MOSER ENERGY SYSTEMS

DRC400

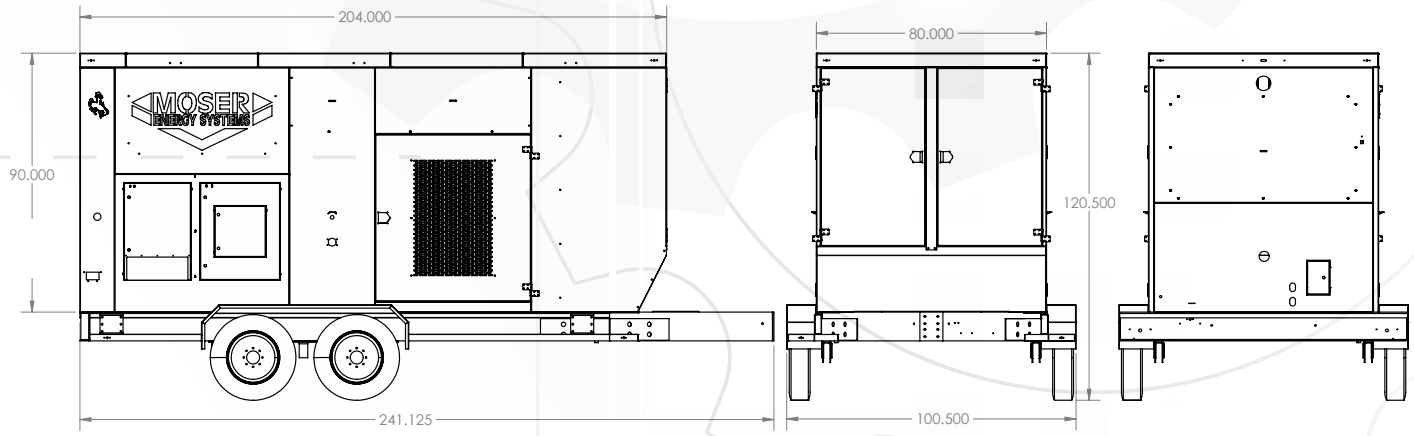
1 YEAR WARRANTY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prime/Continuous Duty Generator Set

DRC400 UNIT SPECS

24/7 PRIME POWER KW (KVA)	350 kW (437 kVA)
ENGINE PRIME RATING HP (KW)	581 HP (434 kVA)
GENERATOR RATING KW (KVA)	384 kW (480 kVA)
MAXIMUM AMP RATING	526
SIZE OF UNIT	16'X 8'6" - TONGUE IS 4'9"
WEIGHT OF UNIT	Approximately 16,500 lbs.



DRC400

ELECTRICAL DATA	
Insulation System	Class H
Stator Winding	Double Layer Lap
Winding Pitch	Two Thirds
Winding Leads	12
Winding Number	311
Number of Poles	4
IP Rating	IP23
RFI Suppression	BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. Refer to factory for others
Waveform Distortion	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%
Short Circuit Ratio	1/Xd
Steady State X/R Ratio	13.7389

	50 Hz				60 Hz			
Telephone Interference	THF < 2%				TIF < 50			
Cooling Air	0.76 m3/sec				0.92 m3/sec			
Voltage Star	380	400	415	440	416	440	460	480
kVA Base rating (Class H) for Reactance Values	400	415	415	400	455	500	500	520

60 Hz

Class - Temp Rise	Standby - 163/27 °C				Standby - 150/40 °C				Cont. H - 125/40 °C				Cont. F - 105/40 °C			
Series Star (V)	416	440	460	480	416	440	460	480	416	440	460	480	416	440	460	480
kVA	500	550	550	575	485	535	535	555	455	500	500	520	420	465	465	480
kW	400	440	440	460	388	428	428	444	364	400	400	416	336	372	372	384
Efficiency (%)	92.9	92.7	93.0	93.0	93.0	92.9	93.2	93.2	93.4	93.2	93.5	93.5	93.7	93.6	93.8	93.8
kW Input	431	475	473	495	417	461	459	476	390	429	428	445	359	398	397	409

EXCITATION AND VOLTAGE REGULATORS				
AVR Type	as440	mx341	mx321	
Voltage Regulation	±1%	±1%	±0.5%	with 4% Engine Governing
Excitation Type	Self-Excited	PMG	PMG	

No Load Excitation Voltage (V)	10 - 8
No Load Excitation Current (A)	0.7 - 0.5
Full Load Excitation Voltage (V)	41 - 37.5
Full Load Excitation Current (A)	2.3 - 2.1
Exciter Time Constant (seconds)	0.105

STAMFORD

S4L1D-F41 Wdg.311

Optional voltages and frequencies available.

DRC400

DSE8610 MKII

SYNCHRONISING & LOAD SHARING AUTO START CONTROL MODULE

- Comprehensive synchronizing & load sharing capabilities.
- Built in governor and AVR control.
- Base load (kW export) control.
- Positive & negative kVAr export control.
- Mains (Utility) decoupling protection.
- 4-Line back-lit LCD text display.
- Multiple display languages.
- Five key menu navigation.
- LCD alarm indication.
- Heated display option available.
- DSENet expansion capability.
- Data logging & trending facility.
- Protections disable feature.
- Front panel configuration with PIN protection.
- Power save mode.
- 3 phase generator sensing and protection.
- Generator current and power monitoring (kW, kvar, kVA, pf).
- kW and kvar overload alarms.
- Reverse power alarms.
- Over current protection.
- Unbalance load protection.
- Breaker control via fascia buttons. one variant.
- Real-time clock.
- Engine run-time scheduler.
- Fuel usage monitor and low fuel level alarms.
- Simultaneous use of all communication ports.
- Remote SCADA monitoring via various DSE software applications.
- MODBUS RTU & TCP support with configurable MODBUS pages for integration into building management systems (BMS).
- Optional Advanced SMS messaging capability. (Additional external modem required.)
- 3 configurable maintenance alarms.
- Power modes for when in parallel with the mains.

Standard Options: *Heavy Duty Trailer • Fuel Scrubber • Low-Noise Enclosure • Oil Make-Up • Auto-Switching Propane Kit • Integrated Paralleling Gear.*

Available Options: *Cold Weather Package • Multiple Voltages at 50 Hz and 60 Hz • Ultra-Low Emissions Package • Engine Block Heater.*

DRC400

GENERAL ENGINE DATA	STD	METRIC	1500		1800	
Type	N/A	N/A	V-type 4 cycle			
Number of cylinders	N/A	N/A	12			
Aspiration	N/A	N/A	Turbo Charged Air Cooled			
Bore	in	mm	5.04	128	5.04	128
Stroke	in	mm	5.59	142	5.59	142
Displacement	in^3	L	1338	21.9	1338	21.9
Compression ratio	N/A		10.5			
RPM Range (Min-Max)	RPM		1500-1800			
Rotation Viewed from Flywheel	N/A		Counter Clockwise			
Firing Order	N/A		1-12-5-8-3-10-6-7-2-11-4-9			
Dry Weight						
Fan to Flywheel	lb	kg	3638	1650	3638	1650
Rad to Flywheel	lb	kg	5238	2375.90	5238	2375.90
Wet Weight						
Fan to Flywheel	lb	kg	3813	1706	3813	1706
Rad to Flywheel	lb	kg	5760	2620	5760	2620

EXHAUST SYSTEM						
Type			Watered Cooled Manifold			
Maximum allowable back pressure	in HG	kPa	3	10.2	3	10.2
Standard catalyst back pressure	in HG	kPa	1.5	5.1	1.5	5.1
Exhaust outlet pipe size						
Maximum turbine inlet temperature	F	C	1382	750	1382	750
Exhaust flow at rated power	lb/hr	kg/hr	3184	1444	4286	1944
Exhaust flow at rated power @ 1350F	cfm	m^3/min	763	22	1027	29

AIR INDUCTION SYSTEM						
Maximum allowable intake air restrictions with air cleaner						
Clean	in H20	kPa	5	1.24	5	1.24
Dirty	in H20	kPa	15	3.74	15	3.74
Combustion air required (entire engine)	lb/hr	kg/hr	3004	1362	4044	1834
Combustion air required (entire engine)	cfm	m^3/min	763	22	1027	29

ELECTRICAL SYSTEM						
Cold cranking current						
Engine only	CCA		1000			
Engine with drive train	CCA		1000			
Maximum allowable resistance of starting circuit	Ohms		0.002			
Starting motor power	HP	kW	9.4	7.0	9.4	7.0
Voltage	Volts		24			
Current	Amps		45			
Coil primary resistance	Ohms		0.59Ω ±10%			
Spark plug p/n			IFR7F-4D			
Spark plug gap	Inches	mm	.015" (-0/+.008") .38mm (-0/+.2mm)			

COOLING SYSTEM						
Coolant capacity						
Engine only	gal	L	11.5	52.3	11.5	52.3
Engine with radiator	gal	L	50.1	228	50.1	228
Engine coolant flow	gal/min	L/min	145	550	174	660
heat rejected to cooling water at rated load	btu/min	kcal/sec	21451	90	27342	115
Maximum intake air temperature (IAT)	F	C	155	68	155	68
Heat rejection per CAC	btu/min	kW	TBD		3227	57