
Aluminium

lighting fixture suspension rails



XYRV plus

Lighting fixture suspension rails

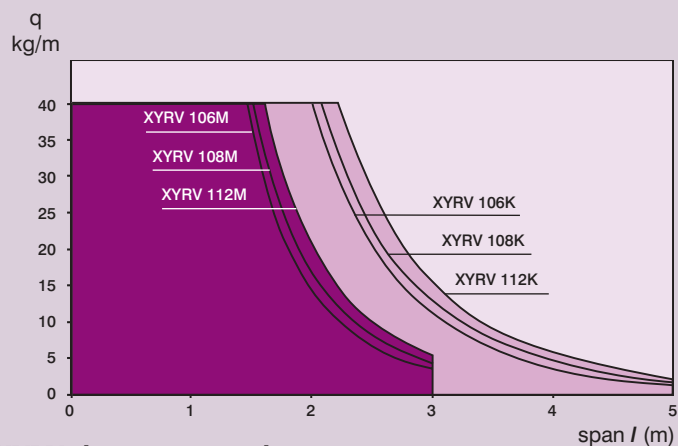
Nordic Aluminium's lighting fixture suspension rail system XYRV plus features aluminium rails, ideal system for supporting lighting fixtures and other electrical components in industrial applications, warehouses, commercial and office buildings.

XYRV plus suspension rails are made of lightweight, highstrength and corrosion resistant aluminium. Rails can easily cut on site when required, and the cut ends remain corrosion resistant. Lightweight aluminium suspension rails and fittings are easy to handle and to join together.

XYRV plus suspension rails are manufactured in 66, 80 and 120 mm widths and, each is available in 44 mm and 60 mm heights. The holes in rails are measured so that even 3- and 5-pole connectors will go through them. The suspension rails are designed to carry a maximum load with a long span with minimum deflection. The lightweight aluminium structure combined with fewer fittings reduces installation time and keeps the total cost at a reasonable level.

Normally the XYRV plus suspension rails are available mill finished or white powder coated (RAL 9010). Anodised and RAL colours are available by order.

Permitted uniform lighting fixture load (deflection $l/200$)

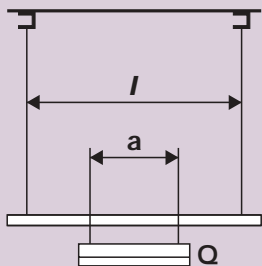


Safety factor of the XYRV plus suspension rails is 1,7.

XYRV plus

Loading capacities

Lighting fixture with two fixing points



The calculations are based on the following cable loadings:

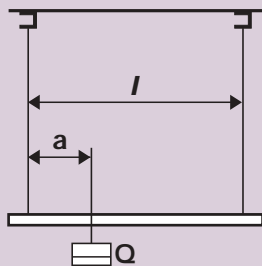
XYRV 106M and 106K, 1 kg/m

XYRV 108M and 108K, 1,5 kg/m

XYRV 112M and 112K, 2 kg/m

l (m)	a (m)	Q, max loading capacities (kg)						l (m)
		106M	108M	112M	106K	108K	112K	
2	0,5	21	25	30				2
	1	29	33	40				
	1,5	57	66	80				
2,5	0,5	12	13	16				2,5
	1	14	16	19				
	1,5	20	23	28				
3	0,5	7	7	9	23	26	31	3
	1	8	8	10	26	29	35	
	1,5	10	10	12	33	36	43	
3,5	0,5	4	4	4	15	17	20	3,5
	1	4	4	5	17	18	22	
	1,5	5	5	5	20	21	25	
4	0,5				10	11	13	4
	1				11	12	14	
	1,5				12	13	15	
4,5	0,5				6	6	7	4,5
	1				7	7	8	
	1,5				7	7	8	
5	0,5				3	3	3	5
	1				4	4	4	
	1,5				4	4	4	

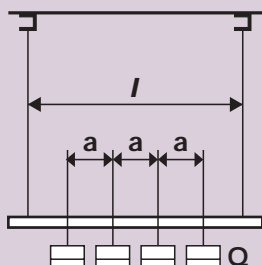
Lighting fixture with one fixing points



When $a = 0$,
 $Q_{max} = 100 \text{ kg}$

l (m)	a (m)	Q, max loading capacities (kg)						l (m)
		106M	108M	112M	106K	108K	112K	
1	0,5	86	99	100				1
1,5	0,5	43	49	60				1,5
	0,75	37	42	52				
2	0,5	28	32	39				2
	1	20	23	27				
2,5	0,5	20	22	27				2,5
	1,25	11	13	15				
3	0,5	13	14	17	46	50	60	3
	1	8	8	10	26	29	35	
	1,5	7	8	8	22	25	29	
3,5	0,5	8	8	9	35	37	44	3,5
	1	4	4	5	19	21	25	
	1,75	3	3	4	15	16	19	
4	0,5				26	27	32	4
	1				14	15	17	
	1,5				11	12	13	
	2				10	11	12	
5	0,5				11	11	11	5
	1				6	6	6	
	2				4	4	4	
	2,5				3	3	3	

Uniform lighting fixture load

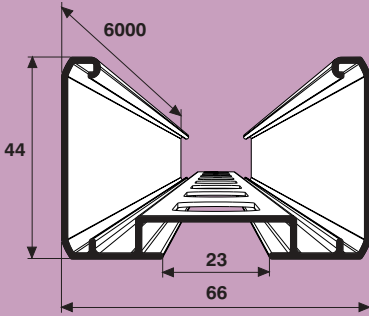


Aluminium's coefficient of thermal expansion is $23 \times 10^{-6} / ^\circ\text{C}$, corresponding to appr. 1 mm/m with a temperature change of 40°C . In some instances this should be a design consideration.

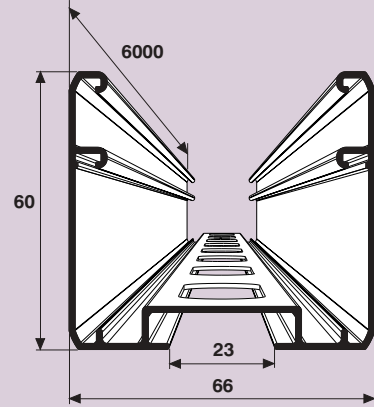
l (m)	a (m)	Q, max loading capacities (kg)						l (m)
		106M	108M	112M	106K	108K	112K	
2	0,5	8	9	10				2
	1	14	16	20				
2,5	0,5	4	4	5				2,5
	1	7	8	10				
	1,5	10	11	13				
3	0,5				7	8	9	3
	1	4	4	5	13	14	17	
	1,5	5	5	6	16	17	21	
	2	7	7	9	23	24	29	
3,5	1	2	2	2	7	8	9	3,5
	1,5	2	2	3	10	11	12	
	2	3	3	4	12	13	15	
4	1				4	4	5	4
	1,5				6	6	7	
	2				7	7	8	
	2,5				9	9	11	
5	1,5				2	2	2	5
	2				2	2	2	
	2,5				2	2	2	
	3				3	3	3	

Cross-sections

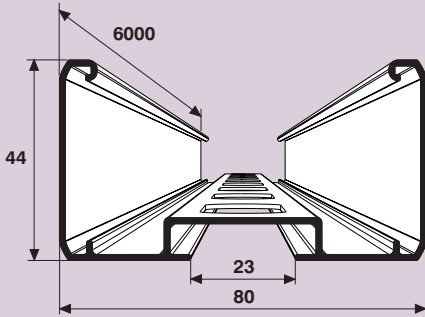
XYRV 106M
Del. pack: 60/540 m
Weight: 0,65 kg/m



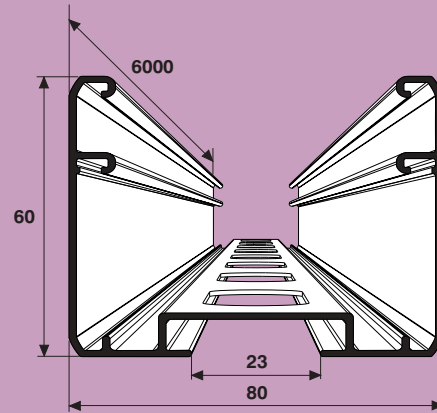
XYRV 106K
Del. pack: 60/360 m
Weight: 0,88 kg/m



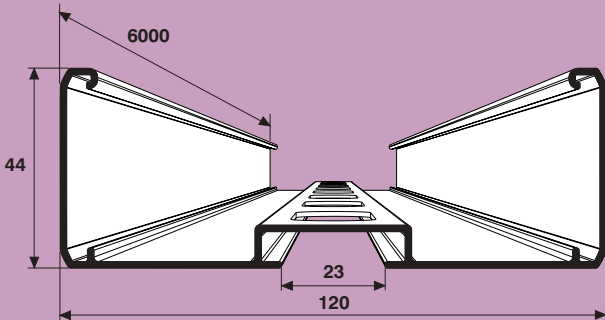
XYRV 108M
Del. pack: 60/540 m
Weight: 0,75 kg/m



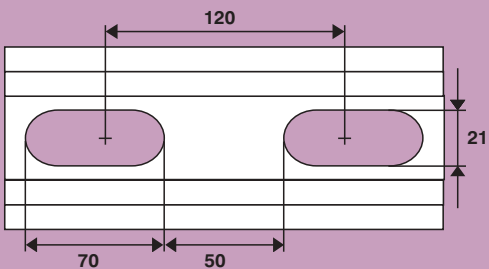
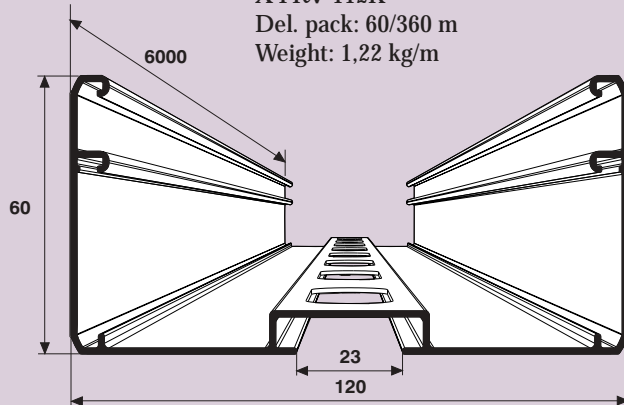
XYRV 108K
Del. pack: 60/540 m
Weight: 1,00 kg/m



XYRV 112M
Del. pack: 60/360 m
Weight: 0,96 kg/m

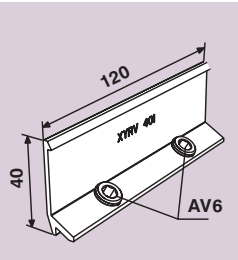
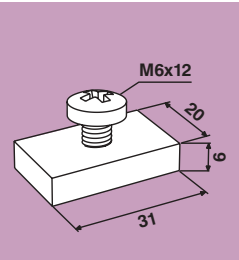
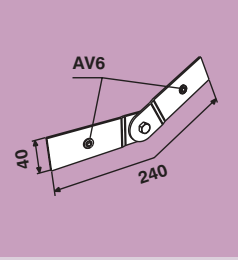
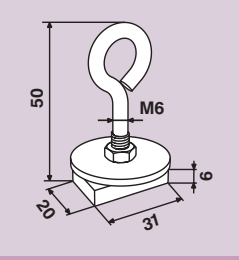
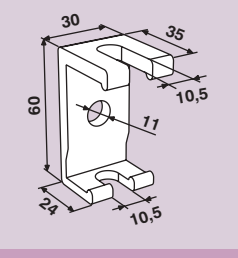
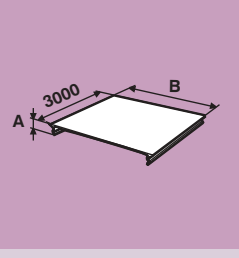
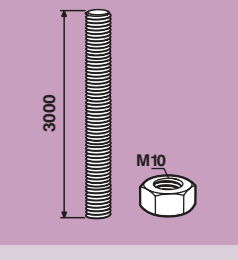
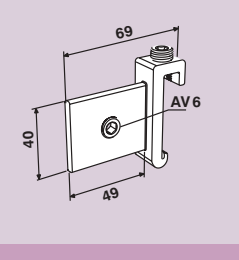
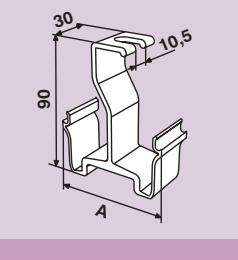
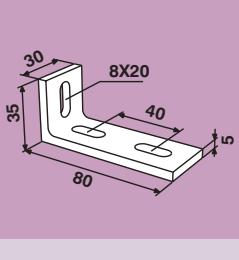
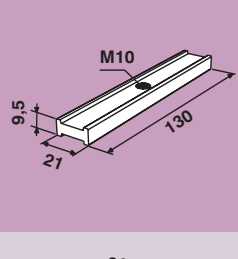
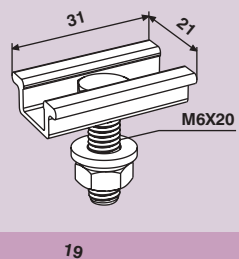
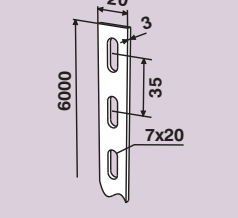
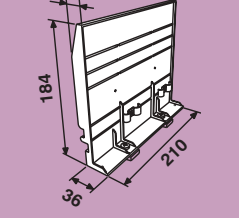


XYRV 112K
Del. pack: 60/360 m
Weight: 1,22 kg/m

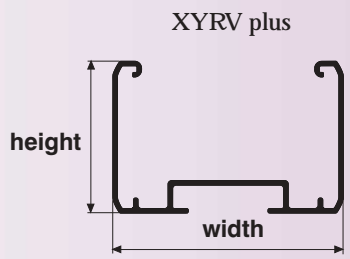
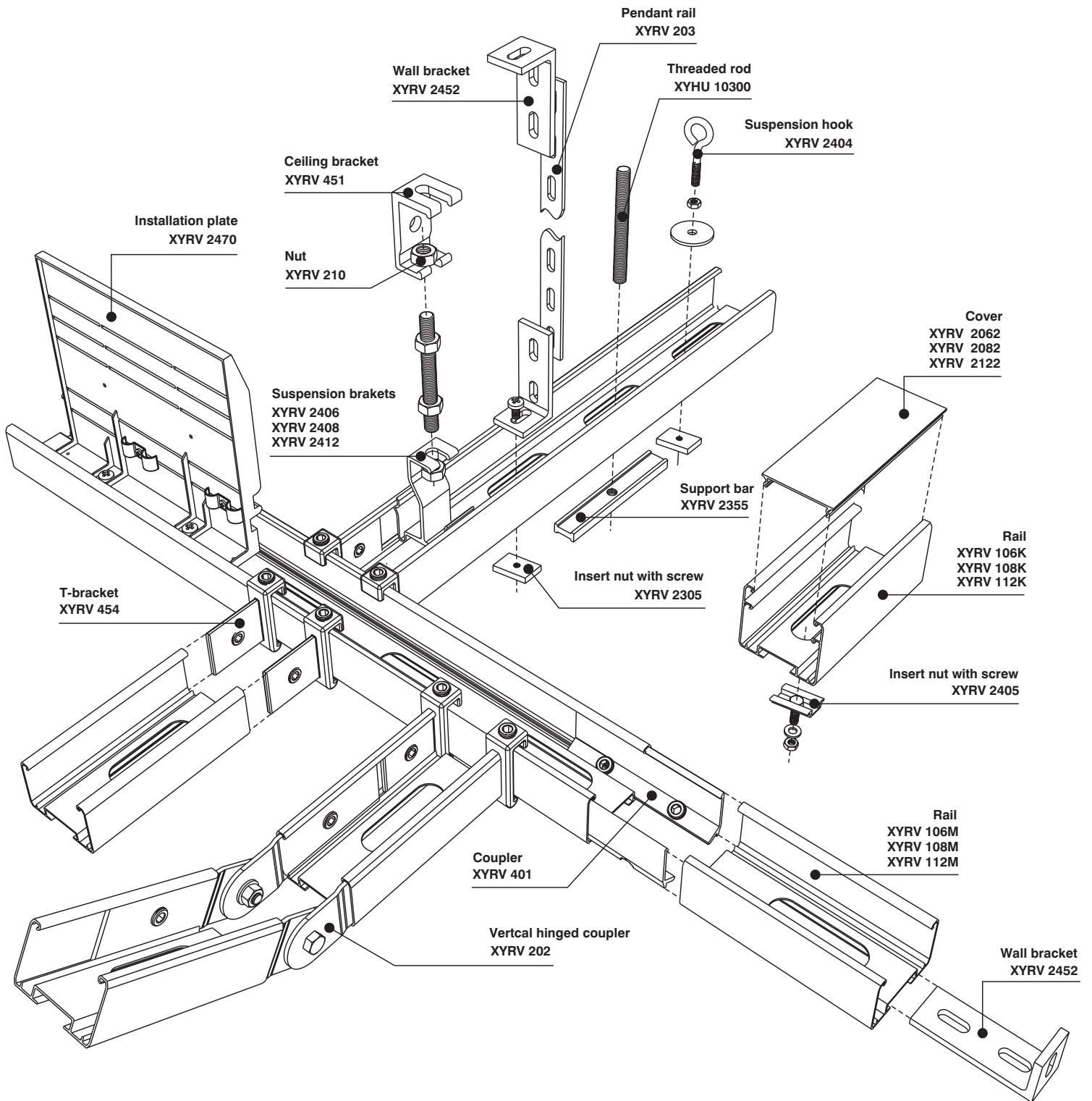


Rail perforations

Installation fittings

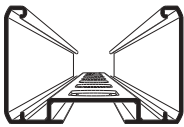
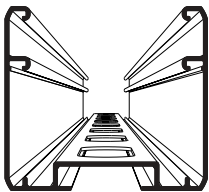
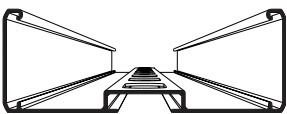
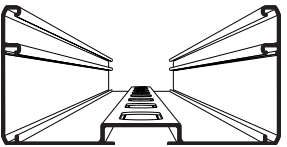
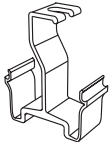
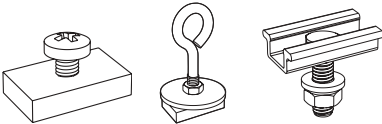
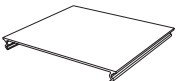
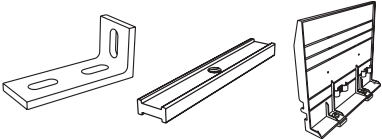
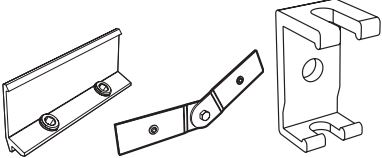
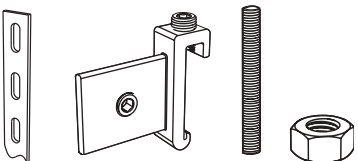
Type	Delivery pack/pc		Type	Delivery pack/pc	
Coupler XYRV 401	20			Insert nut with screw XYRV 2305	50
Vertical hinged coupler XYRV 202	10			Suspension hook XYRV 2404	20
Ceiling bracket XYRV 451	20			Cover XYRV 2062 A=10, B=56 XYRV 2082 A=9, B=70 XYRV 2122 A=15, B=110	30 m 30 m 30 m
Threaded rod M 10 and accessories threaded rod 3000 mm XYHU 10300 Rod coupling nut M10 XYRV 210	75 m 100			T-bracket XYRV 454	10
Suspension brackets XYRV 2406 A=59 XYRV 2408 A=72 XYRV 2412 A=112	10 10 10			Wall bracket XYRV 2452	20
Support bar XYRV 2355	20			Insert nut with screw XYRV 2405	50
Pendant rail XYRV 203	60 m			Installation plate XYRV 2470	1

XYRV plus suspension rail system



Rail	Height	Width
XYRV 106M	44	66
XYRV 108M	44	80
XYRV 112M	44	120
XYRV 106K	60	66
XYRV 108K	60	80
XYRV 112K	60	120

XYRV plus lighting fixture suspension rails

Type	Name	Model
New rails		
XYRV 106M XYRV 108M XYRV 112M	suspension rail suspension rail suspension rail	
XYRV 106K XYRV 108K XYRV 112K	suspension rail suspension rail suspension rail	
XYRV 106M-3 XYRV 108M-3 XYRV 112M-3	suspension rail, white suspension rail, white suspension rail, white	
XYRV 106K-3 XYRV 108K-3 XYRV 112K-3	suspension rail, white suspension rail, white suspension rail, white	
Installation fittings		
XYRV 2406 XYRV 2408 XYRV 2412	suspension bracket suspension bracket suspension bracket	
XYRV 2305 XYRV 2404 XYRV 2405	insert nut with screw suspension hook insert nut with screw	
XYRV 2062 XYRV 2082 XYRV 2122	cover cover cover	
XYRV 2452 XYRV 2470 XYRV 2355	wall bracket installation plate support bar	
Old parts which are compatible both with the new and the old system		
XYRV 401 XYRV 202 XYRV 451	coupler vertical hinged coupler ceiling bracket	
XYRV 203 XYRV 454 XYHU 10300 XYRV 210	pendant rail T-bracket threaded rod nut 10 mm	

XYRV

plus

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