

## RID 500 B-SERIES

### DIESEL GENERATOR SET 500 KVA



#### POWER RATING

OUTPUT RATINGS		PRIME	STANDBY
Power	kVA   kW	500   400	550   440
Current	A	723	795
Voltage	V	230 / 400	230 / 400
Frequency	Hz		50
Rated at power factor	cos φ		0,8

#### POWER RATING DESCRIPTION

##### Prime Rating

The ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

##### Standby Rating

The ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

#### PRODUCT OVERVIEW

RATINGS DATA	
Order number Generator	713716
Alternator Model	Linz PRO35S C/4
Engine Type	DOOSAN DP158LD
Generator type	synchronous
Protection class	IP 23
Control Panel	RID 1000 A

#### DIMENSIONS AND WEIGHTS

LENGTH (L)	WIDTH (W)	HEIGHT (H)	WEIGHT	TANK CAPACITY
3050 mm	1420 mm	2168 mm	3600 kg	1000 l

#### NOISE LEVEL

1 METER	4 METER	7 METER	10 METER
84,3 dB(A)	84 dB(A)	82,9 dB(A)	81,6 dB(A)

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#### ENGINE TECHNICAL DATA

ENGINE TECHNICAL DATA		PRIME	STANDBY
Engine output	kW	464	510
Engine type		DOOSAN DP158LD	
Engine size		8-Cylinder; V-type	
Injection system		Bosch in-line "P" type	
Rotational-speed range	rpm	1500	
Bore   Stroke	mm	128   142	
Cooling system		water + air	
Speed regulation		electrical	
Compression ratio		15:1	
Displacement	l	14,6	
Engine dry weight with Fan	kg	1155	

#### FUEL SYSTEM

POWER STANDARD		25%	50%	75%	100%
Fuel consumption PRIME	l	30,3	55,1	83,4	115,1
Fuel consumption STANDBY	l	32,3	60,9	91,1	127,8

#### EXHAUST SYSTEM

Silencer type		Industrial
max. exhaust gas temperature	°C	536
Exhaust gas flow	m <sup>3</sup> /h	5400
Max. exhaust back pressure	mbar	59

#### LUBRICATION SYSTEM

Oil type		RID 10W40
Oil filter type		replaceable element
Total oil volume	l	22
Max. oil temperature	°C	120

#### COOLING SYSTEM

Cooling system		water + air
Cooling system capacity	l	79
Fan power consumption	kW	16
Cooling air flow	m <sup>3</sup> /h	42000

#### AIR SYSTEM

Air Filter Type		replaceable Element
Combustion air volume	m <sup>3</sup> /h	1848
max. intake depression	mbar	21,6

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#### ALTERNATOR DATA

<b>Alternator Model</b>	Linz PRO35S B/4	
<b>Generator type</b>	synchronous	
<b>Insulation Class</b>	H	
<b>Regulation Type</b>	AVR	
<b>Control System</b>	self excited	
<b>Execution</b>	brushless	
<b>Protection class</b>	IP 23	
<b>Stator Winding</b>	Double layer with auxiliary winding	
<b>Rotor Winding</b>	I	with damping cage
<b>Winding Pitch</b>	2/3	
<b>THD at full load</b>	<3%	
<b>Overspeed</b>	rpm	2250
<b>Air Flow Requirement</b>	m <sup>3</sup> /h	3264
<b>References</b>	EN60034-1	ISO8528-3 EN55011

#### ALTERNATOR PERFORMANCE DATA

VOLTAGE SERIES STAR, V	RATED POWER (125°C/40°C), KVA   KW	X <sub>d</sub>	X' <sub>d</sub>	X'' <sub>d</sub>
380   220	500   400	375 %	19,4 %	13,3 %
400   230	500   400	338 %	17,5 %	12,0 %
415   240	500   400	314 %	16,3 %	11,1 %
440   254	470   376	263 %	13,6 %	9,3 %

#### CERTIFICATIONS AND NORMS

EN60034-1	ISO8528-3	EN55011	Outdoor Noise Equipment Directive 2000/14/EC
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#### CONTROL PANEL

~ RID 1000 A ~

#### CONTROLLER FUNCTIONS

FUNCTIONS	RANGES, VALUES	
<b>operating modes</b>	automatic, manual, test and remote	available
<b>mains control with limits</b>	voltage, frequency, phase sequence	available
<b>generator control with limits</b>	voltage, frequency, power, phase sequence.	available
<b>engine control with limits</b>	start, stop, shutdown by alarms	available
<b>power control</b>	current, kW, kVA, kVA <sub>r</sub> , power factor	available
<b>statistic data mains</b>	voltage, frequency and current	available
<b>statistic data generator</b>	voltage, frequency and current	available
<b>fuel level control</b>	in % and in liters	available
<b>fuel consumption control and history</b>	in l/h	available
<b>working hours per day</b>	in h	available
<b>service hours</b>	in h	available
<b>battery service</b>	in h	available
<b>events log with time and date</b>	255 events	available
<b>alarm list programming</b>	77 alarms	available
<b>protocols</b>	GSM, Ethernet, Modbus, Canbus, RID protocol	available

#### REMOTE MONITORING FUNCTIONS

<b>mains voltage L1, L2, L3</b>	in V, AC	available	<b>engine temperature</b>	in °C,	optional
<b>generator voltage L1, L2, L3</b>	in V, AC	available	<b>environment temperature</b>	in °C,	optional
<b>genset battery voltage DC</b>	in V, DC	available	<b>generator run hours</b>	in h,	available
<b>mains power total</b>	in kW,	available	<b>generator maintenance hours</b>	in h,	available
<b>generator power total</b>	in kW,	available	<b>fuel level</b>	in L,	available
<b>mains frequency</b>	in Hz	available	<b>load on mains</b>	indication	available
<b>generator frequency</b>	in Hz	available	<b>load on generator</b>	indication	available
<b>current L1, L2, L3</b>	in A,	available	<b>mains supply</b>	indication	available
<b>power L1, L2, L3</b>	in kW,	available	<b>generator supply</b>	indication	available

#### SPECIFIC ALARMS

GENSET DOOR OPEN	FUEL TANK OPEN	AIR FILTER CLOGGING	FIRE ALARM
optional	optional	optional	optional