

Series  
**VKDV-K2**



Roof-mounted centrifugal fan for smoke extraction with vertical air discharge  
Air flow – up to 86 500 m<sup>3</sup>/h

■ **Application**

Smoke extraction fans are used in emergency exhaust ventilation systems for forced extraction of smoke and heated gases and simultaneous transfer of heat away and beyond the limits of the serviced spaces in case of fire.

Such units are used in production, public, residential, administrative and other spaces.

\* Detailed information on the SM-VO mounting curb is given in the section "Accessories for roof-mounted smoke extraction fans".

■ **Operation**

The fans are capable of handling smoke and air mixtures with temperatures up to +600 °C for 120 minutes.

The fans can operate in conjunction with a frequency converter (hereinafter referred to as FC) or directly when connected to power supply.

The aerodynamic characteristics of the fans for mains operation are given below.

The fan can be used for general exhaust ventilation.

The fan can be designed for moderate (U), tropical (T) or maritime moderately cold (M) climate conditions.

■ **Design**

The fans are made of heat resistant steel with polymer coating providing weathering resistance.

Equipped with a protective grille against accidental touches and ingress of foreign objects.

The impeller with backward curved blades are painted with powder coating.

Can be additionally equipped with a service switch.

■ **Motor**

The fans are equipped with three-phase electric motors rated for 400 V.

The motor is located in the compartment offset from the transported air stream.

Motor ingress protection rating is IP54.

■ **Installation**

The fans can be installed directly on the roof or on the SM-VO mounting curb.

Make sure that the location provides for sufficient space as required for the fan maintenance.

SM-VO mounting curb\*



**Designation key:**

**VKDV-K2 - 630 - 6 D / 1,5 - K - U1 - 600/2 - Zn**

**Casing material and paint colour**

\_ – casing material: steel with powder painting, default colour: blue RAL5007

**RALxxxx** – casing material: steel with powder coating, paint colour according to RALxxxx

**Zn** – casing material: galvanized steel

**Fire resistance**

**600/2** – 600 °C, 2 hours

**Climatic modification (outdoor installation)**

**U1** – temperate climate

**HL1** – cold climate

**T1** – tropical climate

**M1** – maritime moderately cold climate

**Options**

**K** – with a terminal box

**S1** – built-in external switch

**1,5** – motor power [kW]

**Motor phase and operation modes**

**E** – single-phase across-the-line motor

**EP** – single-phase motor with variable frequency start

**D** – three-phase motor

**DP** – three-phase motor with variable frequency start

**6** – number of motor poles

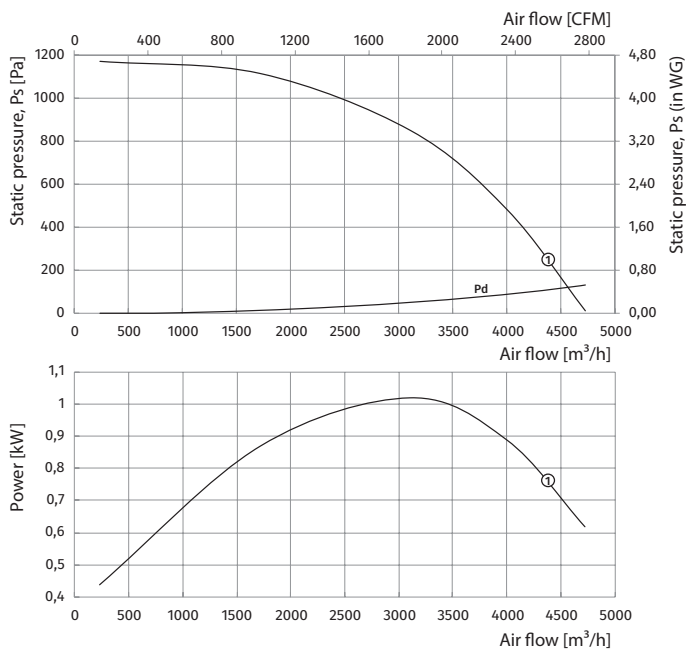
**630** – impeller size [mm]

**VKDV-K2** – roof-mounted centrifugal smoke extraction fan with vertical air discharge in an octagonal casing

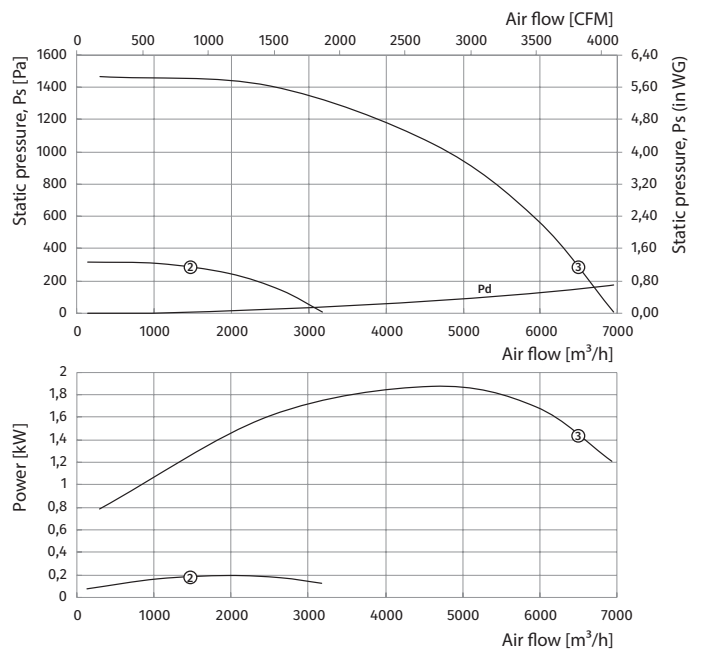
**Technical data**

Standard size	Number of poles	Voltage [V]	Fan model	Rated power Ny [kW]	RPM [min <sup>-1</sup> ]	Curve number
315	2	3~400	VKDV-K2-315-2D/1,1-K	1,1	2880	①
355	4	3~400	VKDV-K2-355-4D/0,25-K	0,25	1335	②
	2	3~400	VKDV-K2-355-2D/2,2-K	2,2	2900	③
400	6	3~400	VKDV-K2-400-6D/0,25-K	0,25	860	④
	4	3~400	VKDV-K2-400-4D/0,55-K	0,55	1345	⑤
	2	3~400	VKDV-K2-400-2D/4-K	4	2840	⑥
450	6	3~400	VKDV-K2-450-6D/0,25-K	0,25	860	⑦
	4	3~400	VKDV-K2-450-4D/1,1-K	1,1	1400	⑧
	2	3~400	VKDV-K2-450-2D/7,5-K	7,5	2948	⑨

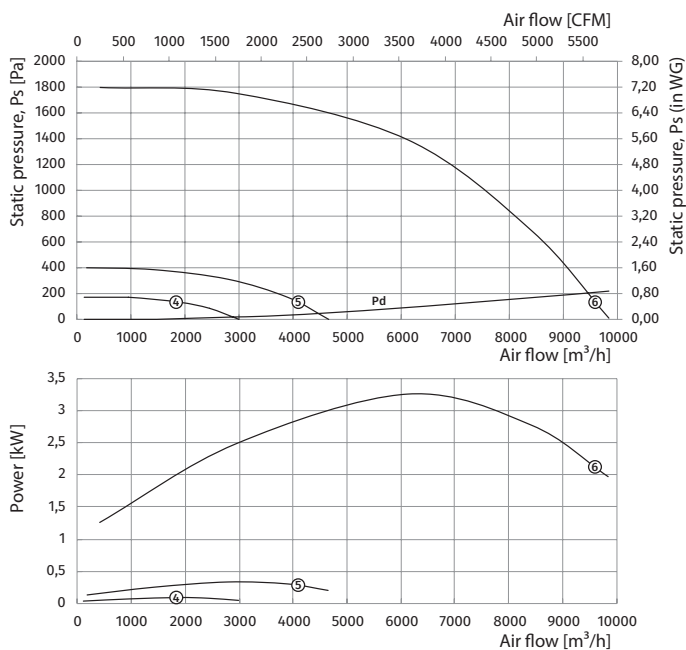
Standard size: 315



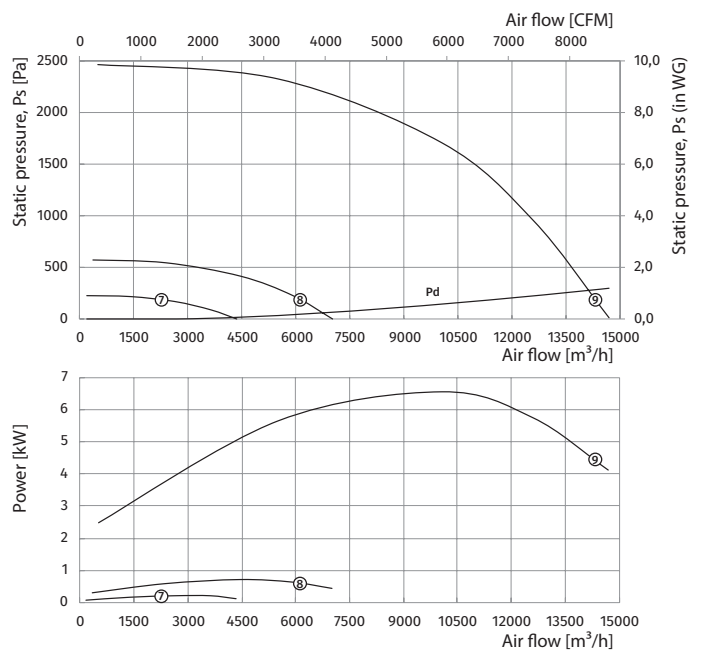
Standard size: 355



Standard size: 400



Standard size: 450

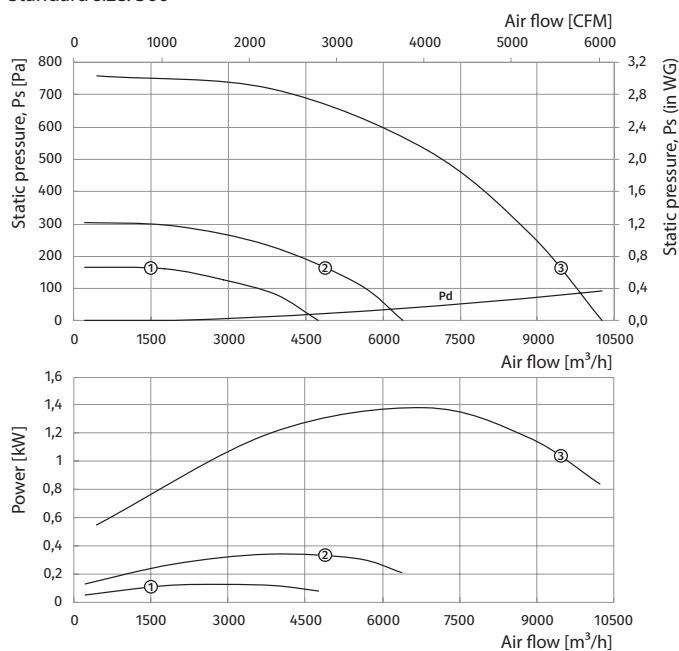


# ROOF-MOUNTED SMOKE EXTRACTION FANS

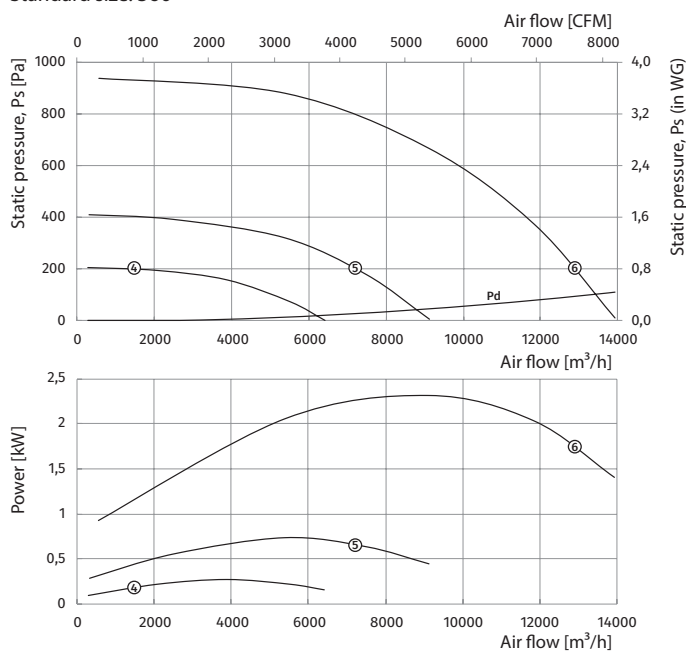
## Technical data

Standard size	Number of poles	Voltage [V]	Fan model	Rated power Ny [kW]	RPM [min <sup>-1</sup> ]	Curve number
500	8	3~400	VKDV-K2-500-8D/0,25-K	0,25	670	①
	6	3~400	VKDV-K2-500-6D/0,55-K	0,55	900	②
	4	3~400	VKDV-K2-500-4D/1,5-K	1,5	1430	③
560	8	3~400	VKDV-K2-560-8D/0,37-K	0,37	665	④
	6	3~400	VKDV-K2-560-6D/0,75-K	0,75	940	⑤
	4	3~400	VKDV-K2-560-4D/3-K	3	1435	⑥
630	8	3~400	VKDV-K2-630-8D/0,75-K	0,75	670	⑦
	6	3~400	VKDV-K2-630-6D/1,5-K	1,5	940	⑧
	4	3~400	VKDV-K2-630-4D/5,5-K	5,5	1400	⑨
710	8	3~400	VKDV-K2-710-8D/1,1-K	1,1	660	⑩
	6	3~400	VKDV-K2-710-6D/2,2-K	2,2	945	⑪
	4	3~400	VKDV-K2-710-4D/11-K	11	1460	⑫

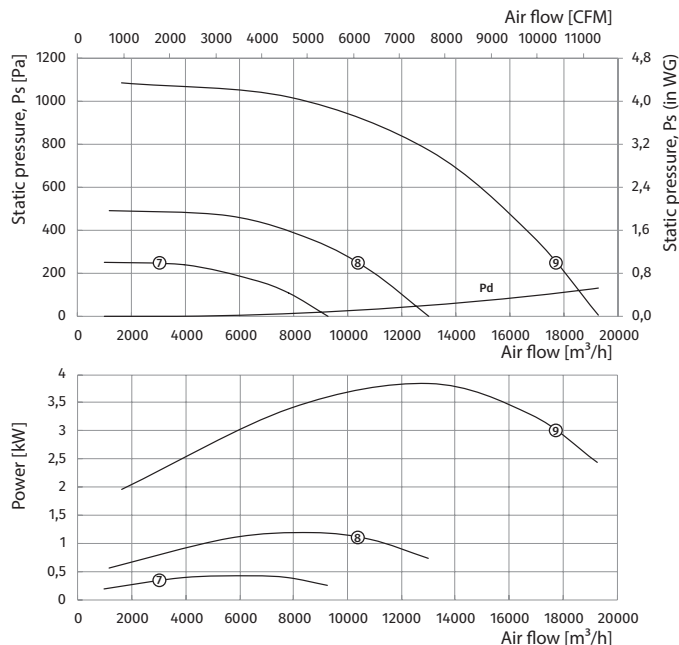
Standard size: 500



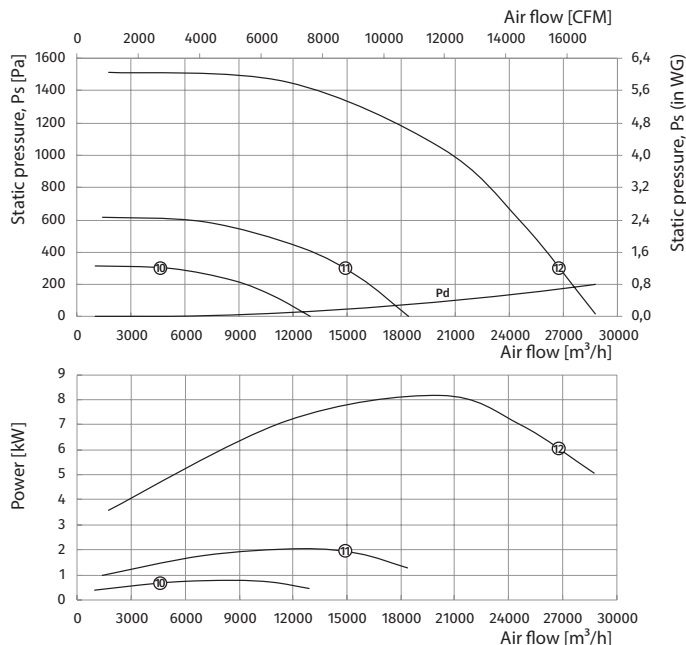
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Standard size: 630



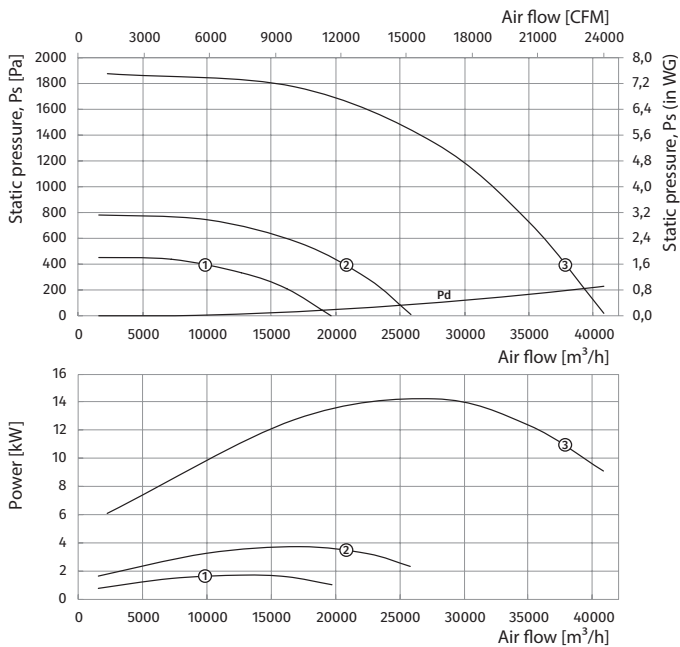
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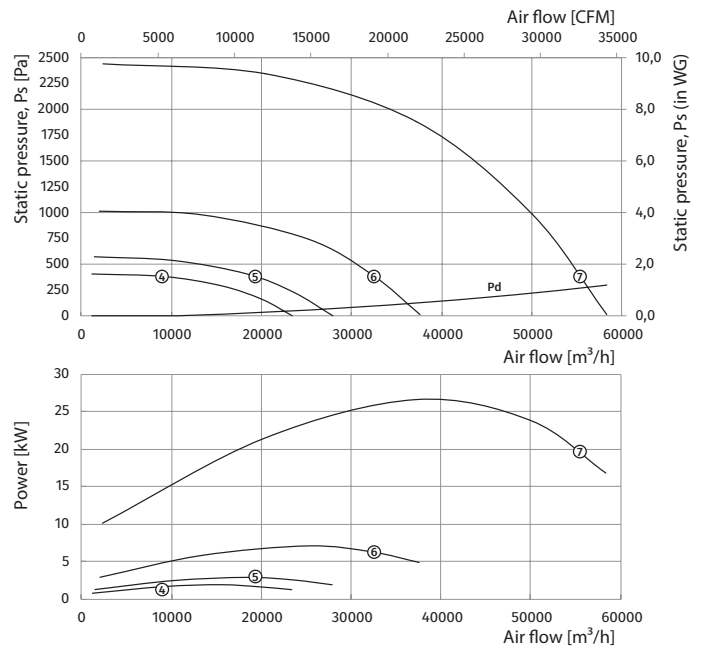
**Technical data**

Standard size	Number of poles	Voltage [V]	Fan model	Rated power Ny [kW]	RPM [min <sup>-1</sup> ]	Curve number
800	8	3~400	VKDV-K2-800-8D/2,2-K	2,2	700	①
	6	3~400	VKDV-K2-800-6D/4-K	4	965	②
	4	3~400	VKDV-K2-800-4D/15-K	15	1460	③
900	10	3~400	VKDV-K2-900-10D/2,2-K	2,2	590	④
	8	3~400	VKDV-K2-900-8D/4-K	4	700	⑤
	6	3~400	VKDV-K2-900-6D/7,5-K	7,5	970	⑥
	4	3~400	VKDV-K2-900-4D/30-K	30	1470	⑦
1000	10	3~400	VKDV-K2-1000-10D/3-K	3	590	⑧
	8	3~400	VKDV-K2-1000-8D/7,5-K	7,5	705	⑨
	6	3~400	VKDV-K2-1000-6D/15-K	15	975	⑩
1120	10	3~400	VKDV-K2-1120-10D/7,5-K	7,5	590	⑪
	8	3~400	VKDV-K2-1120-8D/11-K	11	720	⑫
	8	3~400	VKDV-K2-1120-8D/15-K	15	730	⑬
	6	3~400	VKDV-K2-1120-6D/22-K	22	975	⑭
	6	3~400	VKDV-K2-1120-6D/30-K	30	980	⑮

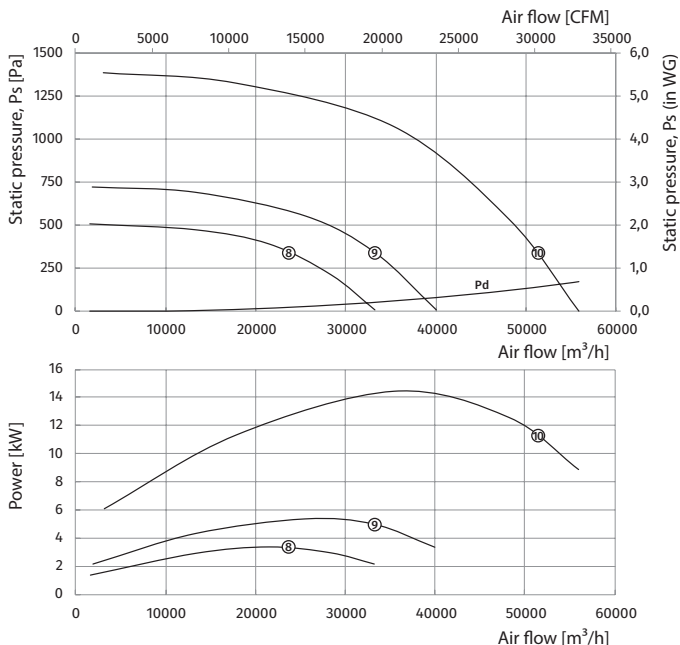
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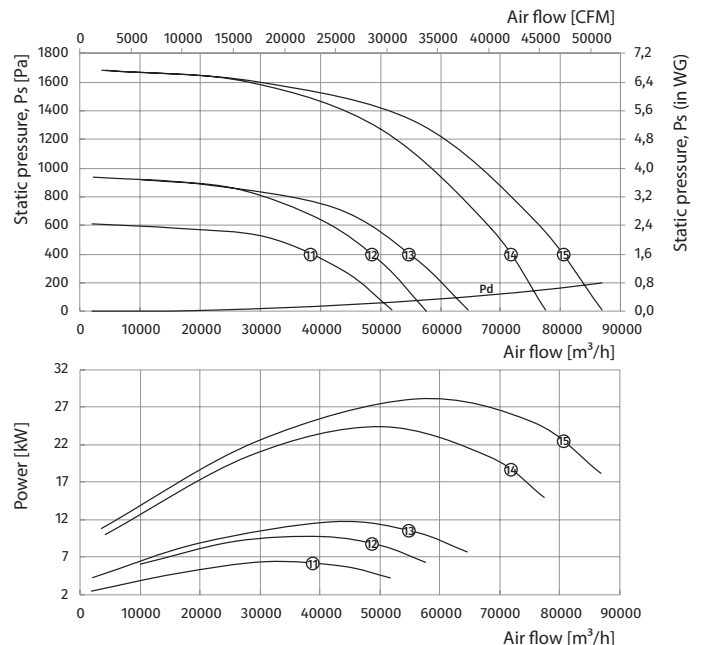
Standard size: 900



Standard size: 1000



Standard size: 1120



Overall dimensions of the units:

Fan model	Overall and connecting dimensions [mm]					Weight [kg]
	H	A	B	C	d	
VKDV-K2-315-2D/1,1-K	779	680	480	820	16	80
VKDV-K2-355-4D/0,25-K	744	680	480	820		73
VKDV-K2-355-2D/2,2-K	801					89
VKDV-K2-400-6D/0,25-K	772	760	580	866		82
VKDV-K2-400-4D/0,55-K						83
VKDV-K2-400-2D/4-K	897			880		112
VKDV-K2-450-6D/0,25-K	794	760	580	864		92
VKDV-K2-450-4D/1,1-K						96
VKDV-K2-450-2D/7,5-K	929	810		933		137
VKDV-K2-500-8D/0,25-K	888	830	640	950		121
VKDV-K2-500-6D/0,55-K						122
VKDV-K2-500-4D/1,5-K						128
VKDV-K2-560-8D/0,37-K	921	1000	750	1082		148
VKDV-K2-560-6D/0,75-K						151
VKDV-K2-560-4D/3-K	991			1094		163
VKDV-K2-630-8D/0,75-K	1060	1010	750	1121		200
VKDV-K2-630-6D/1,5-K						202
VKDV-K2-630-4D/5,5-K						225
VKDV-K2-710-8D/1,1-K	1105	1180	980	1257		231
VKDV-K2-710-6D/2,2-K						238
VKDV-K2-710-4D/11-K						342
VKDV-K2-800-8D/2,2-K	1237	1180	980	1311		308
VKDV-K2-800-6D/4-K						311
VKDV-K2-800-4D/15-K						385
VKDV-K2-900-10D/2,2-K	1297	1340	1050	1494		374
VKDV-K2-900-8D/4-K						435
VKDV-K2-900-6D/7,5-K						434
VKDV-K2-900-4D/30-K	1600			1524		597
VKDV-K2-1000-10D/3-K	1595	1550	1340	1686	573	
VKDV-K2-1000-8D/7,5-K					557	
VKDV-K2-1000-6D/15-K	1680				608	
VKDV-K2-1120-10D/7,5-K	1829	1640	1340	1876	834	
VKDV-K2-1120-8D/11-K					775	
VKDV-K2-1120-8D/15-K					911	
VKDV-K2-1120-6D/22-K	1789				856	
VKDV-K2-1120-6D/30-K	1956				962	

