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-0019-2023

for construction product:

Family of construction product:	**Column radiator**
Intended use:	in heating systems in buildings
Type, name or trademark:	**JDDH D 5025**
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.

Number of report pages including main page and Annexes:	8
Number of Annexes:	7
Number of copies:	2 *(Copy No 2 archived by the NB2693)*

The person taking responsibility for the content of this report: Jiří Brož, *Head assessor*

The person taking responsibility for the correctness of this report: Tomáš Langer, *Head of the NB 2693*

At Býkev on: 29. 03. 2023

oznámený subjekt - laboratoř • notified body - laboratory • HEATEST, s.r.o. NB 2693

Copy No: 1

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** 044/2023
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: 1000 kPa	**Test report No.** 044/2023
4.9	Rated thermal output	**see Annex No. 2**	**Test report No.** 044/2023
4.10	Thermal output in different operating conditions	**see Annex No. 2**	**Test report No.** 044/2023
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

---

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	0,6332
b	0,9041
c_0	1,3171
c_1	0,0002

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	69,0	35,2	0,3990	1,3172
0,900	1	99,6	50,8	0,5757	1,3173
1,200	1	129,2	65,9	0,7467	1,3173
1,500	1	158	80,7	0,9136	1,3174
1,600	1	168	85,5	0,9685	1,3174
1,800	1	186	95,1	1,0773	1,3175
2,000	1	205	104,7	1,1850	1,3175

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 5025 0606	414	211	2,3940	1,3172
JDDH D 5025 0607	483	246	2,7930	1,3172
JDDH D 5025 0608	552	282	3,1920	1,3172
JDDH D 5025 0609	621	317	3,5910	1,3172
JDDH D 5025 0610	690	352	3,9899	1,3172
JDDH D 5025 0611	759	387	4,3889	1,3172
JDDH D 5025 0612	828	422	4,7879	1,3172
JDDH D 5025 0613	897	458	5,1869	1,3172
JDDH D 5025 0614	966	493	5,5859	1,3172
JDDH D 5025 0615	1035	528	5,9849	1,3172
JDDH D 5025 0616	1104	563	6,3839	1,3172
JDDH D 5025 0617	1173	599	6,7829	1,3172
JDDH D 5025 0618	1242	634	7,1819	1,3172
JDDH D 5025 0619	1311	669	7,5809	1,3172
JDDH D 5025 0620	1380	704	7,9799	1,3172
JDDH D 5025 0621	1449	739	8,3789	1,3172
JDDH D 5025 0622	1518	775	8,7779	1,3172
JDDH D 5025 0623	1587	810	9,1769	1,3172
JDDH D 5025 0624	1656	845	9,5759	1,3172
JDDH D 5025 0625	1725	880	9,9749	1,3172
JDDH D 5025 0626	1794	915	10,3739	1,3172
JDDH D 5025 0627	1863	951	10,7729	1,3172
JDDH D 5025 0628	1932	986	11,1719	1,3172

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 5025 0906	598	305	3,4540	1,3173
JDDH D 5025 0907	697	356	4,0297	1,3173
JDDH D 5025 0908	797	407	4,6053	1,3173
JDDH D 5025 0909	896	457	5,1810	1,3173
JDDH D 5025 0910	996	508	5,7567	1,3173
JDDH D 5025 0911	1096	559	6,3323	1,3173
JDDH D 5025 0912	1195	610	6,9080	1,3173
JDDH D 5025 0913	1295	661	7,4837	1,3173
JDDH D 5025 0914	1394	711	8,0593	1,3173
JDDH D 5025 0915	1494	762	8,6350	1,3173
JDDH D 5025 0916	1593	813	9,2107	1,3173
JDDH D 5025 0917	1693	864	9,7863	1,3173
JDDH D 5025 0918	1793	915	10,3620	1,3173
JDDH D 5025 0919	1892	965	10,9377	1,3173
JDDH D 5025 0920	1992	1016	11,5133	1,3173
JDDH D 5025 0921	2091	1067	12,0890	1,3173
JDDH D 5025 0922	2191	1118	12,6647	1,3173
JDDH D 5025 0923	2291	1169	13,2403	1,3173
JDDH D 5025 0924	2390	1220	13,8160	1,3173
JDDH D 5025 0925	2490	1270	14,3917	1,3173
JDDH D 5025 0926	2589	1321	14,9673	1,3173
JDDH D 5025 0927	2689	1372	15,5430	1,3173
JDDH D 5025 0928	2789	1423	16,1187	1,3173

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 5025 1206	775	395	4,4800	1,3173
JDDH D 5025 1207	904	461	5,2267	1,3173
JDDH D 5025 1208	1033	527	5,9734	1,3173
JDDH D 5025 1209	1163	593	6,7200	1,3173
JDDH D 5025 1210	1292	659	7,4667	1,3173
JDDH D 5025 1211	1421	725	8,2134	1,3173
JDDH D 5025 1212	1550	791	8,9600	1,3173
JDDH D 5025 1213	1679	857	9,7067	1,3173
JDDH D 5025 1214	1808	923	10,4534	1,3173
JDDH D 5025 1215	1938	989	11,2000	1,3173
JDDH D 5025 1216	2067	1055	11,9467	1,3173
JDDH D 5025 1217	2196	1120	12,6934	1,3173
JDDH D 5025 1218	2325	1186	13,4401	1,3173
JDDH D 5025 1219	2454	1252	14,1867	1,3173
JDDH D 5025 1220	2584	1318	14,9334	1,3173
JDDH D 5025 1504	632	323	3,6543	1,3174
JDDH D 5025 1505	791	403	4,5679	1,3174
JDDH D 5025 1506	949	484	5,4815	1,3174
JDDH D 5025 1507	1107	565	6,3950	1,3174
JDDH D 5025 1508	1265	645	7,3086	1,3174
JDDH D 5025 1509	1423	726	8,2222	1,3174
JDDH D 5025 1510	1581	807	9,1358	1,3174
JDDH D 5025 1511	1739	887	10,0493	1,3174
JDDH D 5025 1512	1897	968	10,9629	1,3174
JDDH D 5025 1513	2055	1049	11,8765	1,3174
JDDH D 5025 1514	2214	1129	12,7901	1,3174
JDDH D 5025 1515	2372	1210	13,7037	1,3174

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 5025 1604	670	342	3,8739	1,3174
JDDH D 5025 1605	838	428	4,8423	1,3174
JDDH D 5025 1606	1006	513	5,8108	1,3174
JDDH D 5025 1607	1173	599	6,7793	1,3174
JDDH D 5025 1608	1341	684	7,7478	1,3174
JDDH D 5025 1609	1509	770	8,7162	1,3174
JDDH D 5025 1610	1676	855	9,6847	1,3174
JDDH D 5025 1611	1844	941	10,6532	1,3174
JDDH D 5025 1612	2011	1026	11,6216	1,3174
JDDH D 5025 1613	2179	1112	12,5901	1,3174
JDDH D 5025 1614	2347	1197	13,5586	1,3174
JDDH D 5025 1615	2514	1283	14,5270	1,3174
JDDH D 5025 1804	746	381	4,3092	1,3175
JDDH D 5025 1805	933	476	5,3865	1,3175
JDDH D 5025 1806	1119	571	6,4637	1,3175
JDDH D 5025 1807	1306	666	7,5410	1,3175
JDDH D 5025 1808	1492	761	8,6183	1,3175
JDDH D 5025 1809	1679	856	9,6956	1,3175
JDDH D 5025 1810	1865	952	10,7729	1,3175
JDDH D 5025 1811	2052	1047	11,8502	1,3175
JDDH D 5025 1812	2238	1142	12,9275	1,3175
JDDH D 5025 1813	2425	1237	14,0048	1,3175
JDDH D 5025 1814	2611	1332	15,0821	1,3175
JDDH D 5025 1815	2798	1427	16,1594	1,3175

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 5025 2004	821	419	4,7398	1,3175
JDDH D 5025 2005	1026	523	5,9248	1,3175
JDDH D 5025 2006	1231	628	7,1097	1,3175
JDDH D 5025 2007	1436	733	8,2947	1,3175
JDDH D 5025 2008	1641	837	9,4796	1,3175
JDDH D 5025 2009	1846	942	10,6646	1,3175
JDDH D 5025 2010	2052	1047	11,8496	1,3175
JDDH D 5025 2011	2257	1151	13,0345	1,3175
JDDH D 5025 2012	2462	1256	14,2195	1,3175
JDDH D 5025 2013	2667	1361	15,4044	1,3175
JDDH D 5025 2014	2872	1465	16,5894	1,3175
JDDH D 5025 2015	3077	1570	17,7743	1,3175

---

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