



II 2G Ex IIC T3 - T6 Gb
II 2G Ex h IIC T3 - T6 Gb

II 2D Ex tb IIIC T135°C T85° Db
II 2D Ex h IIIC T135°C - T85° Db



Corrosion Resistant Plastic Fans

Industrial fans for Explosive Aggressive Gases/ Vapours

High Efficiency through Impellers with Backward curved Blades





Design features of the Chemical-resistant Centrifugal Fans

The RSD P series of fans is characterised by high-efficiency impellers, reliable, maintenance-free operation as well as excellent corrosion resistance. With the RSD P range, Gurvent offers a complete series of high-quality 3D Aerofoil backward-curved centrifugal fans with superior performance and low noise emissions. Different materials can be processed in order to meet the demands of a multitude of applications in the chemical industry and to convey different types of process air or gases. All fans are tested and rated in accordance with AMCA 210-7, DIN 24163 and ISO 5801.

Casing : The fan casing is either made from UV-Proof thermoplastics such as conductive PE-el (The fan casing is formed as a true spiral and has a high-efficiency inlet cone to ensure an even distribution of air over the full width of the impeller. The models RSDP 18 - 45 are completely made of moulded plastic and can be operated in either RD rotational sense. The plastic injection-moulded backplate or inlet cover can easily be removed in order to change the direction of rotation or for maintenance purposes.

Centrifugal backward-curved impeller : Gurvent RSD P range fan impellers are designed as single-inlet, aeofoil 3D type. Impellers are made of precision plastic injection-mould parts with cast-in aluminum hub, which are subsequently mechanically welded. Standard impeller material is Conductivity PP. Depending on the type of application, different materials such as PP-el , PA, PPS or PVDF can be processed. If the application calls for high temperature resistance, flame-retardant properties, UV durability or protection against electrostatic discharge, special reinforced compound materials can be used. Each impeller is statically and dynamically balanced in two planes in accordance with Q2.5 of VDI 2060. The impellers are designed for use with taper-bushes and are made of high-grade cast disks guaranteeing solidity at high peripheral speed. The plastic injection-mould backplate can easily be removed for maintenance and service purposes. Thermoplastic fan casings with outlet flange are fitted with a chemicalresistant seal to prevent air leakage. Suitable flexible connectors are available.

Fan base and support

The supporting steel stands and fan bases are manufactured from AISI 304 Quality stainless steel. All fasteners are A4/316 quality stainless steel. Special surface treatments can be applied on request. Fans can be mounted in different discharge positions.

Motor

If the application requires, motors of different protection classes can be supplied. On direct-driven fans, B5 flange-type motors are mounted. All motors are IP55 or IP65 Protection totally enclosed and air-cooled. Single-phase motors or motors with non-standard voltages can be supplied upon request

Internal ancillary equipment

- Spring anti-vibration mounts
- Condensate drain plug
- Fan and motor support base frame
- Inlet flanges, flexible connections with clamps
- Splinter shield

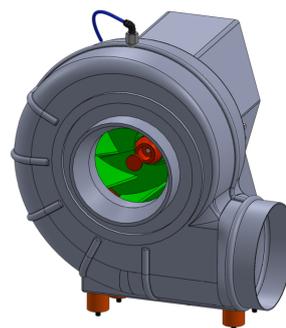
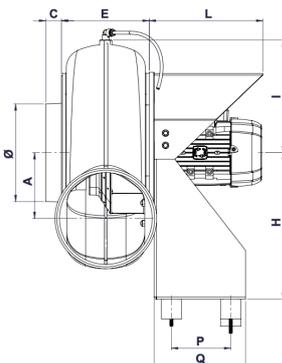
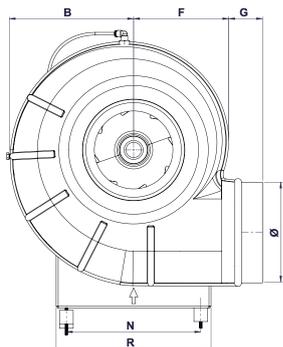
Options

- Variational colouring
- Flame-retardant and temperature-resistant material
- Anti-static material (Explosion Proof)

Permissible temperature range

The temperature of the conveyed gases must not exceed the following limits:





Model	A	B	C	Ø	E	F	G	H	I	L	N	P	Q	R	Vol. Weight	Weight	Box Size (mm)
RSDP 18B	120	195	35	160	148	158	55	300	230	200	220	85	140	235	33	11-12	460x435x510
RSDP 20B	120	195	35	160	148	158	55	300	230	200	220	85	140	235	33	11-12	460x435x510
RSDP 22B	135	250	35	200	180	200	60	300	230	230	285	120	140	290	47	14-15	560x470x610
RSDP 25B	135	250	35	200	180	200	60	300	230	230	285	120	140	290	47	14-17	560x470x610
RSDP 28B	182	275	35	225	186	210	75	350	245	250	295	188	190	320	68	18-21	610x530x720
RSDP 31B	230	320	35	250	205	225	60	415	270	250	332	135	230	355	67	24-29	670x540x720
RSDP 35B	245	335	40	280	230	275	135	430	290	280	407	145	230	385	89	25-36	785x600x875
RSDP 40B	260	385	40	315	260	295	130	515	340	350	427	222	250	370	95	36-46	865x700x1020
RSDP 45B	325	395	45	355	255	325	100	635	340	350	507	282	250	410	110	43-55	890x710x1200

PRODUCT WEIGHTS MAY DIFFER ACCORDING TO ENGINE POWER .

PERFORMANCE (Amca 210-07 / ISO 5801)

Total Pressure / Pt (10Pa – 1mmss) – Air flow (m3/h)

Model	Rpm	Kw	dBA	15	20	30	35	40	45	50	60	75	100	125	150	175	200	250	300	
RSDP 18B/6/50	950	0,18	36	250	200	180	165	150												
RSDP 20B/6/50	950	0,18	39		350	300	250	200	150	100										
RSDP 22B/6/50	950	0,18	41	450	425	400	350	300	250	200										
RSDP 25B/6/50	950	0,18	45		700	675	650	625	600	500	380	280								
RSDP 18B/4/50	1435	0,18	47		400	380	365	350	325	300	285	250								
RSDP 20B/4/50	1435	0,18	48					500	490	480	430	375	220							
RSDP 22B/4/50	1435	0,18	52						700	600	500	420	275	200						
RSDP 28B/6/50	950	0,18	46		950	940	920	900	880	860	720	600	500							
RSDP 31B/6/50	950	0,18	51		1250	1240	1230	1200	1150	1090	1050	1000	850	600						
RSDP 25B/4/50	1435	0,18	56							1100	1050	950	850	750	650	500	400			
RSDP 35B/6/50	950	0,25	52							2000	1900	1800	1650	1300	1000	900	800			
RSDP 40B/6/50	950	0,25	57							2550	2400	2200	2000	1750	1500	1250	1000			
RSDP 45B/6/50	950	0,37	58							3800	3700	3600	3500	3400	3200	3100	2800	2500	1500	

Total Pressure / Pt (10Pa – 1mmss) – Air flow (m3/h)

Model	Rpm	Kw	dBA	100	125	150	175	200	225	250	275	300	325	350	400	450	500	600	700	
RSDP 18B/2/50	2870	0,18	62	750	725	700	660	625	570	500	450	350								
RSDP 20B/2/50	2870	0,18	65			1000	950	875	850	825	780	700	750	600	500	390				
RSDP 22B/2/50	2870	0,25	68			1400	1350	1300	1275	1250	1200	1150	1075	1000	900	800	700	500		
RSDP 28B/4/50	1435	0,25	60	1350	1300	1250	1180	1000	950	750	600	500								
RSDP 31B/4/50	1435	0,25	63	1900	1850	1750	1650	1500	1350	1250	1150	1000								
RSDP 35B/4/50	1435	0,37	63			3000	2950	2900	2650	2500	2400	2250	2000	1250	1000					
RSDP 40B/4/50	1450	0,55	68	4000	3800	3700	3600	3500	3400	3300	3100	2850	2700	2600	2200					
RSDP 45B/4/50	1450	1,10	69					5800	5750	5700	5600	5500	5300	5100	4800	4600	4300	3900	3000	

Total Pressure / Pt (10Pa – 1mmss) – Air flow (m3/h)

Model	Rpm	Kw	dBA	250	300	325	350	400	450	500	550	600	650	700	800	850	900	1000	
RSDP 25B/2/50	2950	0,37	73	2000	1880	1820	1780	1700	1620	1575	1490	1400	1250	1050	890	750			
RSDP 28B/2/50	2950	0,75	75		2950	2870	2800	2750	2700	2650	2550	2450	2300	2200	2100	2000	1850	1750	1450

Total Pressure / Pt (10Pa – 1mmss) – Air flow (m3/h)

Model	Rpm	Kw	dBA	400	500	600	700	800	850	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	
RSDP 31B/2/50	2950	1,10	78	3750	3600	3450	3250	3000	2900	2780	2650	2500	2000	1750	1500					
RSDP 35B/2/50	2950	2,20	81		6000	5950	5880	5800	5750	5450	5150	4950	4500	4200	3800	3700	3600	2600	2000	
RSDP 40B/4/74	2350	2,20	91	5850	5500	5000	4800	4500	4000	5600	3750	3500	3000	2600						
RSDP 40B/2/40	2650	3,00	93	7000	6600	6250	6000	5500	5350	5250	5000	4800	4300	4000	3700	3300	3000			
RSDP 40B/2/50	2950	4,00	96		7500	7000	6800	6680	6500	6300	6100	5800	5500	5200	4900	4500	4250	4000		
RSDP 45B/4/71	2030	2,20	93	7750	7500	7250	7000	6500	6250	6000	5750	5000	4500							
RSDP 45B/4/74	2350	3,00	95		9050	8950	8850	8500	8000	9250	9000	8750	8500	7500	6500	6200	5800	5250	4800	
RSDP 45B/2/40	2650	4,00	98				10000	9900	9800	9700	9600	9500	9300	8950	8500	8300	8000	7600	7200	
RSDP 45B/2/50	2950	5,50	102								11000	10900	10800	10650	10500	10300	10000	9500	9000	

Load Tolerance %5 , Noise Tolerance %3 – Efficiency point %70 - %88 – ** VFD – (Pressures above 2000Pa are in the data sheets)

TECHICAL INFORMATIONS

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 18B									
RSDP 18B/2/50.T	1182501	400V/50Hz	800	2950	0,37	0,97	70	11	63
RSDP 18B/4/50.T	1184501	400V/50Hz	400	1450	0,37	0,97	70	11	58
RSDP 18B/2/50.M	1182502	230V/50Hz	800	2950	0,37	2,50	70	11	63
RSDP 18B/4/50.M	1184502	230V/50Hz	400	1450	0,37	2,50	70	11	58
RSDP 18B/6/50.T	1186501	400V/50Hz	250	950	0,18	1,20	70	11	55
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 18B/2/50.Ex	1182503	400V/50Hz	800	2950	0,37	0,97	70	11	63
RSDP 18B/4/50.Ex	1184503	400V/50Hz	400	1450	0,37	0,97	70	11	58
RSDP 18B/2/50.Ex M	1182504	230V/50Hz	800	2950	0,37	2,50	70	11	63
RSDP 18B/4/50.Ex.M	1184504	230V/50Hz	400	1450	0,37	2,50	70	11	58
RSDP 18B/6/50.Ex	1186503	400V/50Hz	250	950	0,18	1,20	70	11	55

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 20B									
RSDP 20B/2/50.T	1202501	400V/50Hz	1000	2950	0,37	0,97	70	11	65
RSDP 20B/4/50.T	1204501	400V/50Hz	500	1450	0,37	0,97	70	11	59
RSDP 20B/2/50.M	1202502	230V/50Hz	1000	2950	0,37	2,50	70	11	65
RSDP 20B/4/50.M	1204502	230V/50Hz	500	1450	0,37	2,50	70	11	59
RSDP 20B/6/50.T	1206501	400V/50Hz	350	950	0,18	1,20	70	11	57
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 20B/2/50.Ex	1202503	400V/50Hz	1000	2950	0,37	0,97	70	11	65
RSDP 20B/4/50.Ex	1204503	400V/50Hz	500	1450	0,37	0,97	70	11	59
RSDP 20B/2/50.Ex M	1202504	230V/50Hz	1000	2950	0,37	2,50	70	11	65
RSDP 20B/4/50.Ex.M	1204504	230V/50Hz	500	1450	0,37	2,50	70	11	59
RSDP 20B/6/50.Ex	1206503	400V/50Hz	350	950	0,18	1,20	70	11	57

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 22B									
RSDP 22B/2/50.T	1222501	400V/50Hz	1400	2950	0,37	0,97	70	14	71
RSDP 22B/4/50.T	1224501	400V/50Hz	700	1450	0,37	0,97	70	14	66
RSDP 22B/2/50.M	1222502	230V/50Hz	1400	2950	0,37	2,50	70	14	71
RSDP 22B/4/50.M	1224502	230V/50Hz	700	1450	0,37	2,50	70	14	66
RSDP 22B/6/50.T	1226501	400V/50Hz	450	950	0,18	1,20	70	14	59
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 22B/2/50.Ex	1222503	400V/50Hz	1400	2950	0,37	0,97	70	14	71
RSDP 22B/4/50.Ex	1224503	400V/50Hz	700	1450	0,37	0,97	70	14	66
RSDP 22B/2/50.Ex M	1222504	230V/50Hz	1400	2950	0,37	2,50	70	14	71
RSDP 22B/4/50.Ex.M	1224504	230V/50Hz	700	1450	0,37	2,50	70	14	66
RSDP 22B/6/50.Ex	1226503	400V/50Hz	450	950	0,18	1,20	70	14	59

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 25B									
RSDP 25B/2/50.T	1252501	400V/50Hz	2150	2950	0,37	0,97	70	16	74
RSDP 25B/4/50.T	1254501	400V/50Hz	1100	1450	0,37	0,97	70	16	63
RSDP 25B/2/50.M	1252502	230V/50Hz	2150	2950	0,37	2,50	70	16	75
RSDP 25B/4/50.M	1254502	230V/50Hz	1100	1450	0,37	2,50	70	16	64
RSDP 25B/6/50.T	1256501	400V/50Hz	700	950	0,18	1,20	70	16	61
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 25B/2/50.Ex	1252503	400V/50Hz	2150	2950	0,37	0,97	70	16	74
RSDP 25B/4/50.Ex	1254503	400V/50Hz	1100	1450	0,37	0,97	70	16	63
RSDP 25B/2/50.Ex.M	1252504	230V/50Hz	2150	2950	0,37	2,50	70	16	75
RSDP 25B/4/50.Ex.M	1254504	230V/50Hz	1100	1450	0,37	2,50	70	16	64
RSDP 25B/6/50.Ex	1256503	400V/50Hz	2150	950	0,37	0,97	70	16	74

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 28B									
RSDP 28B/2/50.T	1282501	400V/50Hz	2950	2950	0,75	1,90	70	21	74
RSDP 28B/4/50.T	1284501	400V/50Hz	1350	1450	0,18	0,60	70	18	63
RSDP 28B/2/50.M	1282502	230V/50Hz	2950	2950	0,75	3,50	70	21	74
RSDP 28B/4/50.M	1284502	230V/50Hz	1350	1450	0,25	1,20	70	18	63
RSDP 28B/6/50.T	1286501	400V/50Hz	950	950	0,18	0,60	70	19	61
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 28B/2/50.Ex	1282503	400V/50Hz	2950	2950	0,75	1,90	70	21	74
RSDP 28B/4/50.Ex	1284503	400V/50Hz	1350	1450	0,18	0,60	70	18	63
RSDP 28B/2/50.Ex.M	1282504	230V/50Hz	2950	2950	0,75	3,50	70	21	74
RSDP 28B/4/50.Ex.M	1284504	230V/50Hz	1350	1450	0,25	1,20	70	18	63
RSDP 28B/6/50.Ex	1286503	400V/50Hz	950	950	0,18	0,60	70	19	61

TECHNICAL INFORMATIONS

TYPE	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
RSDP 31B		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 31B/2/50.T	1312501	400V/50Hz	4125	2950	1,10	2,50	70	28	74
RSDP 31B/4/50.T	1314501	400V/50Hz	2050	1450	0,25	0,80	70	24	63
RSDP 31B/2/50.M	1312502	230V/50Hz	4125	2950	1,10	5,00	70	29	74
RSDP 31B/4/50.M	1314502	230V/50Hz	2500	1450	0,37	2,50	70	24	63
RSDP 31B/6/50.T	1316501	400V/50Hz	1250	950	0,25	0,70	70	25	61
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 31B/2/50.Ex	1312503	400V/50Hz	4125	2950	1,10	2,50	70	28	74
RSDP 31B/4/50.Ex	1314503	400V/50Hz	2050	1450	0,25	0,80	70	24	63
RSDP 31B/2/50.Ex.M*	1312504	230V/50Hz	4125	2950	1,10	5,00	70	29	74
RSDP 31B/4/50.Ex.M	1314504	230V/50Hz	2500	1450	0,37	2,50	70	24	63
RSDP 31B/6/50.Ex	1316503	400V/50Hz	1250	950	0,25	0,70	70	25	61

TYPE	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
RSDP 35B		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 35B/2/50.T	1352501	400V/50Hz	6000	2950	2,20	4,80	70	36	81
RSDP 35B/4/50.T	1354501	400V/50Hz	3000	1450	0,37	0,90	70	25	70
RSDP 35B/2/50.M	1352502	230V/50Hz	6000	2950	2,20	9,00	70	36	82
RSDP 35B/4/50.M	1354502	230V/50Hz	3000	1450	0,37	1,70	70	26	71
RSDP 35B/6/50.T	1356501	400V/50Hz	2000	950	0,25	0,90	70	26	67
Explosion Proof / Atex (Gas Version Ex II 2G h T4-T6 IP65 Zone1 – Dust Version II 2D Ex tb IIIC T135°C - T85°C Db Zone1)									
RSDP 35B/2/50.Ex	1352503	400V/50Hz	6000	2950	2,20	4,80	70	36	81
RSDP 35B/4/50.Ex	1354503	400V/50Hz	3000	1450	0,37	0,90	70	25	70
RSDP 35B/4/50.Ex.M	1354504	230V/50Hz	3000	1450	0,37	1,70	70	26	71
RSDP 35B/6/50.Ex	1356503	400V/50Hz	2000	950	0,25	0,90	70	26	67

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
RSDP 40B		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 40B/2/50.T	1402501	400V/50HZ	7500	2950	4,00	8,60	70	46	96
RSDP 40B/2/40.T (VFD)	1402401	400V/40HZ	7000	2650	3,00	6,40	70	43	93
RSDP 40B/2/74.T (VFD)	1402741	400V/74HZ	6500	2350	2,20	4,80	70	41	91
RSDP 40B/2/71.T (VFD)	1402711	400V/71HZ	5500	2030	1,50	3,40	70	39	87
RSDP 40B/4/50.T	1404501	400V/50Hz	4700	1450	0,55	1,58	70	36	80
RSDP 40B/6/50.T	1406501	400V/50Hz	3000	950	0,25	0,70	70	37	79
RSDP 40B/4/50.M	1404502	230V/50Hz	4700	1450	0,55	3,80	70	36	80

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
RSDP 40B		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 40B/2/50.Ex	1402503	400V/50HZ	7500	2950	4,00	8,60	70	46	96
RSDP 40B/2/40.Ex (VFD)	1402403	400V/40HZ	7000	2650	3,00	6,40	70	43	93
RSDP 40B/2/74.Ex (VFD)	1402743	400V/74HZ	6500	2350	2,20	4,80	70	41	91
RSDP 40B/2/71.Ex (VFD)	1402711	400V/71HZ	5500	2030	1,50	3,40	70	39	87
RSDP 40B/4/50.Ex	1404503	400V/50Hz	4700	1450	0,55	1,58	70	36	80
RSDP 40B/6/50.Ex	1406503	400V/50Hz	3000	950	0,25	0,70	70	37	79

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
RSDP 45B		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 45B/2/50.T	1452501	400V/50Hz	11.000	2950	5,50	11,00	70	49	102
RSDP 45B/2/40.T (VFD)	1452401	400V/40Hz	10.000	2650	4,00	8,50	70	45	98
RSDP 45B/4/74.T (VFD)	1454741	400V/74Hz	9000	2350	3,00	7,80	70	44	95
RSDP 45B/4/71.T (VFD)	1454711	400V/71Hz	7750	2030	2,20	4,80	70	44	89
RSDP 45B/4/50.T	1454501	400V/50Hz	5800	1450	1,10	2,80	70	45	85
RSDP 45B/6/50.T	1456501	400V/50Hz	4000	950	0,37	1,35	70	43	75
RSDP 45B/4/50.M	1454502	230V/50Hz	5800	1450	1,10	5,20	70	44	80

Model	Order Code	Voltage	Air Flow	Speed	Power	Current	Temp.	Weight	Sound Level
RSDP 45B		U	m ³ /h	min ⁻¹	Kw	Amp	+°C	Kg	dB(A)
RSDP 45B/2/50.Ex	1452503	400V/50Hz	11.000	2950	5,50	11,00	70	55	102
RSDP 45B/2/40.Ex (VFD)	1452403	400V/40Hz	10.000	2650	4,00	8,50	70	48	98
RSDP 45B/4/74.Ex (VFD)	1454743	400V/74Hz	9000	2350	3,00	7,80	70	46	95
RSDP 45B/4/71.Ex (VFD)	1454713	400V/71Hz	7750	2030	2,20	4,80	70	46	89
RSDP 45B/4/50.Ex	1454503	400V/50Hz	5800	1450	1,10	2,80	70	47	85
RSDP 45B/6/50.Ex	1456503	400V/50Hz	4000	950	0,37	1,35	70	45	75