- Product Data -



Name	12V1600G10F	Speed [rpm]	1500
Application Group	3B	Nominal power [kW]	524
Dataset	Ref. 25°C/-	Nominal power [bhp]	703
		Frequency [Hz]	50

**Exhaust Regulations** 

Fuel-consumption optimized; NEA Singapore for ORDE;

#### **Reference conditions**

No.	Description	Index	Value	Unit
6	Intake air temperature		25	°C
8	Barometric pressure		1000	mbar
9	Site altitude above sea level		100	m

### 0. Data-relevant engine design configuration

No.	Description	Index	Value	Unit
0	Engine rated speed switchable			
8	(1500/1800 rpm)		-	-
12	Engine without sequential turbocharging		×	
13	(turbochargers without cut-in/cut-out control)		^	-
31	Engine with air-cooled charge air		х	-

#### 1. Power-related data

No.	Description	Index	Value	Unit
1	Engine rated speed	A	1500	rpm
3	Mean piston speed		7.5	m/s
4	Continuous power ISO 3046 (10% overload capability)	•	524	kW
	(design power DIN 6280, ISO 8528)	A	524	ĸvv
5	Fuel stop power ISO 3046	А	576	kW
0	Mean effective pressure (MEP)		19.96	har
0	(Continuous power ISO 3046)		19.90	bar
0	Mean effective pressure (MEP)		21.92	her
9	(Fuel stop power ISO 3046)		21.92	bar

### 2. General Conditions (for maximum power)

No.	Description	Index	Value	Unit
1	Intake air depression (new filter)	А	25	mbar
2	Intake air depression, max.	L	50	mbar
3	Exhaust back pressure	A	85	mbar
4	Exhaust back pressure, max.	L	85	mbar
5	Fuel temperature at fuel feed connection	R	38	°C
9	Fuel temperature at fuel feed connection, max. (w/o power reduction)	L	60	°C
10	Fuel temperature at fuel feed connection, max.	L	70	°C
49	Max. ambient temperature in direct vicinity of vibration damper	L	55	°C

### 3. Consumption

No.	Description	Index	Value	Unit
17	Specific fuel consumption (be) - 100 % CP (+ 5 %; EN 590; 42.8 MJ/kg)	R	192	g/kWh
	(+ 5 %, EN 590, 42.8 IVIJ/Kg)			

 BL Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)

 DL Reference value: continuous power

 Engine power that can be run continuously under standard conditions

Actual value must be greater than specified value
 Actual value must be less than specified value

 X
 Applicable

 The module is valid for this product type
 Non-applicable

 The module is not valid for this product type
 N

 N
 Value not named

 The value has not yet been named or will not be named
 Non-applicable

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

- Product Data -



### Name **Application Group** Dataset

12V1600G10F 3B Ref. 25°C/-

1500
524
703
50

**Exhaust Regulations** 

Fuel-consumption optimized; NEA Singapore for ORDE;

18	Specific fuel consumption (be) - 75 % CP	R	199	g/kWh
	(+ 5 %; EN 590; 42.8 MJ/kg)			8,
19	Specific fuel consumption (be) - 50 % CP	R	207	g/kWh
15	(+ 5 %; EN 590; 42.8 MJ/kg)	N	207	8/ 1001
20	Specific fuel consumption (be) - 25 % CP	R	227	g/kWh
20	(+ 5 %; EN 590; 42.8 MJ/kg)	n.	227	g/KVVII
56	Specific fuel consumption (be) - 100 % FSP		192	
50	(+ 5 %; EN 590; 42.8 MJ/kg)	R	192	g/kWh
57	Specific fuel consumption (be) - 75 % FSP	R	197	
57	(+ 5 %; EN 590; 42.8 MJ/kg)		197	g/kWh
58	Specific fuel consumption (be) - 50 % FSP		206	g/kWh
50	(+ 5 %; EN 590; 42.8 MJ/kg)	R		
59	Specific fuel consumption (be) - 25 % FSP		223	~/I.)A/h
29	(+ 5 %; EN 590; 42.8 MJ/kg)	R	223	g/kWh
73	No-load fuel consumption	R	2.1	kg/h
61	Lube oil consumption after 100 h of operation		<0.2	0/ af D
01	(B = fuel consumption per hour)	R	<0.2	% of B
62	Lube oil consumption after 100 h of operation, max.		<0 F	04 - F D
02	(B = fuel consumption per hour)	L	<0.5	% of B

### 4. Model-related data (basic design)

No.	Description	Index	Value	Unit
3	Engine with exhaust turbocharger (ETC) and intercooler		Х	-
4	Exhaust piping, non-cooled		Х	-
33	Working method: four-cycle, diesel, single-acting		Х	-
34	Combustion method: direct injection		Х	-
36	Cooling system: conditioned water		Х	-
37	Direction of rotation: c.c.w. (facing driving end)		Х	-
6	Number of cylinders		12	-
7	Cylinder configuration: V angle		90	degrees (°)
10	Bore		122	mm
11	Stroke		150	mm
12	Displacement, cylinder		1.75	liter
13	Displacement, total		21.0	liter
14	Compression ratio		17.5	-
41	Cylinder liners: wet, replaceable		Х	-
24	Number of inlet valves, per cylinder		2	-
25	Number of exhaust valves, per cylinder		2	-
15	Number of turbochargers		2	-
28	Standard flywheel housing flange (engine main PTO)		01	SAE
43	Flywheel interface (DISC)		14"	-

#### 5. Combustion air / exhaust gas

No.	Description	Index	Value	Unit
19	Charge-air temperature before cylinder	А	50	°C
33	Charge-air flow through external air-to-air intercooler	А	0.33	m³/s

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 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)

 DL Reference value: continuous power

 Engine power that can be run continuously under standard conditions

Actual value must be greater than specified value
Actual value must be less than specified value

 X
 Applicable

 The module is valid for this product type

 Image: Second se

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

- Product Data -



### Name Application Group Dataset

12V1600G10F 3B Ref. 25°C/-

Speed [rpm]	1500
Nominal power [kW]	524
Nominal power [bhp]	703
Frequency [Hz]	50

**Exhaust Regulations** 

Fuel-consumption optimized; NEA Singapore for ORDE;

34	Charge-air temperature before external	^	220	°C
54	air-to-air intercooler	A	220	L
35	Charge-air temperature after external	А	50	°C
33	air-to-air intercooler	А	50	
36	Charge-air temperature after external		65	°C
30	air-to-air intercooler, max.	L	65	C
37	Charge-air temperature after external		-15	°C
57	air-to-air intercooler, min.	L .	-15	C
39	Pressure differential in external		130	mbar
35	air-to-air intercooler, max.	L .	130	IIIDal
8	Charge-air pressure before cylinder - CP	R	2.7	bar abs
27	Charge-air pressure before cylinder - FSP	R	2.9	bar abs
9	Combustion air volume flow - CP	R	0.60	m³/s
10	Combustion air volume flow - FSP	R	0.80	m³/s
11	Exhaust volume flow (at exhaust temperature) - CP	R	1.5	m³/s
12	Exhaust volume flow (at exhaust temperature) - FSP	R	1.7	m³/s
15	Exhaust temperature after turbocharger - CP	R	482	°C
16	Exhaust temperature after turbocharger - FSP	R	482	°C

### 6. Heat dissipation

No.	Description	Index	Value	Unit
16	Heat dissipated by engine coolant - FSP	D	236	kW
10	with oil heat, without charge-air heat	к	250	
26	Charge-air heat dissipation - CP	R	87	kW
27	Charge-air heat dissipation - FSP	R	104	kW
31	Heat dissipated by return fuel flow - CP	R	3.4	kW
32	Heat dissipated by return fuel flow - FSP	R	3.6	kW
33	Radiation and convection heat, engine - CP	R	25	kW

### 7. Coolant system (high-temperature circuit)

No.	Description	Index	Value	Unit
17	Coolant temperature	•	95	°C
17	(at engine outlet to cooling equipment)	A	55	L
20	Coolant temperature after engine, limit 1	L	105	°C
21	Coolant temperature after engine, limit 2	L	109	°C
25	Coolant antifreeze content, max.	L	50	%
30	Cooling equipment: coolant flow rate	А	26	m³/h
35	Coolant pump: inlet pressure, min.	L	1.4	bar
36	Coolant pump: inlet pressure, max.	L	3.5	bar
41	Pressure loss in off-engine cooling system, max.	L	1	bar
47	Breather valve (expansion tank)	D	1	har
47	opening pressure (excess pressure)	R	1	bar
54	Cooling equipment: height above engine, max.	L	15	m
48	Breather valve (expansion tank)	D	-0.2	her
40	opening pressure (depression)	R	-0.2	bar
49	Pressure in cooling system, max.	L	5.0	bar

 BL
 Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)
 DL

 DL
 Reference value: continuous power

 Engine power that can be run continuously under standard conditions
 conditions

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 Actual value must be less than specified value

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

- Product Data -



1500

524

703 50

Name	12V1600G10F	Speed [rpm]
Application Group	3B	Nominal power [kW]
Dataset	Ref. 25°C/-	Nominal power [bhp]
		Frequency [Hz]

Exhaust Regulations

Fuel-consumption optimized; NEA Singapore for ORDE;

### 10. Lube oil system

No.	Description	Index	Value	Unit
1	Lube oil operating temp. before engine, from	R	105	°C
2	Lube oil operating temp. before engine, to	R	115	°C
8	Lube oil operating press. bef. engine, from	R	4.5	bar
9	Lube oil operating press. bef. engine, to	R	5.5	bar
10	Lube oil pressure before engine, alarm	L	2.6	bar
11	Lube oil pressure before engine, shutdown	L	2.4	bar
19	Lube oil fine filter (main circuit):		1	
19	number of units		1	-
20	Lube oil fine filter (main circuit):		4	
20	number of elements per unit		4	-
56	Lube-oil fine filter (main flow), particle size 1		10	μm
57	Lube-oil fine filter (main flow), filtering efficiency re 1		26	%
58	Lube-oil fine filter (main flow), particle size 2		15	μm
59	Lube-oil fine filter (main flow), filtering efficiency re 2		50	%
60	Lube-oil fine filter (main flow), particle size 3		20	μm
61	Lube-oil fine filter (main flow), filtering efficiency re 3		75	%
32	Lube oil fine filter (main circuit):	1	2	her
52	pressure differential, max.	L	2	bar

### 11. Fuel system

No.	Description	Index	Value	Unit
1	Fuel pressure at engine fuel feed connection, min.		-0.5	her
T	(when engine is starting)	L	-0.5	bar
2	Fuel pressure at engine fuel feed connection, max.		0.5	bar
2	(when engine is starting)	L	0.5	Dai
4211	Max. fuel supply volume	А	4.8	liter/min
4211	Normal mode	A	4.0	inter/initi
4212	Max. fuel supply volume	•	5.3	litar/min
4212	Failure mode	А	5.5	liter/min
4213	Max. fuel return volume	•	2.1	litor/min
4215	Normal mode	А	2.1	liter/min
4214	Max. fuel return volume	•	4.1	liter/min
4214	Failure mode	4.1	inter/min	
10	Fuel pressure at return connection on engine, max.	L	<0.4	bar
18	Fuel fine filter (main circuit): number of units	А	1	-
19	Fuel fine filter (main circuit): number of elements per unit	А	1	-
68	Fuel fine filter, particle size 1		4	μm
69	Fuel fine filter, filtering efficiency re 1		99.5	%
70	Fuel fine filter, particle size 2		6	μm
71	Fuel fine filter, filtering efficiency re 2		99.8	%
72	Fuel fine filter, particle size 3		14	μm
73	Fuel fine filter, filtering efficiency re 3		99.8	%
21	Fuel fine filter (main circuit): pressure differential, max.	L	2	bar

 BL
 Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)
 DL

 DL
 Reference value: continuous power

 Engine power that can be run continuously under standard conditions
 conditions

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

Design value
 Value required for the design of an external system
 (plant)
 Guideline value
 Typical average value as information – only suitable
 for design purposes to a limited extent
 Limit value
 A value representing the lower limit/minimum value or
 upper limit/maximum value that may not be
 exceeded. Not suitable for design purposes

Actual value must be greater than specified value
 Actual value must be less than specified value

- Product Data -



1500 524

703 50

Name	12V1600G10F	Speed [rpm]
Application Group	3B	Nominal power [kW]
Dataset	Ref. 25°C/-	Nominal power [bhp]
		Frequency [Hz]

**Exhaust Regulations** 

Fuel-consumption optimized; NEA Singapore for ORDE;

### 12. General operating data

No.	Description	Index	Value	Unit
1	Cold start capability: air temperature	R	-20	°C
1	(w/o starting aid, w/o preheating) - (case A)	ĸ	-20	C
2	Additional condition (to case A):		-20	*
2	engine coolant temperature	R	-20	°C
3	Additional condition (to case A): lube oil temperature	R	-20	°C
4	Additional condition (to case A): lube oil viscosity	R	10W40	SAE
9	Cold start capability: air temperature	R	-40	°C
5	(w/o starting aid, w/ preheating) - (case C)	ĸ	-40	C
10	Additional condition (to case C):	R	32	°C
10	engine coolant temperature	ĸ	52	C
11	Additional condition (to case C): lube oil temperature	R	32	°C
12	Additional condition (to case C): lube oil viscosity	R	10W40	SAE
21	Coolant preheating, heater performance (standard)	R	3	kW
22	Coolant preheating, preheating temperature, min.	L	32	°C
3506	Coolant preheating, preheating temperature, max.	L	55	°C
28	Breakaway torque (without driven machinery)	R	750	Nm
_	coolant temperature +5°C	r.	750	INITI
30	Breakaway torque (without driven machinery)	R	450	Nm
30	coolant temperature +40°C	r.	450	INITI
29	Cranking torque at firing speed (without driven machinery)	R	400	Nime
29	coolant temperature +5°C	ĸ	400	Nm
31	Cranking torque at firing speed (without driven machinery)	R	270	Nm
21	coolant temperature +40°C	r.	270	
96	Starting is blocked if the engine coolant temperature is		-20	°C
	below		-20	C
	High idling speed, max. (static)	L	1560	rpm
	Limit speed for overspeed alarm / emergency shutdown	L	1800	rpm
	Firing speed, from	R	80	rpm
43	Firing speed, to	R	120	rpm
44	Engine coolant temperature before starting full-load operation, recommended	R	60	°C
	min.			
48	Minimum continuous load	R	20	%
50	Engine mass moment of inertia	R	1.548	kgm²
	(without flywheel)	N	1.540	•
	Standard flywheel mass moment of inertia	R	1.44	kgm²
	Block bending moment - SAE 0	R	3	kNm
1982	Block bending moment - SAE 1	R	3	kNm
51	Engine mass moment of inertia	R	2.988	kgm²
	(with standard flywheel)			5
	Speed droop (with electronic governor) adjustable P1	R	4	%
110	Speed droop (with electronic governor) adjustable P2	R	0.4	%
95	Number of starter ring-gear teeth on engine flywheel		157	-

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 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)

 DL Reference value: continuous power

 Engine power that can be run continuously under standard conditions

Actual value must be greater than specified value
 Actual value must be less than specified value

 X Applicable

 The module is valid for this product type

 Non-applicable

 The module is not valid for this product type

 **Will applicable Work applicable** 

 The module is not valid for this product type

 **Work applicable** 

 The walue has not yet been named or will not be named

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

- Product Data -



#### Name **Application Group** Dataset

12V1600G10F 3B Ref. 25°C/-

Speed [rpm]	1500
Nominal power [kW]	524
Nominal power [bhp]	703
Frequency [Hz]	50

**Exhaust Regulations** 

Fuel-consumption optimized; NEA Singapore for ORDE;

### 13. Starting (electric)

		1	N/-1	L
No.	Description	Index	Value	Unit
2309	Manufacturer	_	Prestolite	-
2310	Number of starter		1	-
2312	Starter electrically redundant		-	-
2313	Rated power per starter	R	7.5	kW
2314	Starter, rated voltage	R	24	VDC
2315	Rated short-circuit current per starter	L	1730	A
3000	Power consumption per starter	R	400	А
	(at an engine speed of 100 rpm, SAE0)			~
3002	Power consumption per starter	R	540	А
	(at an engine speed of 100 rpm, SAE1)	n	540	A
2317	Internal resistance of power supply + line resistance per starter	А	0.008	Ω
2318	Manufacturer		Prestolite	-
2319	Number of starter		1	-
2320	Starter electrically redundant		х	-
2321	Rated power per starter	R	7.5	kW
2322	Starter, rated voltage	R	24	VDC
2323	Rated short-circuit current per starter	L	1730	А
2004	Power consumption per starter	_	400	
3001	(at an engine speed of 100 rpm, SAE0)	R	400	А
2002	Power consumption per starter	_	540	
3003	(at an engine speed of 100 rpm, SAE1)	R	540	А
2325	Internal resistance of power supply + line resistance per starter	А	0.008	Ω
2326	Manufacturer		Prestolite	-
2327	Number of starter		2	-
2328	Starter electrically redundant		-	-
2329	Rated power per starter	R	7.5	kW
2330	Starter, rated voltage	R	24	VDC
2331	Rated short-circuit current per starter	L	1730	А
2254	Power consumption per starter	_	400	
3251	(at an engine speed of 100 rpm, SAE0)	R	400	А
2252	Power consumption per starter		540	
3252	(at an engine speed of 100 rpm, SAE1)	R	540	А
2333	Internal resistance of power supply + line resistance per starter	A	0.008	Ω
2347	Generally valid data for starter	1	х	-
2342	Rated starting-attempt Duration (at +20°C ambient temperature with battery	R	3	s
2343	Interval between starts		5	
2343	(at rated starting-attempt duration), min.	L	5	S
2345	Maximum acceptable starting-attempt duration	L	15	s
2244	Interval between starts	D	60	
2344	(when starting-attempt duration > rated starting-attempt duration)	R	00	S
2246	Starting attempts within 30 minutes		6	
2346	(at +20°C ambient temperature with battery full), max.	L	o	-
			•	

#### 16. Inclinations - standard oil system (ref.: waterline)

No.	Description	Index	Value	Unit

 BL
 Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)
 DL

 DL
 Reference value: continuous power

 Engine power that can be run continuously under standard conditions
 conditions

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 Actual value must be less than specified value

 X Applicable

 The module is valid for this product type

 Non-applicable

 The module is not valid for this product type

 **Will applicable Work applicable** 

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 **Work applicable** 

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- Product Data -



Name	12V1600G10F	Speed [rpm]	1500
Application Group	3B	Nominal power [kW]	524
Dataset	Ref. 25°C/-	Nominal power [bhp]	703
		Frequency [Hz]	50

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15	Longitudinal inclination, continuous max. driving end down (Option: max. operating inclinations)	L	15	degrees (°)
17	Longitudinal inclination, continuous max. driving end up (Option: max. operating inclinations)	L	15	degrees (°)
19	Transverse inclination, continuous max. (Option: max. operating inclinations)	L	15	degrees (°)

### 18. Capacities

Description	Index	Value	Unit
Engine coolant capacity (without cooling equipment)	R	65	liter
On-engine fuel capacity	R	3 *	liter
Engine oil capacity, initial filling			
(standard oil system)	R	72.5	liter
(Option: max. operating inclinations)			
Oil change quantity, max.			
(standard oil system)	R	64	liter
(Option: max. operating inclinations)			
Oil pan capacity, dipstick mark min.			
(standard oil system)	L	56	liter
(Option: max. operating inclinations)			
Oil pan capacity, dipstick mark max.			
(standard oil system)	L	64	liter
(Option: max. operating inclinations)			
	Engine coolant capacity (without cooling equipment) On-engine fuel capacity Engine oil capacity, initial filling (standard oil system) (Option: max. operating inclinations) Oil change quantity, max. (standard oil system) (Option: max. operating inclinations) Oil pan capacity, dipstick mark min. (standard oil system) (Option: max. operating inclinations) Oil pan capacity, dipstick mark max. (standard oil system) (Option: max. operating inclinations) Oil pan capacity, dipstick mark max. (standard oil system)	Engine coolant capacity (without cooling equipment)       R         On-engine fuel capacity       R         Engine oil capacity, initial filling       R         (standard oil system)       R         (Option: max. operating inclinations)       R         Oil change quantity, max.       R         (standard oil system)       R         (Option: max. operating inclinations)       R         Oil pan capacity, dipstick mark min.       L         (Option: max. operating inclinations)       L         Oil pan capacity, dipstick mark max.       L         (option: max. operating inclinations)       L	Engine coolant capacity (without cooling equipment)R65On-engine fuel capacityR3 *Engine oil capacity, initial filling (standard oil system)R72.5(Option: max. operating inclinations)Oil change quantity, max. (standard oil system) (Option: max. operating inclinations)R64Oil pan capacity, dipstick mark min. (standard oil system) (Option: max. operating inclinations)L56Oil pan capacity, dipstick mark min. (standard oil system) (Option: max. operating inclinations)L56Oil pan capacity, dipstick mark min. (standard oil system) (Option: max. operating inclinations)L56Oil pan capacity, dipstick mark max. (standard oil system)L64

#### 19. Masses / dimensions

No.	Description	Index	Value	Unit
7	Engine dry mass (with engine-mounted	D	1855 *	ka
<pre>/ standard acce</pre>	standard accessories, without coupling)	к	1922	kg
10	Engine mass, wet	Р	1918	ka
12	(with engine-mounted standard accessories, without coupling)	ĸ	1918	kg

### 20. Fan / fan cooler

No.	Description	Index	Value	Unit
3	Fan, pusher-type		х	-
18	Fan arrangement: vertical above crankshaft		х	-
9	Fan drive: mechanical via V-belt		х	-
13	Fan: speed	R	1500	rpm

### 21. Exhaust emissions

	No.	Description	Index	Value	Unit
--	-----	-------------	-------	-------	------

 BL Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)

 DL Reference value: continuous power

 Engine power that can be run continuously under standard conditions

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- Product Data -



Name	12V1600G10F
Application Group	3B
Dataset	Ref. 25°C/-

Speed [rpm]	1500
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Nominal power [bhp]	703
Frequency [Hz]	50

**Exhaust Regulations** 

Fuel-consumption optimized; NEA Singapore for ORDE;

2005	Emissions data sheet: NEA Singapore for ORDE	EDS16000120	-
1960	Emissions data sheet: MoEF India / CPCB Stage I	EDS16000098	-
1972	Emissions data sheet: Fuel-consumption optimized	EDS16000099	-

#### 22. Acoustics

22. AU				
No.	Description	Index	Value	Unit
	Exhaust noise, unsilenced - CP			
101	(free-field sound-pressure level Lp, 1m distance,	R	109	dB(A)
	ISO 6798, +3dB(A) tolerance)			
201	Exhaust noise, unsilenced - CP	R	121	dB(A)
201	(sound power level LW, ISO 6798, +3dB(A) tolerance)	n	121	UD(A)
	Exhaust noise, unsilenced - FSP			
102	(free-field sound-pressure level Lp, 1m distance,	R	109	dB(A)
	ISO 6798, +3dB(A) tolerance)			
202	Exhaust noise, unsilenced - FSP	R	122	dB(A)
202	(sound power level LW, ISO 6798, +3dB(A) tolerance)	n	122	UD(A)
	Exhaust noise, unsilenced - CP			
103	(free-field sound-pressure level Lp, 1m distance,	R	735163e	
105	ISO 6798)	ĸ	/551056	-
	Spectrum No.			
203	Exhaust noise, unsilenced - CP			
	(sound power level LW, ISO 6798)	R	-	-
	Spectrum No.			
	Engine surface noise with attenuated			
109	intake noise (filter) - CP	R	102	
	(free-field sound-pressure level Lp, 1m distance,	к	102	dB(A)
	ISO 6798, +2dB(A) tolerance)			
	Engine surface noise with attenuated			
209	intake noise (filter) - CP	R	120	dB(A)
	(sound power level LW, ISO 6798, +2dB(A) tolerance)			
	Engine surface noise with attenuated			
111	intake noise (filter) - CP	R	735156e	
111	(free-field sound-pressure level Lp, 1m distance,	ĸ	/331306	-
	ISO 6798) Spectrum No.			
	Engine surface noise with attenuated			
211	intake noise (filter) - CP			
211	(sound power level LW, ISO 6798)	R	-	-
	Spectrum No.			
	Engine surface noise with attenuated			
117	intake noise (intake silencer) - CP	_	100	
113	(free-field sound-pressure level Lp, 1m distance,	R	100	dB(A)
	ISO 6798, +2dB(A) tolerance)			

 BL Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)

 DL Reference value: continuous power

 Engine power that can be run continuously under standard conditions

Actual value must be greater than specified value
 Actual value must be less than specified value

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

- Product Data -



Name	12V1600G10F	Speed [rpm]	1500
Application Group	3B	Nominal power [kW]	524
Dataset	Ref. 25°C/-	Nominal power [bhp]	703
		Frequency [Hz]	50

Exhaust Regulations

Fuel-consumption optimized; NEA Singapore for ORDE;

114	Engine surface noise with attenuated intake noise (intake silencer) - FSP (free-field sound-pressure level Lp, 1m distance, ISO 6798, +2dB(A) tolerance)	R	101	dB(A)
125	Structure borne noise at engine mounting brackets in vertical direction above resilient engine mounts - CP Spectrum No.	R	735249e	-
126	Structure borne noise at engine mounting brackets in vertical direction above resilient engine mounts - FSP Spectrum No.	R	735248e	-

 BL Reference value: fuel stop power

 Maximum engine power that cannot be run continuously on some applications (stabilization reserve)

 DL Reference value: continuous power

 Engine power that can be run continuously under standard conditions

Actual value must be greater than specified value
 Actual value must be less than specified value

Adequate verification not yet available (tolerance +/-10%)
<sup>an</sup> Adequate verification not yet available (tolerance +/-5%)

A Design value
 Value required for the design of an external system
 (plant)
 Couldeline value
 for design purposes to a limited extent
 Limit value
 A value representing the lower limit/minimum value or
 upper limit/maximum value that may not be
 exceeded. Not suitable for design purposes