



# Ariete SERIES

**DIESEL GENERATOR**  
**GROUPE ELECTROGENE DIESEL**  
**GRUPO ELECTROGENO DIESEL**  
**GRUPPO ELETTOGENO DIESEL**


MODEL  
 MODELE  
 MODELO  
 MODELLO

## GL22P

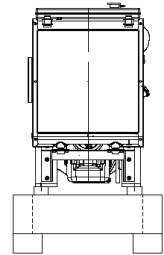
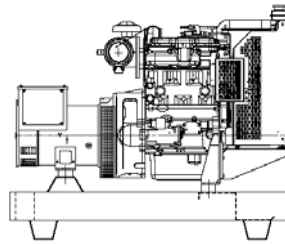
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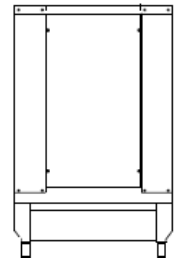
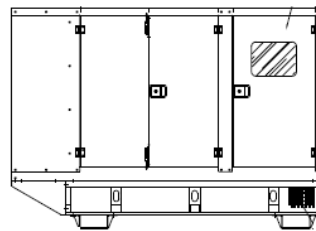
**Linz Electric**



### OPEN VERSION




### SOUNDPROOF VERSION







GENERATING SET PERFORMANCE PERFORMANCES DU GROUPE PRESTACIONES DEL GRUPO PRESTAZIONI DEL GRUPPO		50 Hz		60 Hz	
Voltage Voltage Voltaje Tensione		V	400 / 230	V	--
Continuous Power Puissance service continue Potencia servicio continuo Potenza servizio continuo		PRP	kVA 20,0	kVA	--
Stand-by Power Puissance service secours Potencia servicio emergencia Potenza servizio in emergenza		LTP	kVA 22,0	kVA	--
Continuous Power Puissance service continue Potencia servicio continuo Potenza servizio continuo		PRP	kWe 16,0	kWe	--
Stand-by Power Puissance service secours Potencia servicio emergencia Potenza servizio in emergenza		LTP	kWe 17,6	kWe	--
Power factor Facteur de puissance Factor de potencia Fattore di potenza		cos φ	0,8		--
Fuel consumption Consommation combustible Consumo de combustible Consumo combustibile		70 %	l/h 3,6	l/h	--

ENGINE MOTEUR MOTOR MOTORE		PERKINS		404A-22G1	
PERFORMANCE PERFORMANCES PRESTACIONES PRESTAZIONI		1500 rpm		1800 rpm	
Continuous Power Puissance service continue Potencia servicio continuo Potenza servizio continuo	PRP	kWm	18,4	kWm	--
Stand-by Power Puissance service secours Potencia servicio emergencia Potenza servizio in emergenza	LTP	kWm	20,3	kWm	--
Specific fuel consumption Consommation spécifique combustible Consumo específico de combustible Consumo specifico combustibile		g/kWh	50 % 258 75 % 238 100 % 237 110 % 244	g/kWh	50 % -- 75 % -- 100 % -- 110 % --
Diesel 4 Stroke – Injection type Diesel 4 temps – Type injection Diesel 4 tiempos – Tipo de inyeccion Diesel a 4 tempi – Tipo di iniezione					Indirect Indirecte Indirecta Indiretta
Aspiration type Type d'aspiration Tipo de aspiracion Tipo d'aspirazione					Natural Naturel Natural Naturale
Cooling system Refroidissement Sistema de refrigeracion Raffreddamento					Water Eau Agua Acqua
Speed governor Régulateur de tours Regulador Regolatore di giri					Mechanical Mécanique Mecanico Meccanico
Cylinders, numbers and arrangement Nombre et disposition des cylindres Cilindros, numero y disposicion Numero e disposizione dei cilindri					4 L
Total displacement Cylindrée totale Cilindrata total Cilindrata totale				cm <sup>3</sup>	2216
Bore x stroke Alésage x course Diámetro x carrera Alesaggio x corsa				mm	84.0 x 100.0
Compression ratio Rapport de compression Relación de compresión Rapporto di compressione					23.3 :1
Engine electric system voltage Voltage système électrique moteur Voltaje sistema eléctrico motor Voltaggio sistema elettrico motore					12 V
Derating for temperature Déclassement pour temperature Declasamiento para temperatura Declassamento per temperatura				0 ÷ 25°C > 25 °C	0 2 % / 10°C
Derating for altitude Déclassement pour altitude Declasamiento para altitud Declassamento per altitudine				0 ÷ 500 m 500 ÷ 1500 m 1500 ÷ 3000 m	0 4 % / 500 m 6 % / 500 m

ALTERNATOR ALTERNATEUR ALTERNADOR ALTERNATORE		<b>LINZ</b>	
PERFORMANCE PERFORMANCES PRESTACIONES PRESTAZIONI		1500 rpm	1800 rpm
Model Modèle Modelo Modello		SLT18MD	
Continuous Power Puissance service continue Potencia servicio continuo Potenza servizio continuo	40 °C	KVA kWe	<b>20,0</b> 16,0
Stand-by Power Puissance service secours Potencia servicio emergencia Potenza servizio in emergenza	40 °C	KVA kWe	<b>20,0</b> 16,0
Stand-by Power Puissance service secours Potencia servicio emergencia Potenza servizio in emergenza	27 °C	KVA kWe	<b>23,0</b> 18,4
Efficiency Rendement Eficienza Efficienza		1/4 2/4 3/4 4/4	1/4 2/4 86,3 % 86,1 %
Standard winding connections Liaison des bobinages Tipo de conexión Collegamento avvolgimenti		Y	
Exciter Excitatrice Excitador Excitatrice	brushless rotating exciter design with solid state pivotante sans brosses avec pont de diodes pivotants puente de diodos sin escobillas rotantes rotante senza spazzole con ponte di diodi rotanti		
Poles Poles Polos Poli		4	
Phases Phases Fases Fasi		3 + N	
Wires Fils Hilos Morsetti		12	
Voltage regulation Regulation Voltage Regulación voltaje Regolazione tensione		± 1 %	
Insulation class Classe d' isolation Classe de aislamiento Classe di isolamento		H	
Enclosure Degré de protection mécanique Grado de protección mecánica Grado di protezione meccanica		IP 23	
Air volume Volume d'air Volumen de aire Volume d'aria		5,5 m <sup>3</sup> /min at 50Hz	
Standard AVR model Modèle AVR standard Modelo AVR standard Modello AVR standard		<b>HVR-11</b>	
Derating for temperature Déclassement pour température Declasamiento para temperatura Declasseamento per temperatura		0 ÷ 40°C	0
		> 40 °C	3 % / 5°C
Derating for altitude Déclassement pour altitude Declasamiento para altitud Declasseamento per altitudine		0 ÷ 1500 m	0
		1500 ÷ 2000 m	5% / 500 m
		2000 ÷ 3000 m	3% / 500 m

LOGISTIC INFORMATION INFORMATIONS LOGISTIQUES INFORMAZIONE LOGISTICA INFORMAZIONI LOGISTICHE						
	Integrated fuel tank capacity Capacité réservoir intégré Capacidad Tanque integrado Capacità Serbatoio integrato		Weight Poids Peso Peso	Dimensions Cotes d'encombrement Medidas externas Dimensioni d'ingombro		
	( L. )			(cm)		
	STD	EXTRA1	(kg)	L	W	H
OPEN SKID VERSION VERSION SUR SKID VERSION ABIERTA VERSIONE APERTA	80	ON REQUEST	480	150	75	130
SOUND PROOF VERSION VERSION INSONORISEE VERSION INSONORISADA VERSIONE INSONORIZZATA	80	ON REQUEST	570	175	75	145
GENSET STANDARD EQUIPMENT EQUIPEMENT STANDARD GROUPE ELECTROGENE EQUIPAMIENTO STANDARD GRUPO ELECTROGENO EQUIPAGGIAMENTO STANDARD GRUPPO ELETTROGENO						
GB	F		E	I		
<ul style="list-style-type: none"> <li>Steel base frame</li> <li>Vibration dampers</li> <li>Integrated bunded fuel tank</li> <li>Silencer <b>industrial</b> type for open version</li> <li>Battery</li> <li>Manual autostart control panel With <b>DSE6110</b></li> <li>Engine with original tropical radiator</li> <li>Emergency stop button</li> <li>Sound proof canopy of galvanized steel with <b>residential</b> silencer</li> </ul>	<ul style="list-style-type: none"> <li>Châssis acier</li> <li>Amortisseurs de vibrations</li> <li>Réservoir intégré avec bac de retention</li> <li>Silencieux <b>industriel</b> pour la version ouverte</li> <li>Batterie</li> <li>Coffret de contrôle manuel autostart avec <b>DSE6110</b></li> <li>Moteur avec radiateur tropical</li> <li>Bouton arrêt d'urgence</li> <li>Capote d'insonorisation d'acier galvanisé avec silencieux <b>résidentiel</b></li> </ul>		<ul style="list-style-type: none"> <li>Telar de acero</li> <li>Apagadores de vibracion</li> <li>Tanque combustible con bandeja para la recogida de líquidos</li> <li>Silenciador industrial para la versión abierta</li> <li>Bateria</li> <li>Cuadro electrico manual autostart con <b>DSE6110</b></li> <li>Motor con radiador original tropical</li> <li>Botón parada de emergencia</li> <li>Cabina de insonorización de acero cincado con silenciador <b>residencial</b></li> </ul>	<ul style="list-style-type: none"> <li>Basamento in acciaio</li> <li>Antivibranti</li> <li>Serbatoio integrato con vasca raccolta liquidi</li> <li>Silenziatore <b>industriale</b> per versione aperta</li> <li>Batteria</li> <li>Quadro elettrico manuale autostart con <b>DSE6110</b></li> <li>Motore con radiatore originale tropicalizzato</li> <li>Pulsante arresto di emergenza</li> <li>Cabina di insonorizzazione di acciaio zincato con marmitta <b>residenziale</b></li> </ul>		
MANUAL AUTOSTART CONTROL PANEL COFFRET ELECTRIQUE MANUEL AUTOSTART CUADRO ELECTRICO MANUAL AUTOSTART QUADRO ELETTRICO MANUALE AUTOSTART						
<b>Q6110 AUS</b>						
30 A (400 V - 3 ph - 50Hz – 1500 rpm)						
STANDARD EQUIPMENT: 4 poles circuit breaker Electronic control board <b>DSE6110</b> Emergency Stop button	EQUIPEMENT STANDARD: Disjoncteur de protection 4 pôles Fiche électronique <b>DSE6110</b> Interrupteur d'arrêt d'urgence		EQUIPAMIENTO STANDARD: Interruptor magnetotermico 4 polos Carta electronica <b>DSE6110</b> Botón de parada de emergencia	EQUIPAGGIAMENTO STANDARD: Interruttore magnetotermico 4 poli Scheda elettronica <b>DSE6110</b> Pulsante di arresto di emergenza		
	CONTROL BOARD CARTE ELECTRONIQUE DE CONTROL CARTA ELETTRONICA DE CONTROL SCHEDE ELETTRONICA DI CONTROLLO					
PROTECTIONS	PROTECTIONS	PROTECCIONES	PROTEZIONI			
Low oil pressure High engine temperature Low fuel level Fail to start Fail to stop Over/under voltage Over/under speed Fuel level Belt breakage Over current Over/under battery voltage	Basse pression huile moteur Haute température moteur Basse niveau combustible Non démarrage Non arrêt Sur/sous voltage Sur/sous survitesse Niveau de combustible Rupture courroie Surcourant Sur/sous tension batterie	Baja presión de aceite Alta temperatura agua Bajo nivel combustible Fallido start Fallido stop Sovra/baja tensión Sovra/baja frecuencia Nivel de combustible Rotura de la correa Sobre intensidad Sovra/baja tension batería	Bassa pressione olio Alta temperatura acqua Basso livello carburante Mancato avviamento Mancato arresto Sovra/sotto frequenza Sovra/sotto voltaggio Livello di combustibile Rottura cinghia Sovraccorrente Sovra/sotto voltaggio batterie			
DIGITAL METERS	VOYANT NUMERIQUE POUR	VISOR DIGITAL PARA	MISURATORE DIGITALE PER			
Generator volts (3 phases) Generator amperes (3 phases) Generator frequency KW-meter kVA-meter Cos φ- meter Rpm meter Gen set hour counter Battery Volts	Voltmètre générateur (3 phases) Ampèremètre générateur (3 phases) Fréquencemètre générateur KW-mètre kVA- mètre Cos φ- mètre Tr/min mètre Totalisateur d'heures de marche Voltmètre batterie	Voltios del generador (3 fases) Amperios del generador (3 fases) Frecuencia del generador kW kVA Cosφ RPM Horas de funcionamiento del grupo Tensión baterías	Volt generatore (3 fasi) Ampere generatore (3 fasi) Frequenza del generatore kW kVA Cosφ RPM Ore di funzionamento del gruppo Volt batteria			

AUTOMATIC CONTROL PANEL COFFRET ELECTRIQUE AUTOMATIQUE CUADRO ELECTRICO AUTOMATICO QUADRO ELETTRICO AUTOMATICO			
1)		<b>COMPLETE CONTROL PANEL FREE STANDING TYPE</b> Equipment: control board, circuit breaker, battery charger, transfer switch, box key. <b>COFFRET ELECTRIQUE COMPLET TYPE ARMOIRE SEPARÉ DU GROUPE</b> Equipement : carte électronique de contrôle, disjoncteur de protection, chargeur de batterie, inverseur de source, clé coffret. <b>CUADRO ELECTRICO COMPLETO EN ARMARIO SEPARADO DEL GRUPO</b> Equipamiento: carta electronica de controllo, interruptor magnetotermico, cargador de bateria, transferencial, llave quadro. <b>QUADRO ELETTRICO COMPLETO SEPARATO DAL GRUPPO</b> Equipaggiamento: scheda elettronica di controllo, interruttore magnetotermico, carica batteria, telecommutazione e chiave quadro.	
2)		<b>AMF CONTROL PANEL FITTED ON THE GEN-SET WITHOUT TRANSFER SWITCH</b> Equipment: control board, circuit breaker, battery charger, box key. <b>COFFRET ELECTRIQUE MONTE SUR LE GROUPE SANS INVERSEUR DE SOURCE</b> Equipement : carte électronique de contrôle, disjoncteur de protection, chargeur de batterie, clé coffret. <b>CUADRO ELECTRICO MONTADO SOBRE EL GRUPO SIN TRANSFERENCIAL</b> Equipamiento: carta electronica de controllo, interruptor magnetotermico, cargador de bateria, llave quadro. <b>QUADRO ELETTRICO MONTATO SUL GRUPPO ELETTROGENO SENZA TELECOMMUTAZIONE</b> Equipaggiamento: scheda elettronica di controllo, interruttore magnetotermico, carica batteria, chiave quadro.	
3)		<b>CONTROL PANEL FITTED ON THE GEN-SET WITH TRANSFER SWITCH SUPPLIED IN A SEPARATED BOX</b> Equipment: control board, circuit breaker, battery charger, box key, separate transfer switch. <b>COFFRET ELECTRIQUE MONTE SUR LE GROUPE + INVERSEUR DE SOURCE FOURNI DANS UN COFFRET SEPARÉ</b> Equipement : carte électronique de contrôle, disjoncteur de protection, chargeur de batterie, inverseur de source séparé, clé coffret. <b>CUADRO ELECTRICO MONTADO SOBRE EL GRUPO CON TRANSFERENCIAL SEPARADO</b> Equipamiento: carta electronica de controllo, interruptor magnetotermico, cargador de bateria, llave quadro, transferencial separado. <b>QUADRO ELETTRICO MONTATO SUL GRUPPO ELETTROGENO CON TELECOMMUTAZIONE SEPARATA</b> Equipaggiamento: scheda elettronica di controllo, interruttore magnetotermico, carica batteria, chiave quadro, telecommutazione in armadio separato.	
 <b>CONTROL BOARD</b> <b>CARTE ELECTRONIQUE DE CONTROL</b> <b>CARTA ELECTRONICA DE CONTROL</b> <b>SCHEDA ELETTRONICA DI CONTROLLO</b>			
<b>GB</b>	<b>F</b>	<b>E</b>	<b>I</b>
The DSE7320 is an Automatic Mains Failure Control Module designed to automatically start and stop diesel generating sets that include electronic and non electronic engines. The module also provides excellent genset monitoring and protection features.	La DSE7320 est une carte de contrôle projetée pour démarrer et arrêter automatiquement groupes électrogènes diesels avec moteurs électroniques et non électroniques. La carte représente un système excellent de contrôle et de protection du groupe électrogène.	La DSE7320 es una carta de control para arrancar y parar automáticamente grupos electrógenos diesel con motores electrónicos y no electrónicos. La carta constituye un excelente sistema de control y protección del grupo electrógeno.	La DSE7320 è una scheda di controllo progettata per avviare e arrestare automaticamente gruppi elettrogeni diesel con motori elettronici e non elettronici. La scheda costituisce un eccellente sistema di controllo e di protezione del gruppo elettrogeno.
<b>FEATURES</b>	<b>EQUIPEMENT</b>	<b>EQUIPMENT</b>	<b>EQUIPAGGIAMENTO</b>
Stop/reste – Auto – Manual – Start LCD display scroll Event log view Acoustic alarm	Fiche électronique de contrôle DSE7320 Disjoncteur de protection Chargeur de batterie Bouton poussoir arrête d'urgence	Ficha electrónica de control DSE7320 Interruptor magnetotermico Cargador de batería Boton de parada de emergencia	Scheda elettronica di controllo DSE7320 Interruttore magnetotermico Carica batteria Pulsante stop emergenza
<b>DIGITAL MEASURING</b>	<b>MESURES NUMERIQUES</b>	<b>MEDIDAS DIGITALES</b>	<b>MISURAZIONI DIGITALI</b>
Generator volts (3 phases) Generator amperes (3 phases) Generator frequency KW-meter kVA-meter Cos φ- meter Rpm meter Water temperature (optional) Oil pressure (optional) Gen set hours counter Mains volts Battery volts Mains frequency Charging voltage Start-counter Fuel level %	Voltmètre générateur (3 phases) Ampèremètre générateur (3 phases) Fréquencemètre générateur KW-mètre kVA- mètre Cos φ- mètre Tm mètre Température eau (facultatif) Pression huile (facultatif) Totalisateur d'heures de marche Voltmètre secteur Voltmètre batterie Fréquence réseau Tension de charge Compteur démarrages Niveau combustible %	Voltmetro (3 fases) Amperimetro (3 fases) Frecuencimetro KW- metro kVA- metro Cos φ-metro Revoluciones por minuto metro Termometro agua (opcional) Presión aceite (opcional) Medida horas de marcha Voltmetro tensión de red Voltmetro batería Frecuencia red Tensión de carga Numero de arranques Nivel carburante %	Voltmetro tensione generatore (3 fasi) Amperometro generatore (3 fasi ) Frequenzimetro generatore KW- metro kVA- metro Cos φ-metro Gm metro Temperatura acqua (facoltativo) Pressione olio (facoltativo) Contaore di funzionamento gruppo Voltmetro tensione rete Voltmetro batteria Frequenza rete Tensione di carica Contavviamenti Livello carburante %
<b>INDICATORS</b>	<b>INDICATEURS</b>	<b>INDICADORES</b>	<b>INDICATORI</b>
Mains live Generator live Mains contactor closed Generator contactor closed Engine running	Présence secteur Présence tension générateur Inverseur secteur fermé Inverseur générateur fermé Moteur en marche	Presencia tensión de red Presencia tensión grupo Transferencial red cerrado Transferencial grupo cerrado Motor en marcha	Presenza tensione di rete Presenza tensione generatore Erogazione da rete Erogazione da gruppo Motore avviato
<b>PROTECTIONS</b>	<b>PROTECTIONS</b>	<b>PROTECCIONES</b>	<b>PROTEZIONI</b>
Low oil pressure High engine temperature Low fuel level Fail to start Fail to stop Emergency stop Over/under frequency Over/under voltage Over/under speed Fuel level Belt breakage Over current Over/under battery voltage	Bas pression huile moteur Haute température moteur Bas niveau combustible Non démarrage Non arrêt Arrêt d'urgence Sur/sous fréquence Sur/sous voltage Sur/sous vitesse Niveau de combustible Rupture courroie Surcourant	Baja presión aceite Elevada temperatura motor Baja nivel carburante Falta de arranque Falta de parada Parada de emergencia Sobre/bajo frecuencia Sobre/bajo voltaje Sobre/bajo velocidad nivel de combustible Ruptura correa Corriente maxima	Bassa pressione olio Alta temperatura motore Basso livello di carburante Mancato avviamento Mancato arresto Stop d'emergenza Sovra/sotto frequenza Sovra/sotto voltaggio Sovra/sotto velocità Livello del carburante Rottura cinghia Sovraccorrente
	Sur/sus la tension de batterie	Sobre/bajo voltaje de la batería	Sovra/sotto tensione della batteria

**SOUNDPROOF CANOPY**  
**CAPOTE D'INSONORISATION**  
**CAPOTA DE INSONORIZACION**  
**CABINA INSONORIZATA**

GB	F	E	I
<p>The Bruno Super Silent soundproof canopy has been designed with the aim of achieving the maximum noise level reduction and to provide a perfect cooling of the engine. The cooling airflow is forced through fixed circuits. The canopy is suitable for tropical ambient application. The exhaust gas silencer is residential type internally mounted. The canopy is completely built of hot galvanized carbon sheet steel. The sheets have a thickness 20/10. The structure is fully bolted, fixed by a special polyethylene sealing, completely free from electrical installation. All the panels can be easily removed. The cab is provided with doors of wide opening for easy access to generating set for the maintenance operations. The soundproofing materials are highly fire resistant and self-extinguishing.</p>	<p>La capote insonorisée Bruno Super Silent à été conçue pour atteindre le niveau de bruit le mineur possible et un refroidissement du moteur parfait. Le souffle d'air refroidissant est canalisé en circuits fixes. La capote est apte à être utilisée dans les ambiances tropicales. Le silencieux des gaz d'échappement, de type résidentiel, est mis à l'intérieur de la capote. La cabine est construite en acier galvanisé à chaud. Les tôles ont une épaisseur de 20/10. La structure est complètement boulonnée et fixée à travers des garnitures spéciales au polyéthylène. Tous les panneaux sont facilement amovibles. La cabine est dotée de portes avec grandes ouvertures qui permettent un accès facile au groupe électrogène pour les opérations de manutention. Les matériaux d'insonorisation sont fortement résistant au feu et auto-extinguibles.</p>	<p>La capota insonorizada Bruno Super Silent tiene sido planeada con el objetivo de alcanzar el menor nivel de rumorosidad posible y un perfecto enfriamiento del motor. El sopro de aire es canalizado en circuitos fijos. La cabina es apta a ser utilizada en ambientes tropicales. El silenciador de los gases de descargue, de tipo residencial, es colocado dentro de la cabina. La cabina es construida en acero cincado. Las chapas tienen un espesor de 20/10. La estructura es completamente bullonata y montada con sellos especiales de polietilene. Todos los paneles son fácilmente removibles. La cabina es dotada con puertas con amplias aberturas que permiten el fácil acceso al grupo electrógeno por las operaciones de manutención. Los materiales insonorizantes son muy resistentes al fuego y auto-extinguentes.</p>	<p>La cabina insonorizzata Bruno Super Silent è stata progettata allo scopo di raggiungere il minor livello di rumorosità possibile e un perfetto raffreddamento del motore. Il soffio d'aria raffreddante è canalizzato in circuiti fissi. La cabina è adatta ad essere utilizzata in ambienti tropicali. Il silenziatore dei gas di scarico, di tipo residenziale, è collocato all'interno della cabina. La cabina è costruita in acciaio zincato a caldo. Le lamiere hanno uno spessore di 20/10. La struttura è completamente bullonata e fissata tramite speciali sigilli al polietilene. Tutti i pannelli sono facilmente rimovibili. La cabina è dotata di porte con ampie aperture che consentono il facile accesso al gruppo elettrogeno per le operazioni di manutenzione. I materiali insonorizzanti sono altamente resistenti al fuoco e autoestinguenti.</p>

**Our quality in 10 points**

**Notre qualité résumée en 10 points**

**Nuestra calidad en 10 puntos**

**La nostra qualità in 10 punti**

1	<p>Internal residential silencer for lower sound levels            Silencieux interne pour un niveau bas de bruit            Silenciador interno para un nivel de rumorosidad más bajo            Silenziatore interno per un livello di rumorosità più basso</p>
2	<p>Integrated fuel tank of different sizes            Réservoirs de combustible disponibles, sur demande, de capacité supérieure            Tanques integrados disponibles, como opción, de capacidad superior            Serbatoi integrati disponibili, su richiesta, di capacità superiore</p>
3	<p>Control panel viewing window to easily check status of generating set            Fenêtre de visualisation du panneau de contrôle pour un contrôle plus facile du status opérationnel du groupe            Ventana de visualización del panel de control por un más fácil control del estatus operativo del grupo            Finestra di visualizzazione del pannello di controllo per un più facile controllo dello status operativo del gruppo</p>
4	<p>Lockable access doors for extra safety and security            Porte d'accès avec serrure pour une sûreté majeure            Puertas de acceso con cerradura para una mayor seguridad            Porte di accesso con serratura per una maggiore sicurezza</p>
5	<p>Galvanized bolts            Boulons galvanisés            Pernos cincados            Bulloni zincati</p>
6	<p>Emergency stop button            Interrupteur d'arrêt d'urgence            Botón parada de emergencia            Pulsante arresto di emergenza</p>
7	<p>Doors location convenient to controls and service area            Placement des portes pour rendre les contrôles plus faciles            Colocación de las puertas para facilitar los controles            Collocazione delle porte per facilitare i controlli</p>
8	<p>High serviceability level            Haut niveau d'accessibilité pour la manutention            Alto nivel de accesibilidad para la manutención            Alto livello di accessibilità per la manutenzione</p>
9	<p>Large cable entry area for easy installation            Grande zone d'entré des câbles pour une installation plus facile            Amplia área de entrada cables para una instalación fácil            Ampia area di entrata cavi per una facile installazione</p>
10	<p>Galvanized metal steel sheet pre-treated prior to powder coating            Tôles en acier galvanisé pré-traitées avant le vernissage à poudre            Chapas de acero cincado pre-tratadas antes de la pintura a polvo            Lamiere di acciaio zincato pre-trattate prima della verniciatura a polvere</p>

# 400 Series 404A-22G1 ElectropaK

20.3 kWm @ 1500 rpm

The Perkins® 400 Series engine family continues to set new standards in the compact engine market. Developed alongside customers to fulfill their needs in the generator set, compressor, agricultural and general industrial markets.

These new ElectropaKs provide compact power, from a robust family of 3 and 4 cylinder diesel engines designed to provide economic and durable operation at prime and standby duties, hitting the key power nodes required by the power generation industry.

## Powered by your needs

- The 404A-22G1 ElectropaK is a powerful but quiet 2.2 litre naturally aspirated 4-cylinder compact package

## Compact, clean, efficient power

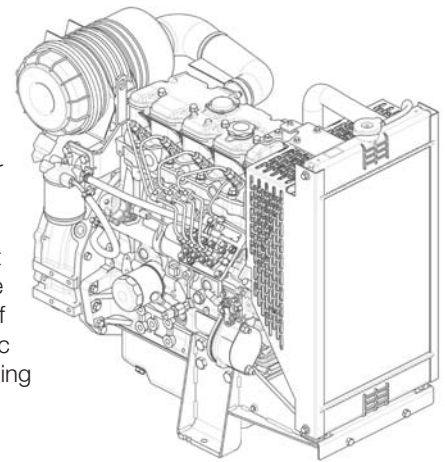
- Design features on the 400D range of ElectropaKs ensures clean rapid starting in all conditions whilst delivering impressive performance with low operating costs in a small, efficient package size

## Lower operating costs

- Approved for operation on biodiesel\* concentrations of up to 20%
- Oil and filter changes are 500 hours, dependent on load factor
- Engine durability and reliability, the warranty offering and ease of installation combine to drive down the cost of ownership

## Product support

- With highly trained Perkins distributors in thousands of communities in over 180 countries, you are never far away from expert product knowledge, genuine parts and a range of advanced diagnostic technology for keeping your engine in peak condition



## Warranties and Service Contracts

We provide one-year warranties for constant speed engines and two-year warranties for variable speed models, as standard. These are supported by multilevel Extended Service Contracts that can be bought additionally

## Discover more

[www.perkins.com](http://www.perkins.com)

[www.tier4air.com](http://www.tier4air.com)

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Engine speed	Type of Operation	Typical Generator Output (Net)		Engine Power				Low Idle
				Gross		Net		
		kVA	kWe	kWm	hp	kWm	hp	
1500	Prime power	20.3	16.2	18.7	25.1	18.4	24.7	n/a
	Standby power	22.3	17.8	20.6	27.6	20.3	27.2	n/a

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1. Derating may be required for conditions outside these; consult Perkins Engines Company Limited. Generator powers are typical and are based on typical alternator efficiencies and a power factor (cos  $\phi$ ) of 0.8.

Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2.

Rating Definitions: Prime Power: Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours operation. Standby (maximum): Power available at variable load in the event of a main power network failure. No overload is permitted.

Photographs are for illustrative purposes only and may not reflect final specification.

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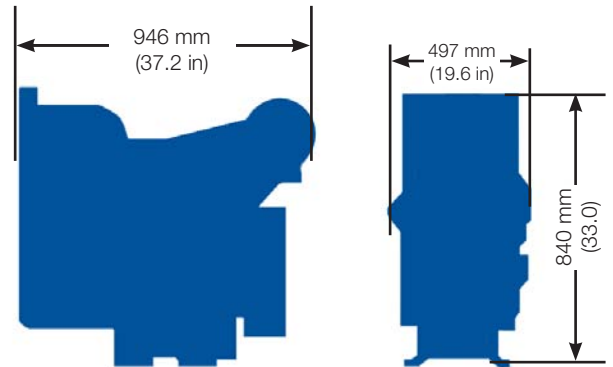
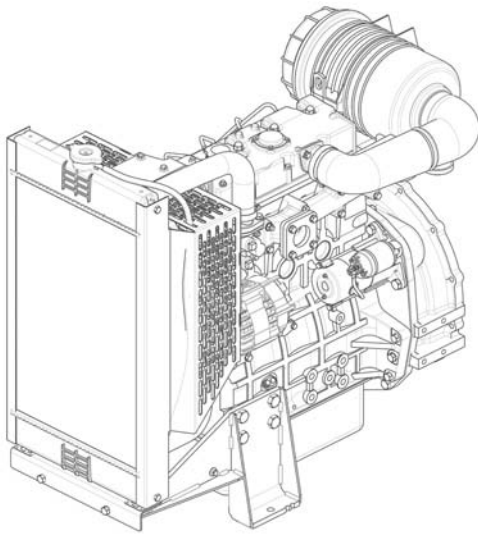
 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

# 400 Series 404A-22G1

Electropak

20.3 kWm @ 1500 rpm



## Standard electropak specification

### Air inlet

- Mounted air filter

### Fuel system

- Mechanically governed cassette type fuel injection pump
- Split element fuel filter

### Lubrication system

- Wet steel sump with filler and dipstick
- Spin-on full-flow lub oil filter

### Cooling system

- Thermostatically-controlled system with belt driven coolant pump and pusher fan
- Mounted radiator, piping and guards

### Electrical equipment

- 12 volt starter motor and 12 volt 15 amp alternator with DC output
- Oil pressure and coolant temperature switches
- 12 volt shut-off solenoid energised to run
- Glow plug cold start aid and heater/starter switch

### Flywheel and housing

- 1500 rpm
- High inertia flywheel to SAE J620 Size 190.5 mm (7½ in) Heavy
- Flywheel housing SAE 4 Long

### Mountings

- Front and rear engine mounting bracket

Fuel Consumption		
Engine Speed	1500 rpm	
	g/kWh	l/hr
Standby	244	6.1
Prime power	237	5.3
75% of prime power	238	4.0
50% of prime power	258	2.9

## General Data

Number of cylinders .....	4
Cylinder arrangement .....	Vertical in-line
Cycle .....	4 stroke
Aspiration .....	Naturally aspirated
Combustion system .....	Indirect injection
Compression ratio .....	23.3:1
Bore and Stroke .....	84 x 100 mm (3.3 x 3.9 in)
Displacement .....	2.216 litres (135.2 cubic in)
Direction of rotation .....	Anti-clockwise viewed on flywheel
Cooling system .....	Water cooled
Total coolant capacity .....	7.0 litres (1.8 US gals)
Total lubrication system capacity .....	10.6 litres (2.8 US gals)
Dimensions	
Length .....	946 mm (37.2 in)
Width .....	497 mm (19.6 in)
Height .....	840 mm (33.0 in)
Total weight (dry) .....	242 kg (533 lb)

Final weight and dimensions will depend on completed specification.

## Optional equipment

- Parts book

## Option groups

A selection of optional items is available to enable you to prepare a specification precisely matched to your needs.

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Perkins Engines Company Limited

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THE HEART OF EVERY GREAT MACHINE



**Alternatori sincroni trifase senza spazzole con AVR- 4 poli**  
 Three-phase brushless synchronous alternators with AVR- 4 poles  
 Alternadores síncronos trifásicos sin escobillas con AVR- 4 polos



- **Compatto e resistente**  
Compact and mechanically durable  
Robusto y compacto
- **Eccellente forma d'onda**  
Excellent wave form  
Excelente forma de onda
- **Minima manutenzione**  
Minimum maintenance  
Mínimo mantenimiento
- **Alto rendimento**  
High efficiency  
Alto rendimiento

Gli alternatori della serie SLT18 sono trifase a 4 poli senza spazzole, dotati di regolatore elettronico (AVR) con riferimento di tensione monofase.

The alternators of SLT18 series are three phase 4 poles brushless, with electronic regulator (AVR) with single phase sensing.

Los alternadores de la serie SLT18 son trifásicos 4 polos sin escobillas, con regulación electrónica (AVR) con referencia de tensión monofásica.

Tipo Type	50 Hz - 1500 rpm - $\cos\phi = 0.8$					60 Hz - 1800 rpm - $\cos\phi = 0.8$				
	Pot. resa Rating Pot. salida kVA	Rendimento% Efficiency % Rendimiento %		Pot. assorbita Driving power Pot. entrada		Pot. resa Rating Pot. salida kVA	Rendimento% Efficiency % Rendimien- to%		Pot. assorbita Driving power Pot. entrada	
		4/4	3/4	kW	HP		4/4	3/4	kW	HP
<b>SLT18 MC</b>	<b>15</b>	85.6	86	14	19.1	<b>18</b>	87.4	87.4	16.5	22.4
<b>SLT18 MD</b>	<b>20</b>	86.1	86.3	18.6	25.3	<b>24</b>	87.8	88.1	21.9	29.7