On-Board Power Generator EME SDR 180/35-2

Data Sheet 122.00051168_EN

Version 1.9

Version	Date	Name	Department	Remark	Status	Sharing Expertise
V1.9	09.12.2020	Weinhard	ET	Voith	extern	

Operating und installation data:

Parameter	*Symbol/Unit*	*Value*
Rated power	S_N [kVA]	28
Rated voltage	U [V]	400
Rated current	I [A]	40,5
Frequency	f [Hz]	50
Rated speed Over speed according to the standard (DIN EN60034)	n_N [rpm]	3000 1,2 x n_N
Power factor	Cos φ	0,83i
Efficiencies	Ƞ [%]	90,8
Sustained short circuit current 3~ Sustained short circuit current 1~ Initial short circuit current 3~ Initial short circuit current 1~	$Ik_{3\sim}$ [A] $Ik_{1\sim}$ [A] $Ik''_{3\sim}$ [A] $Ik''_{1\sim}$ [A]	320 420 500 800
Coolant Cooling	T [°C] air	-40/+60°C IC411
Insulation class /temperature rise	Ins./Tem rise.	H / H
Operating mode		S1
Installation altitude		<1000 m.asl
Wiring		Star
Enclosure		IP65
Mounting form		IM B85
Interference supp		N
Distortion factor	THD [%]	3,7
Drawing		M2827.049
Weight Moment of inertia	M [kg] J [kg*m2]	ca. 238 ca. 0,23
Drive		Hydro motor (A2FM)
Standards		According to production declaration
Voltage regulator Power factor regulator	digital -	RDAG300.4 -
Wiring diagram		S38.23.39.40.41.131

Resistance values	*Symbol*	*Unit*	*Value @ TS20°C*
	U1-V1	[mΩ]	198 +/-5%
Three-phase winding	V1-W1	[mΩ]	198 +/-5%
	W1-U1	[mΩ]	198 +/-5%
Rotor winding	J-K	[Ω]	1,87 +/-5%
Exc. Rotor	U1-V1	[Ω]	0,160 +/-5%
Exc. Stator	J1-K1	[Ω]	8,24 +/-5%
Supply winding	UH-VH	[Ω]	1,26 +/- 5%

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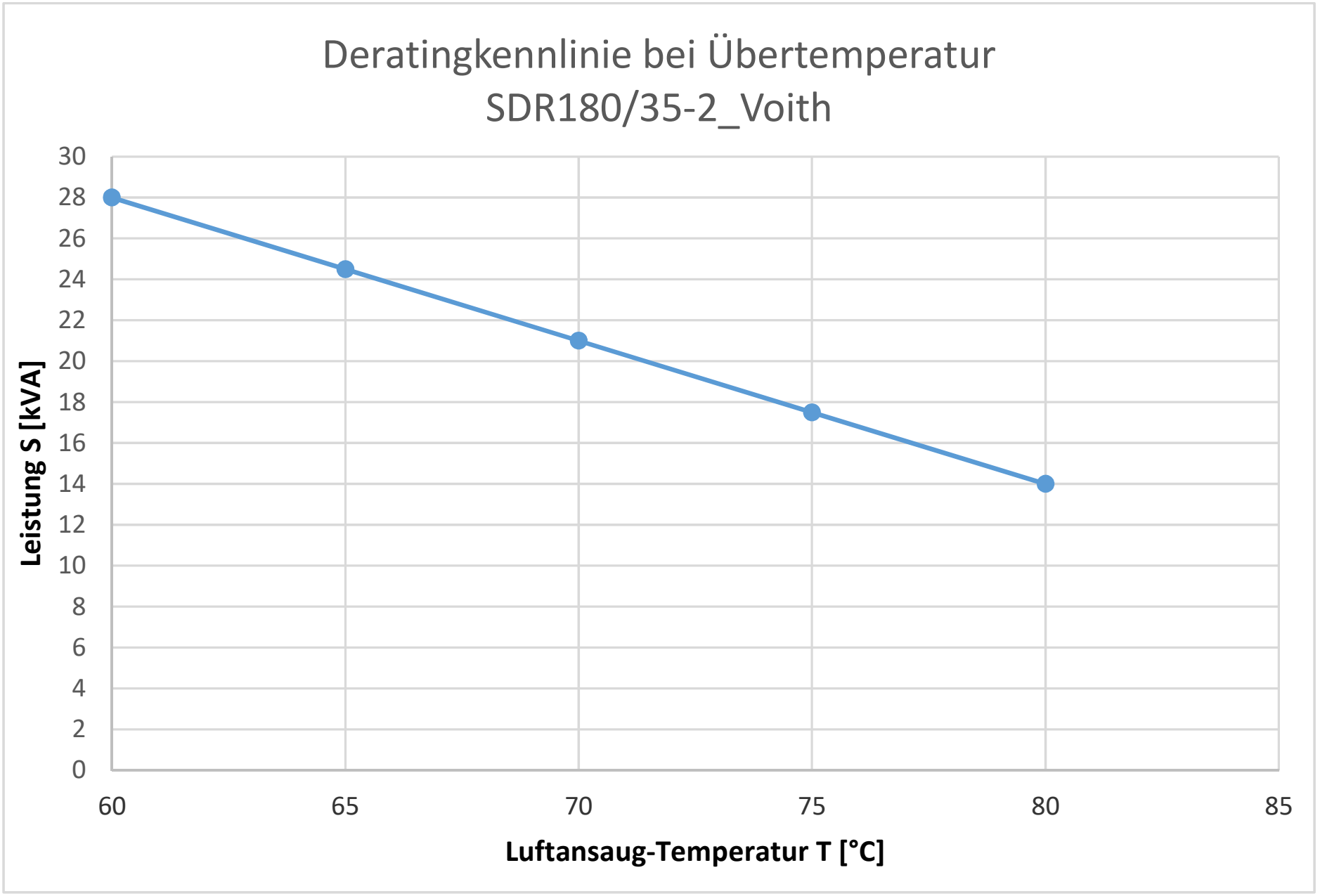
Test Reports s. Typprüfung SDR180_35-2_Voith_V1.2

Remark

- Output value (according to the specifications)

Requirement	Value	Note
Nominal voltage	400 V	-
Static voltage stability	± 5 %	a) under completely static generator speed b) under oscillating generator speed with ± 5% with a beat frequency <2 Hz
Dynamic voltage stability	Max. ± 25 % < ±10 % after 500 ms	When switching on and off of 50% rated load and speed variation of ± 8%
Nominal frequency	50 Hz	-
Frequency tolerance of the generator	± 0 %	In relation to the generator speed
Unbalanced Load (current)	≤ nominal current	
Maximum continuous power	22 kW	At power factor 0,8i ≤ cosφ ≤ 1
Power factor	≥ 83 %	At nominal power and power factor
THD	< 5 %	-
Short-circuit current	≥ 2 x nominal current	-


Deratingkennlinie bei Übertemperatur
SDR180/35-2_Voith
Leistung S [kVA]
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
60
65
70
75
80
85
Luftansaug-Temperatur T [°C]