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High Ambient 50°C

50DEGRAD

50°C Radiator — P1500P3 – P1875E1, High Ambient

This option includes a 50°C radiator only. An alternator derate may apply.

Engine

	P1500P3/ P1650E3	P1700P1/ P1875E1
Engine Model:	4012-46TAG2A	4012-46TAG3A
Frequency:	50 Hz	50 Hz
Engine Speed: rpm	1500	1500
Gross Engine Power: kW (hp)		
Standby	1459 (1957)	1643 (2203)
Prime	1331 (1785)	1500 (2012)
BMEP: kPa (psi)		
Standby	2546 (369)	2868 (416)
Prime	2323 (337)	2618 (380)

Cooling System

	P1500P3/ P1650E3	P1700P1/ P1875E1
Cooling System Capacity:		
l (US gal)	210 (55.5)	210 (55.5)
Water Pump Type:	Centrifugal	Centrifugal
Heat Injected to Water and Lube Oil: kW (Btu/min)		
Standby	501 (28491)	625 (35543)
Prime	457 (25989)	510 (29003)
Heat Radiation to Room:		
kW (Btu/min)		
Standby	173.6 (9872)	194.0 (11033)
Prime	153.9 (8752)	171.4 (9747)
Radiator Fan Load: kW (hp)	64 (85.0)	61 (81.8)

Lubrication

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

Exhaust System (Optional)

	P1500P3/ P1650E3	P1700P1	P1875E1
Silencer Type:	Industrial		
Silencer Model & Quantity:	IND-Optional – (1)		
Pressure Drop across Silencer System:			
kPa (in Hg)	3.10 (0.915)	3.10 (0.915)	3.70 (1.093)
Silencer Noise Reduction Level: dB			
	12.5	12.2	13.5
Maximum Allowable Back Pressure: KPa (in Hg)			
	5.0 (1.5)	5.0 (1.5)	5.0 (1.5)
Exhaust Gas Flow:			
m ³ /min (cfm)			
Prime	309 (10912)	315 (11124)	315 (11124)
Standby	309 (10912)	315 (11124)	315 (11124)
Exhaust Gas Temperature:			
°C (°F)			
Prime	500 (932)	520 (968)	520 (968)
Standby	500 (932)	520 (968)	520 (968)

Air System

	P1500P3/ P1650E3	P1700P1/ P1875E1
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m ³ /min (cfm)		
Standby	128 (4520)	135 (4767)
Prime	120 (4238)	125 (4414)
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)	1944 (68652)	1896 (66957)
External Restrictions to Cooling Air Flow: Pa (in H ₂ O)	200 (0.8)	250 (1.0)

Alternator Physical Data

	P1500P3	P1650E3	P1700P1	P1875E1
Alternator manufactured for FG Wilson by:	Leroy Somer	Leroy Somer	Leroy Somer	Leroy Somer
Model:	LL8224N	LL8224N	LL9324F	LL9324F
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	R449	R449

Alternator Operating Data

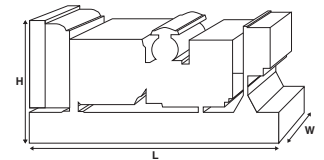
Overspeed:	2250	2250	2250	2250
Voltage Regulation (steady state) (%):	±0.5	±0.5	±0.5	±0.5
Wave Form NEMA = TIF:	50	50	50	50
Wave Form IEC = THF:	2.0%	2.0%	2.0%	2.0%
Total Harmonic Content LL/LN:	3.5%	3.5%	3.5%	3.5%
Radio Interference:	EN61000-6	EN61000-6	EN61000-6	EN61000-6
Radiant Heat: kW (btu/min)	57.9 (3293)	66.6 (3787)	54.5 (3099)	62.7 (3566)

Alternator Technical Data

	P1500P3			P1650E3			P1700P1			P1875E1		
	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:	3924	3658	3316	3924	3658	3316	5086	4740	4295	5086	4740	4295
Short Circuit Capability:	300	300	300	300	300	300	300	300	300	300	300	300
Reactances Per Unit:												
X _d	3.51	3.78	4.19	3.86	4.16	4.60	3.119	3.358	3.72	3.44	3.703	4.103
X' _d	0.23	0.24	0.27	0.25	0.27	0.30	0.247	0.266	0.294	0.272	0.293	0.325
X'' _d	0.126	0.136	0.151	0.139	0.15	0.166	0.127	0.137	0.152	0.140	0.151	0.168

Weights & Dimensions

	P1500P3	P1650E3	P1700P1	P1875E1
Net (+ lube oil): kg (lb)	10445 (23027)	10445 (23027)	11549 (25461)	11549 (25461)
Wet (+ lube oil & coolant): kg (lb)	10655 (23490)	10655 (23490)	11759 (25924)	11759 (25924)
Length (L): mm (in)	5123 (201.7)	5123 (201.7)	5219 (205.5)	5219 (205.5)
Width (W): mm (in)	2201 (86.7)	2201 (86.7)	2164 (85.2)	2164 (85.2)
Height (H): mm (in)	2486 (97.9)	2486 (97.9)	2660 (104.7)	2660 (104.7)



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