Comfort

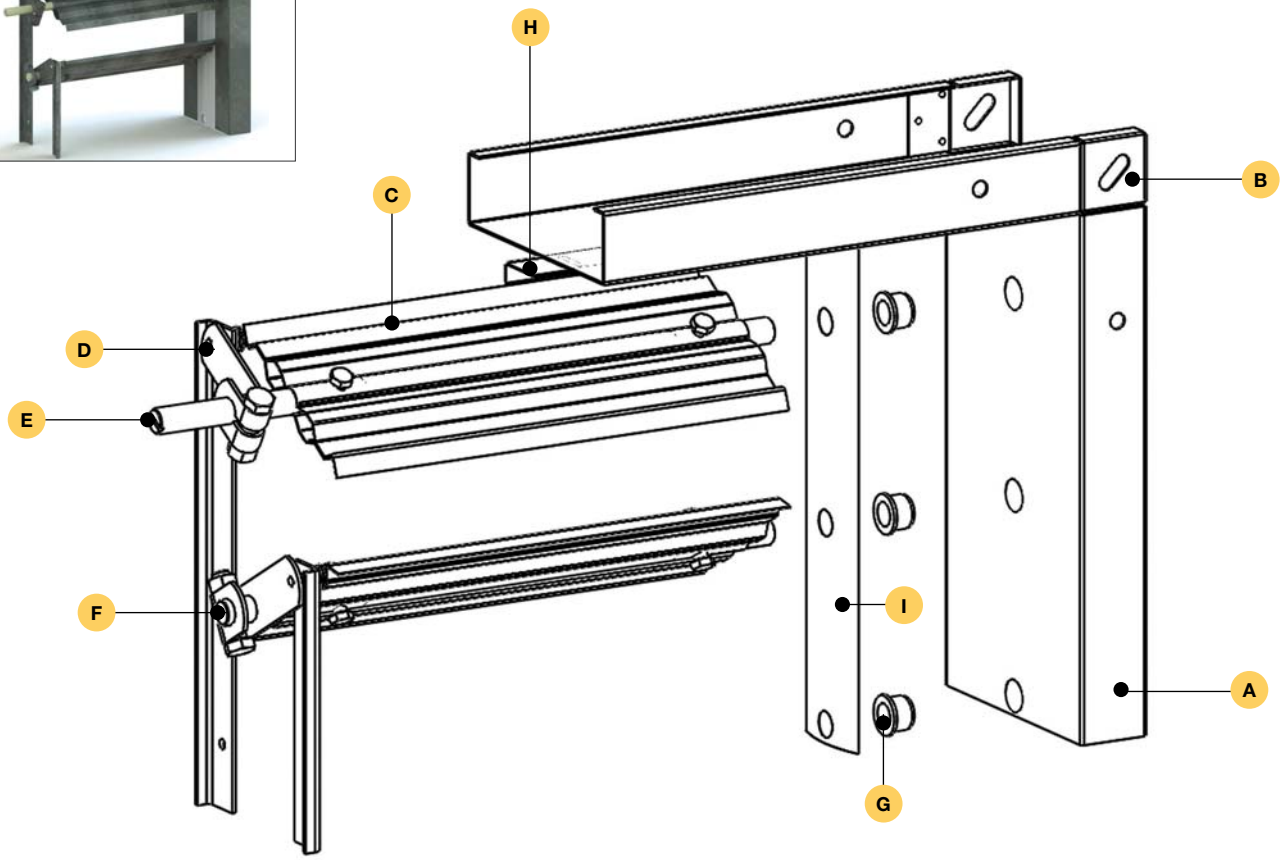
GTE 05

Adjusting damper 100 pitch

SagiCofim

Ecoefficiency for Indoor Air Quality

GTE 05



Use range of the damper:

in ATEX version	$-20\,°C \le t \le +50\,°C$ - V_{max} 15 m/s - P_{max} 3000 Pa
in SAFE area	$-20\,°C \le t \le +70\,°C$ - V_{max} 25 m/s - P_{max} 3000 Pa

Specific features of the product

	Part	**STANDARD** version Construction	Description	Thick. (mm)
A	**Frame**	Galvanised metal sheet Z140	Single, bent piece* - Flange 36	1
B	**Corners**	Galvanised metal sheet Z140	With fastening eyelet. Point on frame	1
C	**Blades**	Galvanised steel	Opposite movement	0.6+0.6
D	**External levers**	Galvanised	Combined crank handles and rods	
E	**Drive shaft**	Galvanised steel	Fastened to the blades with screws and nuts (with frame panel for automation)	Ø 12
F	**Shafts**	Galvanised steel	Fastened to the blades with screws and nuts	Ø 12
G	**Bushes**	AXTROMID A 2800 (Nylon)	Applied to the shaft holes on the frame heights	Ø 12
H	**Stops**	Galvanised metal sheet Z140		0,6
I	**Side sealing plates**	Aluminium		0,2

Note: in the ATEX version, the damper is equipped with a a specific label and earthing cable.
To establish the actual use range, check the data in the technical data sheet for the combined motors.

* Up to size 1500 x 1500. Over, in two pieces.

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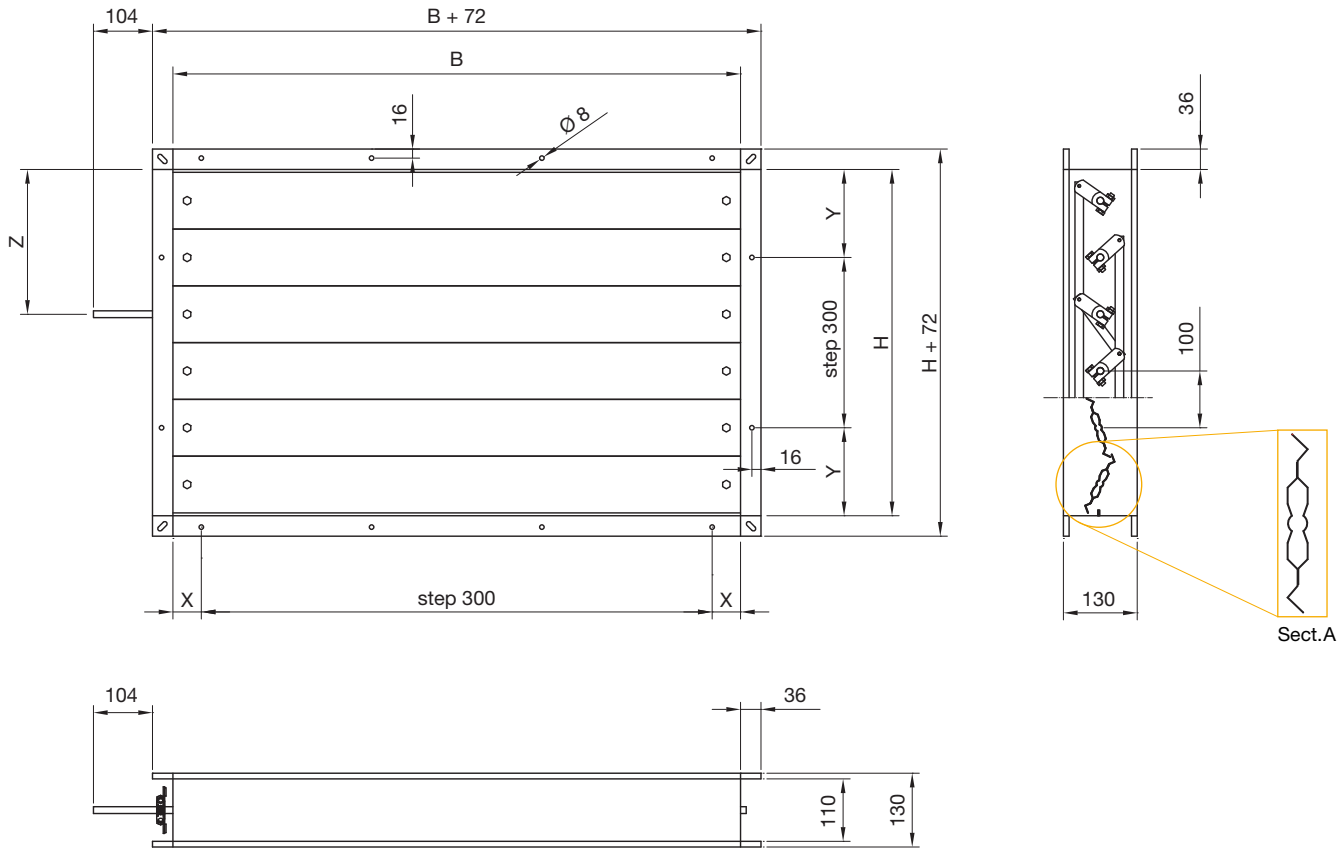
Dimensional
Measurements are in (mm)



Tab.1

B (mm)	X (mm)	B (mm)	X (mm)
200	-	**1200**	150
250	-	**1250**	175
300	-	**1300**	50
350	175	**1350**	75
400	50	**1400**	100
450	75	**1450**	125
500	100	**1500**	150
550	125		
600	150		
650	175		
700	50		
750	75		
800	100		
850	125		
900	150		
950	175		
1000	50		
1050	75		
1100	100		
1150	125		

Tab.2

H (mm)	Y (mm)	No. blades	Z (mm)	H (mm)	Y (mm)	No. blades	Z (mm)
210	-	2	55	**1210**	155	12	655
250	-	2	75	**1250**	175	12	675
310	-	3	55	**1310**	55	13	655
350	175	3	75	**1350**	75	13	675
410	55	4	255	**1410**	105	14	655
450	75	4	275	**1450**	125	14	675
510	105	5	255	**1510**	155	15	655
550	125	5	275	**1550**	175	15	675
610	155	6	255	**1610**	55	16	855
650	175	6	275	**1650**	75	16	875
710	55	7	255	**1710**	105	17	855
750	75	7	275	**1750**	125	17	875
810	105	8	455	**1810**	155	18	855
850	125	8	475	**1850**	175	18	875
910	155	9	455	**1910**	55	19	855
950	175	9	475	**1950**	75	19	875
1010	55	10	455	**2010**	105	20	1055
1050	75	10	475				
1110	105	11	455				
1150	125	11	475				

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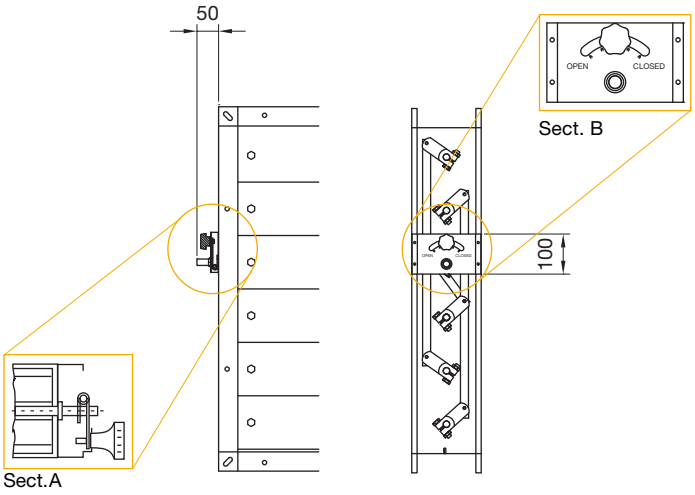
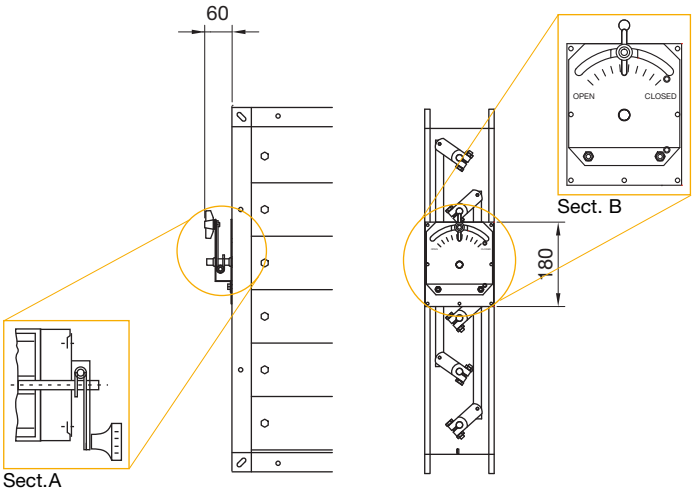
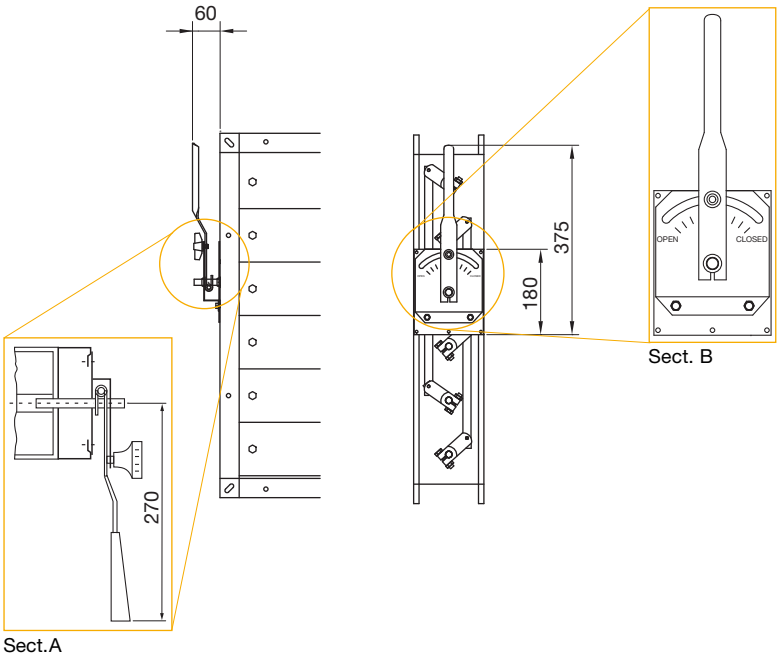
Manual commands
Measurements are in (mm)



C 20 Up to 0.5 m²
Command weight 0.2 kg



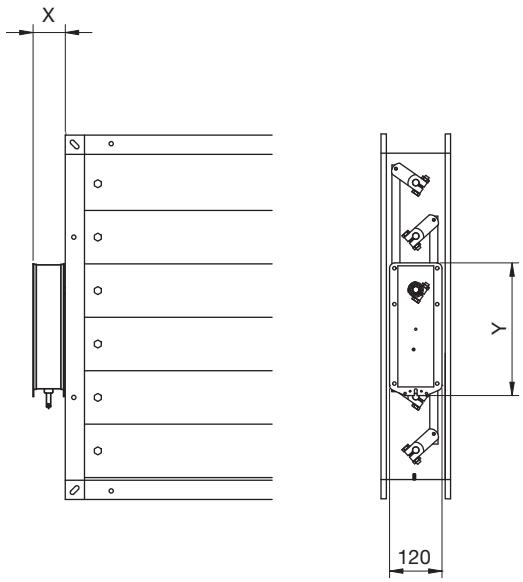
C 21 Up to 1.2 m²
Command weight 0.5 kg



C 22 Over 1.2 m²
Command weight 0.7 kg

- All the manual commands are equipped with a lever locking mechanism in the requested position.

Automated version



- The damper can be equipped with electric motors for the Safe area and the ATEX area, both on/off and modular and with spring return.
- The maximum dimensions of the motor without accessories are:
  BELIMO: X = 80 mm; Y = 250 mm
  SCHISCHEK X = 100 mm; Y = 210 mm
- **ON REQUEST** Motors assembled inside the air flow.

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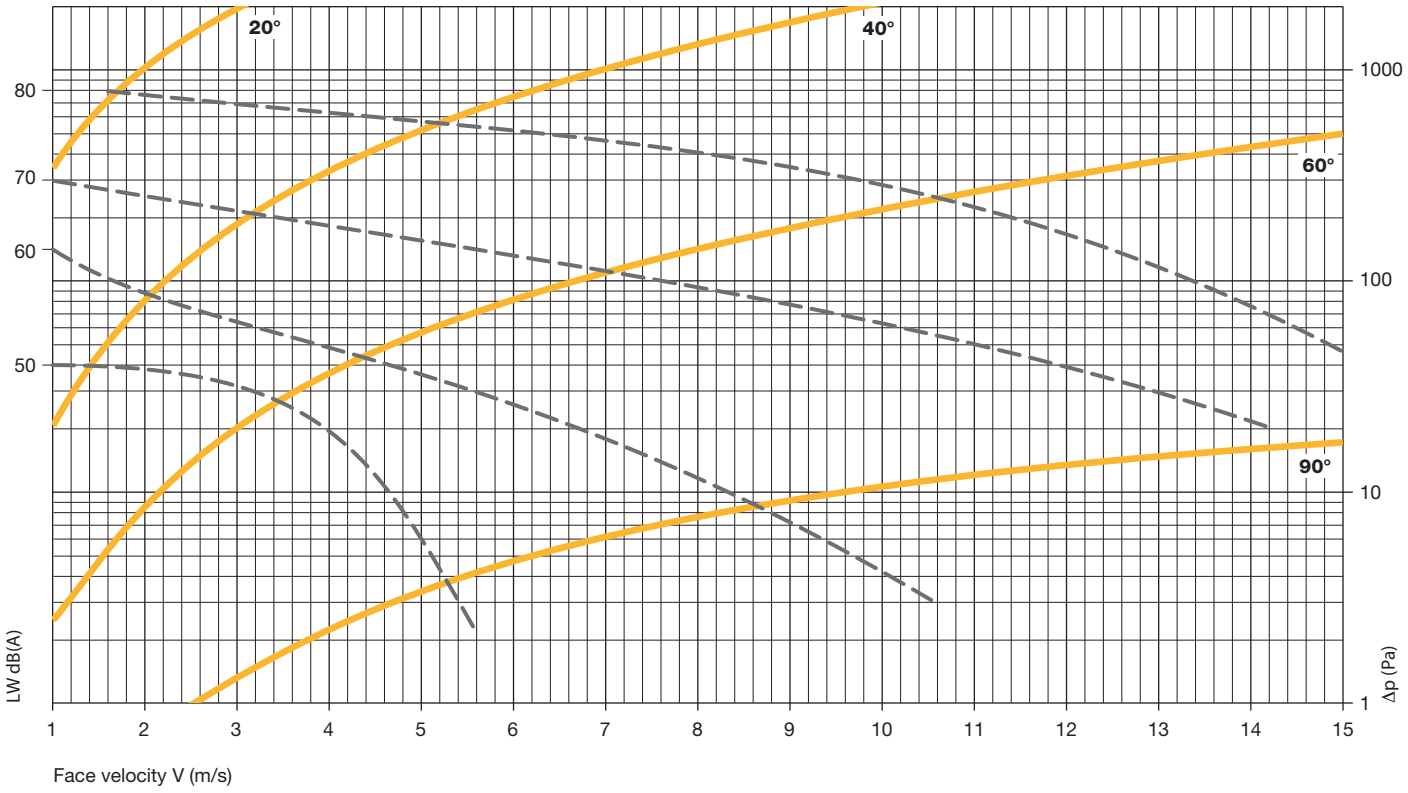
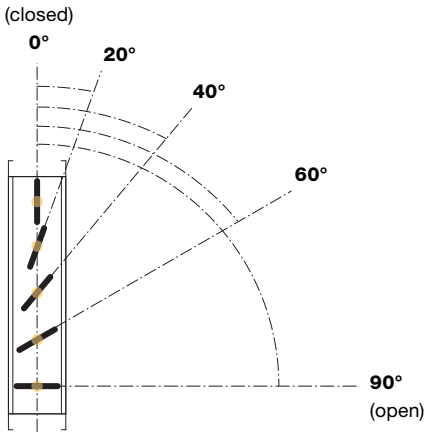
Diagram 1 - Pressure drop and sound power level



Pressure drop referring to sample 1000 x 1010 mm

	Degrees of damper opening			
	90°	**60°**	**40°**	**20°**
V (m/s)	Δp (Pa)			
1	1	3	21	350
3	2	21	190	2000
6	5	83	762	
9	10	182	1723	
12	14	321	3145	
15	18	509	5091	



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Tab. 3 Maximum torque (Nm)

H (mm)	B (mm)													
	200	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
210	1	1	1	1	1	1	1	2	2	2	2	2	2	2
310	1	1	2	2	2	2	2	2	2	3	3	3	3	3
410	2	2	2	2	2	3	3	3	3	4	4	4	4	4
510	2	2	3	3	3	3	4	4	4	4	5	5	5	5
610	2	3	3	3	4	4	4	5	5	5	6	6	6	7
710	3	3	4	4	4	5	5	5	6	6	7	7	7	8
810	3	4	4	5	5	5	6	6	7	7	7	8	8	9
910	4	4	5	5	6	6	6	7	7	8	8	9	9	10
1010	4	5	5	6	6	7	7	8	8	9	9	10	10	11
1110	4	5	6	6	7	7	8	8	9	10	10	11	11	12
1210	5	5	6	7	7	8	9	9	10	11	11	12	12	13
1310	5	6	7	7	8	9	9	10	11	11	12	13	13	14
1410	6	6	7	8	9	9	10	11	12	12	13	14	14	15
1510	6	7	8	8	9	10	11	12	12	13	14	15	16	16
1610	6	7	8	9	10	11	12	12	13	14	15	16	17	17
1710	7	8	9	10	10	11	12	13	14	15	16	17	18	18
1810	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1910	8	9	10	11	12	13	14	15	16	17	18	19	20	21
2010	8	9	10	11	12	13	14	15	17	18	19	20	21	22

NOTE: The torque values, outlined in the table, are intended for correct movement and total closure of the damper.

For the dimensions not outlined in the table, refer to the torque values of the immediately larger size.

Tab. 4 Dimensions and weights for single section structure*

H (mm)	B (mm)													
	200	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
210	4	4	5	5	6	6	7	7	8	9	9	10	10	11
310	5	5	6	6	7	8	8	9	10	10	11	12	12	13
410	5	6	7	8	8	9	10	11	11	12	13	14	14	15
510	6	7	8	9	10	11	11	12	13	14	15	16	17	17
610	7	8	9	10	11	12	13	14	15	16	17	18	19	20
710	8	9	10	11	12	13	15	16	17	18	19	20	21	22
810	9	10	12	13	14	15	16	17	18	19	21	22	23	24
910	10	11	13	14	15	16	18	19	20	21	22	24	25	26
1010	11	12	14	15	16	18	19	20	22	23	24	26	27	28
1110	12	13	15	16	18	19	21	22	23	25	26	28	29	31
1210	13	15	16	18	19	21	22	24	25	27	28	30	31	33
1310	14	16	17	19	20	22	24	25	27	28	30	32	33	35
1410	15	17	18	20	22	23	25	27	29	30	32	34	35	37
1510	16	18	19	21	23	25	27	28	30	32	34	36	37	39
1610	17	19	21	22	24	26	28	30	32	34	36	38	40	41
1710	18	20	22	24	26	28	30	32	34	36	38	40	42	44
1810	19	21	23	25	27	29	31	33	35	38	40	42	44	46
1910	20	22	24	26	28	31	33	35	37	39	41	44	46	48
2010	21	23	25	27	30	32	34	37	39	41	43	46	48	50

Weights (kg)

* Weights refer to dampers only without commands or motors.
B > 1500: two sections divided by a central separator, one command pin
H > 2010: reinforcement rods mid height

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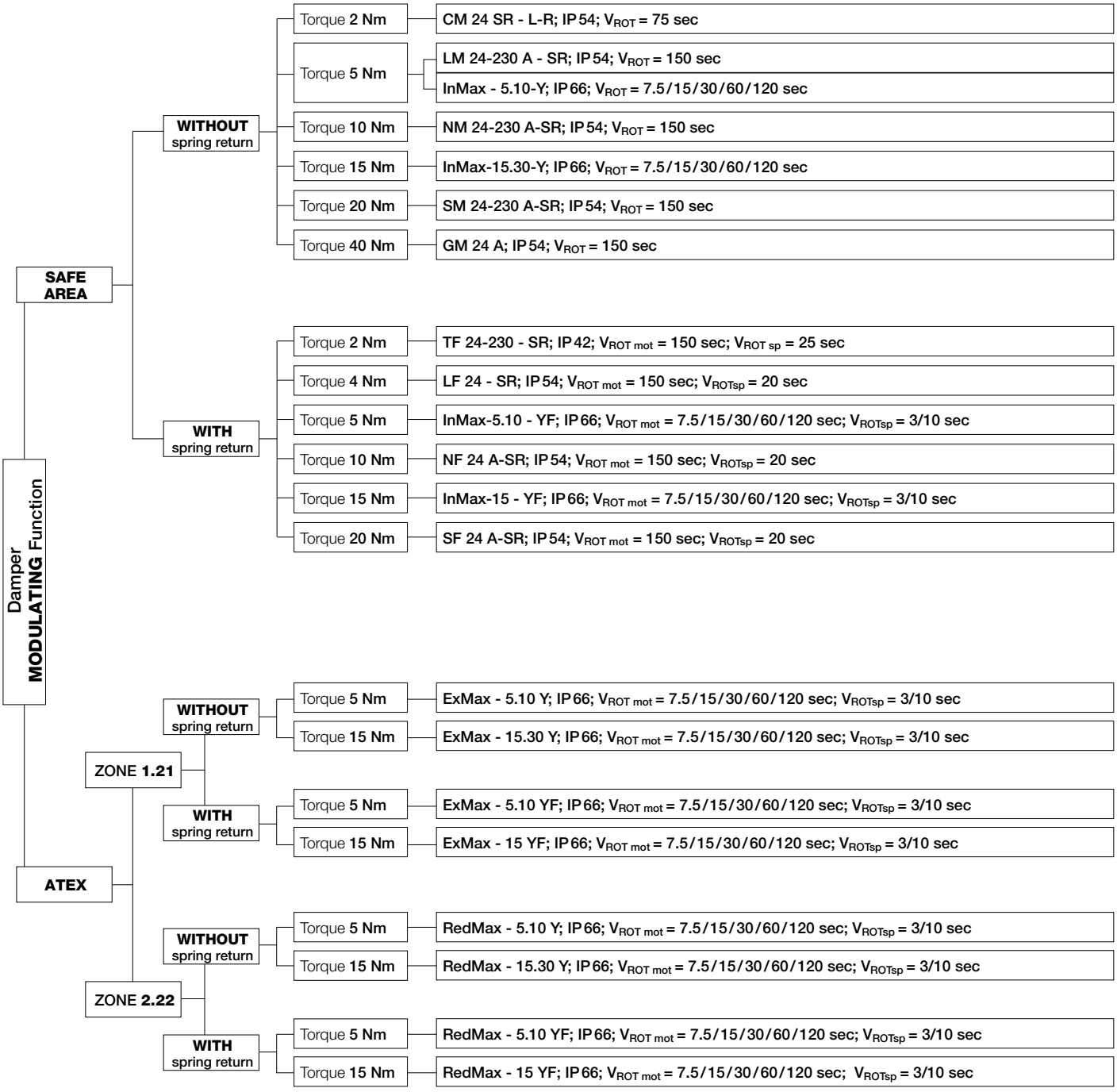
Motor selection guide

The values, outlined, of the motor torque are nominal values (i.e. the minimum guaranteed value in all use conditions according to the technical data sheet of the motor).

In light operating conditions:
$v < 2$ m/s, $t\ 15 < t < 30$ °C, $p < 300$ Pa
a motor can be combined with the damper with a nominal torque 20% lower than the maximum torque required by the damper (see tab. 3).



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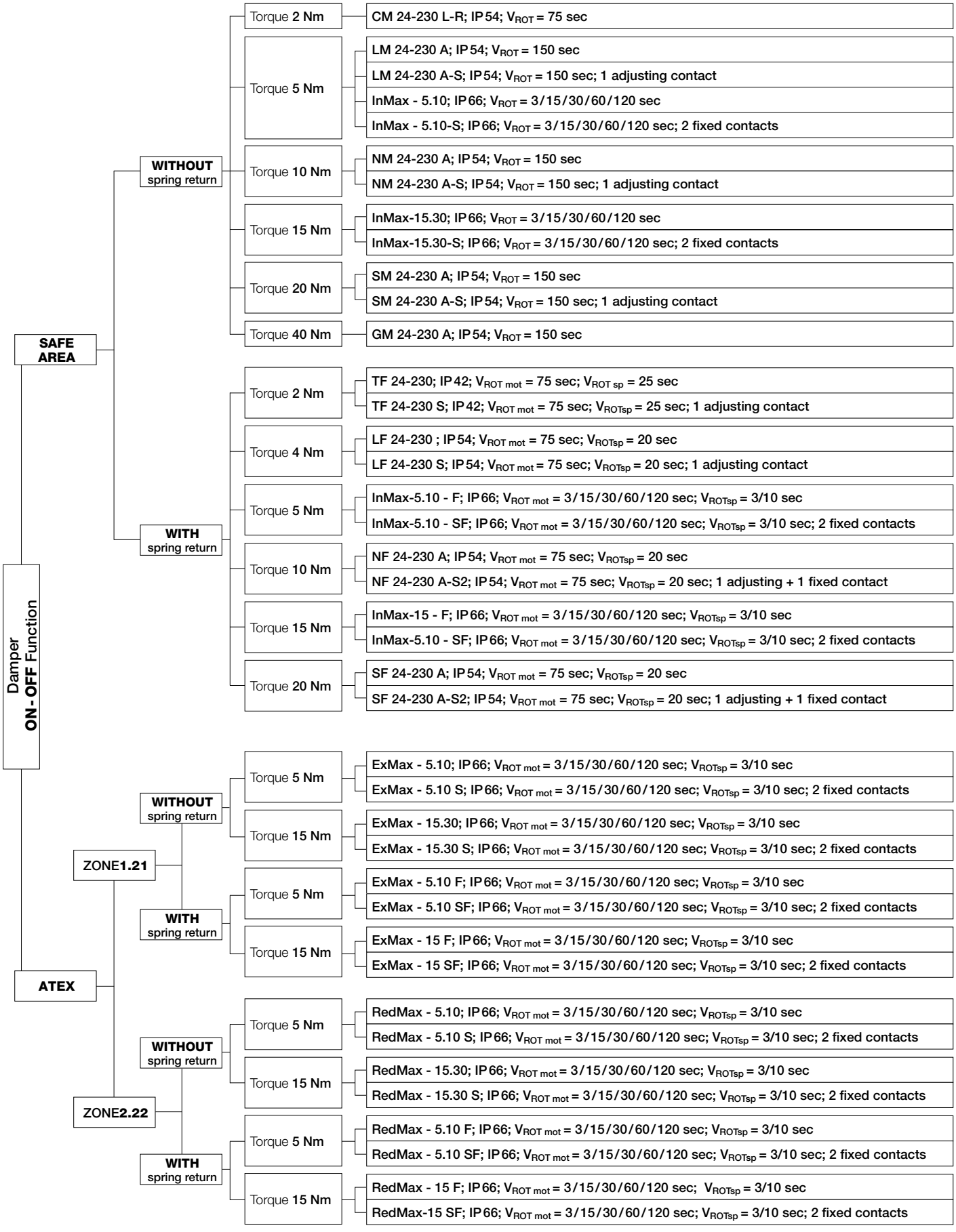
Damper
ON - OFF Function
SAFE AREA
ATEX
WITHOUT spring return
WITH spring return
ZONE1.21
ZONE2.22
Torque 2 Nm
Torque 5 Nm
Torque 10 Nm
Torque 15 Nm
Torque 20 Nm
Torque 40 Nm
Torque 4 Nm
CM 24-230 L-R; IP54; V_ROT = 75 sec
LM 24-230 A; IP54; V_ROT = 150 sec
LM 24-230 A-S; IP54; V_ROT = 150 sec; 1 adjusting contact
InMax - 5.10; IP66; V_ROT = 3/15/30/60/120 sec
InMax - 5.10-S; IP66; V_ROT = 3/15/30/60/120 sec; 2 fixed contacts
NM 24-230 A; IP54; V_ROT = 150 sec
NM 24-230 A-S; IP54; V_ROT = 150 sec; 1 adjusting contact
InMax-15.30; IP66; V_ROT = 3/15/30/60/120 sec
InMax-15.30-S; IP66; V_ROT = 3/15/30/60/120 sec; 2 fixed contacts
SM 24-230 A; IP54; V_ROT = 150 sec
SM 24-230 A-S; IP54; V_ROT = 150 sec; 1 adjusting contact
GM 24-230 A; IP54; V_ROT = 150 sec
TF 24-230; IP42; V_ROT mot = 75 sec; V_ROT sp = 25 sec
TF 24-230 S; IP42; V_ROT mot = 75 sec; V_ROTsp = 25 sec; 1 adjusting contact
LF 24-230 ; IP54; V_ROT mot = 75 sec; V_ROTsp = 20 sec
LF 24-230 S; IP54; V_ROT mot = 75 sec; V_ROTsp = 20 sec; 1 adjusting contact
InMax-5.10 - F; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
InMax-5.10 - SF; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
NF 24-230 A; IP54; V_ROT mot = 75 sec; V_ROTsp = 20 sec
NF 24-230 A-S2; IP54; V_ROT mot = 75 sec; V_ROTsp = 20 sec; 1 adjusting + 1 fixed contact
InMax-15 - F; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
InMax-5.10 - SF; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
SF 24-230 A; IP54; V_ROT mot = 75 sec; V_ROTsp = 20 sec
SF 24-230 A-S2; IP54; V_ROT mot = 75 sec; V_ROTsp = 20 sec; 1 adjusting + 1 fixed contact
ExMax - 5.10; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
ExMax - 5.10 S; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
ExMax - 15.30; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
ExMax - 15.30 S; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
ExMax - 5.10 F; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
ExMax - 5.10 SF; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
ExMax - 15 F; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
ExMax - 15 SF; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
RedMax - 5.10; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
RedMax - 5.10 S; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
RedMax - 15.30; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
RedMax - 15.30 S; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
RedMax - 5.10 F; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
RedMax - 5.10 SF; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts
RedMax - 15 F; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec
RedMax-15 SF; IP66; V_ROT mot = 3/15/30/60/120 sec; V_ROTsp = 3/10 sec; 2 fixed contacts

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Diagram 2 - Casing leakage (Class B)

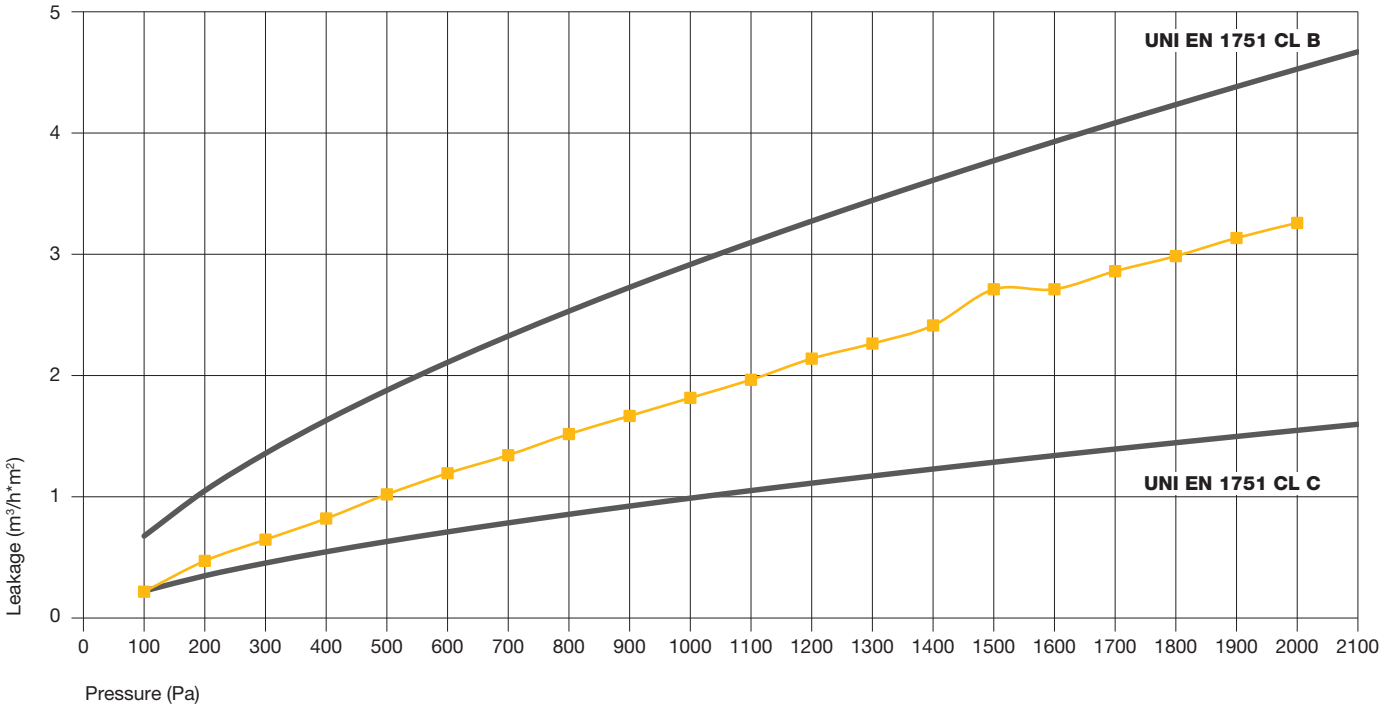
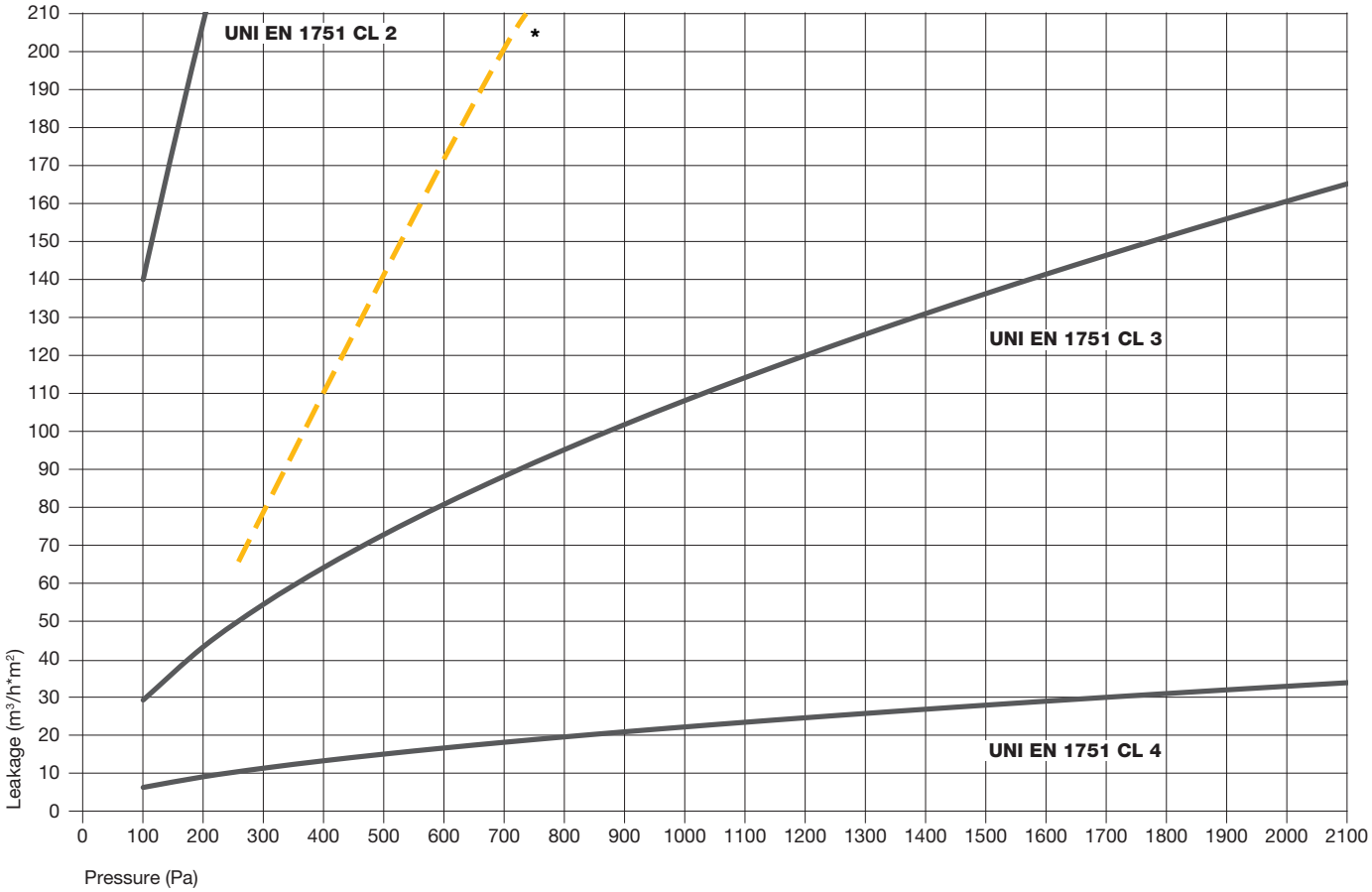


Diagram 3 - Closed damper leakage (Class 2)



Sample tests carried out on sizes 1000 x 1010 mm, in our laboratory. Results can be extended to the entire dimensional range of the product (see tab.1 page 4). Instrumentation, measurement and control systems in compliance with Standard EN 1751.
Laboratory created in collaboration with the Politecnico di Milano, Engineering Faculty. ISO 9001 and ISO 14001 Certified Company.

*** Average performance**

GTE 05

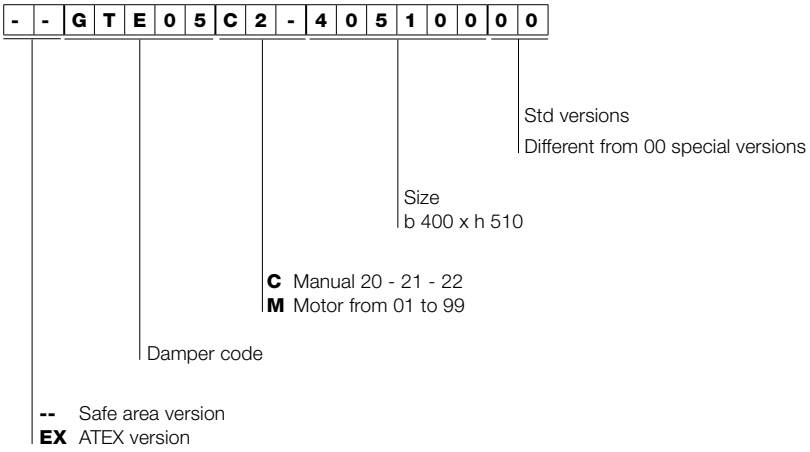
Assembly applications

- Fastening to duct using M6 bolts.
- Seal between the damper flange and duct.
- Do not install in areas subject to stress phenomena, i.e. vibrations, bending or cyclic torsion.
- Do not deform or twist the frame during maintenance and installation operations.
- Install in areas protected from atmospheric agents.

Maintenance

- Before any intervention on the product use the planned IPD and then cut power to the command systems.
- To clean, use substances or liquids that are NON-acidic and NON-abrasive
- Do not paint levers or pins
- Do not use paste lubricants only spray.
- Periodically check the damper move freely; remove solid residue in the bushes-shafts gaps.

Product code



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