



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 latestdevelopments 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 perod of operation.



It is the continious 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
- $\hbox{\bf \cdot } \hbox{\bf 4-stroke, water cooling, natural suction system}$
- 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 (avaliable for automatic models)
- Diesel generator maintenance and operation manual and electrical diagrams



CANOPY STANDART 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 aproved 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



	TDJ11YT	TDJ12YT	TDJ	15YT	TDJ:	20YT	TDJ25YT		TDJ28\		TD.	TDJ30YT		TDJ34YT		40YT			
Standby (kVA/kW)	11 8,8	12 9,	6 15	12	20	16	25	20	28	22	30	24	34	27	40	32			
Prime (kVA/kW)	10 8	11 9	14	11	18	15	23	18	25	20	27	22	31	25	36	29			
Open type size (LxWxH mm)		2000	x 900 x 100	0						2	2200 x 1	000 x 110	00						
With cabinet (LxWxH mm)	2000 x 900 x 1300 2200 x 1000 x 1400																		
Open type weight (kg)	619 619 659 686 826													70	06				
Open type weight (kg)					60	00	6	00	6	39		562	7	97	67	77			
(Except for antifreeze and oil) Weight with cabinet (kg)	-	TBA				 69	769 809							0.	46				
Weight with cabinet (kg)	_											826	686						
(Except for antifreeze and oil)					7:	50	7	49	7	89		802	6	57	8	17			
Tank capacity (L)			110								-	150							
MOTOR																			
Frequency							50)Hz											
Manufacturer and model	YD380D	YD385D	YD4	180D	YND	485D	YSD	490D	Y4	90D	Y4	495D	Y41	100D	Y41	102D			
Output rating	11kW	12,1kW	15,	4kW	18,	7kW	23,	1kW	26,	4kW	28	3,6kW	33	kW	36,3	3kW			
Fuel	Diesel																		
Injection	Direct																		
Aspiration	Naturally aspirated																		
Cylinders								4											
Bore x Stroke	80 x 90mm	85 x 90mn	n 80 x 9	90mm	85 x 9	95mm	90 x 1	00mm	90 x 1	05mm	95 x	105mm	100 x	118mm	102 x 1	118mm			
Displacement	1,375lt	1,5lt	1,8	39lt	2,	1lt	2,	54lt	2,6	57lt	2,	,97lt	3,7	07 lt	3,8	87lt			
Cooling							W	ater											
Engine oil specification							SAE 1	5W40											
Compression ratio							18	3:01											
Engine oil capacity (sump only)		4,5lt	5	ilt	5,	5lt			8	lt				13	llt				
Coolant capacity (incl.radiator)		10,4lt	1	1lt			1	2lt					1	6lt					
Governor							Mech	anical											
Air filter							Dry e	ement											
Electrical system							1	2V											
FUEL CONSUMPTION																			
100% Load	3,1lt/h	3,55lt/h	4,2	2lt/h	4,71	llt/h	5,4	5lt/h	6,4	3t/h	6,8	37lt/h	7,0	5lt/h	8,94	4lt/h			
75% Load	2,86lt/h	3,12lt/h	3,43	3lt/h	3,73	Blt/h	4,0	5lt/h	5,7	7lt/h	6,1	I5lt/h	5,7	4lt/h	6,8	Blt/h			
50% Load	2,23lt/h	2,54lt/h	2,74	4lt/h	2,78	3lt/h	2,9	8lt/h	4,8	llt/h	5,2	27lt/h	4,3	4lt/h	5,04	4lt/h			
ALTERNATOR																			
Brand							Tes	com											
Poles							4 P	oles											
Frequency							50/	50HZ											
Winding connections							S	tar											
Insulation							Cla	ss H											
Enclosure							IF	23											
Power factor							(),8											
Altitude							10	00m											
Exciter system							Self ex	cication											
Voltage regulator							Α	VR											
							±	1%											
Steady state voltage regulation	± 1%																		
Steady state voltage regulation Direction of rotation								kwise											

TECHNICAL SPECIFICATIONS



	TDJ4	14YT	TDJ5	60YT	TDJ	55YT	TDJ	66YT	TDJ	TDJ75YT TDJ94YT TDJ110YT		10YT	TDJ124YT TDJ13						
Standby (kVA/kW)	44	35	50	40	60	48	66	53	75	60	94	75	110	88	124	99	138	110	
Prime (kVA/kW)	40	32	45	36	55	44	60	48	68	55	85	68	121	97	113	90	125	100	
Open type size (LxWxH mm)					2200 x 10	00 x 110	0		1		2	350 x 10	000 x 130	0	2	2750 x 11	00 x 1500	0	
With cabinet (LxWxH mm)					2263 x 10	00 x 150	0				2	350 x 10	000 x 155	0	2	2750 x 11	00 x 1750	0	
Open type weight (kg)	71	 I 1	71	8	11	13	11	113	11	31	11.	31	11	31	14	56	14	194	
Open type weight (kg)	68	วา	68	20	10	78	10	084	11	02	10	no	10	97	14	16	14	154	
(Except for antifreeze and oil)															1416				
Weight with cabinet (kg)	87	71	87	78	12	78	12	273	14	16	14	16	14	16	1806		18	344	
Weight with cabinet (kg) (Except for antifreeze and oil)	84	12	84	19	12	38	12	244	13	87	13	83	13	82	17	76	18	304	
Tank capacity (L)			,		1.5	50						1	70			2	50		
MOTOR																			
Frequency									50	Hz									
Manufacturer and model	Y410	05D	Y41	10D	Y410	2ZLD	Y410	5ZLD	YD4I	ZLD	Y4110	0ZLD	YD40	GZLD	LR4N	13L-D	LR4M	I3L-DA	
Output rating	41,8	3kW	47,3	kW	50,4	1kW	60	kW	66,	kW	841	ςW	93	kW	105	skW	120	0kW	
Fuel									Die	sel									
Injection	Direct																		
Aspiration		١	Naturally	aspirate	d					Turboo	harged				After	cooler /	Turbocha	arged	
Cylinders									4	1									
Bore x Stroke	102 x 1	18mm	110 x 1	18mm	102 x 1	18mm		105 x	118mm			110 x 1	118mm		110 x 125mm				
Displacement	3,8	7lt	4,48	34lt	3,8	37lt	4,0	87 lt				4,	3lt	t 4,7					
Cooling									Wa	ter									
Engine oil specification									SAE 1	5W40									
Compression ratio							18	3:01								17	:01		
Engine oil capacity (sump only)					13	3lt						1	7lt			1-	4lt		
Coolant capacity (incl.radiator)			14,	9lt				15	,6lt			16	,7lt			2	бlt		
Governor			Mech	anical								Electr	onical						
Air filter									Dry el	ement									
Electrical system							1.	2V								2	4V		
FUEL CONSUMPTION																			
100% Load	8,81	lt/h	12,0	3lt/h	13,1	6lt/h	14,7	'2lt/h	16,8	7lt/h	20,94	4lt/h	22,1	llt/h	18,6	ólt/h	18,6	6lt/h	
75% Load	6,75	ilt/h	9,15	lt/h	10,2	2lt/h	11,6	i9lt/h	13,3	9lt/h	16,2	7lt/h	18,9	9lt/h	13,9	9lt/h	13,9	9lt/h	
50% Load	5,58	Blt/h	6,91	lt/h	7,57	lt/h	8,66	6lt/h	9,92	lt/h	12,78	3lt/h	14,2	2lt/h	10,2	2lt/h	10,2	2lt/h	
ALTERNATOR																			
Brand									Tes	om									
Poles									4 P	oles									
Frequency									50/6	0HZ									
Winding connections									Yıl	dız									
Insulation									Cla	ss H									
Enclosure									IP	23									
Power factor									0	.8									
Altitude									100	0m									
Exciter system									Self ex	ication									
Voltage regulator									A۱	/R									
Steady state voltage regulation									± ·	1%									
Direction of rotation									Clocl	wise									
Cooling								Direct o	lrive cent	rifugal b	lower fan	ı							

TECHNICAL SPECIFICATIONS



	TDJ1	I54YT	TDJ1	76YT	TDJ2	20YT	TDJ	250YT	TDJ2	75YT	TDJ3	10YT	TDJ3	50YT	T TDJ385YT		TDJ440YT			
Standby (kVA/kW)	154	123	176	141	220	176	250	200	275	220	310	248	350	280	385	308	440	352		
Prime (kVA/kW)	140	112	160	128	200	160	227	182	250	200	282	225	318	255	350	280	400	320		
Open type size (LxWxH mm)		2750 x 11	00 x 1500)	3000 x 11	00 x 1500			3500 x 12	00 x 1800)			3700 x 14	100 x 1800)	3700 x 16	500 x 1800		
With cabinet (LxWxH mm)		2750 x 11	00 x 1750)	3000 x 11	00 x 1750			3500 x 12					3700 x 14	100 x 2050)		500 x 2050		
Open type weight (kg)	14	194	14	.94	20	03	2	154	21	54	23	17	29	94	30	169	31	69		
Open type weight (kg)																				
(Except for antifreeze and oil)	12	152	14	52	19	61	20	087	20	88	22	50	29	911	2986		30)86		
Weight with cabinet (kg)	18	344	18	44	24	53	2:	554	25	54	27	67	34	144	35	69	36	39		
Weight with cabinet (kg) (Except for antifreeze and oil)	18	302	18	02	24	11	24	487	24	88	27	00	33	861	34	86	35	556		
Tank capacity (L)		2.	50		28	30			36	50					4	70				
MOTOR																				
Frequency									50	Hz										
Manufacturer and model	LR6	A3L-D	LR6N	13L-D	LR6M	3L-DA	YM6	S4L-D	YM6S	4L-DA	YM6S	4LF-D	YM6	S9L-D	YM6S	9L-DA	YM6S9	9LF-DA		
Output rating	132	2kW	155	skW	176	kW	25	8kW	208	BkW	290	kW	320)kW	350	kW	400	0kW		
Fuel									Die	esel										
Injection	Direct																			
Aspiration	Aftercooler / Turbocharged Air to air intercoo													ntercoole	:d					
Cylinders									(5										
Bore x Stroke	105 x	125mm		110 x	125mm							126 x 1	130mm							
Displacement	6,4	19 lt		7,	13lt				9,7	26lt		11,54lt								
Cooling									Wa	iter										
Engine oil specification									SAE 1	5W40										
Compression ratio			17	:01			16	5.5:1	17,	5:1				16	.5:1					
Engine oil capacity (sump only)			16	5lt			2	4lt	23	3lt	24	1lt			28	28lt				
Coolant capacity (incl.radiator)			26	5lt					43	3lt					5.5	5lt				
Governor									Electr	onical										
Air filter									Dry el	ement										
Electrical system									24	4V										
FUEL CONSUMPTION																				
100% Load	25,	5lt/h	33,2	2lt/h	35,1	lt/h	36,6	54lt/h	37,1	8lt/h	45,4	4lt/h	51,6	8lt/h	61,4	6lt/h	64,9	7lt/h		
75% Load	18,3	3lt/h	25,7	/lt/h	25,9	9lt/h	27,7	79lt/h	28,0	2lt/h	34,10lt/h		38,78lt/h		47,69lt/h		50,41lt/h			
50% Load	14	lt/h	17,4	llt/h	17,9	9lt/h	20,4	15lt/h	20,4	5lt/h	23,70lt/h		26,96lt/h		33,27lt/h		35,1	7lt/h		
ALTERNATOR																				
Brand									Tes	com										
Poles										oles										
Frequency										50HZ										
Winding connections										ar										
Insulation										ss H										
Enclosure										23										
Power factor										,8										
Altitude)0m										
Exciter system										ication										
Voltage regulator										VR										
Steady state voltage regulation										1%										
Direction of rotation										kwise										
Cooling								Direc	t drive ce		hlower fo	n								
coomig								סוופכ	. unive ce	uyal	SIOWEI Id									

