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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:	50 Hz	50 Hz
Engine Speed:	1500 RPM	1500 RPM
Gross Engine Power: kW (hp)		
Standby	1217 (1632)	1314 (1762)
Prime	1106 (1483)	1200 (1609)
BMEP: kPa (psi)		
Standby	2124 (308)	2293 (333)
Prime	1930 (280)	2094 (304)

Air System

	P1250P3/ P1375E3	P1350P1/ P1500E1
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m ³ /min (cfm)		
Standby	109 (3849)	115 (4061)
Prime	103 (3637)	108 (3814)
Max. Combustion Air Intake Restriction:		
kPa (in H ₂ O)	4.0 (16.1)	4.0 (16.1)
Radiator Cooling Air Flow:		
m ³ /min (cfm)	1680 (59329)	1851.4 (65382)
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)	2.3 (0.679)	3.10 (0.915)
Silencer Noise Reduction Level: dB	13.2	12.0
Maximum Allowable Back Pressure: KPa (in Hg)	5.0 (1.5)	5.0 (1.5)
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	422 (792)	474 (885)
Standby	422 (792)	474 (885)

Cooling System

	P1250P3/ P1375E3	P1350P1/ P1500E1
Cooling System Capacity:		
l (US gal)	196 (51.8)	201 (53.1)
Water Pump Type:	Centrifugal	Centrifugal
Heat Injected to Water and Lube Oil: kW (Btu/min)		
Standby	403 (22938)	445 (25307)
Prime	374 (21287)	398 (22634)
Heat Radiation to Room: kW (Btu/min)		
Standby	140.2 (7973)	153.9 (8752)
Prime	129.1 (7342)	137.9 (7842)
Radiator Fan Load: kW (hp)	53 (71.1)	58 (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	LL8224N
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:	R450	R450	R450	R450

Alternator Operating Data

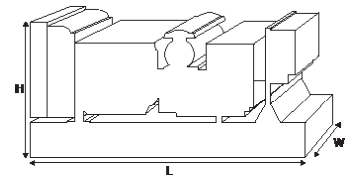
Overspeed:	2250	2250	2250	2250
Voltage Regulation (steady state) (%):	±0.5	±0.5	±0.5	±0.5
Wave Form NEMA = TIF:	50	50	50	50
Wave Form IEC = THF:	2.0%	2.0%	2.0%	2.0%
Total Harmonic Content LL/LN:	3.5%	3.5%	3.5%	3.5%
Radio Interference:	EN61000-6	EN61000-6	EN61000-6	EN61000-6
Radiant Heat: kW (btu/min)	48.1 (2735)	51.2 (2912)	57.9 (3293)	57.9 (3293)

Alternator Technical Data

	P1250P3			P1375E3			P1350P1			P1500E1		
	415/ 240V	400/ 230V	380/ 220V	415/ 240V	400/ 230V	380/ 220V	415/ 240V	400/ 230V	380/ 220V	415/ 240V	400/ 230V	380/ 220V
Motor Starting Capability												
kV:	3312	3087	2798	3924	3658	3316	3924	3658	3316	3924	3658	3316
Short Circuit Capability:	300	300	300	300	300	300	300	300	300	300	300	300
Reactances Per Unit:												
X _d	3.14	3.38	3.74	3.22	3.46	3.84	3.16	3.40	3.77	3.16	3.40	3.77
X' _d	0.21	0.23	0.25	0.21	0.22	0.25	0.20	0.22	0.24	0.20	0.22	0.24
X ^{''} _d	0.115	0.124	0.138	0.116	0.125	0.138	0.114	0.122	0.136	0.114	0.122	0.136

Weights & Dimensions

	P1250P3	P1375E3	P1350P1	P1500E1
Dry: kg (lb)	9096 (20053)	9346 (20604)	9459 (20853)	9459 (20853)
Net (+ lube oil): kg (lb)	9246 (20384)	9496 (20935)	9609 (21184)	9609 (21184)
Wet (+ lube oil & coolant): kg (lb)	9447 (20827)	9697 (21378)	9810 (21627)	9810 (21627)
Length (L): mm (in)	4888 (192.4)	4888 (192.4)	4888 (192.4)	4888 (192.4)
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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