



# Meet the Latest Emissions Requirements

With Cummins G-Drive Engines Fully Integrated for Generator Applications

The EU Stage IIIA and the EPA Tier 4 Interim off-highway emissions regulations took effect in January 2011. You can meet the new standards with the next generation of Cummins G-Drive engines with advanced CoolPac technology.

The G-Drive CoolPac, an integrated power system solution, delivers:

- A cost-effective, fully warranted, high ambient capable power solution from a technology leader.
- Reduced emissions in line with EU Stage IIIA and EPA T4i requirements.
- System integration of our offering, which ensures optimal performance and space efficiency.
- Increased fuel efficiency with intelligent low-emissions technology.
- The confidence that comes from having a single source for both products and service.

Further information about Cummins G-Drive engines can be found at [www.cumminsgdrive.com](http://www.cumminsgdrive.com)



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## EU Nonroad Emissions Regulations Schedule

Mobile nonroad generator sets (i.e., rental units) are required to meet Stage IIIA requirements as indicated below. (The EU does not regulate stationary prime or emergency standby installations, although some individual member countries do.)

### EU

kW	(HP)	2009	2010	2011	2012	2013	2014	2015	2016	2017
18 - 36	(24 - 48)	8.0 / 1.5 / 5.5 / 0.8			(7.5) / 5.5 / 0.6					
37 - 55	(49 - 74)	7.0 / 1.3 / 5.0 / 0.4			(4.7) / 5.0 / 0.4					
56 - 74	(75 - 99)									
75 - 129	(100 - 173)	6.0 / 1.0 / 5.0 / 0.3			(4.0) / 5.0 / 0.3					
130 - 560	(174 - 751)	6.0 / 1.0 / 3.5 / 0.2			(4.0) / 3.5 / 0.2					

Stage II ■ Stage IIIA ■

## U.S. EPA Nonroad Emissions Regulations Schedule

Emergency standby generators need only to comply with Tier 3 emissions regulations and are exempt from Tier 4 Interim and Tier 4 Final regulations.

### U.S.

kW	(HP)	2009	2010	2011	2012	2013	2014	2015	2016	2017
0 - 7	(0 - 10)	(7.5) / 6.6 / 0.40								
8 - 18	(11 - 24)									
19 - 36	(25 - 48)	(7.5) / 5.5 / 0.30			(4.7) / 5.0 / 0.03					
37 - 55	(49 - 74)	Opt T41 0.30 PM: 37-55 kW								
56 - 74	(75 - 99)	(4.7) / 5.0 / 0.40: 37-74 kW			3.4 / 0.19 / 5.0 / 0.02			0.40 / 0.19 / 5.0 / 0.02		
75 - 129	(100 - 173)	(4.0) / 5.0 / 0.30								
130 - 224	(174 - 301)	(4.0) / 3.5 / 0.20								
225 - 449	(302 - 602)	(4.0) / 3.5 / 0.20			2.0 / 0.19 / 3.5 / 0.02			0.40 / 0.19 / 3.5 / 0.02		
450 - 560	(603 - 751)	(4.0) / 3.5 / 0.20								
>506*	(>751)*	(6.4) / 3.5 / 0.20			2.0 / 0.40 / 3.5 / 0.10			3.5 / 0.19 / 3.5 / 0.04		
					0.67 / 0.40 / 3.5 / 0.10 <sup>a</sup>			0.67 / 0.19 / 3.5 / 0.03 <sup>b</sup>		

Tier 2 ■ Tier 3 ■ Tier 4 Interim ■ Tier 4 Final ■

a. Applies to portable power gen engines >900kW (>1207hp). b. Applies to portable power gen engines >560kW (>751hp).

### Key:

NOx / HC / CO / PM (g/kW-hr)

(NOx + HC) / CO / PM (g/kW-hr)

Conversion: g/kW-hr x 0.7457 = g/bhp-hr

Separate NOx and HC standards separated by a slash.

Combined NOx and HC standards denoted with parentheses.

## Cummins G-Drive Engines Compliant with EU Stage IIIA Emissions Regulations

Engine types and ratings				1500 rpm (50 Hz)										
				Gross Engine Output			Typical Generator Set Output							
Engine Model	Emissions EU/MOH	CoolPac	No. of cylinders/ Cooling	Standby	Prime Unlimited Time	Base power	Standby (ESP)	Prime Unlimited Time (PRP)	Base power (COP)					
				kWm	kWm	kWm	kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
X2.5-G5	EU Stage IIIA	•	3 inline/JW	26.3	24.6	19	22	27.5	20	25	14.0	17.0		
X3.3-G3	EU Stage IIIA	•	4 inline/JW	35	32	26	30	38	27	33.8	22	27.5		
QSB5-G2	EU Stage IIIA	•	4 inline/A-A	84	73	66	84	80	58	72	55	69		
QSB5-G3	EU Stage IIIA	•	4 inline/A-A	94	81	74	72	90	66	82	62	78		
QSB5-G4	EU Stage IIIA	•	4 inline/A-A	103	89	81	80	100	73	91	69	86		
QSB5-G5	EU Stage IIIA	•	4 inline/A-A	113	97	88	88	110	80	100	76	94		
QSB5-G6	EU Stage IIIA	•	4 inline/A-A	144	128	78	120	150	109	136	66	83		
QSB7G1	EU Stage IIIA	•	6 inline/A-A	110	93	84	88	110	80	100	65	81		
QSB7G2	EU Stage IIIA	•	6 inline/A-A	150	127	114	120	150	108.8	136	93	116		
QSB7G3	EU Stage IIIA	•	6 inline/A-A	174	151	134	140	175	120	150	110	138		
QSB7G4	EU Stage IIIA	•	6 inline/A-A	196	168	152	160	200	144	180	128	160		
QSB7G5	EU Stage IIIA	•	6 inline/A-A	213	182	152	176	220	160	200	128	160		
QSB7G6	EU Stage IIIA	•	6 inline/A-A	204	185	167	176	220	160	200	128	160		
QSL9-G2	EU Stage IIIA	•	6 inline/A-A	239	206	186	200	250	180	225	164	205		
QSL9-G3	EU Stage IIIA	•	6 inline/A-A	257	227	193	220	275	200	250	170	213		
QSL9-G4	EU Stage IIIA	•	6 inline/A-A	279	244	221	240	300	220	275	200	250		
QSL9-G7	EU Stage IIIA	•	6 inline/A-A	300	271	227	264	330	240	300	200	250		
QSL9-G8	EU Stage IIIA	•	6 inline/A-A	276	250	226	240	300	220	275	200	250		
QSL9-G11*	EU Stage IIIA	•	6 inline/A-A	366	333	300	308	385	280	350	254	318		
QSL9-G12*	EU Stage IIIA	•	6 inline/A-A	414	376	338	352	440	320	400	285	356		
QSL9-G13*	EU Stage IIIA	•	6 inline/A-A	462	418	377	396	495	360	450	321	401		
QSL9-G16*	EU Stage IIIA	•	6 inline/A-A	509	460	415	440	550	400	500	357	446		

### Key

\*Product available in 2012

## Cummins G-Drive Engines Compliant with EPA T4i Emissions Regulations

Engine types and ratings				1800 rpm (60 Hz)										
				Gross Engine Output			Typical Generator Set Output							
Engine Model	Emissions EU/MOH	CoolPac	No. of cylinders/ Cooling	Standby	Prime Unlimited Time	Base power	Standby (ESP)	Prime Unlimited Time (PRP)	Base power (COP)					
				kWm	kWm	kWm	kWe	kVA	kWe	kVA	kWe	kVA	kWe	kVA
4BT3.3-G5	EPA Tier4i		4 inline/JW	51	45	41	40	50	36	45	30	38		
QSB5-G7*	EPA Tier4i		4 inline/A-A	82	75	70	60	75	54	68	50	62		
QSB5-G8*	EPA Tier4i		4 inline/A-A	108	97	88	80	100	72	90	65	82		
QSB5-G9*	EPA Tier4i		4 inline/A-A	129	117	108	100	125	90	114	83	103		
QSB7-G7	EPA Tier4i		6 inline/A-A	191	173	156	160	200	145	181	130	163		
QSB7-G6	EPA Tier4i		6 inline/A-A	234	210	190	200	250	180	225	140	175		
QSL9-G8	EPA Tier4i		6 inline/A-A	323	293	264	275	344	250	313	225	261		
QSL9-G14*	EPA Tier4i		6 inline/A-A	414	376	338	350	438	318	398	283	354		
QSL9-G15*	EPA Tier4i		6 inline/A-A	468	425	382	400	500	364	455	324	405		
QSL9-G16*	EPA Tier4i		6 inline/A-A	575	521	469	500	625	455	570	406	508		

### Key

\*Product available in 2012