

DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH
(DECLARATION OF PERFORMANCE)
Nr (No.) NDWU/1/TUBUS 3 V/2021

1. Niepowtarzalny kod identyfikacyjny typu wyrobu: (Unique identification code of the product-type:) TUBUS 3																								
2. Zamierzone zastosowanie lub zastosowania: W instalacjach grzewczych w budynkach (Intended use/es: In heating systems in buildings)																								
3. Producent: (Manufacturer:) INSTAL-PROJEKT Gawłowski, Ścierzyński Spółka jawna, Nowa Wieś k/ Włocławka, ul. Jana Pawła II 12A, 87-853 Kruszyn, Polska. (INSTAL-PROJEKT Gawłowski, Ścierzyński Spółka jawna, 87-853 Kruszyn, Nowa Wieś near Włocławek, Jana Pawła II 12A str., Poland.)																								
4. System(-y) oceny i weryfikacji stałości właściwości użytkowych: (System/s of AVCP:) System 3																								
5. Norma zharmonizowana: (Harmonised standard:) PN-EN 442-1:2015 EN 442-1:2014																								
6. Jednostka lub jednostki notyfikowane: (Notified body /ies:) Notyfikowana jednostka badawcza Instytut Energetyki - Oddział Techniki Grzewczej i Sanitarnej ul. Wilcza 8, PL- 26-610 Radom . Nr akredytacji: AB 143, Nr notyfikacji: 1452, wykonała wstępne badanie typu i wydała sprawozdanie z badań. (Notified accredited body Instytut Energetyki - Oddział Techniki Grzewczej i Sanitarnej ul. Wilcza 8, PL- 26-610 Radom. Accreditation no. AB 143, Notification no. 1452, performed initial type testing and issued test reports)																								
7. Deklarowane właściwości użytkowe: (Declared performance/s:) <table border="1"> <thead> <tr> <th>Zasadnicze charakterystyki Essential characteristics</th> <th>Właściwości użytkowe Performance</th> <th>Zharmonizowana specyfikacja techniczna Harmonised technical specification</th> </tr> </thead> <tbody> <tr> <td>Reakcja na ogień (Reaction to fire)</td> <td align="center">A1</td> <td align="center" rowspan="10">PN-EN 442-1:2015 EN 442-1:2014</td> </tr> <tr> <td>Uwalnianie substancji niebezpiecznych (Release of dangerous substances)</td> <td align="center">Nie ma (None)</td> </tr> <tr> <td>Szczelność pod działaniem ciśnienia (Pressure tightness)</td> <td>Brak przecieku przy ciśnieniu 1,3 krotnie większym od maksymalnego ciśnienia [kPa] (No leakage at 1,3 x maximum operating pressure [kPa])</td> </tr> <tr> <td>Temperatura powierzchni (Surface temperature)</td> <td align="center">Maksymalnie 95 °C (Maximum 95 °C)</td> </tr> <tr> <td>Odporność na działanie ciśnienia (Resistance to pressure)</td> <td>Brak pęknięć przy ciśnieniu 1,69 krotnie większym od maksymalnego dopuszczalnego ciśnienia roboczego [kPa]. (No breakage at 1,69 x maximum operating pressure [kPa]) Maksymalne dopuszczalne ciśnienie robocze: 1000 [kPa] (Maximum operating pressure 1000 [kPa])</td> </tr> <tr> <td>Nominalna moc cieplna (Φ 50 , Φ 30) (Rated thermal output) (Φ 50 , Φ 30)</td> <td align="center">Patrz Tabela nr.1 (See Table No.1)</td> </tr> <tr> <td>Moc cieplna w różnych warunkach eksploatacyjnych (charakterystyka) (Thermal output in different operating conditions (characteristic curve))</td> <td align="center">Patrz Tabela nr.1 (See Table No.1)</td> </tr> <tr> <td>Odporność na korozję (Resistance against corrosion)</td> <td align="center">Brak korozji po 100 h w wilgoci (No corrosion after 100 h humidity)</td> </tr> <tr> <td>Odporność na słabe uderzenia (Resistance against minor impact)</td> <td align="center">Klasa 0 (Class 0)</td> </tr> </tbody> </table>			Zasadnicze charakterystyki Essential characteristics	Właściwości użytkowe Performance	Zharmonizowana specyfikacja techniczna Harmonised technical specification	Reakcja na ogień (Reaction to fire)	A1	PN-EN 442-1:2015 EN 442-1:2014	Uwalnianie substancji niebezpiecznych (Release of dangerous substances)	Nie ma (None)	Szczelność pod działaniem ciśnienia (Pressure tightness)	Brak przecieku przy ciśnieniu 1,3 krotnie większym od maksymalnego ciśnienia [kPa] (No leakage at 1,3 x maximum operating pressure [kPa])	Temperatura powierzchni (Surface temperature)	Maksymalnie 95 °C (Maximum 95 °C)	Odporność na działanie ciśnienia (Resistance to pressure)	Brak pęknięć przy ciśnieniu 1,69 krotnie większym od maksymalnego dopuszczalnego ciśnienia roboczego [kPa]. (No breakage at 1,69 x maximum operating pressure [kPa]) Maksymalne dopuszczalne ciśnienie robocze: 1000 [kPa] (Maximum operating pressure 1000 [kPa])	Nominalna moc cieplna (Φ 50 , Φ 30) (Rated thermal output) (Φ 50 , Φ 30)	Patrz Tabela nr.1 (See Table No.1)	Moc cieplna w różnych warunkach eksploatacyjnych (charakterystyka) (Thermal output in different operating conditions (characteristic curve))	Patrz Tabela nr.1 (See Table No.1)	Odporność na korozję (Resistance against corrosion)	Brak korozji po 100 h w wilgoci (No corrosion after 100 h humidity)	Odporność na słabe uderzenia (Resistance against minor impact)	Klasa 0 (Class 0)
Zasadnicze charakterystyki Essential characteristics	Właściwości użytkowe Performance	Zharmonizowana specyfikacja techniczna Harmonised technical specification																						
Reakcja na ogień (Reaction to fire)	A1	PN-EN 442-1:2015 EN 442-1:2014																						
Uwalnianie substancji niebezpiecznych (Release of dangerous substances)	Nie ma (None)																							
Szczelność pod działaniem ciśnienia (Pressure tightness)	Brak przecieku przy ciśnieniu 1,3 krotnie większym od maksymalnego ciśnienia [kPa] (No leakage at 1,3 x maximum operating pressure [kPa])																							
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Nominalna moc cieplna (Φ 50 , Φ 30) (Rated thermal output) (Φ 50 , Φ 30)	Patrz Tabela nr.1 (See Table No.1)																							
Moc cieplna w różnych warunkach eksploatacyjnych (charakterystyka) (Thermal output in different operating conditions (characteristic curve))	Patrz Tabela nr.1 (See Table No.1)																							
Odporność na korozję (Resistance against corrosion)	Brak korozji po 100 h w wilgoci (No corrosion after 100 h humidity)																							
Odporność na słabe uderzenia (Resistance against minor impact)	Klasa 0 (Class 0)																							

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8. Właściwości użytkowe określonego powyżej wyrobu są zgodne z zestawem deklarowanych właściwości użytkowych. Niniejsza deklaracja właściwości użytkowych wydana zostaje zgodnie z rozporządzeniem (UE) nr 305/2011 na wyłączną odpowiedzialność producenta określonego powyżej.
(The performance of the product identified above is in conformity with the set of declared performance's. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.)

Tabela nr 1

(Table no. 1)

Model grzejnika	Normalna moc cieplna [W] (75/65/20 °C) ϕ_{50}	Moc cieplna [W] (55/45/20 °C) ϕ_{30}	Wykładnik n	ΔT	K_M	Moc cieplna w różnych warunkach eksploatacji				
Radiator model	Rated thermal output (75/65/20 °C) ϕ_{50}	Rated thermal output (55/45/20 °C) ϕ_{30}	Index exponent n	ΔT	K_M	Thermal output in different operating conditions (characteristic curve)				
TUB3-020/02V	44	23	1,2616	50	0,3191	$\phi =$	0,3191	x	ΔT	1,2616
TUB3-020/03V	67	35	1,2616	50	0,4787	$\phi =$	0,4787	x	ΔT	1,2616
TUB3-020/04V	89	47	1,2616	50	0,6383	$\phi =$	0,6383	x	ΔT	1,2616
TUB3-020/05V	111	58	1,2616	50	0,7978	$\phi =$	0,7978	x	ΔT	1,2616
TUB3-020/06V	133	70	1,2616	50	0,9574	$\phi =$	0,9574	x	ΔT	1,2616
TUB3-020/07V	155	82	1,2616	50	1,1169	$\phi =$	1,1169	x	ΔT	1,2616
TUB3-020/08V	178	93	1,2616	50	1,2765	$\phi =$	1,2765	x	ΔT	1,2616
TUB3-020/09V	200	105	1,2616	50	1,4361	$\phi =$	1,4361	x	ΔT	1,2616
TUB3-020/10V	222	117	1,2616	50	1,5956	$\phi =$	1,5956	x	ΔT	1,2616
TUB3-020/11V	244	128	1,2616	50	1,7552	$\phi =$	1,7552	x	ΔT	1,2616
TUB3-020/12V	266	140	1,2616	50	1,9148	$\phi =$	1,9148	x	ΔT	1,2616
TUB3-020/13V	289	151	1,2616	50	2,0743	$\phi =$	2,0743	x	ΔT	1,2616
TUB3-020/14V	311	163	1,2616	50	2,2339	$\phi =$	2,2339	x	ΔT	1,2616
TUB3-020/15V	333	175	1,2616	50	2,3934	$\phi =$	2,3934	x	ΔT	1,2616
TUB3-020/16V	355	186	1,2616	50	2,5530	$\phi =$	2,5530	x	ΔT	1,2616
TUB3-020/17V	377	198	1,2616	50	2,7126	$\phi =$	2,7126	x	ΔT	1,2616
TUB3-020/18V	400	210	1,2616	50	2,8721	$\phi =$	2,8721	x	ΔT	1,2616
TUB3-020/19V	422	221	1,2616	50	3,0317	$\phi =$	3,0317	x	ΔT	1,2616
TUB3-020/20V	444	233	1,2616	50	3,1913	$\phi =$	3,1913	x	ΔT	1,2616
TUB3-020/21V	466	245	1,2616	50	3,3508	$\phi =$	3,3508	x	ΔT	1,2616
TUB3-020/22V	488	256	1,2616	50	3,5104	$\phi =$	3,5104	x	ΔT	1,2616
TUB3-020/23V	511	268	1,2616	50	3,6700	$\phi =$	3,6700	x	ΔT	1,2616
TUB3-020/24V	533	280	1,2616	50	3,8295	$\phi =$	3,8295	x	ΔT	1,2616
TUB3-020/25V	555	291	1,2616	50	3,9891	$\phi =$	3,9891	x	ΔT	1,2616
TUB3-020/26V	577	303	1,2616	50	4,1486	$\phi =$	4,1486	x	ΔT	1,2616
TUB3-020/27V	599	315	1,2616	50	4,3082	$\phi =$	4,3082	x	ΔT	1,2616
TUB3-020/28V	622	326	1,2616	50	4,4678	$\phi =$	4,4678	x	ΔT	1,2616
TUB3-020/29V	644	338	1,2616	50	4,6273	$\phi =$	4,6273	x	ΔT	1,2616
TUB3-020/30V	666	350	1,2616	50	4,7869	$\phi =$	4,7869	x	ΔT	1,2616
TUB3-020/31V	688	361	1,2616	50	4,9465	$\phi =$	4,9465	x	ΔT	1,2616
TUB3-020/32V	710	373	1,2616	50	5,1060	$\phi =$	5,1060	x	ΔT	1,2616
TUB3-020/33V	733	385	1,2616	50	5,2656	$\phi =$	5,2656	x	ΔT	1,2616
TUB3-020/34V	755	396	1,2616	50	5,4251	$\phi =$	5,4251	x	ΔT	1,2616
TUB3-020/35V	777	408	1,2616	50	5,5847	$\phi =$	5,5847	x	ΔT	1,2616
TUB3-020/36V	799	420	1,2616	50	5,7443	$\phi =$	5,7443	x	ΔT	1,2616
TUB3-020/37V	821	431	1,2616	50	5,9038	$\phi =$	5,9038	x	ΔT	1,2616

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TUB3-020/38V	844	443	1,2616	50	6,0634	$\phi =$	6,0634	x	ΔT	1,2616
TUB3-020/39V	866	454	1,2616	50	6,2230	$\phi =$	6,2230	x	ΔT	1,2616
TUB3-020/40V	888	466	1,2616	50	6,3825	$\phi =$	6,3825	x	ΔT	1,2616
TUB3-020/41V	910	478	1,2616	50	6,5421	$\phi =$	6,5421	x	ΔT	1,2616
TUB3-020/42V	932	489	1,2616	50	6,7016	$\phi =$	6,7016	x	ΔT	1,2616
TUB3-020/43V	955	501	1,2616	50	6,8612	$\phi =$	6,8612	x	ΔT	1,2616
TUB3-020/44V	977	513	1,2616	50	7,0208	$\phi =$	7,0208	x	ΔT	1,2616
TUB3-020/45V	999	524	1,2616	50	7,1803	$\phi =$	7,1803	x	ΔT	1,2616
TUB3-030/02V	65	34	1,2667	50	0,4580	$\phi =$	0,4580	x	ΔT	1,2667
TUB3-030/03V	98	51	1,2667	50	0,6869	$\phi =$	0,6869	x	ΔT	1,2667
TUB3-030/04V	130	68	1,2667	50	0,9159	$\phi =$	0,9159	x	ΔT	1,2667
TUB3-030/05V	163	85	1,2667	50	1,1449	$\phi =$	1,1449	x	ΔT	1,2667
TUB3-030/06V	195	102	1,2667	50	1,3739	$\phi =$	1,3739	x	ΔT	1,2667
TUB3-030/07V	228	119	1,2667	50	1,6029	$\phi =$	1,6029	x	ΔT	1,2667
TUB3-030/08V	260	136	1,2667	50	1,8318	$\phi =$	1,8318	x	ΔT	1,2667
TUB3-030/09V	293	153	1,2667	50	2,0608	$\phi =$	2,0608	x	ΔT	1,2667
TUB3-030/10V	325	170	1,2667	50	2,2898	$\phi =$	2,2898	x	ΔT	1,2667
TUB3-030/11V	358	187	1,2667	50	2,5188	$\phi =$	2,5188	x	ΔT	1,2667
TUB3-030/12V	390	204	1,2667	50	2,7478	$\phi =$	2,7478	x	ΔT	1,2667
TUB3-030/13V	423	221	1,2667	50	2,9767	$\phi =$	2,9767	x	ΔT	1,2667
TUB3-030/14V	455	238	1,2667	50	3,2057	$\phi =$	3,2057	x	ΔT	1,2667
TUB3-030/15V	488	255	1,2667	50	3,4347	$\phi =$	3,4347	x	ΔT	1,2667
TUB3-030/16V	520	272	1,2667	50	3,6637	$\phi =$	3,6637	x	ΔT	1,2667
TUB3-030/17V	553	289	1,2667	50	3,8927	$\phi =$	3,8927	x	ΔT	1,2667
TUB3-030/18V	585	306	1,2667	50	4,1216	$\phi =$	4,1216	x	ΔT	1,2667
TUB3-030/19V	618	323	1,2667	50	4,3506	$\phi =$	4,3506	x	ΔT	1,2667
TUB3-030/20V	650	340	1,2667	50	4,5796	$\phi =$	4,5796	x	ΔT	1,2667
TUB3-030/21V	683	357	1,2667	50	4,8086	$\phi =$	4,8086	x	ΔT	1,2667
TUB3-030/22V	715	374	1,2667	50	5,0376	$\phi =$	5,0376	x	ΔT	1,2667
TUB3-030/23V	748	391	1,2667	50	5,2665	$\phi =$	5,2665	x	ΔT	1,2667
TUB3-030/24V	780	408	1,2667	50	5,4955	$\phi =$	5,4955	x	ΔT	1,2667
TUB3-030/25V	813	425	1,2667	50	5,7245	$\phi =$	5,7245	x	ΔT	1,2667
TUB3-030/26V	845	442	1,2667	50	5,9535	$\phi =$	5,9535	x	ΔT	1,2667
TUB3-030/27V	878	459	1,2667	50	6,1825	$\phi =$	6,1825	x	ΔT	1,2667
TUB3-030/28V	910	476	1,2667	50	6,4114	$\phi =$	6,4114	x	ΔT	1,2667
TUB3-030/29V	943	493	1,2667	50	6,6404	$\phi =$	6,6404	x	ΔT	1,2667
TUB3-030/30V	975	510	1,2667	50	6,8694	$\phi =$	6,8694	x	ΔT	1,2667
TUB3-030/31V	1008	528	1,2667	50	7,0984	$\phi =$	7,0984	x	ΔT	1,2667
TUB3-030/32V	1040	545	1,2667	50	7,3274	$\phi =$	7,3274	x	ΔT	1,2667
TUB3-030/33V	1073	562	1,2667	50	7,5563	$\phi =$	7,5563	x	ΔT	1,2667
TUB3-030/34V	1105	579	1,2667	50	7,7853	$\phi =$	7,7853	x	ΔT	1,2667
TUB3-030/35V	1138	596	1,2667	50	8,0143	$\phi =$	8,0143	x	ΔT	1,2667
TUB3-030/36V	1170	613	1,2667	50	8,2433	$\phi =$	8,2433	x	ΔT	1,2667
TUB3-030/37V	1203	630	1,2667	50	8,4723	$\phi =$	8,4723	x	ΔT	1,2667
TUB3-030/38V	1235	647	1,2667	50	8,7013	$\phi =$	8,7013	x	ΔT	1,2667
TUB3-030/39V	1268	664	1,2667	50	8,9302	$\phi =$	8,9302	x	ΔT	1,2667
TUB3-030/40V	1300	681	1,2667	50	9,1592	$\phi =$	9,1592	x	ΔT	1,2667

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TUB3-030/41V	1333	698	1,2667	50	9,3882	$\phi =$	9,3882	x	ΔT	1,2667
TUB3-030/42V	1365	715	1,2667	50	9,6172	$\phi =$	9,6172	x	ΔT	1,2667
TUB3-030/43V	1398	732	1,2667	50	9,8462	$\phi =$	9,8462	x	ΔT	1,2667
TUB3-030/44V	1430	749	1,2667	50	10,0751	$\phi =$	10,0751	x	ΔT	1,2667
TUB3-030/45V	1463	766	1,2667	50	10,3041	$\phi =$	10,3041	x	ΔT	1,2667
TUB3-040/02V	85	45	1,2698	50	0,5930	$\phi =$	0,5930	x	ΔT	1,2698
TUB3-040/03V	128	67	1,2698	50	0,8896	$\phi =$	0,8896	x	ΔT	1,2698
TUB3-040/04V	170	89	1,2698	50	1,1861	$\phi =$	1,1861	x	ΔT	1,2698
TUB3-040/05V	213	111	1,2698	50	1,4826	$\phi =$	1,4826	x	ΔT	1,2698
TUB3-040/06V	256	134	1,2698	50	1,7791	$\phi =$	1,7791	x	ΔT	1,2698
TUB3-040/07V	298	156	1,2698	50	2,0757	$\phi =$	2,0757	x	ΔT	1,2698
TUB3-040/08V	341	178	1,2698	50	2,3722	$\phi =$	2,3722	x	ΔT	1,2698
TUB3-040/09V	383	200	1,2698	50	2,6687	$\phi =$	2,6687	x	ΔT	1,2698
TUB3-040/10V	426	223	1,2698	50	2,9652	$\phi =$	2,9652	x	ΔT	1,2698
TUB3-040/11V	469	245	1,2698	50	3,2617	$\phi =$	3,2617	x	ΔT	1,2698
TUB3-040/12V	511	267	1,2698	50	3,5583	$\phi =$	3,5583	x	ΔT	1,2698
TUB3-040/13V	554	290	1,2698	50	3,8548	$\phi =$	3,8548	x	ΔT	1,2698
TUB3-040/14V	596	312	1,2698	50	4,1513	$\phi =$	4,1513	x	ΔT	1,2698
TUB3-040/15V	639	334	1,2698	50	4,4478	$\phi =$	4,4478	x	ΔT	1,2698
TUB3-040/16V	682	356	1,2698	50	4,7444	$\phi =$	4,7444	x	ΔT	1,2698
TUB3-040/17V	724	379	1,2698	50	5,0409	$\phi =$	5,0409	x	ΔT	1,2698
TUB3-040/18V	767	401	1,2698	50	5,3374	$\phi =$	5,3374	x	ΔT	1,2698
TUB3-040/19V	809	423	1,2698	50	5,6339	$\phi =$	5,6339	x	ΔT	1,2698
TUB3-040/20V	852	445	1,2698	50	5,9304	$\phi =$	5,9304	x	ΔT	1,2698
TUB3-040/21V	895	468	1,2698	50	6,2270	$\phi =$	6,2270	x	ΔT	1,2698
TUB3-040/22V	937	490	1,2698	50	6,5235	$\phi =$	6,5235	x	ΔT	1,2698
TUB3-040/23V	980	512	1,2698	50	6,8200	$\phi =$	6,8200	x	ΔT	1,2698
TUB3-040/24V	1022	534	1,2698	50	7,1165	$\phi =$	7,1165	x	ΔT	1,2698
TUB3-040/25V	1065	557	1,2698	50	7,4131	$\phi =$	7,4131	x	ΔT	1,2698
TUB3-040/26V	1108	579	1,2698	50	7,7096	$\phi =$	7,7096	x	ΔT	1,2698
TUB3-040/27V	1150	601	1,2698	50	8,0061	$\phi =$	8,0061	x	ΔT	1,2698
TUB3-040/28V	1193	624	1,2698	50	8,3026	$\phi =$	8,3026	x	ΔT	1,2698
TUB3-040/29V	1235	646	1,2698	50	8,5991	$\phi =$	8,5991	x	ΔT	1,2698
TUB3-040/30V	1278	668	1,2698	50	8,8957	$\phi =$	8,8957	x	ΔT	1,2698
TUB3-040/31V	1321	690	1,2698	50	9,1922	$\phi =$	9,1922	x	ΔT	1,2698
TUB3-040/32V	1363	713	1,2698	50	9,4887	$\phi =$	9,4887	x	ΔT	1,2698
TUB3-040/33V	1406	735	1,2698	50	9,7852	$\phi =$	9,7852	x	ΔT	1,2698
TUB3-040/34V	1448	757	1,2698	50	10,0818	$\phi =$	10,0818	x	ΔT	1,2698
TUB3-040/35V	1491	779	1,2698	50	10,3783	$\phi =$	10,3783	x	ΔT	1,2698
TUB3-040/36V	1534	802	1,2698	50	10,6748	$\phi =$	10,6748	x	ΔT	1,2698
TUB3-040/37V	1576	824	1,2698	50	10,9713	$\phi =$	10,9713	x	ΔT	1,2698
TUB3-040/38V	1619	846	1,2698	50	11,2679	$\phi =$	11,2679	x	ΔT	1,2698
TUB3-040/39V	1661	869	1,2698	50	11,5644	$\phi =$	11,5644	x	ΔT	1,2698
TUB3-040/40V	1704	891	1,2698	50	11,8609	$\phi =$	11,8609	x	ΔT	1,2698
TUB3-040/41V	1747	913	1,2698	50	12,1574	$\phi =$	12,1574	x	ΔT	1,2698
TUB3-040/42V	1789	935	1,2698	50	12,4539	$\phi =$	12,4539	x	ΔT	1,2698
TUB3-040/43V	1832	958	1,2698	50	12,7505	$\phi =$	12,7505	x	ΔT	1,2698

TUB3-040/44V	1874	980	1,2698	50	13,0470	$\phi =$	13,0470	x	ΔT	1,2698
TUB3-040/45V	1917	1002	1,2698	50	13,3435	$\phi =$	13,3435	x	ΔT	1,2698
TUB3-050/02V	105	55	1,2722	50	0,7268	$\phi =$	0,7268	x	ΔT	1,2722
TUB3-050/03V	158	83	1,2722	50	1,0902	$\phi =$	1,0902	x	ΔT	1,2722
TUB3-050/04V	211	110	1,2722	50	1,4536	$\phi =$	1,4536	x	ΔT	1,2722
TUB3-050/05V	264	138	1,2722	50	1,8170	$\phi =$	1,8170	x	ΔT	1,2722
TUB3-050/06V	316	165	1,2722	50	2,1804	$\phi =$	2,1804	x	ΔT	1,2722
TUB3-050/07V	369	193	1,2722	50	2,5438	$\phi =$	2,5438	x	ΔT	1,2722
TUB3-050/08V	422	220	1,2722	50	2,9072	$\phi =$	2,9072	x	ΔT	1,2722
TUB3-050/09V	474	248	1,2722	50	3,2706	$\phi =$	3,2706	x	ΔT	1,2722
TUB3-050/10V	527	275	1,2722	50	3,6340	$\phi =$	3,6340	x	ΔT	1,2722
TUB3-050/11V	580	303	1,2722	50	3,9974	$\phi =$	3,9974	x	ΔT	1,2722
TUB3-050/12V	632	330	1,2722	50	4,3608	$\phi =$	4,3608	x	ΔT	1,2722
TUB3-050/13V	685	358	1,2722	50	4,7242	$\phi =$	4,7242	x	ΔT	1,2722
TUB3-050/14V	738	385	1,2722	50	5,0876	$\phi =$	5,0876	x	ΔT	1,2722
TUB3-050/15V	791	413	1,2722	50	5,4510	$\phi =$	5,4510	x	ΔT	1,2722
TUB3-050/16V	843	440	1,2722	50	5,8143	$\phi =$	5,8143	x	ΔT	1,2722
TUB3-050/17V	896	468	1,2722	50	6,1777	$\phi =$	6,1777	x	ΔT	1,2722
TUB3-050/18V	949	495	1,2722	50	6,5411	$\phi =$	6,5411	x	ΔT	1,2722
TUB3-050/19V	1001	523	1,2722	50	6,9045	$\phi =$	6,9045	x	ΔT	1,2722
TUB3-050/20V	1054	550	1,2722	50	7,2679	$\phi =$	7,2679	x	ΔT	1,2722
TUB3-050/21V	1107	578	1,2722	50	7,6313	$\phi =$	7,6313	x	ΔT	1,2722
TUB3-050/22V	1159	605	1,2722	50	7,9947	$\phi =$	7,9947	x	ΔT	1,2722
TUB3-050/23V	1212	633	1,2722	50	8,3581	$\phi =$	8,3581	x	ΔT	1,2722
TUB3-050/24V	1265	660	1,2722	50	8,7215	$\phi =$	8,7215	x	ΔT	1,2722
TUB3-050/25V	1318	688	1,2722	50	9,0849	$\phi =$	9,0849	x	ΔT	1,2722
TUB3-050/26V	1370	715	1,2722	50	9,4483	$\phi =$	9,4483	x	ΔT	1,2722
TUB3-050/27V	1423	743	1,2722	50	9,8117	$\phi =$	9,8117	x	ΔT	1,2722
TUB3-050/28V	1476	770	1,2722	50	10,1751	$\phi =$	10,1751	x	ΔT	1,2722
TUB3-050/29V	1528	798	1,2722	50	10,5385	$\phi =$	10,5385	x	ΔT	1,2722
TUB3-050/30V	1581	825	1,2722	50	10,9019	$\phi =$	10,9019	x	ΔT	1,2722
TUB3-050/31V	1634	853	1,2722	50	11,2653	$\phi =$	11,2653	x	ΔT	1,2722
TUB3-050/32V	1686	880	1,2722	50	11,6287	$\phi =$	11,6287	x	ΔT	1,2722
TUB3-050/33V	1739	908	1,2722	50	11,9921	$\phi =$	11,9921	x	ΔT	1,2722
TUB3-050/34V	1792	936	1,2722	50	12,3555	$\phi =$	12,3555	x	ΔT	1,2722
TUB3-050/35V	1845	963	1,2722	50	12,7189	$\phi =$	12,7189	x	ΔT	1,2722
TUB3-050/36V	1897	991	1,2722	50	13,0823	$\phi =$	13,0823	x	ΔT	1,2722
TUB3-050/37V	1950	1018	1,2722	50	13,4457	$\phi =$	13,4457	x	ΔT	1,2722
TUB3-050/38V	2003	1046	1,2722	50	13,8091	$\phi =$	13,8091	x	ΔT	1,2722
TUB3-050/39V	2055	1073	1,2722	50	14,1725	$\phi =$	14,1725	x	ΔT	1,2722
TUB3-050/40V	2108	1101	1,2722	50	14,5359	$\phi =$	14,5359	x	ΔT	1,2722
TUB3-050/41V	2161	1128	1,2722	50	14,8993	$\phi =$	14,8993	x	ΔT	1,2722
TUB3-050/42V	2213	1156	1,2722	50	15,2627	$\phi =$	15,2627	x	ΔT	1,2722
TUB3-050/43V	2266	1183	1,2722	50	15,6261	$\phi =$	15,6261	x	ΔT	1,2722
TUB3-050/44V	2319	1211	1,2722	50	15,9895	$\phi =$	15,9895	x	ΔT	1,2722
TUB3-050/45V	2372	1238	1,2722	50	16,3529	$\phi =$	16,3529	x	ΔT	1,2722
TUB3-070/02V	145	76	1,2762	50	0,9857	$\phi =$	0,9857	x	ΔT	1,2762

TUB3-070/03V	218	113	1,2762	50	1,4785	$\phi =$	1,4785	x	ΔT	1,2762
TUB3-070/04V	290	151	1,2762	50	1,9714	$\phi =$	1,9714	x	ΔT	1,2762
TUB3-070/05V	363	189	1,2762	50	2,4642	$\phi =$	2,4642	x	ΔT	1,2762
TUB3-070/06V	436	227	1,2762	50	2,9571	$\phi =$	2,9571	x	ΔT	1,2762
TUB3-070/07V	508	265	1,2762	50	3,4499	$\phi =$	3,4499	x	ΔT	1,2762
TUB3-070/08V	581	303	1,2762	50	3,9428	$\phi =$	3,9428	x	ΔT	1,2762
TUB3-070/09V	653	340	1,2762	50	4,4356	$\phi =$	4,4356	x	ΔT	1,2762
TUB3-070/10V	726	378	1,2762	50	4,9285	$\phi =$	4,9285	x	ΔT	1,2762
TUB3-070/11V	799	416	1,2762	50	5,4213	$\phi =$	5,4213	x	ΔT	1,2762
TUB3-070/12V	871	454	1,2762	50	5,9142	$\phi =$	5,9142	x	ΔT	1,2762
TUB3-070/13V	944	492	1,2762	50	6,4070	$\phi =$	6,4070	x	ΔT	1,2762
TUB3-070/14V	1016	530	1,2762	50	6,8998	$\phi =$	6,8998	x	ΔT	1,2762
TUB3-070/15V	1089	567	1,2762	50	7,3927	$\phi =$	7,3927	x	ΔT	1,2762
TUB3-070/16V	1162	605	1,2762	50	7,8855	$\phi =$	7,8855	x	ΔT	1,2762
TUB3-070/17V	1234	643	1,2762	50	8,3784	$\phi =$	8,3784	x	ΔT	1,2762
TUB3-070/18V	1307	681	1,2762	50	8,8712	$\phi =$	8,8712	x	ΔT	1,2762
TUB3-070/19V	1379	719	1,2762	50	9,3641	$\phi =$	9,3641	x	ΔT	1,2762
TUB3-070/20V	1452	757	1,2762	50	9,8569	$\phi =$	9,8569	x	ΔT	1,2762
TUB3-070/21V	1525	794	1,2762	50	10,3498	$\phi =$	10,3498	x	ΔT	1,2762
TUB3-070/22V	1597	832	1,2762	50	10,8426	$\phi =$	10,8426	x	ΔT	1,2762
TUB3-070/23V	1670	870	1,2762	50	11,3355	$\phi =$	11,3355	x	ΔT	1,2762
TUB3-070/24V	1742	908	1,2762	50	11,8283	$\phi =$	11,8283	x	ΔT	1,2762
TUB3-070/25V	1815	946	1,2762	50	12,3211	$\phi =$	12,3211	x	ΔT	1,2762
TUB3-070/26V	1888	984	1,2762	50	12,8140	$\phi =$	12,8140	x	ΔT	1,2762
TUB3-070/27V	1960	1021	1,2762	50	13,3068	$\phi =$	13,3068	x	ΔT	1,2762
TUB3-070/28V	2033	1059	1,2762	50	13,7997	$\phi =$	13,7997	x	ΔT	1,2762
TUB3-070/29V	2105	1097	1,2762	50	14,2925	$\phi =$	14,2925	x	ΔT	1,2762
TUB3-070/30V	2178	1135	1,2762	50	14,7854	$\phi =$	14,7854	x	ΔT	1,2762
TUB3-070/31V	2251	1173	1,2762	50	15,2782	$\phi =$	15,2782	x	ΔT	1,2762
TUB3-070/32V	2323	1210	1,2762	50	15,7711	$\phi =$	15,7711	x	ΔT	1,2762
TUB3-070/33V	2396	1248	1,2762	50	16,2639	$\phi =$	16,2639	x	ΔT	1,2762
TUB3-070/34V	2468	1286	1,2762	50	16,7568	$\phi =$	16,7568	x	ΔT	1,2762
TUB3-070/35V	2541	1324	1,2762	50	17,2496	$\phi =$	17,2496	x	ΔT	1,2762
TUB3-070/36V	2614	1362	1,2762	50	17,7425	$\phi =$	17,7425	x	ΔT	1,2762
TUB3-070/37V	2686	1400	1,2762	50	18,2353	$\phi =$	18,2353	x	ΔT	1,2762
TUB3-070/38V	2759	1437	1,2762	50	18,7281	$\phi =$	18,7281	x	ΔT	1,2762
TUB3-070/39V	2831	1475	1,2762	50	19,2210	$\phi =$	19,2210	x	ΔT	1,2762
TUB3-070/40V	2904	1513	1,2762	50	19,7138	$\phi =$	19,7138	x	ΔT	1,2762
TUB3-070/41V	2977	1551	1,2762	50	20,2067	$\phi =$	20,2067	x	ΔT	1,2762
TUB3-070/42V	3049	1589	1,2762	50	20,6995	$\phi =$	20,6995	x	ΔT	1,2762
TUB3-080/02V	165	86	1,2779	50	1,1140	$\phi =$	1,1140	x	ΔT	1,2779
TUB3-080/03V	248	129	1,2779	50	1,6710	$\phi =$	1,6710	x	ΔT	1,2779
TUB3-080/04V	330	172	1,2779	50	2,2281	$\phi =$	2,2281	x	ΔT	1,2779
TUB3-080/05V	413	215	1,2779	50	2,7851	$\phi =$	2,7851	x	ΔT	1,2779
TUB3-080/06V	496	258	1,2779	50	3,3421	$\phi =$	3,3421	x	ΔT	1,2779
TUB3-080/07V	578	301	1,2779	50	3,8991	$\phi =$	3,8991	x	ΔT	1,2779
TUB3-080/08V	661	344	1,2779	50	4,4561	$\phi =$	4,4561	x	ΔT	1,2779

TUB3-080/09V	743	387	1,2779	50	5,0131	$\phi =$	5,0131	x	ΔT	1,2779
TUB3-080/10V	826	430	1,2779	50	5,5701	$\phi =$	5,5701	x	ΔT	1,2779
TUB3-080/11V	909	473	1,2779	50	6,1272	$\phi =$	6,1272	x	ΔT	1,2779
TUB3-080/12V	991	516	1,2779	50	6,6842	$\phi =$	6,6842	x	ΔT	1,2779
TUB3-080/13V	1074	559	1,2779	50	7,2412	$\phi =$	7,2412	x	ΔT	1,2779
TUB3-080/14V	1156	602	1,2779	50	7,7982	$\phi =$	7,7982	x	ΔT	1,2779
TUB3-080/15V	1239	645	1,2779	50	8,3552	$\phi =$	8,3552	x	ΔT	1,2779
TUB3-080/16V	1322	688	1,2779	50	8,9122	$\phi =$	8,9122	x	ΔT	1,2779
TUB3-080/17V	1404	731	1,2779	50	9,4692	$\phi =$	9,4692	x	ΔT	1,2779
TUB3-080/18V	1487	774	1,2779	50	10,0263	$\phi =$	10,0263	x	ΔT	1,2779
TUB3-080/19V	1569	817	1,2779	50	10,5833	$\phi =$	10,5833	x	ΔT	1,2779
TUB3-080/20V	1652	860	1,2779	50	11,1403	$\phi =$	11,1403	x	ΔT	1,2779
TUB3-080/21V	1735	903	1,2779	50	11,6973	$\phi =$	11,6973	x	ΔT	1,2779
TUB3-080/22V	1817	946	1,2779	50	12,2543	$\phi =$	12,2543	x	ΔT	1,2779
TUB3-080/23V	1900	989	1,2779	50	12,8113	$\phi =$	12,8113	x	ΔT	1,2779
TUB3-080/24V	1982	1032	1,2779	50	13,3683	$\phi =$	13,3683	x	ΔT	1,2779
TUB3-080/25V	2065	1075	1,2779	50	13,9254	$\phi =$	13,9254	x	ΔT	1,2779
TUB3-080/26V	2148	1118	1,2779	50	14,4824	$\phi =$	14,4824	x	ΔT	1,2779
TUB3-080/27V	2230	1161	1,2779	50	15,0394	$\phi =$	15,0394	x	ΔT	1,2779
TUB3-080/28V	2313	1204	1,2779	50	15,5964	$\phi =$	15,5964	x	ΔT	1,2779
TUB3-080/29V	2395	1247	1,2779	50	16,1534	$\phi =$	16,1534	x	ΔT	1,2779
TUB3-080/30V	2478	1290	1,2779	50	16,7104	$\phi =$	16,7104	x	ΔT	1,2779
TUB3-080/31V	2561	1333	1,2779	50	17,2674	$\phi =$	17,2674	x	ΔT	1,2779
TUB3-080/32V	2643	1376	1,2779	50	17,8245	$\phi =$	17,8245	x	ΔT	1,2779
TUB3-080/33V	2726	1419	1,2779	50	18,3815	$\phi =$	18,3815	x	ΔT	1,2779
TUB3-080/34V	2808	1462	1,2779	50	18,9385	$\phi =$	18,9385	x	ΔT	1,2779
TUB3-080/35V	2891	1505	1,2779	50	19,4955	$\phi =$	19,4955	x	ΔT	1,2779
TUB3-080/36V	2974	1548	1,2779	50	20,0525	$\phi =$	20,0525	x	ΔT	1,2779
TUB3-080/37V	3056	1591	1,2779	50	20,6095	$\phi =$	20,6095	x	ΔT	1,2779
TUB3-090/02V	185	96	1,2795	50	1,2398	$\phi =$	1,2398	x	ΔT	1,2795
TUB3-090/03V	278	144	1,2795	50	1,8596	$\phi =$	1,8596	x	ΔT	1,2795
TUB3-090/04V	370	192	1,2795	50	2,4795	$\phi =$	2,4795	x	ΔT	1,2795
TUB3-090/05V	463	241	1,2795	50	3,0994	$\phi =$	3,0994	x	ΔT	1,2795
TUB3-090/06V	555	289	1,2795	50	3,7193	$\phi =$	3,7193	x	ΔT	1,2795
TUB3-090/07V	648	337	1,2795	50	4,3392	$\phi =$	4,3392	x	ΔT	1,2795
TUB3-090/08V	740	385	1,2795	50	4,9591	$\phi =$	4,9591	x	ΔT	1,2795
TUB3-090/09V	833	433	1,2795	50	5,5789	$\phi =$	5,5789	x	ΔT	1,2795
TUB3-090/10V	925	481	1,2795	50	6,1988	$\phi =$	6,1988	x	ΔT	1,2795
TUB3-090/11V	1018	529	1,2795	50	6,8187	$\phi =$	6,8187	x	ΔT	1,2795
TUB3-090/12V	1110	577	1,2795	50	7,4386	$\phi =$	7,4386	x	ΔT	1,2795
TUB3-090/13V	1203	626	1,2795	50	8,0585	$\phi =$	8,0585	x	ΔT	1,2795
TUB3-090/14V	1295	674	1,2795	50	8,6784	$\phi =$	8,6784	x	ΔT	1,2795
TUB3-090/15V	1388	722	1,2795	50	9,2982	$\phi =$	9,2982	x	ΔT	1,2795
TUB3-090/16V	1480	770	1,2795	50	9,9181	$\phi =$	9,9181	x	ΔT	1,2795
TUB3-090/17V	1573	818	1,2795	50	10,5380	$\phi =$	10,5380	x	ΔT	1,2795
TUB3-090/18V	1665	866	1,2795	50	11,1579	$\phi =$	11,1579	x	ΔT	1,2795
TUB3-090/19V	1758	914	1,2795	50	11,7778	$\phi =$	11,7778	x	ΔT	1,2795

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TUB3-090/20V	1850	962	1,2795	50	12,3977	$\phi =$	12,3977	x	ΔT	1,2795
TUB3-090/21V	1943	1010	1,2795	50	13,0175	$\phi =$	13,0175	x	ΔT	1,2795
TUB3-090/22V	2035	1059	1,2795	50	13,6374	$\phi =$	13,6374	x	ΔT	1,2795
TUB3-090/23V	2128	1107	1,2795	50	14,2573	$\phi =$	14,2573	x	ΔT	1,2795
TUB3-090/24V	2220	1155	1,2795	50	14,8772	$\phi =$	14,8772	x	ΔT	1,2795
TUB3-090/25V	2313	1203	1,2795	50	15,4971	$\phi =$	15,4971	x	ΔT	1,2795
TUB3-090/26V	2405	1251	1,2795	50	16,1170	$\phi =$	16,1170	x	ΔT	1,2795
TUB3-090/27V	2498	1299	1,2795	50	16,7368	$\phi =$	16,7368	x	ΔT	1,2795
TUB3-090/28V	2590	1347	1,2795	50	17,3567	$\phi =$	17,3567	x	ΔT	1,2795
TUB3-090/29V	2683	1395	1,2795	50	17,9766	$\phi =$	17,9766	x	ΔT	1,2795
TUB3-090/30V	2775	1443	1,2795	50	18,5965	$\phi =$	18,5965	x	ΔT	1,2795
TUB3-090/31V	2868	1492	1,2795	50	19,2164	$\phi =$	19,2164	x	ΔT	1,2795
TUB3-090/32V	2960	1540	1,2795	50	19,8363	$\phi =$	19,8363	x	ΔT	1,2795
TUB3-090/33V	3053	1588	1,2795	50	20,4561	$\phi =$	20,4561	x	ΔT	1,2795
TUB3-090/34V	3145	1636	1,2795	50	21,0760	$\phi =$	21,0760	x	ΔT	1,2795
TUB3-100/02V	205	107	1,2811	50	1,3652	$\phi =$	1,3652	x	ΔT	1,2811
TUB3-100/03V	308	160	1,2811	50	2,0478	$\phi =$	2,0478	x	ΔT	1,2811
TUB3-100/04V	410	213	1,2811	50	2,7304	$\phi =$	2,7304	x	ΔT	1,2811
TUB3-100/05V	513	266	1,2811	50	3,4131	$\phi =$	3,4131	x	ΔT	1,2811
TUB3-100/06V	615	320	1,2811	50	4,0957	$\phi =$	4,0957	x	ΔT	1,2811
TUB3-100/07V	718	373	1,2811	50	4,7783	$\phi =$	4,7783	x	ΔT	1,2811
TUB3-100/08V	820	426	1,2811	50	5,4609	$\phi =$	5,4609	x	ΔT	1,2811
TUB3-100/09V	923	479	1,2811	50	6,1435	$\phi =$	6,1435	x	ΔT	1,2811
TUB3-100/10V	1025	533	1,2811	50	6,8261	$\phi =$	6,8261	x	ΔT	1,2811
TUB3-100/11V	1128	586	1,2811	50	7,5087	$\phi =$	7,5087	x	ΔT	1,2811
TUB3-100/12V	1230	639	1,2811	50	8,1913	$\phi =$	8,1913	x	ΔT	1,2811
TUB3-100/13V	1333	693	1,2811	50	8,8739	$\phi =$	8,8739	x	ΔT	1,2811
TUB3-100/14V	1435	746	1,2811	50	9,5566	$\phi =$	9,5566	x	ΔT	1,2811
TUB3-100/15V	1538	799	1,2811	50	10,2392	$\phi =$	10,2392	x	ΔT	1,2811
TUB3-100/16V	1640	852	1,2811	50	10,9218	$\phi =$	10,9218	x	ΔT	1,2811
TUB3-100/17V	1743	906	1,2811	50	11,6044	$\phi =$	11,6044	x	ΔT	1,2811
TUB3-100/18V	1845	959	1,2811	50	12,2870	$\phi =$	12,2870	x	ΔT	1,2811
TUB3-100/19V	1948	1012	1,2811	50	12,9696	$\phi =$	12,9696	x	ΔT	1,2811
TUB3-100/20V	2050	1065	1,2811	50	13,6522	$\phi =$	13,6522	x	ΔT	1,2811
TUB3-100/21V	2153	1119	1,2811	50	14,3348	$\phi =$	14,3348	x	ΔT	1,2811
TUB3-100/22V	2255	1172	1,2811	50	15,0174	$\phi =$	15,0174	x	ΔT	1,2811
TUB3-100/23V	2358	1225	1,2811	50	15,7001	$\phi =$	15,7001	x	ΔT	1,2811
TUB3-100/24V	2460	1279	1,2811	50	16,3827	$\phi =$	16,3827	x	ΔT	1,2811
TUB3-100/25V	2563	1332	1,2811	50	17,0653	$\phi =$	17,0653	x	ΔT	1,2811
TUB3-100/26V	2665	1385	1,2811	50	17,7479	$\phi =$	17,7479	x	ΔT	1,2811
TUB3-100/27V	2768	1438	1,2811	50	18,4305	$\phi =$	18,4305	x	ΔT	1,2811
TUB3-100/28V	2870	1492	1,2811	50	19,1131	$\phi =$	19,1131	x	ΔT	1,2811
TUB3-100/29V	2973	1545	1,2811	50	19,7957	$\phi =$	19,7957	x	ΔT	1,2811
TUB3-100/30V	3075	1598	1,2811	50	20,4783	$\phi =$	20,4783	x	ΔT	1,2811
TUB3-100/31V	3178	1651	1,2811	50	21,1609	$\phi =$	21,1609	x	ΔT	1,2811
TUB3-120/02V	245	127	1,2828	50	1,6195	$\phi =$	1,6195	x	ΔT	1,2828
TUB3-120/03V	367	191	1,2828	50	2,4292	$\phi =$	2,4292	x	ΔT	1,2828

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TUB3-120/04V	490	254	1,2828	50	3,2389	$\phi =$	3,2389	x	ΔT	1,2828
TUB3-120/05V	612	318	1,2828	50	4,0487	$\phi =$	4,0487	x	ΔT	1,2828
TUB3-120/06V	734	381	1,2828	50	4,8584	$\phi =$	4,8584	x	ΔT	1,2828
TUB3-120/07V	857	445	1,2828	50	5,6681	$\phi =$	5,6681	x	ΔT	1,2828
TUB3-120/08V	979	508	1,2828	50	6,4779	$\phi =$	6,4779	x	ΔT	1,2828
TUB3-120/09V	1102	572	1,2828	50	7,2876	$\phi =$	7,2876	x	ΔT	1,2828
TUB3-120/10V	1224	636	1,2828	50	8,0973	$\phi =$	8,0973	x	ΔT	1,2828
TUB3-120/11V	1346	699	1,2828	50	8,9071	$\phi =$	8,9071	x	ΔT	1,2828
TUB3-120/12V	1469	763	1,2828	50	9,7168	$\phi =$	9,7168	x	ΔT	1,2828
TUB3-120/13V	1591	826	1,2828	50	10,5265	$\phi =$	10,5265	x	ΔT	1,2828
TUB3-120/14V	1714	890	1,2828	50	11,3363	$\phi =$	11,3363	x	ΔT	1,2828
TUB3-120/15V	1836	953	1,2828	50	12,1460	$\phi =$	12,1460	x	ΔT	1,2828
TUB3-120/16V	1958	1017	1,2828	50	12,9558	$\phi =$	12,9558	x	ΔT	1,2828
TUB3-120/17V	2081	1081	1,2828	50	13,7655	$\phi =$	13,7655	x	ΔT	1,2828
TUB3-120/18V	2203	1144	1,2828	50	14,5752	$\phi =$	14,5752	x	ΔT	1,2828
TUB3-120/19V	2326	1208	1,2828	50	15,3850	$\phi =$	15,3850	x	ΔT	1,2828
TUB3-120/20V	2448	1271	1,2828	50	16,1947	$\phi =$	16,1947	x	ΔT	1,2828
TUB3-120/21V	2570	1335	1,2828	50	17,0044	$\phi =$	17,0044	x	ΔT	1,2828
TUB3-120/22V	2693	1398	1,2828	50	17,8142	$\phi =$	17,8142	x	ΔT	1,2828
TUB3-120/23V	2815	1462	1,2828	50	18,6239	$\phi =$	18,6239	x	ΔT	1,2828
TUB3-120/24V	2938	1525	1,2828	50	19,4336	$\phi =$	19,4336	x	ΔT	1,2828
TUB3-120/25V	3060	1589	1,2828	50	20,2434	$\phi =$	20,2434	x	ΔT	1,2828
TUB3-120/26V	3182	1653	1,2828	50	21,0531	$\phi =$	21,0531	x	ΔT	1,2828
TUB3-150/02V	305	158	1,2854	50	1,9973	$\phi =$	1,9973	x	ΔT	1,2854
TUB3-150/03V	457	237	1,2854	50	2,9940	$\phi =$	2,9940	x	ΔT	1,2854
TUB3-150/04V	610	316	1,2854	50	3,9920	$\phi =$	3,9920	x	ΔT	1,2854
TUB3-150/05V	762	395	1,2854	50	4,9900	$\phi =$	4,9900	x	ΔT	1,2854
TUB3-150/06V	914	474	1,2854	50	5,9880	$\phi =$	5,9880	x	ΔT	1,2854
TUB3-150/07V	1067	553	1,2854	50	6,9860	$\phi =$	6,9860	x	ΔT	1,2854
TUB3-150/08V	1219	632	1,2854	50	7,9840	$\phi =$	7,9840	x	ΔT	1,2854
TUB3-150/09V	1372	711	1,2854	50	8,9820	$\phi =$	8,9820	x	ΔT	1,2854
TUB3-150/10V	1524	790	1,2854	50	9,9800	$\phi =$	9,9800	x	ΔT	1,2854
TUB3-150/11V	1676	869	1,2854	50	10,9780	$\phi =$	10,9780	x	ΔT	1,2854
TUB3-150/12V	1829	948	1,2854	50	11,9760	$\phi =$	11,9760	x	ΔT	1,2854
TUB3-150/13V	1981	1027	1,2854	50	12,9740	$\phi =$	12,9740	x	ΔT	1,2854
TUB3-150/14V	2134	1106	1,2854	50	13,9719	$\phi =$	13,9719	x	ΔT	1,2854
TUB3-150/15V	2286	1186	1,2854	50	14,9699	$\phi =$	14,9699	x	ΔT	1,2854
TUB3-150/16V	2438	1265	1,2854	50	15,9679	$\phi =$	15,9679	x	ΔT	1,2854
TUB3-150/17V	2591	1344	1,2854	50	16,9659	$\phi =$	16,9659	x	ΔT	1,2854
TUB3-150/18V	2743	1423	1,2854	50	17,9639	$\phi =$	17,9639	x	ΔT	1,2854
TUB3-150/19V	2896	1502	1,2854	50	18,9619	$\phi =$	18,9619	x	ΔT	1,2854
TUB3-150/20V	3048	1581	1,2854	50	19,9599	$\phi =$	19,9599	x	ΔT	1,2854
TUB3-150/21V	3200	1660	1,2854	50	20,9579	$\phi =$	20,9579	x	ΔT	1,2854
TUB3-150/22V	3353	1739	1,2854	50	21,9559	$\phi =$	21,9559	x	ΔT	1,2854
TUB3-180/02V	365	189	1,2876	50	2,3723	$\phi =$	2,3723	x	ΔT	1,2876
TUB3-180/03V	548	284	1,2876	50	3,5585	$\phi =$	3,5585	x	ΔT	1,2876
TUB3-180/04V	731	379	1,2876	50	4,7447	$\phi =$	4,7447	x	ΔT	1,2876

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TUB3-180/05V	914	473	1,2876	50	5,9308	$\phi =$	5,9308	x	ΔT	1,2876
TUB3-180/06V	1096	568	1,2876	50	7,1170	$\phi =$	7,1170	x	ΔT	1,2876
TUB3-180/07V	1279	662	1,2876	50	8,3031	$\phi =$	8,3031	x	ΔT	1,2876
TUB3-180/08V	1462	757	1,2876	50	9,4893	$\phi =$	9,4893	x	ΔT	1,2876
TUB3-180/09V	1644	852	1,2876	50	10,6755	$\phi =$	10,6755	x	ΔT	1,2876
TUB3-180/10V	1827	946	1,2876	50	11,8616	$\phi =$	11,8616	x	ΔT	1,2876
TUB3-180/11V	2010	1041	1,2876	50	13,0478	$\phi =$	13,0478	x	ΔT	1,2876
TUB3-180/12V	2192	1136	1,2876	50	14,2340	$\phi =$	14,2340	x	ΔT	1,2876
TUB3-180/13V	2375	1230	1,2876	50	15,4201	$\phi =$	15,4201	x	ΔT	1,2876
TUB3-180/14V	2558	1325	1,2876	50	16,6063	$\phi =$	16,6063	x	ΔT	1,2876
TUB3-180/15V	2741	1420	1,2876	50	17,7925	$\phi =$	17,7925	x	ΔT	1,2876
TUB3-180/16V	2923	1514	1,2876	50	18,9786	$\phi =$	18,9786	x	ΔT	1,2876
TUB3-180/17V	3106	1609	1,2876	50	20,1648	$\phi =$	20,1648	x	ΔT	1,2876
TUB3-180/18V	3289	1704	1,2876	50	21,3510	$\phi =$	21,3510	x	ΔT	1,2876
TUB3-180/19V	3471	1798	1,2876	50	22,5371	$\phi =$	22,5371	x	ΔT	1,2876
TUB3-180/20V	3654	1893	1,2876	50	23,7233	$\phi =$	23,7233	x	ΔT	1,2876
TUB3-180/21V	3837	1987	1,2876	50	24,9094	$\phi =$	24,9094	x	ΔT	1,2876
TUB3-180/22V	4019	2082	1,2876	50	26,0956	$\phi =$	26,0956	x	ΔT	1,2876
TUB3-180/23V	4202	2177	1,2876	50	27,2818	$\phi =$	27,2818	x	ΔT	1,2876
TUB3-200/02V	406	210	1,2889	50	2,6225	$\phi =$	2,6225	x	ΔT	1,2889
TUB3-200/03V	609	315	1,2889	50	3,9338	$\phi =$	3,9338	x	ΔT	1,2889
TUB3-200/04V	812	420	1,2889	50	5,2451	$\phi =$	5,2451	x	ΔT	1,2889
TUB3-200/05V	1015	525	1,2889	50	6,5564	$\phi =$	6,5564	x	ΔT	1,2889
TUB3-200/06V	1218	631	1,2889	50	7,8676	$\phi =$	7,8676	x	ΔT	1,2889
TUB3-200/07V	1421	736	1,2889	50	9,1789	$\phi =$	9,1789	x	ΔT	1,2889
TUB3-200/08V	1624	841	1,2889	50	10,4902	$\phi =$	10,4902	x	ΔT	1,2889
TUB3-200/09V	1827	946	1,2889	50	11,8015	$\phi =$	11,8015	x	ΔT	1,2889
TUB3-200/10V	2030	1051	1,2889	50	13,1127	$\phi =$	13,1127	x	ΔT	1,2889
TUB3-200/11V	2233	1156	1,2889	50	14,4240	$\phi =$	14,4240	x	ΔT	1,2889
TUB3-200/12V	2436	1261	1,2889	50	15,7353	$\phi =$	15,7353	x	ΔT	1,2889
TUB3-200/13V	2639	1366	1,2889	50	17,0466	$\phi =$	17,0466	x	ΔT	1,2889
TUB3-200/14V	2842	1471	1,2889	50	18,3578	$\phi =$	18,3578	x	ΔT	1,2889
TUB3-200/15V	3045	1576	1,2889	50	19,6691	$\phi =$	19,6691	x	ΔT	1,2889
TUB3-200/16V	3248	1681	1,2889	50	20,9804	$\phi =$	20,9804	x	ΔT	1,2889
TUB3-200/17V	3451	1787	1,2889	50	22,2917	$\phi =$	22,2917	x	ΔT	1,2889
TUB3-200/18V	3654	1892	1,2889	50	23,6029	$\phi =$	23,6029	x	ΔT	1,2889
TUB3-200/19V	3857	1997	1,2889	50	24,9142	$\phi =$	24,9142	x	ΔT	1,2889
TUB3-200/20V	4060	2102	1,2889	50	26,2255	$\phi =$	26,2255	x	ΔT	1,2889
TUB3-200/21V	4263	2207	1,2889	50	27,5368	$\phi =$	27,5368	x	ΔT	1,2889

W imieniu producenta podpisał:
(Signed for and on behalf of the manufacturer by:)

Z-ca Prezesa ds. Produkcji
Bartosz Ścierzyński
Nowa Wieś 25.03.2022 r.

Zastępca Prezesa
ds. realizacji
Bartosz Ścierzyński
(podpis)
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