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We reserve the right to introduce alternations both in design and technical data without prior notice, due to continued product development.

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PJR – MULTIPLE LEAF DAMPER



Description

- Designed for air flow regulation in ventilation and air-conditioning installations. PJR ensure uniform air distribution after the unit and that differs it from single dampers.
- For bigger sizes double grilles with single control can be produced (PJR-D).
- Double multiple leaf dampers (PJR-BS) with single control are suitable for regulation of two air lows at the same time (inversely) or by-pass of recuperative heat exchanger „air-air".
- Working temperature range from -20°C to +80°C.
- **Designed for work in non-aggressive and explosion-proof environment.**

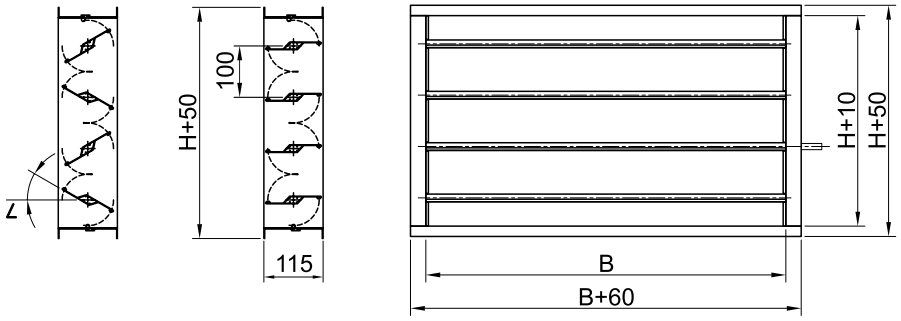
Construction

- Corpus and blades are constructed of special aluminum profiles.
- Outside the flow of working fluid is situated the cogwheel polyamide mechanism.
- Blades gasketing – PVC.
- Contrary blades moving (one against other).
- Damper control can be with manual mechanism (+M) or with electric motor (actuator) (+A):
  - ON/OFF – open / close – 230V or 24V; 50Hz
  - Proportional – uniform regulation (analogue) - 230V or 24V; 50Hz
  - Spring-type (emergency function) - open / close or proportional (analogue) regulation - 230V or 24V; 50Hz. Suitable for systems with incorporated heat exchanger „water-air"
- By customer request is possible production of version from galvanized metal sheets (PJR-Zn), with additionally specified technical parameters.

Installation

- For installation in air handling units (inlet, mixing and recuperative sections), ventilation blocks or between elements of air duct installation.

PJR (single) – Overall and joined dimensions



B [mm]	200	400	500	600	800	1000	1200
H [mm]	200	300	400	500	600	800	1000

Torque and weight are function of the inlet section B x H [m²]:

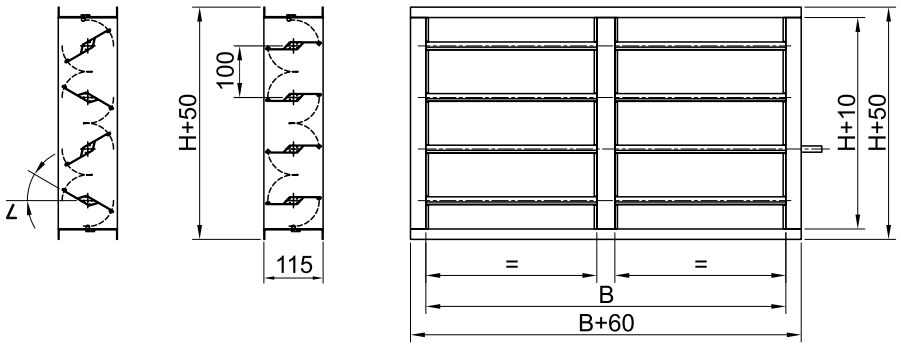
Inlet section A_0 [m²]	Torque [Nm]	Weight - maximum [kg/m²]
up to 0.1	2	29.5
up to 0.6	4	25.0
up to 0.8	5	15.5
up to 1.6	10	13.5

Note:

Multiple leaf dampers with different dimensions can be produced by customers request:

- Width B < 1300 mm.
- Height – divisible to 100 mm, but H ≤ 1200 mm

PJR-D (double) – Overall and joined dimensions



Torque and weight are function of the inlet section B x H [m²]:

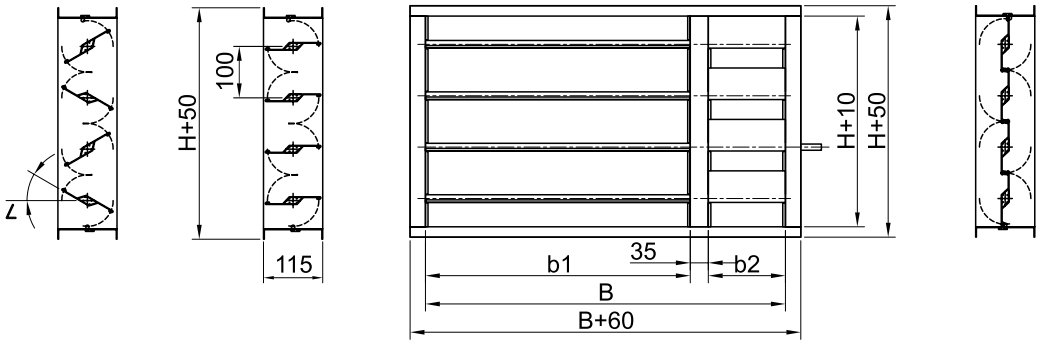
Inlet section A_0 [m²]	Torque [Nm]	Weight - maximum [kg/m²]
up to 0.6	4	25.5
up to 0.7	5	15.5
up to 1.4	10	13.5
up to 2.1	15	13.5
up to 2.8	20	13.0

Note:

Multiple leaf dampers with different dimensions can be produced by customers request:

- Width 1300 ≤ B ≤ 2400 mm.
- Height – divisible to 100 mm, but H ≤ 1200 mm

PJR-BP (by-pass) –Overall and joined dimensions



B [mm]	540	680	780	900	1040	1340	1580
b1 [mm]	390	490	590	690	790	1030	1230
b2 [mm]	115	155	155	175	215	275	315
B+60 [mm]	600	740	840	960	1100	1400	1640

H [mm]	500	1100

Torque and weight are function of the inlet section BxH B x H [m²]:

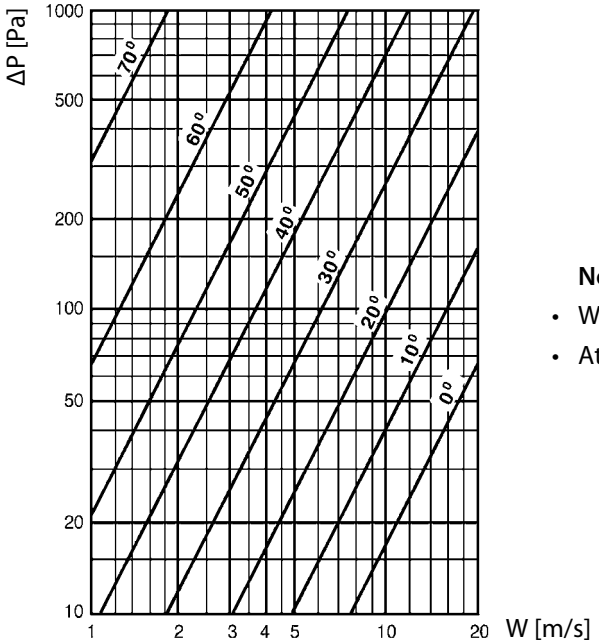
Inlet section A_0 [m²]	Torque [Nm]	Weight – maximum [kg/m²]
up to 0.6	4	25.5
up to 0.7	5	15.5
up to 1.4	10	13.5
up to 2.1	15	13.5
up to 2.8	20	13.0

Note:

Multiple leaf dampers with different dimensions can be produced by customers request:

- Width B ≤ 2400 mm
- Blade length b2 < b1 < 1300 mm
- Recommended : b2 = (0.20 ÷ 0.30) . b1
- Height – divisible to 100 mm, but H ≤ 1200 mm

Pressure drop ΔP [Pa]



Note:

- W_0 [m/s] – velocity in the inlet section
- At angle 0° PJR is fully open

Electric motors (actuators) - BELIMO

Electric motors (actuators) IP54 – Belimo

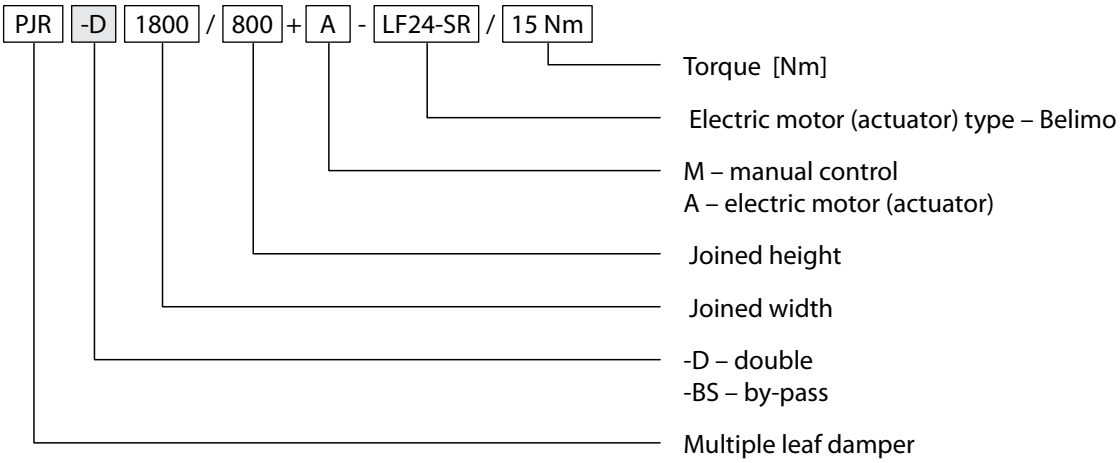
Control type	Nominal voltage	Torque			
		2 Nm	5 Nm	10 Nm	20 Nm
open/close	AC 24V/50Hz, DC 24V	CM24-L, CM24-R	LM24A	NM24A	SM24A
	AC 230V/50Hz	CM230-L, CM230-R	LM230A	NM230A	SM230A
analogue (proportional)	AC 24V/50Hz, DC 24V	CM24-SR-L, CM24-SR-R	LM24A-SR	NM24A-SR	SM24A-SR
	AC 230V/50Hz	-	LM230ASR	NM230ASR	SM230ASR
Motor running time [sec]		75	150	150	150

Spring type electric motors (emergency function) IP54 - Belimo

Control type	Nominal voltage	Torque		
		2 Nm	4 Nm	15 Nm
open/close	AC 24V/50Hz, DC 24V	TF24	LF24	AF24
	AC 230V/50Hz	TF230	LF230	AF230
analogue (proportional)	AC 24V/50Hz, DC 24V	TF24-3	LF24 SR	AF24 SR
		TF24-SR		
Motor running time [sec]		75	150	150
Spring-return time [sec]		25	20	16

- Temperature at the area of the electric motor (actuator) - from -30°C to +50°C.
- Possible 3-steps control of the shadowed electric motors (actuators).
- Different type electric motors and control options – on request.

Order designation



- main parameters
- optional parameters