

FT SERIES

Stationary & Standby Application

In a prime mobile application, the generator is the sole source of power but it will also be moved from site to site on a regular basis. Generators used for construction or rental are good examples of this. Once again, because this is a prime (running) application, fuel efficiency is the key to cost savings but because the generator will be routinely relocated, a robust build and canopy design is essential to the longevity of the machine.

How to choose a generator if you have a prime mobile application: Sizing and Engine selection are paramount to cost savings once again but the generators life will be shortened significantly if a heavy duty base and canopy is not selected.

Standby

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GENERAL		FT 10-KU		FT 18-KU		FT 22-KU		FT 33-KU	
Rated Power (kVA)									
prime	standby	9kVA	10kVA	15kVA	16.5kVA	20kVA	22kVA	30kVA	33kVA
Frequency (Hz)		50		50		50		50	
Engine Model		D1105-BG-ES01 (Kubota)		D1703-BG-EU1 (Kubota)		V2203-BG-ES03 (Kubota)		V3300-BG-EU1 (Kubota)	
Engine Speed (RPM)		1500		1500		1500		1500	
Phase		3		3		3		3	
PF		0.8		0.8		0.8		0.8	
Control System		Digital		Digital		Digital		Digital	
Rated voltage (V)		415 / 240		415 / 240		415 / 240		415 / 240	
Fuel tank capacity operating time % (L/h)		1.3 @ 50%	1.9 @ 75%	1.9 @ 50%	2.8 @ 75%	2.5 @ 50%	3.8 @ 75%	3.6 @ 50%	5.3 @ 75%
		2.6 @ 100%	2.9 @ 110%	3.7 @ 100%	4.1 @ 110%	5.0 @ 100%	5.5 @ 110%	7.1 @ 100%	7.8 @ 110%
Dimensions (LXWXH) mm		1850 x 770 x 1130		2000 x 930 x 1230		2200 x 966 x 1425		2200 x 980 x 1270	
Dry weight (kg)		680		920		1000		1100	
Tank capacity (L)		40		50		70		80	
The loading capacity (40'HC)		36 units		24 units		12 units		24 units	

ENGINE									
Emission Certification		Tier II		Tier II		Tier II		Tier II	
Number of cylinders		3		3		4		4	
Cylinder arrangement		In-line		In-line		In-line		In-line	
Cycle		Four stroke		Four stroke		Four stroke		Four stroke	
Aspiration		Naturally aspirated		Naturally aspirated		Naturally aspirated		Naturally aspirated	
Bore x Stroke		78 x 78.4 mm		87 x 92.4 mm		87 x 92.4 mm		98 x 110 mm	
Displacement		1.123 L		1.647 L		2.197 L		3.318 L	
Compression ration		24:1		23.0:1		23:1		22.6:1	
Speed governor		Mechanical		Mechanical		Mechanical		Mechanical	
Cooling system		Forced Water Cooling Cycle		Forced Water Cooling Cycle		Forced Water Cooling Cycle		Forced Water Cooling Cycle	
Frequency droop		≤ 5%		≤ 5%		≤ 5%		≤ 5%	
Total lubrication system capacity		5.1 L		7.6 L		9.7 L		13.2 L	
Coolant capacity		8 L		17 L		20 L		24 L	
Fuel consumption (100% load)		279 g/kWh @1500 rpm		260 g/kWh @1500 rpm		262 g/kWh @1500 rpm		243 g/kWh @1500 rpm	
Charge alternator		DC 12V		DC 12V		DC 12V		DC 12V	

ALTERNATOR									
Number of phase		3		3		3		3	
Power factor (Cos Phi)		0.8		0.8		0.8		0.8	
Poles		4		4		4		4	
Insulation type		H class		H class		H class		H class	
Winding Pitch		2/4		2/3		2/3		2/14	
IP rating		IP24		IP23		IP23		IP34	
Bearing		Single bearing		Single bearing		Single bearing		Single bearing	
Voltage regulator		A.V.R		A.V.R		A.V.R		A.V.R	
Coupling		Flexible disc		Flexible disc		Flexible disc		Flexible disc	

GENERAL		FT 40-KU		FT 55-DE		FT 70-DE		FT 110-IV	
Rated Power (kVA)									
prime	standby	37kVA	40.7kVA	15kVA	16.5kVA	20kVA	22kVA	100kVA	110kVA
Frequency (Hz)		50		50		50		50	
Engine Model		V3300-T-BG-ES02 (Kubota)		F6L912 (Deutz)		F6L912T (Deutz)		NEF45TM2A (FPT)	
Engine Speed (RPM)		1500		1500		1500		1500	
Phase		3		3		3		3	
PF		0.8		0.8		0.8		0.8	
Control System		Digital		Digital		Digital		Digital	
Rated voltage (V)		415 / 240		415 / 240		415 / 240		415 / 240	
Fuel tank capacity operating time % (L/h)		4.2 @ 50%	6.3 @ 75%	6.5 @ 50%	9.7 @ 75%	8.2 @ 50%	12.3 @ 75%	11 @ 50%	16.2 @ 75%
		8.4 @ 100%	9.2 @ 110%	12.9 @ 100%	14.2 @ 110%	16.4 @ 100%	18 @ 110%	22 @ 100%	24.4 @ 110%
Dimensions (LXWXH) mm		2200 x 980 x 1270		2750 x 1130 x 1200		2750 x 1130 x 1200		3150 x 1243 x 1900	
Dry weight (kg)		1130		1380		1380		1780	
Tank capacity (L)		80		110		110		560	
The loading capacity (40'HC)		11 units		8 units		8 units		3 units	

ENGINE									
Emission Certification		Tier II		Tier II		Tier II		Stage II	
Number of cylinders		4		6		6		4	
Cylinder arrangement		In-line		In-line		In-line		In-line	
Cycle		Four stroke		Four stroke		Four stroke		Four stroke	
Aspiration		Turbocharged		Naturally aspirated		Turbocharged		Turbocharged	
Bore x Stroke		98 x 110 mm		100 x 120 mm		100 x 120 mm		104 x 132 mm	
Displacement		3.318 L		5.655 L		5.655 L		4.5 L	
Compression ration		21.8:1		17:1		17:1		17.5:1	
Speed governor		Mechanical		Mechanical		Mechanical		Mechanical	
Cooling system		Forced Water Cooling Cycle		Air cooled		Air cooled		Forced Water Cooling Cycle	
Frequency droop		≤ 5%		≤ 5%		≤ 5%		≤ 5%	
Total lubrication system capacity		13.2 L		14 L		14 L		12.8 L	
Coolant capacity		24 L		NA		NA		18.5 L	
Starter motor		236 g/kWh @1500 rpm		228 g/kWh @1500 rpm		228 g/kWh @1500 rpm		DC 12V	
Charge alternator		DC 12V		DC 12V		DC 12V		DC 14V	

ALTERNATOR									
Number of phase		3		3		3		3	
Power factor (Cos Phi)		0.8		0.8		0.8		0.8	
Poles		4		4		4		4	
Insulation type		H class		H class		H class		H class	
Winding Pitch		2/8		2/3		2/3		2/3	
IP rating		IP28		IP23		IP23		IP23	
Bearing		Single bearing		Single bearing		Single bearing		Single bearing	
Voltage regulator		A.V.R		A.V.R		A.V.R		A.V.R	
Coupling		Flexible disc		Flexible disc		Flexible disc		Flexible disc	

GENERAL		FMP165-VO		FMP220-VO		FMP275-VO		FT 350-VO	
Rated Power (kVA)									
prime	standby	160kVA	176kVA	200kVA	220kVA	250kVA	275kVA	315kVA	347kVA
Frequency (Hz)		50		50		50		50	
Engine Model		NEF45TM2A (FPT)		TAD733GE		TAD734GE		TAD1341GE (VOLVO)	
Engine Speed (RPM)		1500		1500		1500		1500	
Phase		3		3		3		3	
PF		0.8		0.8		0.8		0.8	
Control System		Digital		Digital		Digital		Digital	
Rated voltage (V)		415 / 240		415 / 240		415 / 240		415 / 240	
Fuel tank capacity operating time % (L/h)		18 @ 50%	29 @ 75%	22.3 @ 50%	33.4 @ 75%	25.6 @ 50%	38.4 @ 75%	30.5 @ 50%	45.7 @ 75%
		36 @ 100%	39 @ 110%	44.5 @ 100%	49 @ 110%	51.2 @ 100%	56.3 @ 110%	60.9 @ 100%	67 @ 110%
Dimensions (LXWXH) mm		3600 x 1335 x 2230		3600 x 1335 x 2300		3800 x 1466 x 2400		4250 X 1422 X 2110	
Dry weight (kg)		2580		2700		3350		4500	
Tank capacity (L)		900		1030		1330		580	
The loading capacity (40'HC)		3 units		3 units		3 units		2 units	

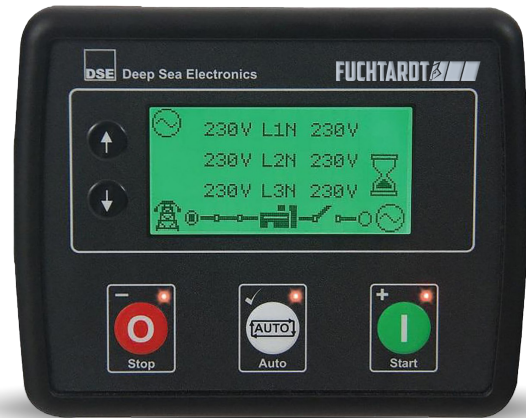
ENGINE									
Emission Certification		Stage II		Stage II		Stage II		Stage II	
Number of cylinders		6		6		6		6	
Cylinder arrangement		In-line		In-line		In-line		In-line	
Cycle		Four stroke		Four stroke		Four stroke		Four stroke	
Aspiration		Turbocharged		Turbocharged		Turbocharged		Turbocharged	
Bore x Stroke		104 x 132 mm		108 x 130 mm		108 x 130 mm		131 x 158 mm	
Displacement		6.7 L		7.15 L		7.15 L		12.78 L	
Compression ration		17.5:1		18:1		17:1		18.1:1	
Speed governor		Mechanical		Electronic		EMS		ECM	
Cooling system		Forced Water Cooling Cycle		Forced Water Cooling Cycle		Forced Water Cooling Cycle		Forced Water Cooling Cycle	
Frequency droop		≤ 5%		≤ 3%		≤ 1%		≤ 1%	
Total lubrication system		17.2 L		34 L		29 L		36 L	
Coolant capacity		25.5 L		27.3 L		24 L		24 L	
Starter motor		DC 12V		DC 24V		DC 24V		DC 24V	
Charge alternator		DC 14V		DC 24V		DC 24V		DC 24V	

ALTERNATOR									
Number of phase		3		3		3		3	
Power factor (Cos Phi)		0.8		0.8		0.8		0.8	
Poles		4		4		4		4	
Insulation type		H class		H class		H class		H class	
Winding Pitch		2/3		2/11		2/12		2/9	
IP rating		IP23		IP31		IP32		IP29	
Bearing		Single bearing		Single bearing		Single bearing		Single bearing	
Voltage regulator		A.V.R		A.V.R		A.V.R		A.V.R	
Coupling		Flexible disc		Flexible disc		Flexible disc		Flexible disc	

GENERAL		FT 400-VO		FT 550-VO		FT 650-VO	
Rated Power (kVA)							
prime	standby	350kVA	385kVA	500kVA	550kVA	590kVA	649kVA
Frequency (Hz)		50		50		50	
Engine Model		CURSOR13TE2A (FPT)		TAD1641GE (VOLVO)		TAD1642GE (VOLVO)	
Engine Speed (RPM)		1500		1500		1500	
Phase		3		3		3	
PF		0.8		0.8		0.8	
Control System		Digital		Digital		Digital	
Rated voltage (V)		415 / 240		415 / 240		415 / 240	
Fuel tank capacity operating time % (L/h)		38.8 @ 50%	57.3 @ 75%	50.4 @ 50%	75.6 @ 75%	63@ 50%	94.5 @ 75%
		70 @ 100%	77.9 @ 110%	100.8 @ 100%	110.1@ 110%	126 @ 100%	138.6@ 110%
Dimensions (LXWXH) mm		4300 X 1572 X 2261		4600 X 1672 X 2261		4600 X 1672 X 2261	
Dry weight (kg)		4210		5250		5400	
Tank capacity (L)		660		750		750	
The loading capacity (40'HC)		2 units		2 units		2 units	

ENGINE							
Emission Certification		Stage II		Stage II		Stage II	
Number of cylinders		6		6		6	
Cylinder arrangement		In-line		In-line		In-line	
Cycle		Four stroke		Four stroke		Four stroke	
Aspiration		Turbocharged		Turbocharged		Turbocharged	
Bore x Stroke		135 x 150 mm		144 x 165 mm		144 x 165 mm	
Displacement		12.88 L		16.12 L		16.12 L	
Compression ration		16.5:1		16.5:1		16.5:1	
Speed governor		ECU		EMS		EMS	
Cooling system		Forced Water Cooling Cycle		Forced Water Cooling Cycle		Forced Water Cooling Cycle	
Frequency droop		≤ 3%		≤ 1%		≤ 1%	
Total lubrication system capacity		35 L		48 L		48 L	
Coolant capacity		67 L		60 L		60 L	
Starter motor		DC 24V		DC 24V		DC 24V	
Charge alternator		DC 24V		DC 24V		DC 24V	

ALTERNATOR							
Number of phase		3		3		3	
Power factor (Cos Phi)		0.8		0.8		0.8	
Poles		4		4		4	
Insulation type		H class		H class		H class	
Winding Pitch		2/7		2/16		2/10	
IP rating		IP27		IP36		IP30	
Bearing		Single bearing		Single bearing		Single bearing	
Voltage regulator		A.V.R		A.V.R		A.V.R	
Coupling		Flexible disc		Flexible disc		Flexible disc	



DSE Controller Benefits

- Auto Start and AMF mode in one module.
- J1939-75 support and CAN alarm ignore function.
- Alternator frequency & CAN speed sensing in one variant.
- Largest back-lit icon display in its class.
- Heated display option.
- Real time clock provides accurate event logging.
- Fully configurable via the fascia or PC using USB communication.
- Extremely efficient power save mode.
- 3 phase generator sensing.
- 3 phase mains (utility) sensing
- Compatible with 600 V ph to ph nominal systems.
- Generator/load power monitoring (kW, kVA, kVar, PF).
- Accumulated power monitoring (kWh, kVAh, kVarh).
- Generator overload protection.
- Generator/load current monitoring and protection.
- Fuel and start outputs (configurable when using CAN).
- 4 configurable DC outputs.
- 3 configurable analogue/digital inputs
- Ultimate size to feature ratio.
- Automatically transfers between mains (utility) and generator.
- Hours counter provides accurate information for monitoring and maintenance periods.
- User-friendly set-up and button layout for ease of use.
- Multiple parameters are monitored simultaneously which are clearly displayed on the largest back-lit icon display in its class.
- The module can be configured to suit a wide range of applications.
- Compatible with a wide range of CAN engines including Tier 4.
- IP65 rating (with optional gasket) offers increased resistance to water ingress.

**THINK
FUCHTARDT
THE NEXT
TIME YOU
PICK UP THE
PHONE**

