

Fan Components and Material Properties

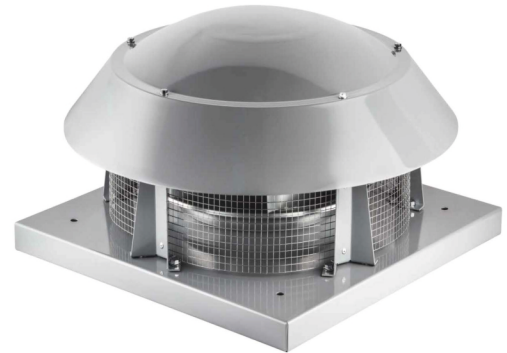
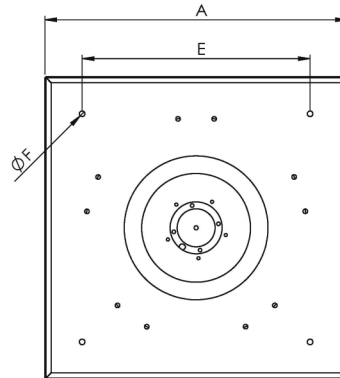
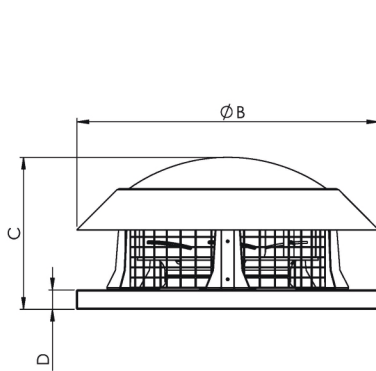
The mounting plate and fan cap of the ARS-CTF series horizontal discharge centrifugal fans are made of electrostatic powder coated sheet metal. The fan wheels of the models ARS-CTF 160-400 are made of high quality galvanized sheet steel which is resistant to corrosion. The fan wheels of the ARS-CTF 450-500-560 models are made of aluminum sheet. All models have an external rotor motor with closed structure. The device is capable of handling air at max. 40°C.

Fan Structure

The fan blades are aerodynamically curved and provide regular flow. The fans are composed of backward sloping and infrequently arranged fins.

Technical Drawing and Tables

TYPE	A	B	C	D	E	F
ARS-CTF 160	252	260	140	25	210	6
ARS-CTF 180	252	260	140	25	210	6
ARS-CTF 225	336	386	212	35	274	11
ARS-CTF 250	370	386	225	35	290	11
ARS-CTF 315	454	443	293	40	333	11
ARS-CTF 355	595	595	285	40	450	11
ARS-CTF 400	595	685	355	40	450	12
ARS-CTF 450	664	685	400	40	450	12
ARS-CTF 500	798	824	385	40	600	12
ARS-CTF 560	798	824	400	40	600	12



TYPE	VOLTAGE	FREQUENCY	POWER	CURRENT	CAPACITOR	SPEED	AIR FLOW	SOUND PRESSURE	INSULATION CLASS	PROTECTION CLASS	WEIGHT
	V	Hz	W	(A)	(μF)	D/dak	m³/h	dB(A)	iz. Kl.	IP	Kg
ARS-CTF 160	230	50/60	60	0,3	2	2600/3000	346/400	44-36	B	44	3,5
ARS-CTF 180	230	50/60	70/90	0,35/0,43	2,5	2500/2750	460/500	49-41	B	44	3,7
ARS-CTF 225	230	50/60	80/100	0,40/0,50	3	2750/3100	902/1020	50-42	B	44	7
ARS-CTF 250	230	50/60	125/175	0,61/0,91	6	2800/3180	1212/1375	52-44	B	44	8
ARS-CTF 315	230	50/60	130/150	0,8	6	1450/1740	2000/2400	47-39	F	44	12,8
ARS-CTF 355	230	50/60	200/245	1,05	6	1400/1680	2900/3500	46-38	F	44	18
ARS-CTF 400	230	50/60	310/460	1,56/2,27	10	1380/1560	4100/4600	51-43	F	44	22
ARS-CTF 450	230	50/60	430/655	2,2/3,2	10	1370/1525	5400/6000	52-44	F	44	28
ARS-CTF 500	380 Δ/ Y	50	840/580	1,95/1,12	-	1360/1100	7600/6150	54-46	F	44	45,5
ARS-CTF 560	380 Δ/ Y	50	1440/840	2,8/1,6	-	1300/950	9800/7150	66-58	F	44	48

The sound level is measured at a distance of 4-10 m in open field condition.

Fan Components and Material Properties

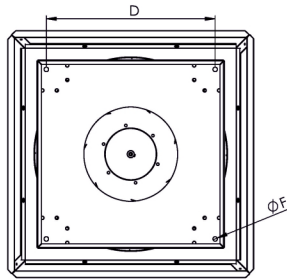
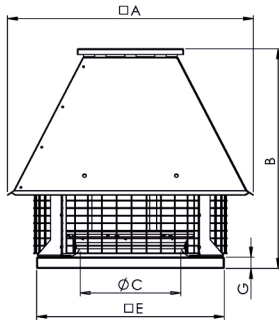
ARS-CTF-2 series vertical centrifugal roof type radial fans Body, mounting plate and models ARS-CTF-2 280-400 fan impellers made of galvanized sheet steel, models of ARS-CTF-2 450-560 fan impellers made of aluminum sheet and models ARS-CTF-2 630-800 made of electrostatic powder coated sheet steel it was. Asynchronous motor is used in all models. The motor is out of airflow. The device is capable of carrying air at max. 120°C.

Fan Structure

The fan blades are aerodynamically curved and provide regular flow. The fans are composed of backward sloping and infrequently aligned fins with the insertion technique, while the fan wheels of the models ARS-CTF-2 630-800 are manufactured from the necessity of high strength.

Technical Drawing and Tables

TYPE	A	B	C	D	E	F	G
ARS-CTF-2 280	522	495	165	354	404	10	30
ARS-CTF-2 315	595	555	198	404	454	10	30
ARS-CTF-2 355	656	555	234	450	500	10	30
ARS-CTF-2 400	656	585	268	450	500	12	30
ARS-CTF-2 450	656	616	303	530	580	12	44
ARS-CTF-2 500	766	660	342	590	640	12	44
ARS-CTF-2 560	828	723	380	650	700	12	44
ARS-CTF-2 630	997	922	445	660	730	12	54
ARS-CTF-2 710	1095	991	500	710	780	12	54
ARS-CTF-2 800	1205	1172	542	850	900	12	54



TYPE	VOLTAGE	FREQUENCY	POWER	CURRENT	CAPACITOR	SPEED	AIR FLOW	SOUND PRESSURE	INSULATION CLASS	PROTECTION CLASS	WEIGHT
	V	Hz	KW	(A)	(μF)	D/dak	m³/h	dB(A)	iz. Kl.	IP	Kg
ARS-CTF-2 280M	230	50	0,25	2,1	10	1390	1000	53-45	F	55	35
ARS-CTF-2 315M	230	50	0,25	2,1	10	1380	1950	53-45	F	55	42
ARS-CTF-2 355M	230	50	0,25	2,1	10	1380	2900	55-47	F	55	50
ARS-CTF-2 400M	230	50	0,37	3,4	15	1390	4000	60-52	F	55	55
ARS-CTF-2 450M	230	50	0,55	4,5	20	1365	5550	62-54	F	55	62
ARS-CTF-2 500M	230	50	1,1	7,5	35	1410	8300	64-56	F	55	68
ARS-CTF-2 560M	230	50	2,2	14,2	50	1420	10800	66-58	F	55	75
ARS-CTF-2 280T	380	50	0,25	0,87	-	1380	1000	53-45	F	55	35
ARS-CTF-2 315T	380	50	0,25	0,87	-	1380	1950	53-45	F	55	42
ARS-CTF-2 355T	380	50	0,25	0,87	-	1380	2900	55-47	F	55	50
ARS-CTF-2 400T	380	50	0,37	1,2	-	1390	4000	60-52	F	55	55
ARS-CTF-2 450T	380	50	0,55	1,6	-	1365	5550	62-54	F	55	62
ARS-CTF-2 500T	380	50	1,1	2,6	-	1410	8300	64-56	F	55	68
ARS-CTF-2 560T	380	50	2,2	4,9	-	1420	10800	66-58	F	55	75
ARS-CTF-2 630T	380	50	3	6,6	-	1000	13000	60-52	F	55	127
ARS-CTF-2 710T	380	50	4	8,4	-	1000	15000	63-55	F	55	150
ARS-CTF-2 800T	380	50	7,5	15,4	-	1000	17000	67-59	F	55	216

The sound level is measured at a distance of 4-10 m in open field condition.

Axial roof fans are used in pressurization fan, fresh air fan and smoke exhaust fan applications. The enclosure is fire resistant and designed according to the noise standard. Smoke evacuation fans are fire resistant.

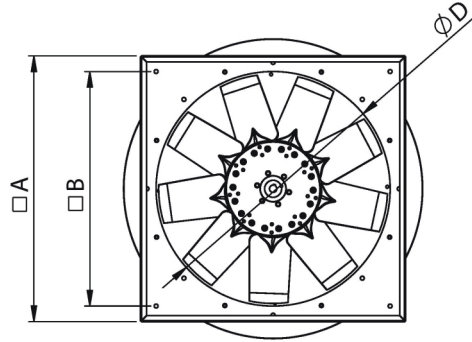
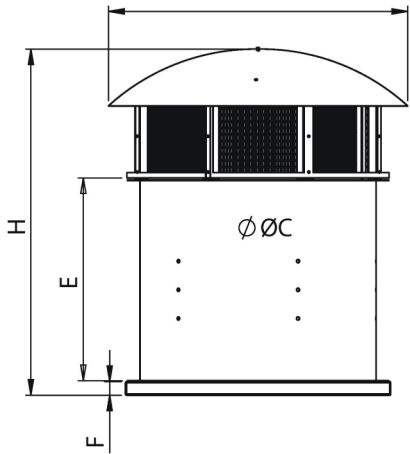
General Features

- It has EN 12101-3 and Ce certificates.
- 2 hours continuous operation at 400 C and 300 C
- There is a wide product range from 400 mm to 1250 mm.

Rotor Features

- Fire resistant aluminum alloy casting blades and fan hub.
- Has the ability to work one way and two way. The blades are specially designed according to each direction type.
- There is no aerodynamic loss in the case of reversible wing type operation.
- Wings are airfoil and provide high aerodynamic performance in both unidirectional and bidirectional vanes.
- Wing angles are adjustable. In this way, smoke discharge fans can be demanded at different flow rates and pressures.
- The fan part of the fan is dynamically balanced according to ISO 1940 and there is no eccentricity during the operation of the fan.

Technical Drawing and Tables



TYPE	A	B	C	D	E	H	F
ARS-CTF-3 400	600	495	702	400	474	880	50
ARS-CTF-3 450	650	545	702	450	474	880	50
ARS-CTF-3 500	650	545	842	500	580	1030	50
ARS-CTF-3 560	685	605	842	560	580	1030	50
ARS-CTF-3 630	780	637	1130	630	600	1160	50
ARS-CTF-3 710	830	710	1130	800	700	1300	50
ARS-CTF-3 800	920	800	1130	800	700	1300	50
ARS-CTF-3 900	1020	900	1130	900	775	1375	50
ARS-CTF-3 1000	1130	1030	1430	1000	850	1450	50
ARS-CTF-3 1250	1430	1350	1430	1250	950	1550	50



TYPE	2 POLE	SPEED	DIAMETER	POWER	CURRENT	FLOW	WING ANGLE
		r.p.m	mm	KW	230V-400V	m ³ /h	
ARS-CTF-3 / 400-6 / 0,75-2A		2900	400	0,75	1,6	5250	16°
ARS-CTF-3 / 400-6 / 1,1 -2A		2900	400	1,1	2,3	6904	22°
ARS-CTF-3 / 400-6 / 1,5 -2A		2900	400	1,5	3,4	8978	30°
ARS-CTF-3 / 400-6 / 2,2-2A		2900	400	2,2	4,48	9975	34°
ARS-CTF-3 / 450-6 / 1,1-2A		2900	450	1,1	2,3	6248	10°
ARS-CTF-3 / 450-6 / 1,5-2A		2900	450	1,5	3,4	8610	16°
ARS-CTF-3 / 450-6 / 2,2-2A		2900	450	2,2	4,48	11970	24°
ARS-CTF-3 / 450-6 / 3,0-2A		2900	450	3	6	13545	28°
ARS-CTF-3 / 500-6 / 2,2-2A		2900	500	2,2	4,48	11000	14°
ARS-CTF-3 / 500-6 / 3,0-2A		2900	500	3	6	14595	20°
ARS-CTF-3 / 500-6 / 4-2A		2900	500	4	7,4	17325	26°
ARS-CTF-3 / 500-6 / 5,5-2A		2900	500	5,5	11	18375	28°
ARS-CTF-3 / 560-6 / 4-2A		2900	560	4	7,4	17850	14°
ARS-CTF-3 / 560-6 / 5,5-2A		2900	560	5,5	11	22313	20°
ARS-CTF-3 / 560-6 / 7,5-2A		2800	560	7,5	13,6	25725	24°
ARS-CTF-3 / 630-6 / 5,5-2A		2900	630	5,5	11	20475	10°
ARS-CTF-3 / 630-6 / 7,5-2A		2800	630	7,5	13,6	27300	16°

TYPE	4 POLE	SPEED	DIAMETER	POWER	CURRENT	FLOW	WING ANGLE
		r.p.m	mm	KW	230V-400V	m ³ /h	
ARS - CTF-3 / 500-6 / 0,55 - 4A		1415	500	0,55	1,6	8715	26
ARS - CTF-3 / 500-6 / 0,75 - 4A		1350	500	0,75	2,1	10290	32
ARS - CTF-3 / 500-6 / 1,1 - 4A		1400	500	1,1	2,6	12600	38
ARS - CTF-3 / 560-6 / 0,55 - 4A		1415	560	0,55	1,6	9870	16
ARS - CTF-3 / 560-6 / 0,75 - 4A		1350	560	0,75	2,1	12075	22
ARS - CTF-3 / 560-6 / 1,1 - 4A		1400	560	1,1	2,6	13860	26
ARS - CTF-3 / 560-6 / 1,5 - 4A		1405	560	1,5	3,5	15750	32
ARS - CTF-3 / 560-6 / 2,2 - 4A		1410	560	2,2	5	17850	38
ARS - CTF-3 / 630-6 / 0,75 - 4A		1350	630	0,75	2,1	10605	10
ARS - CTF-3 / 630-6 / 1,1 - 4A		1400	630	1,1	2,6	16275	20
ARS - CTF-3 / 630-6 / 1,5 - 4A		1405	630	1,5	3,5	18375	24
ARS - CTF-3 / 630-6 / 2,2 - 4A		1410	630	2,2	5	21525	30
ARS - CTF-3 / 630-6 / 3 - 4A		1410	630	3	6,6	24150	36
ARS - CTF-3 / 630-6 / 4 - 4A		1500	630	4	8,2	25200	38
ARS - CTF-3 / 710-3 / 0,75 - 4A		1350	710	0,75	2,1	14175	10
ARS - CTF-3 / 710-3 / 1,1 - 4A		1400	710	1,1	2,6	18375	16
ARS - CTF-3 / 710-3 / 1,5 - 4A		1405	710	1,5	3,5	21000	20
ARS - CTF-3 / 710-3 / 2,2 - 4A		1410	710	2,2	5	24413	26
ARS - CTF-3 / 710-3 / 3 - 4A		1410	710	3	6,6	27825	32
ARS - CTF-3 / 710-6 / 1,1 - 4A		1400	710	1,1	2,6	16275	12
ARS - CTF-3 / 710-6 / 1,5 - 4A		1405	710	1,5	3,5	20475	18
ARS - CTF-3 / 710-6 / 2,2 - 4A		1410	710	2,2	5	23625	22
ARS - CTF-3 / 710-6 / 3 - 4A		1410	710	3	6,6	28350	28
ARS - CTF-3 / 710-6 / 4 - 4A		1415	710	4	8,2	31500	32
ARS - CTF-3 / 800-6 / 2,2 - 4A		1410	800	2,2	5	24150	14
ARS - CTF-3 / 800-6 / 3 - 4A		1410	800	3	6,6	30450	20
ARS - CTF-3 / 800-6 / 4 - 4A		1415	800	4	8,2	32550	22
ARS - CTF-3 / 800-6 / 5,5 - 4A		1430	800	5,5	11,2	38850	28
ARS - CTF-3 / 800-6 / 7,5 - 4A		1440	800	7,5	15,4	42525	32
ARS - CTF-3 / 800-9 / 2,2 - 4A		1410	800	2,2	5	16275	10
ARS - CTF-3 / 800-9 / 3 - 4A		1410	800	3	6,6	21525	14
ARS - CTF-3 / 800-9 / 4 - 4A		1415	800	4	8,2	29400	20
ARS - CTF-3 / 800-9 / 5,5 - 4A		1430	800	5,5	11,2	36488	26
ARS - CTF-3 / 800-9 / 7,5 - 4A		1440	800	7,5	15,4	40950	30
ARS - CTF-3 / 800-9 / 11 - 4A		1450	800	11	21	43050	32
ARS - CTF-3 / 900-6 / 4 - 4A		1415	900	4	8,2	31500	12
ARS - CTF-3 / 900-6 / 5,5 - 4A		1430	900	5,5	11,2	38850	16
ARS - CTF-3 / 900-6 / 7,5 - 4A		1440	900	7,5	15,4	47775	22
ARS - CTF-3 / 900-6 / 11 - 4A		1450	900	11	21	56700	28
ARS - CTF-3 / 900-6 / 15 - 4A		1450	900	15	29,3	60900	32
ARS - CTF-3 / 900-9 / 4 - 4A		1415	900	4	8,2	26775	10
ARS - CTF-3 / 900-9 / 5,5 - 4A		1430	900	5,5	11,2	34125	14
ARS - CTF-3 / 900-9 / 7,5 - 4A		1440	900	7,5	15,4	41213	18
ARS - CTF-3 / 900-9 / 11 - 4A		1450	900	11	21	54600	26
ARS - CTF-3 / 900-9 / 15 - 4A		1450	900	15	29,3	63525	32
ARS - CTF-3 / 1000-6 / 5,5 - 4A		1430	1000	5,5	11,2	38850	12
ARS - CTF-3 / 1000-6 / 7,5 - 4A		1440	1000	7,5	15,4	47775	18
ARS - CTF-3 / 1000-6 / 11 - 4A		1450	1000	11	21	56700	22
ARS - CTF-3 / 1000-6 / 15 - 4A		1450	1000	15	29,3	60900	28
ARS - CTF-3 / 1000-6 / 18,5 - 4A		1455	1000	18,5	34,5	56700	32
ARS - CTF-3 / 1000-9 / 7,5 - 4A		1440	1000	7,5	15,4	43050	12
ARS - CTF-3 / 1000-9 / 11 - 4A		1450	1000	11	21	55650	18
ARS - CTF-3 / 1000-9 / 15 - 4A		1450	1000	15	29,3	69300	24
ARS - CTF-3 / 1000-9 / 18,5 - 4A		1455	1000	18,5	34,5	77700	28
ARS - CTF-3 / 1000-9 / 22 - 4A		1460	1000	22	42,5	81900	30
ARS - CTF-3 / 1000-9 / 30 - 4A		1460	1000	30	55	86100	32
ARS - CTF-3 / 1250-6 / 15 - 4A		1450	1250	15	29,3	90300	12
ARS - CTF-3 / 1250-6 / 18,5 - 4A		1455	1250	18,5	34,5	103950	16

TYPE	6 POLE	SPEED	DIAMETER	POWER	CURRENT	FLOW	WING ANGLE
		r.p.m	mm	KW	230V-400V	m ³ /h	
ARS - CTF-3 / 500-6 / 0,37 - 6A		900	500	0,37	1,1	8400	38
ARS - CTF-3 / 560-6 / 0,37 - 6A		900	560	0,37	1,1	10500	32
ARS - CTF-3 / 560-6 / 0,55 - 6A		930	560	0,55	1,5	11760	38
ARS - CTF-3 / 630-6 / 0,37 - 6A		900	630	0,37	1,1	11576	22
ARS - CTF-3 / 630-6 / 0,55 - 6A		930	630	0,55	1,5	13650	28
ARS - CTF-3 / 630-6 / 0,75 - 6A		945	630	0,75	2	14963	32
ARS - CTF-3 / 630-6 / 1,1 - 6A		945	630	1,1	2,9	16800	38
ARS - CTF-3 / 710-3 / 0,37 - 6A		900	710	0,37	1,1	13125	18
ARS - CTF-3 / 710-3 / 0,55 - 6A		930	710	0,55	1,5	16538	26
ARS - CTF-3 / 710-3 / 0,75 - 6A		945	710	0,75	2	18900	32
ARS - CTF-3 / 710-6 / 1,1 - 6A		945	710	1,1	2,9	11025	12
ARS - CTF-3 / 710-6 / 1,5 - 6A		945	710	1,5	3,6	13000	16
ARS - CTF-3 / 710-6 / 2,2 - 6A		950	710	2,2	5,4	13750	22
ARS - CTF-3 / 710-6 / 3 - 6A		950	710	3	6,9	18900	28
ARS - CTF-3 / 710-6 / 4 - 6A		955	710	4	9	21000	32
ARS - CTF-3 / 800-6 / 0,55 - 6A		930	800	0,55	1,5	13125	10
ARS - CTF-3 / 800-6 / 1,1 - 6A		945	800	1,1	2,9	22050	22
ARS - CTF-3 / 800-6 / 1,5 - 6A		945	800	1,5	3,6	25200	26
ARS - CTF-3 / 800-6 / 2,2 - 6A		950	800	2,2	5,4	28350	32
ARS - CTF-3 / 800-9 / 0,75 - 6A		945	800	0,75	2	14700	14
ARS - CTF-3 / 800-9 / 1,1 - 6A		945	800	1,1	2,9	19950	20
ARS - CTF-3 / 800-9 / 1,5 - 6A		945	800	1,5	3,6	23100	24
ARS - CTF-3 / 800-9 / 2,2 - 6A		950	800	2,2	5,4	27300	30
ARS - CTF-3 / 800-9 / 3 - 6A		950	800	3	6,9	28350	32
ARS - CTF-3 / 900-6 / 1,1 - 6A		945	900	1,1	2,9	23100	14
ARS - CTF-3 / 900-6 / 1,5 - 6A		945	900	1,5	3,6	25200	16
ARS - CTF-3 / 900-6 / 2,2 - 6A		950	900	2,2	5,4	31500	22
ARS - CTF-3 / 900-6 / 3 - 6A		950	900	3	6,9	36750	28
ARS - CTF-3 / 900-6 / 4 - 6A		955	900	4	9	40950	32
ARS - CTF-3 / 900-9 / 1,5 - 6A		945	900	1,5	3,6	23100	14
ARS - CTF-3 / 900-9 / 2,2 - 6A		950	900	2,2	5,4	27300	20
ARS - CTF-3 / 900-9 / 3 - 6A		950	900	3	6,9	35700	24
ARS - CTF-3 / 900-9 / 4 - 6A		955	900	4	9	39900	30
ARS - CTF-3 / 900-9 / 5,5 - 6A		985	900	5,5	12,3	43050	32
ARS - CTF-3 / 1000-6 / 1,5 - 6A		945	1000	1,5	3,6	26250	10
ARS - CTF-3 / 1000-6 / 2,2 - 6A		950	1000	2,2	5,4	34650	16
ARS - CTF-3 / 1000-6 / 3 - 6A		950	1000	3	6,9	44100	22
ARS - CTF-3 / 1000-6 / 4 - 6A		955	1000	4	9	49350	26
ARS - CTF-3 / 1000-6 / 5,5 - 6A		985	1000	5,5	12,3	55650	32
ARS - CTF-3 / 1000-9 / 2,2 - 6A		950	1000	2,2	5,4	32550	14
ARS - CTF-3 / 1000-9 / 3 - 6A		950	1000	3	6,9	39900	20
ARS - CTF-3 / 1000-9 / 4 - 6A		955	1000	4	9	43050	22
ARS - CTF-3 / 1000-9 / 5,5 - 6A		985	1000	5,5	12,3	52500	28
ARS - CTF-3 / 1000-9 / 7,5 - 6A		960	1000	7,5	15	57750	32
ARS - CTF-3 / 1250-6 / 4 - 6A		955	1250	4	9	60900	12
ARS - CTF-3 / 1250-6 / 5,5 - 6A		985	1250	5,5	12,3	63300	16
ARS - CTF-3 / 1250-6 / 7,5 - 6A		960	1250	7,5	15	76650	20
ARS - CTF-3 / 1250-6 / 11 - 6A		960	1250	11	22	92400	26
ARS - CTF-3 / 1250-6 / 15 - 6A		965	1250	15	29	105000	32
ARS - CTF-3 / 1250-9 / 7,5 - 6A		960	1250	7,5	15	73500	16
ARS - CTF-3 / 1250-9 / 11 - 6A		960	1250	11	22	88200	22
ARS - CTF-3 / 1250-9 / 15 - 6A		965	1250	15	29	105000	28
ARS - CTF-3 / 1250-9 / 18,5 - 6A		970	1250	18,5	36,5	115500	32