DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH
(DECLARATION OF PERFORMANCE)
Nr (No.) **NDWU/1/TUBUS 2 V/2021**

1. Niepowtarzalny kod identyfikacyjny typu wyrobu:
(Unique identification code of the product-type:)

TUBUS 2

2. Zamierzone zastosowanie lub zastosowania: W instalacjach grzewczych w budynkach
(Intended use/es: In heating systems in buildings)

3. Producent:
(Manufacturer:)

INSTAL-PROJEKT Gawłowscy, Ścierzyńscy Spółka jawna, Nowa Wieś k/ Włocławka, ul. Jana Pawła II 12A, 87-853 Kruszyn, Polska.
(INSTAL-PROJEKT Gawłowscy, Ścierzyńscy 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:)

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 impast)	Klasa 0 (Class 0)	

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)				
TUB2-020/02V	25	13	1,2611	50	0,1772	ϕ =	0,1772	x	ΔT	1,2611
TUB2-020/03V	37	19	1,2611	50	0,2657	ϕ =	0,2657	x	ΔT	1,2611
TUB2-020/04V	49	26	1,2611	50	0,3543	ϕ =	0,3543	x	ΔT	1,2611
TUB2-020/05V	62	32	1,2611	50	0,4429	ϕ =	0,4429	x	ΔT	1,2611
TUB2-020/06V	74	39	1,2611	50	0,5315	ϕ =	0,5315	x	ΔT	1,2611
TUB2-020/07V	86	45	1,2611	50	0,6201	ϕ =	0,6201	x	ΔT	1,2611
TUB2-020/08V	98	52	1,2611	50	0,7086	ϕ =	0,7086	x	ΔT	1,2611
TUB2-020/09V	111	58	1,2611	50	0,7972	ϕ =	0,7972	x	ΔT	1,2611
TUB2-020/10V	123	65	1,2611	50	0,8858	ϕ =	0,8858	x	ΔT	1,2611
TUB2-020/11V	135	71	1,2611	50	0,9744	ϕ =	0,9744	x	ΔT	1,2611
TUB2-020/12V	148	78	1,2611	50	1,0630	ϕ =	1,0630	x	ΔT	1,2611
TUB2-020/13V	160	84	1,2611	50	1,1515	ϕ =	1,1515	x	ΔT	1,2611
TUB2-020/14V	172	90	1,2611	50	1,2401	ϕ =	1,2401	x	ΔT	1,2611
TUB2-020/15V	185	97	1,2611	50	1,3287	ϕ =	1,3287	x	ΔT	1,2611
TUB2-020/16V	197	103	1,2611	50	1,4173	ϕ =	1,4173	x	ΔT	1,2611
TUB2-020/17V	209	110	1,2611	50	1,5059	ϕ =	1,5059	x	ΔT	1,2611
TUB2-020/18V	221	116	1,2611	50	1,5944	ϕ =	1,5944	x	ΔT	1,2611
TUB2-020/19V	234	123	1,2611	50	1,6830	ϕ =	1,6830	x	ΔT	1,2611
TUB2-020/20V	246	129	1,2611	50	1,7716	ϕ =	1,7716	x	ΔT	1,2611
TUB2-020/21V	258	136	1,2611	50	1,8602	ϕ =	1,8602	x	ΔT	1,2611
TUB2-020/22V	271	142	1,2611	50	1,9488	ϕ =	1,9488	x	ΔT	1,2611
TUB2-020/23V	283	149	1,2611	50	2,0373	ϕ =	2,0373	x	ΔT	1,2611
TUB2-020/24V	295	155	1,2611	50	2,1259	ϕ =	2,1259	x	ΔT	1,2611
TUB2-020/25V	308	161	1,2611	50	2,2145	ϕ =	2,2145	x	ΔT	1,2611
TUB2-020/26V	320	168	1,2611	50	2,3031	ϕ =	2,3031	x	ΔT	1,2611
TUB2-020/27V	332	174	1,2611	50	2,3917	ϕ =	2,3917	x	ΔT	1,2611
TUB2-020/28V	344	181	1,2611	50	2,4802	ϕ =	2,4802	x	ΔT	1,2611
TUB2-020/29V	357	187	1,2611	50	2,5688	ϕ =	2,5688	x	ΔT	1,2611
TUB2-020/30V	369	194	1,2611	50	2,6574	ϕ =	2,6574	x	ΔT	1,2611
TUB2-020/31V	381	200	1,2611	50	2,7460	ϕ =	2,7460	x	ΔT	1,2611
TUB2-020/32V	394	207	1,2611	50	2,8345	ϕ =	2,8345	x	ΔT	1,2611
TUB2-020/33V	406	213	1,2611	50	2,9231	ϕ =	2,9231	x	ΔT	1,2611
TUB2-020/34V	418	220	1,2611	50	3,0117	ϕ =	3,0117	x	ΔT	1,2611
TUB2-020/35V	431	226	1,2611	50	3,1003	ϕ =	3,1003	x	ΔT	1,2611
TUB2-020/36V	443	233	1,2611	50	3,1889	ϕ =	3,1889	x	ΔT	1,2611
TUB2-020/37V	455	239	1,2611	50	3,2774	ϕ =	3,2774	x	ΔT	1,2611

TUB2-020/38V	467	245	1,2611	50	3,3660	ϕ =	3,3660	x	ΔT	1,2611
TUB2-020/39V	480	252	1,2611	50	3,4546	ϕ =	3,4546	x	ΔT	1,2611
TUB2-020/40V	492	258	1,2611	50	3,5432	ϕ =	3,5432	x	ΔT	1,2611
TUB2-020/41V	504	265	1,2611	50	3,6318	ϕ =	3,6318	x	ΔT	1,2611
TUB2-020/42V	517	271	1,2611	50	3,7203	ϕ =	3,7203	x	ΔT	1,2611
TUB2-020/43V	529	278	1,2611	50	3,8089	ϕ =	3,8089	x	ΔT	1,2611
TUB2-020/44V	541	284	1,2611	50	3,8975	ϕ =	3,8975	x	ΔT	1,2611
TUB2-020/45V	554	291	1,2611	50	3,9861	ϕ =	3,9861	x	ΔT	1,2611
TUB2-030/02V	40	21	1,2613	50	0,2864	ϕ =	0,2864	x	ΔT	1,2613
TUB2-030/03V	60	31	1,2613	50	0,4296	ϕ =	0,4296	x	ΔT	1,2613
TUB2-030/04V	80	42	1,2613	50	0,5728	ϕ =	0,5728	x	ΔT	1,2613
TUB2-030/05V	100	52	1,2613	50	0,7160	ϕ =	0,7160	x	ΔT	1,2613
TUB2-030/06V	119	63	1,2613	50	0,8592	ϕ =	0,8592	x	ΔT	1,2613
TUB2-030/07V	139	73	1,2613	50	1,0024	ϕ =	1,0024	x	ΔT	1,2613
TUB2-030/08V	159	84	1,2613	50	1,1456	ϕ =	1,1456	x	ΔT	1,2613
TUB2-030/09V	179	94	1,2613	50	1,2888	ϕ =	1,2888	x	ΔT	1,2613
TUB2-030/10V	199	104	1,2613	50	1,4320	ϕ =	1,4320	x	ΔT	1,2613
TUB2-030/11V	219	115	1,2613	50	1,5752	ϕ =	1,5752	x	ΔT	1,2613
TUB2-030/12V	239	125	1,2613	50	1,7184	ϕ =	1,7184	x	ΔT	1,2613
TUB2-030/13V	259	136	1,2613	50	1,8616	ϕ =	1,8616	x	ΔT	1,2613
TUB2-030/14V	279	146	1,2613	50	2,0048	ϕ =	2,0048	x	ΔT	1,2613
TUB2-030/15V	299	157	1,2613	50	2,1480	ϕ =	2,1480	x	ΔT	1,2613
TUB2-030/16V	318	167	1,2613	50	2,2912	ϕ =	2,2912	x	ΔT	1,2613
TUB2-030/17V	338	178	1,2613	50	2,4344	ϕ =	2,4344	x	ΔT	1,2613
TUB2-030/18V	358	188	1,2613	50	2,5776	ϕ =	2,5776	x	ΔT	1,2613
TUB2-030/19V	378	199	1,2613	50	2,7208	ϕ =	2,7208	x	ΔT	1,2613
TUB2-030/20V	398	209	1,2613	50	2,8640	ϕ =	2,8640	x	ΔT	1,2613
TUB2-030/21V	418	219	1,2613	50	3,0072	ϕ =	3,0072	x	ΔT	1,2613
TUB2-030/22V	438	230	1,2613	50	3,1504	ϕ =	3,1504	x	ΔT	1,2613
TUB2-030/23V	458	240	1,2613	50	3,2936	ϕ =	3,2936	x	ΔT	1,2613
TUB2-030/24V	478	251	1,2613	50	3,4368	ϕ =	3,4368	x	ΔT	1,2613
TUB2-030/25V	498	261	1,2613	50	3,5800	ϕ =	3,5800	x	ΔT	1,2613
TUB2-030/26V	517	272	1,2613	50	3,7232	ϕ =	3,7232	x	ΔT	1,2613
TUB2-030/27V	537	282	1,2613	50	3,8664	ϕ =	3,8664	x	ΔT	1,2613
TUB2-030/28V	557	293	1,2613	50	4,0096	ϕ =	4,0096	x	ΔT	1,2613
TUB2-030/29V	577	303	1,2613	50	4,1528	ϕ =	4,1528	x	ΔT	1,2613
TUB2-030/30V	597	313	1,2613	50	4,2960	ϕ =	4,2960	x	ΔT	1,2613
TUB2-030/31V	617	324	1,2613	50	4,4392	ϕ =	4,4392	x	ΔT	1,2613
TUB2-030/32V	637	334	1,2613	50	4,5824	ϕ =	4,5824	x	ΔT	1,2613
TUB2-030/33V	657	345	1,2613	50	4,7256	ϕ =	4,7256	x	ΔT	1,2613
TUB2-030/34V	677	355	1,2613	50	4,8688	ϕ =	4,8688	x	ΔT	1,2613
TUB2-030/35V	697	366	1,2613	50	5,0120	ϕ =	5,0120	x	ΔT	1,2613
TUB2-030/36V	716	376	1,2613	50	5,1552	ϕ =	5,1552	x	ΔT	1,2613
TUB2-030/37V	736	387	1,2613	50	5,2984	ϕ =	5,2984	x	ΔT	1,2613
TUB2-030/38V	756	397	1,2613	50	5,4416	ϕ =	5,4416	x	ΔT	1,2613
TUB2-030/39V	776	407	1,2613	50	5,5848	ϕ =	5,5848	x	ΔT	1,2613
TUB2-030/40V	796	418	1,2613	50	5,7280	ϕ =	5,7280	x	ΔT	1,2613

TUB2-030/41V	816	428	1,2613	50	5,8712	ϕ =	5,8712	x	ΔT	1,2613
TUB2-030/42V	836	439	1,2613	50	6,0144	ϕ =	6,0144	x	ΔT	1,2613
TUB2-030/43V	856	449	1,2613	50	6,1576	ϕ =	6,1576	x	ΔT	1,2613
TUB2-030/44V	876	460	1,2613	50	6,3008	ϕ =	6,3008	x	ΔT	1,2613
TUB2-030/45V	896	470	1,2613	50	6,4440	ϕ =	6,4440	x	ΔT	1,2613
TUB2-040/02V	56	29	1,2616	50	0,3996	ϕ =	0,3996	x	ΔT	1,2616
TUB2-040/03V	83	44	1,2616	50	0,5994	ϕ =	0,5994	x	ΔT	1,2616
TUB2-040/04V	111	58	1,2616	50	0,7993	ϕ =	0,7993	x	ΔT	1,2616
TUB2-040/05V	139	73	1,2616	50	0,9991	ϕ =	0,9991	x	ΔT	1,2616
TUB2-040/06V	167	88	1,2616	50	1,1989	ϕ =	1,1989	x	ΔT	1,2616
TUB2-040/07V	195	102	1,2616	50	1,3987	ϕ =	1,3987	x	ΔT	1,2616
TUB2-040/08V	222	117	1,2616	50	1,5985	ϕ =	1,5985	x	ΔT	1,2616
TUB2-040/09V	250	131	1,2616	50	1,7983	ϕ =	1,7983	x	ΔT	1,2616
TUB2-040/10V	278	146	1,2616	50	1,9981	ϕ =	1,9981	x	ΔT	1,2616
TUB2-040/11V	306	161	1,2616	50	2,1979	ϕ =	2,1979	x	ΔT	1,2616
TUB2-040/12V	334	175	1,2616	50	2,3978	ϕ =	2,3978	x	ΔT	1,2616
TUB2-040/13V	361	190	1,2616	50	2,5976	ϕ =	2,5976	x	ΔT	1,2616
TUB2-040/14V	389	204	1,2616	50	2,7974	ϕ =	2,7974	x	ΔT	1,2616
TUB2-040/15V	417	219	1,2616	50	2,9972	ϕ =	2,9972	x	ΔT	1,2616
TUB2-040/16V	445	233	1,2616	50	3,1970	ϕ =	3,1970	x	ΔT	1,2616
TUB2-040/17V	473	248	1,2616	50	3,3968	ϕ =	3,3968	x	ΔT	1,2616
TUB2-040/18V	500	263	1,2616	50	3,5966	ϕ =	3,5966	x	ΔT	1,2616
TUB2-040/19V	528	277	1,2616	50	3,7965	ϕ =	3,7965	x	ΔT	1,2616
TUB2-040/20V	556	292	1,2616	50	3,9963	ϕ =	3,9963	x	ΔT	1,2616
TUB2-040/21V	584	306	1,2616	50	4,1961	ϕ =	4,1961	x	ΔT	1,2616
TUB2-040/22V	612	321	1,2616	50	4,3959	ϕ =	4,3959	x	ΔT	1,2616
TUB2-040/23V	639	336	1,2616	50	4,5957	ϕ =	4,5957	x	ΔT	1,2616
TUB2-040/24V	667	350	1,2616	50	4,7955	ϕ =	4,7955	x	ΔT	1,2616
TUB2-040/25V	695	365	1,2616	50	4,9953	ϕ =	4,9953	x	ΔT	1,2616
TUB2-040/26V	723	379	1,2616	50	5,1951	ϕ =	5,1951	x	ΔT	1,2616
TUB2-040/27V	751	394	1,2616	50	5,3950	ϕ =	5,3950	x	ΔT	1,2616
TUB2-040/28V	778	409	1,2616	50	5,5948	ϕ =	5,5948	x	ΔT	1,2616
TUB2-040/29V	806	423	1,2616	50	5,7946	ϕ =	5,7946	x	ΔT	1,2616
TUB2-040/30V	834	438	1,2616	50	5,9944	ϕ =	5,9944	x	ΔT	1,2616
TUB2-040/31V	862	452	1,2616	50	6,1942	ϕ =	6,1942	x	ΔT	1,2616
TUB2-040/32V	890	467	1,2616	50	6,3940	ϕ =	6,3940	x	ΔT	1,2616
TUB2-040/33V	917	482	1,2616	50	6,5938	ϕ =	6,5938	x	ΔT	1,2616
TUB2-040/34V	945	496	1,2616	50	6,7936	ϕ =	6,7936	x	ΔT	1,2616
TUB2-040/35V	973	511	1,2616	50	6,9935	ϕ =	6,9935	x	ΔT	1,2616
TUB2-040/36V	1001	525	1,2616	50	7,1933	ϕ =	7,1933	x	ΔT	1,2616
TUB2-040/37V	1029	540	1,2616	50	7,3931	ϕ =	7,3931	x	ΔT	1,2616
TUB2-040/38V	1056	555	1,2616	50	7,5929	ϕ =	7,5929	x	ΔT	1,2616
TUB2-040/39V	1084	569	1,2616	50	7,7927	ϕ =	7,7927	x	ΔT	1,2616
TUB2-040/40V	1112	584	1,2616	50	7,9925	ϕ =	7,9925	x	ΔT	1,2616
TUB2-040/41V	1140	598	1,2616	50	8,1923	ϕ =	8,1923	x	ΔT	1,2616
TUB2-040/42V	1168	613	1,2616	50	8,3922	ϕ =	8,3922	x	ΔT	1,2616
TUB2-040/43V	1195	628	1,2616	50	8,5920	ϕ =	8,5920	x	ΔT	1,2616

TUB2-040/44V	1223	642	1,2616	50	8,7918	ϕ =	8,7918	x	ΔT	1,2616
TUB2-040/45V	1251	657	1,2616	50	8,9916	ϕ =	8,9916	x	ΔT	1,2616
TUB2-050/02V	72	38	1,2620	50	0,5153	ϕ =	0,5153	x	ΔT	1,2620
TUB2-050/03V	108	57	1,2620	50	0,7729	ϕ =	0,7729	x	ΔT	1,2620
TUB2-050/04V	144	75	1,2620	50	1,0305	ϕ =	1,0305	x	ΔT	1,2620
TUB2-050/05V	180	94	1,2620	50	1,2881	ϕ =	1,2881	x	ΔT	1,2620
TUB2-050/06V	215	113	1,2620	50	1,5458	ϕ =	1,5458	x	ΔT	1,2620
TUB2-050/07V	251	132	1,2620	50	1,8034	ϕ =	1,8034	x	ΔT	1,2620
TUB2-050/08V	287	151	1,2620	50	2,0610	ϕ =	2,0610	x	ΔT	1,2620
TUB2-050/09V	323	170	1,2620	50	2,3187	ϕ =	2,3187	x	ΔT	1,2620
TUB2-050/10V	359	188	1,2620	50	2,5763	ϕ =	2,5763	x	ΔT	1,2620
TUB2-050/11V	395	207	1,2620	50	2,8339	ϕ =	2,8339	x	ΔT	1,2620
TUB2-050/12V	431	226	1,2620	50	3,0915	ϕ =	3,0915	x	ΔT	1,2620
TUB2-050/13V	467	245	1,2620	50	3,3492	ϕ =	3,3492	x	ΔT	1,2620
TUB2-050/14V	503	264	1,2620	50	3,6068	ϕ =	3,6068	x	ΔT	1,2620
TUB2-050/15V	539	283	1,2620	50	3,8644	ϕ =	3,8644	x	ΔT	1,2620
TUB2-050/16V	574	301	1,2620	50	4,1221	ϕ =	4,1221	x	ΔT	1,2620
TUB2-050/17V	610	320	1,2620	50	4,3797	ϕ =	4,3797	x	ΔT	1,2620
TUB2-050/18V	646	339	1,2620	50	4,6373	ϕ =	4,6373	x	ΔT	1,2620
TUB2-050/19V	682	358	1,2620	50	4,8949	ϕ =	4,8949	x	ΔT	1,2620
TUB2-050/20V	718	377	1,2620	50	5,1526	ϕ =	5,1526	x	ΔT	1,2620
TUB2-050/21V	754	396	1,2620	50	5,4102	ϕ =	5,4102	x	ΔT	1,2620
TUB2-050/22V	790	415	1,2620	50	5,6678	ϕ =	5,6678	x	ΔT	1,2620
TUB2-050/23V	826	433	1,2620	50	5,9255	ϕ =	5,9255	x	ΔT	1,2620
TUB2-050/24V	862	452	1,2620	50	6,1831	ϕ =	6,1831	x	ΔT	1,2620
TUB2-050/25V	898	471	1,2620	50	6,4407	ϕ =	6,4407	x	ΔT	1,2620
TUB2-050/26V	933	490	1,2620	50	6,6983	ϕ =	6,6983	x	ΔT	1,2620
TUB2-050/27V	969	509	1,2620	50	6,9560	ϕ =	6,9560	x	ΔT	1,2620
TUB2-050/28V	1005	528	1,2620	50	7,2136	ϕ =	7,2136	x	ΔT	1,2620
TUB2-050/29V	1041	546	1,2620	50	7,4712	ϕ =	7,4712	x	ΔT	1,2620
TUB2-050/30V	1077	565	1,2620	50	7,7289	ϕ =	7,7289	x	ΔT	1,2620
TUB2-050/31V	1113	584	1,2620	50	7,9865	ϕ =	7,9865	x	ΔT	1,2620
TUB2-050/32V	1149	603	1,2620	50	8,2441	ϕ =	8,2441	x	ΔT	1,2620
TUB2-050/33V	1185	622	1,2620	50	8,5017	ϕ =	8,5017	x	ΔT	1,2620
TUB2-050/34V	1221	641	1,2620	50	8,7594	ϕ =	8,7594	x	ΔT	1,2620
TUB2-050/35V	1257	659	1,2620	50	9,0170	ϕ =	9,0170	x	ΔT	1,2620
TUB2-050/36V	1292	678	1,2620	50	9,2746	ϕ =	9,2746	x	ΔT	1,2620
TUB2-050/37V	1328	697	1,2620	50	9,5323	ϕ =	9,5323	x	ΔT	1,2620
TUB2-050/38V	1364	716	1,2620	50	9,7899	ϕ =	9,7899	x	ΔT	1,2620
TUB2-050/39V	1400	735	1,2620	50	10,0475	ϕ =	10,0475	x	ΔT	1,2620
TUB2-050/40V	1436	754	1,2620	50	10,3051	ϕ =	10,3051	x	ΔT	1,2620
TUB2-050/41V	1472	773	1,2620	50	10,5628	ϕ =	10,5628	x	ΔT	1,2620
TUB2-050/42V	1508	791	1,2620	50	10,8204	ϕ =	10,8204	x	ΔT	1,2620
TUB2-050/43V	1544	810	1,2620	50	11,0780	ϕ =	11,0780	x	ΔT	1,2620
TUB2-050/44V	1580	829	1,2620	50	11,3357	ϕ =	11,3357	x	ΔT	1,2620
TUB2-050/45V	1616	848	1,2620	50	11,5933	ϕ =	11,5933	x	ΔT	1,2620
TUB2-070/02V	105	55	1,2631	50	0,7474	ϕ =	0,7474	x	ΔT	1,2631

TUB2-070/03V	157	82	1,2631	50	1,1211	ϕ =	1,1211	x	ΔT	1,2631
TUB2-070/04V	209	110	1,2631	50	1,4948	ϕ =	1,4948	x	ΔT	1,2631
TUB2-070/05V	262	137	1,2631	50	1,8685	ϕ =	1,8685	x	ΔT	1,2631
TUB2-070/06V	314	165	1,2631	50	2,2422	ϕ =	2,2422	x	ΔT	1,2631
TUB2-070/07V	366	192	1,2631	50	2,6160	ϕ =	2,6160	x	ΔT	1,2631
TUB2-070/08V	418	219	1,2631	50	2,9897	ϕ =	2,9897	x	ΔT	1,2631
TUB2-070/09V	471	247	1,2631	50	3,3634	ϕ =	3,3634	x	ΔT	1,2631
TUB2-070/10V	523	274	1,2631	50	3,7371	ϕ =	3,7371	x	ΔT	1,2631
TUB2-070/11V	575	302	1,2631	50	4,1108	ϕ =	4,1108	x	ΔT	1,2631
TUB2-070/12V	628	329	1,2631	50	4,4845	ϕ =	4,4845	x	ΔT	1,2631
TUB2-070/13V	680	357	1,2631	50	4,8582	ϕ =	4,8582	x	ΔT	1,2631
TUB2-070/14V	732	384	1,2631	50	5,2319	ϕ =	5,2319	x	ΔT	1,2631
TUB2-070/15V	785	412	1,2631	50	5,6056	ϕ =	5,6056	x	ΔT	1,2631
TUB2-070/16V	837	439	1,2631	50	5,9793	ϕ =	5,9793	x	ΔT	1,2631
TUB2-070/17V	889	466	1,2631	50	6,3530	ϕ =	6,3530	x	ΔT	1,2631
TUB2-070/18V	941	494	1,2631	50	6,7267	ϕ =	6,7267	x	ΔT	1,2631
TUB2-070/19V	994	521	1,2631	50	7,1005	ϕ =	7,1005	x	ΔT	1,2631
TUB2-070/20V	1046	549	1,2631	50	7,4742	ϕ =	7,4742	x	ΔT	1,2631
TUB2-070/21V	1098	576	1,2631	50	7,8479	ϕ =	7,8479	x	ΔT	1,2631
TUB2-070/22V	1151	604	1,2631	50	8,2216	ϕ =	8,2216	x	ΔT	1,2631
TUB2-070/23V	1203	631	1,2631	50	8,5953	ϕ =	8,5953	x	ΔT	1,2631
TUB2-070/24V	1255	658	1,2631	50	8,9690	ϕ =	8,9690	x	ΔT	1,2631
TUB2-070/25V	1308	686	1,2631	50	9,3427	ϕ =	9,3427	x	ΔT	1,2631
TUB2-070/26V	1360	713	1,2631	50	9,7164	ϕ =	9,7164	x	ΔT	1,2631
TUB2-070/27V	1412	741	1,2631	50	10,0901	ϕ =	10,0901	x	ΔT	1,2631
TUB2-070/28V	1464	768	1,2631	50	10,4638	ϕ =	10,4638	x	ΔT	1,2631
TUB2-070/29V	1517	796	1,2631	50	10,8375	ϕ =	10,8375	x	ΔT	1,2631
TUB2-070/30V	1569	823	1,2631	50	11,2112	ϕ =	11,2112	x	ΔT	1,2631
TUB2-070/31V	1621	850	1,2631	50	11,5850	ϕ =	11,5850	x	ΔT	1,2631
TUB2-070/32V	1674	878	1,2631	50	11,9587	ϕ =	11,9587	x	ΔT	1,2631
TUB2-070/33V	1726	905	1,2631	50	12,3324	ϕ =	12,3324	x	ΔT	1,2631
TUB2-070/34V	1778	933	1,2631	50	12,7061	ϕ =	12,7061	x	ΔT	1,2631
TUB2-070/35V	1831	960	1,2631	50	13,0798	ϕ =	13,0798	x	ΔT	1,2631
TUB2-070/36V	1883	988	1,2631	50	13,4535	ϕ =	13,4535	x	ΔT	1,2631
TUB2-070/37V	1935	1015	1,2631	50	13,8272	ϕ =	13,8272	x	ΔT	1,2631
TUB2-070/38V	1987	1042	1,2631	50	14,2009	ϕ =	14,2009	x	ΔT	1,2631
TUB2-070/39V	2040	1070	1,2631	50	14,5746	ϕ =	14,5746	x	ΔT	1,2631
TUB2-070/40V	2092	1097	1,2631	50	14,9483	ϕ =	14,9483	x	ΔT	1,2631
TUB2-070/41V	2144	1125	1,2631	50	15,3220	ϕ =	15,3220	x	ΔT	1,2631
TUB2-070/42V	2197	1152	1,2631	50	15,6957	ϕ =	15,6957	x	ΔT	1,2631
TUB2-070/43V	2249	1180	1,2631	50	16,0695	ϕ =	16,0695	x	ΔT	1,2631
TUB2-070/44V	2301	1207	1,2631	50	16,4432	ϕ =	16,4432	x	ΔT	1,2631
TUB2-070/45V	2354	1235	1,2631	50	16,8169	ϕ =	16,8169	x	ΔT	1,2631
TUB2-080/02V	121	63	1,2638	50	0,8622	ϕ =	0,8622	x	ΔT	1,2638
TUB2-080/03V	182	95	1,2638	50	1,2934	ϕ =	1,2934	x	ΔT	1,2638
TUB2-080/04V	242	127	1,2638	50	1,7245	ϕ =	1,7245	x	ΔT	1,2638
TUB2-080/05V	303	159	1,2638	50	2,1556	ϕ =	2,1556	x	ΔT	1,2638

TUB2-080/06V	363	190	1,2638	50	2,5867	ϕ =	2,5867	x	ΔT	1,2638
TUB2-080/07V	424	222	1,2638	50	3,0178	ϕ =	3,0178	x	ΔT	1,2638
TUB2-080/08V	484	254	1,2638	50	3,4490	ϕ =	3,4490	x	ΔT	1,2638
TUB2-080/09V	545	286	1,2638	50	3,8801	ϕ =	3,8801	x	ΔT	1,2638
TUB2-080/10V	605	317	1,2638	50	4,3112	ϕ =	4,3112	x	ΔT	1,2638
TUB2-080/11V	666	349	1,2638	50	4,7423	ϕ =	4,7423	x	ΔT	1,2638
TUB2-080/12V	726	381	1,2638	50	5,1734	ϕ =	5,1734	x	ΔT	1,2638
TUB2-080/13V	787	412	1,2638	50	5,6045	ϕ =	5,6045	x	ΔT	1,2638
TUB2-080/14V	847	444	1,2638	50	6,0357	ϕ =	6,0357	x	ΔT	1,2638
TUB2-080/15V	908	476	1,2638	50	6,4668	ϕ =	6,4668	x	ΔT	1,2638
TUB2-080/16V	968	508	1,2638	50	6,8979	ϕ =	6,8979	x	ΔT	1,2638
TUB2-080/17V	1029	539	1,2638	50	7,3290	ϕ =	7,3290	x	ΔT	1,2638
TUB2-080/18V	1089	571	1,2638	50	7,7601	ϕ =	7,7601	x	ΔT	1,2638
TUB2-080/19V	1150	603	1,2638	50	8,1913	ϕ =	8,1913	x	ΔT	1,2638
TUB2-080/20V	1210	634	1,2638	50	8,6224	ϕ =	8,6224	x	ΔT	1,2638
TUB2-080/21V	1271	666	1,2638	50	9,0535	ϕ =	9,0535	x	ΔT	1,2638
TUB2-080/22V	1331	698	1,2638	50	9,4846	ϕ =	9,4846	x	ΔT	1,2638
TUB2-080/23V	1392	730	1,2638	50	9,9157	ϕ =	9,9157	x	ΔT	1,2638
TUB2-080/24V	1452	761	1,2638	50	10,3469	ϕ =	10,3469	x	ΔT	1,2638
TUB2-080/25V	1513	793	1,2638	50	10,7780	ϕ =	10,7780	x	ΔT	1,2638
TUB2-080/26V	1573	825	1,2638	50	11,2091	ϕ =	11,2091	x	ΔT	1,2638
TUB2-080/27V	1634	857	1,2638	50	11,6402	ϕ =	11,6402	x	ΔT	1,2638
TUB2-080/28V	1694	888	1,2638	50	12,0713	ϕ =	12,0713	x	ΔT	1,2638
TUB2-080/29V	1755	920	1,2638	50	12,5024	ϕ =	12,5024	x	ΔT	1,2638
TUB2-080/30V	1815	952	1,2638	50	12,9336	ϕ =	12,9336	x	ΔT	1,2638
TUB2-080/31V	1876	983	1,2638	50	13,3647	ϕ =	13,3647	x	ΔT	1,2638
TUB2-080/32V	1936	1015	1,2638	50	13,7958	ϕ =	13,7958	x	ΔT	1,2638
TUB2-080/33V	1997	1047	1,2638	50	14,2269	ϕ =	14,2269	x	ΔT	1,2638
TUB2-080/34V	2057	1079	1,2638	50	14,6580	ϕ =	14,6580	x	ΔT	1,2638
TUB2-080/35V	2118	1110	1,2638	50	15,0892	ϕ =	15,0892	x	ΔT	1,2638
TUB2-080/36V	2178	1142	1,2638	50	15,5203	ϕ =	15,5203	x	ΔT	1,2638
TUB2-080/37V	2239	1174	1,2638	50	15,9514	ϕ =	15,9514	x	ΔT	1,2638
TUB2-080/38V	2299	1205	1,2638	50	16,3825	ϕ =	16,3825	x	ΔT	1,2638
TUB2-080/39V	2360	1237	1,2638	50	16,8136	ϕ =	16,8136	x	ΔT	1,2638
TUB2-080/40V	2420	1269	1,2638	50	17,2448	ϕ =	17,2448	x	ΔT	1,2638
TUB2-080/41V	2481	1301	1,2638	50	17,6759	ϕ =	17,6759	x	ΔT	1,2638
TUB2-080/42V	2541	1332	1,2638	50	18,1070	ϕ =	18,1070	x	ΔT	1,2638
TUB2-080/43V	2602	1364	1,2638	50	18,5381	ϕ =	18,5381	x	ΔT	1,2638
TUB2-080/44V	2662	1396	1,2638	50	18,9692	ϕ =	18,9692	x	ΔT	1,2638
TUB2-080/45V	2723	1428	1,2638	50	19,4004	ϕ =	19,4004	x	ΔT	1,2638
TUB2-090/02V	137	72	1,2645	50	0,9764	ϕ =	0,9764	x	ΔT	1,2645
TUB2-090/03V	206	108	1,2645	50	1,4646	ϕ =	1,4646	x	ΔT	1,2645
TUB2-090/04V	275	144	1,2645	50	1,9529	ϕ =	1,9529	x	ΔT	1,2645
TUB2-090/05V	344	180	1,2645	50	2,4411	ϕ =	2,4411	x	ΔT	1,2645
TUB2-090/06V	412	216	1,2645	50	2,9293	ϕ =	2,9293	x	ΔT	1,2645
TUB2-090/07V	481	252	1,2645	50	3,4175	ϕ =	3,4175	x	ΔT	1,2645
TUB2-090/08V	550	288	1,2645	50	3,9057	ϕ =	3,9057	x	ΔT	1,2645

TUB2-090/09V	618	324	1,2645	50	4,3939	ϕ =	4,3939	x	ΔT	1,2645
TUB2-090/10V	687	360	1,2645	50	4,8821	ϕ =	4,8821	x	ΔT	1,2645
TUB2-090/11V	756	396	1,2645	50	5,3703	ϕ =	5,3703	x	ΔT	1,2645
TUB2-090/12V	824	432	1,2645	50	5,8586	ϕ =	5,8586	x	ΔT	1,2645
TUB2-090/13V	893	468	1,2645	50	6,3468	ϕ =	6,3468	x	ΔT	1,2645
TUB2-090/14V	962	504	1,2645	50	6,8350	ϕ =	6,8350	x	ΔT	1,2645
TUB2-090/15V	1031	540	1,2645	50	7,3232	ϕ =	7,3232	x	ΔT	1,2645
TUB2-090/16V	1099	576	1,2645	50	7,8114	ϕ =	7,8114	x	ΔT	1,2645
TUB2-090/17V	1168	612	1,2645	50	8,2996	ϕ =	8,2996	x	ΔT	1,2645
TUB2-090/18V	1237	648	1,2645	50	8,7878	ϕ =	8,7878	x	ΔT	1,2645
TUB2-090/19V	1305	684	1,2645	50	9,2760	ϕ =	9,2760	x	ΔT	1,2645
TUB2-090/20V	1374	720	1,2645	50	9,7643	ϕ =	9,7643	x	ΔT	1,2645
TUB2-090/21V	1443	756	1,2645	50	10,2525	ϕ =	10,2525	x	ΔT	1,2645
TUB2-090/22V	1511	792	1,2645	50	10,7407	ϕ =	10,7407	x	ΔT	1,2645
TUB2-090/23V	1580	828	1,2645	50	11,2289	ϕ =	11,2289	x	ΔT	1,2645
TUB2-090/24V	1649	864	1,2645	50	11,7171	ϕ =	11,7171	x	ΔT	1,2645
TUB2-090/25V	1718	900	1,2645	50	12,2053	ϕ =	12,2053	x	ΔT	1,2645
TUB2-090/26V	1786	936	1,2645	50	12,6935	ϕ =	12,6935	x	ΔT	1,2645
TUB2-090/27V	1855	972	1,2645	50	13,1817	ϕ =	13,1817	x	ΔT	1,2645
TUB2-090/28V	1924	1008	1,2645	50	13,6700	ϕ =	13,6700	x	ΔT	1,2645
TUB2-090/29V	1992	1044	1,2645	50	14,1582	ϕ =	14,1582	x	ΔT	1,2645
TUB2-090/30V	2061	1080	1,2645	50	14,6464	ϕ =	14,6464	x	ΔT	1,2645
TUB2-090/31V	2130	1116	1,2645	50	15,1346	ϕ =	15,1346	x	ΔT	1,2645
TUB2-090/32V	2198	1152	1,2645	50	15,6228	ϕ =	15,6228	x	ΔT	1,2645
TUB2-090/33V	2267	1188	1,2645	50	16,1110	ϕ =	16,1110	x	ΔT	1,2645
TUB2-090/34V	2336	1224	1,2645	50	16,5992	ϕ =	16,5992	x	ΔT	1,2645
TUB2-090/35V	2405	1260	1,2645	50	17,0874	ϕ =	17,0874	x	ΔT	1,2645
TUB2-090/36V	2473	1296	1,2645	50	17,5757	ϕ =	17,5757	x	ΔT	1,2645
TUB2-090/37V	2542	1332	1,2645	50	18,0639	ϕ =	18,0639	x	ΔT	1,2645
TUB2-090/38V	2611	1368	1,2645	50	18,5521	ϕ =	18,5521	x	ΔT	1,2645
TUB2-090/39V	2679	1404	1,2645	50	19,0403	ϕ =	19,0403	x	ΔT	1,2645
TUB2-090/40V	2748	1440	1,2645	50	19,5285	ϕ =	19,5285	x	ΔT	1,2645
TUB2-090/41V	2817	1476	1,2645	50	20,0167	ϕ =	20,0167	x	ΔT	1,2645
TUB2-090/42V	2885	1512	1,2645	50	20,5049	ϕ =	20,5049	x	ΔT	1,2645
TUB2-090/43V	2954	1548	1,2645	50	20,9932	ϕ =	20,9932	x	ΔT	1,2645
TUB2-090/44V	3023	1584	1,2645	50	21,4814	ϕ =	21,4814	x	ΔT	1,2645
TUB2-090/45V	3092	1620	1,2645	50	21,9696	ϕ =	21,9696	x	ΔT	1,2645
TUB2-100/02V	153	80	1,2653	50	1,0867	ϕ =	1,0867	x	ΔT	1,2653
TUB2-100/03V	230	121	1,2653	50	1,6301	ϕ =	1,6301	x	ΔT	1,2653
TUB2-100/04V	307	161	1,2653	50	2,1734	ϕ =	2,1734	x	ΔT	1,2653
TUB2-100/05V	384	201	1,2653	50	2,7168	ϕ =	2,7168	x	ΔT	1,2653
TUB2-100/06V	460	241	1,2653	50	3,2602	ϕ =	3,2602	x	ΔT	1,2653
TUB2-100/07V	537	281	1,2653	50	3,8035	ϕ =	3,8035	x	ΔT	1,2653
TUB2-100/08V	614	321	1,2653	50	4,3469	ϕ =	4,3469	x	ΔT	1,2653
TUB2-100/09V	690	362	1,2653	50	4,8903	ϕ =	4,8903	x	ΔT	1,2653
TUB2-100/10V	767	402	1,2653	50	5,4336	ϕ =	5,4336	x	ΔT	1,2653
TUB2-100/11V	844	442	1,2653	50	5,9770	ϕ =	5,9770	x	ΔT	1,2653

TUB2-100/12V	920	482	1,2653	50	6,5203	ϕ =	6,5203	x	ΔT	1,2653
TUB2-100/13V	997	522	1,2653	50	7,0637	ϕ =	7,0637	x	ΔT	1,2653
TUB2-100/14V	1074	563	1,2653	50	7,6071	ϕ =	7,6071	x	ΔT	1,2653
TUB2-100/15V	1151	603	1,2653	50	8,1504	ϕ =	8,1504	x	ΔT	1,2653
TUB2-100/16V	1227	643	1,2653	50	8,6938	ϕ =	8,6938	x	ΔT	1,2653
TUB2-100/17V	1304	683	1,2653	50	9,2371	ϕ =	9,2371	x	ΔT	1,2653
TUB2-100/18V	1381	723	1,2653	50	9,7805	ϕ =	9,7805	x	ΔT	1,2653
TUB2-100/19V	1457	764	1,2653	50	10,3239	ϕ =	10,3239	x	ΔT	1,2653
TUB2-100/20V	1534	804	1,2653	50	10,8672	ϕ =	10,8672	x	ΔT	1,2653
TUB2-100/21V	1611	844	1,2653	50	11,4106	ϕ =	11,4106	x	ΔT	1,2653
TUB2-100/22V	1687	884	1,2653	50	11,9539	ϕ =	11,9539	x	ΔT	1,2653
TUB2-100/23V	1764	924	1,2653	50	12,4973	ϕ =	12,4973	x	ΔT	1,2653
TUB2-100/24V	1841	964	1,2653	50	13,0407	ϕ =	13,0407	x	ΔT	1,2653
TUB2-100/25V	1918	1005	1,2653	50	13,5840	ϕ =	13,5840	x	ΔT	1,2653
TUB2-100/26V	1994	1045	1,2653	50	14,1274	ϕ =	14,1274	x	ΔT	1,2653
TUB2-100/27V	2071	1085	1,2653	50	14,6708	ϕ =	14,6708	x	ΔT	1,2653
TUB2-100/28V	2148	1125	1,2653	50	15,2141	ϕ =	15,2141	x	ΔT	1,2653
TUB2-100/29V	2224	1165	1,2653	50	15,7575	ϕ =	15,7575	x	ΔT	1,2653
TUB2-100/30V	2301	1206	1,2653	50	16,3008	ϕ =	16,3008	x	ΔT	1,2653
TUB2-100/31V	2378	1246	1,2653	50	16,8442	ϕ =	16,8442	x	ΔT	1,2653
TUB2-100/32V	2454	1286	1,2653	50	17,3876	ϕ =	17,3876	x	ΔT	1,2653
TUB2-100/33V	2531	1326	1,2653	50	17,9309	ϕ =	17,9309	x	ΔT	1,2653
TUB2-100/34V	2608	1366	1,2653	50	18,4743	ϕ =	18,4743	x	ΔT	1,2653
TUB2-100/35V	2685	1407	1,2653	50	19,0176	ϕ =	19,0176	x	ΔT	1,2653
TUB2-100/36V	2761	1447	1,2653	50	19,5610	ϕ =	19,5610	x	ΔT	1,2653
TUB2-100/37V	2838	1487	1,2653	50	20,1044	ϕ =	20,1044	x	ΔT	1,2653
TUB2-100/38V	2915	1527	1,2653	50	20,6477	ϕ =	20,6477	x	ΔT	1,2653
TUB2-100/39V	2991	1567	1,2653	50	21,1911	ϕ =	21,1911	x	ΔT	1,2653
TUB2-100/40V	3068	1607	1,2653	50	21,7344	ϕ =	21,7344	x	ΔT	1,2653
TUB2-100/41V	3145	1648	1,2653	50	22,2778	ϕ =	22,2778	x	ΔT	1,2653
TUB2-100/42V	3221	1688	1,2653	50	22,8212	ϕ =	22,8212	x	ΔT	1,2653
TUB2-120/02V	185	97	1,2672	50	1,3009	ϕ =	1,3009	x	ΔT	1,2672
TUB2-120/03V	278	145	1,2672	50	1,9513	ϕ =	1,9513	x	ΔT	1,2672
TUB2-120/04V	370	194	1,2672	50	2,6018	ϕ =	2,6018	x	ΔT	1,2672
TUB2-120/05V	463	242	1,2672	50	3,2522	ϕ =	3,2522	x	ΔT	1,2672
TUB2-120/06V	555	291	1,2672	50	3,9026	ϕ =	3,9026	x	ΔT	1,2672
TUB2-120/07V	648	339	1,2672	50	4,5531	ϕ =	4,5531	x	ΔT	1,2672
TUB2-120/08V	740	387	1,2672	50	5,2035	ϕ =	5,2035	x	ΔT	1,2672
TUB2-120/09V	833	436	1,2672	50	5,8540	ϕ =	5,8540	x	ΔT	1,2672
TUB2-120/10V	925	484	1,2672	50	6,5044	ϕ =	6,5044	x	ΔT	1,2672
TUB2-120/11V	1018	533	1,2672	50	7,1548	ϕ =	7,1548	x	ΔT	1,2672
TUB2-120/12V	1110	581	1,2672	50	7,8053	ϕ =	7,8053	x	ΔT	1,2672
TUB2-120/13V	1203	629	1,2672	50	8,4557	ϕ =	8,4557	x	ΔT	1,2672
TUB2-120/14V	1295	678	1,2672	50	9,1062	ϕ =	9,1062	x	ΔT	1,2672
TUB2-120/15V	1388	726	1,2672	50	9,7566	ϕ =	9,7566	x	ΔT	1,2672
TUB2-120/16V	1480	775	1,2672	50	10,4070	ϕ =	10,4070	x	ΔT	1,2672
TUB2-120/17V	1573	823	1,2672	50	11,0575	ϕ =	11,0575	x	ΔT	1,2672

TUB2-120/18V	1665	872	1,2672	50	11,7079	ϕ =	11,7079	x	ΔT	1,2672
TUB2-120/19V	1758	920	1,2672	50	12,3584	ϕ =	12,3584	x	ΔT	1,2672
TUB2-120/20V	1850	968	1,2672	50	13,0088	ϕ =	13,0088	x	ΔT	1,2672
TUB2-120/21V	1943	1017	1,2672	50	13,6592	ϕ =	13,6592	x	ΔT	1,2672
TUB2-120/22V	2035	1065	1,2672	50	14,3097	ϕ =	14,3097	x	ΔT	1,2672
TUB2-120/23V	2128	1114	1,2672	50	14,9601	ϕ =	14,9601	x	ΔT	1,2672
TUB2-120/24V	2220	1162	1,2672	50	15,6105	ϕ =	15,6105	x	ΔT	1,2672
TUB2-120/25V	2313	1210	1,2672	50	16,2610	ϕ =	16,2610	x	ΔT	1,2672
TUB2-120/26V	2405	1259	1,2672	50	16,9114	ϕ =	16,9114	x	ΔT	1,2672
TUB2-120/27V	2498	1307	1,2672	50	17,5619	ϕ =	17,5619	x	ΔT	1,2672
TUB2-120/28V	2590	1356	1,2672	50	18,2123	ϕ =	18,2123	x	ΔT	1,2672
TUB2-120/29V	2683	1404	1,2672	50	18,8627	ϕ =	18,8627	x	ΔT	1,2672
TUB2-120/30V	2775	1453	1,2672	50	19,5132	ϕ =	19,5132	x	ΔT	1,2672
TUB2-120/31V	2868	1501	1,2672	50	20,1636	ϕ =	20,1636	x	ΔT	1,2672
TUB2-120/32V	2960	1549	1,2672	50	20,8141	ϕ =	20,8141	x	ΔT	1,2672
TUB2-120/33V	3053	1598	1,2672	50	21,4645	ϕ =	21,4645	x	ΔT	1,2672
TUB2-120/34V	3145	1646	1,2672	50	22,1149	ϕ =	22,1149	x	ΔT	1,2672
TUB2-120/35V	3238	1695	1,2672	50	22,7654	ϕ =	22,7654	x	ΔT	1,2672
TUB2-150/02V	230	120	1,2706	50	1,5987	ϕ =	1,5987	x	ΔT	1,2706
TUB2-150/03V	346	181	1,2706	50	2,3981	ϕ =	2,3981	x	ΔT	1,2706
TUB2-150/04V	461	241	1,2706	50	3,1974	ϕ =	3,1974	x	ΔT	1,2706
TUB2-150/05V	576	301	1,2706	50	3,9968	ϕ =	3,9968	x	ΔT	1,2706
TUB2-150/06V	691	361	1,2706	50	4,7961	ϕ =	4,7961	x	ΔT	1,2706
TUB2-150/07V	806	421	1,2706	50	5,5955	ϕ =	5,5955	x	ΔT	1,2706
TUB2-150/08V	922	482	1,2706	50	6,3949	ϕ =	6,3949	x	ΔT	1,2706
TUB2-150/09V	1037	542	1,2706	50	7,1942	ϕ =	7,1942	x	ΔT	1,2706
TUB2-150/10V	1152	602	1,2706	50	7,9936	ϕ =	7,9936	x	ΔT	1,2706
TUB2-150/11V	1267	662	1,2706	50	8,7929	ϕ =	8,7929	x	ΔT	1,2706
TUB2-150/12V	1382	722	1,2706	50	9,5923	ϕ =	9,5923	x	ΔT	1,2706
TUB2-150/13V	1498	783	1,2706	50	10,3917	ϕ =	10,3917	x	ΔT	1,2706
TUB2-150/14V	1613	843	1,2706	50	11,1910	ϕ =	11,1910	x	ΔT	1,2706
TUB2-150/15V	1728	903	1,2706	50	11,9904	ϕ =	11,9904	x	ΔT	1,2706
TUB2-150/16V	1843	963	1,2706	50	12,7897	ϕ =	12,7897	x	ΔT	1,2706
TUB2-150/17V	1958	1023	1,2706	50	13,5891	ϕ =	13,5891	x	ΔT	1,2706
TUB2-150/18V	2074	1084	1,2706	50	14,3884	ϕ =	14,3884	x	ΔT	1,2706
TUB2-150/19V	2189	1144	1,2706	50	15,1878	ϕ =	15,1878	x	ΔT	1,2706
TUB2-150/20V	2304	1204	1,2706	50	15,9872	ϕ =	15,9872	x	ΔT	1,2706
TUB2-150/21V	2419	1264	1,2706	50	16,7865	ϕ =	16,7865	x	ΔT	1,2706
TUB2-150/22V	2534	1324	1,2706	50	17,5859	ϕ =	17,5859	x	ΔT	1,2706
TUB2-150/23V	2650	1385	1,2706	50	18,3852	ϕ =	18,3852	x	ΔT	1,2706
TUB2-150/24V	2765	1445	1,2706	50	19,1846	ϕ =	19,1846	x	ΔT	1,2706
TUB2-150/25V	2880	1505	1,2706	50	19,9839	ϕ =	19,9839	x	ΔT	1,2706
TUB2-150/26V	2995	1565	1,2706	50	20,7833	ϕ =	20,7833	x	ΔT	1,2706
TUB2-150/27V	3110	1625	1,2706	50	21,5827	ϕ =	21,5827	x	ΔT	1,2706
TUB2-150/28V	3226	1686	1,2706	50	22,3820	ϕ =	22,3820	x	ΔT	1,2706
TUB2-180/02V	273	142	1,2747	50	1,8642	ϕ =	1,8642	x	ΔT	1,2747
TUB2-180/03V	410	214	1,2747	50	2,7963	ϕ =	2,7963	x	ΔT	1,2747

TUB2-180/04V	546	285	1,2747	50	3,7283	ϕ =	3,7283	x	ΔT	1,2747
TUB2-180/05V	683	356	1,2747	50	4,6604	ϕ =	4,6604	x	ΔT	1,2747
TUB2-180/06V	819	427	1,2747	50	5,5925	ϕ =	5,5925	x	ΔT	1,2747
TUB2-180/07V	956	498	1,2747	50	6,5246	ϕ =	6,5246	x	ΔT	1,2747
TUB2-180/08V	1092	569	1,2747	50	7,4567	ϕ =	7,4567	x	ΔT	1,2747
TUB2-180/09V	1229	641	1,2747	50	8,3888	ϕ =	8,3888	x	ΔT	1,2747
TUB2-180/10V	1365	712	1,2747	50	9,3209	ϕ =	9,3209	x	ΔT	1,2747
TUB2-180/11V	1502	783	1,2747	50	10,2529	ϕ =	10,2529	x	ΔT	1,2747
TUB2-180/12V	1638	854	1,2747	50	11,1850	ϕ =	11,1850	x	ΔT	1,2747
TUB2-180/13V	1775	925	1,2747	50	12,1171	ϕ =	12,1171	x	ΔT	1,2747
TUB2-180/14V	1911	996	1,2747	50	13,0492	ϕ =	13,0492	x	ΔT	1,2747
TUB2-180/15V	2048	1068	1,2747	50	13,9813	ϕ =	13,9813	x	ΔT	1,2747
TUB2-180/16V	2184	1139	1,2747	50	14,9134	ϕ =	14,9134	x	ΔT	1,2747
TUB2-180/17V	2321	1210	1,2747	50	15,8454	ϕ =	15,8454	x	ΔT	1,2747
TUB2-180/18V	2457	1281	1,2747	50	16,7775	ϕ =	16,7775	x	ΔT	1,2747
TUB2-180/19V	2594	1352	1,2747	50	17,7096	ϕ =	17,7096	x	ΔT	1,2747
TUB2-180/20V	2730	1424	1,2747	50	18,6417	ϕ =	18,6417	x	ΔT	1,2747
TUB2-180/21V	2867	1495	1,2747	50	19,5738	ϕ =	19,5738	x	ΔT	1,2747
TUB2-180/22V	3003	1566	1,2747	50	20,5059	ϕ =	20,5059	x	ΔT	1,2747
TUB2-180/23V	3140	1637	1,2747	50	21,4380	ϕ =	21,4380	x	ΔT	1,2747
TUB2-200/02V	300	156	1,2778	50	2,0211	ϕ =	2,0211	x	ΔT	1,2778
TUB2-200/03V	449	234	1,2778	50	3,0317	ϕ =	3,0317	x	ΔT	1,2778
TUB2-200/04V	599	312	1,2778	50	4,0423	ϕ =	4,0423	x	ΔT	1,2778
TUB2-200/05V	749	390	1,2778	50	5,0529	ϕ =	5,0529	x	ΔT	1,2778
TUB2-200/06V	899	468	1,2778	50	6,0634	ϕ =	6,0634	x	ΔT	1,2778
TUB2-200/07V	1049	546	1,2778	50	7,0740	ϕ =	7,0740	x	ΔT	1,2778
TUB2-200/08V	1198	624	1,2778	50	8,0846	ϕ =	8,0846	x	ΔT	1,2778
TUB2-200/09V	1348	702	1,2778	50	9,0952	ϕ =	9,0952	x	ΔT	1,2778
TUB2-200/10V	1498	780	1,2778	50	10,1057	ϕ =	10,1057	x	ΔT	1,2778
TUB2-200/11V	1648	858	1,2778	50	11,1163	ϕ =	11,1163	x	ΔT	1,2778
TUB2-200/12V	1798	936	1,2778	50	12,1269	ϕ =	12,1269	x	ΔT	1,2778
TUB2-200/13V	1947	1014	1,2778	50	13,1375	ϕ =	13,1375	x	ΔT	1,2778
TUB2-200/14V	2097	1092	1,2778	50	14,1480	ϕ =	14,1480	x	ΔT	1,2778
TUB2-200/15V	2247	1170	1,2778	50	15,1586	ϕ =	15,1586	x	ΔT	1,2778
TUB2-200/16V	2397	1248	1,2778	50	16,1692	ϕ =	16,1692	x	ΔT	1,2778
TUB2-200/17V	2547	1326	1,2778	50	17,1798	ϕ =	17,1798	x	ΔT	1,2778
TUB2-200/18V	2696	1404	1,2778	50	18,1903	ϕ =	18,1903	x	ΔT	1,2778
TUB2-200/19V	2846	1482	1,2778	50	19,2009	ϕ =	19,2009	x	ΔT	1,2778
TUB2-200/20V	2996	1560	1,2778	50	20,2115	ϕ =	20,2115	x	ΔT	1,2778
TUB2-200/21V	3146	1638	1,2778	50	21,2220	ϕ =	21,2220	x	ΔT	1,2778

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

Z-ca Prezesa ds. Produkcji
Bartosz Ścierzyński
Nowa Wieś 19.05.2021 r.

INSTAL-PROJEKT
Gawłowscy, Ścierzyńscy Sp.J.
ul. Jana Pawła II 12A
Nowa Wieś k/Włocławka, 87-853 KRUSZYN
NIP 888-10-04-722 BDO 000008268
tel. 54 235 59 05, fax 54 235 45 43

Z-CA PREZESA
ds. produkcji
Bartosz Ścierzyński

.....
(podpis)
(signature)