Alt. 4 configurable on CAN version)
- Alternative configuration
- Configurable timers and alarms
- Remote start input
- Generator voltage display
- Generator frequency display
- Battery voltage display
- Engine speed display
- Hours counter
- Engine pre-heat
- Comprehensive shutdown or warning on fault condition
- + many more features

**DSE3210**

- Key switch
- Configurable inputs (6)
- Back-lit icon LCD display
- LED and LCD alarm indication
- USB configurable
- Configurable timers and alarms
- Alternative configuration
- Remote start input
- Generator voltage display
- Generator frequency display
- Battery voltage display
- Engine speed display
- Hours counter
- Engine pre-heat
- Comprehensive shutdown or warning on fault condition
- + many more features

**DSE4210**

- User friendly fault indication by LED
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3 phase generator sensing
- Compatible with 600 V AC Ph to Ph nominal systems
- Fuel and start outputs
- 4 configurable DC outputs
- 7 configurable digital inputs
- Configurable staged loading outputs
- Alternator speed sensing
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- Event log (15)
- + many more features

**DSE4510 MKII**

- Largest back-lit icon display in its class
- Current sensing, real-time clock & heated display options available
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3 phase generator sensing
- Compatible with 600 V ph - ph nominal systems
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Fuel and start outputs (configurable when using CAN)
- 2 configurable DC outputs
- 3 configurable analogue/digital inputs
- 4 configurable digital inputs
- Configurable staged loading outputs
- CAN and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD alarm indication
- Event log (50)
- + many more features

**DSE6010 MKII**

- Large back-lit icon display
- Heated display option available
- Fully configurable via the fascia or PC using USB communication
- Efficient power save mode
- 3 phase generator sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Support for 0-10 V & 4-20 mA oil pressure sensors
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real-time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Configurable event log (50)
- + many more features

**DSE6110 MKII**

- Large back-lit text display
- Multiple display languages
- Heated display option available
- DSENNet® expansion compatibility
- Data logging facility
- Fully configurable via PC using USB communication
- Front panel configuration
- Efficient power save mode
- 3 phase generator sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Support for 0 to 10 V & 4 to 20 mA oil pressure sensors
- 6 configurable digital inputs
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Customisable information screens
- Configurable event log (100)
- + many more features

**DSE7110 MKII**

- Large back-lit icon display
- Heated display option available
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3 phase generator sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Fuel and start outputs (configurable when using CAN)
- 4 configurable DC outputs
- 2 configurable volt-free outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Battery voltage monitoring
- Start on low battery voltage
- Real-time clock
- Fuel pump control
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Event log (50)
- + many more features

MANUAL/AUTO START CONTROL MODULES

**DSE7310 MKII**

- 4-line back-lit LCD text display
- Multiple display languages
- Five key menu navigation
- LCD alarm indication
- Heated display option available
- Customisable power-up text and images
- DSENNet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB, RS232 & RS485 communications
- Front panel configuration with PIN protection
- Power save mode
- 3 phase generator sensing and protection
- Generator current and power monitoring (kW, kvar, kVA, pf)
- kW and kvar overload and reverse power alarms
- Over current protection
- Unbalanced load protection
- Independent earth fault protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 2 configurable volt-free relay outputs
- 6 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- Configurable 5 stage dummy load and load shedding outputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping

**DSE7410 MKII**

- Fuel usage monitor and low fuel level alarms
- Simultaneous use of RS232 and RS485 communication ports
- True dual mutual standby using RS232 or RS485 for accurate engine hours balancing
- MODBUS RTU support with configurable MODBUS pages.
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- Modules can be integrated into building management systems (BMS) using MODBUS RTU
- + many more features
- Configurable inputs (11)
- Configurable outputs (8)
- Voltage measurement
- Dedicated load test button
- kW overload alarms
- Comprehensive electrical protection
- RS232, RS485 & Ethernet remote communications
- MODBUS RTU/TCP
- PLC functionality
- Multi event exercise timer
- Back-lit LCD 4-line text display
- Multiple display languages
- Automatic start/manual start
- Audible alarm
- Fixed and flexible LED indicators
- Event log (250)
- Engine protection
- Fault condition notification to a designated PC
- Front panel mounting
- Protected front panel programming
- Configurable alarms and timers
- Configurable start and stop timers
- Five-key menu navigation
- Front panel editing with PIN protection
- 3 configurable maintenance alarms
- CAN and magnetic pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- "Protections disabled" feature
- Reverse power protection
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding and dummy load outputs)
- Unbalanced load protection
- Independent earth fault trip
- Integral PLC editor
- + many more features



Group 1	English	Translation	Mimic
Genncomm	Fuel on	Combustible conectado	
Status	On Load	En carga	
Status	Open bus cmd	Mando Apertura Bus	
Status	Close bus cmd	Mando Cierre Bus	
Status	Bus and mains open	Bus y Red Abiertos	
Status	Open mains cmd	Mando Apertura Red	Mando Apertura Red
Editor	Start Delay	Retardo arranque	
Status	Stopping	Parando	
Event	Event log initialised	Registro iniciados	
Event	Power Up	Encendido	
Event	Mains Failure	Fallo red eléctrica	
Event	Mains Return	Retorno red eléctrica	
Event	Accumulated Initialised	Acumulado iniciado	
Event	User Cal Initialised	Cal. de usuario iniciado	
Event	Unknown event	Suceso desconocido	
Bus	Bus	Bus	
Bus	Bus Phase Sequence	Secuencia fase bus	
Bus	Bus Frequency	Frecuencia bus	
Bus	Bus Voltage	Tensión de Bus	
Editor	Fuel Low Warning	Advert. combust. bajo	
Editor	Dra. Heat Timer	Temperatura precalentamiento	

DSEGenset® Language Editor



DSE has an integrated language editing tool within its DSE Configuration Suite software that can be used with a wide number of DSE's control modules. The software enables the user to translate the default English text strings within their module into an alternative language. This language is then displayed on the modules' front screen.

The software supports all global language formats including Chinese, Latin, Arabic and Cyrillic characters. This ensures that no matter where the control module is being used across the world, the operator has a full understanding of the information being presented, making sure the status of the control module is known at all times. The language editor can also be used to reflect unique terminology specific to individual applications or geographical areas making the module truly bespoke.

The language editing tool can also be used to make changes within the DSE Configuration Suite Software. This feature enables users to configure control modules in their chosen language, ensuring configurations are understood and easily entered.

To gain more information on the above features and to gain a full listing of the modules that support this feature, refer to the DSE website or contact the DSE Technical Support Team: support@deepseapl.com

AUTO MAINS (UTILITY) FAILURE CONTROL MODULES

**DSE4220**

- User friendly fault indication by LED
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3-phase generator sensing
- 3-phase mains (utility) sensing
- Compatible with 600 V AC Ph to Ph nominal systems
- Fuel and start outputs
- 7 configurable digital inputs
- Configurable staged loading outputs
- Alternator speed sensing
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- Event log (15)
- + many more features

**DSE4520 MKII**

- Largest back-lit icon display in its class
- Current sensing, real-time clock & heated display options available
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3-phase generator sensing
- 3-phase mains (utility) sensing
- Compatible with 600 V ph - ph nominal systems
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Support for 0-10 V & 4-20 mA oil pressure sensors
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real-time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD alarm indication
- Event log (50)
- + many more features

**DSE6020 MKII**

- Large back-lit icon display
- Heated display option
- Fully configurable via the fascia or PC using USB communication
- Efficient power save mode
- 3-phase generator sensing
- 3-phase mains (utility) sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Support for 0-10 V & 4-20 mA oil pressure sensors
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real-time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Configurable event log (50)
- + many more features

**DSE6120 MKII**

- Large back-lit text display
- Multiple display languages
- Heated display option
- DSENets® expansion compatibility
- Data logging facility
- Fully configurable via PC using USB communication
- Front panel configuration
- Efficient power save mode
- 3-phase generator sensing
- 3-phase mains (utility) sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Support for 0 to 10 V & 4 to 20 mA oil pressure sensors
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real-time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Customisable information screens
- + many more features

**DSE7120 MKII**

- Large back-lit icon display
- Heated display option
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3-phase generator sensing
- 3-phase mains (utility) sensing
- Generator/load power monitoring (kW, KV A, kV Ar, pf)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Fuel and start outputs (configurable when using CAN)
- 4 configurable DC outputs
- 2 configurable volt-free outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Battery voltage monitoring
- Start on low battery voltage
- Real-time clock
- Fuel pump control
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Event log (50)
- + many more features

**DSE7320 MKII**

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Heated display option
- Customisable power-up text and images
- DSENet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disabled feature
- Fully configurable via PC using USB, RS232 & RS485 communication
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (DSE7320 MKII only)
- Automatic load transfer control (DSE7320 MKII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (DSE7320 MKII only)
- kW and kvar overload and reverse power alarms
- Over current protection
- Unbalanced load protection
- Independent earth fault protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 2 configurable volt-free relay outputs
- 6 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- Configurable 5 stage dummy load and load shedding outputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real-time clock

**DSE7420 MKII**

- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel usage monitor and low fuel level alarms
- Simultaneous use of RS232 and RS485 communication ports
- True dual mutual standby using RS232 or RS485 for accurate engine hours balancing.
- MODBUS RTU support with configurable MODBUS pages
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including ier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- Modules can be integrated into building management systems (BMS) using MODBUS RTU
- + many more features
- Configurable inputs (11)
- Configurable outputs (8)
- Voltage measurement
- Mains (utility) failure detection
- Dedicated load test button
- kW overload alarms
- Comprehensive electrical protection
- RS232, RS485 & Ethernet remote communications
- MODBUS RTU/TCP
- PLC functionality
- Multi event exercise timer
- Back-lit LCD 4-line text display
- Multiple display languages
- Automatic start/manual start
- Audible alarm
- Fixed and flexible LED indicators
- Event log (250)
- Engine protection
- Fault condition notification to a designated PC
- Font panel mounting
- Protected front panel programming
- Configurable alarms and timers
- Configurable start and stop timers
- Five-key menu navigation
- Front panel editing with PIN protection
- 3 configurable maintenance alarms
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- "Protections disabled" feature
- Reverse power protection
- Power monitoring (kW h, kV Ar, KV A h, KV Ar h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer
- Unbalanced load protection
- Independent earth fault trip
- Integral PLC editor
- + many more features

SYNCHRONISING & LOAD SHARING CONTROL MODULES

**DSE8610 MKII**

- Comprehensive synchronising & loadsharing capabilities
 - Built in governor and AVR control
 - Base load (kW export) control
 - Positive & negative kVar export control
 - 4-line back-lit LCD text display
 - Multiple display languages
 - Five-key menu navigation
 - LCD alarm indication
 - Heated display option available
 - Customisable power-up text and images
 - DSENNet® expansion compatibility
 - Data logging & trending facility
 - Internal PLC editor
 - Protections disable feature
 - Fully configurable via PC using USB, RS232, RS485 & Ethernet communication
 - Front panel configuration with PIN protection
 - Power save mode
 - 3-phase generator sensing and protection
 - Generator current and power monitoring (kW, kvar, kVA, pf)
 - kW and kvar overload alarms
 - Reverse power alarms
 - Over current protection
 - Unbalanced load protection
 - Independent earth fault protection
 - Breaker control via fascia buttons
 - Fuel and start outputs configurable when using CAN
 - 8 configurable DC outputs
 - 2 configurable volt-free relay outputs
 - 4 configurable analogue/digital inputs
 - Built in sensors to support 0 V to 10 V & 4 mA to 20 mA
 - 12 configurable digital inputs
 - Configurable 5 stage dummy load
- + many more features

**DSE8620**

- Mains (utility) failure detection
 - Comprehensive synchronising & loadsharing capabilities
 - Built-in governor and AVR control
 - Base load (kW export) functionality
 - Peak lopping & shaving functionality
 - Mains (utility) power (kW, kV Ar, kV A & pf) monitoring
 - Mains (utility) decoupling protection
 - Generator power (kW, kV Ar, kV A & pf) monitoring
 - Overload (kW & kV Ar) protection
 - Reverse power (kW & kV Ar) protection
 - Mains (utility) kW export protection
 - Unbalanced load protection
 - Independent earth fault protection
 - Advanced integral PLC editor
 - 11 configurable inputs
 - 8 configurable outputs
 - Configurable flexible sensor inputs
 - DSENNet® expansion compatibility
 - User configurable RS232, RS485 and Ethernet communications
 - Remote SCADA monitoring via various DSE software applications
 - MODBUS RTU & TCP support
 - User configurable MODBUS pages
 - Advanced SMS control and fault messaging (additional GSM modem required)
 - Easy access diagnostic pages including modern diagnostic pages
 - Data logging and trending
 - CAN, MPU and frequency speed sensing
 - Tier 4 CAN engine support
 - "Protections disabled" feature
 - Front panel editing with PIN protection
- + many more features

**DSE8660 MKII**

- Mains (utility) failure detection
 - Mains (utility) power monitoring (kW, kV Ar, kV A and pf)
 - Peak lopping & shaving functionality
 - Mains (utility) kW export protection
 - Comprehensive synchronising and loadsharing capabilities
 - Base load (kW export) functionality
 - Positive & negative kVar export control
 - Mains (utility) decoupling protection
 - Mains (utility) and bus positive, negative and zero sequence voltage alarms
 - Mains (utility) and bus neutral voltage displacement (NVD) alarms
- + many more features

**DSE8680**

- Comprehensive synchronising & loadshare capabilities
 - Connects to two DSE MSC links, one for 'bus 1' and another for 'bus 2'
 - Advanced integral PLC editor
 - 11 configurable inputs
 - 8 configurable outputs
 - DSENNet® expansion compatibility
 - User configurable RS232, RS485 & Ethernet communications
 - Remote SCADA monitoring via various DSE software applications
 - MODBUS RTU & TCP support
 - User configurable MODBUS pages
 - Advanced SMS control and fault messaging (additional GSM modem required)
 - Easy access diagnostic pages including modern diagnostic pages
 - Data logging and trending
 - Front panel editing with PIN protection
 - Fully configurable using DSE Configuration Suite PC Software via USB
 - 4-line back-lit LCD text display
 - LED and LCD alarm indication
 - Configurable display languages
 - Customisable status screens
 - Configurable event log (250)
 - Backed up real-time clock
- + many more features

**DSE8661**

- Mains (Utility) & Bus Breaker Control Module**
- Mains (utility) failure detection
 - Mains (utility) power monitoring (kW, kV Ar, kVA and pf)
 - Comprehensive synchronising and loadsharing capabilities
 - Peak lopping & shaving functionality
 - Mains (utility) kW export protection
 - Mains (utility) decoupling protection
 - Advanced integral PLC editor
 - User configurable RS232, RS485 & Ethernet communications
 - MODBUS RTU & TCP support
 - Front panel editing with PIN protection
- + many more features

**DSE8710/60**

- Peak lopping
 - Sequential set start
 - Manual voltage/frequency adjustment
 - R.O.C.O.F. and vector shift
 - Generator load demand
 - Automatic hours run balancing
 - Mains (Utility) decoupling
 - Dead bus sensing
 - Mains (Utility) decoupling test mode
 - Bus failure detection
 - Direct governor and AVR connections/controls
 - Volts and frequency matching
 - kW and kV Ar load sharing
 - Independent display screen options
 - Configurable inputs (11)
 - Configurable outputs (8)
 - Voltage measurement
 - Built-in governor and AVR control
 - kW overload alarms
 - Comprehensive electrical protection
 - Magnetic pick-up/Alt. sensing
 - Electronic engine capability
 - RS232 & RS485 remote communications
 - MODBUS RTU & TCP
 - PLC functionality
 - Multi-event exercise timer
 - Automatic start/manual start
 - Event log (250)
 - Engine protection
 - Fault condition notification to a designated PC
 - PC configuration
 - Configurable alarms and timers
 - Configurable start and stop timers
 - SMS alert messaging
 - Remote monitoring
 - Compatible with DSE8600 Series
- + many more features

**DSE8721**

- (When connected to host module)
- RS232, RS485 & Ethernet communications
 - Audible alarm
 - Engine protection
 - Fault condition notification to a designated PC
 - Front panel mounting
 - Protected front panel configuration
 - Configurable alarms and timers
 - Configurable start and stop timers
 - SMS alert messaging
 - Remote monitoring
 - Data communication link allows remote system management
 - 800 x 480 pixel screen for high clarity
- + many more features

**DSE8810**

- Colour LCD graphical display
 - Sequential set start
 - R.O.C.O.F. and vector shift
 - Generator load demand
 - Automatic hours run balancing
 - Dead bus sensing
 - Bus failure detection
 - Direct governor and AVR control
 - Volts and frequency matching
 - kW and kV Ar load sharing
 - Comprehensive loadshare capabilities
 - Configurable inputs (12)
 - Configurable outputs (10)
 - Voltage measurement
 - Built-in governor and AVR control
 - kW overload alarms
 - Comprehensive electrical protection
 - Magnetic pick-up
 - Electronic engine capability
 - RS232, RS485 & Ethernet remote communications
 - Two RS485 ports
 - MODBUS RTU
 - PLC functionality
 - Multi event exercise timer
 - Back-lit LCD graphical display
 - Multiple display languages
 - Automatic start/manual start
 - Audible alarm
 - Reduced file transfer time
 - Fixed and flexible LED indicators
 - Event log (250)
 - Engine protection
 - Fault condition notification to a designated PC
 - Protected front panel programming
 - PC configuration
 - Fully configurable
 - SMS alert messaging
 - Compatible with DSE8700 & DSE8600 Series
- + many more features

**DSE8860**

- Colour LCD graphical display
 - Peak lopping
 - Sequential set start
 - Manual voltage/frequency adjustment
 - R.O.C.O.F. and vector shift
 - Generator load demand
 - Automatic hours run balancing
 - Mains (Utility) decoupling
 - Mains (Utility) decoupling test mode
 - Bus failure detection
 - Volts and frequency matching
 - Colour LCD graphical display
 - Configurable digital inputs (12)
 - Configurable outputs (10)
 - Configurable flexible sender inputs (2)
 - Comprehensive electrical protection
 - Comprehensive loadshare capabilities
 - Mains (utility) fail sensing
 - Multiple mains (utility) monitoring
 - Peak shaving
 - RS232, RS485 & Ethernet remote communications
 - MODBUS RTU/TCP support
 - Configurable display languages
 - Audible alarm
 - Reduced file transfer time
 - Fault condition notification to a designated PC
 - Compatible with DSE8700 & DSE8600 Series
 - Front panel editing with PIN protection
 - Configurable timers and alarms
 - Multiple date and time scheduler
 - Configurable event log (250)
 - Easy access diagnostic page
 - kW overload protection
 - Reverse power protection
 - Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
 - USB connectivity
 - Backed up real-time clock
- + many more features

**DSE8711/16**

- RS232, RS485 & Ethernet communications
 - Audible alarm
 - Engine protection
 - Fault condition notification to a designated PC
 - Front panel mounting
 - Protected front panel configuration
 - Configurable alarms and timers
 - Configurable start and stop timers
 - SMS alert messaging
 - Remote monitoring
 - Data communication link allows remote system management
- + many more features

**DC GENERATOR
CONTROL MODULE**
**DSE7450**

- Configurable inputs (10)
- Configurable outputs (8)
- Configurable maintenance alarms (3)
- Configurable battery maintenance alarms (3)
- Configurable alarms and timers
- Automatic or manual start with configurable start and stop timers
- 2 DC shunt inputs (Configurable 0-250mV and 0-5000 A)
- AC & DC voltage measurement
- Mains (utility) failure detection
- Dedicated load test button
- kW overload alarms
- Comprehensive electrical protection
- + many more features

**MAINS/UTILITY
DECOUPLING RELAY**
**DSE100**

- Used to detect and protect a wide range of devices generating power in parallel with the mains (utility) supply, including diesel generators, photovoltaic [solar] installations and wind turbines etc.
- Designed to assist with integration with a number of world standards including G59/2, G83/2 C10/11 & CEO10-21
 - Two-stage under & over voltage protection
 - 10 second rolling average over voltage protection
 - Two-stage under & over frequency protection
 - Voltage asymmetry protection
 - Vector shift protection
 - + many more features

**LIGHTING TOWER
CONTROL MODULE**
**DSEL401MKII**

- Lighting tower controller
- 4 new timers for lamp outputs
- Auto & manual mast control screens
- New screen for light sequence control
- Flexible input with fuel level option
- Options: metering or non-metering versions
- Up to four individually configurable outputs for switching on and off lighting circuits
- Phased shutdown of non essential lighting circuits as fuel decreases
- Lamp / Light failure circuit detection via current monitoring
- Eight event scheduler
- + many more features

**DIGITAL AUTOMATIC
VOLTAGE REGULATOR**
**NEW****DSE106 MKII**

- Soft start ramping
- Under frequency roll off (UFRO) protection
- Loss of voltage sensing protection
- Over excitation protection
- Remote voltage adjustment using 0 V to 10 V signal and 5 kΩ potentiometer.
- DIP switch selection for voltage, frequency and stability ranges.
- Potentiometer adjustment for voltage set points, droop, UFRO, proportional and integral gain
- + many more features

EXPANSION MODULES

**DSE124**

- Extends MSC load share link or engine CANbus
 - 4 LEDs for operational status indication
 - Fibre optic and non fibre optic variants
 - Up to 200 meter range between extenders
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

**DSE2130**

- Input expansion module for DSENet® compatible control modules
 - 4 configurable inputs, 4 digital inputs
 - Power on/link lost LED
 - 4 modules can be connected to 1 host controller
 - Works up to 1.2 km (0.75 miles) from the host controller
- + many more features

**DSE2131**

- Ratiometric input expansion module for supported DSENet® controllers
 - 10 inputs configurable for digital/resistive 4-20 mA and 0-10 V DC
 - Power on/link lost LED
 - A maximum of 4 modules can be connected to 1 host control module to provide up to 40 additional configurable inputs
 - Works up to 1.2 km (0.75 miles) from the host controller
 - Terminal strip connection for quick and easy set-up
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

**DSE123**

- Load Share lines interface
 - Expand existing systems with DSE modules without replacing existing control
 - kW & kV Ar loadsharing between DSE & other manufacturers products
 - Power on/status LED
- + many more features

**DSE125**

- Makes the DSE75xx MSC link compatible with the 8xxx modules
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

**DSE2133**

- Input expansion module for supported DSENet® controllers
 - 8 inputs configurable for J-type/K-type thermocouple, PT 100, 3 wire RTD sensors
 - Power on/link lost LED
 - 4 modules can be connected to 1 host controller to provide up to 32 additional inputs
 - Works up to 1.2 km (0.75 miles) from the host module
 - Terminal strip connection for quick and easy set-up
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

**DSE2152**

- Analogue output expansion module for supported DSENet® controllers
 - 8 outputs configurable as 4-20mA (0-20) and 0-10 V AC
 - Power on/link lost LED
 - A maximum of 4 modules can be connected to 1 host control module to provide up to 32 additional configurable outputs
 - Works up to 1.2 km (0.75 miles) from the host controller
 - Terminal strip connection for quick and easy set-up
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

**DSE2157**

- Output relay expansion module for DSENet® compatible control modules
 - 8 configurable relay contacts with LED indicators:
 - 4 normally open (N/O)
 - 4 change over (C/O)
 - Power on/link lost LED ID SWITCH
 - 10 expansion modules can be connected to 1 host controller at a time
 - Works up to 1.2 km (0.75 miles) from the host controller
 - Terminal strip connection for quick and easy set-up
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

**DSE2548**

- LED expansion module for DSENet® compatible control modules
 - 8 configurable LEDs
 - Works up to 1 km (0.6 miles) from the host controller
 - 10 modules can be linked together to one host controller to provide up to 80 LEDs
 - Simplified configuration using DSE PC Configuration Suite Software (free)
- + many more features

AUTO TRANSFER SWITCH

**DSE330**

- Configurable inputs (2)
- Configurable outputs (6)
- Icon or English text display
- LED indicator
- Front panel/PC configuration
- Source 1/source 2 control
- Configurable timers
- Start inhibit
- Load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Single event scheduler
- Single-phase display
- + many more features

**DSE331**

- Configurable inputs (4)
- Configurable volt-free outputs (4)
- Configurable DC outputs (4)
- Check sync feature
- Icon and English text display
- LED indicator
- Front panel/PC configuration
- Remote monitoring
- Source 1/source 2 control
- Configurable timers
- Start inhibit
- Load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Single event scheduler
- 3-phase display
- + many more features

**DSE334**

- Volt-free relays
- Supports many topologies
- Automatic switch-over between supplies
- Check sync feature
- Real-time clock
- 10 configurable inputs
- 5 configurable outputs
- Event log (10)
- Configurable timers
- Automatic shutdown or warning when fault conditions are detected
- PC configuration
- Front panel configuration
- LED indicators
- Back-lit 4-line text LCD display
- External mains (utility) or genset failure inputs
- Auto start inhibit
- Load inhibit
- Manual restore to S1
- Optional current monitoring
- + many more features

**DSE335**

- Configurable inputs (12)
- Configurable volt-free outputs (6)
- Configurable DC outputs (6)
- 4-line back-lit LCD text display
- Five-key menu navigation
- Front panel editing with PIN protection
- LED and LCD alarm indication
- Check sync feature
- Passive closed transition
- Remote monitoring
- Source 1/source 2 control
- A & A 5 A CT secondary support
- Phase rotation detection
- Start inhibit
- Load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Configurable timers and alarms
- Multiple date and time scheduler
- Power monitoring (kWh, kV Ar, kVAh, kVArh)
- Load switching (load shedding outputs)
- USB connectivity
- Backed up real-time clock
- Fully configurable via DSE Configuration Suite PC Software
- Configurable display languages
- User selectable RS232 and RS485 communications
- Configurable Gencomm pages
- SMS messaging (additional external modem required)
- Additional display screens to help with modern diagnostics
- DSENNet® expansion compatible
- Integral PLC editor
- Adjustable MODBUS inter-frame delay
- + many more features

SELF-SEEKING POWER SUPPLY

**DSE160**

- 12 V and 24 V options
- LED indication
- Can be used as an AC-DC power supply
- Can be powered from mains (utility), generator or battery
- Wide operating input voltage
- Output auto restart short circuit protection
- Output over voltage protection
- Less than 1% output ripple
- + many more features



DSEAts® High Demand. High Quality.



A major European data centre that features multiple complex loads and two mains (utility) supplies, uses DSE335 ATS modules for changeover control.

The data centre facility is supplied by two mains (utility) power sources. One primary supply (S1) and a smaller secondary supply (S2). The load is split into a number of individual loads, each monitored by a dedicated DSE335, which simultaneously monitors both power sources. This allows extreme fluctuations in demand to be managed effectively, with changeover to one supply or the other dependant on the demand on each load and condition of S1 & S2.

The DSE335 modules communicate activity and status to a common PLC. Using this information, the PLC at a pre-defined trigger point will issue a command to the chosen DSE335 to switch its load to the alternative power supply. The module then handles the transfer.

www.deepseapl.com

INTELLIGENT BATTERY CHARGERS

MULTI-STAGE INTELLIGENT CHARGING



Configurable Voltage

DSE9470MKII 24V (12V) 10A

DSE9472MKII 24V (12V) 5A

DSE9480MKII 12V (24V) 10A

DSE9481MKII 12V (24V) 5A

Fixed Voltage

DSE9473 24V 15A

DSE9483 12V 15A

- Adjustable current limit
- Can be used as a battery charger, power supply or both at the same time
- Automatic or manual boost and storage charge functions to help maintain battery condition
- Digital microprocessor technology
- Temperature compensation for battery charging
- Low output ripple and superb line regulation
- Three LED indicators

Full Protection

- AC input under voltage
- AC input over voltage
- Battery charger output over voltage
- Battery charger output over current
- Output short-circuit and inversion polarity with auto recovery
- Automatic power de-rating at high ambient temperatures
- Optional battery temperature compensation using PT1000 temperature sensor with over temperature protection

Automatic Boost Mode

- Boosts and equalises cell charge improving battery performance and life

Power Save Mode

- Once the battery is fully charged the chargers switch to ecopower to save energy

Communication

- Can be integrated into external systems through MODBUS RTU using RS485
- Fully configurable via DSE Configuration Suite PC Software
- External remote LCD option - DSE2541
- + many more features

HIGH POWERED



DSE9474 24V 30A

- Remote voltage sensing to compensate for voltage drop
- Adjustable current limit (Maximum 30 A)
- Can be used as a battery charger, power supply or both at the same time
- Automatic or manual boost and storage charge functions to help maintain battery condition
- Digital microprocessor technology
- Temperature compensation for battery charging
- Low output ripple and superb line regulation
- Three LED indicators
- AC input under voltage
- AC input over voltage
- Battery charger output over voltage
- Battery charger output over current
- Battery low voltage detection
- Battery temperature compensation with over temperature protection
- Output short-circuit and inversion polarity with auto recovery
- Automatic power de-rating at high ambient temperatures
- Optional battery temperature compensation using PT1000 temperature sensor
- + many more features

ENCLOSED



DSE9460 12/24V 5A

DSE9461 12/24V 10A

- Configurable to suit most battery types (12 V/24 V)
- Adjustable current limit
- Can be used as a battery charger, power supply or both at the same time
- Automatic or manual boost and storage charge functions to help maintain battery condition
- Digital microprocessor technology
- Temperature compensation for battery charging
- Low output ripple and superb line regulation
- Available in a number of display variants (LEDs, analogue meters, LCD display)

Full Protection

- AC input under voltage
- AC input over voltage
- Battery charger output over voltage
- Battery charger output over current
- Battery temperature compensation with over temperature protection
- Output short-circuit and inversion polarity with auto recovery
- Automatic power de-rating at high ambient temperatures
- Battery charger failure indication

Automatic Boost Mode

- Boosts and equalises cell charge improving battery performance and life

Power Save Mode

- Once the battery is fully charged the chargers switch to ecopower to save energy

Communication

- Can be integrated into external systems through MODBUS RTU using RS485
- Fully configurable via DSE Configuration Suite PC Software
- + many more features

BATTERY CHARGERS

SWITCH MODE



DSE9130 12V 5A

DSE9150 12V 3A

DSE9155 30V 2A

DSE9255 24V 5A

Multi-Stage Charging

- Constant current/maximum current available during charge recovery phase
- Constant voltage
- Chargers automatically return to float mode when charging is complete

Low Output Ripple

- Makes the chargers ideal for all battery types

Full Protection

- Reverse polarity protection, short-circuit protection and current limiting
- Automatic recovery after the removal of fault conditions

Boost Mode

- Boosts and equalises cell charge improving battery performance and life
- Simple boost connection using on-board terminals

Power Save Mode

- Once the battery is fully charged the chargers switch to ecopower to save energy
- + many more features



DSE9701 24V 5A

DSE9702 12V 5A

Space-saving vertical 5 amp battery charger for compact panel designs

Multi-Stage Charging

- Constant current/maximum current available during charge recovery phase
- Constant voltage
- Charger automatically returns to float mode when charging is complete

Low Output Ripple

- Makes the charger ideal for all battery types

Full Protection

- Reverse polarity protection, short-circuit protection and current limiting
- Automatic recovery after the removal of fault conditions

Boost Mode

- Boosts and equalises cell charge improving battery performance and life
- Simple boost connection using on-board terminals
- Battery charger thermal de-rate facility (9701/9702)

Power Save Mode

- Once the battery is fully charged the chargers switch to ecopower to save energy
- + many more features

REMOTE DISPLAY



DSE2541

- Large back-lit icon display
- Compatible with DSE94xx battery chargers
- Fascia configuration for connected battery charger
- LCD alarm indication
- 1 volt-free change-over fault output
- Remote battery charger and charge cycle monitoring
- Remote boost and battery charger output control
- Remote battery charger configuration without the need for a computer
- + many more features

POWER SUPPLY



DSE160

- 12 V and 24 V options
- LED indication
- Can be used as an AC-DC power supply
- Can be powered from mains (utility), generator or battery
- Wide operating input voltage
- Output auto restart short-circuit protection
- Output over voltage protection
- Less than 1% output ripple
- + many more features

DUAL OUTPUT



DSE9462

24V 15A, 12V 10A

- Remote voltage sensing to compensate for voltage drop
- Fully independent, adjustable current limit on both charge outputs; Output 1 (24 V) max 15 A, Output 2 (12 V) max 10 A

- Can be used as a battery charger, power supply or both at the same time
- Automatic or manual boost and storage charge functions to help maintain battery condition
- Digital microprocessor technology
- Low output ripple
- Four LED indicators

Full Protection

- AC input under voltage
- AC input over voltage
- Battery charger output over voltage

- Battery charger output over current
- Battery low voltage detection
- Output short circuit and polarity inversion with auto recovery
- Automatic power de-rating at high ambient temperatures.
- Optional battery temperature compensation using PT1000 temperature sensor

Automatic Boost Mode

- Boosts and equalises cell charge improving battery performance and life

Power Save Mode

- Once the battery is fully charged the chargers switch to ecopower to save energy

Communication

- Can be integrated into external systems through J1939 using CANBUS
- Fully configurable via DSE Configuration Suite PC Software
- + many more features

ENGINE & PUMP CONTROL MODULES

ENGINE ONLY CONTROL MODULES



DSE E100

- Largest back-lit icon display in its class
- Real time clock provides accurate event logging
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- Fuel and start outputs
- 4 configurable DC outputs
- 3 configurable analogue/digital inputs
- 4 configurable digital inputs
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- Comprehensive warning, controlled shutdown or shutdown protection upon fault condition
- LCD alarm indication
- Event log (50)
- + many more features



DSE E400

- Built-in governor control
- Automatic speed control
- Fill, empty, maintain fill and maintain empty control
- Manual speed control via push buttons, digital input or analogue input
- Automatic speed ramping
- Flexible automatic start control
- Clutch control
- LCD text display
- Multiple display languages
- Two-key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Customisable multi instrumentation screens
- Configurable digital inputs (4)
- Configurable analogue inputs (7)
- Configurable DC outputs (2)
- Configurable PWM/PWMi outputs (2)
- Configurable analogue output (1)
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time engine scheduler
- Configurable event log (250)
- CAN engine support
- CAN, magnetic pick-up or tachometer speed sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- "Protections disabled" feature
- LCD alarm indication
- Low power mode
- USB connectivity
- Backed-up real time clock
- Fully configurable via DSE Configuration Suite PC Software
- + many more features



DSE E800

- Built-in governor control
- Automatic speed control
- Manual speed control via push buttons, digital input or analogue input
- Automatic speed ramping
- Flexible automatic start control
- Clutch control
- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save off mode
- Configurable digital inputs (11)
- Configurable ratiometric inputs (12)
- Configurable DC outputs (4)
- Configurable volt-free outputs (2)
- Configurable PWM outputs (4)
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time engine scheduler
- Configurable event log (250)
- CAN engine support
- Advanced integral PLC editor
- CAN, magnetic pick-up or tachometer speed sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual fuel pump control
- "Protections disabled" feature
- LED and LCD alarm indication
- USB connectivity
- Backed-up real time clock
- Fully configurable via DSE Configuration Suite PC Software
- + many more features



DSE 103MKII

- Configurable trip points
- Configurable nominal speed
- Trip points can be configured to be latching or non-latching
- Analogue meter output
- Potted enclosure
- Spade terminals for easy connection
- + many more features

VEHICLE & OFF-HIGHWAY MACHINERY CONTROL SYSTEMS

PROGRAMMABLE CONTROLLERS & DISPLAYS



DSE M640

- Controller specifically designed for mobile applications
 - Powerful 32 bit processor with 220 MHz clock speed
 - 4 MB application memory
 - 32 configurable inputs, digital and analogue capability
 - 36 configurable outputs with digital, PWM and PWMI
 - 4 independent CAN interfaces, J1939, CAN Open and Raw CAN
 - Ethernet interface for communication
 - Flexible user programming via CODESYS 3.5 or C
 - Ruggedised die cast aluminium housing for IP67 protection
- + many more features



DSE M870

- Robust HMI/programmable display specifically designed for mobile applications
 - Optically bonded 7" colour screen for harsh environments
 - Powerful ARM Cortex A9 processor with 800 MHz clock speed
 - 512 MB of DDR3 SDRAM and 2 GB of NAND mass storage
 - 4 configurable inputs, digital and analogue capability
 - 4 configurable digital outputs
 - 2 independent CAN interfaces, J1939, CAN open and Raw CAN
 - Ethernet interface for communication
 - Flexible user programming via CODESYS 3.5 and QT
 - IP67 protection/NEMA 6
 - 2 camera inputs
- + many more features



DSE M840

- Robust HMI/programmable display specifically designed for mobile applications
 - Optically bonded 4.3" colour screen for harsh environments
 - Powerful Cortex M4 + M processor with 200 MHz clock speed
 - 32 MB of SDRAM and 16 MB of flash storage
 - 4 configurable inputs, digital and analogue capability
 - 4 configurable digital outputs
 - 2 independent CAN interfaces, J1939, CAN open and Raw CAN
 - Ethernet interface for communication
 - Flexible user programming via CODESYS 3.5 or C++
 - IP67 protection/NEMA 6
- + many more features



DSE M040

- Development break out PCB for application development
 - Set of connecting harnesses for plug and play
 - Multiple power configurations
 - Access to all inputs and outputs via sprung terminal blocks
 - CAN interfaces via SubD9 Female connectors and sprung terminal blocks
 - Individual power and ground connection via 4mm connectors
 - Ethernet programming cable and USB data cable included
 - Suitable for M640 and M643 controllers
- + many more features

ACCESSORIES



DSE M640 Connector Set
007-035



DSE M64X Connector Harness Set
007-036



DT16 Deutsch Connector A
007-850



DT16 Deutsch Connector C
007-851



DSE E400 Connector Harness Set
007-052



Ethernet Programming Cable
016-160



USB Interface Cable
016-161



DSE M870 Connector Harness Set
016-167



DSE M840 Connector Harness Set
016-168

REMOTE COMMUNICATIONS & OVERVIEW DISPLAYS



DSE8004

- 10" colour touch-screen technology
- Widget based information displays
- Dual core processor for ultimate speed and efficiency
- Highly sophisticated level of instrumentation & alarms
- Supports 86XX, 86XX MKII, 87XX & 88XX control modules
- + many more features



DSE8003

- (When connected to compatible modules)
- Multiple modules (up to a maximum of 20) within the same load sharing system can be viewed
 - Touch-screen enabled
 - RS232, RS485 and Ethernet communications
 - Audible alarm
 - Front panel mounting
 - Protected front panel configuration
 - Remote monitoring
 - System monitoring
 - Compatible with DSE86XX, 86XX MKII, DSE87XX & DSE88XX load share control modules
 - Data communication link allows remote system management
 - 800 x 480 pixel screen for high clarity
 - + many more features



DSE8005

- SCADA Suite software for Windows™ PC enables remote control and monitoring of DSE load share systems
- Touchscreen PC enabled
- Engine start/stop
- Monitoring and control
- Switching on and off load
- Load demand priority
- Mains (utility) base load power levels
- System overview graphical designer with simple drag and drop facility
- 32/64-bit operating system



DSE855/857

- Communications devices for DSE modules without built-in Ethernet communications
- Converts USB to Ethernet
- Converts USB to RS485



DSE890/891 WebNet Gateway

- Gateway devices for DSEWebNet® communications
- Sophisticated Ethernet/GSM web-based remote communications for supported DSE controllers
- Low cost solution for secure and effective remote monitoring and control for multiple users and multiple sites
- Comprehensive on-screen information presented in clear, graphical and numerical formats
- Global mapping shows multiple site locations
- Comprehensive aerial screen views show detailed site information
- Multiple or single site generator event recording & monitoring
- Real-time instrumentation and control
- Event log tables
- Automatic system alerts which are sent to multiple DSEWebNet® users via email and SMS



DSE892 SNMP Gateway

- Supports a wide range of DSE controllers
- Status LEDs for each communication port
- Plug and socket connections and DIN rail mounting for quick and easy set up
- Email/SNMP TRAP messages upon controller events and operating status change
- Fully customisable email / SNMP TRAPs based upon module instrumentation values
- Simple configuration via internet browser – No additional PC software required
- Automatically generated MIB file to ease system integration, downloadable directly from the DSE892
- Email by SMTP client
- A single DSE892 SNMP Gateway can be connected to multiple controllers
- Monitoring of controller state, operating mode and alarms
- Firmware upgradeable direct via USB memory stick or OTA (Over the Air) from DSE server



DSEWebNet® & Mobile App

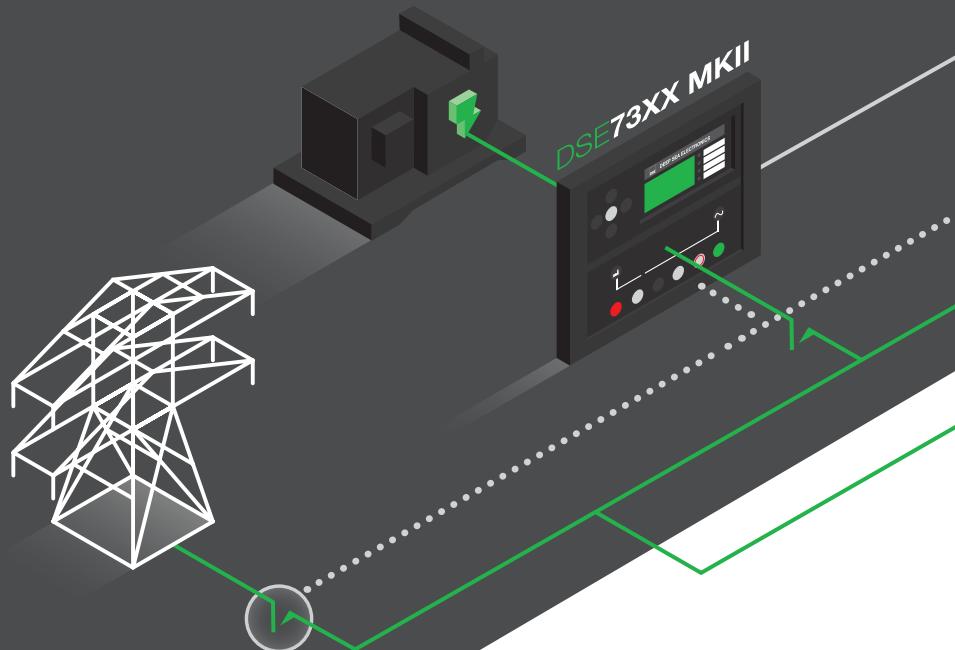
- Minimises site visits.
- Reduced maintenance costs.
- Fuel management.
- Fault analysis.
- Asset tracking.
- Automatic alerts.
- Increased system up time.

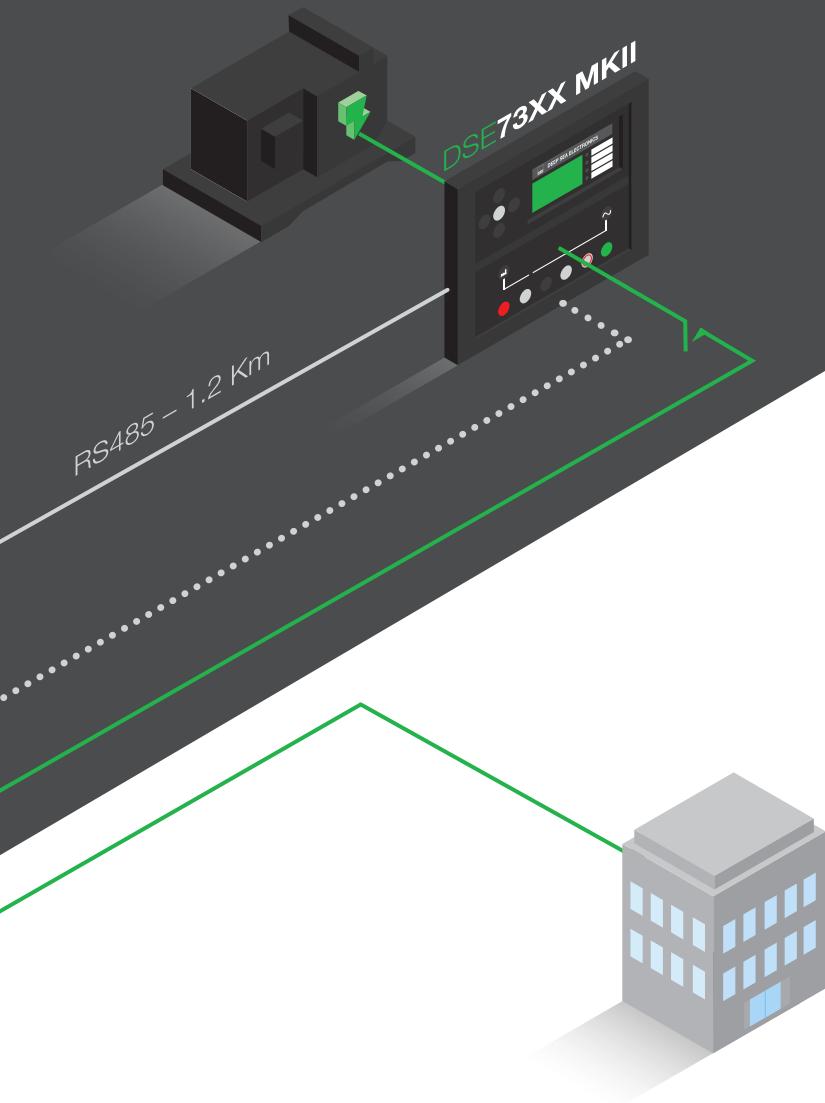


DUAL MUTUAL STANDBY

Balancing engine run hours and instructing a second back-up generator to safeguard against the loss of power is essential for power critical applications. DSE's integrated dual mutual standby functionality simplifies the process of balancing engine run hours, whilst maintaining a back-up if the running generator fails. Connected via RS232 or RS485 the **DSE73XX MKII** control modules automatically run the correct generator, ensuring equal run times are maintained and engine downtime is reduced.

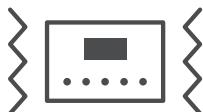
For more information visit: www.deepseapl.com/promo/dms





Application

DSE modules deliver outstanding performance & reliability in the most extreme conditions.



VIBRATION



ELECTRICAL
SAFETY



TEMPERATURE



ELECTRO-MAGNETIC
COMPATIBILITY



HUMIDITY



SHOCK

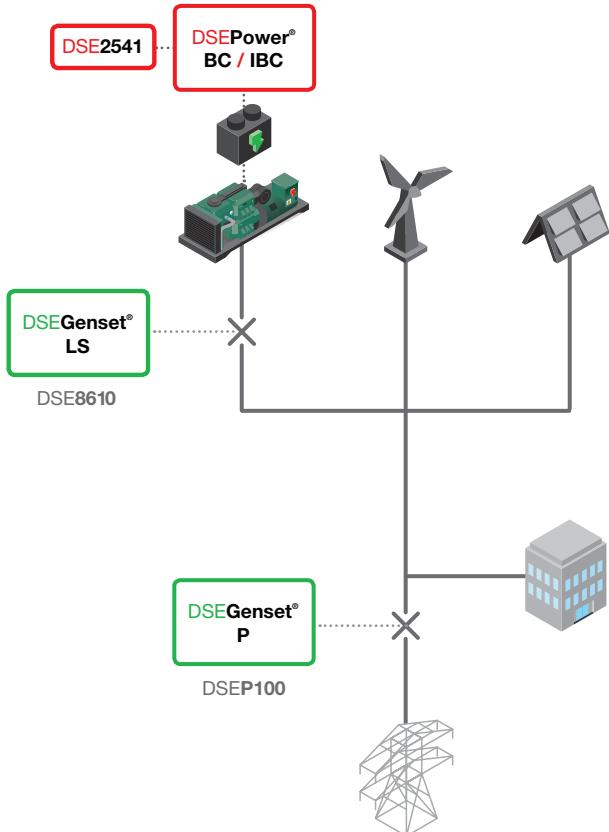
Our high performance and reliability levels make our products suitable for a wide variety of applications including telecoms, data storage centres, mining, hospitals, military, airports, manufacturing, industry and leisure and tourism.

The following application examples show typical systems using DSE control modules.

Application 1

Mains (Utility) Decoupling Relay

DSE Genset® manual/auto start control modules (MS/AS) offer a broad range of features from key start operation to sophisticated modules with remote control & monitoring.



Refer to the key features section of this guide for product specifications.

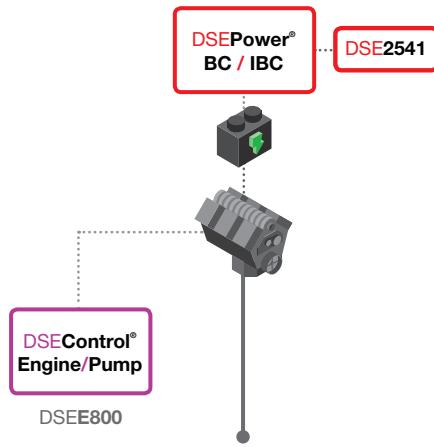


Key:
■ (LS)
■ (P)
■ (BC)
■ (IBC)

- Synchronising & load sharing control modules
- Protection
- Battery chargers
- Intelligent battery chargers

Application 2 Engine Only System

DSEControl® includes a range of E Series controllers suitable for multiple engine only applications including pumps, compressors and stone crushers.



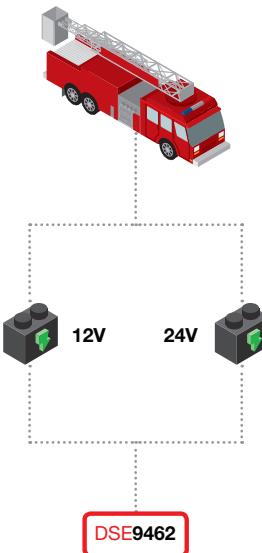
Key:
(BC) – Battery chargers
(IBC) – Intelligent battery chargers

Refer to the key features section of this guide for product specifications.



Application 3 Standby Vehicle Charging

DSEPower® offers dual output charging designed specifically for emergency standby vehicles and other dual output 12 or 24 volt applications.



Refer to the key features section of this guide for product specifications.

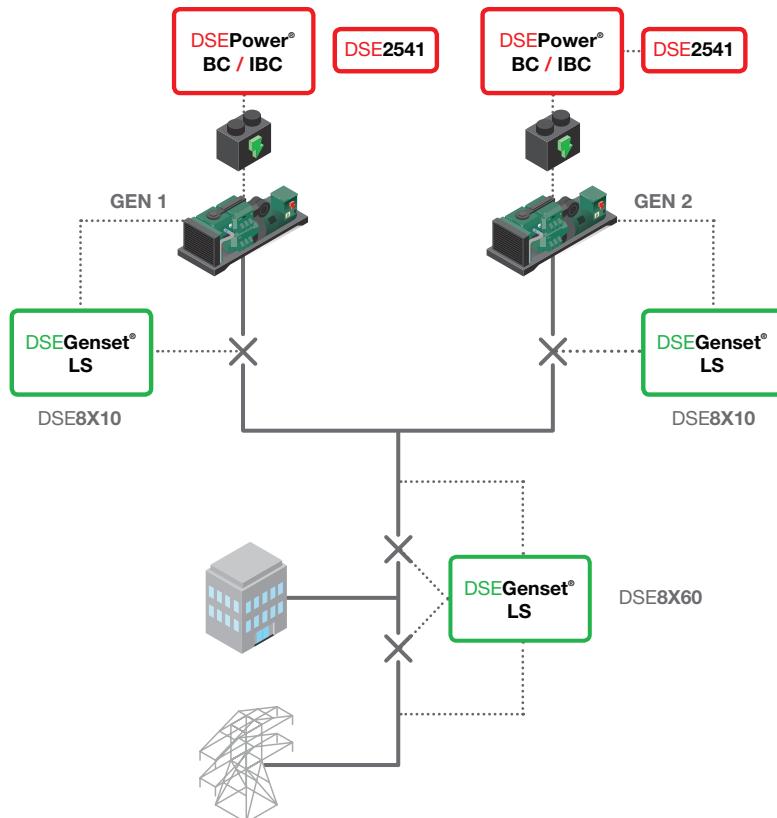


Application 4

Synchronising and Load Sharing Systems

DSE^{Genset}[®] synchronising and load sharing (LS) modules offer a range of highly sophisticated features & functions in a simple, user-friendly format.

DSE^{Power}[®] offers a range of battery chargers (BC) and intelligent battery chargers (IBC) to ensure optimal battery performance and maximum battery life times.



Refer to the key features section of this guide for product specifications.

Key:

- (LS)
- (BC)
- (IBC)

- Synchronising & load sharing control modules
- Battery chargers
- Intelligent battery chargers



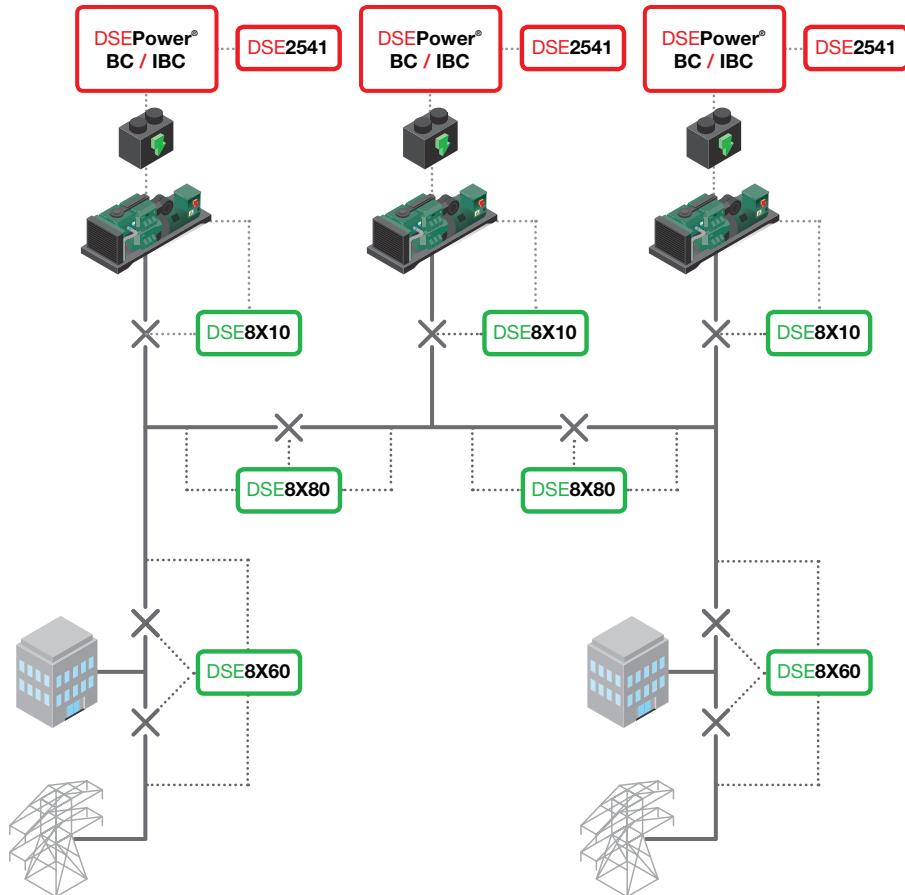
Application 5

Synchronising and Load Sharing Systems

(Hospital Application Example)

DSE^{Genset}[®] synchronising and load sharing (LS) modules offer a range of highly sophisticated features & functions in a simple, user-friendly format.

DSE^{Power}[®] offers a range of battery chargers (BC) and intelligent battery chargers (IBC) to ensure optimal battery performance and maximum battery life.



Refer to the key features section of this guide for product specifications.

Key:
— (LS)
— (BC)
— (IBC)

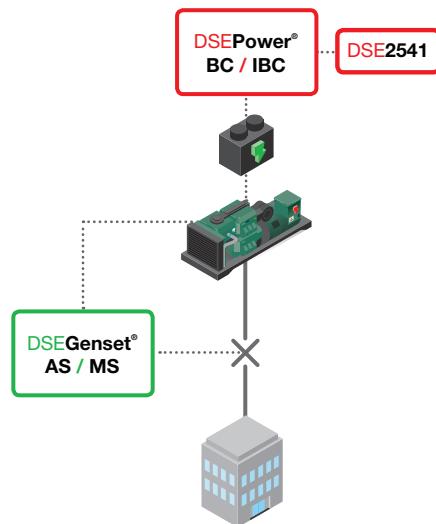
- Synchronising & load sharing control modules
- Battery chargers
- Intelligent battery chargers



Application 6

Manual Start and Auto Start Systems

DSE[®] Genset[®] manual/auto start control modules (MS/AS) offer a broad range of features from key start operation through to sophisticated modules with remote control & monitoring.



Refer to the key features section of this guide for product specifications.

Key:
(MS/AS) – Manual/auto start control modules
(BC) – Battery chargers
(IBC) – Intelligent battery chargers

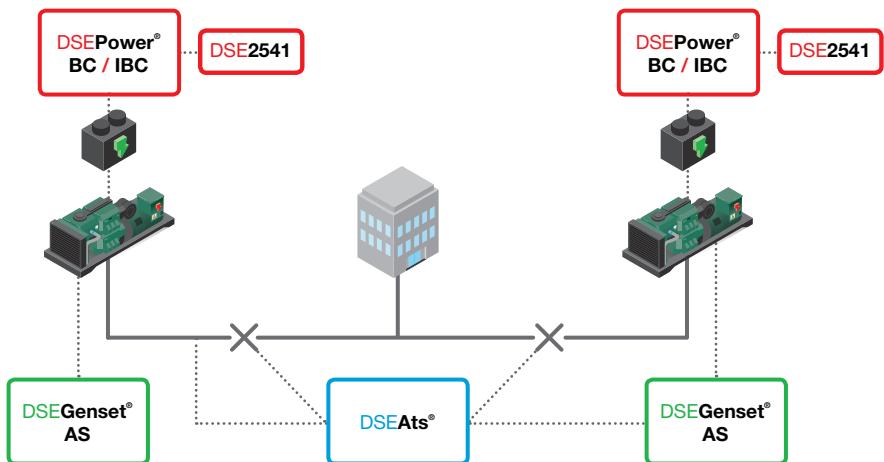
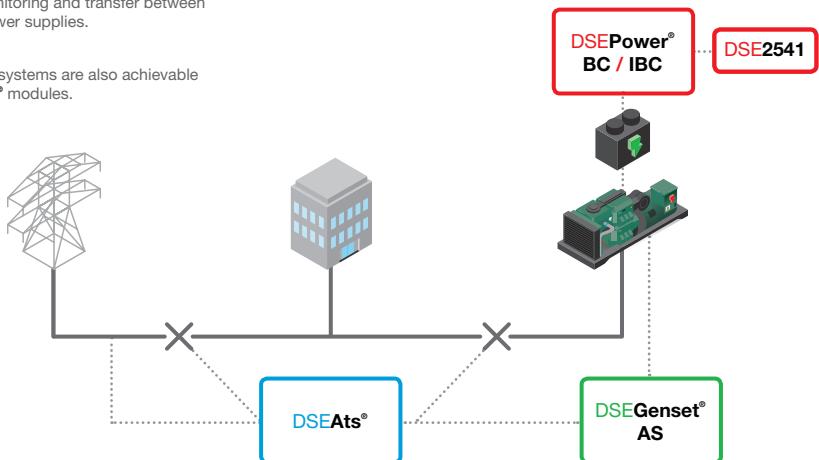


Application 7

Auto Transfer Switch Systems

DSEAts® modules are designed to compliment a DSEGenset® controller to offer automatic monitoring and transfer between alternative power supplies.

Stepped load systems are also achievable using DSEAts® modules.



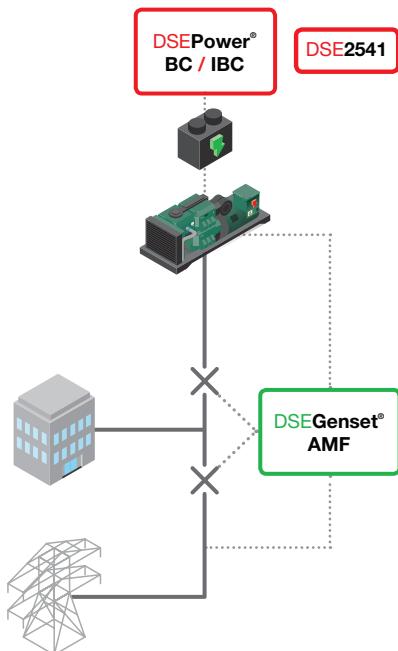
Refer to the key features section of this guide for product specifications.



- Key:
- | | |
|----------------|---|
| (MS/AS) | - Manual/auto start control modules |
| (ATS) | - Automatic transfer switch control modules |
| (BC) | - Battery chargers |
| (IBC) | - Intelligent battery chargers |

Application 8 Auto Mains (Utility) Failure Systems

DSE^{Genset}[®] auto mains (utility) failure control modules (AMF) offer single and three-phase monitoring options with a broad range of features to suit simple and complex applications.



Key:
(AMF) – Auto mains (utility) failure control modules
(BC) – Battery chargers
(IBC) – Intelligent battery chargers

Refer to the key features section of this guide for product specifications.



Application 9 Lighting Tower Systems

DSE^{Genset}[®] lighting tower control modules (L) include options with or without metering.

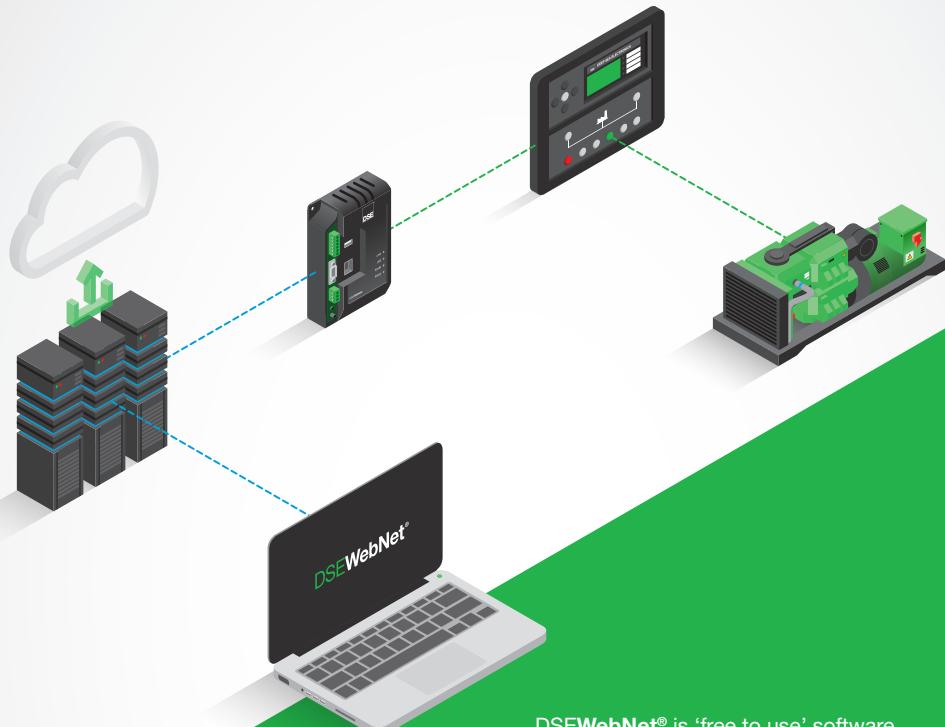


Key:
(L) – Lighting tower control modules

Refer to the key features section of this guide for product specifications.



REAL-TIME INSTRUMENTATION & CONTROL



DSEWebNet® is 'free to use' software that allows users to remotely access DSE controlled generators from any location with an internet connection.

DSEWebNet® is the ideal solution for efficient generator control, fault finding and preventative maintenance providing remote access to plant and machinery. The software supports single and multi-set systems using a range of devices. Users can map static locations, access real time instrumentation & control, view event log tables and receive automatic system alerts.

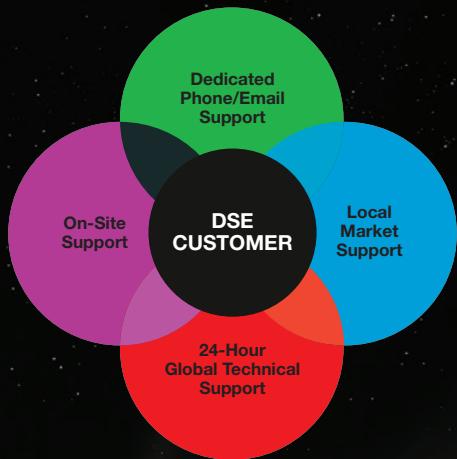
Information can be viewed worldwide using desktop, tablet and smart phone devices.

DSEWebNet®

www.deepseapl.com/webnet



- ✓ Providing customers and end users with fast and efficient telephone and email assistance
- ✓ Ensuring all DSE support staff and distributors deliver first class support within individual countries worldwide
- ✓ Worldwide technical support available 24/7
- ✓ Delivering superior training & support from our dedicated UK training facility to enable customers and end users to maximise their DSE product and application knowledge



Global Coverage & Support

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