



REF. GDS **24.01**

# MODEL | GSW310-590 Volvo

- VOLVO Diesel engine.
- MeccAlte alternator.
- Water cooling system with radiator.
- Internal residential muffler.
- Double lifting points frame structure.
- Complete with engine and battery liquids.
- Manual pump oil draining pipe.
- Leak proof tray facilities.
- Weather proof version.




| MODEL                           |                              | GSW310V    | GSW330V               | GSW415V               | GSW450V               | GSW510V               | GSW560V               | GSW590V               |                       |
|---------------------------------|------------------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| CODE                            |                              | SC281TWA   | SC331TWA              | SC371TWA              | SC401TWA              | SC451TWA              | SC501TWA              | SC571TWA              |                       |
| TECHNICAL FEATURES              | PRIME POWER PRP              | kVA (kW)   | 283 (226)             | 315 (252)             | 378 (302)             | 411 (329)             | 461 (369)             | 505 (404)             | 571 (457)             |
|                                 | EMERGENCY POWER LTP          | kVA (kW)   | 311 (249)             | 330 (264)             | 414 (331)             | 437 (350)             | 507 (406)             | 546 (437)             | 601 (481)             |
|                                 | Voltage                      | Volt       | 400/231               | 400/231               | 400/231               | 400/231               | 400/231               | 400/231               | 400/231               |
|                                 | Frequency                    | Hz         | 50                    | 50                    | 50                    | 50                    | 50                    | 50                    | 50                    |
|                                 | Power factor                 | Cos φ      | 0,8                   | 0,8                   | 0,8                   | 0,8                   | 0,8                   | 0,8                   | 0,8                   |
|                                 | Fuel capacity                | Litres     | 636                   | 636                   | 636                   | 636                   | 636                   | 636                   | 636                   |
|                                 | Autonomy (100% load PRP)     | h          | 10,1                  | 8,9                   | 7,6                   | 7,0                   | 6,4                   | 5,7                   | 5,0                   |
|                                 | Acoustic power               | LWA        | 97                    | 97                    | 97                    | 97                    | 98                    | TBA                   | TBA                   |
|                                 | Acoustic pressure at 7m      | dB(A)      | 72                    | 72                    | 72                    | 72                    | 73                    | #IVALOR!              | #IVALOR!              |
|                                 | Dimensions (LxWxH)           | mm         | 3.950 x 1.460 x 2.095 | 3.950 x 1.460 x 2.095 | 3.950 x 1.460 x 2.095 | 3.950 x 1.460 x 2.095 | 4.400 x 1.560 x 2.250 | 4.400 x 1.560 x 2.250 | 4.400 x 1.560 x 2.250 |
|                                 | Weight (dry)                 | kg         | 3.200                 | 3.200                 | 3.675                 | 3.675                 | 4.500                 | 4.500                 | 4.890                 |
|                                 | DIESEL ENGINE                | VOLVO      | TAD940GE              | TAD941GE              | TAD1241GE             | TAD1242GE             | TAD1640GE             | TAD1641GE             | TAD1642GE             |
|                                 | Cooling system               | Type       | Water                 | Water                 | Water                 | Water                 | Water                 | Water                 | Water                 |
|                                 | Speed                        | r.p.m.     | 1.500                 | 1.500                 | 1.500                 | 1.500                 | 1.500                 | 1.500                 | 1.500                 |
|                                 | Displacement                 | c.c.       | 9.360                 | 9.360                 | 12.130                | 12.130                | 16.120                | 16.120                | 16.120                |
|                                 | Cylinders and disposition    | n° disp.   | 6 L                   | 6 L                   | 6 L                   | 6 L                   | 6 L                   | 6 L                   | 6 L                   |
|                                 | Aspiration                   | Type       | Turbo - Intercooler   | Turbo - Intercooler   | Turbo - Intercooler   | Turbo - Intercooler   | Turbo - Intercooler   | Turbo - Intercooler   | Turbo - Intercooler   |
|                                 | Engine power PRP             | kWm        | 241                   | 279                   | 323                   | 352                   | 393                   | 430                   | 485                   |
|                                 | Fuel consumption (100% load) | l/h        | 57,7                  | 65,0                  | 76,0                  | 83,0                  | 91,0                  | 101,0                 | 116,0                 |
|                                 | Specific consumption PRP     | g/kWh      | 201                   | 200                   | 198                   | 198                   | 198                   | 196                   | 197                   |
| Engine governor (standard)      | Type                         | Electronic | Electronic            | Electronic            | Electronic            | Electronic            | Electronic            | Electronic            |                       |
| ALTERNATOR                      | MECCALTE                     | ECO38 2L   | ECO38 2L              | ECO40 1S              | ECO40 1S              | ECO40 3S              | ECO40 3S              | ECO40 1L              |                       |
| Insulation                      | Class                        | H          | H                     | H                     | H                     | H                     | H                     | H                     |                       |
| Mechanical degree of protection | Type                         | IP21       | IP21                  | IP21                  | IP21                  | IP21                  | IP21                  | IP21                  |                       |
| Voltage regulation              | Type                         | Electronic | Electronic            | Electronic            | Electronic            | Electronic            | Electronic            | Electronic            |                       |

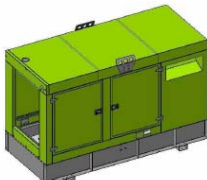
TECHNICAL CHARACTERISTICS NOT IMPERATIVE RESERVATION OF MODIFICATIONS FOR INNOVATION OF THE PRODUCT

| MANUAL / AUTOMATIC CONTROL PANEL (ACP) |  | GSW310V  | GSW330V | GSW415V | GSW450V | GSW510V | GSW560V | GSW590V |
|--|--|--|---------|---------|---------|---------|---------|---------|
| MANUAL / AUTOMATIC CONTROL PANEL (ACP) |  | <ul style="list-style-type: none"> <li>• Generating set voltage (3 phases).</li> <li>• Mains voltage.</li> <li>• Generating set frequency.</li> <li>• Generating set current (3 phases).</li> <li>• Battery voltage.</li> <li>• Power (kVA - kW - kVar).</li> <li>• Power factor Cos φ.</li> <li>• Hours-counter.</li> <li>• Engine speed r.p.m.</li> <li>• Fuel level (%).</li> <li>• Oil pressure.</li> <li>• Engine temperature.</li> </ul> |         |         |         |         |         |         |
|  |  | <ul style="list-style-type: none"> <li>• Selector switch with six positions: Automatic test - Automatic starting - Engine locked - Mains contactor forced - Manual starting - Genset contactor forced.</li> <li>• Push-buttons: start/stop, up/down selection, reset.</li> <li>• Emergency stop button.</li> <li>• DC system disconnection key.</li> <li>• Acoustic alarm.</li> <li>• Automatic battery charger.</li> </ul>                    |         |         |         |         |         |         |
|  |  | <ul style="list-style-type: none"> <li>• Engine protections: low fuel level, low oil pressure, high engine temperature.</li> <li>• Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage, battery charger failure.</li> <li>• Circuit breaker protection: III poles.</li> <li>• Differential protection.</li> </ul>   |         |         |         |         |         |         |
|  |  | <ul style="list-style-type: none"> <li>• Engine protections: low fuel level, low oil pressure, high engine temperature, low coolant level.</li> <li>• Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.</li> </ul>   |         |         |         |         |         |         |
|  |  | <ul style="list-style-type: none"> <li>• Plinth row for connection from ACP to LTS panel.</li> <li>• Power cables connection to terminals board (external).</li> </ul>   |         |         |         |         |         |         |

TECHNICAL CHARACTERISTICS NOT IMPREGIATIVE RESERVATION OF MODIFICATIONS FOR INNOVATION OF THE PRODUCT

| AUTOMATIC CONTROL PANEL (AMF)  |  | GSW310V  | GSW330V         | GSW415V         | GSW450V         | GSW510V         | GSW560V           | GSW590V           |
|--|--|--|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|
|  <p><b>AUTOMATIC CONTROL PANEL (AMF)</b></p> <p>Automatic control panel for automatic starting by Mains failure. Delivered loose from the genset, and complete with digital control unit ACO1 for monitoring, control and protection of the generating set.</p> | <p><b>Digital instrumentation</b> through AC-01 control unit (CAN BUS).</p> <ul style="list-style-type: none"> <li>• Generating set voltage (3 phases).</li> <li>• Mains voltage.</li> <li>• Generating set frequency.</li> <li>• Generating set current (3 phases).</li> <li>• Battery voltage.</li> <li>• Power (kVA - kW - kVAr).</li> <li>• Power factor Cos φ.</li> <li>• Hours-counter.</li> <li>• Engine speed r.p.m.</li> <li>• Fuel level (%).</li> <li>• Oil pressure.</li> <li>• Engine temperature.</li> </ul> |  |                 |                 |                 |                 |                   |                   |
|  | <p><b>Commands and others</b></p> <ul style="list-style-type: none"> <li>• Selector switch with six positions: Automatic test - Automatic starting - Engine locked - Mains contactor forced - Manual starting - Genset contactor forced.</li> <li>• Push-buttons: start/stop, up/down selection, reset.</li> <li>• Emergency stop button.</li> <li>• Remote starting availability.</li> <li>• Acoustic alarm.</li> <li>• Automatic battery charger.</li> </ul>   |  |                 |                 |                 |                 |                   |                   |
|  | <p><b>Change over contactors Mains/Genset</b></p>  | IV poles - 500A  | IV poles - 500A | IV poles - 700A | IV poles - 700A | IV poles - 700A | IV poles - 1.000A | IV poles - 1.000A |
|  | <p><b>Protections with alarm</b></p>   | <ul style="list-style-type: none"> <li>• Engine protections: low fuel level, low oil pressure, high engine temperature.</li> <li>• Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage, battery charger failure.</li> </ul> |                 |                 |                 |                 |                   |                   |
|  | <p><b>Protections with shutdown</b></p>  | <ul style="list-style-type: none"> <li>• Engine protections: low fuel level, low oil pressure, high engine temperature, low coolant level.</li> <li>• Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.</li> </ul>                       |                 |                 |                 |                 |                   |                   |
|  | <p><b>Output</b></p>   | <ul style="list-style-type: none"> <li>• Plinth row for connection from pre-wired panel (mounted on the genset) to AMF panel.</li> <li>• Power cables connected to terminals board (internal).</li> </ul>  |                 |                 |                 |                 |                   |                   |


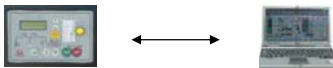
**GENSET SUPPLEMENTS (ONLY AVAILABLE WHEN ORDERED)**

|                                  |  |   |
|----------------------------------|--|---|
| <p><b>GENSET SUPPLEMENTS</b></p> | <p>● <b>GPA: ALTERNATOR IP23 PROTECTION.</b></p>   |   |
|                                  | <p>● <b>AFP: AUTOMATIC FUEL TRANSFER PUMP.</b></p>   |   |
|                                  | <p>● <b>DCC: DIFFERENT CANOPY COLOUR.</b></p>  |   |
|                                  | <p>● <b>FBD: FULLY BUNDED BASEFRAME</b></p>  |   |
|                                  | <p>● <b>PHS: COOLANT PREHEATING SYSTEM.</b></p>  |   |
|                                  | <p>● <b>WPC: WEATHER PROOF VERSION (*).</b> Economy canopy version useful in applications where is not necessary to reduce the noise level, but is necessary a weather protection. It includes only the sheet metal canopy, without the soundproof panels and the expulsion air module. Industrial silencer on radiator side.</p> <p>Dimensions (mm). Lifting points and exhaust silencer not included:<br/> <b>GSW310/330/415/450V:</b> 3300 x 1460 x 2016 - <b>GSW510/560/590V:</b> 3500 x 1560 x 2250</p> <p>(*). This version does not comply with 2000/14EC regulation.</p> |  |

**CONTROL PANEL SUPPLEMENTS (ONLY AVAILABLE WHEN ORDERED)**

|  |   |                                |
|--|---|--------------------------------|
| <p><b>CONTROL PANEL SUPPLEMENTS</b></p>                                  | <p>● <b>TIF: IV POLES CIRCUIT BREAKER INSTEAD OF III POLES.</b></p> |                                |
|  | <p>● <b>SKB: SOCKETS KIT B WITH 5 SOCKETS.</b></p>                  | <p>1 x 400V/63A 3P+N+T CE.</p> |
|  |   | <p>1 x 400V/32A 3P+N+T CE.</p> |
|  |   | <p>1 x 400V/16A 3P+N+T CE.</p> |
|  |   | <p>1 x 230V/16A 2P+T CE.</p>   |
| <p>● <b>RSS: REMOTE START &amp; STOP PRE-ARRANGED FREE CONTACTS.</b></p> | <p>1 x 230V/16A Schuko.</p>   |                                |

**ACCESSORIES**

| ACCESSORIES   |  | GSW310V         | GSW330V         | GSW415V         | GSW450V         | GSW510V         | GSW560V           | GSW590V           |
|---|--|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|
|  <p>Load transfer switch panel built in a metal cabinet and supplied loose from the genset.</p>  | <p><b>LOAD TRANSFER SWITCH PANEL.</b></p>  |                 |                 |                 |                 |                 |                   |                   |
|   | <p><b>Change over contactors</b></p>   | IV poles - 500A | IV poles - 500A | IV poles - 700A | IV poles - 700A | IV poles - 700A | IV poles - 1.000A | IV poles - 1.000A |
|   | <p><b>Connections</b></p> <ul style="list-style-type: none"> <li>• Plinth row for connection from ACP to LTS panel.</li> <li>• Terminals board for power cables connection (Genset-Mains-Load).</li> </ul>   |                 |                 |                 |                 |                 |                   |                   |
|   | <p><b>Protections</b></p> <ul style="list-style-type: none"> <li>• Contactors mechanically and electrically interlocked.</li> <li>• Emergency stop button.</li> </ul>  |                 |                 |                 |                 |                 |                   |                   |
|   | <p>Automatic control panel + LTS panel measures the Mains voltage and starts automatically the genset within few seconds in case of Mains failure. It transfers immediately the load again to the genset when the Mains voltage returns within the rated values.</p> |                 |                 |                 |                 |                 |                   |                   |
| <p>● <b>RCG: REMOTE CONTROL BY GSM KIT</b> (kit for genset management and control by remote PC; communication available by means of RS232 directly to PC or through GSM modem). Available only on the automatic versions.</p> |    |                 |                 |                 |                 |                 |                   |                   |