

CT HEATERS

浸入式加熱器

IMMERSION HEATER

Since 1971



more than heaters!

TABLE OF CONTENTS

COMPANY PROFILE	2
DROP-IN SERIES HEATERS OF PTFE	3
DROP-IN SERIES HEATERS OF PTFE OVAL.....	7
STRAIGHT SERIES HEATERS OF PTFE	8
L-SHAPED SERIES HEATERS OF PTFE	10
THERMOCOUPLE TYPES.....	11
SPECIAL IMMERSION HEATER	12
HOW TO CUSTOM-MADE?	13
TERMS AND CONDITIONS	15
CONTACT INFORMATION	16
INQUIRY FAX	17

COMPANY PROFILE

Established in 1971, CHENG TAY HEATER & INSTRUMENT CO., LTD. as known as “CT HEATERS” has been in the business of developing and introducing the latest machinery while pioneering new electrical heating techniques and comprehensive thermocouple design. We have the engineering and manufacturing capabilities to be or define world-class quality. Therefore, made us the only specialists in Taiwan that can supply tailor-made or prototype heating elements for the entire scientific and industrial spectrum. Our years of experience have enabled us to even help our clients to solve their own machinery problems or improving its performance.

For over 49 years, CT HEATERS has stood for quality, flexibility and innovation. Our clients come to us with the knowledge that whatever their heating needs are, we have the solution for them.

We are committed to continually building our reputation, knowledge and respond quickly to the world’s changing needs. Our business approach is to meet our client’s needs and to offer a competitive price.

From a single item to a large scale project, we can supply all your heater and thermocouple needs. All inquiries are welcome.

more than heaters!

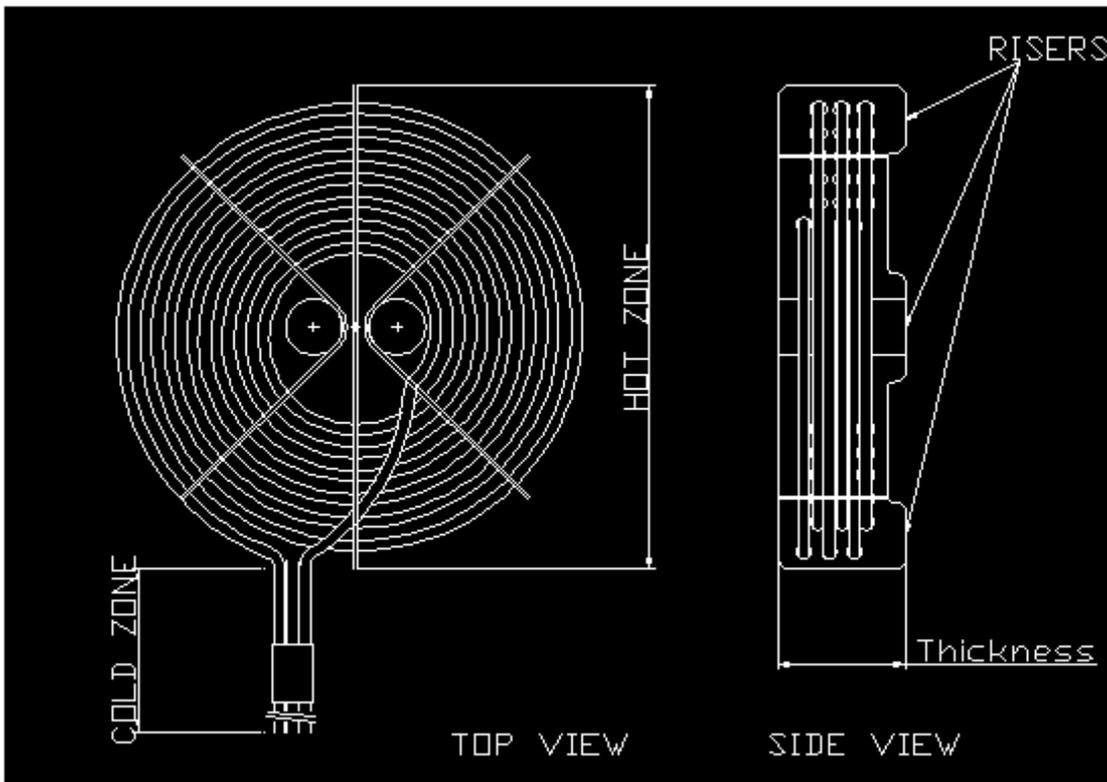
DROP-IN SERIES HEATERS OF PTFE



CTIHD-2500350T60-1

FEATURES

- Available in 3KW and 6KW
- 220/380V, other voltages are available, please consult your CT HEATERS representative
- Rugged construction prevents floating
- Choice of single phase or 3 phase
- Choice of thermocouple types, J or K
- New designed for better circulation
- 1.5m PTFE outlet + 1m flexible PVC conduit. Longer outlet is available, please consult your CT HEATERS representative
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



more than heaters!

DROP-IN SERIES HEATERS OF PTFE

MODEL NUMBERS	SPECIFICATIONS					
Element Only	Watts	Volts "/"=or	Hot Zone (mm)	Thickness (mm)	Phase	Thermocouple Type
CTIHD-900185T35-1	900	220	185	35	1	none
CTIHD-900185T35-1-J	900	220	185	35	1	J
CTIHD-900185T35-1-K	900	220	185	35	1	K
CTIHD-900185T35-3	900	220/380	185	35	3	none
CTIHD-900185T35-3-J	900	220/380	185	35	3	J
CTIHD-900185T35-3-K	900	220/380	185	35	3	K
CTIHD-1000195T40-1	1000	220	195	40	1	none
CTIHD-1000195T40-1-J	1000	220	195	40	1	J
CTIHD-1000195T40-1-K	1000	220	195	40	1	K
CTIHD-1000195T40-3	1000	220/380	195	40	3	none
CTIHD-1000195T40-3-J	1000	220/380	195	40	3	J
CTIHD-1000195T40-3-K	1000	220/380	195	40	3	K
CTIHD-1500210T40-1	1500	220	210	40	1	none
CTIHD-1500210T40-1-J	1500	220	210	40	1	J
CTIHD-1500210T40-1-K	1500	220	210	40	1	K
CTIHD-1500210T40-3	1500	220/380	210	40	3	none
CTIHD-1500210T40-3-J	1500	220/380	210	40	3	J
CTIHD-1500210T40-3-K	1500	220/380	210	40	3	K
CTIHD-2000195T40-1	2000	220	195	40	1	none
CTIHD-2000195T40-1-J	2000	220	195	40	1	J
CTIHD-2000195T40-1-K	2000	220	195	40	1	K

Other wattages are available, please consult your CT HEATERS representative.



DROP-IN SERIES HEATERS OF PTFE

MODEL NUMBERS	SPECIFICATIONS					
Element Only	Watts	Volts "/"=or	Hot Zone (mm)	Thickness (mm)	Phase	Thermocouple Type
CTIHD-2000195T40-3	2000	220	195	40	1	none
CTIHD-2000195T40-3-J	2000	220	195	40	1	J
CTIHD-2000195T40-3-K	2000	220	195	40	1	K
CTIHD-2000195T80-1	2000	220	195	80	1	none
CTIHD-2000195T80-1-J	2000	220	195	80	1	J
CTIHD-2000195T80-1-K	2000	220	195	80	1	K
CTIHD-2000195T80-3	2000	220/380	195	80	3	none
CTIHD-2000195T80-3-J	2000	220/380	195	80	3	J
CTIHD-2000195T80-3-K	2000	220/380	195	80	3	K
CTIHD-2000230T40-1	2000	220	230	40	1	none
CTIHD-2000230T40-1-J	2000	220	230	40	1	J
CTIHD-2000230T40-1-K	2000	220	230	40	1	K
CTIHD-2000230T40-3	2000	220/380	230	40	3	none
CTIHD-2000230T40-3-J	2000	220/380	230	40	3	J
CTIHD-2000230T40-3-K	2000	220/380	230	40	3	K
CTIHD-3000195T80-1	3000	220	195	80	1	none
CTIHD-3000195T80-1-J	3000	220	195	80	1	J
CTIHD-3000195T80-1-K	3000	220	195	80	1	K
CTIHD-3000195T80-3	3000	220/380	195	80	3	none
CTIHD-3000195T80-3-J	3000	220/380	195	80	3	J
CTIHD-3000195T80-3-K	3000	220/380	195	80	3	K

Other wattages are available, please consult your CT HEATERS representative.



more than heaters!

DROP-IN SERIES HEATERS OF PTFE

MODEL NUMBERS	SPECIFICATIONS					
Element Only	Watts	Volts "/"=or	Hot Zone (mm)	Thickness (mm)	Phase	Thermocouple Type
CTIHD-3000270T70-1	3000	220	270	70	1	none
CTIHD-3000270T70-1-J	3000	220	270	70	1	J
CTIHD-3000270T70-1-K	3000	220	270	70	1	K
CTIHD-3000270T70-3	3000	220/380	270	70	3	none
CTIHD-3000270T70-3-J	3000	220/380	270	70	3	J
CTIHD-3000270T70-3-K	3000	220/380	270	70	3	K
CTIHD-3000300T70-1	3000	220	300	70	1	none
CTIHD-3000300T70L-1-J	3000	220	300	70	1	J
CTIHD-3000300T70-1-K	3000	220	300	70	1	K
CTIHD-3000300T70-3	3000	220/380	300	70	3	none
CTIHD-3000300T70-3-J	3000	220/380	300	70	3	J
CTIHD-3000300T70-3-K	3000	220/380	300	70	3	K
CTIHD-2500350T60-1	2500	220	350	60	1	none
CTIHD-2500350T60-1-J	2500	220	350	60	1	J
CTIHD-2500350T60-1-K	2500	220	350	60	1	K
CTIHD-6000350T125-1	6000	220	350	125	1	none
CTIHD-6000350T125-1-J	6000	220	350	125	1	J
CTIHD-6000350T125-1-K	6000	220	350	125	1	K
CTIHD-6000350T125-3	6000	220/380	350	125	3	none
CTIHD-6000350T125-3-J	6000	220/380	350	125	3	J
CTIHD-6000350T125-3-K	6000	220/380	350	125	3	K

Other wattages are available, please consult your CT HEATERS representative.



more than heaters!

DROP-IN SERIES HEATERS OF PTFE OVAL

FEATURES

- Available in 3KW and 6KW
- Other voltages are available, please consult your CT HEATERS representative
- Rugged construction prevents floating
- Choice of single phase or 3 phase
- Choice of thermocouple types, J or K
- New design for better circulation
- 1.5m PTFE outlet + 1m flexible PVC conduit.
Longer outlet is available, please consult your CT HEATERS representative
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



MODEL NUMBERS	SPECIFICATIONS					
Element Only	Watts	Volts "/"=or	Hot Zone (mm)	Thickness (mm)	Phase	Thermocouple Type
CTIHDO-3000500220T50-1	3000	220	500X220	50	1	none
CTIHDO-3000500220T50-1-J	3000	220	500X220	50	1	J
CTIHDO-3000500220T50-1-K	3000	220	500X220	50	1	K
CTIHDO-3000500220T50-3	3000	220/380	500X220	50	3	none
CTIHDO-3000500220T50-3-J	3000	220/380	500X220	50	3	J
CTIHDO-3000500220T50-3-K	3000	220/380	500X220	50	3	K

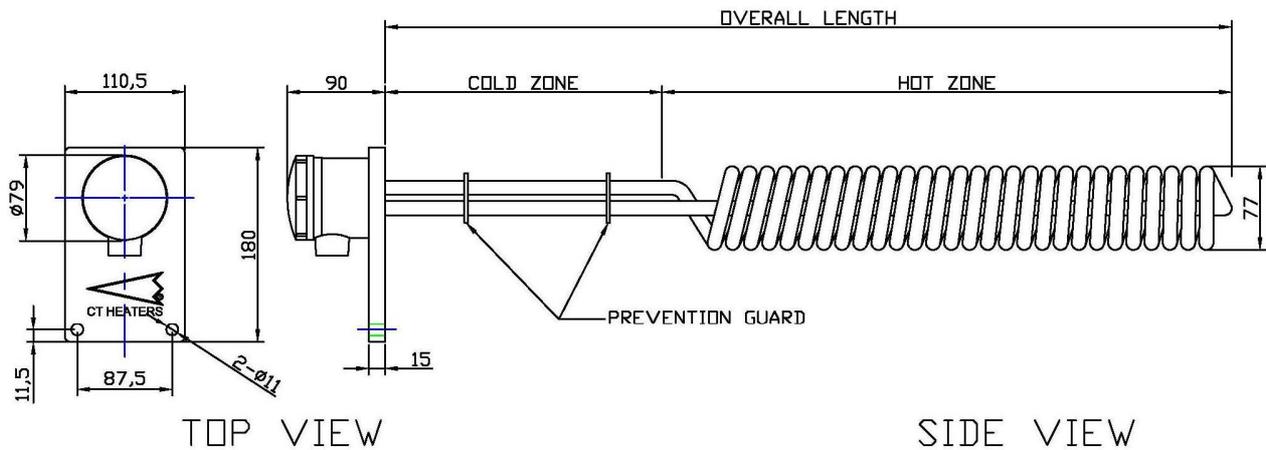
如要其他瓦特，請與廠商查詢 / Other wattages are available, please consult your CT HEATERS representative.



STRAIGHT SERIES HEATERS OF PTFE

FEATURES

- Available in 1KW to 6KW
- 120, 220 and 480 volts — other voltages are available, please consult your CT HEATERS representative
- Rugged construction prevents floating.
- Choice of single phase or 3 phase
- Optional of thermocouple types, J or K, please consult your CT HEATERS representative
- Straight section is not heated. Longer straight section is available; please consult your CT HEATERS representative
- Vapor tight, flame retardant, Bakelite terminal box, (shown)
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



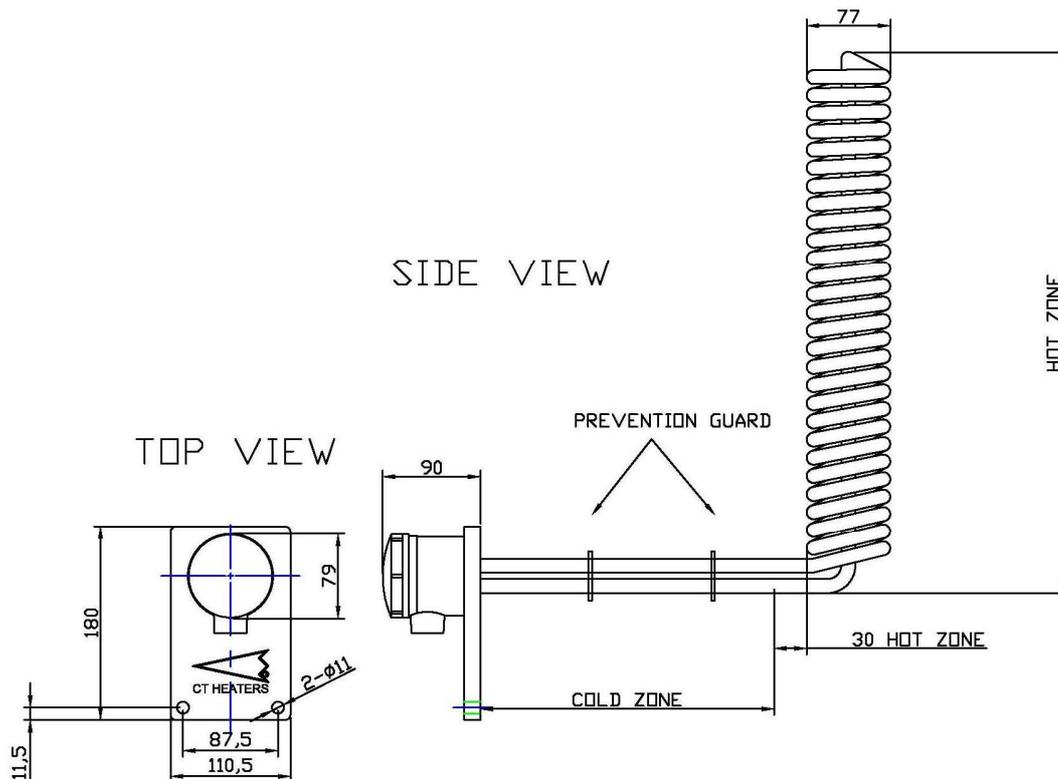
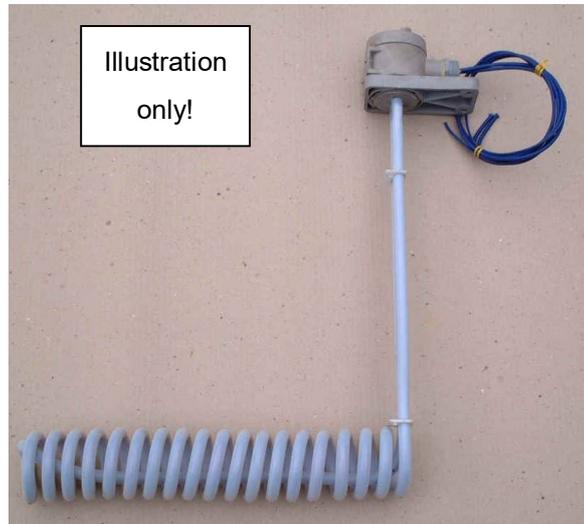
STRAIGHT SERIES HEATERS OF PTFE

MODEL NUMBERS	SPECIFICATIONS																																										
Element Only	Watts	Volts	Length (mm)	Hot Zone (mm)	Cold Zone (mm)																																						
CTIHS-1000120E	1000	120	280	180	100																																						
CTIHS-1000240E		240				CTIHS-2000120E	2000	120	430	305	125	CTIHS-2000240E	240	CTIHS-2000480E	480	CTIHS-3000240E	3000	240	585	355	230	CTIHS-3000480E	480	CTIHS-4000240E	4000	240	735	505	230	CTIHS-4000480E	480	CTIHS-5000240E	5000	240	890	635	255	CTIHS-5000480E	480	CTIHS-6000240E	6000	240	1015
CTIHS-2000120E	2000	120	430	305	125																																						
CTIHS-2000240E		240																																									
CTIHS-2000480E		480				CTIHS-3000240E	3000	240	585	355	230	CTIHS-3000480E	480	CTIHS-4000240E	4000	240	735	505	230	CTIHS-4000480E	480	CTIHS-5000240E	5000	240	890	635	255	CTIHS-5000480E	480	CTIHS-6000240E	6000	240	1015	735	280	CTIHS-6000480E	480						
CTIHS-3000240E	3000	240	585	355	230																																						
CTIHS-3000480E		480				CTIHS-4000240E	4000	240	735	505	230	CTIHS-4000480E	480	CTIHS-5000240E	5000	240	890	635	255	CTIHS-5000480E	480	CTIHS-6000240E	6000	240	1015	735	280	CTIHS-6000480E	480														
CTIHS-4000240E	4000	240	735	505	230																																						
CTIHS-4000480E		480				CTIHS-5000240E	5000	240	890	635	255	CTIHS-5000480E	480	CTIHS-6000240E	6000	240	1015	735	280	CTIHS-6000480E	480																						
CTIHS-5000240E	5000	240	890	635	255																																						
CTIHS-5000480E		480				CTIHS-6000240E	6000	240	1015	735	280	CTIHS-6000480E	480																														
CTIHS-6000240E	6000	240	1015	735	280																																						
CTIHS-6000480E		480																																									

L-SHAPED SERIES HEATERS OF PTFE

FEATURES

- Available in 1KW to 6KW
 - 120, 220 and 480 volts — other voltages are available, please consult your CT HEATERS representative
 - Rugged construction prevents floating
 - Choice of single phase or 3 phase
 - Optional of thermocouple types, J or K, please consult your CT HEATERS representative
 - Vertical section is not heated. Longer vertical section is available, please consult your CT HEATERS representative
 - Heater element extends horizontally place at the bottom of the superior heat distribution
- Vapor tight, flame retardant, Bakelite terminal box, (not shown)
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



more than heaters!

L-SHAPED SERIES HEATERS OF PTFE

MODEL NUMBERS	SPECIFICATIONS			
	Element Only	Watts	Volts	Vert. Ht. Cold Zone (mm)
CTIHL-1000120E	1000	120	230	305
CTIHL-1000240E		240		
CTIHL-2000120E	2000	120	330	460
CTIHL-2000240E		240		
CTIHL-2000480E		480		
CTIHL-3000240E	3000	240	430	460
CTIHL-3000480E		480		
CTIHL-4000240E	4000	240	530	460
CTIHL-4000480E		480		
CTIHL-5000240E	5000	240	635	460
CTIHL-5000480E		480		
CTIHL-6000240E	6000	240	735	460
CTIHL-6000480E		480		

Internal thermocouple is available, please consult your CT HEATERS representative.

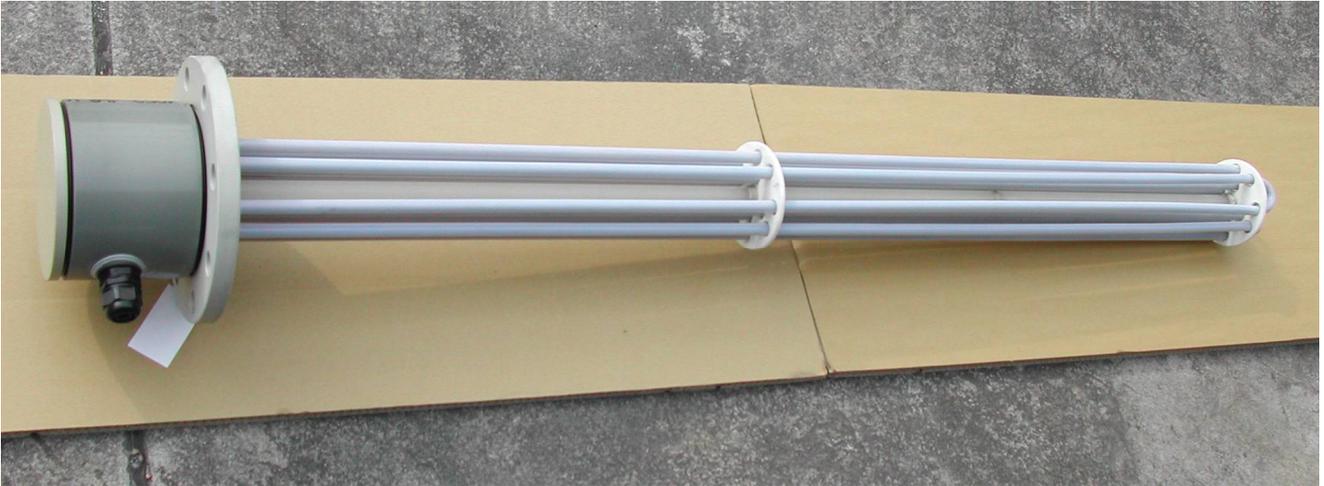
THERMOCOUPLE TYPES

ANSI TYPE	CONDUCTOR POSITIVE (+)	CHARACTERISTICS NEGATIVE (-)	RECOMMENDED TEMPERATURE RANGE	
			°C	°F
J	IRON (Magnetic)	CONSTANTAN (Non-magnetic)	-20 to 540	0 to 1000
K	CHROMEL® (Non-magnetic)	ALUMEL® (Magnetic)	-20 to 1100	0 to 2000

ALUMEL® and CHROMEL® are registered trademarks of the Hoskins Manufacturing Company

SPECIAL IMMERSION HEATER

For wet processing, CT HEATERS does made quartz type or PP flange heating elements especially to fit your needs. For this section, please consult with CT HEATERS representative.



Flange Immersion Heater



Quartz Radiant Heater

How to custom-made?

To help the ordering process, provide the following information:

- Liquid level
- Liquid type and pH level¹ (Note: 1. safety and choice of material)
- Size of tank or container or volume
- Sheath material and diameter
- Target timing to reach desired temperature
- Required temperature
- Volts and watts
- Bending formation
- Termination (1 phase or 3 phases)
- Mounting style (flanged, hook and others)
- Length of un-heated
- Quantity

PolyTetra FluoroEthylene(PTFE)—*PTFE* Tubing has become the gold standard in industries requiring the ultimate in lubricity, high temperature use, chemical resistance, biocompatibility, and precision extruded tolerances. **Use temperature at 250°C max., melt temperature at 327°C.**

Polyfluoro Ethylene Propylene(FEP)—Applications where *FEP* tubing is chosen usually require more clarity, flexibility or a lower heat shrinkable temperature than PTFE. **Use temperature at 200°C max., melt temperature at 285°C.**

PerFluoroAlkoxy(PFA)—*PFA* tubing is often the resin of choice when additional clarity, flexibility, and a

higher continuous service temperature are required. **Use temperature at 250°C max., melt temperature at 305°C.**

Copolymer of Ethylene and Tetrafluoro Ethylene(ETFE)—ETFE tubing is used in applications requiring excellent impact resistance and good resistance to stress cracking. **Use temperature at 150°C max., melt temperature at 270°C.**

※※No warranty provided on consumable parts (including the heater elements, thermocouples, etc.), therefore, please adhere to above conditions.※※

[CHENG TAY HEATER & INSTRUMENT CO., LTD., Taiwan]

more than heaters!

MEMO

more than heaters!

MEMO

TERMS AND CONDITIONS

1. CT HEATERS warrants its Products against defects in material and workmanship for three months from the date of delivery. **Many of Heaters are hygroscopic in nature due to MgO contents. If kept unused for longer period, there is moisture deposition on the terminals. Therefore CT HEATERS recommend you to de-moisture the heaters prior to installation by heating them at 90~120°C in an oven for at least 2 hours or use controllers with soft start function. This will help evaporate any moisture present inside.** CT HEATERS do not warrant any PRODUCT against damage from corrosion, contamination, misapplication, improper specification or wear and tear and operational conditions beyond CT HEATERS' control. In no event shall CT HEATERS be liable for special, indirect, incidental or consequential damages. CT HEATERS shall not be liable for, and buyer and any other person or entity to whom Products are transferred during the period of this warranty assumes responsibility for, all personal injury and property damage resulting from or related to the handling, possession or use of Products and Products manufactured and sold by CT HEATERS hereunder.

2. Deliveries may be suspended by either party in the event of: Act of God, war, riot, fire, explosion, accident, flood, sabotage; lack of adequate fuel, power, raw materials, labor, containers or transportation facilities; compliance with Governmental Requirements; breakage or failure of machinery or apparatus; national defense requirements or any other event, whether or not of the class or kind enumerated herein, beyond the reasonable control of such party; or in the event of labor trouble, strike, lockout or injunction which event makes impracticable the manufacture, transportation, sale, purchase, acceptance, use or resale of Products or a material upon which the manufacture of Products is dependent.

3. If Buyer orders and/or CT HEATERS delivers a Product designated as a "Prototype", no guarantees, warranties or representations as to fitness for a particular purpose or merchantability are made with respect to such Prototype. Buyer shall have the duty and sole responsibility to test a Prototype prior to acceptance and/or incorporation into end-use applications. Further, a production Product based on a Prototype design may differ in assembly methods and materials from the Prototype. Buyer, therefore, shall have the duty and sole responsibility for testing and acceptance of production Products which are based on Prototype designs.

CONTACT INFORMATION

FACTORY

16 Tung Yuan 2nd Road, Chung Li Industrial District,

Chungli City 320, Taoyuan County, Taiwan

TEL: +886-3-452-1328

FAX: +886-3-452-9539

E-mail: ct.heaters@msa.hinet.net

WEB: www.ctheaters.com

ADMINISTRATIVE OFFICE

221 Chung Ching North Road, Section 3, Taipei 103, Taiwan

TEL: +886-2-2594-0385

FAX: +886-2-2596-8109

BUSINESS TAX #: 07105140

PLEASE NOTE:

No warranty provided on consumable parts (including the heater elements, thermocouples, etc.), therefore, please adhere to above conditions. CT HEATERS dose not warrant any PRODUCT against damage from corrosion, contamination, misapplication, improper specification, wear and tear, or operational conditions beyond CT HEATERS' control.

This file is copyright of **CHENG TAY HEATER & INSTRUMENT CO., LTD, TAIWAN.**
ALL RIGHTS RESERVED.

CT HEATERS or CHENG TAY HEATER & INSTRUMENT CO., LTD. reserves the right to bring any modifications to our products. We manufacture products according to drawings which serve as contractual documents. We are not responsible for damage resulting from inappropriate installation or use of our product.



more than heaters!

訂購傳真/INQUIRY FAX

底本/MASTER-COPYs !

公司/Company	電話/Phone
姓名/Name	傳真/Fax
地址/Street	行動電話 Mobile Phone
郵遞區號/Zip Code	電子信箱 E-Mail
國家/Country	公司網址/Website

型號 Model Number	數量 Quantity	規格 Specification	特殊需求 (例:電源線長度) Special requests (e.g. Length of power cord)

日期/Date

簽名蓋章/Signature, stamp

Please send this inquiry directly to the CT HEATERS representative in your country. You will find all the contact information on our website at www.ctheaters.com. For further information, please do not hesitate to contact us by phone at +886-3-452-1328.

※※No warranty provided on consumable parts (including the heater elements, thermocouples, etc.), therefore, please adhere to above conditions.※※[CHENG TAY HEATER & INSTRUMENT CO., LTD., Taiwan]CT HEATERS or CHENG TAY HEATER & INSTRUMENT CO., LTD. reserves the right to bring any modifications to our products. We manufacture products according to drawings which serve as contractual documents. We are not responsible for damage resulting from inappropriate installation or use of our product.

