

Technical Engine Data

18V2000G65

Air charge air cooling;

50 Hz - 1.500/min

fuel consumption optimized



Operating method	Four stroke Diesel	Flywheel housing flange	SAE 0
Combustion system	Direct Injection	Flywheel interface	18"
Charging method	Exhaust turbo charger and Air charge air cooling;	Starter ring-gear teeth no.	118
		Injection system	Electronically controlled high-pressure injection with single injection pumps
Bore / Stroke	130 / 150 mm		
Displacement, total	35.82 Liter		
Number of cylinders	18	Control / Monitoring	Electronic engine management system "ADEC"
Cylinder configuration	V - 90°	Number of turbo chargers	2
Compression ratio	16 : 1	Number of intercooler	1
Direction of rotation	left		
<small>(viewed from flywheel side)</small>			

MTU-Application group				3D (ICFN)	3B (ICXN)
Power (ISO 3046)		kW	A	1100	1000
Mean piston speed		m/s	A	7.5	7.5
Mean effective pressure		bar	A	24.6	22.3
Engine weight (Engine in basic execution)	dry	kg	R	3500	3500
	wet	kg	R	3750	3750
Dimensions (Engine only)	length	mm	R	2398	2398
	height	mm	R	1603	1603
	width	mm	R	1580	1580
Consumption					
Specific fuel consumption (be) (Tolerance +5% according to ISO 3046/1)	100% CP	g/kWh	G	203	202
	75% CP	g/kWh	R	200	200
	50% CP	g/kWh	R	201	204
Lube oil consumption (after run-in)			R	0.5	0.5
Capacity					
Engine oil capacity, initial filling (standard oil system)	total	Liter	R	130	130
	Oil pan capacity, dipstick mark min.	Liter	L	87	87
	Oil pan capacity, dipstick mark max.	Liter	L	110	110
Engine coolant capacity (without cooling equipment)		Liter	R	120	120
Intercooler coolant capacity		Liter	R	-	-
Heat dissipation					
Engine coolant dissipation	100% load	kW	R	470	450
Charge-air heat dissipation	100% load	kW	R	225	190
Radiation and convection heat, engine		kW	R	50	50
Starter system					
Electrical Starter (make Delco)					
Starter, rated voltage		V	R	24	24
Starter, rated power		kW	R	9.5	9.5
Starter, power requirement max.		A	R	1600	1600
Starter, power requirement at firing speed		A	R	800	800
Recommended battery capacity	Lead-acid	Ah/20h	R	-	-
	NiCd	Ah/5h	R	-	-
Firing speed		1/min	R	100 - 120	100 - 120
Coolant pre-heating					
Preheating temperature (min.)		°C	R	32	32
Heater performance		kW	R	6	6

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Coolant system, Engine coolant circuit				
Coolant temperature (at engine outlet to cooling equipment)	°C	A	95	95
Coolant temperature after engine, alarm	°C	R	97	97
Coolant temperature after engine, shutdown	°C	L	102	102
Coolant antifreeze content, max. permissible	%	L	50	50
Cooling equipment: coolant flow rate	m ³ /h	A	40	40
Coolant pump: inlet pressure, min.	bar	L	0.4	0.4
Coolant pump: inlet pressure, max.	bar	L	1.52	1.52
Pressure loss in off-engine cooling system, max. permissible	bar	L	0.7	0.7
Cooling equipment: height above engine max. permissible	m	L	15.2	15.2
Cooling equipment: design pressure	bar	A	2.2	2.2
Coolant system, Charge-air coolant circuit				
Coolant temperature before intercooler (engine inlet)	°C	A	-	-
Coolant antifreeze content, max. permissible	%	L	-	-
Cooling equipment: coolant flow rate	m ³ /h	A	-	-
Pressure loss in off-engine cooling system max. permissible	bar	L	-	-
Cooling equipment: height above engine max. permissible	m	L	-	-
Cooling equipment: design pressure max. permissible	bar	A	-	-
Combustion air				
Combustion air volume flow	m ³ /s	R	1.25	1.15
Intake air depression	mbar	A	15	15
Intake air depression new filter limit value	mbar	L	50	50
Fuel system				
Fuel supply flow, max.	l/min	R	10	10
Fuel temperature, max.	°C	L	-	-
Fuel pressure at supply connection on engine, max. admissible	bar	L	+0.5	+0.5
Fuel pressure at supply connection on engine, min. admissible	bar	L	-0.3	-0.3
Exhaust system				
Exhaust volume flow	m ³ /s	R	3.6	3.3
Exhaust temperature after turbocharger	°C	R	560	555
Exhaust backpressure limit value	mbar	L	85	85
General operating data				
Recommended minimum continuous load	%	R	20	20
Engine mass moment of inertia, with standard flywheel	kgm ²	R	6.99	6.99
Noise emission				
(Free-field sound pressure level, 1m distance)				
Engine surface noise	dB(A)	R	103	105
Exhaust noise, unsilenced	dB(A)	R	108	107

A = Design value; G = Guaranteed value; R = Guideline value

L = Limit value, up to which the engine can be operated w/o change

- = Data not available; * = Estimated or projected values

Reference conditions

	Standard	Power available up to
Intake air temperature	25°C	40°C
Site altitude above sea level	100 m	400 m

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