



Characteristics

Shut-off volume control dampers 100 mm pitch leakage.
Certified class 4 according to EN 1751.

Material

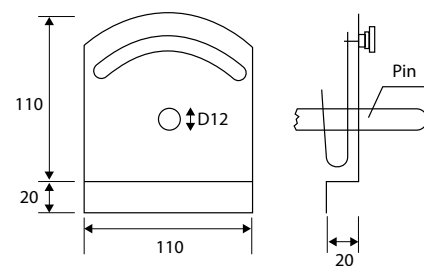
Extruded aluminium frame.
Extruded aluminium blades with gasket.
Nylon spindles.

Fixing

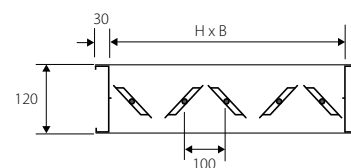
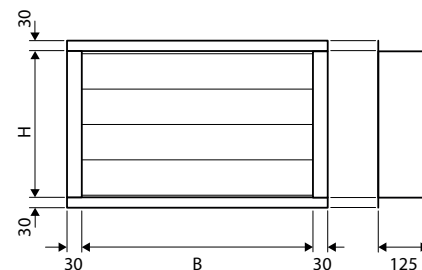
By bolts on flanges corners.

Model

ZR-A/R opposed blade damper with manual control.
ZR-A/M: opposed blade damper with pin for servo-motor.



ZR-A-4



Order key

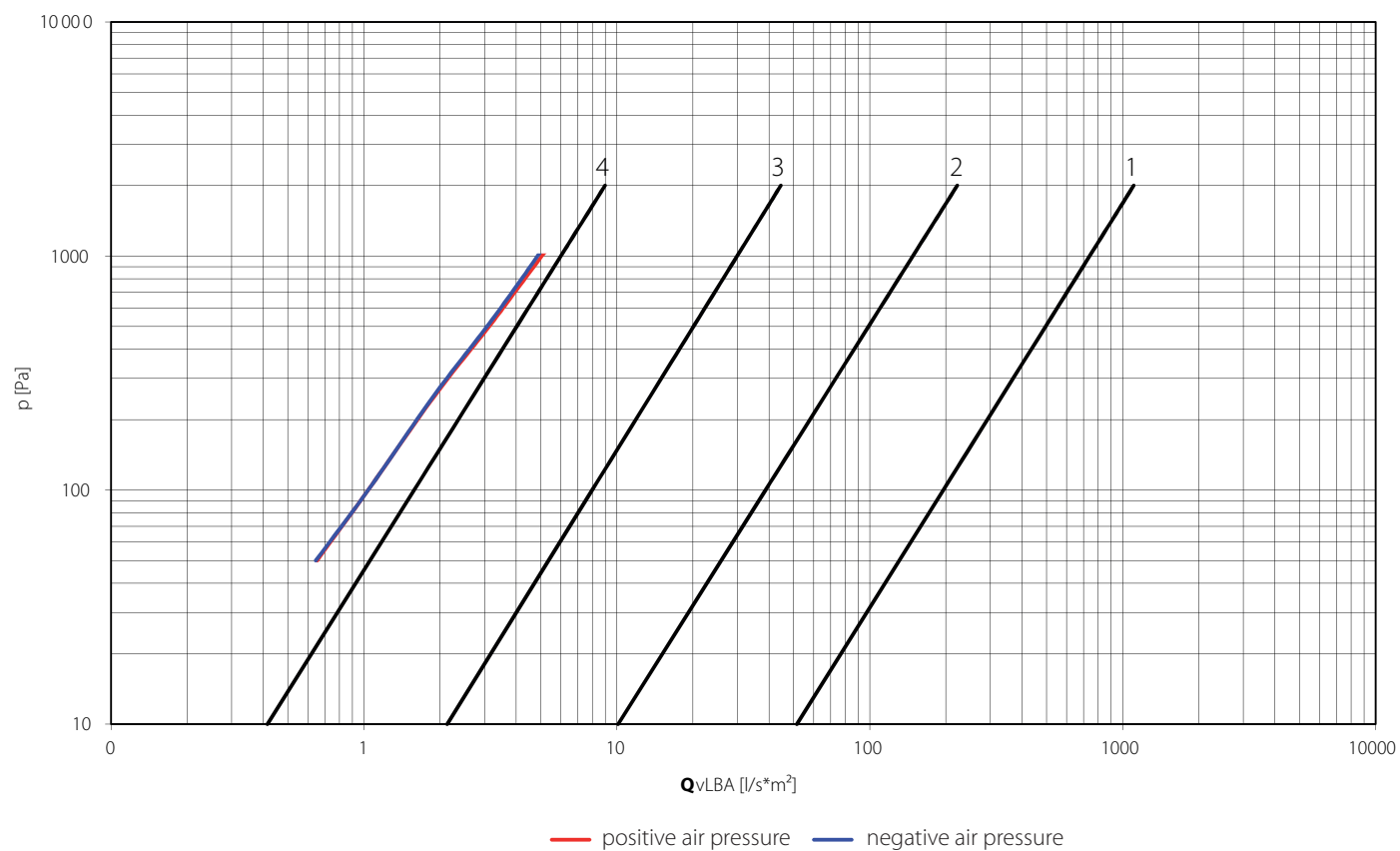
ZR-A-4 / 600 x 410 / M

M - Prepared for electric drive
R - Manual regulation

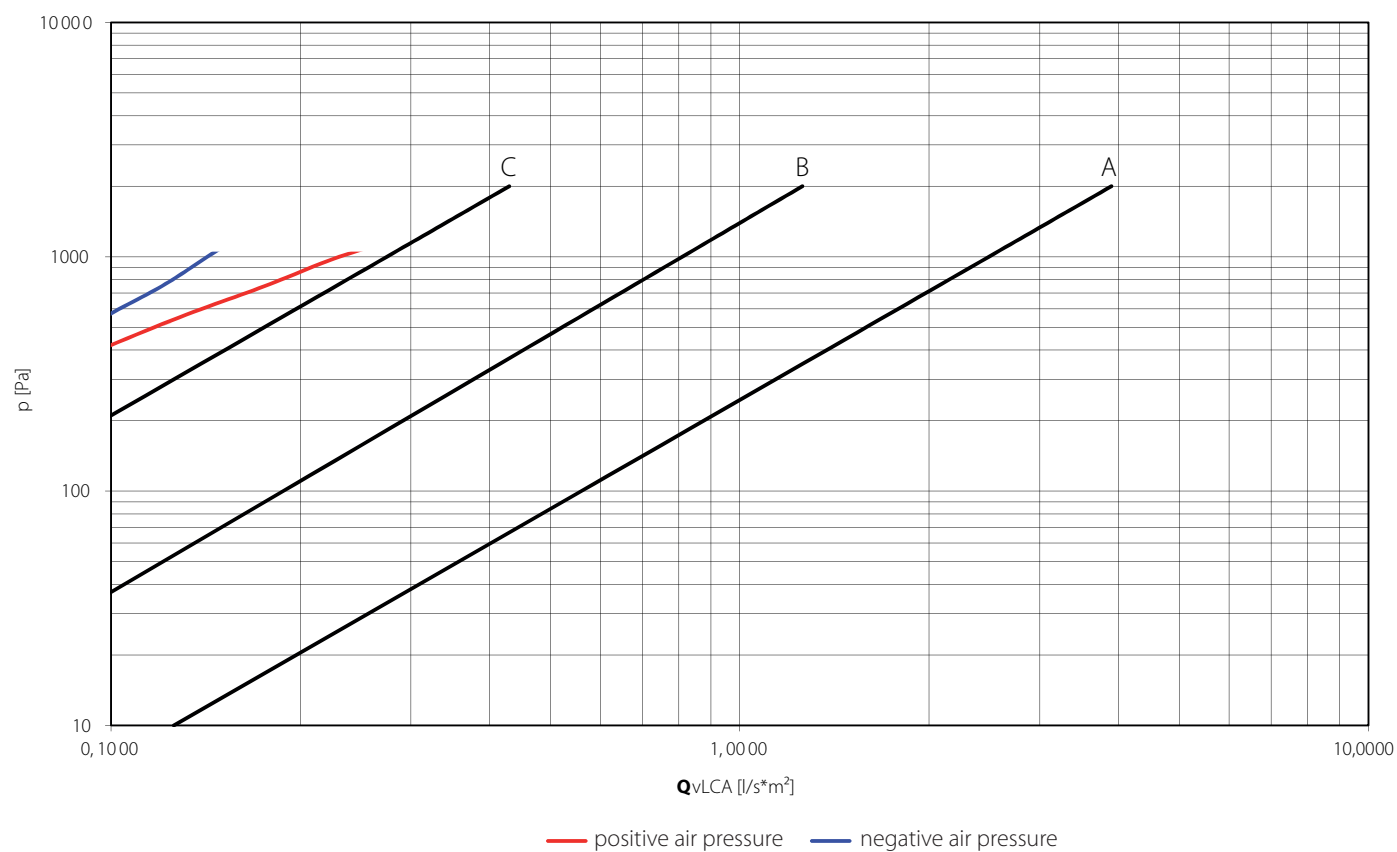
Size

Model

Flaps airtightness



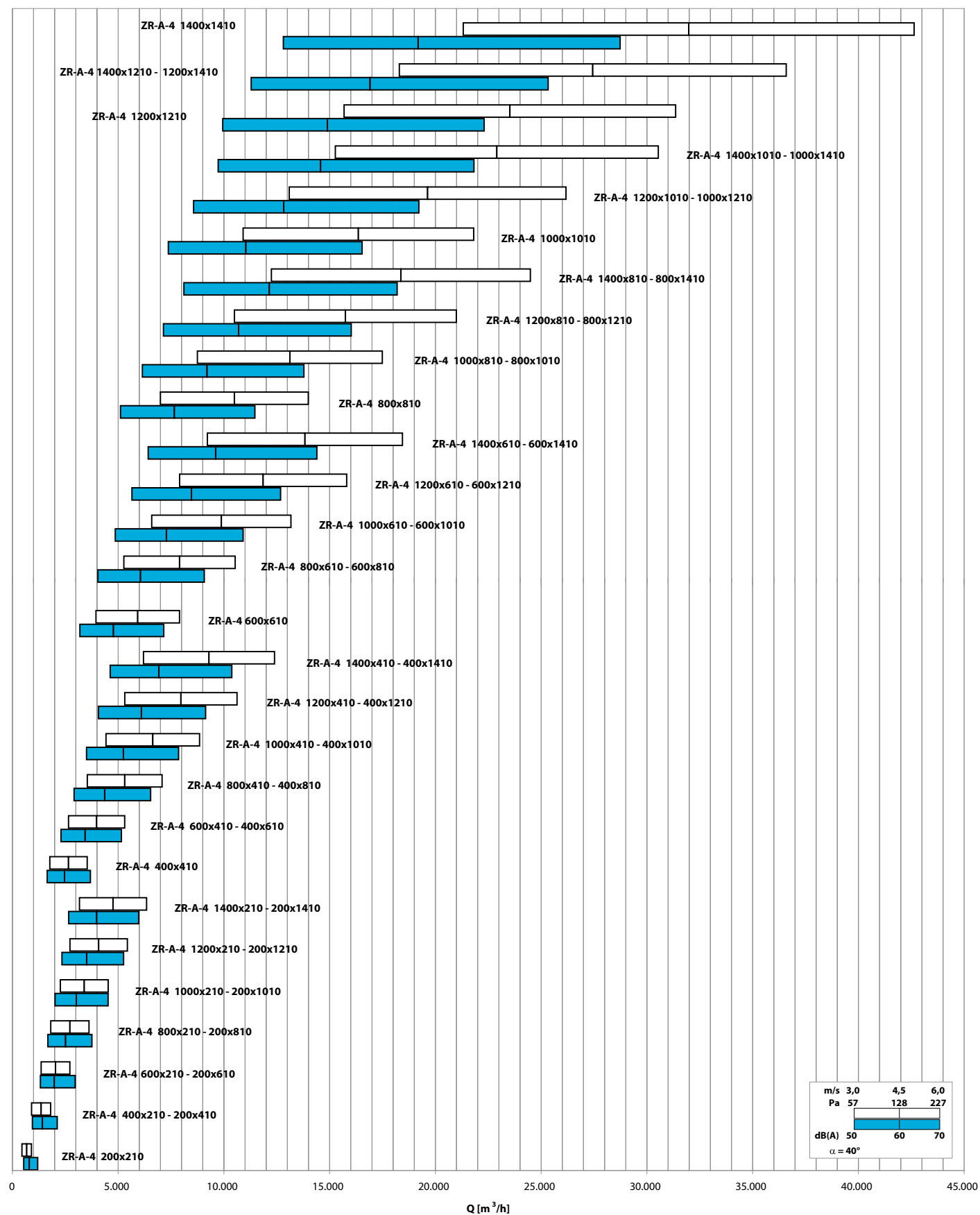
Frame airtightness



Selection table

Model	A ₁ [m ²]	Q [m ³ /h]		Q [m ³ /h]		D _p (α=40°) [Pa]		L _{WA} (α=40°) [dB(A)]	
		min	max	min	max	min	max	min	max
ZR-A-4 200x210	0,0420	3	6	450	910	57	227	46	63
ZR-A-4 400x210 - 200x410	0,0840	3	6	910	1810	57	227	49	66
ZR-A-4 600x210 - 200x610	0,1260	3	6	1360	2720	57	227	51	68
ZR-A-4 800x210 - 200x810	0,1680	3	6	1810	3630	57	227	52	69
ZR-A-4 1000x210 - 200x1010	0,2100	3	6	2270	4540	57	227	53	70
ZR-A-4 1200x210 - 200x1210	0,2520	3	6	2750	5440	57	227	54	71
ZR-A-4 1400x210 - 200x1410	0,2940	3	6	3180	6350	57	227	54	71
ZR-A-4 400x410	0,1640	3	6	1770	3540	57	227	52	69
ZR-A-4 600x410 - 400x610	0,2460	3	6	2660	5310	57	227	54	71
ZR-A-4 800x410 - 400x810	0,3280	3	6	3540	7080	57	227	55	72
ZR-A-4 1000x410 - 400x1010	0,4100	3	6	4430	8860	57	227	56	73
ZR-A-4 1200x410 - 400x1210	0,4920	3	6	5310	10630	57	227	57	74
ZR-A-4 1400x410 - 400x1410	0,5740	3	6	6200	12400	57	227	57	74
ZR-A-4 600x610	0,3660	3	6	3950	7910	57	227	55	72
ZR-A-4 800x610 - 600x810	0,4880	3	6	5270	10540	57	227	57	74
ZR-A-4 1000x610 - 600x1010	0,6100	3	6	6590	13180	57	227	58	75
ZR-A-4 1200x610 - 600x1210	0,7320	3	6	7910	15810	57	227	58	75
ZR-A-4 1400x610 - 600x1410	0,8540	3	6	9220	18450	57	227	59	76
ZR-A-4 800x810	0,6480	3	6	7000	14000	57	227	58	75
ZR-A-4 1000x810 - 800x1010	0,8100	3	6	8750	17500	57	227	59	76
ZR-A-4 1200x810 - 800x1210	0,9720	3	6	10500	21000	57	227	60	77
ZR-A-4 1400x810 - 800x1410	1,1340	3	6	12250	24490	57	227	60	77
ZR-A-4 1000x1010	1,0100	3	6	10910	21820	57	227	60	77
ZR-A-4 1200x1010 - 1000x1210	1,2120	3	6	13090	26180	57	227	60	78
ZR-A-4 1400x1010 - 1000x1410	1,4140	3	6	15270	30540	57	227	61	78
ZR-A-4 1200x1210	1,4520	3	6	15680	31360	57	227	61	78
ZR-A-4 1400x1210 - 1200x1410	1,6940	3	6	18300	36590	57	227	62	79
ZR-A-4 1400x1410	1,9740	3	6	21320	42640	57	227	63	80

Quick Selection Diagram



Identification scheme servomotor size

	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
310	0,06	0,09	0,12	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,37	0,4	0,43	0,47
460	0,09	0,14	0,18	0,23	0,28	0,32	0,37	0,41	0,46	0,51	0,55	0,6	0,64	0,69
610	0,12	0,18	0,24	0,31	0,37	0,43	0,49	0,55	0,61	0,67	0,73	0,79	0,85	0,92
760	0,15	0,23	0,3	0,38	0,46	0,53	0,61	0,68	0,76	0,84	0,91	0,99	1,06	1,14
910	0,18	0,27	0,36	0,46	0,55	0,64	0,73	0,82	0,91	1	1,09	1,18	1,27	1,37
1060	0,21	0,32	0,42	0,53	0,64	0,74	0,85	0,95	1,06	1,17	1,27	1,38	1,48	1,59
1210	0,24	0,36	0,48	0,61	0,73	0,85	0,97	1,09	1,21	1,33	1,45	1,57	1,69	1,82
1360	0,27	0,41	0,54	0,68	0,82	0,95	1,09	1,22	1,36	1,5	1,63	1,77	1,9	2,04
1510	0,3	0,45	0,6	0,76	0,91	1,06	1,21	1,36	1,51	1,66	1,81	1,96	2,11	2,27
1660	0,33	0,5	0,66	0,83	1	1,16	1,33	1,49	1,66	1,83	1,99	2,16	2,32	2,49
1810	0,36	0,54	0,72	0,91	1,09	1,27	1,45	1,63	1,81	1,99	2,17	2,35	2,53	2,72
1960	0,39	0,59	0,78	0,98	1,18	1,37	1,57	1,76	1,96	2,16	2,35	2,55	2,74	2,94
2110	0,42	0,63	0,84	1,06	1,27	1,48	1,69	1,9	2,11	2,32	2,53	2,74	2,95	3,17
2260	0,45	0,68	0,9	1,13	1,36	1,58	1,81	2,03	2,26	2,49	2,71	2,94	3,16	3,39
2410	0,48	0,72	0,96	1,21	1,45	1,69	1,93	2,17	2,41	2,65	2,89	3,13	3,37	3,62
2560	0,51	0,77	1,02	1,28	1,54	1,79	2,05	2,3	2,56	2,82	3,07	3,33	3,58	3,84
2710	0,54	0,81	1,08	1,36	1,63	1,9	2,17	2,44	2,71	2,98	3,25	3,52	3,79	4,07
2860	0,57	0,86	1,14	1,43	1,72	2	2,29	2,57	2,86	3,15	3,43	3,72	4	4,29
3010	0,6	0,9	1,2	1,51	1,81	2,11	2,41	2,71	3,01	3,31	3,61	3,91	4,21	4,52

	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
310	0,5	0,53	0,56	0,59	0,62	0,65	0,68	0,71	0,74	0,78	0,81	0,84	0,87	0,9	0,93
460	0,74	0,78	0,83	0,87	0,92	0,97	1,01	1,06	1,1	1,15	1,2	1,24	1,29	1,33	1,38
610	0,98	1,04	1,1	1,16	1,22	1,28	1,34	1,4	1,46	1,53	1,59	1,65	1,71	1,77	1,83
760	1,22	1,29	1,37	1,44	1,52	1,6	1,67	1,75	1,82	1,9	1,98	2,05	2,13	2,2	2,28
910	1,46	1,55	1,64	1,73	1,82	1,91	2	2,09	2,18	2,28	2,37	2,46	2,55	2,64	2,73
1060	1,7	1,8	1,91	2,01	2,12	2,23	2,33	2,44	2,54	2,65	2,76	2,86	2,97	3,07	3,18
1210	1,94	2,06	2,18	2,3	2,42	2,54	2,66	2,78	2,9	3,03	3,15	3,27	3,39	3,51	3,63
1360	2,18	2,31	2,45	2,58	2,72	2,86	2,99	3,13	3,26	3,4	3,54	3,67	3,81	3,94	4,08
1510	2,42	2,57	2,72	2,87	3,02										
1660	2,66	2,82	2,99	3,15	3,32										
1810	2,9	3,08	3,26	3,44	3,62										
1960	3,14	3,33	3,53	3,72	3,92										

Calculated area in m²

Damper area < 0,4 m²

Damper area < 1 m²

Damper area < 2 m²

Damper area > 2 < 4 m²

Damper area > 4 < 8 m²

Servo-motors

Without spring return

CODE	VOLTAGE	COMMAND	€
CM24L	24 V	On-Off/3-p	
CM230L	230 V	On-Off/3-p	
CM24SRL	24 V	proportional	



CM
for dampers up to 0,4 m²
2 Nm

CODE	VOLTAGE	COMMAND	€
LM24A	24 V	On-Off / 3-t.	
LM24AS	24 V	On-Off / 3-t.	
LM24ASR	24 V	proportional	
LM230A	230 V	On-Off	
LM230AS	230 V	On-Off	
LM230ASR	230 V	proportional	



LM
for dampers up to 1 m²
5 Nm

CODE	VOLTAGE	COMMAND	€
NM24A	24 V	On-Off / 3-t.	
NM24ASR	24 V	proportional	
NM230A	230 V	On-Off	



NM
for dampers up to 2 m²
10 Nm

CODE	VOLTAGE	COMMAND	€
SM24A	24 V	On-Off / 3-t.	
SM24ASR	24 V	proportional	
SM230A	230 V	On-Off / 3-t.	
SM230ASR	230 V	proportional	



SM
for dampers up to 4 m²
20 Nm

CODE	VOLTAGE	COMMAND	€
GM24A	24 V	On-Off / 3-t.	
GM24ASR	24 V	proportional	
GM230A	230 V	On-Off / 3-t.	



GM
for dampers up to 8 m²
40 Nm

CODE	No. of contacts	SWITCHING POWER	APPLICATION ON	€
S1A	1 x SPDT	1 mA ... 3 (0,5) A 250 V c.a.	LM - NM - SM - GM / 24-230 V	
S2A	2 x SPDT			



S1A



S2A

CODE	VOLTAGE	SIMULTANEOUS REGULATION	APPLICATION ON	€
SGA24	AC/DC 24 V	max 10 motors	LM - NM - SM - GM / 24-230 V	
SGF24				



SGA24



SGF24

With spring return

CODE	VOLTAGE	COMMAND	€
TF24	24 V	On-Off	
TF24S	24 V	On-Off	
TF230	230 V	On-Off	
TF230S	230 V	On-Off	
TF24SR	24 V	proportional	



TF
for dampers up to 0,4 m²
2 Nm

CODE	VOLTAGE	COMMAND	€
LF24	24 V	On-Off	
LF24S	24 V	On-Off	
LF230	230 V	On-Off	
LF230S	230 V	On-Off	
LF24SR	24 V	proportional	



TF
for dampers up to 0,8 m²
4 Nm

CODE	VOLTAGE	COMMAND	€
NFA	230 VAC	On-Off	
NFAS2	230 VAC	On-Off	
NFA	24 VAC/DC	On-Off	
NFAS2	24 VAC/DC	On-Off	
NF24ASR	24 VAC/DC	proportional	
NF24ASRS2	24 VAC/DC	proportional	



NF
for dampers up to 2 m²
10 Nm

CODE	VOLTAGE	COMMAND	€
SFA	230 VAC	On-Off	
SFAS2	230 VAC	On-Off	
SFA	24 VAC/DC	On-Off	
SFAS2	24 VAC/DC	On-Off	
SF24ASR	24 VAC/DC	proportional	
SF24ASRS2	24 VAC/DC	proportional	



SF
for dampers up to 4 m²
20 Nm

CODE	VOLTAGE	COMMAND	€
EF230A	230 VAC	On-Off	
EF230AS2	230 VAC	On-Off	
EF24A	24 VAC/DC	On-Off	
EF24AS2	24 VAC/DC	On-Off	
EF24ASR	24 VAC/DC	proportional	
EF24ASRS2	24 VAC/DC	proportional	



EF
for dampers up to 6 m²
30 Nm