

GDW820V/ST2



Power Rating

Emergency Standby Power ESP	kVA	822.3
Emergency Standby Power ESP	kW	657.8
Prime power PRP	kVA	747.4
Prime power PRP	kW	597.9
Voltage	V	240/139
Frequency	Hz	60
Power factor	cos ϕ	0.8
Phases		3
Fuel		Diesel



Ratings definition (ISO-8528-1)

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: Higher performance classes check upon request.

Gensets are compliant with EC mark which includes the following directives and standards and subsequent modification and integration:

- 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
- ISO 8528 as applicable
- 2011/65 ROHS
- EN 12100, EN 13857, EN 60204 as referred into the ISO8528-13

Company with quality certification ISO 9001

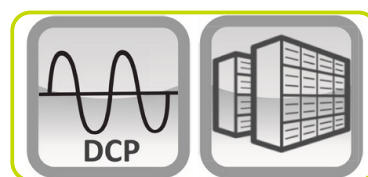


Data Centre Power (available with DCP optional)



Power Rating DCP

Data Center Power DCP	kVA	747.4
Data Center Power DCP	kW	597.9
Voltage	V	240/139
Frequency	Hz	60
Power factor	$\cos \phi$	0.8
Phase		3
Fuel		Diesel



Engine specifications

Engine brand	Volvo	
Model	TWD1645GE	
Operation Speed Nominal	rpm	1800
Engine cooling system	Water	
Exhaust emission level	Tier 2	
Nr. of cylinder and disposition	6 in line	
Displacement	cm ³	16120
Aspiration	Type	Turbocharged intercooled
Speed governor	Electronic	
Gross Engine Power ESP	kWm	715
Gross Engine Power PRP	kWm	653
Gross Data Center Power DCP	kWm	653
Fan Power	kWm	34
Fan Air flow	m ³ /min	804
Total Oil capacity	l	48
Total Coolant capacity	l	75
Fuel	Diesel	
Specific Fuel consumption 100% ESP	g/kWh	194
Specific Fuel consumption 75% PRP	g/kWh	198
Starting system	Electric	
Electric circuit	V	24

Alternator specifications

Alternator brand	Mecc Alte	
Model	ECO40 VL4 C	
Winding	Dedicated	
Winding Connections	Type	Parallel Star
Frequency	Hz	60
Voltage	V	240/139
Phases	3	
Power factor	cos ϕ	0.8
Stand-by rating 27°C	kVA	970
Continuous Nominal Rating 40°C	kVA	900
Efficiency @ 100% of load	%	96.6
Type	Brushless	
Poles	4	
Voltage tolerance	%	0.5
Class	H	
IP protection	23	

Installation data

Total air flow	m ³ /min	913
Exhaust gas flow PRP	m ³ /min	107
Exhaust gas temperature	°C	497
Fuel consumption 75% PRP	l/h	117.21
Fuel consumption 100% PRP	l/h	150.80



Fuel Tank - Options Available:

To be ordered with equipment (when necessary)

AUTONOMY

8PFT Running time 75% PRP	h	5.55
MFT-XS Running time 75% PRP	h	4.27
MFT-S Running time 75% PRP	h	8.53
MFT-M Running time 75% PRP	h	19.62
MFT-L Running time 75% PRP	h	38.39

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

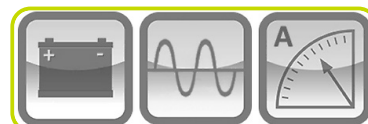
MFT Metal Fuel Tank	Type	S
MFT-S Fuel tank capacity	l	1000
MFT-S Fuel tank location		Internal

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 (for open/canopy versions)	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 (open/canopy versions)	mm	761
MFT-L EXTRA Weight	kg	1390

Electrical Data

Battery Voltage	V	24
Genset Voltage	V	240/139
Frequency	Hz	60
Phases		3
Power Factor	cos ϕ	0.8
Max current	A	1978
Nominal current	A	1798
Circuit breaker	A	2000



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



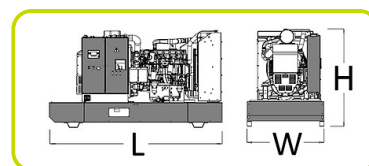
OPEN VERSION

- 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	3938
Width	(W) mm	1755
Height	(H) mm	2317



Weight	kg	4909
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OPTIONS AVAILABLE (ONLY FOR OPEN VERSION)

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



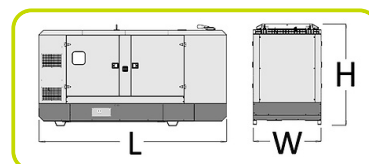
CANOPY VERSION

- 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

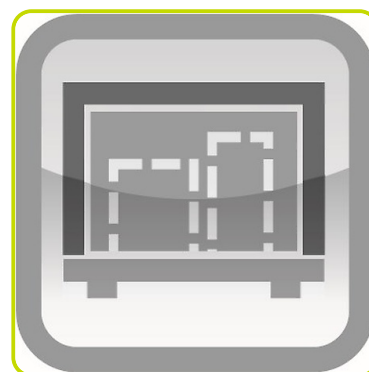
Length	(L) mm	4700
Width	(W) mm	1745
Height	(H) mm	2533



Weight	kg	6034
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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
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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

