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High Ambient 50°C

50DEGPKG

Package Upgrade — P1250P3 – P1500E1, High Ambient

This option includes a 50°C radiator and suitable alternator, allowing the generator set to operate without derate at 50°C.

Engine

	P1250P3/ P1375E3	P1350P1/ P1500E1
Engine Model:	4012-46TWG2A	4012-46TWG3A
Performance:	60 Hz	60 Hz
Engine Speed:	1800 RPM	1800 RPM
Gross Engine Power: kW (hp)		
Standby	1224 (1641)	1321 (1771)
Prime	1113 (1493)	1207 (1619)
BMEP: kPa (psi)		
Standby	1780 (258.2)	1921 (278.6)
Prime	1619 (234.8)	1755 (254.6)

Air System

	P1250P3/ P1375E3	P1350P1/ P1500E1
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m ³ /min (cfm)		
Standby	116 (4097)	117 (4132)
Prime	111 (3920)	111 (3920)
Max. Combustion Air Intake Restriction:		
kPa (in H ₂ O)	-	-
Radiator Cooling Air Flow:		
m ³ /min (cfm)	1830 (64626)	1830.0 (64626)
External Restrictions to Cooling Air Flow: Pa (in H ₂ O)	125 (0.5)	125 (0.5)

Lubrication

	P1250P3/ P1375E3	P1350P1/ P1500E1
Oil Filter Type:	Spin-On, Full Flow	
Total Oil Capacity: l (US Gal)	177.0 (46.8)	177.0 (46.8)
Oil Pan Capacity: l (US Gal)	159.0 (42.0)	157.5 (41.6)
Oil Type:	API CH4 15W-40	
Oil Cooling Method:	Water	

Exhaust System (Optional)

	P1250P3/ P1375E3	P1350P1/ P1500E1
Silencer Type	Industrial	
Silencer Model & Quantity:	IND-Optional – (1)	
Pressure Drop across Silencer System: kPa (in Hg)	-	-
Silencer Noise Reduction Level: dB	-	-
Maximum Allowable Back Pressure: KPa (in Hg)	-	-
Exhaust Gas Flow: m ³ /min (cfm)		
Prime	235.0 (8299)	240.0 (8476)
Standby	235.0 (8299)	240.0 (8476)
Exhaust Gas Temperature: °C (°F)		
Prime	435 (815)	482 (900)
Standby	435 (815)	482 (900)

Cooling System

	P1250P3/ P1375E3	P1350P1/ P1500E1
Cooling System Capacity:		
l (US gal)	201 (53.1)	201 (53.1)
Water Pump Type:	Centrifugal	Centrifugal
Heat Injected to Water and Lube Oil: kW (Btu/min)		
Standby	457 (25989)	490 (27866)
Prime	389 (22122)	400 (22748)
Heat Radiation to Room:		
kW (Btu/min)		
Standby	141.8 (8064)	150.0 (8530)
Prime	125.7 (7148)	133.0 (7564)
Radiator Fan Load: kW (hp)	58.0 (77.8)	58.0 (77.8)

Alternator Physical Data

	P1250P3	P1375E3	P1350P1	P1500E1
Manufactured for FG Wilson by:	Leroy Somer	Leroy Somer	Leroy Somer	Leroy Somer
Model:	LL8224L	LL8224N	LL8224N	LL8224P
No. of Bearing:	1	1	1	1
Insulation Class:	H	H	H	H
Winding Pitch Code:	2/3 – 6S	2/3 – 6S	2/3 – 6S	2/3 – 6S
Wires:	6	6	6	6
Ingress Protection Rating:	IP23	IP23	IP23	IP23
Excitation System:	AREP	AREP	AREP	AREP
AVR Model:	R450M	R450M	R450M	R450M

Alternator Operating Data

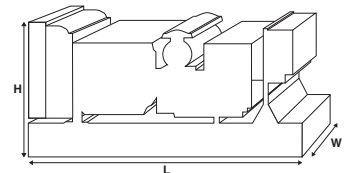
Overspeed:	2250	2250	2250	2250
Voltage Regulation (steady state) (%):	±0.5	±0.5	±0.5	±0.5
Wave Form NEMA = TIF:	50	50	50	50
Wave Form IEC = THF:	2.0%	2.0%	2.0%	2.0%
Total Harmonic Content LL/LN:	3.5%	3.5%	3.5%	3.5%
Radio Interference:	EN61000-6	EN61000-6	EN61000-6	EN61000-6
Radiant Heat: kW (btu/min)	41.7 (2371)	45.8 (2605)	45.0 (2559)	50.0 (2843)

Alternator Technical Data

	P1250P3			P1375E3			P1350P1			P1500E1		
	480/227V	380/220V	440/254V	415/240V	400/230V	380/220V	415/240V	400/230V	380/220V	415/240V	400/230V	380/220V
Motor Starting Capability												
kV:	3673	2347	3112	4350	2783	3687	4350	2783	3687	5087	3261	4316
Short Circuit Capability:	300	300	300	300	300	300	300	300	300	300	300	300
Reactances Per Unit:												
X _d	2.813	4.488	3.347	2.886	4.605	3.435	2.834	4.52	3.372	2.758	4.4	3.282
X' _d	0.189	0.301	0.225	0.186	0.297	0.222	0.183	0.292	0.218	0.172	0.274	0.205
X ^u _d	0.104	0.165	0.123	0.104	0.166	0.124	0.102	0.163	0.121	0.096	0.153	0.114

Weights & Dimensions

	P1250P3	P1375E3	P1350P1	P1500E1
Net (+ lube oil): kg (lb)	9246 (20384)	9496 (20935)	9609 (21184)	9889 (21801)
Wet (+ lube oil & coolant): kg (lb)	9447 (20827)	9697 (21378)	9810 (21627)	10090 (22245)
Length (L): mm (in)	4888 (192,4)	4888 (192,4)	4887 (192,4)	4987 (196,3)
Width (W): mm (in)	1895 (74,6)	1895 (74,6)	2093 (82,4)	2093 (82,4)
Height (H): mm (in)	2450 (96,5)	2450 (96,5)	2433 (95,8)	2433 (95,8)



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