

KP / Series Powered by Perkins Engines

KP19.5/KP21E Diesel Generating Set

50Hz

Prime Rating	Standby Rating	Dimensions (L×W×H r	nm) Weight (Kg)	Fuel - Hours of Run-time
19.5kVA/15.6kW	21.2kVA/17kW	1300×650×1130	507	6-8 hr
Standard Configurati	on		Test Condition an	d Standards
 Engine (Perkins) 	Alternator (Mecc Alternator)	9)	Ambient Temperatu	ıre: ≤27°C
Channel Steel Base	50°C Radiator		Relative Humidity: :	≤60%, Altitude: ≤1000m
 12V Charging Alternat 	or • Air Filter, Diesel Fuel F	Filter, Lube Oil Filter	• Engine: ISO3046,	DIN6271, BS5514
GE Circuit Breaker	 Control Panel 		Alternator: VDE053	0, BS5000, NEMA MG1-32, IEC34
12V Starter Battery and	Connecting Cable		Generator: ISO852	28, GB2820
Flexible Pipe, Exhaust	Elbow, Industrial Silencer, etc.		Generator O&M Ma	nuals

Generating Set Output Rating

Voltage (V)	Hz	Phase	PF	Max. Current (A)	Prime (kVA/kW)	Standby (kVA/kW)
415/240	50	3	0.8	29.5	19.5/15.6	21.2/17
400/230	50	3	0.8	30.6	19.5/15.6	21.2/17
380/220	50	3	0.8	32.2	19.5/15.6	21.2/17

Engine Technical Data			
Model:	404D-22G	Max. Power (kW):	20.3
Induction System:	Naturally Aspirated	Displacement (L):	2.216
Cylinder Arrangement:	In Line, Four Cycle	Bore (mm) × Stroke (mm):	84×100
Number of Cylinders:	4	Compression Ratio:	23.3:1
Governor Type:	Mechanical	Speed (RPM):	1500

Air System

Combustion Air Flow (M³/min): Standby: 1.45

Exhaust System			
Combustion Gas Flow (M ³ /min):	3.64/3.94	Max. Back Pressure (kPa):	10.2
Exhaust Gas Temperature (°C):	≤505	Exhaust Outlet Size (mm):	42

Lubrication System			
Total Oil Capacity (L):	10.6	Oil Consumption 100% Load (L/h):	0.008/0.009
Normal Oil Temperature (℃):	125	Recommended Oil:	API CF-4 15W/40

Cooling System			
Cooling System Capacity (L):	7.0	Max. Coolant Temperature ($^{\circ}\mathbb{C}$):	112
Thermostat Operation Range (℃):	82-95	Radiator Fan drive type:	Shaft Drive
Radiator Cooling Air Flow (M ³ /min):	29.4	Radiator power (kW):	0.3







Fuel (Injection Pump:	Fuel System				
Voltage: 12Vdc	Fuel Injection Pump:	Cassette type	Recommended Fuel:	BS2869:1998 Class A2 Diesel	
Voltage: 12Vdc	Fuel Consumption 100% Load (L/h):	5.3	Fuel Consumption 110% Load (L/ h):	6.1	
Model: ECP28-MI4A Rated Power (kVA): 21.5	Engine Electrical System				
Model: ECP28-M/4A Rated Power (kVA): 21.5 Phase: 3 No. of Bearings: 1 Excitation System: Self-Excited and Brushless AVR: DSR Connection: 3P 4W. Series star Insulation Class/Temp Rise: HJH Power Factor: 0.8 Wave form NEAM-TIF: < 40	Voltage:	12Vdc			
No. of Bearings: 1	Alternator Physical Data				
Excitation System: Self-Excited and Brushless AVR: DSR Connection: 3P 4W, Series star Insulation Class/Temp Rise: H/H Power Factor: 0.8 Wave form NEAM=TIF: <40 Ingress Protection Rating: IP23 Wave form IEC=THF: <2% Winding Pitch: 2/3 Voltage Regulation: ±1% Cooling Air (M³s): 0.088 Efficiency: 87.4% Cption Control Panel Jacket Water Heater Heavy Duty Air Filter Intelligent Remote Control Panel Lube Oil Heater Intelligent Paralleling Control Panel Lube Oil Heater Remote System Remote Control Panel Lube Oil Heater AITS Leroy Somer ATS Leroy Somer ATS Coltoche ATS (G+M) ATS (G+G+M) EBS ANT-Controller Anti-condensation Heater Accessory Anti-condensation Heater Day Tank Trailer Container Protected Trailer Container Protected Container Protected Control Spare Parts Day Spare Parts	Model:	ECP28-M/4A	Rated Power (kVA):	21.5	
Connection: 3P 4W. Series star Insulation Class/Temp Rise: H/H	Phase:	3	No. of Bearings:	1	
Power Factor: 0.8	Excitation System:	Self-Excited and Brushless	AVR:	DSR	
Ingress Protection Rating: IP23 Wave form IEC=THF: <2% Winding Pitch: 2/3 Voltage Regulation: ±1% Cooling Air (M³/s): 0.088 Efficiency: 87.4% Option Engine	Connection:	3P 4W, Series star	Insulation Class/Temp Rise:	H/H	
Winding Pitch: 2/3 Voltage Regulation: ±1% Cooling Air (M³/s): 0.088 Efficiency: 87.4% Option Engine Control Panel Jacket Water Heater Auto Control Panel Heavy Duty Air Filter Intelligent Remote Control Panel Lube Oil Heater Intelligent Paralleling Control Panel Atternator Buzzer, Space Heater Control Panel Atternator ATS Leroy Somer ATS (G+M) ATS (G+G) ATS (G+G) Cootletch ATS (G+G+M) EBS ATS Controller Anti-condensation Heater ATS Controller Accessory Canopy Hybrid Silencer Soundproof (Container/Enclosure) Residential Silencer Trailer Day Tank Truck/Lighting Truck Container Protected Container Protected 500h Spare Parts 2000h Spare Parts	Power Factor:	0.8	Wave form NEAM=TIF:	<40	
Cooling Air (M³/s): 0.088 Efficiency: 87.4% Option Engine	Ingress Protection Rating:	IP23	Wave form IEC=THF:	<2%	
Control Panel	Winding Pitch:	2/3	Voltage Regulation:	±1%	
Engine Jacket Water Heater Heavy Duty Air Filter Lube Oil Heater Lube Oil Heater Atternator Atternator Atternator Atternator ATS Leroy Somer ATS (G+M) ATS (G+G) Cooltech ATS (G+G+M) ATS (G+G+M) ATS (G+G+M) ATS (G+G+M) ATS (G+G+M) Buzzer, Space Heater Control Panel ATS (G+G+M) Cooltech ATS Controller	Cooling Air (M ³ /s):	0.088	Efficiency:	87.4%	
□ Jacket Water Heater □ Heavy Duty Air Filter □ Intelligent Remote Control Panel □ Lube Oil Heater □ Intelligent Paralleling Control Panel □ □ Leroy Somer □ ATS □ Leroy Somer □ ATS (G+M) □ Marathon □ ATS (G+G+M) □ EBS □ ATS Controller □ Anti-condensation Heater □ Anti-condensation Heater □ Hybrid Silencer □ Residential Silencer □ Day Tank □ Day Tank □ Container Protected □ Spare Parts □ 500h Spare Parts □ 2000h Spare Parts □ 2000h Spare Parts □ 3000h Spare Parts	Option				
□ Heavy Duty Air Filter □ Lube Oil Heater □ Intelligent Paralleling Control Panel □ □ Buzzer, Space Heater Control Panel □ Alternator □ ATS □ Leroy Somer □ ATS (G+M) □ Marathon □ ATS (G+G+M) □ EBS □ ATS Controller □ Anti-condensation Heater □ Accessory □ Canopy □ Hybrid Silencer □ Residential Silencer □ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ □ Container Protected □ □ Spare Parts □ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	Engine		Control Panel		
Lube Oil Heater Intelligent Paralleling Control Panel Buzzer, Space Heater Control Panel ATS Leroy Somer ATS (G+M) ATS (G+G) Cooltech ATS (G+G+M) EBS ATS Controller ATS Controller ATS (G+G+M) EBS ATS Controller ATS (G+G+M) EBS ATS Controller Trailer Day Tank Truck/Lighting Truck Container Protected	□ Jacket Water Heater		□ Auto Control Panel		
Alternator ATS Leroy Somer ATS (G+M) ATS (G+G) Cooltech ATS (G+G+M) EBS ATS Controller Anti-condensation Heater Accessory Canopy Hybrid Silencer Residential Silencer Day Tank Truck/Lighting Truck Container Protected Spare Parts 500h Spare Parts 1000h Spare Parts 2000h Spare Parts 3000h Spare Parts	□ Heavy Duty Air Filter		□ Intelligent Remote Control Panel		
Alternator Leroy Somer ATS (G+M) ATS (G+G) Cooltech ATS (G+G+M) EBS ATS Controller Anti-condensation Heater Canopy Hybrid Silencer Residential Silencer Day Tank Truck/Lighting Truck Container Protected	□ Lube Oil Heater		 Intelligent Paralleling Control Panel 		
□ Leroy Somer □ Marathon □ Marathon □ ATS (G+G) □ Cooltech □ ATS (G+G+M) □ EBS □ ATS Controller □ Anti-condensation Heater Accessory Canopy □ Hybrid Silencer □ Soundproof (Container/Enclosure) □ Residential Silencer □ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ Spare Parts □ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	·		□ Buzzer, Space Heater Control Panel		
□ Marathon □ ATS (G+G) □ Cooltech □ ATS (G+G+M) □ EBS □ ATS Controller □ Anti-condensation Heater □ Accessory □ Canopy □ Hybrid Silencer □ Soundproof (Container/Enclosure) □ Residential Silencer □ Trailer □ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ Spare Parts □ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	Alternator		ATS		
Cooltech BBS ATS (G+G+M) ATS Controller Anti-condensation Heater Canopy Hybrid Silencer Residential Silencer Trailer Day Tank Truck/Lighting Truck Container Protected	□ Leroy Somer		□ ATS (G+M)		
Cooltech BBS ATS (G+G+M) ATS Controller Anti-condensation Heater Canopy Hybrid Silencer Residential Silencer Trailer Day Tank Truck/Lighting Truck Container Protected					
□ EBS □ ATS Controller □ Anti-condensation Heater □ Accessory □ Canopy □ Hybrid Silencer □ Soundproof (Container/Enclosure) □ Residential Silencer □ Trailer □ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ Spare Parts □ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	□ Cooltech				
Accessory	□ EBS				
□ Hybrid Silencer □ Soundproof (Container/Enclosure) □ Residential Silencer □ Trailer □ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ Spare Parts □ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	□ Anti-condensation Heater		·		
□ Hybrid Silencer □ Soundproof (Container/Enclosure) □ Residential Silencer □ Trailer □ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ Spare Parts □ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	Accessory		Canopy		
□ Day Tank □ Truck/Lighting Truck □ □ Container Protected □ Spare Parts □ 500h Spare Parts □ 2000h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts	·				
Container Protected Contai	 Residential Silencer 		□ Trailer		
Container Protected Container Contai	□ Day Tank				
Spare Parts 500h Spare Parts 1000h Spare Parts 3000h Spare Parts 3000h Spare Parts	·				
□ 500h Spare Parts □ 1000h Spare Parts □ 3000h Spare Parts □ 3000h Spare Parts	o				
□ 1000h Spare Parts □ 3000h Spare Parts	Spare Parts				
□ 1000h Spare Parts □ 3000h Spare Parts	□ 500h Spare Parts		□ 2000h Spare Parts		
			·		
	□ 1500h Spare Parts				

The standard warranty period: One year after ex-works from factory or 1500 operation hours whichever occurs first.

Please refer to COOLTECH warranty manual for details.

Consumable parts (air filter, fuel filter, lube oil filter, fan belt), this warranty does not apply to malfunctions caused by damage, misuse, repair or service

by unauthorized person. Cooltech Global must authorize any and all warranty repairs prior to commencement.

^{*} The model name and output rating figures are base on 400V and may have a 2% deviation * Specifications subject to change without prior notice









