

GRW22Y - SS



Regim De Putere

Frecvență	Hz	50
Tensiune	V	400
Faze	Nº	3
Factor de putere	cos φ	0.8
Putere pasivă LTP	kVA	19.27
Putere pasivă LTP	kW	15.42
Curent maxim	A	28
Putere nominală PRP	kVA	18.29
Putere nominală PRP	kW	14.63
Curent NOMINAL	A	26



Definiție clasificări (Conform standardului ISO8528 1:2005)

PRP - Putere primă: Se definește ca fiind puterea maximă pe o poate livra continuu un grup electrogen, furnizând în același timp o sarcină electrică variabilă, când este utilizat un număr nelimitat de ore pe an în condițiile de utilizare convenite, cu intervalele de întreținere și procedurile respectate conform prevederilor producătorului. Puterea medie permisă în 24 h de funcționare nu va depăși 70% din puterea primă.

LTP - Putere de funcționare pe perioadă limitată: Se definește ca puterea maximă disponibilă, în condițiile de funcționare convenite, pe care grupul electrogen o poate livra pentru până la 500 h de funcționare pe an (și nu mai mult de 300 de utilizare continuă) cu intervalele de întreținere și procedurile respectate conform prevederilor producătorilor. Nu este disponibilă o capacitate de suprasarcină.

Alimentare 50Hz 230V trifazic (cu optional VSS)

Frecvență	Hz	50
Tensiune	V	230
Faze	Nº	3
Factor de putere	cos φ	0.8
Putere pasivă LTP	kVA	110.00
Putere pasivă LTP	kW	88.00
Curent maxim	A	48
Putere nominala PRP	kVA	100.00
Putere nominala PRP	kW	80.00
Curent NOMINAL	A	46

**Alimentare 50Hz 230V monofazic (cu optional VSS)**

Frecvență	Hz	50
Tensiune	V	230
Faze	Nº	1
Factor de putere	cos φ	1
Curent maxim	A	54
Curent NOMINAL	A	49

**Alimentare 60Hz 480V trifazic (cu optional DFS)**

Putere pasivă LTP	kVA	132.51
Putere pasivă LTP	kW	106.01
Putere nominala PRP	kVA	120.48
Putere nominala PRP	kW	96.38

**Alimentare 60Hz 208V trifazic (cu optional VSS)**

Putere pasivă LTP	kVA	119.00
Putere pasivă LTP	kW	95.20
Putere nominala PRP	kVA	108.00
Putere nominala PRP	kW	86.40



Date tehnice motor

Producător motor	YANMAR	
Model piesă	4TNV88-BIPGE	
Sistem de răcire motor	Apă	
Număr cilindri și amplasare	4 in line	
Deplasament	cm ³	2190
Aspirație	Natural	
Regulator de viteză	Mecanic	
Capacitate ulei	I	7.4
Putere lichid de răcire	I	2.7
Circuit electric	V	12
DATE MOTOR	Hz	50
Frecvența 50Hz: Viteza nominală de operare	rpm	1500
Emisii de eșapament optimizate pentru 97/68 50Hz (COM)	Stage V	
[50Hz] Consum specific de combustibil la @ 100% PRP	g/kWh	251



Engine Equipment

Standards

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1

Fuel system

- Direct injection system
- Fuel filter paper element
- Fuel pump Bosch in-Line

Lube oil system

- Forced feed system
- Trochoid pump
- Paper element lube oil filter

Induction system

- Mounted air filter

Cooling system

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

Date tehnice alternator

Alternator	LEROY SOMER
Model piesă	LSA 40-M5
Tip	Fara perii
Clasă	H
Clasificare protectie infiltrare	23
Insulation Protection Systems	Protection System 2
Borne	4
Winding leads	12
Sistem de regulare tensiune	Electronic
Standard AVR	R 438
Toleranță tensiune	% 0.5



SPECIALLY ADAPTED TO APPLICATIONS

The LSA 40 alternator is designed to be suitable for typical generator applications, such as: backup, marine applications, rental, telecommunications, etc.

TOP OF THE RANGE ELECTRICAL PERFORMANCE

- Class H insulation.
- Standard 12 wire re-connectable winding, 2/3 pitch, type no. 6.
- Voltage range:
 - 50 Hz: 220 V - 240 V and 380 V - 415 V
 - 60 Hz: 208 V - 240 V and 380 V - 480 V
- High efficiency and motor starting capacity.
- R 791 interference suppression conforming to standard EN 55011 group 1 class B standard for European zone (CE marking).

EXCITATION AND REGULATION SYSTEM

- Excitation system: AREP
- Voltage A.V.R.: R 438

REINFORCED MECHANICAL STRUCTURE

- Compact rigid assembly to better withstand generator vibrations.
- Steel frame.
- Aluminium flanges and shields.
- single-bearing designed to be suitable for heat engines.
- Half-key balancing



PROTECTION SYSTEM SUITED TO THE ENVIRONMENT

- The LSA 40 is IP 23.
- Winding Protection Standard: for clean environments with relative humidity ≤ 95%, including indoor marine environments.
- Winding Protection System 2: reinforced insulation for tropical environment (abrasive atmosphere), rental (except for coastal area), relative humidity > 95%

COMPLIANT WITH INTERNATIONAL STANDARDS

The LSA 40 alternator conforms to the main international standards and regulations:
- IEC 60034, NEMA MG 1.32-33, ISO 8528-3, CSA C22.2 n°100-14, UL 1146 (UL 1004 on request), marine regulations, etc.

It can be integrated into a CE marked generator.

The LSA 40 is designed, manufactured and marketed in an ISO 9001 environment and ISO 14001.

Echipare generator

EXTRA SUPER-SILENT VERSION

Extra super-silent version designed to achieve the lowest noise level.
Soundproofing by means washable and fireproof soundproofing material.
Exhaust silencer integrated in the genset shape with flat rain flap.



CANOPY

Canopy painted in RAL9016 made up of modular panels with 1000h+ tested salt spray resistant zinced metal sheet, with access doors on each side with high quality gaskets and lockable handles for easy maintenance and service.



BASE FRAME

Heavy duty base guarantees the highest standards of durability and resistance, painted using a high quality powder coating process (1000+h tested salt spray resistance).

Fully bunded, able to retain 110% of all the sets fluids, the base frame is provided with integrated fork pockets and pull bar for easy maneuverability and site positioning.

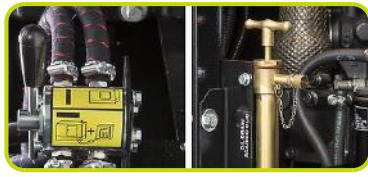


FUEL TANK

Integrated metal fuel tank complete with double fuel refiling point (one each side)

LEAK PROOF TRAY WITH DETECTOR SENSOR

Fluid leak check in the leak proof tray .



FUEL VALVE (6 WAY)

System designed for use the fuel from external tank and increase the autonomy of the generator



LUBE OIL DRAIN PUMP

Makes it easier to the engine oil change



SINGLE LIFTING POINT

Access easy by rung and handle incorporated (available on both sides)



MANUAL BATTERY SWITCH

EARTH ROD

Earth stock with cable fixed inside the genset



DOCS HOLDER

Box internal for documents, manuals and electrical drawings



Date dimensionale

Lungime	(L) mm	2000
Lățime	(W) mm	1200
Înălțime	(H) mm	2150
Greutate fără combustibil	Kg	1270
Fuel tank material	Metal	
Capacitate rezervor combustibil	l	216



Autonomie

[50Hz] Consum combustibil la @ 100% PRP	l/h	5.17
[50Hz] Timp de funcționare la @ 100% PRP	h	41.78



Nivel zgomot 50Hz (2000-14)

Nivelul de zgomot garantat (LWA)	dBA	86
Nivel de stridență a zgomotului la 1 mt	dB(A)	68
Nivel de stridență a zgomotului la 7 mt	dB(A)	57



Date instalare

[50Hz] Circuitul aerului de răcire	m³/min	55.08
[50Hz] Flux gaze eșapament la @ PRP	m³/min	3.6
[50Hz] Temperatură gaze de eșapament la LTP	°C	470



DISPONIBILITATE PANOU DE COMANDĂ

PANOU DE COMANDĂ MANUAL	MCP
Panou de control automat	ACP
Panou paralel modular	MPP

MCP - PANOU DE COMANDĂ MANUAL STATIONAR

Mounted on the genset, complete with digital control unit (InteliNanoNT Plus) for monitoring, control and protection of the generating set, protected through doors with lockable handle.

CONTROL SECTION

- ON/OFF selector switch
- Emergency push button
- Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)
- Alternator AVR (single plug wiring)



Control unit InteliNanoNT Plus

- Biggest LCD screen
- Generating set voltage (3 phases).
- Generating set frequency.
- Generating set current (1 phases).
- Battery voltage, Service time and Running hours indication
- Remote start/stop from external signal



Protection:

- Low fuel level
- Battery charger failure
- low oil pressure
- high engine temperature

Extra Instrumentation (analogue)

- Voltmeter with selector switch (3 phases)
- Ammeters (n.3)
- Fuel level meter
- Mechanical hour counter



POWER SECTION

- It integrates 4 poles modular circuit breaker suitably rated with thermal and magnetic overloads.
- Large and robust busbar with cables passage opening from the bottom for easy power cable connection.
- Provided with safety switch to trip circuit breaker if operator open the power section door to operate on the bus bar.



PANOU IEȘIRE MCP

• Posibilitate start/stop de la distanță	✓
• Priza pentru alimentare cu tensiune din sursa externă	✓
SUPPLEMENT - Only available when order	:
Socket Kit	Type
3P+N+T CEE 400V 125A	n
3P+N+T 400V 63A	n
3P+N+T CEE 400V 32A	n
3P+N+T CEE 400V 16A	n
2P+T CEE 230V 16A	n
230V 16A SCHUKO	n
Fiecare priza cu intrerupator propriu	•
Protectie diferențială pentru prizele trifazice	•
Fiecare fază este protejată cu impamantare	•
Other Kit Socket combinations available	✓



ACP - Panou de control automat

Mounted on the genset, complete with digital control unit (AC-03) for monitoring, control and protection of the generating set, protected through doors with lockable handle.

CONTROL SECTION

- ON/OFF selector switch
- Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)
- Alternator AVR (single plug wiring)

Control unit (AC-03)

- Generating set voltage (3 phases).
- Mains voltage.
- Generating set frequency.
- Generating set current (3 phases).
- Battery voltage.
- Power (kVA - kW - kVAr - Cos φ).
- Hours-counter.
- Engine speed r.p.m.
- Fuel level (%).
- Engine temperature

Command and others:

- Four operation modes: OFF - Manual starting - Automatic starting - Test.
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- Acoustic alarm.
- Automatic battery charger.
- RS232 Communication port.
- Settable PASSWORD for protection level

Protections:

- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.

Extra Instrumentation (analogue)

- Fuel level meter
- Mechanical hour counter

POWER SECTION

- It integrates 4 poles modular circuit breaker suitably rated with thermal and magnetic overloads.
- Large and robust busbar with cables passage opening from the bottom for easy power cable connection.
- Provided with safety switch to trip circuit breaker if operator open the power section door to operate on the bus bar.



PANOU IEȘIRE ACP

- | | |
|---|---|
| • Posibilitate start/stop de la distanță | ✓ |
| • Priza pentru alimentare cu tensiune din sursa externă | ✓ |
| • Conector pentru LTS | ✓ |

SUPPLEMENT - Only available when order :

Socket Kit	Type	SPKB1
3P+N+T CEE 400V 125A	n	1
3P+N+T 400V 63A	n	1
3P+N+T CEE 400V 32A	n	1
3P+N+T CEE 400V 16A	n	1
2P+T CEE 230V 16A	n	1
230V 16A SCHUKO	n	1
Fiecare priza cu intrerupator propriu	•	
Protectie diferențială pentru prizele trifazice	•	
Fiecare fază este protejată cu impamantare	•	
Other Kit Socket combinations available	✓	



MPP - Panou paralel modular

Mounted on the genset, complete with digital control unit Intelivision5 for monitoring, control, protection and load sharing for both single and multiple gen-sets operating in standby or parallel modes (up to 32 gen-sets in island).

CONTROL SECTION

- ON/OFF selector switch
- Emergency push button
- Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)
- Alternator AVR (single plug wiring)



CONTROL UNIT Intelivision5 (5,7" Colour TFT display 320x240 pixels)

Majors Measures Available:

- Generating set: Voltage, Current, Frequency, Hours-counter
- Generating set Power: kVA, kW, kVAr, Cos φ, kWh, kVAh.
- Mains: Voltage, Current, Frequency, kW, kVAr, Cos φ.
- Engine: Speed (r.p.m.), Temperature, Oil Pressure
- Fuel level, Battery voltage



Command and Others:

- Operation modes: OFF, AMF function, Single Parallel to mains Island application, Single Parallel to Mains AMF application, Multiple parallel genset Island application.
- Pushbuttons: start/stop, fault reset, up/down/page/enter selection.
- Acoustic alarm.

Protection:

- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage
- Others: overcurrent, shortcircuit, reverse power, Earth fault

Extra Instrumentation (analogue)

- Fuel level meter
- Mechanical hour counter



POWER SECTION

- It integrates 4 poles motorized moulded case circuit breaker suitably rated with thermal and magnetic overloads
- Large and robust busbar with cables passage opening from the bottom for easy power cable connection.
- Provided with safety switch to trip circuit breaker if operator open the power section door to operate on the bus bar.



PANOU IEȘIRE MPP

• Conector pentru functionare in paralel	✓	
• Posibilitate start/stop de la distanta	✓	
• Priza pentru alimentare cu tensiune din sursa externa	✓	
SUPPLEMENT - Only available when order		
Socket Kit	Type	SPKB1
3P+N+T CEE 400V 125A	n	1
3P+N+T 400V 63A	n	1
3P+N+T CEE 400V 32A	n	1
3P+N+T CEE 400V 16A	n	1
2P+T CEE 230V 16A	n	1
230V 16A SCHUKO	n	1
Fiecare priza cu intrerupator propriu	•	
Protectie diferențială pentru prizele trifazice	•	
Fiecare fază este protejată cu impamantare	•	
Other Kit Socket combinations available	✓	

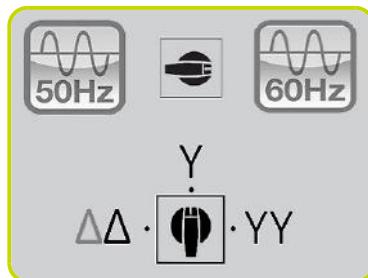


Suplimente:

Disponibil doar la comandă

ECHIPAMENT CONTROL GRUP ELECTROGEN

Switch frecventa 50/60Hz	Y400/230V 50Hz Y480/277V 60Hz	DFS
Selector de tensiune cu 2 pozitii (doar versiunile ACP/MPP si DFS)	Y400/230V 50Hz Y480/277V 60Hz YY208/120V 60Hz	VSS1
Selector de tensiune cu 3 pozitii (doar versiunile ACP/MPP si DFS)	Y400/230V 50Hz Δ230V 3P 50Hz Y480/277V 60Hz YY208/120V 60Hz	VSS2
Selector de tensiune cu 2 pozitii (doar versiunile ACP/MPP si DFS)	Y400/230V 50Hz Δ230V 3P 50Hz Y480/277V 60Hz	VSS4

**OPTIUNE ELECTRICA**

Comunicare prin IL-NT-GPRS + ANTENNA	(ACP)	RCG 16
Contacte libere de potential cu modul IL-NTEFCPM2 si relee IR-B8	(ACP)	TLP 6
Comunicare prin InternetBridge-NT	(only with MPP)	RCG 13
Contacte libere de potential cu modul IGS-PTM si relee IR-B8	(only with MPP)	TLP 4
Protectie diferențiala de tip B		ADI-B
Dispozitiv monitorizare izolatie (inlocuieste protectia diferențiala standard)		IMD
Sistem de prize configurabile		SPKS
Control section internal lighting (automatic with door switch)		CLS
Internal Canopy Lighting system with manual switch		ICL
Engine analogue gauges (water temp / oil pressure)		EAG

**OPTIUNE MECANICA**

Răcitor Sistem Preîncălzire	PHS
Conectori sistem alimentare combustibil facili	QFC
Sistem de conectare facil in interiorul carcasei	QFC1
Filtru separator apa	WSP
Filtru aer Heavy-DUTY	HDF
Protectie componente supra-incalzite	HPP
Sistem retinere scantei evacuare certificat ATEX	ESA
Supapa de inchidere aer	ASV
Sasiu galvanizat	GGS
Protectie cadru	BFB



Accesorii

Articole disponibile ca echipament accesoriu	:
RTR-B remorca echipata cu bara ajustabila pe inaltime	•
RTR - Remorcă rutieră	•
STR - Trailer şantier	•



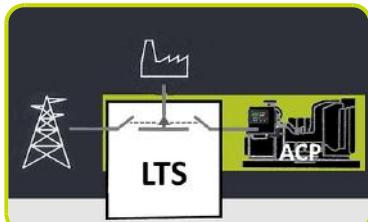
LTS - COMUTATOR DE TRANSFER DE SARCINĂ - Accesorii ACP

LTS - Panou de Transfer Sarcina [Optional pentru panoul de control automat ACP]
Panoul de transferului de sarcină (LTS) opereaza comutarea sursei de alimentare intre generator si reteaua de alimentare in aplicatii de rezerva, garantand alimentarea intr-o perioada scurta de timp.

Panoul LTS este compus dintr-un dulap independent care poate fi instalat separat de setul de generare. Comanda logica a comutarii sursei de alimentare este actionata prin intermediul panoului de control automat (ACP) montat pe generator, deci nu este necesar nici un dispozitiv logic pe panoul LTS.

LTS de tip ATyS_D:

- Cutie: carcasa din otel
- Mod de instalare: Montat pe perete <400A; Montat pe podea => 630A
- Usa: Usa articulata este inchisa cu blocare dubla.
- Tip protectie: IP43
- Placute acces: se pot scoate pe partea superioara si inferioara
- Conexiuni: partea inferioara
- Unitate motor
- Placute acces: se pot scoate pe partea superioara si inferioara
- Conexiuni: partea inferioara
- Unitate motor
- Indicatorul de pozitie a comutatorului
- Selector de acoperire automata / manuala
- Carcasa pentru manerul manual
- Mecanism de blocare
- Doua intrerupatoare a sarcinii
- 4 Poli
- Bobine duble auto-alimentate
- Tensiune (bobine): 208 / 277VAC (Toleranta +/- 20% 166 / 333VAC)
- Frecventa 50 si 60 Hz
- Interfata ATyS D10, fixata pe usa pentru indicarea starii: Doua lumini pentru a indica prezenta tensiunii retelei si a generatorului diesel; Două lumini pentru comutator pozitie; Modul functional (auto / manual) si protectia IP65.
- Conform cu IEC 60947-3, EN 61439-6-1 si GB 14048-11



OPTIONALE LTS DISPONIBILE LA CERERE:

- **ESB** - buton de oprire de urgență (instalat pe panoul frontal)
- **APP** - Protecție suplimentară IPXXB (plexiglas intern)