

# **JABBOUR**





جبور باور شمم.

# Electric Packaged Generatorsets – Volvo Penta Powered









Watercooled, 400 V-0.8PF - 3 ph 50 Hz 1500 rpm 440 V-0.8PF - 3 ph 60 Hz 1800 rpm										
GENSET MODEL	STAND-BY POWER (kVA)		PRIME POWER (kVA)		ENGINE MODEL	ASP	DIMENSION (mm)			WEIGHT (kg)
	50Hz	60Hz	50 Hz	60 Hz			W	L	Н	
V85	93	96	84	87	TD520GE	TC	750	2200	1420	1220
V100	109	115	100	105	TAD520GE	TCA	750	2400	1420	1250
V130	142	147	130	133	TD720GE	TC	750	2400	1420	1440
V150	165	178	150	162	TAD720GE	TCA	900	2800	1500	1580
V180	200	228	180	207	TAD721GE	TCA	1000	2800	1700	1770
V200	227	253	206	229	TAD722GE	TCA	1000	2800	1700	1820
V200	229	262	208	238	TWD740GE	TCA	1000	3000	1580	2000
V250	275	265	250	241	TAD740GE	TCA	1000	3000	1580	2030
V275	305	316	277	287	TAD940GE	TCA	1000	3000	1750	2350
V325	360	380	328	345	TAD941GE	TCA	1000	3200	1750	2480
V325	362	384	329	349	TAD1240GE	TCA	1100	3500	1750	3000
V375	412	443	376	403	TAD1241GE	TCA	1100	3500	1750	3050
V400	440	504	400	458	TAD1242GE	TCA	1100	3500	1750	3120
V450	500	565	450	508	TAD1640GE	TCA	1200	3700	2000	3330
V500	550	656	500	579	TAD1631GE	TCA	1200	3700	2000	3570
V500	550	642	500	570	TAD1641GE	TCA	1200	3700	2000	3570
V575	633	694	573	631	TAD1642GE	TCA	1200	3700	2100	4300

Subject to our final approval. We reserve the right to improve and carry out necessary modifications without prior notice. Above table for indication only.

# SPECIFACTION OF STANDARD FEATURES OF GENERATORSETS

#### 1. OUTPUT RATINGS

Output ratings are listed in the above table. The genset is normally supplied connected for 380/415V, 3 Phase, 50Hz, 0.8PF, but alternative voltages/frequencies are available at request.

# 2. ENGINES

Volvo Penta, water-cooled, 4 stroke, diesel engine.

#### 2.1 Governor

Mechanical, compliant with BS5514, or Electronic depending on engine type and model.

#### 2.2 Electrical System

12 Volt up to V150, 24 Volt on all larger models. Oil pressure and water temperature switches are included.

#### 2.3 Cooling Radiator

Heavy duty capacity radiator with engine driven fan complete with protection guards.

# **Engine Filtration System**

Heavy duty dry type air filters (suitable for use in dusty conditions), fuel and lubricating oil filters with replaceable elements.

#### 2.4 Exhaust System

Heavy duty industrial silencer (Supplied loose).

#### 2.5 Electric System

12/24 volt system with battery charging alternator and starter motor. High capacity maintenance free lead acid starting batteries, battery rack mounted on base frame, and heavy duty interconnecting cables with terminations.

# 3. ALTERNATOR

Screen protected and drip-proof, self exciting, self regulating brushless alternator with fully interconnected damper windings and sealed for-life bearings.

#### 3.1 Insulation System

Class H insulation. All windings are impregnated in either a triple dip thermo-setting moisture, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin. Heavy coat of anti-tracking varnish for additional protection against moisture or condensation.

#### 3.2 Electrical Characteristics

Electrical design in accordance with BS5000 part99, IEC34-1, VDE030, UTE51100, NEMANG-122

# 3.3 Automatic Voltage Regulator

The sealed automatic voltage regulator maintains the voltage within the limits of +/-1% from no load to full load including cold to hot variations at any power factor between 0.8 lagging and unity. Normal adjustment is by means of a trimmer incorporated in the AVR.

# 3.4 Waveform Distortion, THF and TIF Factors

The total distortion of the voltage waveform with open circuit between phases or phase and neutral is in the order of 2. On a 3 phase balanced harmonic-free load the total distortion is in the order of 3.5%. Machines are designed to have a THF better than 2% and a TIF better than 50. A 2/3 pitch factor is standard on all stator windings.

#### 3.5 Radio Interference

Suppression is in line with the provisions of BS800 and VDE Class G and N

# 3.6 Motor Starting

An overload capacity equivalent to between 160% and 300% (depending on alternator frame size) of full load impedance at zero power factor can be sustained for 10 seconds.

# 4. MOUNTING ARRANGEMENT-SAFETY FEATURES

#### 4.1 Baseframe

The complete genset is mounted, as a whole, on a heavy duty fabricated and welded steel baseframe, with specially designed crane lifting devices.

# 4.2 Coupling

The engine and alternator are directly coupled by means of an SAE flange so that there is no possibility of misalignment after prolonged use. The engine flywheel is flexibly coupled to the alternator rotor and a full torsional analysis has been carried out to guarantee no harmful vibration will occur in the assembly.

#### 4.3 Anti-vibration Mountings

Anti –vibration pads are affixed between the engine /alternator feet and the baseframe.

NB: On some models, the antivibration mounts are supplied loose for installation between the baseframe and mounting surface

#### 4.4 Safety Guards

The fan, fan drive and battery charging alternator drive are fully guarded for personal protection.

# 5. FUEL SYSTEM

On major sets, the base frame includes a daily fuel tank (8 hrs approx.). The tank is supplied complete with contents indicator, fuel fill cap, breather fuel feed and return lines to engine and drain plug.

# 6. CONTROL SYSTEM

# 6.1 Keystart control Panel

Set mounted keystart panel equipped with:

#### a. Instruments

Voltmeter

Ammeter

Frequency Meter

Hours Run Meter

Coolant Temperature Gauge Oil Pressure Gauge

Battery Charger Ammeter

# b. Controls

Start/Stop Keyswitch Voltmeter Phase Sel Switch, 7pos Ammeter Phase Sel Switch, 4 pos

# c. Shutdown Protection

**Devices With Indicators for:** High Coolant Temperature

Low Oil Pressure

# 6.2 Circuit Breaker

3 pole miniature or molded case circuit breaker will be mounted on the set in a separate isolated sheet steel box with adequate access for incoming and outgoing cables.

#### 7. DOCUMENTATION

Standard engine and alternator user's manual.

# 8. FACTORY TESTS

The generator set is tested before dispatch.

# 9. EQUIPMENT FINISH

Each part of the set is painted with anti-rust coat and finished with high gloss polyethane paint.