

# CR16 TE1W

559 kW (1500 rpm) - 582 kW (1800 rpm)

Engine C16 TE1W

1/ GENERAL			1500 rpm	1800 rpm
Engine model			CR16TE1W	
Basic engine type			F3JFA615A*D001 - 5802085824 XZ	
Number of cylinders			6	
Firing order (cylinder 1 nearest to fan)			1-4-2-6-3-5	
Cylinder arrangement			in line	
Valves per cylinder			4	
Cycle			diesel 4 stroke	
Injection system			Common Rail	
Electronic engine control unit			BOSCH EDC17 CV41	
Induction System			turbo aftercooler air/air	
Bore	mm		141	
Stroke	mm		170	
Total displacement	lit		15,90	
Mean piston speed	m/s		8,5	10,2
Compression ratio			15,5±0,8:1	
Flywheel rotation			anti clockwise viewed on flywheel	
Housing flywheel			SAE 1	
Flywheel			14"	
Moment of inertia				
	without flywheel	kgm <sup>2</sup>	-	
	flywheel only	kgm <sup>2</sup>	2,17	
BMEP gross				
	Prime Power	bar/kPa	25,60	22,70
	Stand-by Power	bar/kPa	28,60	25,00
Dry weight (including cooling package)		kg	~ 1420	
Energy to coolant		kcal/kWh	179,5 kW	117,2kW
Energy to charge cooler		kcal/kWh	108,7kW	112kW
Energy to radiation		kcal/kWh	-	-
Dimensions L x W x H		mm	2300 x 1105 x 1600	

2/ PERFORMANCES			1500 rpm	1800 rpm
Continuous Power	(gross)	kWm		
Prime Power	(gross)	kWm	513,9	541,2
Stand-By Power	(gross)	kWm	570,0	601,0
Fan consumption		kWm	11	19
Continuous Power	(net)	kWm		
Prime Power	(net)	kWm	503	522
Stand-By Power	(net)	kWm	559	582
Performance condition				
	temperature	°C	≤ 40	
	altitude a.s.l	m	≤ 1000	
Derating				
	temperature > T 40°C	%/5°C	4%	
	altitude >1000 <3000 m	%/500m	3%	
	altitude >3000 m	%/500m	6%	
Noise Level (ISO 3744-1981)*		(dBA)	103	
Load Acceptance (ISO 8528-5)*		%(G2)	65%	

\*preliminary

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## 3/ COOLING SYSTEM

		1500 rpm	1800 rpm	
Type			liquid	
Recommended coolant			water + 50 % paraflu 11	
Coolant capacity				
engine only	liter		27	
radiator and hoses	liter		25,5	
Coolant pump flow	l/min	402	483	
Pressure cap setting	kPa (bar)		100 (1)	
Shutdown switch setting	°C		103	
Maximum additional restriction	Pa		196	
Air To Boil	Prime Power	°C	50	50
Fan				
diameter	mm		890	
number of blades			9	
drive ratio			1:1	
speed	rpm	1500	1800	
air flow	m <sup>3</sup> /s	0,007	0,008	
power consumption	kWm	11	19	

## 4/ LUBRICATION SYSTEM

		1500 rpm	1800 rpm
Oil sump capacity			
max	liter		32
min	liter		24
Oil system capacity including filter	liter		32
Oil pressure at rated speed	kPa		250-500
Oil temperature			
normal	°C		---
max	°C		98,2
Engine Angularity			
longitudinal	degrees		19°
transverse	degrees		19°
Servicing interval	hours		600
Oil specification			SAE 10W40 ACEA E9/API CJ-4
Oil consumption	%fuel		< 0,2

## 5/ INTAKE SYSTEM

		1500 rpm	1800 rpm
Air consumption at 100 % of load	m <sup>3</sup> /h (Kg/h)	2435	2732
Air intake restriction, clean filter	kPa (mbar)		2 (20)
Air intake restriction, dirty filter	kPa (mbar)		5 (50)
Air filter type			dry

## 6/ EXHAUST SYSTEM

		1500 rpm	1800 rpm
Gas flow at stand-by Power	kg/h	2548	2853
Max temperature at PRP (25°C)	°C	557,4	553,8
Max allowable back pressure	kPa (mbar)		5 (50)
Energy to exhaust	kcal/kWh	628	596

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## 7/ FUEL SYSTEM\*

		1500 rpm	1800 rpm
Fuel consumption at			
Stand-By	(g/kWh)	194,1435	200,0535
Full load PRP	(g/kWh)	191,09	197,788
80%	(g/kWh)	190,893	197,8865
50%	(g/kWh)	194,1435	203,895
Fuel specifications		EN 590	
Feed pump max suction head	m	---	

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## 8/ ELECTRIC SYSTEM

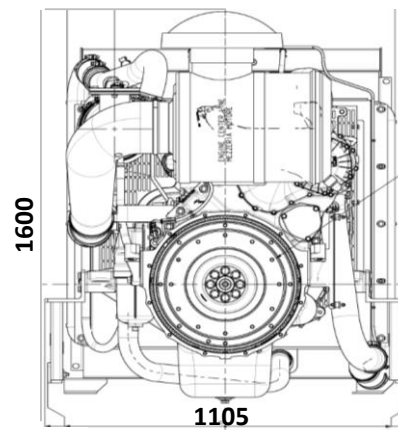
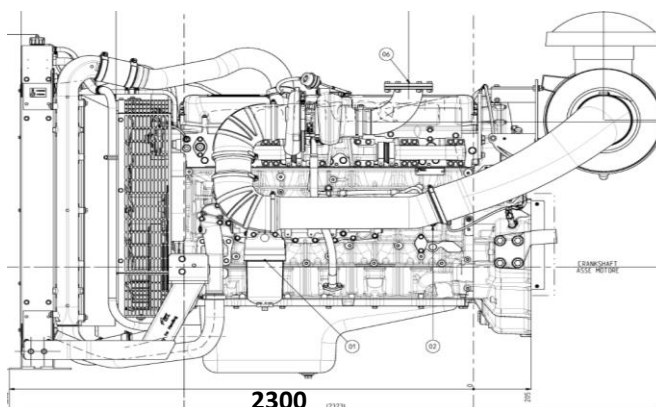
		1500 rpm	1800 rpm
Voltage (negative to ground)	V	24	
Starter motor			
make		DENSO	
power	kW	5,5	
pull current	Amp	12	
hold current	Amp	12	
break away current +20°C	Amp	1260	
cranking current +20°C	Amp		
Number of teeth on starter motor		10	
Number of teeth on flywheel		155	
Starting batteries			
recommended capacity	Ah	2x	185
discharge current	Amp	1200	
(EN 50342)			
Alternator			
voltage	V	28	
charge	Amp	90	

## 9/ COLD STARTING

		1500 rpm	1800 rpm
Without air preheating	°C	-	
With air preheating	°C	-	

## 10/ EMISSION GASEOUS AND PARTICLES

		1500 rpm	1800 rpm
No <sub>x</sub>	Oxides of nitrogen	gr/kWh	-
HC	Hydrocarbons	gr/kWh	-
No <sub>x</sub> +HC		gr/kWh	-
CO	Carbon monoxide	gr/kWh	-
PT	Particles	gr/kWh	-



Date of update: February 2016  
 Specifications subject to change without notice  
 Illustrations may include optional equipment.