

R-XPTII-A4 Stainless Steel Throughbolt

Stainless steel throughbolt for non-cracked concrete



Approvals and Reports

- ETA 17/0782



Product information

Features and benefits

- Stainless steel anchor for the highest corrosion resistance
- High performance in non-cracked concrete confirmed by ETA Option 7
- Highest quality ensures maximum load capability
- Fire resistant
- Suitable for reduced embedment to avoid contact with reinforcement
- Embedment depth markings help to ensure precise installation of the anchor
- Design of R-XPTII allows drilling and installing directly through the fixture and helps to reduce installation time

Applications

- Cladding restraint
- Curtain wall
- Balustrading
- Barriers
- Handrails
- Racking
- Structural steel
- Bollards

Base materials

Approved for use in:

- Non-cracked concrete C20/25-C50/60
- Reinforced concrete
- Unreinforced concrete

Also suitable for use in:

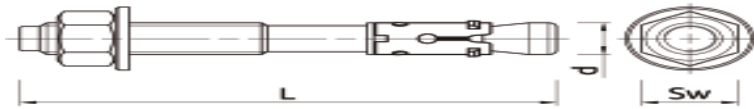
- Natural Stone

Installation guide



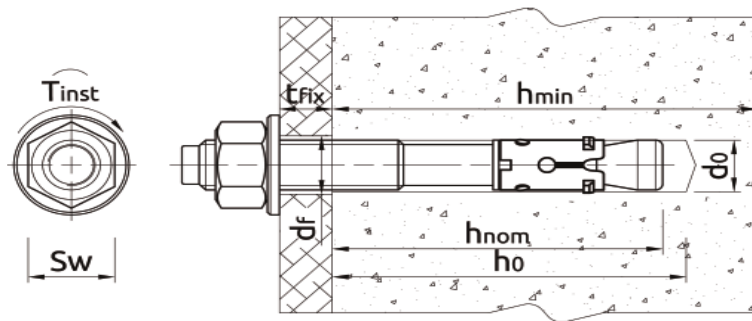
1. Drill a hole of required diameter and depth
2. Clear the hole of drilling dust and debris (using blowpump or equivalent method)
3. Lightly tap the throughbolt through the fixture into hole with a hammer, until fixing depth is reached
4. Insert bolt through fixture and tighten to the recommended torque

Product information



Size	Product Code	Anchor		Fixture		
		Diameter	Length	Max. thickness	Max. thickness t_{fix} for:	Hole diameter
		d	L	$t_{fix, r}$	$h_{nom, std}$	d_f
		[mm]	[mm]	[mm]	[mm]	[mm]
M6	R-XPTIIA4-06050/10	6	50	10	-	7
	R-XPTIIA4-06085/25	6	85	45	25	7
M8	R-XPTIIA4-08060/10	8	60	10	-	9
	R-XPTIIA4-08075/10	8	75	25	10	9
	R-XPTIIA4-08085/20	8	85	35	20	9
	R-XPTIIA4-08095/30	8	95	45	30	9
	R-XPTIIA4-08105/40	8	105	55	40	9
	R-XPTIIA4-08115/50	8	115	65	50	9
M10	R-XPTIIA4-10065/5	10	65	5	-	11
	R-XPTIIA4-10080/20	10	80	20	-	11
	R-XPTIIA4-10095/15	10	95	35	15	11
	R-XPTIIA4-10115/35	10	115	55	35	11
	R-XPTIIA4-10130/50	10	130	70	50	11
	R-XPTIIA4-10140/60	10	140	80	60	11
M12	R-XPTIIA4-12080/5	12	80	5	-	13
	R-XPTIIA4-12100/5	12	100	25	5	13
	R-XPTIIA4-12115/20	12	115	40	20	13
	R-XPTIIA4-12125/30	12	125	50	30	13
	R-XPTIIA4-12150/55	12	150	75	55	13
	R-XPTIIA4-12180/85	12	180	105	85	13
M16	R-XPTIIA4-16125/5	16	125	25	5	18
	R-XPTIIA4-16140/20	16	140	40	20	18
	R-XPTIIA4-16150/30	16	150	50	30	18
	R-XPTIIA4-16180/60	16	180	80	60	18
M20	R-XPTIIA4-20125/5	20	125	5	-	22
	R-XPTIIA4-20160/20	20	160	40	20	22
	R-XPTIIA4-20200/60	20	200	80	60	22
	R-XPTIIA4-20300/160	20	300	180	160	22
M24	R-XPTIIA4-24260/100	24	260	115	100	26

Installation data



Size			M6	M8	M10	M12	M16	M20	M24
Thread diameter	d	[mm]	6	8	10	12	16	20	24
Hole diameter in substrate	d ₀	[mm]	6	8	10	12	16	20	24
Installation torque	T _{inst}	[Nm]	5	15	30	50	100	200	300
Wrench size	Sw	[mm]	10	13	17	19	24	30	36
STANDARD EMBEDMENT DEPTH									
Min. hole depth in substrate	h _{0,s}	[mm]	55	60	75	85	105	125	140
Installation depth	h _{nom,s}	[mm]	50	55	69	80	100	119	135
Min. substrate thickness	h _{min,s}	[mm]	84	100	120	140	170	200	240
Min. spacing (Non-cracked concrete)	s _{min,r}	[mm]	45	65	90	110	170	140	180
Min. edge distance (Non-cracked concrete)	c _{min,r}	[mm]	50	50	60	85	90	160	200
REDUCED EMBEDMENT DEPTH									
Min. hole depth in substrate	h _{0,r}	[mm]	35	45	55	65	85	105	125
Installation depth	h _{nom,r}	[mm]	30	40	49	60	80	99	120
Min. substrate thickness	h _{min,r}	[mm]	80	100	100	100	130	160	200
Min. spacing (Non-cracked concrete)	s _{min,r}	[mm]	40	65	115	150	190	125	160
Min. edge distance (Non-cracked concrete)	c _{min,r}	[mm]	45	50	80	100	120	125	160

Mechanical properties

Size			M6	M8	M10	M12	M16	M20	M24
Nominal ultimate tensile strength - tension	f _{uk}	[N/mm ²]	600	600	600	550	550	700	700
Nominal yield strength - tension	f _{yk}	[N/mm ²]	450	450	450	413	413	525	525
Cross sectional area - tension	A _s	[mm ²]	20.1	36.6	58	84.3	157	245	353
Elastic section modulus	W _{el}	[mm ³]	21.2	50.3	98.2	169.6	402.1	785.4	1357.2
Characteristic bending resistance	M _{0,Rk,s}	[Nm]	15.3	36.2	70.7	112	265.4	659.7	1140
Design bending resistance	M	[Nm]	10.2	24.1	47.1	74.6	176.9	439.8	760

Basic performance data

Performance data for single anchor without influence of edge distance and spacing

Size		M6	M8	M10	M12	M16	M20	M24
MEAN ULTIMATE LOAD								
TENSION LOAD N_{Rum}								
Standard embedment depth	[kN]	9.80	15.40	22.80	30.39	55.80	68.50	82.80
Reduced embedment depth	[kN]	5.70	10.40	16.00	22.10	37.90	44.60	62.70
SHEAR LOAD V_{Rum}								
Standard embedment depth	[kN]	7.68	14.00	22.20	29.60	54.50	108.80	156.80
Reduced embedment depth	[kN]	7.68	14.00	22.20	29.60	54.50	108.80	156.80

Basic performance data

Design performance data

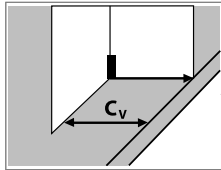
Standard embedment depth

Size			M6	M8	M10	M12	M16	M20	M24
Effective embedment depth	h_{ef}	[mm]	42.00	47.00	59.00	68.00	85.00	99.00	112.00
TENSION LOAD									
STEEL FAILURE									
Characteristic resistance	$N_{Rk,s}$	[kN]	11.60	21.20	33.60	44.80	82.60	103.60	197.80
Design resistance $V_{Ms} = 1.5$	$N_{Rd,s}$	[kN]	7.75	14.10	22.40	29.90	55.10	69.10	131.90
PULL-OUT FAILURE; NON-CRACKED CONCRETE C20/25									
Characteristic resistance	$N_{Rk,p}$	[kN]	7.50	9.00	16.00	25.00	-	-	-
Design resistance $V_{Mp} = 2.16$	$N_{Rd,p}$	[kN]	3.47	-	-	-	-	-	-
Design resistance $V_{Mp} = 1.8$	$N_{Rd,p}$	[kN]	-	5.00	-	-	-	-	-
Design resistance $V_{Mp} = 1.5$	$N_{Rd,p}$	[kN]	-	-	10.70	16.70	-	-	-
CONCRETE CONE FAILURE; NON-CRACKED CONCRETE C20/25									
Characteristic resistance	$N_{Rk,c}$	[kN]	-	-	-	-	39.50	54.30	64.70
Design resistance $V_{Mc} = 2.16$	$N_{Rd,c}$	[kN]	-	-	-	-	-	25.10	30.00
Design resistance $V_{Mc} = 1.5$	$N_{Rd,c}$	[kN]	-	-	-	-	26.30	-	-
Increasing factors for $N_{Rd,p} - C30/37$	ψ_c	-	1.46	1.46	1.37	1.20	1.18	1.18	1.18
Increasing factors for $N_{Rd,p} - C40/50$	ψ_c	-	1.91	1.91	1.73	1.40	1.37	1.37	1.37
Increasing factors for $N_{Rd,p} - C50/60$	ψ_c	-	2.36	2.36	2.10	1.60	1.55	1.55	1.55
Spacing	$s_{cr,N}$	[mm]	126.00	141.00	177.00	204.00	255.00	297.00	336.00
Edge distance	$c_{cr,N}$	[mm]	63.00	71.00	89.00	102.00	128.00	149.00	168.00
SHEAR LOAD									
CONCRETE EDGE FAILURE; NON-CRACKED CONCRETE C20/25									
Edge distance	c_1	[mm]	50.00	55.00	65.00	90.00	105.00	160.00	200.00
Characteristic resistance for c_1	$V_{Rk,c}$	[kN]	6.39	7.71	10.04	16.86	22.48	41.60	58.60
Design resistance $V_{Mc} = 1.8$	$V_{Rd,c}$	[kN]	3.55	4.28	-	-	-	23.10	32.60
Design resistance $V_{Mc} = 1.5$	$V_{Rd,c}$	[kN]	-	-	5.58	9.37	12.48	-	-
CONCRETE PRY-OUT FAILURE; NON-CRACKED CONCRETE C20/25									
Characteristic resistance	$V_{Rk,cp}$	[kN]	-	-	-	-	-	-	-
Design resistance	$V_{Rd,cp}$	[kN]	-	-	-	-	-	-	-
STEEL FAILURE									
Characteristic resistance without lever arm	$V_{Rk,s}$	[kN]	6.40	11.70	18.50	24.60	45.40	90.70	130.70
Design resistance $V_{Ms} = 1.25$	$V_{Rd,s}$	[kN]	5.12	9.36	14.80	19.70	36.30	72.60	104.50

Design performance data

Reduction / increasing resistance factors for edge distance and spacing

Edge distance (shear)



Tables only valid for one edge
 $c_v > c_{v,min}$ and $s \geq 3c_v$ For other cases
 use the Rawlplug Anchor Calculator

Increasing factors for edge distance $> c_{v,min}$ applicable to $V_{Rd,c}$ for non-cracked concrete from Design Performance table

c_v [mm]	M6		M8		M10		M12		M16		M20		M24	
	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}
50	1,00	1,00	1,00	1,00										
60	1,28	1,28	1,28	1,28	1,00	1,00								
65	1,43	1,43	1,43	1,44	1,11	1,23								
85			2,06	1,82	1,59	1,55	1,00	1,00						
90			2,23	1,92	1,72	1,62	1,08	1,10	1,00	1,00				
95			2,40	2,01	1,85	1,70	1,16	1,15	1,07	1,17				
115				2,38	2,41	2,01	1,50	1,35	1,38	1,37				
135						2,31	1,86	1,55	1,71	1,56				
140						2,38		1,60	1,79	1,61				
160								1,80	2,14	1,80	1,00	0,91		
165								1,84	2,23	1,85	1,04	0,94		
200									2,89	2,18	1,35	1,10	1,00	0,89
205										2,23	1,39	1,12	1,03	0,91
280										2,91	2,12	1,46	1,56	1,18
300											2,32	1,55	1,72	1,25
350											2,87	1,77	2,11	1,43
370											3,10	1,86	2,28	1,50
400												1,99	2,53	1,60
475												2,31	3,21	1,86
660												3,10		2,48
875														3,19

Design performance data

Edge distance (tension)

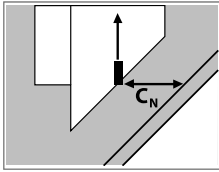


Table only valid for one edge
 $c_{cr,N}$ and $S \geq S_{cr,N}$ For other cases use the Rawlplug Anchor Calculator

Reduction factors for edge distance $c_{cr,N}$ applicable to N_{rd} or N_{rec} for non-cracked concrete from 'Basic Performance' table

c_N [mm]	M6		M8		M10		M12		M16		M20		M24	
	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}
50	0,84	0,58	0,78	0,58										
60	0,96	0,64	0,88	0,64	0,76	0,57								
65	1,00	0,66	0,94	0,66	0,80	0,59								
70		0,69	1,00	0,69	0,84	0,62								
85		0,78		0,78	0,97	0,68	0,87	0,64						
90		0,81		0,81	1,00	0,70	0,91	0,66	0,78	0,59				
100		0,87		0,87		0,75	1,00	0,70	0,83	0,62				
120		1,00		1,00		0,85		0,78	0,95	0,68				
130						0,90		0,82	1,00	0,71				
150						1,00		0,91		0,77				
160								0,95		0,81	1,00	0,73		
170								1,00		0,84		0,76		
200										0,94		0,85	1,00	0,77
215										1,00		0,89		0,81
250												1,00		0,90
285														1,00

Design performance data

Spacing

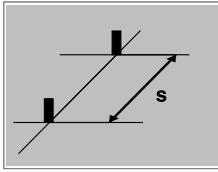


Table only valid for one spacing $< s_{cr,N}$ and $c \geq c_{cr,N}$. For other cases use the Rawlplug Anchor Calculator

Reduction factors for spacing $< s_{cr,N}$ applicable to N_{Rd}/V_{Rd} or N_{rec}/V_{rec} for non-cracked concrete from 'Basic Performance' table

s	M6		M8		M10		M12		M16		M20		M24	
[mm]	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}
45	0,68	0,59												
65	0,76	0,64	0,73	0,64										
90	0,86	0,69	0,82	0,69	0,75	0,65								
110	0,94	0,73	0,89	0,73	0,81	0,68	0,77	0,66						
125	1,00	0,76	0,94	0,76	0,85	0,71	0,81	0,68						
140		0,79	1,00	0,79	0,90	0,73	0,84	0,71			0,74	0,64		
170		0,85		0,85	0,98	0,78	0,92	0,75	0,83	0,70	0,79	0,67		
180		0,88		0,88	1,00	0,80	0,94	0,76	0,85	0,71	0,80	0,68	0,77	0,66
205		0,93		0,93		0,84	1,00	0,80	0,90	0,74	0,85	0,71	0,81	0,68
240		1,00		1,00		0,90		0,85	0,97	0,78	0,90	0,74	0,86	0,71
255						0,93		0,88	1,00	0,80	0,93	0,76	0,88	0,72
300						1,00		0,94		0,85	1,00	0,80	0,95	0,76
335								0,99		0,89		0,84	1,00	0,79
340								1,00		0,90		0,84		0,80
430										1,00		0,93		0,88
500												1,00		0,94
550														0,98
570														1,00

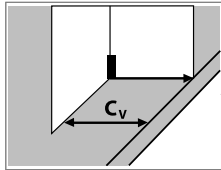
Reduced embedment depth

Size			M6	M8	M10	M12	M16	M20	M24
Effective embedment depth	h_{ef}	[mm]	22.00	32.00	39.00	48.00	65.00	79.00	97.00
TENSION LOAD									
STEEL FAILURE									
Characteristic resistance	$N_{Rk,s}$	[kN]	11.60	21.20	33.60	44.80	82.60	103.60	197.80
Design resistance $V_{M5} = 1.5$	$N_{Rd,s}$	[kN]	7.75	14.10	22.40	29.90	55.10	69.10	131.90
PULL-OUT FAILURE; NON-CRACKED CONCRETE C20/25									
Characteristic resistance	$N_{Rk,p}$	[kN]	4.50	7.50	12.00	-	-	-	-
Design resistance $V_{M5} = 2.16$	$N_{Rd,p}$	[kN]	2.08	-	-	-	-	-	-
Design resistance $V_{M5} = 1.8$	$N_{Rd,p}$	[kN]	-	4.17	6.67	-	-	-	-
CONCRETE CONE FAILURE; NON-CRACKED CONCRETE C20/25									
Characteristic resistance	$N_{Rk,c}$	[kN]	-	-	-	16.80	26.40	35.40	48.10
Design resistance $V_{M5} = 2.16$	$N_{Rd,c}$	[kN]	-	-	-	-	-	16.39	22.30
Design resistance $V_{M5} = 1.5$	$N_{Rd,c}$	[kN]	-	-	-	11.20	17.60	-	-
Increasing factors for $N_{Rd,p} - C30/37$	ψ_c	-	1.07	1.07	1.11	1.16	1.18	1.18	1.18
Increasing factors for $N_{Rd,p} - C40/50$	ψ_c	-	1.13	1.13	1.22	1.32	1.37	1.37	1.37
Increasing factors for $N_{Rd,p} - C50/60$	ψ_c	-	1.20	1.20	1.33	1.49	1.55	1.55	1.55
Spacing	$s_{cr,N}$	[mm]	66.00	96.00	117.00	144.00	195.00	237.00	291.00
Edge distance	$c_{cr,N}$	[mm]	33.00	48.00	59.00	72.00	98.00	119.00	146.00

Design performance data

Reduction / increasing resistance factors for edge distance and spacing

Edge distance (shear)



Tables only valid for one edge
 $> c_{v,min}$ and $s \geq 3c_v$. For other cases
 use the Rawlplug Anchor Calcu-
 lator

Increasing factors for edge distance $> c_{v,min}$ applicable to $V_{Rd,c}$ for non-cracked concrete from Design Per-
 formance table

c_v [mm]	M6		M8		M10		M12		M16		M20		M24	
	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}	$h \geq 1.5c_v$	h_{min}
45	1,00	1,00												
50	1,16	1,16	1,00	1,00										
70	1,83	1,79	1,59	1,55										
80			1,91	1,75	1,00	0,91								
90			2,25	1,94	1,18	1,01								
100			2,61	2,13		1,11	1,00	0,82						
120				2,51			1,28	0,96	1,00	0,85				
125				2,61			1,36	0,99	1,06	0,88	1,00	0,92		
140							1,59	1,09	1,23	0,97	1,16	1,01		
160								1,23	1,47	1,09	1,39	1,13	1,00	0,91
210								1,57	2,14	1,37	2,00	1,43	1,43	1,14
305										1,91	3,33	1,97	2,37	1,56
340										2,10	3,87	2,17	2,74	1,72
380											4,51	2,39	3,19	1,89
480												2,94	4,40	2,32
770												4,50		3,53
980														4,39

Edge distance (tension)

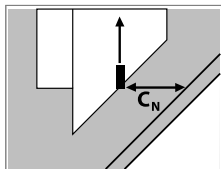


Table only valid for one edge
 $< c_{cr,N}$ and $S \geq S_{cr,N}$. For other ca-
 ses use the Rawlplug Anchor
 Calculator

Reduction factors for edge distance $< c_{cr,N}$ applicable to N_{Rd} or N_{rec} for non-cracked concrete from 'Basic
 Performance' table

c_N [mm]	M6		M8		M10		M12		M16		M20		M24	
	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}
45	1,00	0,68												
50		0,72	1,00	0,72										
70		0,90		0,90										
80		1,00		1,00	1,00	0,85								
100						1,00	1,00	0,85						
120								0,97	1,00	0,81				
125								1,00		0,83	1,00	0,72		
160									1,00			0,85	1,00	0,73
200												1,00		0,85
250														1,00

Design performance data

Spacing

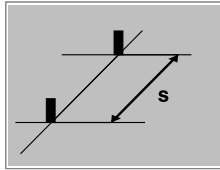


Table only valid for one spacing $< s_{cr,N}$ and $c \geq c_{cr,N}$. For other cases use the Rawlplug Anchor Calculator

Reduction factors for spacing $< s_{cr,N}$ applicable to N_{Rd}/V_{Rd} or N_{rec}/V_{rec} for non-cracked concrete from 'Basic Performance' table

s	M6		M8		M10		M12		M16		M20		M24	
[mm]	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}	$h \geq 1.84h_{min}$	h_{min}
40	0,80	0,63												
65	1,00	0,70	0,84	0,70										
80		0,75	0,92	0,75										
95		0,80	1,00	0,80										
115		0,86		0,86	1,00	0,79								
125		0,89		0,89		0,81					0,76	0,66		
150		0,97		0,97		0,88	1,00	0,80			0,82	0,69		
160		1,00		1,00		0,90		0,82			0,84	0,70	0,77	0,66
190						0,98		0,88	0,99	0,80	0,90	0,74	0,83	0,69
195						0,99		0,89	1,00	0,80	0,91	0,74	0,84	0,70
200						1,00		0,90		0,81	0,92	0,75	0,84	0,70
240								0,98		0,88	1,00	0,80	0,91	0,74
250								1,00		0,89		0,81	0,93	0,75
290										0,95		0,86	1,00	0,79
320										1,00		0,90		0,82
400												1,00		0,90
450														0,95
500														1,00

Product commercial data

Size	Product Code	Anchor		Quantity [pcs]			Weight [kg]			Bar Codes
		Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
M6	R-XPTIIA4-06050/10 ¹⁾	6	50	100	100	16000	1.27	1.27	233.0	5906675100081
	R-XPTIIA4-06085/25 ¹⁾	6	85	100	100	16000	1.84	1.84	324.6	5906675100104
M8	R-XPTIIA4-08060/10 ¹⁾	8	60	100	100	16000	2.6	2.6	445.8	5906675047232
	R-XPTIIA4-08075/10 ¹⁾	8	75	100	100	16000	3.1	3.1	519.6	5906675047249
	R-XPTIIA4-08085/20 ¹⁾	8	85	100	100	16000	3.4	3.4	570.8	5906675047256
	R-XPTIIA4-08095/30 ¹⁾	8	95	100	100	12000	3.7	3.7	473.9	5906675047263
	R-XPTIIA4-08105/40 ¹⁾	8	105	100	100	16000	4.0	4.0	671.8	5906675047270
	R-XPTIIA4-08115/50 ¹⁾	8	115	100	100	16000	4.3	4.3	721.7	5906675047287
	R-XPTIIA4-10065/5 ¹⁾	10	65	50	50	8000	2.4	2.4	409.8	5906675047294
M10	R-XPTIIA4-10080/20 ¹⁾	10	80	50	50	8000	2.8	2.8	470.6	5906675047300
	R-XPTIIA4-10095/15 ¹⁾	10	95	50	50	8000	3.1	3.1	529.7	5906675047317
	R-XPTIIA4-10115/35 ¹⁾	10	115	50	50	6000	3.7	3.7	470.3	5906675047324
	R-XPTIIA4-10130/50 ¹⁾	10	130	50	50	6000	4.0	4.0	510.1	5906675047331
	R-XPTIIA4-10140/60 ¹⁾	10	140	50	50	8000	4.2	4.2	708.7	5906675047348
	R-XPTIIA4-12080/5 ¹⁾	12	80	50	50	8000	4.1	4.1	684.1	5906675047355
M12	R-XPTIIA4-12100/5 ¹⁾	12	100	50	50	8000	4.8	4.8	799.1	5906675047362
	R-XPTIIA4-12115/20 ¹⁾	12	115	50	50	6000	5.4	5.4	676.8	5906675324548
	R-XPTIIA4-12125/30 ¹⁾	12	125	50	50	6000	5.8	5.8	720.5	5906675047379
	R-XPTIIA4-12150/55 ¹⁾	12	150	50	50	4000	6.7	6.7	562.2	5906675047386
	R-XPTIIA4-12180/85 ¹⁾	12	180	50	50	4000	7.8	7.8	652.1	5906675047393

Product commercial data

¹⁾ ETA 17/0782