# STADCO "CD" MOBILE GENERATOR SYSTEM



### SALES SPECIFICATIONS — 1800 RPM DIESEL GENSETS — 10 to 50 KW

Applications: Prime Power, Industrial, Mobile Equipment, Critical APU's

GENSET RATINGS - 60HZ (3)			CD10T4F	CD15T4F	CD22T4F	CD42T4F	CD50T4F
	Spec. No.			CD1520	CD22T4F18	CD42T4F19	CD50T4F20
	Sales Drawing No.			13035	13596	13703	13916
1	4-Leads, 1-Phase, 1.0 PF DED. <b>240V Unit Output Rating</b>	Intermittent	9.5 KW	14.0 KW	21.0 KW	42.0 KW	TBD
		Continuous	9.0 KW	13.0 KW	18.0 KW	38.0 KW	TBD
P	A @ 040VAO 4 0 PE		39.6A	58.3A	88.0A	175A	TBD
Α	A.C. Alternator (2.)	SKVA - Motor start	11 / 30%	24 / 30%	36 / 30%	48 / 30%	TBD
SE	Max. Capacity @ 125°C Rise 240V.,1-ph.,1.0PF	KW Capacity	11.3	15.6	21.0	42.0	TBD
	Series/Parallel Connection	% Efficiency	81.5	82.8	83.9	86.8	TBD
3 P H A S E	12-Leads, 3-Phase, 0.8 PF, WYE	Intermittent	10.0 KW	15.0 KW	22.0 KW	42.0 KW	50.0 KW
	240/480V Unit Output Rating	Continuous	9.0 KW	13.0 KW	18.0 KW	38.0 KW	48.0 KW
	Std. Unit Max. Rated Current Output. (1.) Amps @ 240VAC, 3-ph, 0.8 PF.		30.1A	45.1A	66.1A	126.2A	150.3A
	A.C. Alternator (2.)	SKVA - Motor start	19.5 / 30%	27 / 30%	38 / 30%	72 / 30%	106 / 30%
	Max. Capacity @ 125°C Rise 240V.,3-ph.,0.8PF	KW Capacity	12.0	16.8	24.0	43.2	60.0
	WYE Connection	% Efficiency	83.8	84.3	88.5	90.3	91.0
	12-Leads, 3-Ph, 0.8PF 208V Unit Output Rating	Intermittent	10.0 KW	15.0 KW	21.0 KW	42.0 KW (4)	46.0 KW
		Continuous	9.0 KW	13.0 KW	18.0 KW	38.0 KW	Inquire

- (1) <u>Unit Output Rating</u> refers to the rating of the engine/generator combination.
- (2) A.C. Alternator Max Capacity refers to the manufacturers rating of the alternator.
- (3) Derate factor may be required to meet NFPA 1917.

## Available Connections - 60Hz. 1-Phase

-SD240 = 240/120VAC

#### 3-Phase

- -T240 = 240VAC
- -T480 = 480VAC
- -T208 = 208VAC

For compartment applications with space limitations, inquire about our Stadco Cellpac™ super-compact compartment generator systems.



10-50KW

<u>AC Power</u> <u>Systems</u> 1800 RPM



<u> Compact - Mobile</u>

GENSET DATA		CD10T4F	CD15T4F	CD22T4F	CD42T4F	CD50T4F	
Engine Specifications							
	Make	Mitsubishi	Mitsubishi	Deutz	Deutz	Deutz	
Discal Fasing with haris	Cylinders	3	4	4	4	4HT	
Diesel Engine with basic components.	Liters / CID	1.32 / 81	1.75 / 107	2.9 / 177	2.9 / 177	3.6 / 221	
components.	HP @ 1800 RPM SAE J1349	18.9	24.7	37.0	74.0	74.0	
Battery Charging Alternator	Volts DC / Amps	12V / 50A	12V / 50A	14V / 95A	14V / 95A	14V / 95A	
Fuel Consumption	100% Cont. Load GPH	1.0	1.5	2.0	3.1	3.8	
Fuel Consumption	50% Load GPH	0.5	0.8	1.0	1.6	1.9	
Lube oil change Interval (Typic	Lube oil change Interval (Typical)		250 hrs.	500 hrs.	500 hrs.	500 hrs.	
Typical Cold Starting	12V Starting aid &	-15ºC	-15ºC	-20°C	-20°C	-20°C	
Capability w/ 5W-30 Lube Oil	uprated Battery	(5°F)	(5°F)	(-4°F)	(-4°F)	(-4°F)	
EPA Emissions Certification	EPA Emissions Certification		Tier 4F	Tier 4F	Tier 4F	Tier 4F	
DEF Fluid Requirement		None	None	None	None	None	
Speed Droop (typical)	Speed Droop (typical)		1%	1%	1%	1%	
Unit Specifications							
Recommended Battery Size	Normal	550	550	800	800	800	
12V. (CCA)	Uprated	700	700	1000	1000	1000	
Recommended 12V Battery ty	pe; BCl#	24F	24F	31	31	31	
Average Sound Level (5)	dB(A) @ 1 Meters	80	82	91	88	89	
Average Sound Level (3)	dB(A) @ 7 Meters	65	67	77	74	74	
Unit Size	Length	43.3"	47.5"	56.6"	59.9"	66.2"	
Refer to Stadco Sales	Width	18.7"	18.7"	24.1"	25.5"	29.1"	
Drawings for more details	Height	26.9"	26.9"	29.5"	30.5"	32.6"	
Approx. Unit Weight (Lbs)	605	700	1246	1380	1750		

(5) Sound level is based on engine manufacturer's specs without exhaust noise.

STANDARD EQUIPMENT		CD10T4F	CD15T4F	CD22T4F	CD42T4F	CD50T4F	
Engine - Diesel							
Cooling System	Aluminum Heat Exchanger	•	•	•	•	•	
Cooling System	Pusher Fan	•	•	•	•	•	
Coolant Resevoir		•	•	•	•	•	
Air Cleaner, Dry Type, Medium duty		•	•	•	•	•	
Oil Filler, Oil & Fuel Filters - Service side		•	•	•	•	•	
Cold Start Preheat System 12V. DC		•	•	•	•	•	
Fuel Transfer Pump	Electric	•	•	•	•	•	
Guards: Fan & V-belt		•	•	•	•	•	
Exhaust After-Treatment		Not Req'd	Not Req'd	DOC only	DOC only	<b>DOC</b> only	
Exhaust Muffler kit w/ 8ft. SS Flex tubing - Loose		•	•	•	•	•	
Side Oil filler & Oil Drain Hose Kit		•	•	•	•	•	
Governor - Electronic		•	•	•	•	•	
12V Starting System w/ Battery Charging Alt.		50A	50A	95A	95A	95A	

STANDARD EQUIPMENT (cont'd)		CD10T4F	CD15T4F	CD22T4F	CD42T4F	CD50T4F	
AC Alternator. 4-Pole 1800 RPM							
Brushless Alternator, Direct Coupled, 1-Bearing		•	•	•	•	•	
Winding Insulation 40°C Ambient	Class H	•	•	•	•	•	
Voltage Regulation - Elec	Voltage Regulation - Electronic +/- 1% w/ UFRO		•	•	•	•	
High Motor Starting Capa	acity	•	•	•	•	•	
12VDC All-Digital Control System							
Push button Start & Stop		•	•	•	•	•	
Display Protection for: Oil press, Engine Temp, Overspeed, Overcrank, Starter Lockout, Battery Volts, AC Volts & Freq., Hour Meter and Fault Messaging.		•	•	•	•	•	
Digital Engine Controller	Digital Engine Controller & 10ft. Cord		•	•	•	•	
Remote Control Capable	Remote Control Capable		•	•	•	•	
	AC Contro	ol System			•		
Main Load Circuit Breaker w/ load terminals		Optional	Optional	Optional	Optional	Optional	
	Miscella	aneous					
Skid Base w/ vibration Iso	olators and Crash Stops	•	•	•	•	•	
Routine Service points or	n service side	•	•	•	•	•	
Placards & Nameplates		•	•	•	•	•	
Operators/Parts/Installati	on Manuals	•	•	•	•	•	
Finish: Signal Gray/Black	c exterior enamel	•	•	•	•	•	
Factory Load tested & Q	A inspection.	•	•	•	•	•	
EPA Emmissions Compl	iance (See Specifications)	•	•	•	•	•	

#### STANDARD EQUIPMENT - DESCRIPTIONS

#### #31081, Digital Control/Protection system, wall enclosure for remote mounting.

Provides engine & generator protection with warning & shutdown via LCD Screen messaging for: Low oil pressure, High engine temperature, Over-crank, Over-speed, High/Low battery voltage, AC Volts, Frequency, and AC Amps. System features an engine controller w/ auto-crank that automatically preheats and cranks engine for a preset period of time. In Auto mode the control system allows for multiple remote stations for convenient in-cab or pump panel starting when generator is inaccessible. The system will also shutdown or prevent genset startup when shore power is detected (control signal must be supplied by installer).

<u>Control system includes:</u> Hourmeter, toggle power switch, 12VDC circuit breaker, 10 ft. control cord with weather-tight connectors. Factory wired & tested. shipped loose. (See Control System Flier S189)
Also available with flat panel, open back; See Flier #S189

**MOUNTING BASE:** Formed channel rail skid bases provide rigid trussing to accommodate varied mounting configurations. Equipped with captive type "floating" rubber vibration isolation mounts.

**DEUTZ ENGINES:** This design is extremely successful in industrial and construction markets and is a very high volume seller in the USA. Reliability, easy starting in all kinds of weather and fuel economy are its most appreciated characteristics. Search: sdeutz.com

**MITSUBISHI ENGINES:** All Mitsubishi diesel engines offered are liquid cooled multi-cylinder engines and are the smoothest and quietest diesel engines available. They are among the world's best mini-diesels. Mitsubishi diesels are well known for their reliability and fault free operation.

**AC GENERATOR:** Industrial quality 4-Pole brushless alternator provides important benefits: **A.)** Brushless - Eliminates brush wear and maintenance. **B.)** Low Radio Interference (RFI) factors. **C.)** 4-Pole design provides twice the amount of copper winding. Provides almost double the motor starting power when compared with 2-Pole alternators.

The standard <u>electronic automatic voltage regulator</u> provides close voltage regulation at all engine speeds and loads, and with all types of loads; lights, heaters and motors.

#### STANDARD EQUIPMENT

**AC/DC ELECTRICAL & COMPONENTS:** All AC components, including the main load circuit breaker are mounted into metal generator enclosure cabinet. AC load cables connect to load terminals of the circuit breaker.

**EXHAUST SYSTEM:** Exhaust manifold is insulated with heat insulation wrap. Exhaust kit with muffler is supplied loose for engines without DOC.

AIR CLEANER: Canister type air cleaner provides a high degree of engine intake noise silencing.

**TESTING & QUALITY ASSURANCE:** Each genset is individually factory load tested to confirm function and performance. Vital functions and results are documented. All engine adjustments are checked after test run.

**SERVICE STATEMENT:** Stadco stocks a comprehensive amount of routine maintenance and repair parts at our own facility. Typically we provide same day shipment to anywhere in the USA when requested.

#### **GENERAL**:

**OPTIONAL EQUIPMENT:** Choose accessories from Optional Accessories List on price sheet. **PERFORMANCE RATING:** 

- a. All Stadco generator sets are individually load tested and certified by Stadco to deliver advertised performance under climatic operating conditions specified by SAEJ1349 standards.
- b. POWER RATING: Conforms to SAEJ1349 climatic conditions of 80°F(27°C) ambient temp, 500ft. altitude, 50% relative humidity. Operation at higher temp and/or higher altitude may require de-rating of unit output. Refer to Stadco chart #S67.
- c. <u>NOTE: When sizing a generator for job application, all resistance loads such as lights and heaters are considered Continuous loads.</u>

COOLING AIR SUPPLY: Observe air flow directions and clearances as shown on Stadco sales drawings.

**WARRANTY STATEMENT:** Stadco Generator Systems are covered by a limited warranty policy for a term of (24) consecutive months or (2000) hours of service, whichever occurs first. See Warranty Statement D25 for full details.

<u>INTENDED APPLICATIONS:</u> Robust generators suitable for compartment or free standing applications. Prime power, Industrial Power, Mobile equipment, and Critical duty APU's. Please observe installation instructions from Stadco Operators manual, otherwise all Stadco warranty provisions are null and void. Weather protection is highly recommended for units that will be used or stored outdoors.

**STANDARDS:** Gensets quoted herein meet the following standards:

- Electrical Instrumentation: UL listed. Wiring & electrical systems: NEMA Code
- NFPA 1901
- NFPA 1917 (See power derate)
- A.C. Alternator: NEMA MGI-22 and ISO 9001
- Engine: EPA certification for applicable exhaust emissions and ISO 9001.

**SAFETY NOTICES:** To prevent possible accidents, which may result from the use of any generator set or system, it is important that correct procedures are followed. Installation, maintenance and operation procedures specified by STADCO and the engine manufacturer must be followed in conjunction with engineering and safety information specified. Grounding equipment, guards and other suitable safety equipment or procedures that may either be desirable or specified in safety codes should be provided to assure safe operation in the prevailing conditions. **THESE DEVICES MAY NOT BE INCLUDED WITH THE PRODUCT, AND ARE NOT THE RESPONSIBILITY OF STADCO. INSTALLER IS RESPONSIBLE FOR PROVIDING SAFETY ITEMS TO SATISFY PREVAILING SAFETY CODES.** 

**<u>DO NOT</u>** install STADCO generator units into installations where personnel will be confined with the operating unit; unless a separate compartment is provided for the unit.

**PRODUCT SUPPORT:** Single source responsibility: Stauffer Diesel Inc / Stadco is the single source, full-service supplier for Stadco generator systems. **We design it** - **We build it** - **We support it**. Purpose built with diesel engines for which we can supply complete product support.

Stadco reserves the right to change product specifications at any time without incurring obligation. These specifications supersede all previous publications.

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