# Generator Drive Applications Non-Regulated G-Drive Engines





# **Power Meets Progress**

John Deere generator drive engines are built to perform in extreme conditions with reliable operation, low maintenance, long engine life, and exceptional fluid economy. They give you the power to meet any challenge.

## Prime or standby power

John Deere generator drive engines are ready when and where you need them. They provide fast response for standby situations and exceptional load recovery in a wide variety of applications.

## A smart choice

With John Deere, you get a wide range of configurations and accessories so you can specify the right engine that best fits your application. Our preconfigured options and innovative technologies can help save hours of engineering time and help you get machines to market faster.



## Extensive integration network

You get expert integration assistance provided by John Deere engineers and distributors. OEMs can put our application engineering experience and know-how to work to help save development time and money.

## Unparalleled customer support

With more than 9,000 John Deere service locations worldwide, you never have far to go to find expert assistance and advice. We support you not just at the beginning, but throughout the full lifetime of our products.

#### Ultimate uptime

Our distributors and dealers stock maintenance parts, as well as many other common replacement parts, to meet your service needs quickly. Our worldwide parts distribution system offers overnight delivery in most regions.



# Engines for non-emissions certified applications and regions not subject to emissions regulations



John Deere offers a full range of non-emissions certified engines suitable for generator sets in countries that currently haven't established emissions regulations, and for stationary gen-sets in the EU. Power nodes from 30 to 200 kVA are covered by the PowerTech<sup>™</sup> M platform (mechanical fuel system) while 225 to 500 kVA nodes are covered by the PowerTech E platform (HPCR fuel system and full authority electronic controls).

Node	Engine name	Туре	Engine model	Power unit model <sup>*</sup>	Speed	ed Standby ratings			Prime ratings			Generator efficiency	Fan power	Dual freg.	RoHS
kVA prime					rpm	kWm	kVA	kWe	kWm	kVA	kWe	%	kW	rreq.	
30	M 2.9L	3 cyl.	3029DFG20	3029DFU20	1500	31	33	27	28	30	24	90	1.6		
					1800	35	38	30	32	34	27	90	1.8		
40	M 2.9L	3 cyl.	3029TFG20	3029TFU20	1500	42	45	36	39	41	33	90	2.1		_
40					1800	48	51	41	44	46	37	90	2.4		
60	M 2.9L	3 cyl.	3029HFG20	3029HFU20	1500	58	62	49	55	58	47	90	3.1		
					1800	67	71	57	62	66	53	90	3.6		
80	M 4.5L	4 cyl.	4045TFG20	4045TFU20	1500	85	92	74	79	86	68	92	4.1	-	
					1800	97	106	84	89	96	77	92	4.7		
100	M 4.5L	4 cyl.	4045HFG20	4045HFU20	1500	103	113	90	96	105	85	92	5.1	-	-
100	IVI 4.5L				1800	115	125	100	105	114	91	92	5.7		
120	M 4.5L	4 cyl.	4045HFG20	4045HFU20	1500	122	133	107	112	122	97	92	6.1		
					1800	133	145	116	121	131	105	92	6.8		
150	M 6.8L	6 cyl.	6068HFG20	6068HFU20	1500	157	172	137	144	157	125	92	7.7		
150					1800	164	179	143	150	163	130	92	8.5		
180	M 6.8L	6 cyl.	6068HFG20	6068HFU20	1500	184	201	161	170	185	148	92	9.2		
100					1800	196	213	171	179	194	155	92	10.5		
200	M 6.8L	6 cyl.	6068HFG20	6068HFU20	1500	202	223	179	184	202	162	93	10.1		
					1800	210	232	186	191	210	168	93	10.5		
225	E 6.8L	6 cyl.	6068HFG25	-	1500	225	249	199	205	225	180	93	11.3	-	-
					1800	236	261	209	215	236	189	93	11.8		
250	E 6.8L	6 cyl.	6068HFG55	6068HFU55	1500	250	276	221	228	250	200	93	12.5	-	
					1800	260	287	230	237	260	208	93	13.0		
300	E 9.0L	6 cyl.	6090HFG84	6090HFU84	1500	304	336	269	277	304	243	93	15.2		-
					1800	315	348	278	287	315	252	93	15.8		
350	E 13.5L	6 cyl.	6135HF475	-	1500	355	392	314	323	355	284	93	17.8	-	-
050					1800	360	398	318	328	360	288	93	18.0		
400	E 13.5L	6 cyl.	6135HF475	-	1500	405	447	358	369	405	324	93	20.3		Exempt
400					1800	420	464	371	382	420	336	93	21.0	-	
450	E 13.5L	6 cyl.	6135HF475	-	1500	456	504	403	415	456	365	93	22.8		Exempt
450					1800	460	508	406	419	460	368	93	23.0	-	
500	E 13.5L	6 cyl.	6135HFG75	-	1500	-	-	-	-	-	-	-	-		Exempt
					1800	563	622	497	-	-	-	93	28.2		

\*Power unit includes factory-mounted cooling package, air filter, and feet.

# The John Deere difference

## Proven performance



#### Off-highway experience

John Deere has billions of hours of field experience with off-highway engine technologies.



#### Load acceptance

Tailored turbocharging technology provides exceptional load acceptance and block loading capability.

John Deere engines meet ISO 8528-12 Class G3 international standards from 225 to 550 kVA.



#### Monitor remotely

Watch over your engine and your equipment thanks to John Deere OEM Technology Solutions (PowerTech E only).

# **Efficient operation**



#### Life cycle costs

Optimized combustion, power-displacement density, and low-idle capability all work together to reduce fuel consumed each day.

Easy-to-perform engine maintenance to increase uptime and achieve higher productivity. Single-side oil check and fill, extended oil and coolant intervals, dual-stage fuel filter protection, and easy-to-drain water separator.

Long life and reliable performance achieved through heavy-duty engine components validated through billions of test cell and field-demonstrated hours. Engines are rebuildable for second and third life to factory specification with wet-sleeve liners.

# Reliable uptime



#### Day-to-day reliability

John Deere engines feature top-liner cooling, efficient lubrication, and robust cooling systems for reliable operation.



## Long-haul durability

Heavy-duty, oversized components and wet-type cylinder liners provide long engine life.

John Deere engines are designed for rugged applications.



#### Extreme conditions

John Deere engines are built to operate in hot and dry, subzero, and humid climates as well as high altitudes. The engine control unit (ECU) monitors and protects engine components in these extreme conditions.

In regions where fuel quality may vary, John Deere protects the engine with two-stage fuel filtration and water detection.

John Deere engines tolerate use of high-sulfur fuel.



## Simple technology

Straightforward engine technologies are easy to install and easy to maintain with no compromise on performance, fuel consumption, load acceptance, reliability, and durability.

Power nodes below 200 kVA are naturally aspirated and have mechanical fuel systems. Higher power nodes offer electronic engines with added control and performance.

John Deere non-emissions certified engines have a lower installed cost and give customers confidence for ease of repair and reliability.

# Easy integration



#### Dual frequency

Manufacturers that need 50 Hz and 60 Hz power can switch between 1500 and 1800 rpm without reprogramming.



#### Preconfigured power units

John Deere engine packages come with mounting pads, cooling package, and air filter for ease of design and installation. Designed for 47°C (117°F) ambient air temperature.



#### Power density

John Deere engines are designed to deliver maximum power in a compact engine package. They are known for delivering exceptional kWm per liter of displacement.

Downsizing of the engine may be possible to meet certain power nodes. Smaller displacements allow gen-set manufacturers to downsize canopies and optimize their logistics costs by designing lighter generators.



#### Configurability

With multiple parts options, OEMs may have to do less modification of their gen-sets to integrate John Deere engines. This configurability saves development costs and reduces delivery time to market.

Single-side service points make installation and maintenance easy.

Turbocharger with charge air cooler (CAC) and non-CAC air systems are available.

With multiple fan heights and speed ratios, you can build gen-sets for tight places and quiet operation.

The majority of John Deere non-certified engines are RoHS compliant for the Restriction of Hazardous Substances in the EU.







# Expanding generator drive engine power while downsizing engine dimensions

#### More choices for more nodes



#### No gaps in power

John Deere just made our range of engines even more powerful. Our engine lineup fills every power node from 30 to 500 kVA with no gaps.

## New features

Dual frequency (one engine configuration for both 50 Hz and 60 Hz markets), increased maintenance interval, and single-side service access.

## Engine downsizing

Smaller displacements allow gen-set manufacturers to downsize canopies and optimize their logistics costs by designing lighter generators.

## More power in less space



Node moving from 4 cylinders, 4.5L to 3 cylinders, 2.9L platform



**120 kVA downsizing** Node moving from 6 cylinders, 6.8L to 4 cylinders, 4.5L platform



Node moving from 6 cylinders, 9.0L to 6 cylinders, 6.8L platform

# Always at your side

#### Warranty support when you need it

John Deere provides one of the best warranties in the business. Our 2-year/2,000-hour standard warranty applies not only to the new OEM engine but also to John Deere parts and accessories added by a John Deere engine distributor.\*

Register your John Deere OEM engine and enable your John Deere dealer or engine distributor to respond should you need a warrantable repair.<sup>‡</sup> Registering your engine at **JohnDeere.com/OEMWarranty** gives us the information needed to stock the right service parts, maintenance products, and servicing tools.



\* When sold by John Deere, its authorized dealers and distributors, and delivered to the first retail purchaser.

*‡* See specific OEM product warranty language for applicable terms and conditions. Refer to the John Deere new engine warranty for complete warranty coverage details. Note: the 2-year/2,000-hour standard warranty and OEM engine registration may not be available in all countries.





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