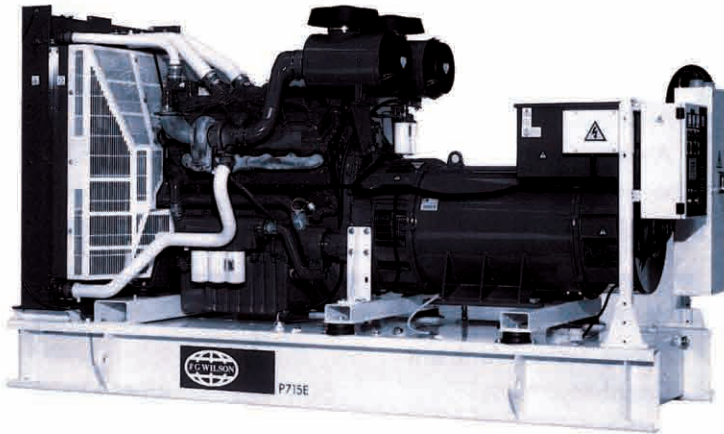


# P650 / P715E



Output Ratings		
Generating Set Model	P650	P715E
	Prime*	Standby*
380-415V, 50 Hz	650 kVA	715 kVA
	520 kW	572 kW
480V, 60 Hz	700 kVA	770 kVA
	560 kVA	616 kW

\* Refer to ratings definitions on page 4.  
Ratings at 0.8 pf

Technical Data		
Engine Make & Model	Perkins	
Alternator Model	LL7024L	
Base Frame Type	Heavy Duty Fabricated Steel	
Circuit Breaker Type/Rating	3 Pole MCCB	
Frequency	50 Hz	60Hz
Engine Speed	1500	1800
Fuel Tank Capacity: Litres (US Gal)	1310 (346)	
Fuel Consump, P650: l/hr (US Gal/hr)	143 (37.8)	159 (42.0)
Fuel Consump, P715E: l/hr (US Gal/hr)	157 (41.5)	175 (46.2)



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## Engine Technical Data

Physical Data		Air System		50 Hz	60 Hz	
Manufacturer:	Perkins	Air Filter Type:	Replaceable Element			
Model:	3012TAG2B	Combustion Air Flow:				
No. of Cylinders/Alignment:	12V	m <sup>3</sup> /min (cfm) -Standby:	46.5 (1642)	53.2 (1879)		
Cycle:	4 Stroke	-Prime:	43.2 (1525)	50.0 (1766)		
Induction:	Turbocharged, AA Charge Cooled	Max. Combustion Air Intake				
Cooling Method:	Water	Restriction: kPa (in H <sub>2</sub> O)	6.2 (24.9)	6.2 (24.9)		
Governing Type:	Mechanical	Radiator Cooling				
Class:	ISO 8528 G2	Airflow: m <sup>3</sup> /sec (cfm)	13.8 (488)	15.7 (553)		
Compression Ratio:	14.5:1	External Restriction to				
Displacement: L (cu.in)	26.11 (1593)	Cooling Airflow: Pa (in Wg)	120 (0.48)	120 (0.48)		
Bore/Stroke: mm (in)	135.0 (5.3) / 152.4 (6.0)	<b>Cooling System</b>				
Moment of Inertia: kg m <sup>2</sup> (lb/in <sup>2</sup> )	1.9975 (2841)	Cooling System Ambient				
Engine Electrical System:		Capability: °C (°F)	50 (122)	45 (113)		
-Voltage/Ground	24/Negative	Cooling System				
-Battery Charger Amps	32	Capacity: L (US Gal)	122.7 (32.4)	122.7 (32.4)		
Weight: kg (lbs) -Dry	2365 (5215)	Water Pump Type:	Centrifugal			
-Wet	2541 (5603)	Heat Rejected to Water & Lube Oil: kW (Btu/min)				
<b>Performance</b>		-Standby:	303 (17235)	322 (18315)		
		-Prime:	284 (16154)	308 (17519)		
		Heat Radiation to Room:				
		kW (Btu/min) -Standby:	146 (8304)	122 (6939)		
		-Prime:	113 (6427)	109 (6200)		
		Radiator Fan Load: kW (hp)	15.0 (20.1)	28.0 (37.6)		
Engine Speed: rpm	1500	1800	<b>Lubrication System</b>			
Gross Engine Power: kW (hp)			Oil Filter Type:	Spin-On, Full Flow		
-Standby	624 (837)	686 (920)	Total Oil Capacity L (US Gal):	73.8 (19.5)		
-Prime	568 (762)	624 (837)	Oil Pan L (US Gal):	55.0 (14.5)		
BMEP: kPa (psi)			Oil Type:	ACEA E3 15W-40		
-Standby	1427 (207)	1303 (189)	Cooling Method:	Water		
-Prime	1296 (188)	1186 (172)	<b>Exhaust System</b>			
Regenerative Power: kW	90.0	118.0	Silencer Type:	Industrial (Absorbitive)		
<b>Fuel System</b>				Silencer Model & Qty:	SD125 Qty (2)	
Fuel Filter Type:	Replaceable element		Pressure Drop Across			
Recommended Fuel:	Class 2 Diesel		Silencer System: kPa (in Hg)	0.6 (0.177)	0.8 (0.236)	
Fuel Consumption: L/hr (US Gal/hr)			Silencer Noise Reduction			
	<b>110% Load</b>	<b>100% Load</b>	<b>75% Load</b>	<b>50% Load</b>		
<b>P650</b>						
50 Hz	157 (41.5)	143 (37.8)	107 (28.3)	74.1 (19.6)		
60 Hz	175 (46.2)	159 (42.0)	122 (32.2)	84.5 (23.3)		
<b>P715E</b>						
50 Hz	n/a	157 (41.5)	118 (31.2)	81.5 (21.5)		
60 Hz	n/a	175 (46.2)	134 (35.4)	93.0 (24.6)		
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, class 2)						
				Exhaust Gas Flow: m <sup>3</sup> /min (cfm)		
				-Standby:	115 (4054) 130 (4583)	
				-Prime:	105 (3702) 128 (4513)	
				Exhaust Gas Temperature:		
				°C (°F) Standby:	465 (869) 450 (842)	