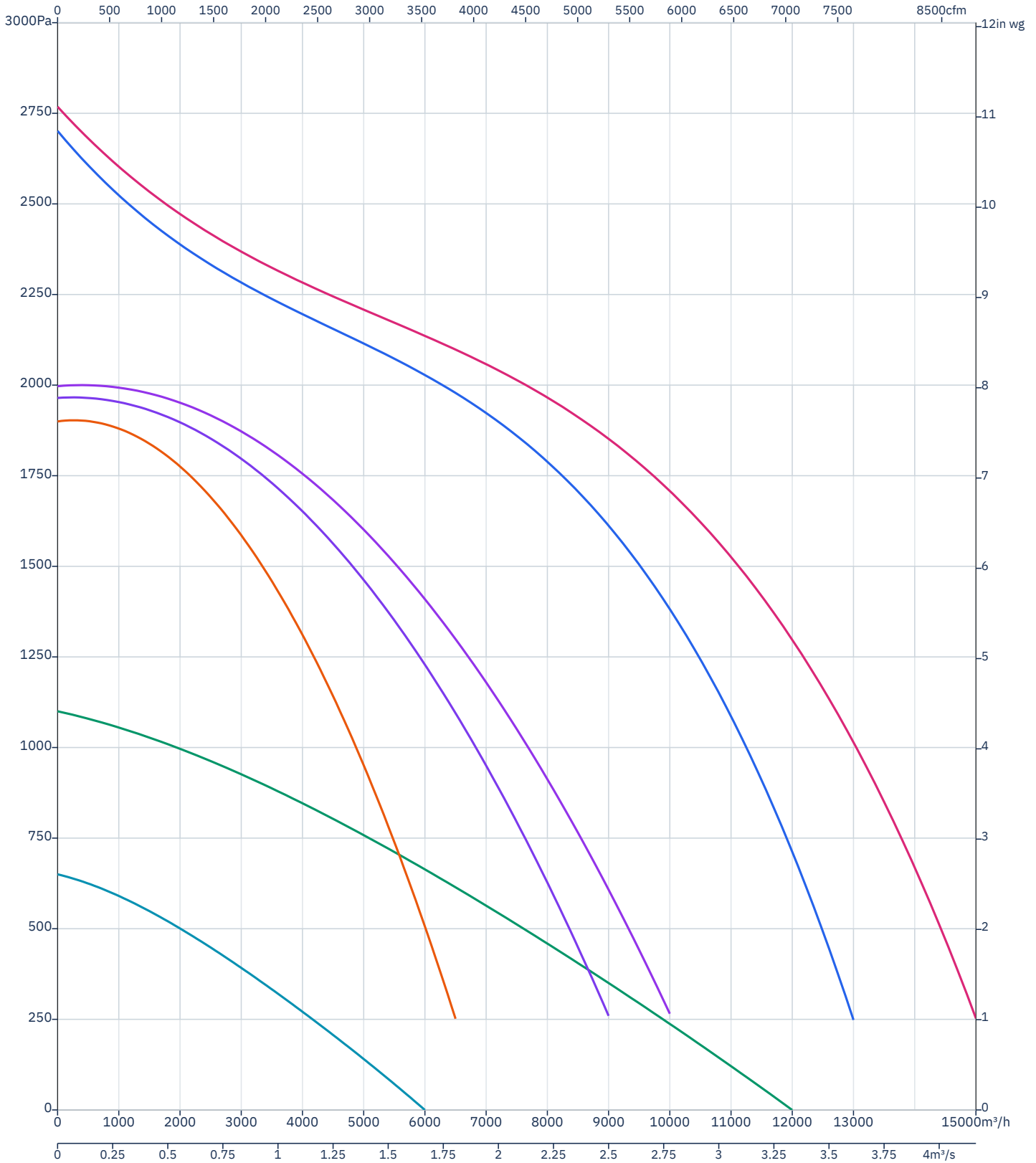




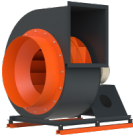
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Comparison table

		 UVS-GS400A Low-pressure centrifugal fan 	 UVS-GS500B Low-pressure centrifugal fan 	 UVS-GR350B Medium-pressure centrifugal fan 	 UVS-GR450A Medium-pressure centrifugal fan 	 UVS-GR350A Medium-pressure centrifugal fan 
Operating point						
Frequency f	Hz	50	50	50	50	50
Total pressure differential Δp_{out-in}	Pa	539.3	985.6	1837.1	2364	1656.4
Airflow q_v	m ³ /h	1637	2216	2998	3414	2846
Mass flow q_m	kg/s	0.547	0.741	1.002	1.142	0.952
Static pressure p_{static}	Pa	536	982.1	1797	2331.1	1620.3
Total pressure p_{total}	Pa	552.7	994.6	1882.2	2385.4	1697.1
Dynamic pressure $p_{dynamic}$	Pa	16.7	12.5	85.2	54.3	76.8
Rotational speed n	rpm	1450	1450	2800	2800	2800
Linear velocity v	m/s	4.73	3.87	8.65	5.96	8.22
Power consumption P	W	621	1687	2588	6202	1911
Shaft power P_{shaft}	W	520	1461	2274	5636	1657
Aerodynamic power P_{air}	W	245	607	1530	2242	1310
Static efficiency η_{static}	%	39.23	35.84	57.82	35.64	67.03
Total efficiency η_{total}	%	40.45	36.3	60.56	36.47	70.21
Motor efficiency η_{motor}	%	83.716	86.585	87.887	90.878	86.694
Rotor efficiency η_{imp}	%	47.14	41.54	67.26	39.78	79.04
Specific Fan Power SFP	W/m ³ /s	1366	2740	3108	6540	2417
Fan Energy Index FEI		1.279	0.909	1.314	0.749	1.58
Medium density ρ_{air}	kg/m ³	1.204	1.204	1.204	1.204	1.204
Motor load ratio M_{load}	%	82.84	76.67	86.25	82.69	86.87
Shaft Torque T_{shaft}	Nm	3.427	9.621	7.756	19.224	5.651
Angular Velocity ω	rad/s	151.8	151.8	293.2	293.2	293.2
Flow						
Maximum airflow $q_{v,max}$	m ³ /h	6000	12000	9000	15000	6500
Maximum static pressure $p_{static,max}$	Pa	650	1100	2050	2700	2000
Nominal rotational speed n_{rated}	rpm	1450	1450	2800	2800	2800
Electrical						
Number of electrical phases φ		3	3	3	3	3
Rated voltage U_{rated}	V	230/380	230/380	230/380	380	230/380
Rated power P_{rated}	W	750	2200	3000	7500	2200
Rated Frequency f_{rated}	Hz	50	50	50	50	50
Rated Current I_{rated}	A	5.4/1.92	14/4.9	17.7/5.8	13.6	13.5/4.5
Maximum power consumption $P_{max,abs}$	W	745	2195	2994	7474	2180



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Motor						
Motor power supply type $T_{p_{motor, supply}}$		AC	AC	AC	AC	AC
Motor rated power in kW $P_{motor, rated, kW}$	kW	0.75	2.2	3	7.5	2.2
Number of motor poles p_{motor}		4	4	2	2	2
Motor energy efficiency class $\eta_{motor, class}$		IE3	IE3	IE3	IE3	IE3
Rated motor speed $n_{motor, rated}$	rpm	1450	1450			
Motor protection class IP IP_{motor}		IP55	IP55	IP55	IP55	IP55
Motor insulation class $Ins_{motor, class}$		F	F	F	F	F
Regulation						
Control type T_{reg}		Inverter	Inverter	Inverter	Inverter	Inverter
Maximum Allowable Frequency $f_{max, allow}$	Hz	60	60	60	60	60
Minimum allowable frequency $f_{min, allow}$	Hz	25	25	25	25	25
Temperature						
Minimum operating temperature $t_{op, min}$	°C	-20	-20	-20	-20	-20
Maximum operating temperature $t_{op, max}$	°C	50	50	50	50	50
Maximum medium temperature $t_{med, max}$	°C	50	50	50	50	50
Acoustic						
Sound power level emitted from the casing $L_{wa, 2}$	dB(A)	72	85	85	90	80
Sound power level L_{wa}	dB(A)	81.2	87.6	92.8	100.1	90.3
Size						
Diameter D	mm	350	450	350	450	350
Inlet diameter D_{in}	mm	350	450	350	450	350
Outlet diameter D_{out}	mm	332	415	299	357	299
Equivalent diameter D_{calc}	mm	332	415	299	357	299
Outlet profile $A \times B_{out}$	mmxmm	270x320	330x410	250x280	270x370	250x280
Width w	mm	685	785	600	700	600
Height h	mm	820	850	720	840	720
Weight m	kg	91	145	158	240	145
Energy efficiency						
Maximum total efficiency $\eta_{total, max}$	%	61.95	73.7	99.08	97.56	83.87
Maximum static efficiency $\eta_{static, max}$	%	51.02	61.54	76.86	72.92	74.33
Maximum motor efficiency $\eta_{motor, max}$	%	84.091	86.713	87.896	90.936	86.714
Maximum impeller efficiency $\eta_{imp, max}$	%	62.74	73.97	97.1	95.14	90.44
Fan Energy Grade (FEG) FEG		63	75	90	90	90
Impeller						
Impeller type T_{imp}		Centrifugal Rotor	Centrifugal Rotor	Centrifugal Rotor	Centrifugal Rotor	Centrifugal Rotor
Rotor Surface S_{imp}		Galvanized	Galvanized	??undefined	??undefined	??undefined
Blade profile $T_{imp, blade}$		Backward curved blades	Backward curved blades	Backward curved blades	Backward curved blades	Backward curved blades
Impeller material Mt_{imp}		Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
Blade material Mt_{blade}		Stainless steel	Stainless steel	??undefined	??undefined	??undefined
Drive						
Drive type T_{drive}		Direct drive	Direct drive	Direct drive	Direct drive	Direct drive
Housing						



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Casing material Mt_{cas}	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
ErP Directive					
ErP verification type ErP_{type}	Fan	Fan	??undefined	??undefined	??undefined
ErP exemption reason ErP_{exempt}	No exemption	No exemption	??undefined	??undefined	??undefined
Measurement category $ErP_{msrm, cat}$	B	B			
VSD type ErP_{vsd}	Without control	Without control	??undefined	??undefined	??undefined
Fan efficiency η_{act} %	61.95	73.7			
Efficiency coefficient N_{act}	74.3	81.4			
Airflow q_v m³/h	4020	7800			
Pressure increase Δp Pa	368.9	634.5			
Power consumption P_e W	665	1865			
Specific speed σ_{BEP}	8.86	7.18			
Rotational speed n rpm	1450	1450			
Characteristic coefficient C_c	1	1			
Compliance with ErP2026 regulation (2024/1834) ErP_{2026}	true	true			



Comparison table

		 UVS-GR400B Medium-pressure centrifugal fan 	 UVS-GR400A Medium-pressure centrifugal fan 
Operating point			
Frequency f	Hz	50	50
Total pressure differential Δp_{out-in}	Pa	2283.4	1893.9
Airflow q_v	m ³ /h	3355	3055
Mass flow q_m	kg/s	1.122	1.022
Static pressure p_{static}	Pa	2250.6	1866.8
Total pressure p_{total}	Pa	2316.5	1921.4
Dynamic pressure $p_{dynamic}$	Pa	65.9	54.6
Rotational speed n	rpm	2800	2800
Linear velocity v	m/s	7.42	6.75
Power consumption P	W	4576	3429
Shaft power P_{shaft}	W	4120	3051
Aerodynamic power P_{air}	W	2128	1607
Static efficiency η_{static}	%	45.83	46.2
Total efficiency η_{total}	%	47.18	47.55
Motor efficiency η_{motor}	%	90.051	88.986
Rotor efficiency η_{imp}	%	51.64	52.67
Specific Fan Power SFP	W/m ³ /s	4910	4041
Fan Energy Index FEI		0.981	1.026
Medium density ρ_{air}	kg/m ³	1.204	1.204
Motor load ratio M_{load}	%	83.19	85.73
Shaft Torque T_{shaft}	Nm	14.053	10.407
Angular Velocity ω	rad/s	293.2	293.2
Flow			
Maximum airflow $q_{v, max}$	m ³ /h	13000	10000
Maximum static pressure $p_{static, max}$	Pa	2650	2100
Nominal rotational speed n_{rated}	rpm	2800	2800
Electrical			
Number of electrical phases φ		3	3
Rated voltage U_{rated}	V	380	380
Rated power P_{rated}	W	5500	4000
Rated Frequency f_{rated}	Hz	50	50
Rated Current I_{rated}	A	10.3	7.9
Maximum power consumption $P_{max, abs}$	W	5479	3990
Motor			



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Motor power supply type $T_{p_{motor, supply}}$	AC	AC
Motor rated power in kW $P_{motor, rated, kW}$	5.5	4
Number of motor poles p_{motor}	2	2
Motor energy efficiency class $\eta_{motor, class}$	IE3	IE3
Rated motor speed $n_{motor, rated}$	rpm	
Motor protection class IP IP_{motor}	IP55	IP55
Motor insulation class $Ins_{motor, class}$	F	F
Regulation		
Control type T_{reg}	Inverter	Inverter
Maximum Allowable Frequency $f_{max, allow}$	Hz	60
Minimum allowable frequency $f_{min, allow}$	Hz	25
Temperature		
Minimum operating temperature $t_{op, min}$	°C	-20
Maximum operating temperature $t_{op, max}$	°C	50
Maximum medium temperature $t_{med, max}$	°C	50
Acoustic		
Sound power level emitted from the casing $L_{wa, 2}$	dB(A)	90
Sound power level L_{wa}	dB(A)	97.5
Size		
Diameter D	mm	400
Inlet diameter D_{in}	mm	400
Outlet diameter D_{out}	mm	337
Equivalent diameter D_{calc}	mm	337
Outlet profile $A \times B_{out}$	mmxmm	270x330
Width w	mm	685
Height h	mm	820
Weight m	kg	225
Energy efficiency		
Maximum total efficiency $\eta_{total, max}$	%	111.54
Maximum static efficiency $\eta_{static, max}$	%	84.4
Maximum motor efficiency $\eta_{motor, max}$	%	90.11
Maximum impeller efficiency $\eta_{imp, max}$	%	107
Fan Energy Grade (FEG) FEG		90
Impeller		
Impeller type $T_{p_{imp}}$	Centrifugal Rotor	Centrifugal Rotor
Rotor Surface S_{imp}	??undefined	??undefined
Blade profile $T_{p_{imp, blade}}$	Backward curved blades	Backward curved blades
Impeller material Mt_{imp}	Carbon steel	Carbon steel
Blade material Mt_{blade}	??undefined	??undefined
Drive		
Drive type $T_{p_{drive}}$	Direct drive	Direct drive
Housing		
Casing material Mt_{cas}	Carbon steel	Carbon steel
ErP Directive		



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ErP verification type ErP_{type}	??undefined	??undefined
ErP exemption reason ErP_{exempt}	??undefined	??undefined
Measurement category $ErP_{msrm, cat}$		
VSD type ErP_{vsd}	??undefined	??undefined
Fan efficiency η_{act} %		
Efficiency coefficient N_{act}		
Airflow q_v m³/h		
Pressure increase Δp Pa		
Power consumption P_e W		
Specific speed σ_{BEP}		
Rotational speed n rpm		
Characteristic coefficient C_c		
Compliance with ErP2026 regulation (2024/1834) ErP_{2026}		