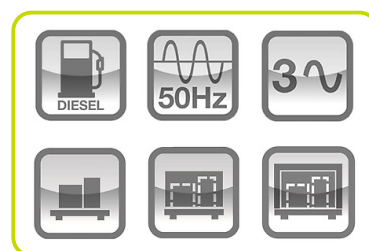


# GDW780V/FS2



## Power Rating

|                             |            |         |
|-----------------------------|------------|---------|
| Emergency Standby Power ESP | kVA        | 777.4   |
| Emergency Standby Power ESP | kW         | 621.9   |
| Prime power PRP             | kVA        | 707.3   |
| Prime power PRP             | kW         | 565.8   |
| Voltage                     | V          | 400/230 |
| Frequency                   | Hz         | 50      |
| Power factor                | cos $\phi$ | 0.8     |
| Phases                      |            | 3       |
| Fuel                        |            | Diesel  |



## 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.

**Gensets 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 2016/1628 EC) – If applicable
- EN 12100, EN 13857, EN 60204

**Company with quality certification ISO 9001**



### Engine specifications

|                                   |                     |                          |
|-----------------------------------|---------------------|--------------------------|
| Engine brand                      | Volvo               |                          |
| Model                             | TWD1645GE           |                          |
| Operation Speed Nominal           | rpm                 | 1500                     |
| Engine cooling system             | Water               |                          |
| Exhaust emission level            | Stage II            |                          |
| Nr. of cylinder and disposition   | 6 in line           |                          |
| Displacement                      | cm <sup>3</sup>     | 16120                    |
| Aspiration                        | Type                | Turbocharged intercooled |
| Speed governor                    | Electronic          |                          |
| Gross Engine Power ESP            | kWm                 | 675                      |
| Gross Engine Power PRP            | kWm                 | 616                      |
| Fan Power                         | kWm                 | 21                       |
| Fan Air flow                      | m <sup>3</sup> /min | 684                      |
| Total Oil capacity                | l                   | 48                       |
| Total Coolant capacity            | l                   | 75                       |
| Fuel                              | Diesel              |                          |
| Specific Fuel consumption ESP     | g/kWh               | 193                      |
| Specific Fuel consumption 75% PRP | g/kWh               | 196                      |
| Starting system                   | Electric            |                          |
| Electric circuit                  | V                   | 24                       |

### Alternator specifications

|                                |             |               |
|--------------------------------|-------------|---------------|
| Alternator brand               | Mecc Alte   |               |
| Model                          | ECO40 VL4 C |               |
| Winding                        | Standard    |               |
| Winding Connections            | Type        | Parallel Star |
| Frequency                      | Hz          | 50            |
| Voltage                        | V           | 400           |
| Phases                         | 3           |               |
| Power factor                   | cos $\phi$  | 0.8           |
| Stand-by rating 27°C           | kVA         | 825           |
| Continuous Nominal Rating 40°C | kVA         | 750           |
| Efficiency @ 100% of load      | %           | 95.1          |
| Type                           | Brushless   |               |
| Poles                          | 4           |               |
| Voltage tolerance              | %           | 0.5           |
| Class                          | H           |               |
| IP protection                  | 23          |               |

### Installation data

|                           |                     |        |
|---------------------------|---------------------|--------|
| Cooling air               | m <sup>3</sup> /min | 779    |
| Exhaust gas flow PRP      | m <sup>3</sup> /min | 98     |
| Exhaust gas temperature   | °C                  | 501    |
| Fuel consumption 75% PRP  | l/h                 | 108.80 |
| Fuel consumption 100% PRP | l/h                 | 140.06 |



## Fuel Tank - Options Available:

To be ordered with equipment (when necessary)

### AUTONOMY

|                             |   |       |
|-----------------------------|---|-------|
| 8PFT Running time 75% PRP   | h | 5.97  |
| MFT-XS Running time 75% PRP | h | 4.60  |
| MFT-S Running time 75% PRP  | h | 9.19  |
| MFT-M Running time 75% PRP  | h | 21.14 |
| MFT-L Running time 75% PRP  | h | 41.36 |

|                         |      |          |
|-------------------------|------|----------|
| PFT Plastic Fuel Tank   | Type | 8        |
| 8PFT Fuel tank capacity | l    | 650      |
| 8PFT Fuel tank location |      | Internal |

|                           |      |          |
|---------------------------|------|----------|
| MFT Metal Fuel Tank       | Type | XS       |
| MFT-XS Fuel tank capacity | l    | 500      |
| MFT-XS Fuel tank location |      | Internal |

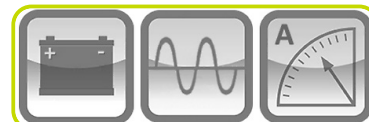
|                          |      |          |
|--------------------------|------|----------|
| MFT Metal Fuel Tank      | Type | S        |
| MFT-S Fuel tank capacity | l    | 1000     |
| MFT-S Fuel tank location |      | Internal |

|                                             |      |               |
|---------------------------------------------|------|---------------|
| MFT Metal Fuel Tank                         | Type | M             |
| MFT-M Fuel tank capacity                    | l    | 2300          |
| MFT-M Fuel tank location                    |      | With sub-base |
| MFT-M EXTRA Length (only for open versions) | mm   | 836           |
| MFT-M EXTRA Height                          | mm   | 422           |
| MFT-M EXTRA Weight                          | kg   | 974           |

|                                             |      |               |
|---------------------------------------------|------|---------------|
| MFT Metal Fuel Tank                         | Type | L             |
| MFT-L Fuel tank capacity                    | l    | 4500          |
| MFT-L Fuel tank location                    |      | With sub-base |
| MFT-L EXTRA Length (only for open versions) | mm   | 836           |
| MFT-L EXTRA Height                          | mm   | 761           |
| MFT-L EXTRA Weight                          | kg   | 1390          |

## Electrical Data

|                 |            |         |
|-----------------|------------|---------|
| Battery Voltage | V          | 24      |
| Genset Voltage  | V          | 400/230 |
| Frequency       | Hz         | 50      |
| Phases          |            | 3       |
| Power Factor    | cos $\phi$ | 0.8     |
| Max current     | A          | 1122    |
| Nominal current | A          | 1021    |
| Circuit breaker | A          | 1250    |



### Control panel - Options Available:

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



### ACP - AUTOMATIC CONTROL PANEL

- 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
- Wide range of remote control modules available as option
- Wide range of I/O expansion modules available as option

Power supply by circuit breaker and/or terminal bus bar



### MPP - MODULAR PARALLEL PANEL

- 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
- Wide range of communication and connection capabilities available

Power supply by circuit breaker and/or terminal bus bar



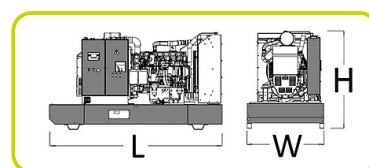
## OPEN VERSION

- Baseframe made of welded steel profile
- Anti-vibration mountings properly sized
- Screwed support legs
- Hole for handling by crane
- Moving and rotating parts protection against accidental contact
- Grounding point to connect all metal parts to ground



### Dimensional data Open Version

|        |        |      |
|--------|--------|------|
| Length | (L) mm | 3864 |
| Width  | (W) mm | 1745 |
| Height | (H) mm | 2317 |



|        |    |      |
|--------|----|------|
| Weight | kg | 4909 |
|--------|----|------|

### OPTIONS AVAILABLE (ONLY FOR OPEN VERSION)

|                            |     |
|----------------------------|-----|
| Industrial Exhaust System  | IES |
| Residential Exhaust System | RES |
| Critical Exhaust System    | CES |



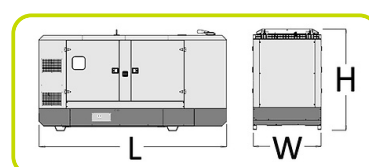
## CANOPY VERSION

- Weatherproof Enclosure made of galvanized sheet metal allows to protect genset from corrosion and aggressive condition
- Soundproofed enclosure tanks to high quality soundproof material and residential silencer, allows to have low noise emission level
- Big large lateral doors allows an easy service and maintenance operation
- Doors equipped with key lockable handles
- Baseframe made of welded steel profile
- Anti-vibration mountings properly sized
- Screwed support legs
- Hole for handling by crane
- Moving and rotating parts protection against accidental contact
- Grounding point to connect all metal parts to ground



### Dimensional data Canopy Version

|        |        |      |
|--------|--------|------|
| Length | (L) mm | 4700 |
| Width  | (W) mm | 1745 |
| Height | (H) mm | 2533 |



|        |    |      |
|--------|----|------|
| Weight | kg | 6034 |
|--------|----|------|

### Noise Level Canopy Version

|                              |       |     |
|------------------------------|-------|-----|
| Guaranteed noise level (LWA) | dB(A) | 105 |
| Noise pressure level @ 1 m   | dB(A) | 85  |
| Noise pressure level @ 7 m   | dB(A) | 75  |



## CANOPY EXTRA SILENT VERSION

- Extra silent Enclosure with low noise emission, suitable for installation near city centre and in any place where severe noise emission restriction are present
- Extra Silent Enclosure guarantee very low noise emission thanks to an additional soundproofing modules, high quality soundproof material and residential silencer installed inside the enclosure
- Weatherproof Enclosure made of galvanized sheet metal allows to protect genset from corrosion and aggressive condition
- Big large lateral doors allows an easy service and maintenance operation
- Doors equipped with key lockable handles
- Baseframe made of welded steel profile
- Anti-vibration mountings properly sized
- Screwed support legs
- Hole in the baseframe for handling by crane
- Moving and rotating parts protection against accidental contact
- Grounding point to connect all metal parts to ground



### OPTIONS AVAILABLE (ONLY FOR CANOPY VERSIONS)

|                    |     |
|--------------------|-----|
| Roof lifting Point | RLP |
|--------------------|-----|



### OPTIONAL FEATURES

|                                               |     |
|-----------------------------------------------|-----|
| To be ordered with equipment (when necessary) | :   |
| Pre-Heating System                            | PHS |
| Heavy-Duty Air Filter                         | HDF |
| Water Separator Filter                        | WSP |
| Exhaust Spark Arrestor                        | ESA |
| Hot Parts Protection                          | HPP |
| Alternator Winding Total Protection           | WTP |
| Alternator anti-condensation heater           | ACH |
| Galvanized skid base with fork lift point     | GSB |

