Notified laboratory NB 2693

HEATEST, s.r.o., č. p. 84, 276 01 Býkev, Czech Republic

issues

for the purposes of with Regulation (EU) No 305/2011 of the European Parliament and Council of 9 March 2011, (the Construction products Regulation or CPR) as amended this

ASSESSMENT OF PERFORMANCE REPORT

No. 2693-CPR-0021-2023

for construction product:

Family of construction product:	**Column radiator**
Intended use:	in heating systems in buildings
Type, name or trademark:	**JDDH D 7015**
Manufacturer:	**TIANJIN JIUDING YANGGUANG HVAC CO., LTD.**
Full address:	No. 9 Wuwei Road, Lutai Ninghe Tianjin City, China (PRC)
Manufacturing site:	No. 9 Wuwei Road, Lutai Ninghe Tianjin City, China (PRC)
Registered trade mark	JIUDING RADIATOR

This Assessment of Performance Report attest that the performance of the above-mentioned construction product has been assessed under AVCP system 3 with regard to the essential characteristic listed at Annex No 1 of this Report in accordance with harmonised standard

EN 442-1:2014

This Report will remain applicable as long as neither the harmonised standard, the construction product, nor the AVCP methods are modified significantly. Its distribution without the written consent of the NB2693 is possible only as a whole, including the Annexes, which are an integral part of the Report.

This Report covers only essential characteristic(s) mentioned in Annex No. 1 of this Report. It is not an exhaustive statement of the performance of the product. The manufacturer is entitled to declare the performance of other essential characteristics than those mentioned in Annex No. 1 of this Report.

This Report is not considered a product certificate or a document to accompany the product nor the Declaration of Performance.

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At Býkev on: 29. 03. 2023

Copy No: **1**

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Annex No. 1: Assessed essential characteristics

Essential characteristic **Clause No. – Description**		**Performance** **Level or class, units**	**Basis for the assessment of performance**
4.3	Reaction to fire	A1	**Descriptive documentation** 046/2023
4.4	Release of dangerous substances	None	**Descriptive documentation** SGS Test Report (SVHC) No.TSNEC2000446701 from 08.04. 2020
4.5	Pressure tightness	no leakage at 1,3 × maximum operating pressure (MOP) [kPa]	**Descriptive documentation** Product details from 27.03.2023
4.6	Surface temperature	Maximum 100 °C	**Descriptive documentation** Product details from 27.03.2023
4.7	Resistance to pressure	no breakage at 1,69 × MOP MOP: 350 kPa	**Test report No.** 046/2023
4.9	Rated thermal output	**see Annex No. 2**	**Test report No.** 046/2023
4.10	Thermal output in different operating conditions	**see Annex No. 2**	**Test report No.** 046/2023
Durability as:			
4.11	Resistance against corrosion	No corrosion after 100 h humidity	**Test report No.** P-VZLUTEST-068/23
4.11	Resistance against minor impact	ISO 2409:2013 – 1c – 0	**Test report No.** 048/2023

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end of Annex No. 1

Annex No. 2 Table of thermal outputs

In accordance with EN 442-2, cl. 5.5.1.2, for radiators the thermal output is considered linear with number of sections.

$$\Phi = \Phi_L \times N_S = K_T \times H^b \times \Delta T^{(c0+c1\times H)} \times N_S = K_L \times \Delta T^n \times N_S = K_M \times \Delta T^n$$

Φ	thermal output in *W*
Φ_L	thermal output of the module in *(W/section)*
K_T	constant of the type
b, c_0,c_1	coefficients of the characteristic equation of the type
K_M	constant of the model; $K_M = K_L \times N_S = K_T \times H^b \times N_S$
ΔT	excess temperature in *K*
n	the exponent; $n=c_0 + c_1 \times H$
N_S	number of sections

Coefficients of the characteristic equation of the type:

Symbol	Value
K_T	0,7855
b	0,8477
c_0	1,2989
c_1	0,0149

Modular thermal outputs:

Height	Number of sections	Modular standard rated thermal output	Modular standard low temperature thermal output	Thermal output in different operating conditions, as $\Phi_L = K_L \times \Delta T^n$ (W/sect.)	
H (m)	N_S	$\Phi_{L,50}$ (W/section)	$\Phi_{L,30}$ (W/section)	K_L	n
0,600	1	84,9	43,5	0,5094	1,3078
0,630	1	88,7	45,5	0,5309	1,3083
0,900	1	122	62,3	0,7184	1,3123
1,200	1	158	80,8	0,9168	1,3168
1,500	1	195	99,1	1,1077	1,3213
1,600	1	207	105	1,1700	1,3227
1,800	1	231	117	1,2928	1,3257
2,000	1	256	130	1,4136	1,3287

Thermal outputs for the type range:

Model SKU	Standard rated thermal output	Standard low temperature thermal output	Thermal output in different operating conditions, as $\Phi = K_M \times \Delta T^n$	
	Φ_{50} (W)	Φ_{30} (W)	K_M	n
JDDH D 7015 0607	594	305	3,5660	1,3078
JDDH D 7015 0608	679	348	4,0754	1,3078
JDDH D 7015 0609	764	392	4,5849	1,3078
JDDH D 7015 0610	849	435	5,0943	1,3078
JDDH D 7015 0611	934	479	5,6037	1,3078
JDDH D 7015 0612	1019	522	6,1132	1,3078
JDDH D 7015 0613	1104	566	6,6226	1,3078
JDDH D 7015 0614	1189	610	7,1320	1,3078
JDDH D 7015 0615	1274	653	7,6415	1,3078
JDDH D 7015 6307	621	318	3,7166	1,3083
JDDH D 7015 6308	709	364	4,2475	1,3083
JDDH D 7015 6309	798	409	4,7785	1,3083
JDDH D 7015 6310	887	455	5,3094	1,3083
JDDH D 7015 6311	975	500	5,8404	1,3083
JDDH D 7015 6312	1064	545	6,3713	1,3083
JDDH D 7015 6313	1153	591	6,9022	1,3083
JDDH D 7015 6314	1241	636	7,4332	1,3083
JDDH D 7015 6315	1330	682	7,9641	1,3083
JDDH D 7015 0904	487	249	2,8735	1,3123
JDDH D 7015 0905	609	312	3,5919	1,3123
JDDH D 7015 0906	731	374	4,3103	1,3123
JDDH D 7015 0907	853	436	5,0287	1,3123
JDDH D 7015 0908	975	499	5,7471	1,3123
JDDH D 7015 0909	1097	561	6,4655	1,3123
JDDH D 7015 0910	1219	623	7,1839	1,3123
JDDH D 7015 0911	1341	686	7,9022	1,3123
JDDH D 7015 0912	1462	748	8,6206	1,3123
JDDH D 7015 0913	1584	810	9,3390	1,3123
JDDH D 7015 0914	1706	873	10,0574	1,3123
JDDH D 7015 0915	1828	935	10,7758	1,3123

Model SKU	Standard rated thermal output	Standard low temperature thermal output	Thermal output in different operating conditions, as $\Phi = K_M \times \Delta T^n$	
	Φ_{50} (W)	Φ_{30} (W)	K_M	n
JDDH D 7015 1204	633	323	3,6671	1,3168
JDDH D 7015 1205	791	404	4,5839	1,3168
JDDH D 7015 1206	950	485	5,5007	1,3168
JDDH D 7015 1207	1108	566	6,4175	1,3168
JDDH D 7015 1208	1266	646	7,3343	1,3168
JDDH D 7015 1209	1425	727	8,2511	1,3168
JDDH D 7015 1210	1583	808	9,1679	1,3168
JDDH D 7015 1211	1741	889	10,0846	1,3168
JDDH D 7015 1212	1900	969	11,0014	1,3168
JDDH D 7015 1213	2058	1050	11,9182	1,3168
JDDH D 7015 1214	2216	1131	12,8350	1,3168
JDDH D 7015 1215	2374	1212	13,7518	1,3168
JDDH D 7015 1504	779	396	4,4308	1,3213
JDDH D 7015 1505	973	496	5,5385	1,3213
JDDH D 7015 1506	1168	595	6,6461	1,3213
JDDH D 7015 1507	1363	694	7,7538	1,3213
JDDH D 7015 1508	1557	793	8,8615	1,3213
JDDH D 7015 1604	827	421	4,6799	1,3227
JDDH D 7015 1605	1034	526	5,8499	1,3227
JDDH D 7015 1606	1240	631	7,0199	1,3227
JDDH D 7015 1607	1447	736	8,1899	1,3227
JDDH D 7015 1608	1654	842	9,3598	1,3227

Model SKU	**Standard rated thermal output** Φ_{50} (W)	**Standard low temperature thermal output** Φ_{30} (W)	**Thermal output in different operating conditions, as** $\Phi = K_M \times \Delta T^n$	
			K_M	n
JDDH D 7015 1804	925	470	5,1713	1,3257
JDDH D 7015 1805	1156	587	6,4641	1,3257
JDDH D 7015 1806	1387	705	7,7570	1,3257
JDDH D 7015 1807	1618	822	9,0498	1,3257
JDDH D 7015 1808	1849	939	10,3426	1,3257
JDDH D 7015 2004	1023	519	5,6544	1,3287
JDDH D 7015 2005	1279	649	7,0680	1,3287
JDDH D 7015 2006	1534	778	8,4817	1,3287
JDDH D 7015 2007	1790	908	9,8953	1,3287
JDDH D 7015 2008	2046	1038	11,3089	1,3287

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end of Annex No2, end of the Assessment of Performance Report