



DIESEL GENERATOR SET CATALOGUE

ABOUT TESCOM



Tescom formerly known as Tümel Elektronik located in Izmir-Turkey is an independently owned corporation, offering a wide range of power protection products and services to a wide spectrum of industries and sectors.

During the establishment years the company was manufacturing electronic control devices and inverters, then in 1986 when the IT sector started developing rapidly, Tescom sensed the great need for clean, uninterruptible power and started designing and manufacturing Uninterruptible Power Supplies.

As well as an extensive standard UPS range Tescom also offers a variety of other products such as static transfer switch (STS), frequency and voltage converters, inverters and rectifiers under it's registered trademark "Tescom".

Today all Tescom branded power protection products are manufactured by 48 greatly experienced engineers and staff of 345 people.

One of the greatest advantages of Tescom has always been, flexibility. Which means we do not only offer standard products. Thank's to our high experienced R&D team we also design and manufacture products according to customers requirements.

Tescom has always made widespread use of the latest developments and technologies in manufacturing, which complies with all the necessary international standards and norms. All these past years of experience, has lead to over 300,000 manufactured power protection products which have been delivered to customers in more than 40 countries in 4 continents.

TESCOM DIESEL GENERATORS

STAND BY RATING (ESP)

It is the way that generators operate under variable load at certain time intervals. It can work as a backup power. It is not suitable to work under extreme load.

PRIME RATING (PRP)

Applicable for supplying power to varying electrical load for unlimited hours. 10% overload capability is available for a period of 1 hour within 12-hour period of operation.

CONTINUOUS OPERATION

It is the continuous working under constant load. Unlimited hours use of all (100%) of the defined power. It cannot be overloaded above the defined power. For use where there is no mains power.

DESCRIPTION

TESCOM TDJ Series Diesel generator set is a fully integrated power generation system, providing optimum performance, reliability, and versatility for stationary standby, prime power and continuous duty applications.

ENGINE FEATURES

- Heavy duty generator engine
- 4-stroke, water cooling, natural suction system
- Mechanical governor system
- 12/24 volt starter motor and charge alternator
- Replaceable; with air, fuel and oil filters
- With flexible fuel hose
- Oil drain valve and extension hose/oil drain pump
- Industrial capacity muffler and exhaust spiral or compensator
- Maintenance-free type starter battery
- Engine block water heater (available for automatic models)
- Diesel generator maintenance and operation manual and electrical diagrams



CANOPY STANDARD SPECIFICATIONS

- Compact design connection with non-welded nuts and bolts.
- Integrated canopy, generator set, exhaust system fuel tank.
- Body made from steel components treated with polyester powder coating
- Easy access to all service points
- Exhaust system inside canopy
- Large doors on each side
- Control panel viewing window in a lockable access door
- Emergency stop push button mounted on cabin exterior
- Fuel fill and battery can only be reached via lockable access doors.
- Customer options available to meet your applications needs.
- TESCOM makes its generating sets noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been approved by the notified body Szutest (CE conformity assessment body).

ALTERNATOR FEATURES

- Brushless, single bearing, flexible disc 4-pole synchronous alternator
- H Insulation class
- IP21-23 protection class
- Shunt excitation
- Electronic voltage regulator
- Stator winding 2/3 step against harmonic distortions
- Alternator windings are protected with isolation varnish against oil and acid

CONTROL PANEL FEATURES

- The cable group we use in our generators is fireproof cable class. Cable sheaths form the defense line of cables against various chemicals and flame.
- The use of Halogen-free materials in the outer sheath of the cables prevents the spread of toxic gases during a fire. At the same time, fireproof cable sheaths have low smoke density and flame retardant properties. This feature of fireproof cable sheaths prevents the spread of fire and minimizes possible damages.
- Schneider Electric breaker group is used in generator control panels. As a standard, all our products have a 4-pole MCCB (Molded Case Circuit Breaker)



ATS (AUTOMATIC TRASFER SWITCH) GENERAL FEATURES

- The SQ5 Dual Power Automatic Transfer Switch Series is a kind of automatic transfer switch that combines the switch and the logic controller, enabling the mechanical and electrical to become an inseparable whole.
- Superior electromagnetic compatibility, high resistance to interference.
- It has zero-time transfer technology with high reliability.
- It cuts the dual circuit power simultaneously.
- In addition to PLC remote control, it has a multi-circuit input / output interface that can automate the system.



ATS MODEL	GENERATOR POWER RANGE
100 A TRANSFER PANEL WITH TRANSFER SWITCH	0-70 kVA
160 A TRANSFER PANEL WITH TRANSFER SWITCH	82-124 kVA
250 A TRANSFER PANEL WITH TRANSFER SWITCH	125-165 kVA
400 A TRANSFER PANEL WITH TRANSFER SWITCH	220-275 kVA
630 A TRANSFER PANEL WITH TRANSFER SWITCH	300-440 kVA
800 A TRANSFER PANEL WITH TRANSFER SWITCH	500-550 kVA
1000 A TRANSFER PANEL WITH TRANSFER SWITCH	660-715 kVA
1250 A TRANSFER PANEL WITH TRANSFER SWITCH	750-825 kVA
1600 A TRANSFER PANEL WITH TRANSFER SWITCH	900-1100 kVA
2000 A TRANSFER PANEL WITH TRANSFER SWITCH	1250kVA
2500 A TRANSFER PANEL WITH TRANSFER SWITCH	1400-1600 kVA

CONTROL SYSTEM

The new TESCOM TCM01 genset controllers are a cost effective modular genset controller ready for internet monitoring through plug-in modules. Its main advantages are multifunctionality, support for multiple topologies, harmonic analysis and detailed power measurements.

Different brand controller can be offered upon request.

(DEIF AGC 150, DEIF SGC 120/12, DEIF SGC 420/421, Datacom D500, DEEPSEA 6120, DEEPSEA 7320, ComAp AMF25)

DESCRIPTION

Software features are complete with easy firmware upgrade through USB port. The Windows based PC software allows monitoring and programming through USB, RS-485, RS-232, Ethernet and GPRS. The Rainbow Scada web service allows monitoring and control of an unlimited number of gensets from a single central location.

MAJOR FEATURES

- Diesel and gas genset support
- 400Hz operation support
- 400 event logs, full snapshot
- All parameters front panel editable
- 3 level configuration password
- 128x64 graphical LCD display
- Downloadable languages
- Waveform display of V & I
- Harmonic analysis of V & I
- 16Amp MCB & GCB outputs
- 8 configurable digital inputs
- 6 configurable digital outputs
- 3 configurable analog inputs
- Both CANBUS-J1939 & MPU
- 3 configurable service alarms
- Multiple automatic exerciser
- Weekly operation schedule
- Dual mutual standby with equal aging of gensets
- Manual "speed fine adjust" on selected ECUs
- Automatic fuel pump control
- Disable protections feature
- Excess power protection
- Reverse power protection
- Overload IDMT protection
- Load shedding, dummy load
- Multiple load management
- Current unbalance protection
- Voltage unbalance protection
- Fuel filling & fuel theft alarm
- Battery back-up real time clock
- Idle speed control
- Battery charge run enabled
- Combat mode support
- Multiple nominal conditions
- Contactor & MCB drive
- 4 quadrant genset power counters
- Mains power counters
- Fuel filling counter
- Fuel consumption counter
- Modem diagnostics display
- Configurable through USB, RS-485, Ethernet and GPRS
- Free configuration program
- Allows SMS controls
- Ready for central monitoring
- Mobile genset support
- Automatic GSM geo-location
- Easy USB firmware upgrade
- -40°C operation with optional display heater
- IP65 rating with optional gasket

COMMUNICATION

- USB Device
- J1939-CANBUS
- Geo-locating through GSM
- Internet Central Monitoring
- SMS message sending
- E-mail sending
- Free PC software: Rainbow Plus
- Modbus RTU (2400-57600baud)
- Modbus TCP/IP

PLUG-IN MODULES

- GSM Modem (2G-3G-4G)
- Ethernet 100Mbps
- Wi-Fi (802.11 b/g/n)
- RS-485 (2400-57600baud)
- RS-232 (2400-57600baud)

MEASUREMENTS

- Mains & genset PN/PP voltages
- Mains & genset frequency
- Mains & genset phase currents
- Mains & genset neutral currents
- Mains & genset, phase & total, kW, kVA, kVar, pf
- Engine speed
- Battery voltage

FUNCTIONALITIES

- AMF unit
- ATS unit
- Remote start controller
- Manual start controller
- Engine controller

TOPOLOGIES

- 3 ph 4 w, star & delta
- 3 ph 3 w, 2 CTs
- 2 ph 3 w
- 1 phase 2 wires



TESCOM TCM01



DEIF AGC 150



DEIF SGC 120



DEIF SGC 420



DATAKOM D500



DEEPSEA 6120



DEEPSEA 7320



ComAp AMF25

TECHNICAL SPECIFICATIONS



	TDJ220QN	TDJ275QN	TDJ300QN	TDJ330QN	TDJ400QN	TDJ440QN
Standby (kVA/kW)	220	275		330	400	440
Prime (kVA/kW)	200	250		300	360	400
Open type size (LxWxH mm)	3000 x 1100 x 1500	3500 x 1200 x 1800			3700 x 1400 x 1800	3700 x 1600 x 1800
With cabinet (LxWxH mm)	3000 x 1100 x 1750	3500 x 1200 x 2050			3700 x 1400 x 2050	3700 x 1600 x 2050
Open type weight (kg)	2003	2154	2317	2994	3069	
Open type weight (kg) (Except for antifreeze and oil)	1956,4	2095	2250	2921	2947,8	
Weight with cabinet (kg)	2453	2554	2767	3444	3569	
Weight with cabinet (kg) (Except for antifreeze and oil)	2406,4	2495	2700	3371	3447,8	
Tank capacity (L)	280	360			470	
MOTOR						
Manufacturer and model	QN8H217E	QN9H272E		QN9H340E	QN13H435E	QN13H516E
Type	Direct injection, Four-stroke, Water-cooling, V6 type					
Aspiration	Turbocharged / Naturally aspirated					
Bore and Stroke	114 x 135mm			135 x 150	135 x 160	135 x 165
Compression ratio	18:1			17:1		
Total displacement	8.27			13		
BSFC @ rated condition (g/kW.h)	198			200		
BSFC @ oil rated condition (g/kW.h)	< 0.50			0.7		
Stable state rate (%)	≤ 5%					
Type of governor	Electronical					
Idle speed (rpm)	680					
Rated speed (rpm)	1500/1800					
Noise (dB)	≤ 115					
Smoke (FSN)	≤ 1			≤ 2		
Net weight (kg)	660			1200		
ALTERNATOR						
Brand	Tescom					
Poles	4 Poles					
Frequency	50/60HZ					
Winding connections	Star					
Insulation	Class H					
Enclosure	IP23					
Power factor	0,8					
Altitude	1000m					
Exciter system	Self excitation					
Voltage regulator	AVR					
Steady state voltage regulation	± 1%					
Direction of rotation	Clockwise					
Cooling	Direct drive centrifugal blower fan					

TECHNICAL SPECIFICATIONS



	TDJ550QN	TDJ620QN	TDJ700QN	TDJ825QN	TDJ1000QN
Standby (kVA/kW)	550	620	700	825	1000
Prime (kVA/kW)	500	560	630	750	900
Open type size (LxWxH mm)	3700 x 1600 x 1800	4000 x 1800 x 1900		4500 x 2000 x 1900	
With cabinet (LxWxH mm)	3700 x 1600 x 2050	4000 x 1800 x 2350		4500 x 2000 x 2350	
Open type weight (kg)	4792	5208		5528	6928
Open type weight (kg) (Except for antifreeze and oil)	4612	4996		5356	6743,5
Weight with cabinet (kg)	5442	5958		6278	8128
Weight with cabinet (kg) (Except for antifreeze and oil)	5262	5746		6106	7943,5
Tank capacity (L)	470	490		570	
MOTOR					
Manufacturer and model	QN26H571E	QN26H612E	QN26H680E	QN28H843E	QN28H1100E
Type	Direct injection, Four-stroke, Water-cooling, V6 type			Direct injection, Four-stroke, Water-cooling, V12 type	
Aspiration	Turbocharged / Naturally aspirated				
Bore and Stroke	135 x 150	135 x 155		138 x 158	138 x 165
Compression ratio	17:1		16:1		
Total displacement	26			28	
BSFC @ rated condition (g/kW.h)	≤ 210	≤ 205		≤ 202	≤ 198
BSFC @ oil rated condition (g/kW.h)	0.7				
Stable state rate (%)	≤ 1%				
Type of governor	Electronical				
Idle speed (rpm)	680				
Rated speed (rpm)	1500/1800				
Noise (dB)	≤ 117				
Smoke (FSN)	≤ 2.5				
Net weight (kg)	1950				
ALTERNATOR					
Brand	Tescom				
Poles	4 Poles				
Frequency	50/60HZ				
Winding connections	Star				
Insulation	Class H				
Enclosure	IP23				
Power factor	0,8				
Altitude	1000m				
Exciter system	Self excitation				
Voltage regulator	AVR				
Steady state voltage regulation	± 1%				
Direction of rotation	Clockwise				
Cooling	Direct drive centrifugal blower fan				

