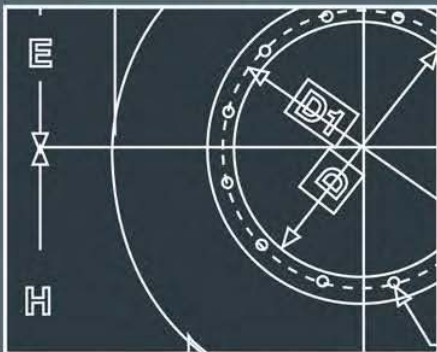


PRL TC

Backward Curve Centrifugal - SWSI



DYN AIR® is the industrial division of Maico Italia S.p.A. and is a well known brand name at global level in the industrial ventilation and plant engineering sector. Technological expertise, high production capacities, strong research and investment policies together with a personalized back-up service focused on customer needs have, for over 30 years, been the qualities that distinguish our company: Italian excellence renowned throughout the world and an industrial concern fortified by belonging to Maico Holding GmbH, the German group that leads the way in the ventilation industry.

Experience and high technology at your service

Living in a market in continuous evolution, DYN AIR® bases its force on a step by step project follow-up in close collaboration with the customer to create tailored and highly reliable solutions.



AMCA Sound & Air Performance Seal

Maico Gulf LLC certifies that the DYN AIR model PRL - TC shown herein is licence to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA 311 and comply with the requirements of the AMCA Certified Ratings Program.



Versions :





GENERAL DESCRIPTION:

The fans of the PRL-TC series find their main application in commercial and industrial plants of air-conditioning, ventilation, heating and filtering; they can be used as well in industrial processing (baker ovens, spray booths, driers, boilers, silos, cooling systems, etc.). PRL-TC fans can convey clean or slightly dusty air and smoke with max. temperature of 180°C. Suitable for very high capacities and low pressure.

CONSTRUCTION:

- Volute casing in steel sheet , protected against atmospheric agents by epoxy paint.
- Aerodynamically shaped inlet cone in steel sheet, protected against atmospheric agents by epoxy paint.
- Single inlet backward curved wheel with high efficiency, manufactured in steel sheet and epoxy painted.
For high rotational speed, versions in class 3 are foreseen.
- Mono-block support in cast iron with ball bearings, designed for easy lubrication. Pulleys, belts and motor support. Belt protection guard.
- Asynchronous three-phase motors according to international standards IEC 60034, IEC 60072, EMC 2004/108/CE, LVD 2006/95/CE, CE marked, IP 55, class F, (continuous working at constant load).suitable to S1 service

ACCESSORIES (available upon request):

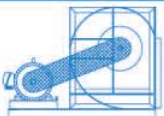
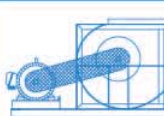
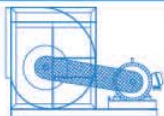
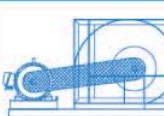

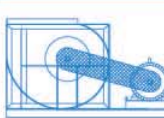
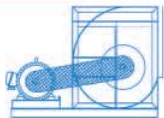
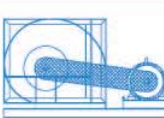
- Condensation drain hole (TS)
- Inspection door (PI)
- Inlet counter-flange (CFA)
- Outlet counter-flange (CFP)
- Anti-vibration mounts



Versions :



ORIENTATION:

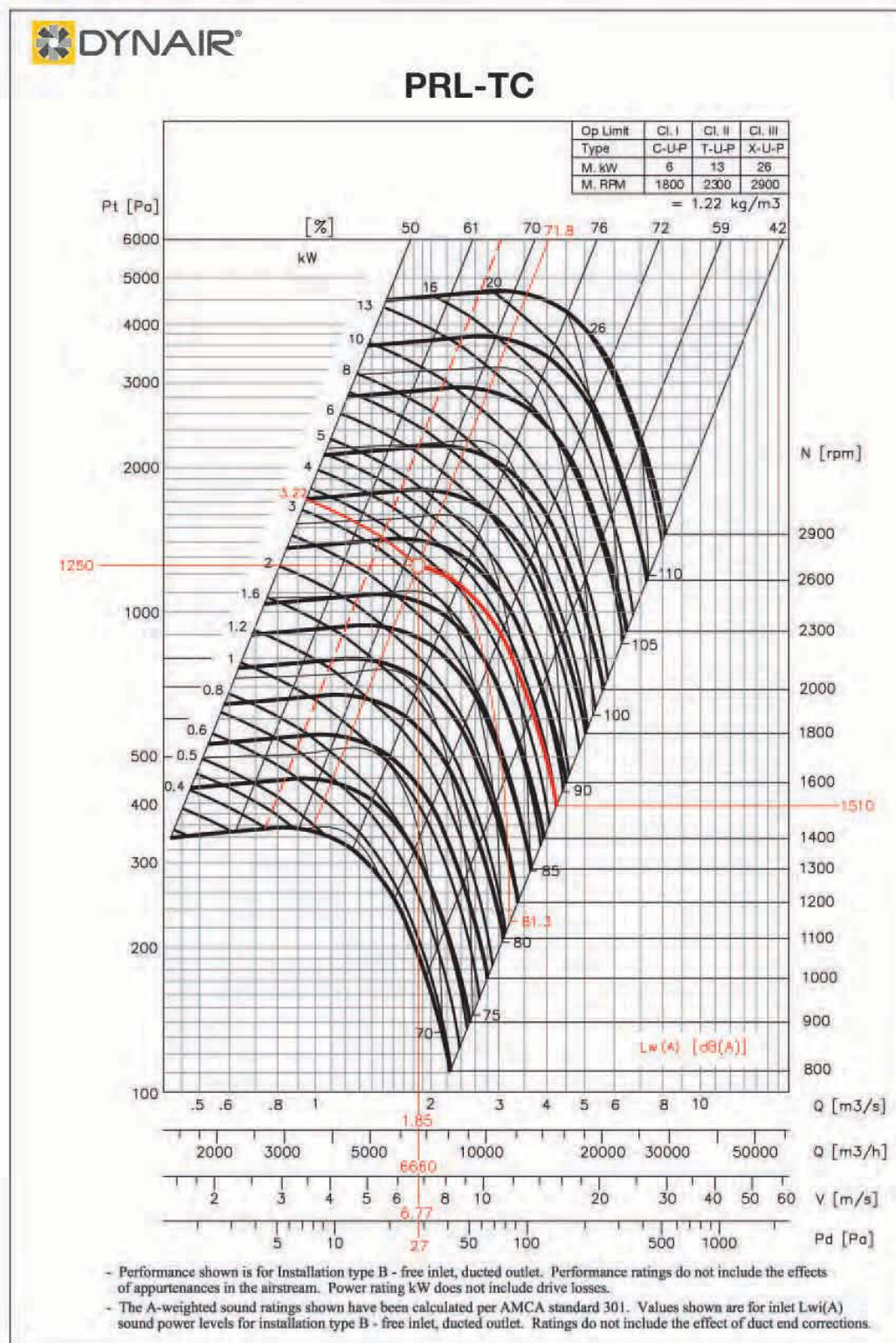
	0°	90°	180°	270°
Left Hand				
Right Hand				



Example of selection

Air Volume $Q = 6660\text{m}^3/\text{h}$
 Outlet Velocity $V = 6.77\text{ m/s}$
 Dynamic Pressure $P_d = 27\text{ Pa}$
 Total Pressure $P_t = 1250\text{ Pa}$

Fan Speed $N = 1510\text{ rpm}$
 Absorbed Power $W = 3.22\text{ kW}$
 Total Efficiency = 71.8 %
 Sound Power Level $w(A) = 81.3\text{ dB(A)}$





Performance curve

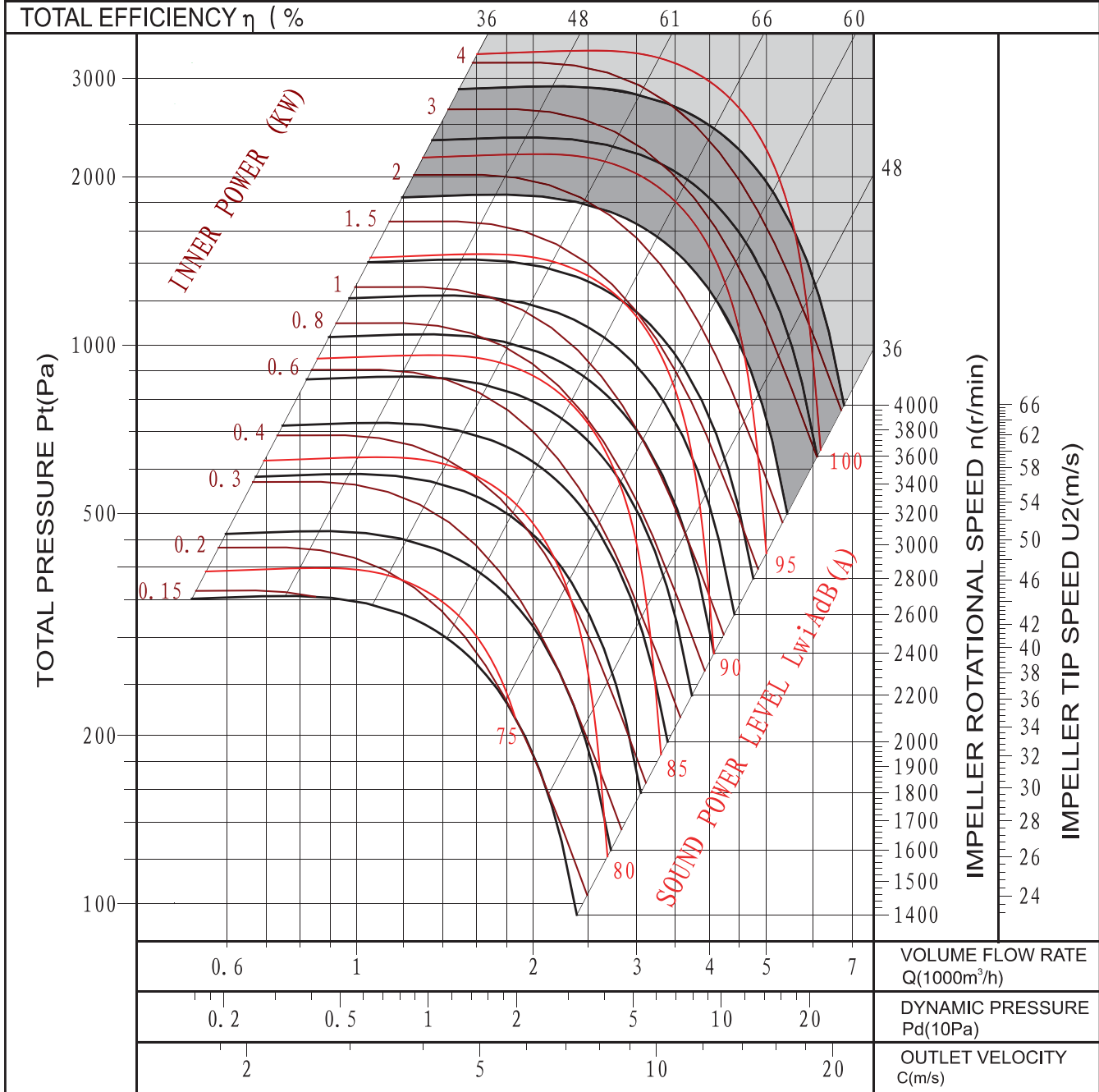
Belt driven

- R
- E,C
- DO NOT USE IN THIS AREA

PRL - TC 315

FEG75

GAS DENSITY: 1.2kg/m³



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type B: free inlet, ducted outlet.



Performance curve

Belt driven

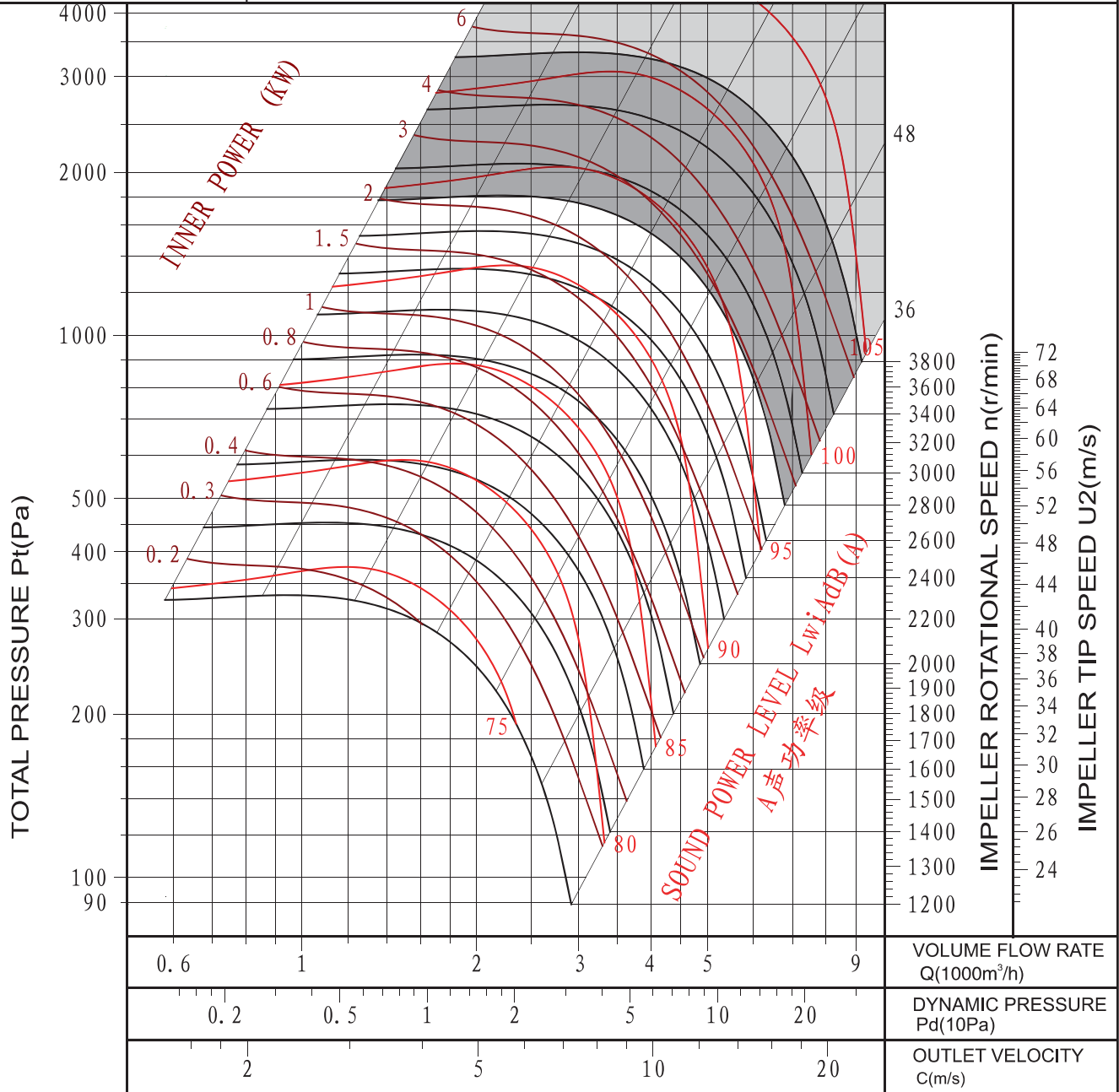
- R
- E,C
- DONOT USE IN THIS AREA

PRL - TC 355

FEG75

GAS DENSITY: 1.2kg/m³

TOTAL EFFICIENCY η (%)



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwIA sound power levels for installation Type B: free inlet ducted outlet



Performance curve

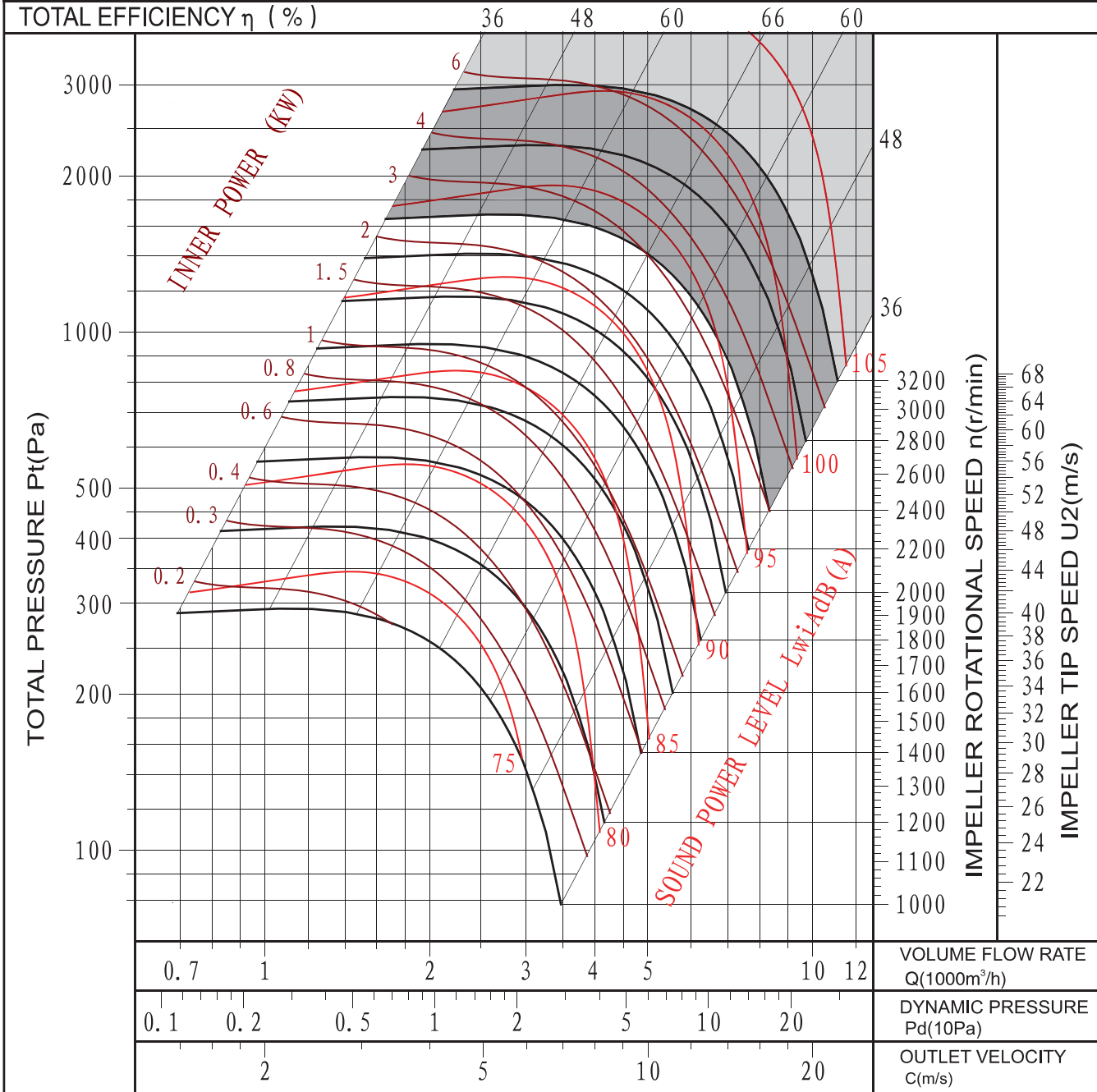
Belt driven

- R
- E,C
- DO NOT USE IN THIS AREA

PRL - TC 400

FEG71

AS DENSITY: 1.2kg/m³



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet L_{wi}A sound power levels for installation Type B: free inlet ducted outlet



Performance curve

Belt driven

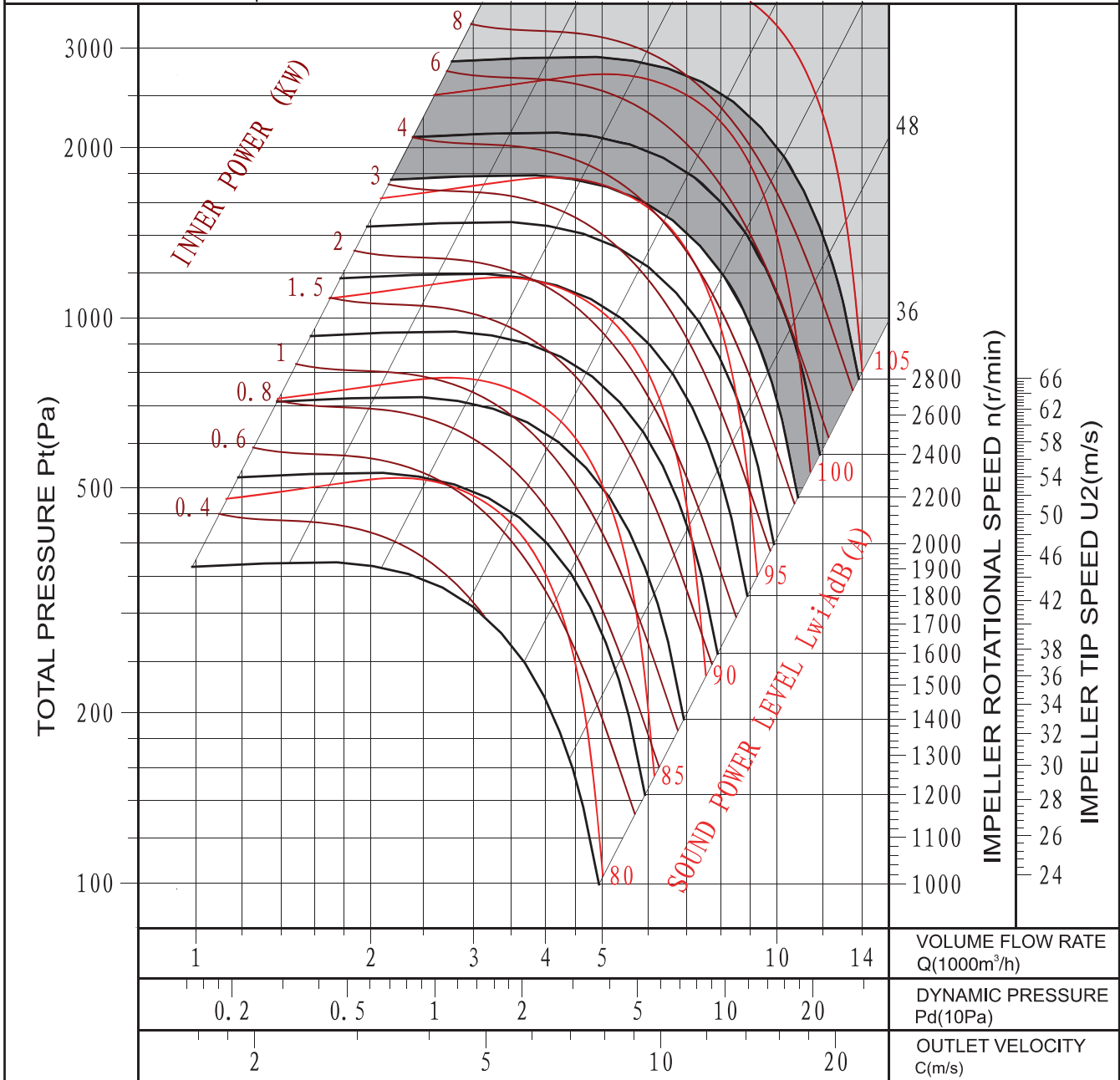
- R
- E,C
- DO NOT USE IN THIS AREA

PRL - TC 450

FEG71

GAS DENSITY: 1.2kg/m³

TOTAL EFFICIENCY η (%)



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet, ducted outlet.



Performance curve

Belt driven

- R
- E,C
- DO NOT USE IN THIS AREA

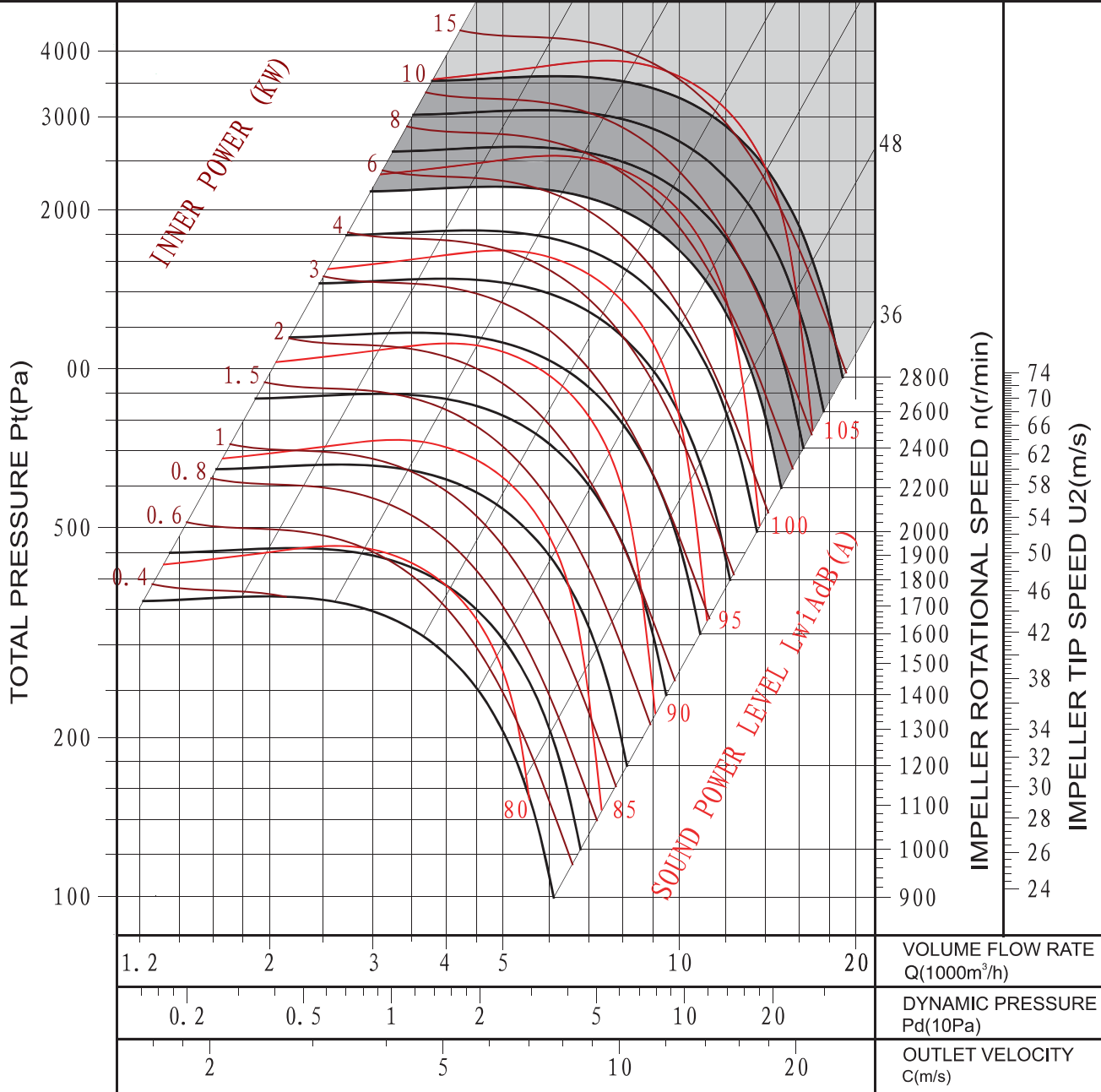
PRL - TC 500

FEG71

GAS DENSITY: 1.2kg/m³

TOTAL EFFICIENCY η (%)

36 48 61 66 60



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation Type B: free inlet, ducted outlet.



Performance curve

Belt driven

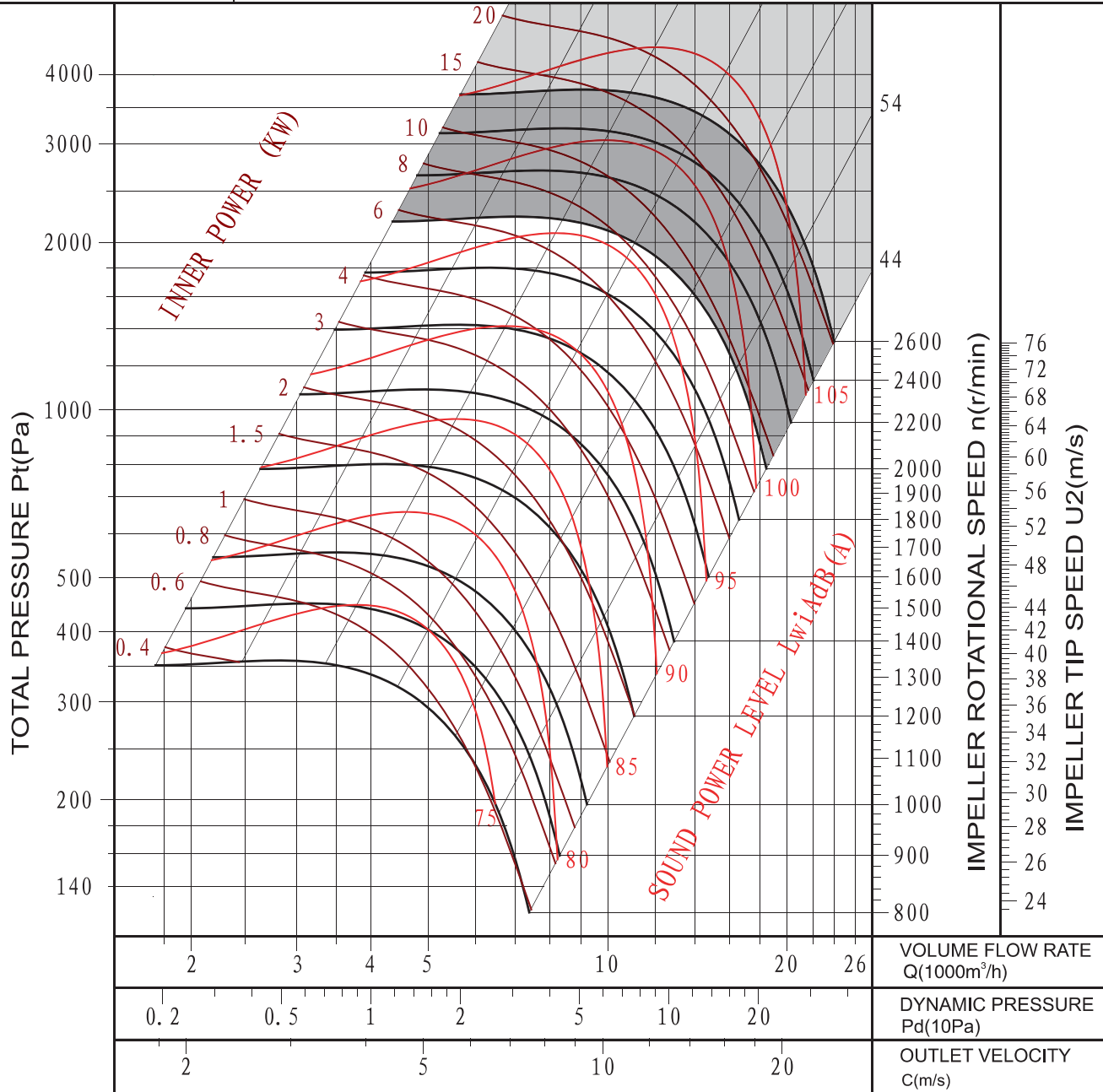
- R
- E,C
- DONOT USE IN THIS AREA

PRL - TC 560

FEG80

GAS DENSITY: 1.2kg/m³

TOTAL EFFICIENCY η (%)

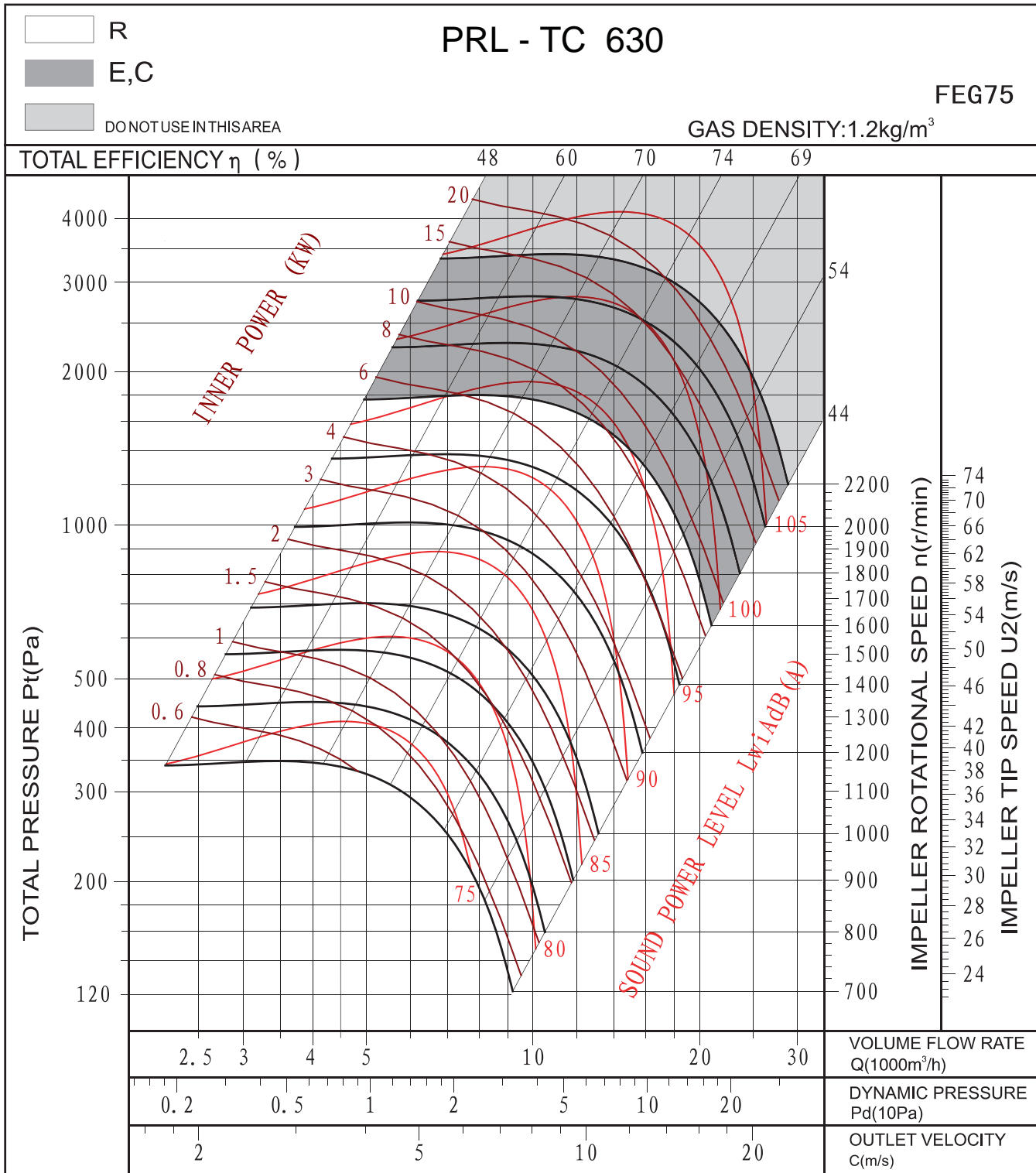


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation Type B: free inlet ducted outlet



Performance curve

Belt driven

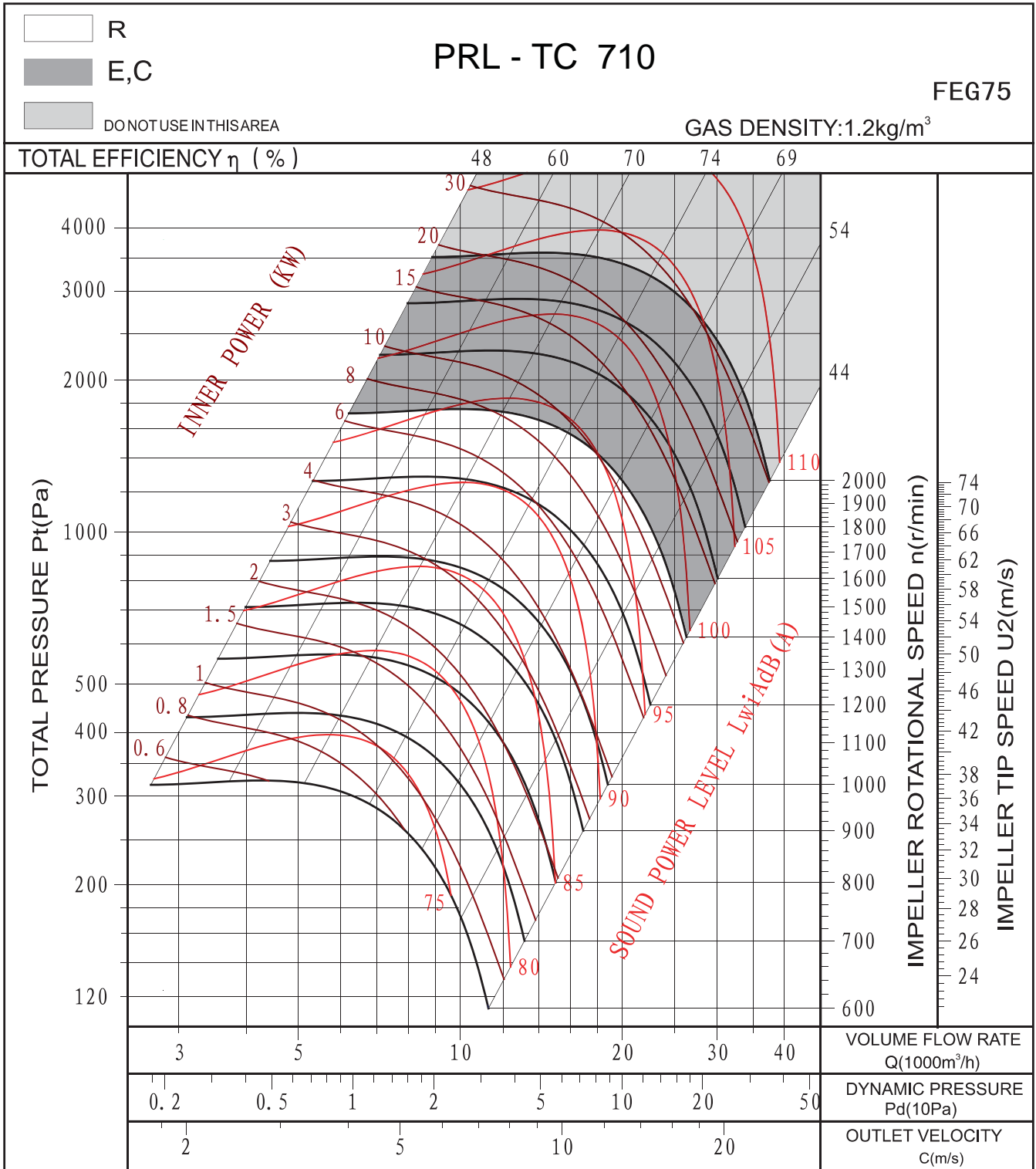


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation Type B: free inlet, ducted outlet.



Performance curve

Belt driven

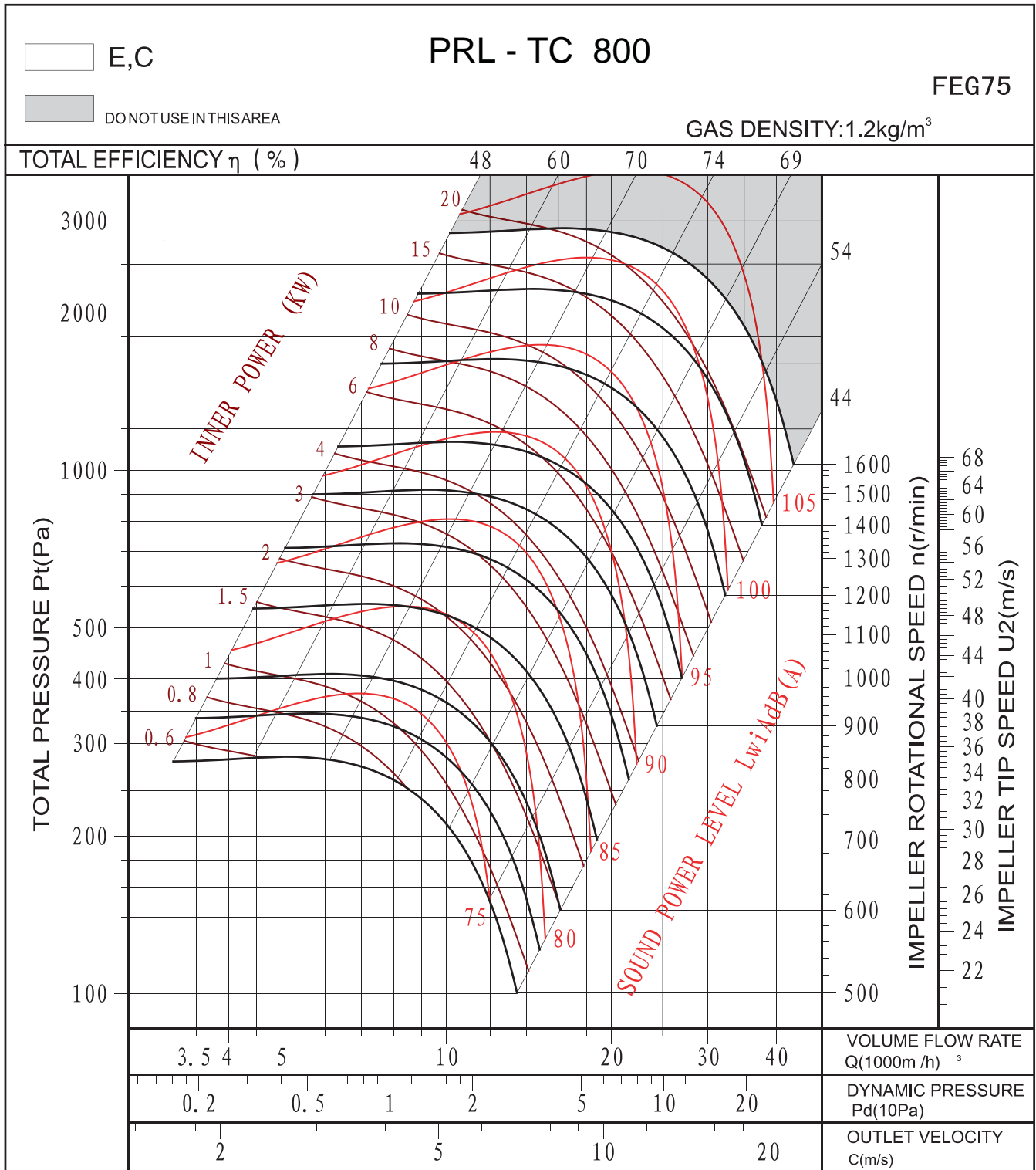


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet ducted outlet



Performance curve

Belt driven



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet, ducted outlet.



Performance curve

Belt driven

E,C

PRL - TC 900

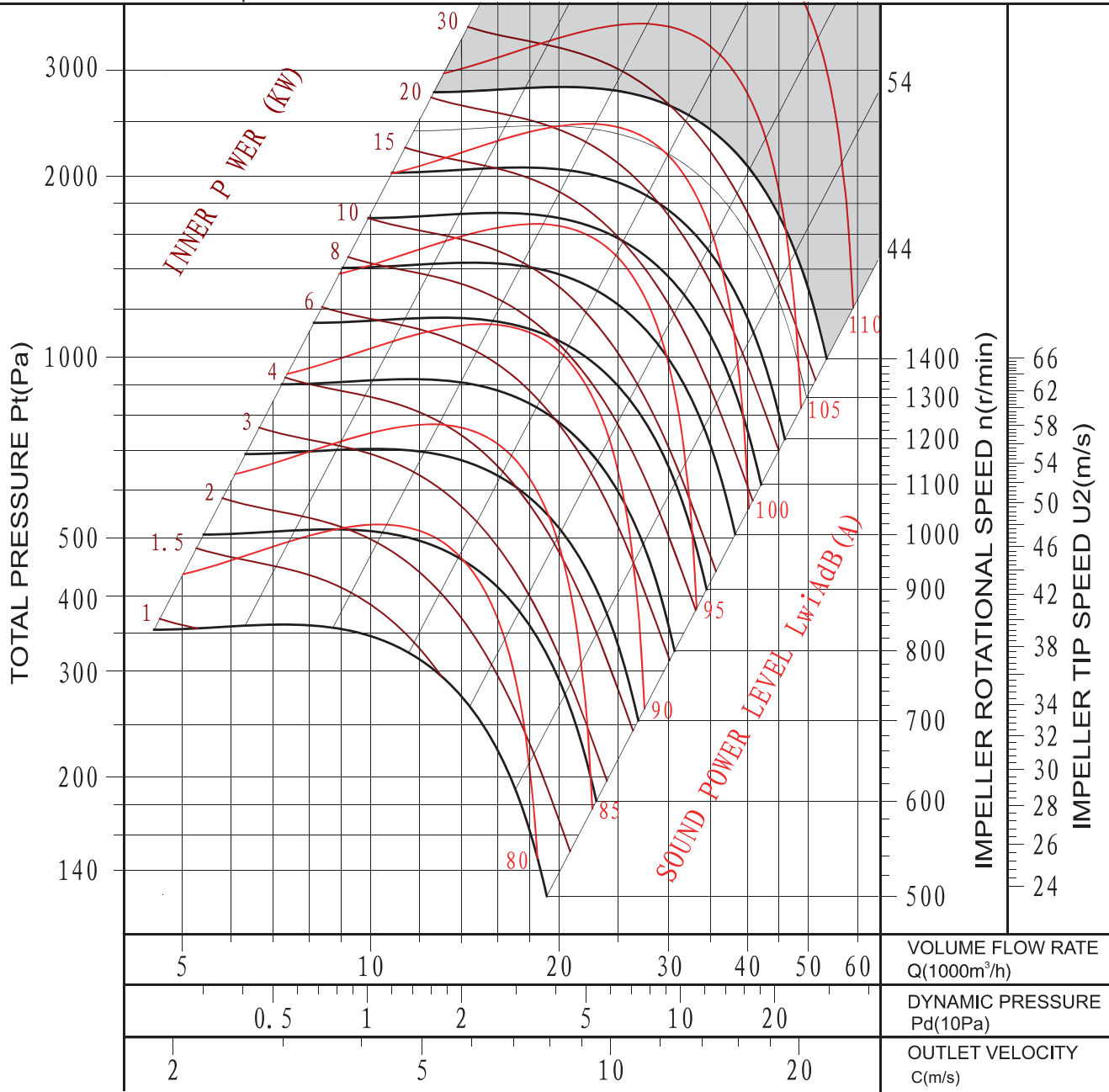
FEG75

DONOT USE IN THIS AREA

GAS DENSITY: 1.2kg/m³

TOTAL EFFICIENCY η (%)

48 60 70 74 69



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet, ducted outlet.



Performance curve

Belt driven

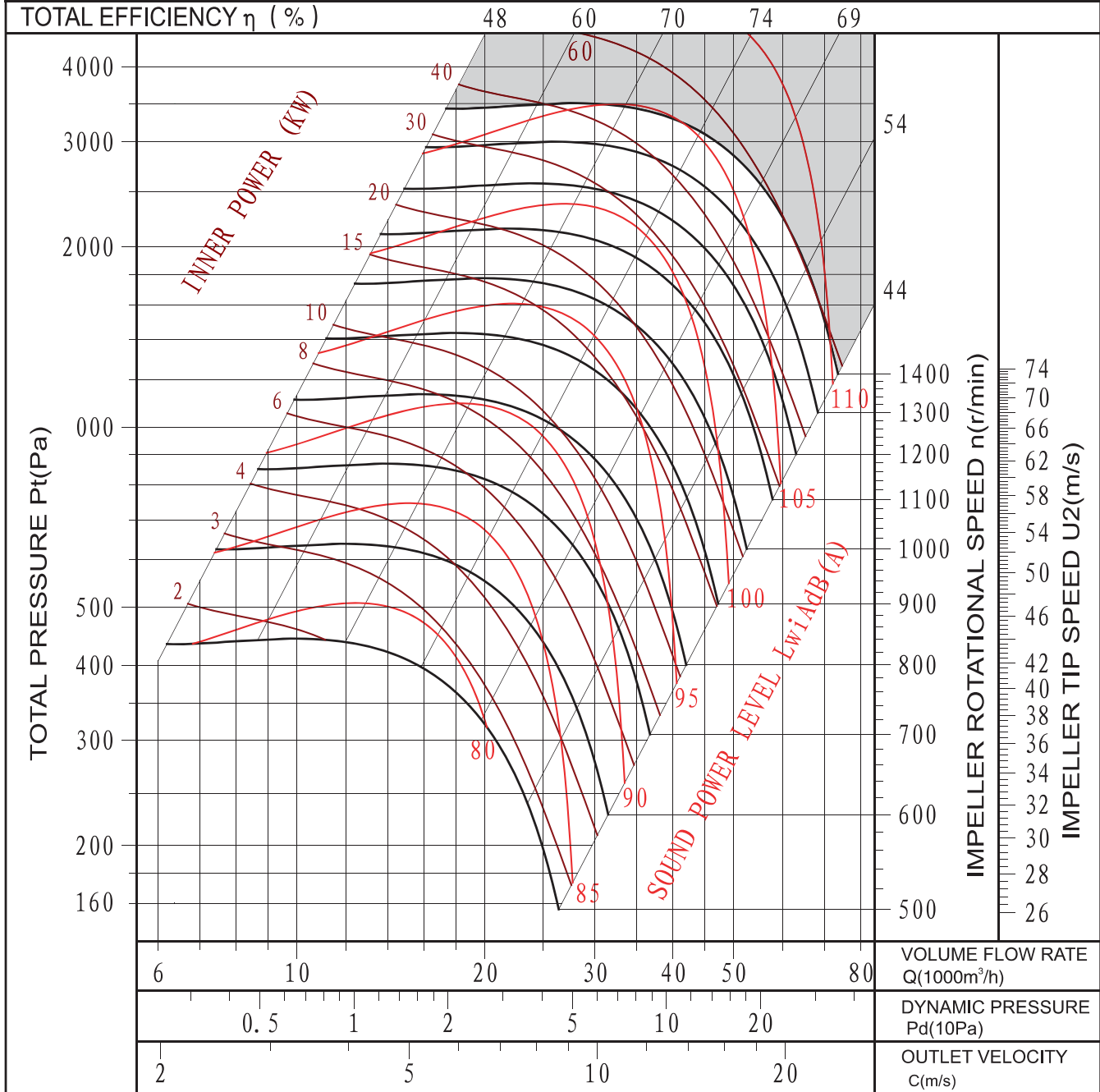
E,C

PRL - TC 1000

FEG75

DO NOT USE IN THIS AREA

GAS DENSITY: 1.2kg/m³



Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet ducted outlet



Performance curve

Belt driven

E,C

PRL - TC 1120

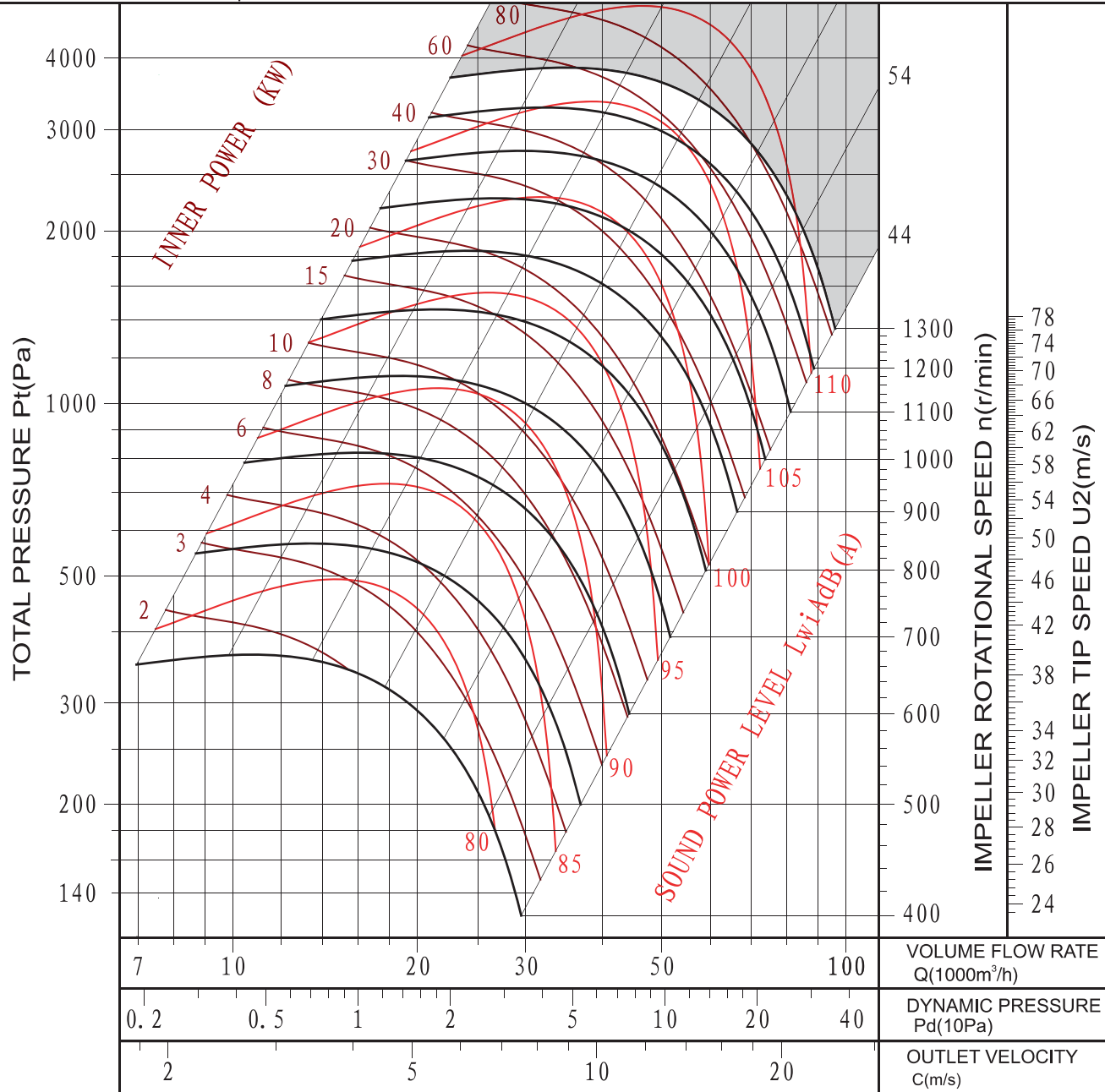
FEG75

DO NOT USE IN THIS AREA

GAS DENSITY: 1.2kg/m³

TOTAL EFFICIENCY η (%)

48 60 70 74 69

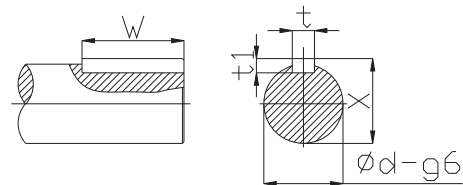
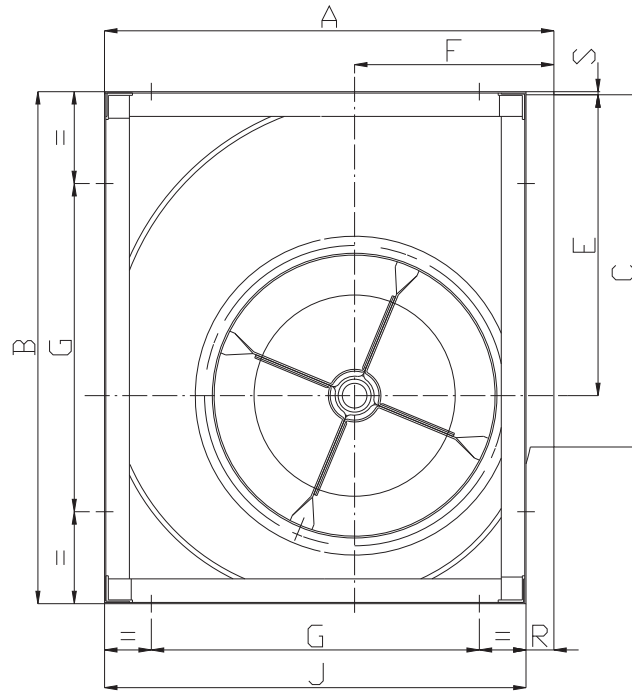
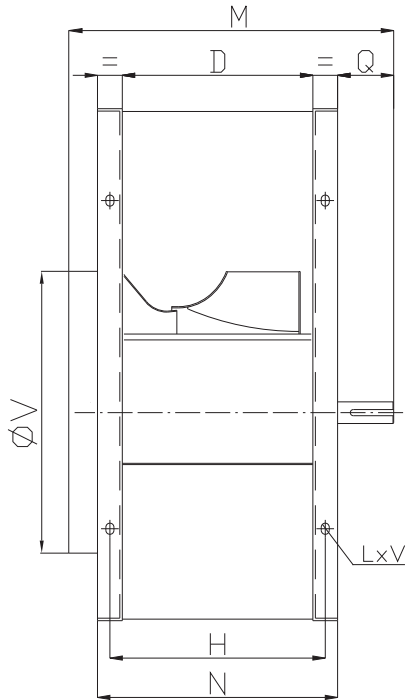


Performance certified is for installation type B - Free inlet, Ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type B: free inlet ducted outlet



ASSEMBLY DIMENSIONS

PRL TC - R series

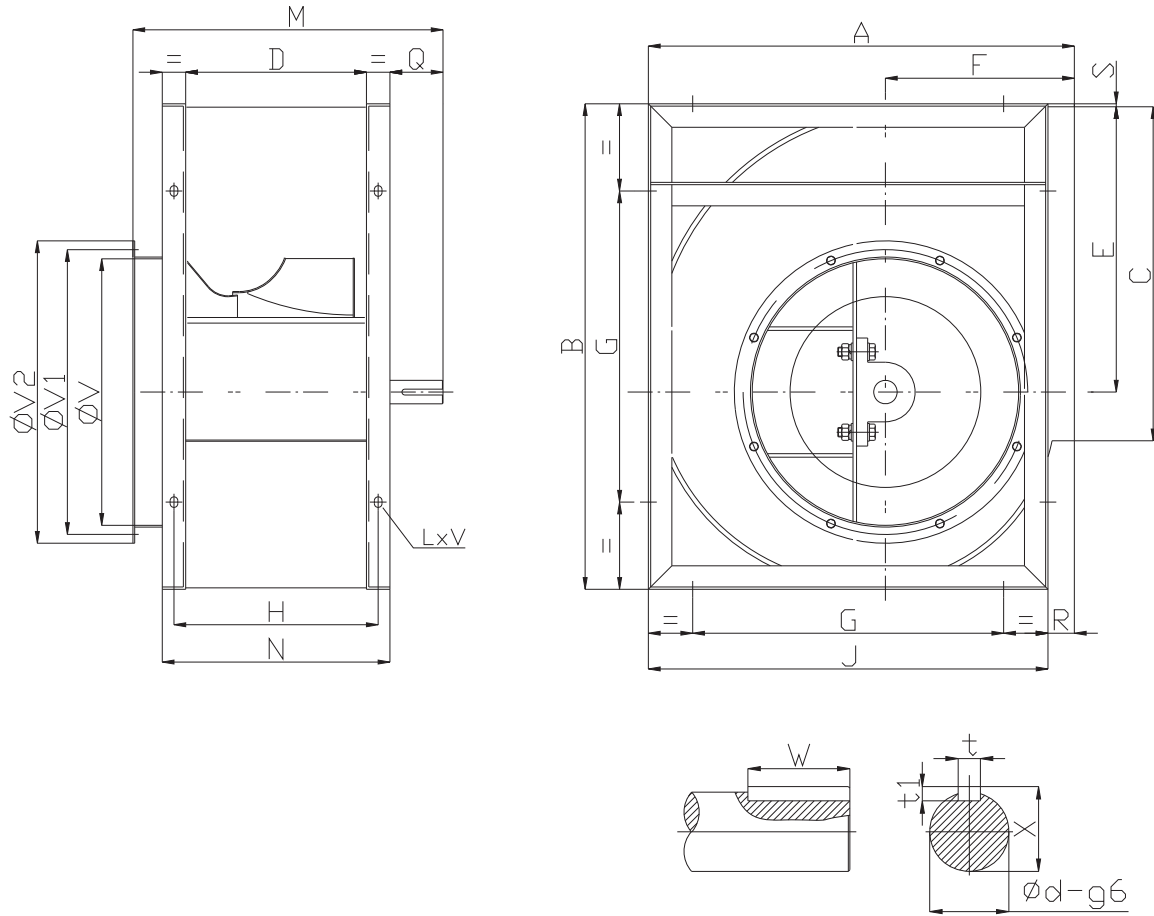


Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	t	t1	W	X	ϕd	LxV
315	518	578	404	223	340	236	280	253	480	30	395	283	83	38	3	322	8	7	60	28	25	13x18
355	578	655	453	247	383	261	355	287	548	40	425	327	78	30	6	362	8	7	60	33	30	13x18
400	651	736	507	274	431.5	290	355	314	613	40	452	354	78	38	4.5	404	8	7	60	33	30	13x18
450	726	827	569	308	486	322	530	348	681	40	500	388	92	45	5	448	10	8	70	38	35	13x18
500	800	918	638	344	538	352	530	394	750	40	535	424	92	50	5	510	10	8	70	38	35	13x18
560	893	1030	715	383	602	390	530	433	845	50	600	483	87	48	8	570	12	8	70	43	40	13x18
630	999	1157	801	432	678.5	434	530	482	946	50	650	532	87	53	7	635	14	9	70	48.5	45	13x18
710	1121	1303	898	478	765	485	630	528	1058	50	725	578	115	63	7	722	14	9	90	53.5	50	17x22



ASSEMBLY DIMENSIONS

PRL TC - E series

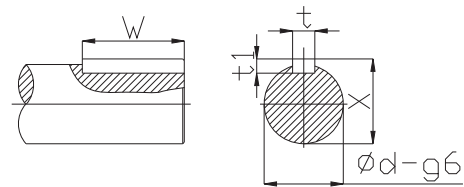
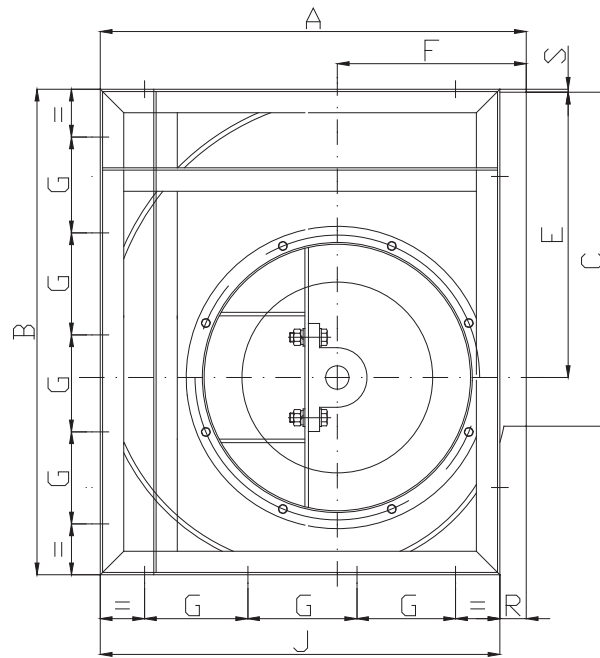
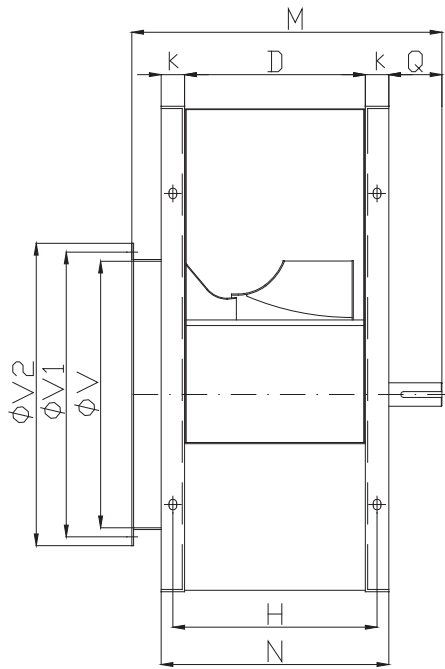


Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	V1	V2	t	t1	W	X	ϕd	LxV
315	518	578	404	223	340	236	280	253	480	30	440	283	96	38	3	322	344	383	8	7	70	33	30	13x18
355	578	655	453	247	383	261	355	287	548	40	470	327	91	30	6	362	386	423	10	8	70	38	35	13x18
400	651	736	507	274	431.5	290	355	314	613	40	497	354	91	38	4.5	404	432	466	10	8	70	38	35	13x18
450	726	827	569	308	486	322	530	348	681	40	556	388	116	45	5	448	485	515	12	8	90	43	40	13x18
500	800	918	638	344	538	352	530	394	750	40	592	424	116	50	5	510	544	570	12	8	90	43	40	13x18
560	893	1030	715	383	602	390	530	433	845	50	640	483	115	48	8	570	605	635	14	9	90	53.5	50	13x18
630	999	1157	801	432	678.5	434	530	482	946	50	690	532	115	53	7	635	670	700	14	9	90	53.5	50	13x18
710	1121	1303	898	478	765	485	630	528	1058	50	746	578	126	63	7	722	750	778	18	11	90	64	60	17x22
800	1250	1468	1007	533	862	535	710	583	1181	50	801	633	126	69	7	808	844	875	18	11	90	64	60	17x22
900	1408	1648	1130	595	971	604	800	655	1319	60	880	715	135	89	7	896	945	980	18	11	100	69	65	17x22
1000	1541	1810	1267	663	1066	657	900	713	1462	60	950	783	135	79	9	996	1044	1080	18	11	100	69	65	17x22



ASSEMBLY DIMENSIONS

PRL TC - E series

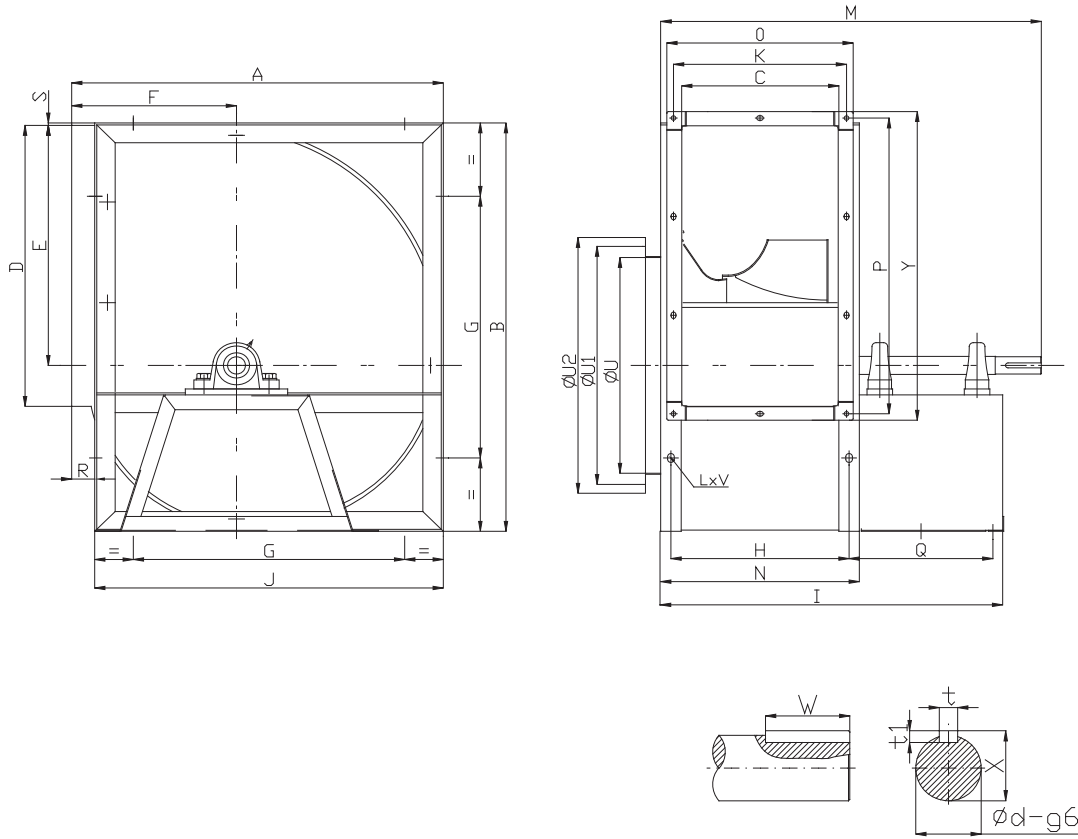


Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	V1	V2	t	t1	W	X	ϕd	LxV
1120	1748	2033	1421	722	1192	758	400	782	1630	60	1135	842	247	118	11	1130	1180	1266	18	11	140	69	65	17x22



ASSEMBLY DIMENSIONS

PRL TC - C series

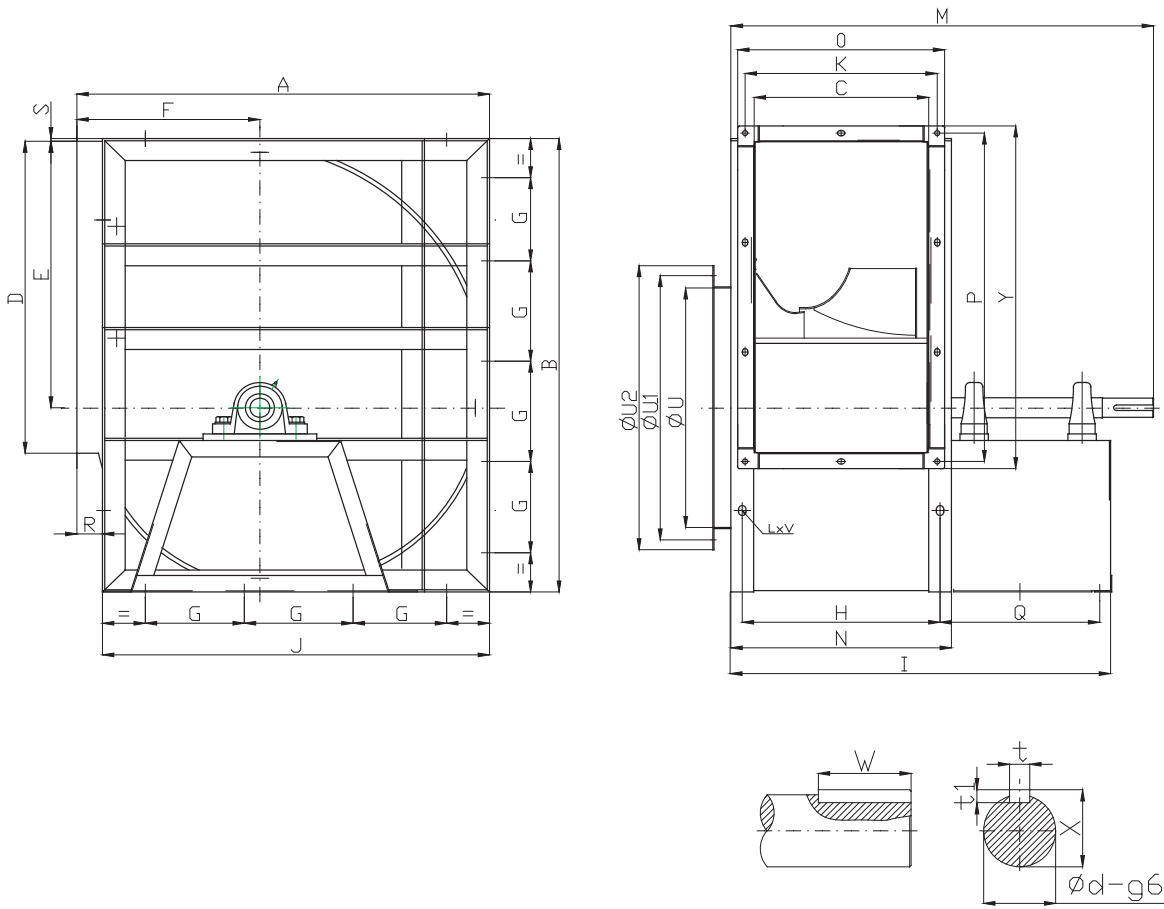


Model	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P	Q	R	S	t	t1	U	U1	U2	W	X	Y	φ d	LxV
315	518	578	223	404	340	236	280	253	556	480	233	612	283	259	434	274	38	3	8	7	322	344	383	40	28	460	25	13x18
355	578	655	247	453	383	261	355	287	627	548	260	697	327	286	483	300	30	6	8	7	362	386	423	50	33	509	30	13x18
400	651	736	274	507	431.5	290	355	314	654	613	290	724	354	316	537	300	38	4.5	8	7	404	432	466	50	33	563	30	13x18
450	726	827	308	569	486	322	530	348	728	681	318	816	388	344	599	340	45	5	10	8	448	485	515	70	38	625	35	13x18
500	800	918	344	638	538	352	530	384	764	750	350	850	424	376	668	340	50	5	10	8	510	544	570	70	38	694	35	13x18
560	893	1030	383	715	603	390	530	433	855	845	366	945	483	414	745	378	48	8	12	8	570	605	635	90	43	771	40	13x18
630	999	1157	432	801	678.5	434	530	482	904	946	434	994	532	460	831	378	53	7	12	8	635	670	700	90	43	857	40	13x18
710	1121	1303	478	898	765	485	630	528	1005	1058	483	1115	578	512	928	436	63	7	14	9	722	750	778	90	48.5	954	45	17x22
800	1250	1468	533	1007	862	535	710	583	1060	1181	541	1170	633	567	1039	440	69	7	14	9	808	844	875	90	48.5	1063	45	17x22
900	1408	1648	595	1130	971	604	800	655	1191	1319	602	1313	715	613	1160	510	89	7	16	10	896	945	980	100	58.5	1186	55	17x22
1000	1541	1810	663	1267	1066	657	900	713	1259	1462	668	1381	783	694	1297	510	79	9	16	10	996	1044	1080	100	58.5	1323	55	17x22



ASSEMBLY DIMENSIONS

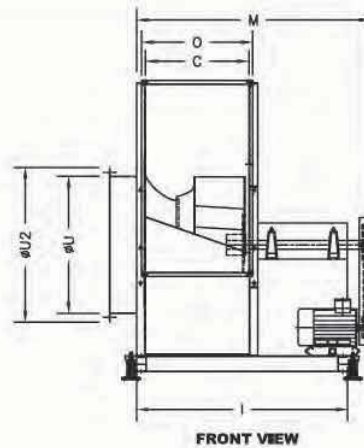
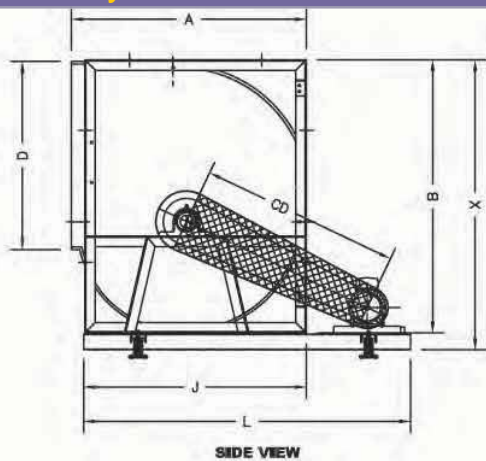
PRL TC - C series



Model	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P	Q	R	S	t	t1	U	U1	U2	W	X	Y	φd	LxV
1120	1748	2033	722	1421	1192	758	400	782	1397	1630	777	1583	842	825	1478	572	118	11	18	11	1130	1180	1266	120	69	1526	65	17x22



Assembly dimensions - LG 180



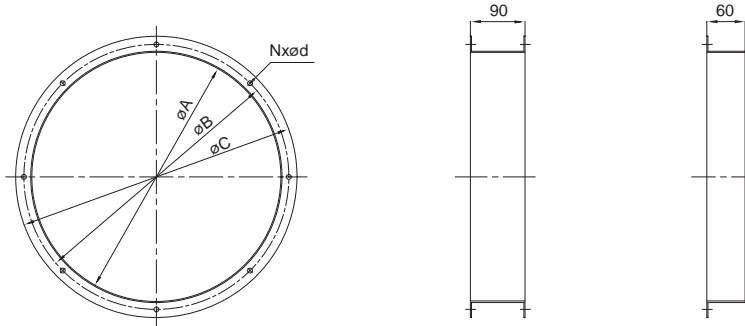
MODEL	A	B	C	D	J	I	X	M	O	U	U2
280	466	518	197	361	432	675	568	590	239	292	355
315	518	578	223	404	480	700	628	612	259	322	383
355	578	655	247	453	548	755	705	697	286	362	423
400	651	736	274	507	613	800	786	724	316	404	466
450	726	827	308	569	681	894	877	816	344	448	515
500	800	918	344	638	750	930	968	850	376	510	570
560	893	1030	383	715	845	1020	1093	945	414	570	635
630	999	1157	432	801	946	1065	1220	994	460	635	700
710	1121	1303	478	898	1058	1185	1366	1115	512	722	778
800	1250	1468	533	1007	1181	1245	1548	1170	567	808	875
900	1408	1648	595	1130	1319	1375	1728	1313	613	896	980
1000	1541	1810	663	1267	1462	1450	1890	1381	694	996	1080

For Higher models contact factory - Technical department

MODEL	DIM	FRAME SIZE									
		80	90	100	112	132	160	180	200	225	250
280	CD	410	420	430	440	450					
	L	760	780	800	850	870					
315	CD	440	450	460	470	480					
	L	800	820	850	900	920					
355	CD	480	490	500	510	520					
	L	850	860	900	960	980					
400	CD		540	550	560	570	570				
	L		930	980	1030	1050	1100				
450	CD		590	600	610	620	620				
	L		1000	1050	1100	1120	1200				
500	CD		650	660	670	680	680				
	L		1100	1130	1180	1200	1280				
560	CD			720	730	740	750	760			
	L			1210	1260	1280	1360	1400			
630	CD			795	805	815	830	840	850		
	L			1310	1360	1380	1450	1500	1550		
710	CD			885	895	905	920	930	940	950	
	L			1430	1480	1500	1570	1620	1670	1700	
800	CD				990	1000	1015	1025	1035	1045	1055
	L				1580	1600	1650	1720	1770	1820	1880
900	CD				1110	1110	1125	1135	1145	1155	1165
	L				1730	1750	1800	1880	1920	1980	2050
1000	CD				1215	1230	1240	1250	1260	1270	1280
	L				1900	1950	2030	2070	2130	2200	2250

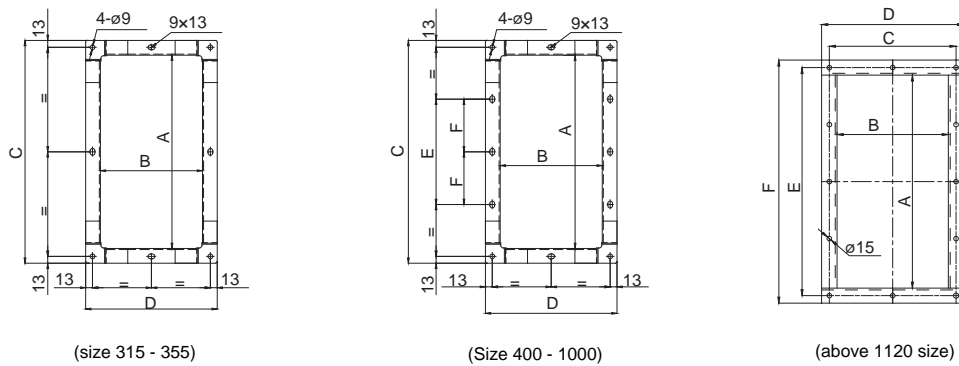


INLET FLANGE



Type	315	355	400	450	500	560	630	710	800	900	1000	1120
A	322	362	404	448	510	570	635	722	808	896	996	1130
B	344	386	432	485	544	605	670	750	844	945	1044	1180
C	383	423	466	515	570	635	700	778	875	980	1080	1226
N x d	6 x 7	8 x 9	8 x 9	8 x 9	8 x 11	8 x 11	10 x 13	10 x 13	12 x 13	12 x 13	12 x 13	12 x 15

OUTLET FLANGE



(size 315 - 355)

(Size 400 - 1000)

(above 1120 size)

Type	315	355	400	450	500	560	630	710	800	900	1000	1120
A	404	453	507	569	638	715	801	898	1007	1130	1267	1426
B	223	247	274	308	344	383	432	478	533	595	663	725
C	460	509	563	625	684	771	857	954	1063	1186	1323	777
D	279	303	330	364	400	439	488	534	589	651	719	825
E	-	-	200	200	250	250	300	400	500	600	700	1478
F	-	-	-	-	-	-	-	200	250	300	350	1526



PRL-TC Series Operation Limits

Characteristics	Unit	315	355	400	450	500	560
Maximum Absorbed Power	Kw	4	6	7	7	15	18
Maximum Fan Speed	r pm	4000	3800	3200	2800	2800	2600
Temperature Range / min - 20°C	Max ⁰ C	180	180	180	180	180	180
Fan Weight (does not include motor, base frame and drive setup)	Kg	37	50	55	72	89	138

Characteristics	Unit	630	710	800	900	1000	1120
Maximum Absorbed Power	Kw	20	22	25	30	45	80
Maximum Fan Speed	rpm	2200	2000	1600	1400	1400	1300
Temperature Range / min - 20°C	Max ⁰ C	180	180	180	180	180	180
Fan Weight (does not include motor, base frame and drive setup)	Kg	161	215	252	360	445	610



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