



Generator Drive Diesel Engine Ratings

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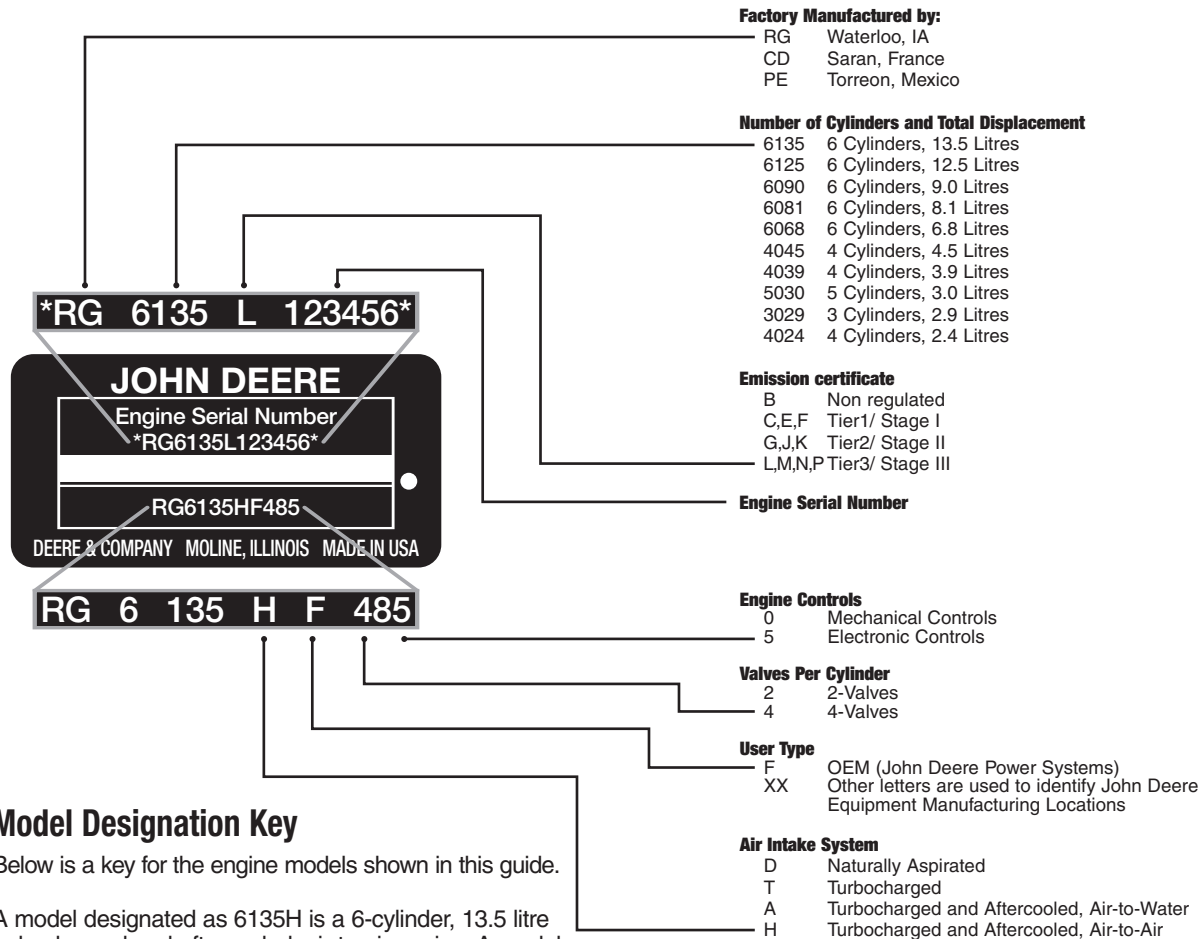
E.U. Stage II PowerTech™ 6.8I Bare Engine

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Identification Plate

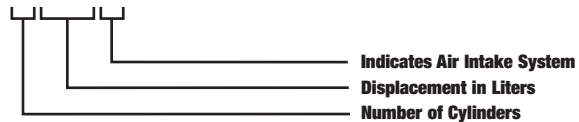


Model Designation Key

Below is a key for the engine models shown in this guide.

A model designated as 6135H is a 6-cylinder, 13.5 litre turbocharged and aftercooled, air-to-air engine. A model designated as a 4045T is a 4-cylinder, 4.5 litre turbocharged engine.

6135H



Non-regulated PowerTech™ 50 Hz Generator Drive Power Ratings

Engine Model	Rated Speed	Engine Power Prime		Prime Ratings	
	RPM	kW	hp	kVA	kWe
4024T	1500	19	25	20-22	16-17
4024T	1500	28	38	30-31	24-25
3029D	1500	27	36	28-29	22-23
3029T	1500	38	51	40-41	32-33
5030T	1500	38	50	40-42	32-33
5030H	1500	56	75	60-63	48-50
4039D ¹	1500	36	48	38-40	30-32
4039T ¹	1500	58	77	60-63	48-50
4045D	1500	40	54	41-44	33-35
4045T	1500	63	84	65-68	52-54
4045T	1500	63	84	66-70	53-55
4045T	1500	75	101	79-83	63-66
4045H	1500	91	122	96-100	77-80
4045H	1500	109	146	112-118	90-94
6068T	1500	85	114	90-94	72-75
6068T	1500	94	126	100-104	80-83
6068T	1500	95	127	100-105	80-84
6068T	1500	109	146	115-121	92-97
6068H	1500	111	149	117-123	94-98
6068H	1500	140	188	148-155	118-124
6068H	1500	166	223	175-183	140-147
6068H	1500	188	252	195-204	156-163
6081T	1500	119	160	129-135	103-108
6081T	1500	144	193	155-162	124-130
6081A	1500	142	190	154-160	123-128
6081A	1500	168	225	182-190	145-152
6081A	1500	192	257	207-216	166-173
6081H	1500	182	244	197-206	158-165
6081H	1500	231	310	249-260	199-208
6125H	1500	273	366	295-308	236-247
6125H	1500	318	427	344-359	275-287
6125H	1500	350	469	379-395	303-316

¹ GSPU only. Not available as bare engine.

All ratings are subject to change.

Engine Power Standby		Standby Ratings		Typical Generator Efficiency	Typical Fan Power	GSPU
kW	hp	kVA	kWe	%	kW	
21	28	23-24	18-19	88-92	0.1	
31	42	34-35	27-28	88-92	1.0	
31	41	32-34	26-27	88-92	2.0	X
42	56	44-46	35-37	88-92	2.0	X
42	56	45-47	36-37	88-92	1.3	
62	84	66-70	53-56	88-92	1.9	
40	54	42-44	34-35	88-92	1.5	X
63	84	67-70	54-56	88-92	2.0	X
44	59	46-49	37-39	88-92	2.0	X
70	94	73-76	58-61	88-92	3.5	X
70	94	74-78	59-62	88-92	2.5	X
83	111	88-92	70-74	88-92	4.8	X
102	137	108-113	86-90	88-92	4.0	X
120	161	125-131	100-104	88-92	6.0	
94	126	100-104	80-83	88-92	3.5	
104	139	110-116	88-93	88-92	3.5	
105	141	111-116	89-93	88-92	3.5	X
121	162	129-135	103-108	88-92	4.0	X
123	165	130-136	104-109	88-92	4.5	
155	208	165-172	132-138	88-92	5.5	X
183	245	194-202	155-162	88-92	6.5	X
207	278	216-226	173-181	88-92	10.4	
131	175	142-149	114-119	90-94	4.5	
169	227	183-192	147-153	90-94	6.0	
157	210	170-178	136-142	90-94	5.5	
187	250	203-212	162-170	90-94	6.5	
225	302	244-255	195-204	90-94	8.0	
200	268	217-227	174-181	90-94	7.0	
268	359	291-304	233-243	90-94	9.5	
300	402	326-340	261-272	90-94	10.5	
350	469	380-397	304-317	90-94	12.3	
387	519	420-439	336-351	90-94	13.5	

A GSPU is a John Deere Gen-Set Power Unit factory-built, based on a bare engine with mounting pads, cooling package and air filter.

E.U. Stage II PowerTech™ Generator Drive Power Ratings 50 Hz

Engine Model	Rated Speed	Engine Power Prime		Prime Ratings	
	RPM	kW	hp	kVA	kWe
3029T ²	1500	29	39	30-31	24-25
3029H ²	1500	39	52	40-42	32-34
4045T ²	1500	55	74	56-58	44-46
4045H ²	1500	75	100	78-81	62-65
4045H ²	1500	93	124	96-101	77-81
6068H ²	1500	111	148	115-120	92-96
6068H ²	1500	137	183	142-149	114-119
6068H ²	1500	166	222	172-180	138-144
6068H ²	1500	186	250	193-202	154-161
6090H ²	1500	228	305	242-253	194-202
6090H ²	1500	270	362	287-300	230-240
6135H ²	1500	316	423	336-351	269-280
6135H ²	1500	362	485	384-401	308-321

² Preliminary data, ratings are subject to change.

Engine Power Standby		Standby Ratings		Typical Generator Efficiency	Typical Fan Power	GSPU
kW	hp	kVA	kWe	%	kW	
32	43	33-35	26-28	88-92	2.0	X
43	58	45-47	36-37	88-92	2.5	X
61	82	63-66	51-53	88-92	3.5	X
83	111	86-90	69-72	88-92	4.5	X
103	138	107-112	86-90	88-92	5.5	X
123	165	128-134	103-107	88-92	6.5	X
152	204	159-166	127-133	88-92	7.5	X
184	247	192-201	154-161	88-92	9.5	X
207	277	216-226	173-181	88-92	10.5	X
253	339	270-282	216-226	90-94	12.5	
300	402	321-335	257-268	90-94	15.0	
351	470	375-392	300-313	90-94	17.5	
402	539	430-449	344-359	90-94	20.0	

E.U. Stage II PowerTech

Non-regulated PowerTech™ Generator Drive Power Ratings 60 Hz

Engine Model	Rated Speed	Engine Power Prime		Prime Ratings	
	RPM	kW	hp	kVA	kWe
3029D	1800	31	42	31-33	25-26
4039D¹	1800	43	58	46-48	37-39
4039T¹	1800	69	93	72-76	58-61

¹ GSPU only. Not available as bare engine.

Engine Power Standby		Standby Ratings		Typical Generator Efficiency	Typical Fan Power	GSPU
kW	hp	kVA	kWe	%	kW	
35	47	35-37	28-30	88-92	3.0	X
49	66	52-54	41-43	88-92	2.0	X
76	102	81-85	65-68	88-92	2.5	X

EPA Tier 1 PowerTech™ Generator Drive Power Ratings 60 Hz

Engine Model	Rated Speed	Engine Power Prime		Prime Ratings	
	RPM	kW	hp	kVA	kWe
3029T	1800	43	58	44-46	35-37
4045D	1800	48	64	50-52	40-42
4045T	1800	67	90	70-73	56-58
4045T	1800	74	99	76-80	61-64
4045T	1800	76	102	79-82	63-66
4045T	1800	82	110	85-89	68-71
4045T	1800	90	121	94-98	75-78
4045H	1800	86	115	89-93	71-74
4045H	1800	111	149	115-120	92-96
6068T	1800	101	135	105-110	84-88
6068T	1800	111	149	115-120	92-96
6068T	1800	112	150	116-121	93-97
6068T	1800	128	172	132-139	106-111
6068H	1800	133	178	137-144	110-115
6068H	1800	168	225	174-182	139-146
6068H	1800	189	253	196-205	157-164
6081T	1800	142	190	151-158	121-126
6081T	1800	166	223	176-184	141-147
6081A	1800	168	225	179-186	143-149
6081A	1800	201	270	214-223	171-178
6081A	1800	220	295	233-243	186-195
6081H	1800	218	292	232-242	185-194
6081H	1800	263	353	279-291	223-233
6125A	1800	300	402	319-333	255-267

All ratings are subject to change.

Engine Power Standby		Standby Ratings		Typical Generator Efficiency	Typical Fan Power	GSPU
kW	hp	kVA	kWe	%	kW	
48	64	49-51	39-41	88-92	3.0	X
53	71	55-58	44-46	88-92	2.6	X
74	99	78-81	62-65	88-92	3.7	
82	110	85-90	68-72	88-92	4.1	X
84	113	88-92	70-74	88-92	4.1	
91	122	95-100	76-80	88-92	4.5	X
100	134	105-109	84-87	88-92	5.0	
95	127	99-104	79-83	88-92	4.8	
123	165	129-134	103-107	88-92	6.0	X
112	150	116-122	93-98	88-92	5.6	
123	165	129-134	103-107	88-92	6.3	X
124	166	129-135	103-108	88-92	6.3	
142	190	148-155	118-124	88-92	7.1	X
148	198	154-161	123-129	88-92	7.5	
187	251	195-204	156-163	88-92	9.3	X
210	282	220-230	176-184	88-92	10.4	X
157	211	168-175	134-140	90-94	7.8	
194	260	208-217	166-173	90-94	9.5	
187	250	200-209	160-167	90-94	9.3	
224	300	239-250	192-200	90-94	11.2	
259	347	277-289	221-231	90-94	13.0	
240	322	257-268	205-214	90-94	11.9	
308	413	329-344	263-275	90-94	15.3	
330	442	353-368	282-295	90-94	16.4	

A GSPU is a John Deere Gen-Set Power Unit factory-built, based on a bare engine with mounting pads, cooling package and air filter.

Non-regulated PowerTech

EPA Tier 1 PowerTech

EPA Tier 2 PowerTech™ Generator Drive Power Ratings 60 Hz

Engine Model	Rated Speed	Engine Power Prime		Prime Ratings	
	RPM	kW	hp	kVA	kWe
4024T	1800	32	43	34-35	27-28
3029T	1800	44	59	46-48	37-38
5030T	1800	54	72	56-58	45-47
5030H	1800	65	87	68-70	54-56
4045D	1800	46	62	48-50	38-40
4045T	1800	67	90	70-73	56-58
4045T	1800	76	102	79-83	64-66
4045H	1800	98	131	102-107	82-85
4045H	1800	106	142	109-115	87-92
4045H	1800	130	174	134-141	107-112
6068T	1800	112	150	116-122	93-97
6068H	1800	149	200	155-162	124-130
6068H	1800	170	228	177-185	141-148
6068H	1800	191	256	198-207	159-166
6068H	1800	213	286	221-231	177-185
6081H	1800	210	282	226-236	181-189
6081H	1800	236	317	254-266	203-212
6081H	1800	263	352	283-295	226-236
6081H	1800	289	388	311-325	249-260
6125H	1800	300	402	319-333	255-267
6125H	1800	327	439	348-363	278-291
6125H	1800	382	512	406-424	325-339
6125H	1800	418	561	444-464	356-371

Engine Power Standby		Standby Ratings		Typical Generator Efficiency	Typical Fan Power
kW	hp	kVA	kWe	%	kW
36	48	38-39	30-31	88-92	1.8
48	64	50-52	40-42	88-92	2.4
60	80	63-65	50-52	88-92	3.0
72	96	75-78	60-63	88-92	3.6
50	67	52-55	42-44	88-92	2.5
74	99	77-81	62-65	88-92	3.7
84	113	88-92	70-73	88-92	4.2
108	145	113-118	90-94	88-92	5.4
117	157	121-128	97-102	88-92	5.9
143	192	148-156	119-124	88-92	7.2
123	165	129-134	103-108	88-92	6.2
164	220	171-179	137-143	88-92	8.2
187	250	195-204	156-163	88-92	9.4
210	282	219-229	176-184	88-92	10.5
234	314	245-256	196-205	88-92	11.7
231	310	249-261	200-208	90-94	11.6
260	349	281-293	225-235	90-94	13.0
289	388	312-326	250-261	90-94	14.5
318	426	343-359	275-287	90-94	15.9
330	442	353-368	282-295	90-94	16.4
360	483	385-402	308-322	90-94	17.9
420	563	449-469	359-375	90-94	20.9
460	617	492-513	393-411	90-94	23.0

EPA Tier 2 PowerTech

**EPA Tier 3 PowerTech E™
EPA Tier 3 PowerTech Plus™
Generator Drive Power Ratings 60 Hz**

Engine Model	Rated Speed	Engine Power Prime		Prime Ratings	
	RPM	kW	hp	kVA	kWe
4045T ²	1800	63	85	65-68	52-54
4045H ²	1800	85	114	88-92	70-73
4045H ²	1800	105	142	108-113	87-91
4045H ²	1800	134	180	139-145	111-116
6068H	1800	134	180	139-145	111-116
6068H	1800	161	216	165-173	132-138
6068H	1800	214	286	221-231	177-185
6090H	1800	208	279	220-230	176-184
6090H	1800	235	315	248-259	199-208
6090H	1800	261	350	276-288	221-230
6090H	1800	287	384	303-317	243-254
6090H ²	1800	311	417	329-343	263-275
6135H	1800	365	489	386-403	309-322
6135H	1800	419	561	443-463	354-370
6135H ²	1800	466	624	492-514	394-411

² Preliminary data, ratings are subject to change.

Engine Power Standby		Standby Ratings		Typical Generator Efficiency	Typical Fan Power
kW	hp	kVA	kWe	%	kW
70	94	73-76	58-61	88-92	3.9
94	126	98-102	78-82	88-92	5.2
117	157	122-127	97-102	88-92	6.4
147	197	153-160	122-128	88-92	8.0
147	197	153-160	122-128	88-92	8.0
177	237	183-191	146-153	88-92	11.0
234	314	243-254	195-203	88-92	12.9
229	307	243-254	195-203	90-94	12.6
258	346	274-286	219-229	90-94	14.2
287	385	305-319	244-255	90-94	15.8
315	422	335-350	268-280	90-94	17.3
344	461	366-382	293-306	90-94	18.9
401	538	426-445	341-356	90-94	22.1
460	617	489-511	391-409	90-94	25.3
516	691	549-573	439-458	90-94	28.4

EPA Tier 3 PowerTech E
EPA Tier 3 PowerTech Plus

Marine PowerTech™ Generator Drive Power Ratings

Non-regulated - 50 Hz

Engine Model	Rated Speed	Engine Power Prime	
	RPM	kW	hp
4045D	1500	40	54
4045T	1500	55	74
4045T	1500	57	76
6068T	1500	89	119
6081A	1500	139	186
6081A	1500	162	217

Prime Ratings		Typical Generator Efficiency
kVA	kWe	%
44-46	35-37	88-92
60-64	48-51	88-92
62-65	50-52	88-92
98-103	78-82	88-92
152-160	122-128	88-92
178-186	142-149	88-92

Non-regulated - 60 Hz

Engine Model	Rated Speed	Engine Power Prime	
	RPM	kW	hp
4045D	1800	48	64
4045T	1800	71	95
6068T	1800	115	154
6081A	1800	168	225

Prime Ratings		Typical Generator Efficiency
kVA	kWe	%
52-55	42-44	88-92
78-81	62-65	88-92
124-132	99-106	88-92
185-192	148-154	88-92

EPA Tier 2 - 60 Hz

Engine Model	Rated Speed	Engine Power Prime	
	RPM	kW	hp
4045D	1800	46	62
4045T	1800	73	98
6068T	1800	110	147
6081A	1800	195	261
6125A	1800	300	402

Prime Ratings		Typical Generator Efficiency
kVA	kWe	%
50-53	40-42	88-92
80-84	64-67	88-92
121-126	97-101	88-92
214-224	171-179	88-92
330-345	264-276	88-92

Conversions

Generator Drive Rating (kWe)

$$\text{kWe} = [\text{Engine Power (kW)} - \text{Fan Power Loss (kW)}] \times \text{Generator Efficiency}$$

Note: Marine Generator Sets do not have Fan Power Loss

Power Factor (PF)

$$\text{PF} = \text{kWe/kVA} = \frac{\text{Real Power}}{\text{Apparent Power}}$$

PF Constant = 0.80

English to Metric

Newton-meter = lb-ft x 1.356

Newton = lb force x 4.448

Meter = ft x 0.3048

Millimeter = in x 25.4

Kilogram = lb x 0.454

Litre = US Gallon x 3.785

Litre = cu in x 0.01639

Kilowatt = hp x 0.746

(Kilowatt = $\frac{\text{volts} \times \text{amps}}{1000}$)

Celsius = (deg F-32) x 0.556

PRIME POWER is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 3046 and SAE J1995.

STANDBY POWER is the nominal engine power available at varying load factors for up to 500 hours per year. This rating conforms to ISO 3046 and SAE J1995. The calculated generator set rating range for standby applications is based on minimum engine power (nominal -5%) to provide 100% meet-or-exceed performance for assembled standby generator sets.

Customer Support

With more than 4,000 service locations worldwide, John Deere is always handy when you need service and support. You'll find an authorized John Deere dealer or engine distributor almost anywhere in the world.

We have centralized parts warehouses in the United States and Europe, plus numerous worldwide depots that employ overnight parts shipping—so you'll never have to wait long for parts. In addition, John Deere service personnel are highly trained technicians who stay on top of changing engine technologies and service techniques.

John Deere dealers and distributors are your best source for service, knowledge, and engine accessories. They're one of the many reasons to specify John Deere engines in your generator sets.