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## **Cummins Prime Diesel Generators**

# International Model Range

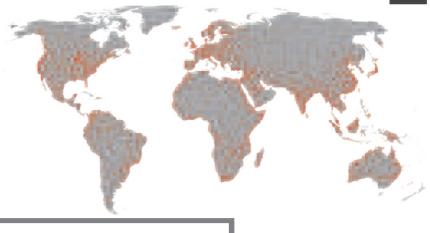
## 13-3750 kVA 60 Hz





#### **Global Power Leader**

With more than 100 years of experience in power generation and an extensive global distributor network across 190 countries, Cummins Power Generation is ready to match the right generating, transfer and control technologies with your power needs - whether you require continuous, prime, peaking or standby power; cogeneration; or a complete turnkey power plant



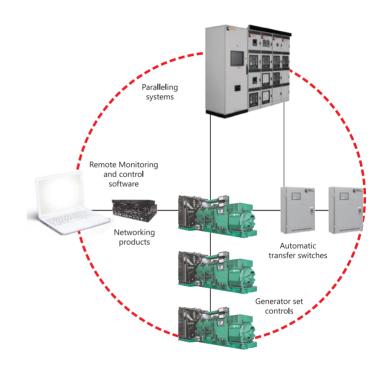
← 62,600 employees in 190 countries	◆ 7,000 sales and service locations			
◆ 88 manufacturing	<ul> <li>20 parts distribution centers</li> </ul>			
→ 19 technical centers	◆ 600 distributors			

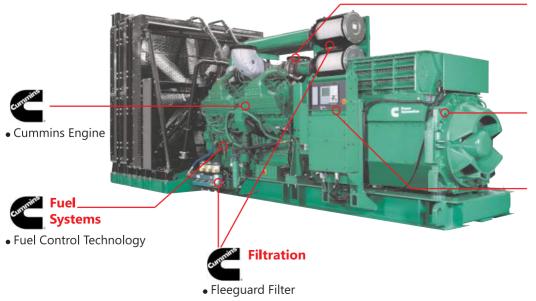
#### **Total solutions provider**

Commins Power Generation is a world leader in the design and manufacture of pre-integrated generator sets, ranging from 8 kVA to 3750 kVA

All major components - engine, alternator, transfer switches and control systems - are designed and manufactured by Cummins.

Because they are designed by one manufacturer, all of elements of our power generation system work in harmony from the start. This integral approach - that we call the Power of One™ gives you the peace of mind that comes from premium customer support and reliable trouble - free operation.







Holset Turbocharger



Stamford Alternator



- Generator Set
- PowerCommand® Control
- Automatic Transfer Switch
- Digital Paralleling System
- Networking Software
- Switchgear



### **Features of Cummins Engine**



#### Type:

Four-stroked, water cooled, turbo charged and aftercooled or charge air cooled.

#### **Structure:**

Cast steel crankshaft, connecting rod, cast iron cylinder block.

#### **Fuel injection system:**

The unique High Pressure Injection (HPI), PT fuel system brings greater fuel efficiency and lower emissions. By applying the pressure time, injection technology, reducing fuel line and increasing injection pressure, there is substantial decrease of the fuel lime consumption ratio of HPI-PT fuel system and the polluline discharge of oxynitride.

#### Advanced electronic engine controls:

With new electronic sensors and microprocessor -based engine controls to compensate for load, temperature, fuel energy content, barometric pressure and even engine wear, fuel efficient and power output improved while production of both NOx and PM are decreased.

#### **Fuel filtration system:**

High-precision paper-based filter , DC fuel magnetic valve.

#### **Engine oil filtration system:**

High-precision paper-based lubricant filter with by-pass protection.

#### **Colling system:**

Built-in water circulating pump and thermostat improves the efficiency of engine.

Cummins provides engines with power nodes from 13kW-3000kW. We offer the most advanced technology that also satisfies the strictest applicable standard under different working conditions.

### **Features of Cummins Stamford Alternator**

#### **Standard**

The alternator complies with the requirement of GB755, the third part of BS5000, VED0530, NEMAMG1-32, IEC-34, CSAC22-100 and AS1359 standards.

#### **Electrical Features Insulation and Impregnation:**

The insulation systems is class "H". All wound components are impregnated with materials and processes designed specifically to provide the high build required for static windings and the high mechanical strength required for rotating components.

#### Winding and electronic performance:

2/3 pitch main stators and damper winding eliminates tripled harmonics on the voltage waveform and is found to be the optimum design for trouble-free supply of non-linear loads.

The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches ,when in parallel with the mains. A fully connected damper winding reduces oscillators during paralleling. This winding , with the 2/3 pitch and carefully selected pole and tooth designs , ensures very low waveform distortion.

#### **Telephone interference:**

THS (as defined in the BS EN60034-1) < 2%, TIF (as defined in the NEMAMG1-32) < 50.



#### **Radio interference:**

Brushless device and the high-quality AVR can guarantee a small interference during radio transmission; if necessary, we can provide the RFI in addition.

#### **Protection class:**

All the Stamford land alternators have met the IP23 standard protection level, optional IP44 AC (air-cooled) protection can be supplied but we suggest that all the IP44 generator should be equipped with a stator winding high-temperature warning device.

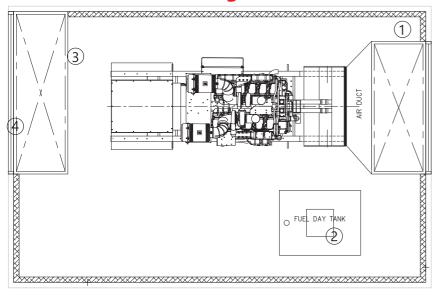
## **Open Set Configuration**





- ☑ Standard sub-based fuel tank for C17 D5 C550 D5e (option: separate tank)
- ☑ Separate fuel tank 8hr. operation for C640 D5 C3750 D5
- ☑ Starting battery 12VDC or 24 VDC
- ☑ Battery charger with automatic battery trickle charger
- ☑ Fuel Filter, Air Filter, Lube Oil Filter
- ☑ Standard set mounted circuit breaker for C17 D5 C550 D5e
- ☑ Mechanic Governor (C17 D5 C66 D5L)
- ☑ Electronic Governor (90 D5 C3750 D5)
- ☑ Alternator brushless, single bearing, self-excited (C17 D5 C690 D5)
- ☑ Alternator brushless, single bearing, PMG (C700 D5 C3750 D5)
- ☑ Vibration Isolator rubber type (C17 D5 C1675 D5A)
- ☑ NFPA110 Single step load 100%
- ☑ Silencer Residential or Critical depend on requirement
- ☑ Comply eith DIN, BS, SAE, ISO, VDE, NEMA, IEC, CSA, AS, etc..

### **Installation Drawing**

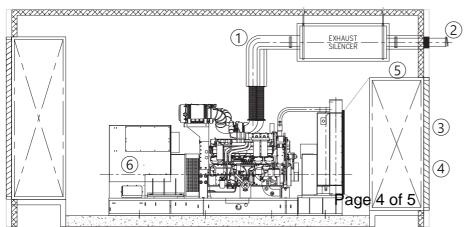


01 Soundproof Wall (OPT)

(2) Fuel Tank with piping for genset above C550 D5e (STD)
Fuel tank with MDR document (OPT)

(3) Air inlet attenuator (OPT)

(4) Air inlet grill (OPT)



### **Enclosures Configuration**

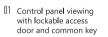


Sound-attenuated and weather protective enclosures from Commins Power Generation meet even the strictest sound requirements and provide optimum protection from inclement weather.



### **Features and Benefits**

- ☑ 14-gauge, low carbon, hot-rolled ASTM A569 steel construction (panels)
- ☑ 12-gauge, low carbon, hot-rolled ASTM A569 steel construction (posts)
- ☑ Stainless steel hardware
- ☑ Compact footprint
- ☑ Zinc phosphate pretreatment, e-coat primer and super durable powder topcoat paint minimize corrosion and color fade
- ☑ Two or three recessed doors per side, depending on generator set dimensions, for service access
- ☑ Doors key and padlockable for added security
- Weather protective seals around all doors on soundattenuated enclosures
- ☑ Enclosed exhaust silencer improves safety and protects against rust
- ☑ Critical sound level exhaust silencers in soundattenuated enclosures
- ☑ Rain collar and rain cap
- ☑ Non-hydroscopic sound-attenuating material
- ☑ Easy access lifting points for spreader bars or forklift, depending on model
- ☑ Compatible with most under-set fuel tanks
- ☑ Enclosure attaches directly to generator set skid base or fuel tank, depending on model
- ☑ Designed for ambient temperatures up to 50 °C (122 °F)
- ☑ Enclosures are designed for outdoor use only
- ☑ Removable enclosure panels or hinged doors provide easy generator set access
- ☑ Fixed louvers
- ☑ Cambered roof prevents water accumulation
- ☑ Fuel and electrical stub-up area within enclosureperimeter
- ☑ Compliant with UL 2200 Listed generator sets
- ☐ Designed to satisfy all requirements of National Electrical Code installations





Heavy duty recessed patented lifting device

B External emergency Stop button or Operator safety



Exhaust wrapping for increase safety and higher limited ambient capacity

05 Compact low noise enclosures compliant to 200/4/1EC Step 2006



Use of Zintech and powder coating for high resistance againt corrosion

07 High stsndard soundproofing materials



08 Slam shut doors

Use Large access doors for Easy maintenance



10 Internal catchments to prevent spillage

11 High fuel tank capacity



12 Easy cable access



## **COMMERCIAL DIESEL GENERATORS**

INTERNATIONAL MODEL RANGE

ISSUE 27 — MAY 2021



## **60 Hz RANGE**

#### ISSUE 27 — MAY 2021

MODEL NAME	STANDBY RATINGS		PRIME RATINGS		DCC RATINGS		ENGINE MODEL	STANDARD	STANDARD	EPA	SOUND
	kVA	kWe	kVA	kWe	kVA	kWe		ALTERNATOR	CONTROLLER	CERT.	ENCLOSURE
C12D6	15	12	13	11	_	_	X2.5-G4	S0L1-L1	PS0600	_	•
C16D6	20	16	18	15	_	_	X2.5-G4	S0L2-F1	PS0600	_	•
C20D6	25	20	22	18	_	_	X2.5-G4	S0L2-M1	PS0600	_	•
C30D6	38	30	34	27	_	_	X3.3-G2	S1L2-J1	PS0600	_	•
C35D6	44	35	40	32	_	_	X3.3-G2	S1L2-K1	PS0600	_	•
C40D6E	50	40	45	36	_	_	4BTAA3.3-G12	UCI224C	PC 1.2*	Tier 3	•
C50D6E	63	50	57	45	_	_	4BTAA3.3-G12	UCI224D	PC 1.2*	Tier 3	•
C60D6E	75	60	68	55	_	_	4BTAA3.3-G12	UCI224E	PC 1.2*	Tier 3	•
C80D6	100	80	90	72	_	_	6BTA5.9-G6	UCI224G	PC 1.2	_	•
C100D6	125	100	114	91			6BTA5.9-G6	UCI274C	PC 1.2		•
C135D6	169	135	153	122	_	_	6BTAA5.9-G6	UCI274E	PC 1.2	_	•
C150D6E	188	150	169	135			QSB7-G5	UCI274F	PC 1.2	Tier 3	•
C175D6E	219	175	200	160		_	QSB7-G5	UCI274H	PC 1.2	Tier 3	•
C200D6E	250	200	225	180			QSB7-G5	UCI274H	PC 1.2	Tier 3	•
C175D6	219	175	200	160		_	6CTAA8.3-G7	UCI274G	PC 1.2	_	•
C200D6	250	200	225	180			6CTAA8.3-G7	UCI274H	PC 1.2	_	•
C225D6	281	225	256	205			6CTAA8.3-G9	UCDI274J	PC 1.2	_	•
C250D6B	313	250	282	225			6LTAA9.5-G3	UCDI274K	PC 1.2		•
C275D6B	344	275	313	250			6LTAA9.5-G1	HCI444E	PC 1.2	_	•
C250D6	313	250	282	225			QSL9-G5	UCDI274K	PC 1.2		•
C275D6	344	275	313	250	_		QSL9-G5	HCI444D	PC 1.2		•
C300D6 C230D6E	375 288	300	344 259	275			QSL9-G5 QSL9-G7	HCI444D UCDI274K	PC 1.2 PC 1.2	Tior 2	•
C250D6E	313	230 250	282	207 225	_		QSL9-G7	HCI444D	PC 1.2	Tier 3	
C250D6E	344	275	313	250	_		QSL9-G7	HCI444D	PC 1.2	Tier 3	
C300D6E	375	300	344	275	_		QSL9-G7	HCI444D	PC 1.2	Tier 3	•
C350D6E	438	350	400	320	_	=	QSG12-G3	S4L1D-F41	PC 1.2	—	•
C400D6	500	400	456	365			QSG12-G3	S4L1D-G41	PC 2.2		•
C350D6E	438	350	400	320			QSZ13-G7	HCI544C	PC 2.2	Tier 3	•
C400D6E	500	400	455	364		_	QSZ13-G7	HCI544C	PC 2.2	Tier 3	
C440D6	550	440	500	400	_	_	QSZ13-G5	HCI544C	PC 2.2	Tier 2	•
C500D6***	550	500	500	450	_	_	QSZ13-G11	S5L1-E41	PC 2.2	_	•
C500D6E	625	500	568	455	568	455	QSX15-G9	HCI544D	PC 2.2	Tier 2	•
C600D6	754	603	681	545	681	545	VTA28-G5	HCI-5F	PC 3.3	_	_
C750D6	938	750	850	680	850	680	QSK23-G3	S6L1-D41	PC 3.3	_	•
C800D6	1000	800	906	725	906	725	QSK23-G3	S6L1-D41	PC 3.3	_	•
C900D6	1156	925	1044	835	1044	835	QST30-G3	S6L1-E41	PC 3.3	_	_
C1000D6	1265	1012	1150	920	1150	920	QST30-G4	S6L1-F41	PC 3.3	_	_
C900D6B	1125	900	1013	810	1013	810	KTA38-G14	HCI634K	PC 3.3	_	_
C1000D6B	1276	1020	1160	928	1160	928	KTA38-G14	HCI634K	PC 3.3	_	_
C1250D6	1588	1270	1400	1120	1400	1120	KTA50-G3	PI734B	PC 3.3	_	_
C1500D6	1931	1545	1608	1286	1608	1286	KTA50-G9	PI734C	PC 3.3	_	_
DQGAE	1563	1250	1419	1135	1419	1135	QSK50-G5	PI734B	PC 3.3	Tier 2	
DQGAF	1875	1500	1706	1365	1706	1365	QSK50-G5	PI734C	PC 3.3	Tier 2	_
C2000D6	2500	2000	2281	1825	2281	1825	QSK60-G6	PI734F	PC 3.3	_	_
C2250D6A	2813	2250		_	2500	2000	QSK60-G9	PI734G	PC 3.3		_
DQKAD	2188	1750	2000	1600	2000	1600	QSK60-G6	PI734C	PC 3.3	Tier 2	_
DQKAE	2500	2000	2281	1825	2281	1825	QSK60-G6	PI734F	PC 3.3	Tier 2	_
DQKAF	2813	2250	2281	1825	2281	1825	QSK60-G14	PI734G	PC 3.3	Tier 2	_
DQKAN	3125	2500			2813	2250	QSK60-G19	LVSI804X	PC 3.3	Tier 2**	_
DQLC	3125	2500	2920	2335	2920	2335	QSK78-G8	LVSI804R	PC 3.3	_	_
DQLE	3125	2500	2844	2275	2844	2275	QSK78-G12	MVSI804S	PC 3.3	Tier 2	_
DQLD	3438	2750	3125	2500	3125	2500	QSK78-G8	LVSI804S	PC 3.3	_	_
DQLF	3438	2750	3125	2500	3125	2500	QSK78-G12	MVSI804S	PC 3.3	Tier 2	
C3000D6	3750	3000	3438	2750	3438	2750	QSK95-G2	LVSI804W	PC 3.3		_
C3000D6E	3750	3000	3438	2750	3438	2750	QSK95-G9	LVSI804W	PC 3.3	Tier 2**	_
C3250D6	4063	3250	3750	3000	3750	3000	QSK95-G2	LVSI804W	PC 3.3		_
C3250D6E	4063	3250	3750	3000	3750	3000	QSK95-G9	LVSI804W	PC 3.3	Tier 2**	_
C3500D6	4375	3500	3750	3000	3750	3000	QSK95-G2	LVSI804X	PC 3.3		_
C3500D6E	4375	3500	3750	3000	3750	3000	QSK95-G9	LVSI804X	PC 3.3	Tier 2**	_

<sup>\*</sup>Standard controller will change to PSO600 in July 21
\*\*Enhanced low Nox available, please contact SAE for more details
\*\*\*Available from Sept 2021



