DYNAMIS
POWER SOLUTIONS

Model DY33P-T1000-HT

Powered by PERKINS

Perkins

LEROY SOMER DSE

Generator Specification

Service	PRP(1)	ESP(2)
Power (KVA)	30	33
Power (KW)	24	26
Rated Speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor (cos phi)	0.8	

Dynamis Power gensets are compliant with ISO9001 and CE standard, which include the following directives:

- - 2006/42/EC Machinery safety.
- - 2008/95/EC Low voltage
- - EN 60204-1:2006+A1: 2009, EN ISO 12100: 2010, EN ISO13849-1: 2008, EN 12601:2010

PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

ESP (Standby Power):

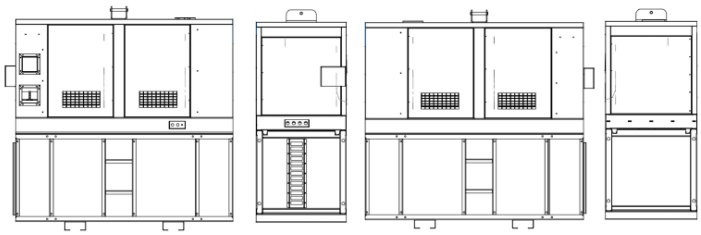
According to ISO8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Power Voltage	ESP		PRP		Standy Amps
	KVA	KW	KVA	KW	
415/240	33	26	30	24	41,7
400/230	33	26	30	24	43,3
380/220	33	26	30	24	45,6

Performance Data	
Model	DY33P-T1000-HT
Engine Brand	PERKINS
Engine model	1103A-33G
Speed Control type	Mechanical
Phase	3
Control system	Digital
Starter motor voltage	12V
Frequency	50HZ
Engine Speed (RPM)	1500

Standard Reference Condition

Note: Standard reference condition 25°C [77°F] air inlet temperature, 1000 m (328 ft) A.S.L 30% relative humidity. Fuel consumption data using diesel with a specific gravity of 0.85 and conforming to BS 2869: 1998, Class A2



WEIGHT AND DIMENSIONS

	Length	Width	Height	Weight	Fuel tank	sound level
	(mm)	(mm)	(mm)	(kg)	(L)	(dB(@7m))
Anti-theft Type	2250	950	1850	1408	1000	≤75

Note: This Parameters Allow for some acceptable Deviations

Model Specification :

Canopy

- Double-wall 1000L tank
- No openings that could provide direct access to the tank
- No drain hole in the tank; cleaning is done from the inside through a cleaning inspection hole with a bolted cover
- Internal baffles to prevent sloshing when moving the genset full
- Diesel suction tube positioned exactly 2 cm from the bottom of the tank
- Gooseneck fuel filling tube with a perforated grill to prevent theft
- Roof hooks capable of lifting the genset when full of fluids
- Alloy plate with lifting instructions
- Forklift pockets
- Metal grid installed to securely fasten and organize cables using tubing and cable ties
- No window in front of the control panel; the main door is plain with a lockbox
- Lateral doors open via a mechanical latch from the front door
- Opening for coolant filler with a metal lip to prevent water ingress, featuring non-removable screws and a steel hinge
- Mechanical door lock compass to keep doors open when working on the genset
- Exhaust pipe up to 2.5m with a gooseneck and metallic clamp; the genset will be shipped with a plugged exhaust
- V-shaped structure designed to collect and channel potential leaks outward for disposal
-Strong cover above the fuel entry and fuel sensor
-External fuel filling with a lockable plate and 11.5mm hole

Engine

- Inside collector and exhaust fitted with a "HOT" protection grill
- **Low coolant sensor: S285 Fozmula Rochester** (1-minute delay before shutdown)
- **Fuel sensor: TLL155 Fozmula Rochester** (Ohms output)
- Temperature reading + temperature switch
- Oil pressure reading + oil switch
- **FF5011 Fleetguard fuel prefilter on fuel line** (**same as Baldwin BF915**, P551915 Donaldson, depending on availability)

Electrical

- **AMF: 7420MKII** – latest update of the controller at the date of shipment
- **ATS: GAVE Y-series internal**
- **SPD: GAVE internal**
- External emergency stop button protected at the rear by a cover box
- Same routing for all cables into ATS / connection panel
- All terminations centralized in one location
- Ethernet cable is the only cable that needs to be routed all the way to the rear of the DeepSea controller
- Current transformers installed in the ATS panel, fitted to the output of the ATS
- Door switches required for ALL doors, wired to alarm terminals for external alarm
- 5 x alarm relays added, plus door alarms – total of 6 relays
- 2 x separate relays required for grid on/grid off and DG running/not running, wired to separate terminals
- All main components in the ATS labeled using small Traffolyte labels or similar

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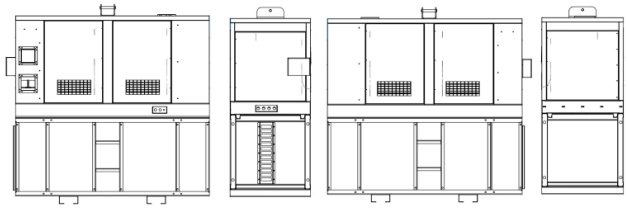
Anti-theft design :

Sleek design with no visible handles or hinges.



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DYNAMIS
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Engine Specification : 1103A-33G

1100 Series 1103A-33G Diesel Engine – ElectropaK

30.4 kWm (40.8 bhp) 1500 rpm
35.4 kWm (47.5 bhp) 1800 rpm

Building upon Perkins proven reputation within the power generation industry, the 1100 Series range of ElectropaK engines now fit even closer to customers needs.

In the world of power generation success is only gained by providing more for less. With the 1103A-33G Perkins has engineered even higher levels of reliability, yet lowered the cost of ownership.

1100A units are designed for territories that do not require compliance to EPA or EU emissions legislation. These units are able to meet TA luft legislation.

Compact, efficient power

- 1100 Series is the result of an intensive period of customer research that has guided the development of the range
- The new 3.3 litre cylinder block ensures bore roundness is maintained under the pressures of operation. It also ensures combustion and mechanical noise is lowered
- A new cylinder head has re-established Perkins mastery of air control

Quality by design

- Product design and Class A manufacturing improvements enhance product reliability while maintaining Perkins legendary reputation for durability

Cost effective power

- Compact size and low noise
- Lower fuel consumption and oil use
- 500 hour service intervals

Product support

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory – strengthening relationships and providing more value to you, our customer
- Through an experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 100% reassurance that you receive the very best in terms of quality for lowest possible cost .. wherever your Perkins powered machine is operating in the world

Discover more

Engine Speed (rpm)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Prime Power	30.0	24.0	28.2	37.8	27.7	37.1
	Standby (maximum)	33.0	26.4	31.0	41.6	30.4	40.8
1800	Prime Power	34.9	27.9	33.2	44.5	32.2	43.2
	Standby (maximum)	38.2	30.6	36.5	48.9	35.4	47.5

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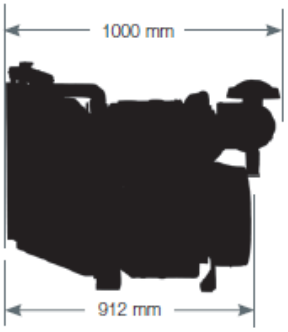

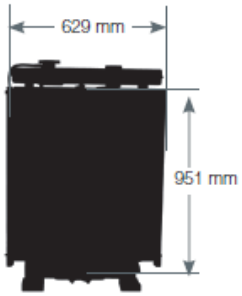

Fuel Consumption litres/hour Temperate/Tropical					
Engine Speed	1500 rpm			1800 rpm	
	SFC	UK g/hr	l/hr	UK g/hr	l/hr
Standby	216.1	1.78	8.1	2.08	9.5
Prime Power	211.1	1.58	7.2	1.89	8.6
75% of Prime Power	216.0	1.23	5.61	1.45	6.6
50% of Prime Power	235.4	0.89	4.06	1.07	4.9
25% of Prime Power	309.0	0.58	2.65	-	-

Standard ElectropaK specification

Air inlet
- Mounted air filter

Fuel system
- Rotary type pump
- Next generation fuel filter

Lubrication system
- Wet sump with filler and dipstick
- Spin-on oil filter

Cooling system
- Thermostatically-controlled system with gear-driven circulation pump and belt-driven pusher fan
- Mounted radiator and piping

Electrical equipment
- 12 volt starter motor and 12 volt 65 amp alternator with DC output
- 12 volt shutdown solenoid energised to run

Flywheel and housing
- High inertia flywheel to SAE J620 size 10/11½
- SAE 3 flywheel housing

Mountings
- Front engine mounting bracket

Literature
- User's Handbook
- Workshop manual (optional)
- Parts book (optional)

General data

Number of cylinders ..... 3 vertical in-line
Bore and stroke..... 105 x 127 mm (4.1 in x 5 in)
Displacement ..... 3.3 litres (201 cubic in)
Aspiration ..... Naturally aspirated
Cycle ..... 4 stroke
Combustion system..... Direct injection
Compression ratio 19.25:1
Rotation..... Anti-clockwise viewed from flywheel
Cooling system..... Water-cooled
Total lubrication system capacity..... 8.3 litres (2.2 US gals)
Total coolant capacity..... 10.2 litres (2.7 US gals)
Dimensions – Length ..... 1029 mm (40.5 in)
Width ..... 629 mm (24.8 in)
Height ..... 951 mm (37.4 in)
Dry weight (approximately)..... 412 kg (908 lb)

Final weight and dimensions will depend on completed specification

DYNAMIS
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Alternator Specification : TAL-A42-C

TAL 042

LEROY-SOMER™

The best of performance

The Leroy-Somer™ TAL 042 alternator has been designed to offer you the best power generation performances. With its meticulous design and optimized architecture, the TAL 042 strikes the perfect balance between compactness, reliability, performance and longevity.
Whatever your application, the Leroy-Somer™ TAL 042 alternator will meet your needs and will adapt to all situations.





Standards

The Leroy-Somer™ TAL 042 alternator meets all key international standards and regulations, including IEC 60034, NEMA MG 1.32-33, ISO 8528-3, CSA C22.2 n°100-14 and UL 1446 (UL 1004 on request).
Also compliant with IEC 61000-6-2, IEC 61000-6-3, IEC 61000-6-4, VDE 0875G, VDE 0875N and EN 55011, group 1 class A for European zone.
The Leroy-Somer™ TAL 042 alternator can be integrated in EC marked generator set, and bears EC, UKCA and CMIM markings.
It is designed, manufactured and marketed in an ISO 9001 and ISO 14001 quality assurance environment.

Electrical characteristics and performances

- Class H insulation
- Shunt excitation
- Low voltage winding:
  - Three-phase 50 Hz: 220V - 240V and 380V - 415V (440V)
    60 Hz: 208V - 240V and 380V - 480V
  - Single-phase 50 Hz: 115V - 230V
    60 Hz: 120V - 240V
- 4-terminal plates in 6-wire version
- Optimized performance

General characteristics

Insulation class	H
Winding pitch	2/3 (wind.6S - 6-wire / wind.6 - 12-wire)
Number of wires	6 (12 option)
Protection	IP 23
Altitude	≤ 1000 m
Overspeed	2250 R.P.M.
Air flow 50 Hz	0.10 m³/s
Air flow 60 Hz	0.13 m³/s
AREP+/PMG Short-circuit current = 2.7 In: 5 seconds (*)	

Excitation system 6-wire	SHUNT	AREP+ / PMG
AVR type	R120	R180
Excitation system 12-wire (option)	SHUNT	AREP+ / PMG
AVR type	R120	R180
Voltage regulation (**)	± 1 %	± 0.5 %
Total Harmonic Distortion THD (***) in no-load	< 2 %	
Total Harmonic Distortion THD (***) in linear load	< 5 %	
Waveform: NEMA = TIF (***)	< 50	
Waveform: I.E.C. = FHT (***)	< 2%	

(*) D350: 10 seconds (**) Steady state (***) Total harmonic distortion between phases, no-load or on-load (non-distorting)

Ratings 50 Hz - 1500 R.P.M.

kVA / kW - P.F. = 0.8

Duty / T° C		Continuous / 40 °C					Continuous / 40 °C					Stand-by / 40 °C					Stand-by / 27 °C				
Class / T° K		H / 125° K					F / 105° K					H / 150° K					H / 163° K				
Phase		3 ph.				1 ph.	3 ph.				1 ph.	3 ph.				1 ph.	3 ph.				1 ph.
Y		380V	**400V**	415V	440V		380V	**400V**	415V	440V		380V	**400V**	415V	440V		380V	**400V**	415V	440V	
Δ		220V	**230V**	240V		230V	220V	**230V**	240V		230V	220V	**230V**	240V		230V	220V	**230V**	240V		230V
YY (*)			**200V**		220V			**200V**		220V			**200V**		220V			**200V**		220V	
ΔΔ (*)						230V					230V					230V					230V
TAL 042 A	kVA	25	**25**	25	24.5	15	23	**23**	23	22.5	13.5	26.5	**26.5**	26.5	26	16	27.5	**27.5**	27.5	27	16.5
	kW	*20*	***20***	*20*	*19.5*	*12*	*18.5*	***18.5***	*18.5*	*18*	*11*	*21*	***21***	*21*	*21*	*13*	*22*	***22***	*22*	*21.5*	*13*
TAL 042 B	kVA	27	**27**	27	26	16	24.5	**24.5**	24.5	23.5	14.5	28.5	**28.5**	28.5	27.5	17	30	**30**	30	28.5	17.5
	kW	*21.5*	***21.5***	*21.5*	*21*	*13*	*19.5*	***19.5***	*19.5*	*19*	*11.5*	*23*	***23***	*23*	*22*	*13.5*	*24*	***24***	*24*	*23*	*14*
TAL 042 C	kVA	31	**32**	32	30	19	28	**29**	29	27.5	17.5	33	**34**	34	32	20	34	**35**	35	33	21
	kW	*25*	***25.5***	*25.5*	*24*	*15*	*22.5*	***23***	*23*	*22*	*14*	*26.5*	***27***	*27*	*25.5*	*16*	*27*	***28***	*28*	*26.5*	*17*
TAL 042 D	kVA	35	**35**	35	30.5	22	32	**32**	32	28	20	37	**37**	37	32.5	23.5	38.5	**38.5**	38.5	33.5	24
	kW	*28*	***28***	*28*	*24.5*	*17.5*	*25.5*	***25.5***	*25.5*	*22.5*	*16*	*29.5*	***29.5***	*29.5*	*26*	*19*	*31*	***31***	*31*	*27*	*19*
TAL 042 E	kVA	39.5	**40**	40	35	25	36	**36.5**	36.5	32	23	42	**42.5**	42.5	37	26.5	43.5	**45**	45	38.5	27.5
	kW	*31.5*	***32***	*32*	*28*	*20*	*29*	***29***	*29*	*25.5*	*18.5*	*33.5*	***34***	*34*	*29.5*	*21*	*35*	***36***	*36*	*31*	*22*
TAL 042 F	kVA	43	**45**	45	39	27	39	**41**	41	35.5	24.5	45.5	**47.5**	47.5	41.5	28.5	47.5	**50**	50	43	29.5
	kW	*34.5*	***36***	*36*	*31*	*21.5*	*31*	***33***	*33*	*28.5*	*19.5*	*36.5*	***38***	*38*	*33*	*23*	*38*	***40***	*40*	*34.5*	*23.5*
TAL 042 G	kVA	47.5	**50**	50	43	30	43	**45.5**	45.5	39	27.5	50	**53**	53	45.5	32	52	**55**	55	47.5	33
	kW	*38*	***40***	*40*	*34.5*	*24*	*34.5*	***36.5***	*36.5*	*31*	*22*	*40*	***42***	*42*	*36.5*	*25.5*	*42*	***44***	*44*	*38*	*26.5*
TAL 042 H	kVA	58	**60**	60	52	36	53	**55**	55	47	33	61	**64**	64	55	38	64	**66**	66	57	39.5
	kW	*46*	***48***	*48*	*42*	*29*	*42*	***44***	*44*	*37.5*	*26.5*	*49*	***51***	*51*	*44*	*30.5*	*51*	***53***	*53*	*46*	*31.5*
TAL 042 J	kVA	58	**63**	63	52	36	53	**58**	58	47	33	61	**67**	67	55	38	64	**70**	70	57	39.5
	kW	*46*	***50***	*50*	*42*	*29*	*42*	***46***	*46*	*37.5*	*26.5*	*49*	***54***	*54*	*44*	*30.5*	*51*	***56***	*56*	*46*	*31.5*

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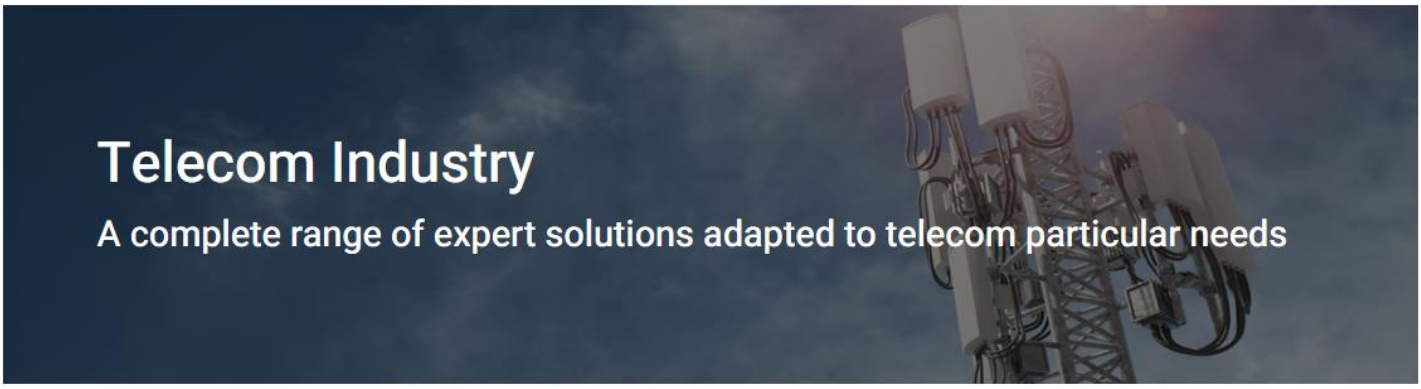
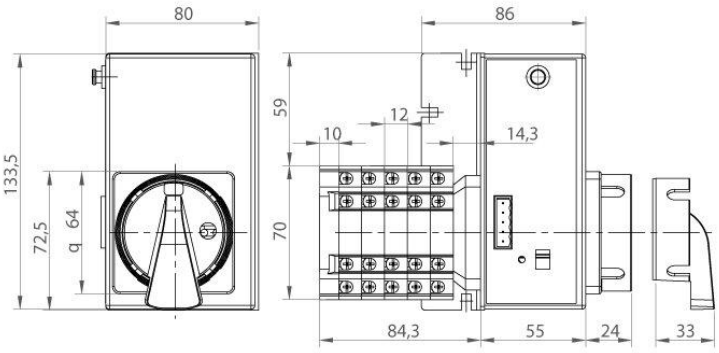
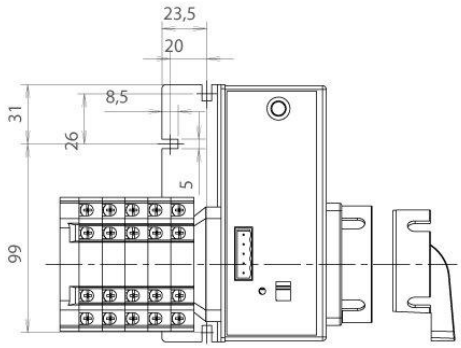
Internal ATS : GAVE Telecom line 63A

Gave Telecom



Gave Electro has become a leading supplier providing components and solutions to the tower telecom industry. The fast evolution of telecom technologies emphasizes the need for a supplier that understands present and future needs, spotting market trends and developing advanced products that offer real added value solutions.





DYNAMIS
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Control Panel: DEEPSEA 7420MKII

DSE7410/20 MKII

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

DSE7420 MKII

DSE7410 MKII

KEY FEATURES

- 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
- DSENet expansion compatibility
- Data logging facility upto 20 parameters
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB, RS232, RS485 and ethernet communication
- Front panel configuration with multi-level PIN protection
- Power save mode
- 3 phase generator sensing and protection
- 3 phase mains (utility) sensing and protection (DSE7420 MKII only)
- Automatic load transfer control (DSE7420 MKII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains current and power monitoring (kW, kvar, kVA, pf) (DSE7420 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
- Support for 3 kΩ resistive 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
- Fuel usage monitor and low fuel level alarms
- Simultaneous use of RS232, RS485 & ethernet communication ports
- True dual mutual standby using RS232 or RS485 for accurate hours balancing.
- MODBUS RTU & TCP support with configurable MODBUS pages.
- SNMP GET, SET and TRAP support built in.
- 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
- J1939-75 support & CAN alarm ignore function
- 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 & TCP
- Configurable CAN parameters to read and display CAN information from external CAN devices.

KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE7420 MKII only) for convenience.
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.

SPECIFICATIONS

DC SUPPLY
CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous
5 V for up to 1 minute

CRANKING DROPOUTS
Able to survive 0 V for 100 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT
510 mA at 12 V, 240 mA at 24 V

MAXIMUM STANDBY CURRENT
330 mA at 12 V, 160 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
0 V to 35 V

GENERATOR & MAINS (UTILITY)
VOLTAGE RANGE
15 V to 415 V AC (Ph to N)
26 V to 719 V AC (Ph to Ph)

FREQUENCY RANGE
3.5 Hz to 75 Hz

MAGNETIC PICKUP
VOLTAGE RANGE
+/- 0.5 V to 70 V

FREQUENCY RANGE
10,000 Hz (max)

INPUTS
DIGITAL INPUTS A TO H
Negative switching

ANALOGUE INPUTS A, B, E & F
Configurable as:
Negative switching digital input
0 V to 10 V sensor
4 mA to 20 mA sensor
Resistive sensor

ANALOGUE INPUTS C & D
Configurable as:
Negative switching digital input
Resistive sensor

OUTPUTS
OUTPUT A & B (FUEL & START)
15 A DC at supply voltage

OUTPUTS C & D
8 A AC at 250 V AC (Volt-free)

AUXILIARY OUTPUTS E, F, G, H, I & J
2 A DC at supply voltage

DIMENSIONS
OVERALL
245 mm x 184 mm x 51 mm
9.6" x 7.2" x 2.0"

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

DYNAMIS
POWER SOLUTIONS

Dynamis Power Solutions by NETIS

NETIS Group

www.dynamispower.com

Distributed by

DYNAMIS
POWER SOLUTIONS

DSE7410/20 MKII

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

The DSE7410 MKII is an Auto Start Control Module and the DSE7420 MKII is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs, remote PC and via SMS text alerts (with external modem).

The DSE7420 MKII will also monitor the mains (utility) supply. The modules include USB, RS232, RS485 and Ethernet ports as well as dedicated DSENet® terminals for system expansion.

Both modules are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer an extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

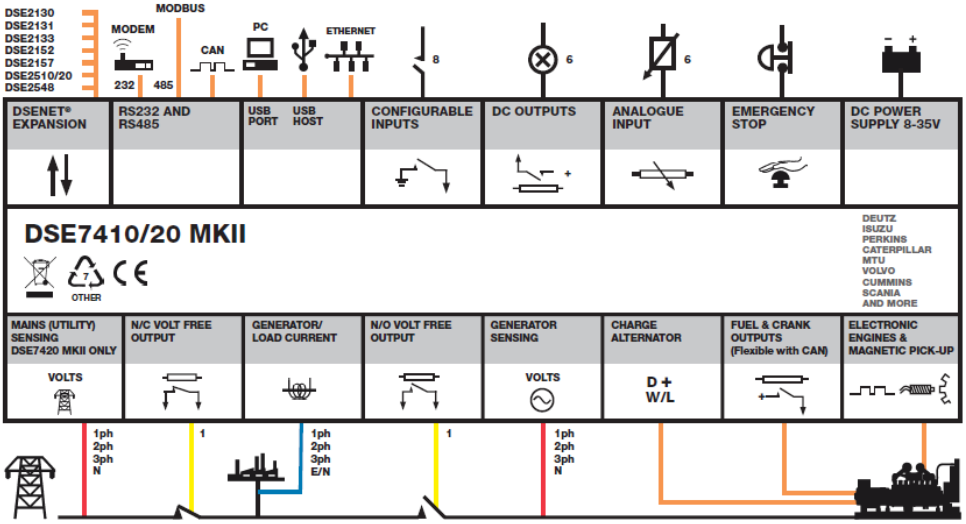
The extensive list of features includes enhanced event and performance monitoring, remote communications & PLC functionality.

Dual mutual standby is now available on both the DSE7410 MKII & DSE7420 MKII using RS232 or RS485 communications. This provides for a simpler and more convenient installation with more advanced features such as true hours balancing.

The modules also feature SNMP functionality for connection to SNMP systems.

The modules can be easily configured using the DSE Configuration Suite PC software. Selected front panel editing is also available.

COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF GEN-SET APPLICATIONS



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