



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 its 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. Thanks 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

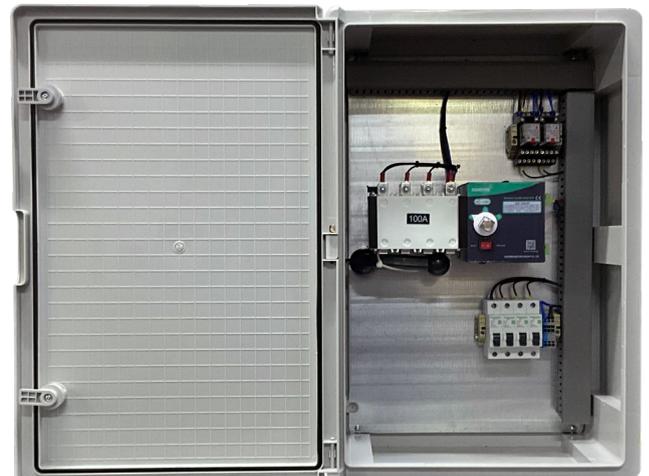
CONTROL PANEL FEATURES

- 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



	TDJ25BT / TDJ25BS (*)		TDJ35BT / TDJ35BS (*)		TDJ44BT / TDJ44BS (*)		TDJ50BT / TDJ50BS (*)		TDJ55BT / TDJ55BS (*)		TDJ70BT / TDJ70BS (*)		TDJ88BT / TDJ88BS (*)	
Standby (kVA/kW)	25	20	35	28	44	35	50	40	55	44	70	56	88	70
Prime (kVA/kW)	23	18	32	25	40	32	45	36	50	40	63	51	80	64
Open type size (LxWxH mm)	1470 x 950 x 1065		1470 x 950 x 1065		1480 x 1000 x 1140		1480 x 1000 x 1170		1640 x 1000 x 1170		2070 x 1100 x 1450			
With cabinet (LxWxH mm)	2200 x 950 x 1406		2200 x 950 x 1406		2250 x 1000 x 1651		2250 x 1000 x 1651		2250 x 1000 x 1690		2650 x 1100 x 1881			
Open type weight (kg)	554		613		661		686		714		906		1135	
Open type weight (kg) (Except for antifreeze and oil)	533,9		592,1		640,1		666,1		696,4		872,4		1101,4	
Weight with cabinet (kg)	749		808		869		894		922		1126		1395	
Weight with cabinet (kg) (Except for antifreeze and oil)	728,9		787,1		848,1		874,1		904,4		1092,4		1361,4	
Tank capacity (L)	62				105				185					
MOTOR														
Frequency	50Hz													
Manufacturer and model	BAUDOUIIN 4M06G25/5		BAUDOUIIN 4M06G35/5		BAUDOUIIN 4M06G44/5		BAUDOUIIN 4M06G50/5		BAUDOUIIN 4M06G55/5		BAUDOUIIN 4M10G70/5		BAUDOUIIN 4M10G88/5	
Engine power	24/32 (kWm/hp)		32/43 (kWm/hp)		40/54 (kWm/hp)		47/62 (kWm/hp)		51/69 (kWm/hp)		63/85 (kWm/hp)		77/104 (kWm/hp)	
Revolution per min.	1500r.p.m													
Total displacement	2,3lt										4,087			
Cylinders orientation	4 Cylinders Vertical In-line													
Bore x Stroke	89 x 92mm										105 x 118mm			
Compression ratio	17,5:1													
Governor type	Electronical													
Aspiration system	Naturally aspirated		Turbocharged											
Injection	Direct													
Cooling	Water													
Electrical system	12VDC													
Lub-oil capacity	11,5lt						9,2lt			16lt				
Engine coolant capacity	8,6lt		9,4lt				8,4lt				17,9lt			
Cooling air flow	63m3/min		48m3/min		84,3m3/min		102m3/min				146m3/min			
Fuel	Diesel													
FUEL CONSUMPTION														
100% load	6,1lt/h		7,6lt/h		9,5lt/h		10,7lt/h		11,9lt/h		15lt/h		18,8lt/h	
75% load	4,5lt/h		5,7lt/h		7lt/h		8lt/h		8,9lt/h		11,1lt/h		13,5lt/h	
50% load	3,2lt/h		4lt/h		4,7lt/h		5,4lt/h		6lt/h		7,7lt/h		9,1lt/h	
EXHAUST SYSTEM														
Maximum exhaust temperature	700°C													
Maximum exhaust gas flow	319,2m³/h		389m³/h		475,2m³/h		565,2m³/h		583,2m³/h		852m³/h		1035m³/h	
Maximum allowed back pressure	8kPa						7,5kPa			5kPa				
ALTERNATOR														
Brand	Tescom / Stamford													
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													
(*) TDJ25-88BT Baudouin Motor - Tescom Alternator / TDJ25-88BS Baudouin Motor - Stamford Alternator														

TECHNICAL SPECIFICATIONS



	TDJ110BT / TDJ110BS (*)		TDJ150BT / TDJ150BS (*)		TDJ165BT / TDJ165BS (*)		TDJ220BT / TDJ165BS (*)		TDJ250BT / TDJ250BS (*)		TDJ275BT / TDJ275BS (*)		TDJ350BT / TDJ350BS (*)	
Standby (kVA/kW)	110	88	150	120	165	132	220	176	250	200	275	220	350	280
Prime (kVA/kW)	100	80	136	109	150	120	200	160	227	182	250	200	317	254
Open type size (LxWxH mm)	2070 x 1100 x 1450		2470 x 1100 x 1480				2980 x 1300 x 2255		2980 x 1300 x 1620		2980 x 1300 x 1670		2980 x 1300 x 1665	
With cabinet (LxWxH mm)	2650 x 1100 x 1881		2950 x 1100 x 1964				3650 x 1300 x 2300		3642 x 1300 x 2297		3642 x 1300 x 2297		3650 x 1300 x 2300	
Open type weight (kg)	1106		1486		1558		2085		2252		2275		2580	
Open type weight (kg) (Except for antifreeze and oil)	1066,4		1447		1513		2020		2180		2210		2506	
Weight with cabinet (kg)	1366		1816		1888		2585		2882		2905		3225	
Weight with cabinet (kg) (Except for antifreeze and oil)	1326,4		1777		1843		2520		2810		2840		3151	
Tank capacity (L)	185		260				400							
MOTOR														
Frequency	50Hz													
Manufacturer and model	BAUDOUIIN 4M10G110/5		BAUDOUIIN 6M11G2D0/S		BAUDOUIIN 6M11G4D0/S		BAUDOUIIN 6M16G220/5		BAUDOUIIN 6M16G4D0/S		BAUDOUIIN 6M16G275/5		BAUDOUIIN 6M16G350/5	
Engine power	96/129 (kWm/hp)		127/170 (kWm/hp)		147/197 (kWm/hp)		191/257 (kWm/hp)		225/302 (kWm/hp)		251/337 (kWm/hp)		305/409 (kWm/hp)	
Revolution per min.	1500r.p.m													
Total displacement	4,087lt		6,75lt				9,726lt				9,72lt			
Cylinders orientation	4 Cylinders Vertical In-line		6 Cylinders Vertical In-line											
Bore x Stroke	105 x 118mm		105 x 130mm				126 x 130mm							
Compression ratio	17.5 : 1		18:1				17:1							
Governor type	Electronical													
Aspiration system	Turbocharged													
Injection	Direct													
Cooling	Water													
Electrical system	12VDC						24VDC							
Lub-oil capacity	16lt		19lt				30lt							
Engine coolant capacity	23,6lt		20lt				35lt		42lt		35lt		44lt	
Cooling air flow	175m3/min		304,5m3/min				415m3/min				450m3/min			
Fuel	Diesel													
FUEL CONSUMPTION														
100% load	21,25lt/h		30,2lt/h		32,6lt/h		43,1lt/h		50,9lt/h		56,9lt/h		70,5lt/h	
75% load	16,01lt/h		23,1lt/h		24,6lt/h		32,4lt/h		38lt/h		42,2lt/h		52,3lt/h	
50% load	10,58lt/h		15,9lt/h		16,7lt/h		22,4lt/h		25,8lt/h		28,3lt/h		35,4lt/h	
EXHAUST SYSTEM														
Maximum exhaust temperature	700°C												720°C	
Maximum exhaust gas flow	1297,8m³/h		1419m³/h		1440m³/h		2289m³/h		2664m³/h		3036m³/h		3492m³/h	
Maximum allowed back pressure	5kPa		6kPa				11kPa							
ALTERNATOR														
Brand	Tescom / Stamford													
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													

(*) TDJ110-350BT Baudouin Motor - Tescom Alternator / TDJ110-350BS Baudouin Motor - Stamford Alternator

TECHNICAL SPECIFICATIONS



	TDJ400BT / TDJ400BS (*)		TDJ440BT / TDJ440BS (*)		TDJ500BT / TDJ500BS (*)		TDJ550BT / TDJ550BS (*)		TDJ660BT / TDJ660BS (*)		TDJ715BT / TDJ715BS (*)	
Standby (kVA/kW)	400	320	440	352	500	400	550	440	660	528	715	572
Prime (kVA/kW)	364	291	400	320	455	364	500	400	600	480	650	520
Open type size (LxWxH mm)	2980 x 1300 x 1725		2980 x 1300 x 1725		3255 x 1500 x 1866		3255 x 1500 x 1900		3900 x 1700 x 2130		3900 x 1700 x 2130	
With cabinet (LxWxH mm)	3642 x 1300 x 2297		3642 x 1300 x 2297		4300 x 1500 x 1866		4300 x 1500 x 1940		4901 x 1700 x 2760		4901 x 1700 x 2760	
Open type weight (kg)	2948		3228		3041		3319		4440		5328	
Open type weight (kg) (Except for antifreeze and oil)	2861		3141		2954		3217		4294		5105	
Weight with cabinet (kg)	3578		3858		3686		4226		5345		6233	
Weight with cabinet (kg) (Except for antifreeze and oil)	3491		3771		3599		4124		5199		6010	
Tank capacity (L)	400				515				940			
MOTOR												
Frequency	50Hz											
Manufacturer and model	BAUDOUIIN 6M21G400/5		BAUDOUIIN 6M21G440/5		BAUDOUIIN 6M21G500/5		BAUDOUIIN 6M21G550/5		BAUDOUIIN 8M21G660/5		BAUDOUIIN 6M33G715/5	
Engine power	362/486 (kWm/hp)		382/512 (kWm/hp)		430/577 (kWm/hp)		476/638 (kWm/hp)		548/735 (kWm/hp)		608/816 (kWm/hp)	
Revolution per min.	1500r.p.m											
Total displacement	12,54lt								16,72lt		19,6lt	
Cylinders orientation	6 Cylinders Vertical In-line								8 Cylinders V type		6 Cylinders Vertical In-line	
Bore x Stroke	127 x 165mm										150 x 185mm	
Compression ratio	16:1						15,2 : 1		15:1			
Governor type	Electronical											
Aspiration system	Turbocharged											
Injection	Direct											
Cooling	Water											
Electrical system	24VDC											
Lub-oil capacity	40lt								45lt		64lt	
Engine coolant capacity	47lt						62lt		101lt		159lt	
Cooling air flow	398m3/min				550m3/min		474m3/min		800m3/min		783,3m3/min	
Fuel	Diesel											
FUEL CONSUMPTION												
100% load	82,1lt/h		85,5lt/h		95,9lt/h		109,5lt/h		124,2lt/h		136,3lt/h	
75% load	60,7lt/h		63,5lt/h		69,6lt/h		75,3lt/h		95,4lt/h		100lt/h	
50% load	41lt/h		43,2lt/h		46,6lt/h		51lt/h		64,7lt/h		67,1lt/h	
EXHAUST SYSTEM												
Maximum exhaust temperature	740°C								720°C		750°C	
Maximum exhaust gas flow	3900m³/h		4140m³/h		5940m³/h		6888m³/h		7512m³/h		8442m³/h	
Maximum allowed back pressure	12kPa								7,5kPa			
ALTERNATOR												
Brand	Tescom / Stamford											
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											
(*) TDJ400-715BT Baudouin Motor - Tescom Alternator / TDJ400-715BS Baudouin Motor - Stamford Alternator												

TECHNICAL SPECIFICATIONS



	TDJ750BT / TDJ750BS (*)		TDJ825BT / TDJ825BS (*)		TDJ900BT / TDJ900BS (*)		TDJ1000BT / TDJ1000BS (*)		TDJ1100BT / TDJ1100BS (*)		TDJ1250BT / TDJ1250BS (*)		
Standby (kVA/kW)	750	600	825	660	900	720	1000	800	1100	880	1250	1000	
Prime (kVA/kW)	681	545	750	600	817	654	909	727	1000	800	1136	909	
Open type size (LxWxH mm)	TBA		3900 x 1900 x 2140		4500 x 1800 x 2390								
With cabinet (LxWxH mm)			4821 x 1900 x 2786		5500 x 2115 x 2650								
Open type weight (kg)			6293		7659		7773		7848				
Open type weight (kg) (Except for antifreeze and oil)			6070		7391		7505		7580				
Weight with cabinet (kg)			7738		9079		9193		9268				
Weight with cabinet (kg) (Except for antifreeze and oil)			7515		8811		8925		9000				
Tank capacity (L)			1100				1425						
MOTOR													
Frequency	50Hz												
Manufacturer and model	BAUDOUIIN 6M33G750/5		BAUDOUIIN 6M33G825/5		BAUDOUIIN 12M26G900/5		BAUDOUIIN 12M26G1000/5		BAUDOUIIN 12M26G1100/5		BAUDOUIIN 12M33G1250/5		
Engine power	645/865 (kWm/hp)		700/939 (kWm/hp)		761/1021 (kWm/hp)		870/1167 (kWm/hp)		941/1262 (kWm/hp)		1051/1410 (kWm/hp)		
Revolution per min.	1500r.p.m												
Total displacement	19,6lt				31,8lt				39,2lt				
Cylinders orientation	6 Cylinders Vertical In-line				6 Cylinders V type				12 Cylinders V type				
Bore x Stroke	150 x 185mm				150 x 150mm				150 x 185mm				
Compression ratio	15:1				15,7:1				15:1				
Governor type	Electronical												
Aspiration system	Turbocharged												
Injection	Direct												
Cooling	Water												
Electrical system	24VDC												
Lub-oil capacity	64lt				114lt				160lt				
Engine coolant capacity	159lt				154lt				303lt				
Cooling air flow	783,3m3/min				1430m3/min				2100m3/min				
Fuel	Diesel												
FUEL CONSUMPTION													
100% load	151,1lt/h		159,5lt/h		173,7lt/h		195,5lt/h		207,1lt/h		236,2lt/h		
75% load	111,2lt/h		114,8lt/h		133,1lt/h		146,5lt/h		155,3lt/h		175lt/h		
50% load	75,5lt/h		77,4lt/h		90,8lt/h		100,8lt/h		106,6lt/h		119,5lt/h		
EXHAUST SYSTEM													
Maximum exhaust temperature	750°C		730°C		750°C								
Maximum exhaust gas flow	11202m³/h		9786 m³/h		10506 m³/h		11670m³/h		14490m³/h		13506m³/h		
Maximum allowed back pressure	7,5kPa												
ALTERNATOR													
Brand	Tescom / Stamford												
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												
(*) TDJ750-1250BT Baudouin Motor - Tescom Alternator / TDJ750-1250BS Baudouin Motor - Stamford Alternator													

