

GRW455V



Power Rating

| | | |
|-------------------------------|------------|------------|
| Emergency Standby Power ESP | kVA | 457.3 |
| Emergency Standby Power ESP | kW | 365.8 |
| Prime power PRP | kVA | 416.2 |
| Prime power PRP | kW | 333.0 |
| Frequency | Hz | 50 |
| Voltage | V | 400/230 |
| Phases | № | 3 |
| Power factor | cos ϕ | 0.8 |
| Max current | A | 660 |
| Nominal current | A | 601 |
| Fuel | | Diesel |
| [50Hz] Exhaust emission level | | Stage IIIA |
| VERSION SWITCHABLE [50/60Hz] | | YES |



Ratings definition (ISO-8528)

ESP - Emergency Standby Power:

It is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP.

PRP - Prime Power:

It is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 h of operation shall not exceed 70 % of the prime power.

G2 class load acceptance in accordance with ISO 8528-5:2013 Higher performance classes check upon request.

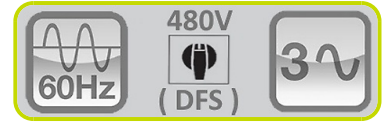
Generators are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC) – If applicable
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC) – If applicable
- EN 12100, EN 13857, EN 60204

Company with quality certification ISO 9001

Power supply 60Hz 480V Three Phase (with supplement DFS)

| | | |
|-----------------------------|------------|---------|
| Frequency | Hz | 60 |
| Voltage | V | 480/277 |
| Phases | Nº | 3 |
| Power factor | cos ϕ | 0.8 |
| Emergency Standby Power ESP | kVA | 441.3 |
| Emergency Standby Power ESP | kW | 353.0 |
| Prime power PRP | kVA | 403.8 |
| Prime power PRP | kW | 323.0 |
| Max current | A | 531 |
| Nominal current | A | 486 |



Engine specifications

| | | |
|--|-----------------|-------|
| Engine Brand | Volvo | |
| Model | TAD1355GE | |
| Engine cooling system | Water | |
| Nr. of cylinder and disposition | 6 in line | |
| Displacement | cm ³ | 12780 |
| Aspiration | Turbocharged | |
| Speed governor | Electronic | |
| Oil capacity | l | 36 |
| Lube oil consumption PRP (max) | % | 0.1 |
| Coolant capacity | l | 24 |
| Electric circuit | V | 24 |
| Fuel | Diesel | |
| VERSION SWITCHABLE [50/60Hz] | YES | |
| ENGINE DATA | Hz | 50 |
| [50Hz] Operating Speed-Nominal | rpm | 1500 |
| [50Hz] Exhaust emission level | Stage IIIA | |
| [50Hz] Specific fuel consumption 75% PRP | g/kWh | 205 |
| [50Hz] Specific fuel consumption 100% PRP | g/kWh | 192 |
| ENGINE DATA | Hz | 60 |
| [60Hz] Operating Speed-Nominal | rpm | 1800 |
| [60Hz] Exhaust emission optimized for EPA tier (EPA) | Tier 3 | |
| [60Hz] Specific fuel consumption 75% PRP | g/kWh | 208 |
| [60Hz] Specific fuel consumption 100% PRP | g/kWh | 199 |



Alternator Specifications

| | | |
|---------------------------|-------------|-----|
| Alternator | LEROY SOMER | |
| Model | LSA 47.2 S5 | |
| Type | Brushless | |
| Class | H | |
| IP protection | 23 | |
| Poles | 4 | |
| Winding leads | 12 | |
| Voltage regulation system | Electronic | |
| Voltage tolerance | % | 0.5 |



Installation data

| | | |
|------------------------------------|---------------------|--------|
| [50Hz] Cooling air | m ³ /min | 503.00 |
| [50Hz] Exhaust gas flow PRP | m ³ /min | 58 |
| [50Hz] Exhaust gas temperature ESP | °C | 501 |
| [60Hz] Cooling air | m ³ /min | 554.00 |
| [60Hz] Exhaust gas flow PRP | m ³ /min | 61 |
| [60Hz] Exhaust gas temperature ESP | °C | 502 |



Genset Equipment

CANOPY

Canopy painted made up of modular panels with 1000h+ tested salt spray resistant zinc 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 bundled, 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.

SINGLE LIFTING POINT

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

MANUAL BATTERY SWITCH

Single pole battery switch inside the enclosure.

EARTH ROD

Earth stock with cable fixed inside the genset.

DOCS HOLDER

Box internal for documents, manuals and electrical drawings.

LUBE OIL DRAIN PUMP

Makes it easier to the engine oil change.

FUEL VALVE (6 WAY)

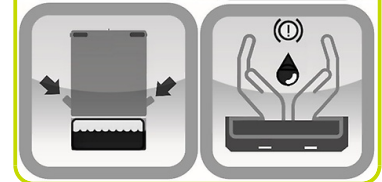
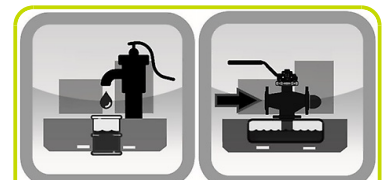
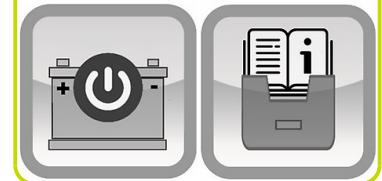
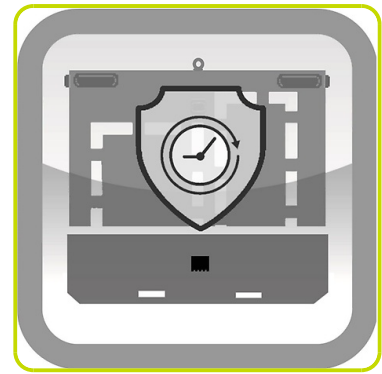
System designed for use the fuel from external tank and increase the autonomy of the generator.

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 Tank - Autonomy

| | | |
|---------------------------------------|-----|----------|
| Fuel tank location | | Internal |
| Fuel tank material | | Metal |
| Fuel tank capacity | l | 1180 |
| [50Hz 400V] Fuel consumption 75% PRP | l/h | 67.98 |
| [50Hz 400V] Running time 75% PRP | h | 17.36 |
| [50Hz 400V] Fuel consumption 100% PRP | l/h | 84.35 |
| [50Hz 400V] Running time 100% PRP | h | 13.99 |
| [60Hz 480V] Fuel consumption 75% PRP | l/h | 69.55 |
| [60Hz 480V] Running time 75% PRP | h | 16.97 |
| [60Hz 480V] Fuel consumption 100% PRP | l/h | 87.18 |
| [60Hz 480V] Running time 100% PRP | h | 13.54 |



Control panel - Options Available:

| | |
|-------------------------|-----|
| AUTOMATIC CONTROL PANEL | ACP |
| MODULAR PARALLEL PANEL | MPP |



ACP - AUTOMATIC CONTROL PANEL

CONTROL SECTION:

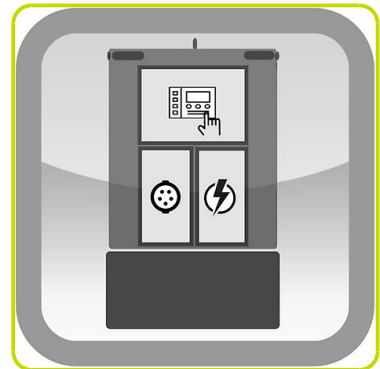
- Auto Mains Failure (AMF) function
- Gen-set controller for single genset operating in standby or prime power modes
- Full gen-set monitoring and protection
- Detailed event and performance log with time and date
- Emergency push button
- Extra Instrumentation (analogue): Fuel level meter; Mechanical hour counter
- Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)

SOCKET SECTION:

- Two wires facility for remote start/stop
- Plug for auxiliary power supply
- Multipin connector for LTS
- Socket Kit: Equipment and configurations available as a supplement.

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.



MPP - MODULAR PARALLEL PANEL

CONTROL SECTION:

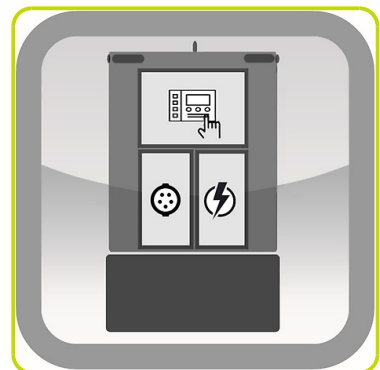
- Modular parallel panel allows the genset to work in parallel (up to 32 gen-sets)
- Easy switching between parallel to mains or multiple genset applications
- Full gen-set monitoring and protection
- Detailed event and performance log with time and date
- Colour display 7" TFT with 800x480 px resolution
- Wide range of communication and connection capabilities available
- Emergency push button
- Extra Instrumentation (analogue): Fuel level meter; Mechanical hour counter
- Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)

SOCKET SECTION:

- Multi-pin connectors for parallel running.
- Two wires facility for remote start/stop.
- Plug for auxiliary power supply.
- Socket Kit: Equipment and configurations available as a supplement.

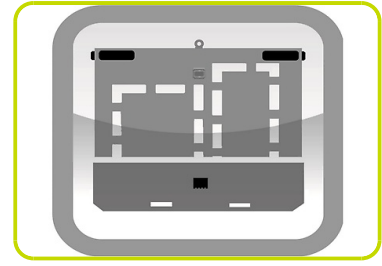
POWER SECTION

- 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.



CANOPY VERSION

- Weatherproof Enclosure made of galvanized sheet metal allows to protect genset from corrosion and aggressive condition.
- Soundproofing by means washable and fireproof soundproofing material, to get noise attenuation. Exhaust silencer integrated in the genset shape with flat rain flap.
- Plastic Bumper (protections for the transport and stocking).



Dimensional data Canopy Version

| | | |
|--------|--------|------|
| Length | (L) mm | 4165 |
| Width | (W) mm | 1500 |
| Height | (H) mm | 2130 |

| | | |
|--------|----|------|
| Weight | Kg | 4829 |
|--------|----|------|

Noise Level 50Hz

| | | |
|------------------------------|-------|----|
| Guaranteed noise level (LWA) | dB(A) | 98 |
| Noise pressure level @ 1 m | dB(A) | 79 |
| Noise pressure level @ 7 m | dB(A) | 68 |



Supplements:

To be ordered with equipment (when necessary) :

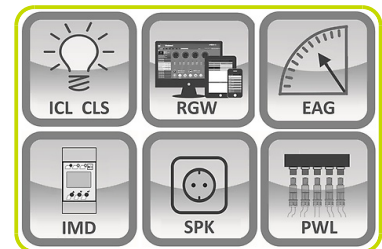
GENSET CONTROL EQUIPMENT

| | | |
|---------------------------------|----------------------------------|-----|
| Dual Frequency Switch (50/60Hz) | Y400/230V 50Hz Y480/277V 60Hz | DFS |
|---------------------------------|----------------------------------|-----|



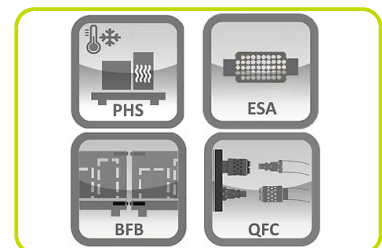
ELECTRICAL OPTION

| | |
|---|------|
| Internal Canopy Lighting system with manual switch | ICL |
| Control section internal lighting (automatic with door switch) | CLS |
| DSE2157 Output (8) Expansion Module | ARM7 |
| DSE890 MKII DSEWebNet ® Gateway 4G (GSM/Ethernet) | RGW2 |
| DSE855 USB to Ethernet Communications Device | RGW9 |
| Engine analogue gauges (water temp / oil pressure) | EAG |
| Insulation Monitoring Device (Replace standard differential protection) | IMD |
| Socket kit | SPK |
| Power lock | PWL |
| Bus bar arrangement | ERDF |



MECHANICAL OPTION

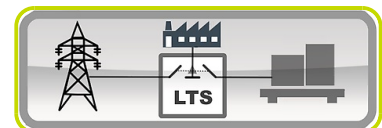
| | |
|--|------|
| Pre-heating system | PHS |
| Water Separator Filter | WSP |
| Hot Parts Protections | HPP |
| Exhaust Spark Arrestor ATEX certified | ESA |
| Air Shut-Off Valve | ASV |
| Baseframe Bumpers | BFB |
| Quick Fit Fuel connectors | QFC |
| Quick Fit Connectors inside the canopy | QFC1 |



Accessories

Items available as accessory equipment :

| | |
|--|-----|
| Load Transfer Switch [Accessories for ACP Panel] | LTS |
|--|-----|



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