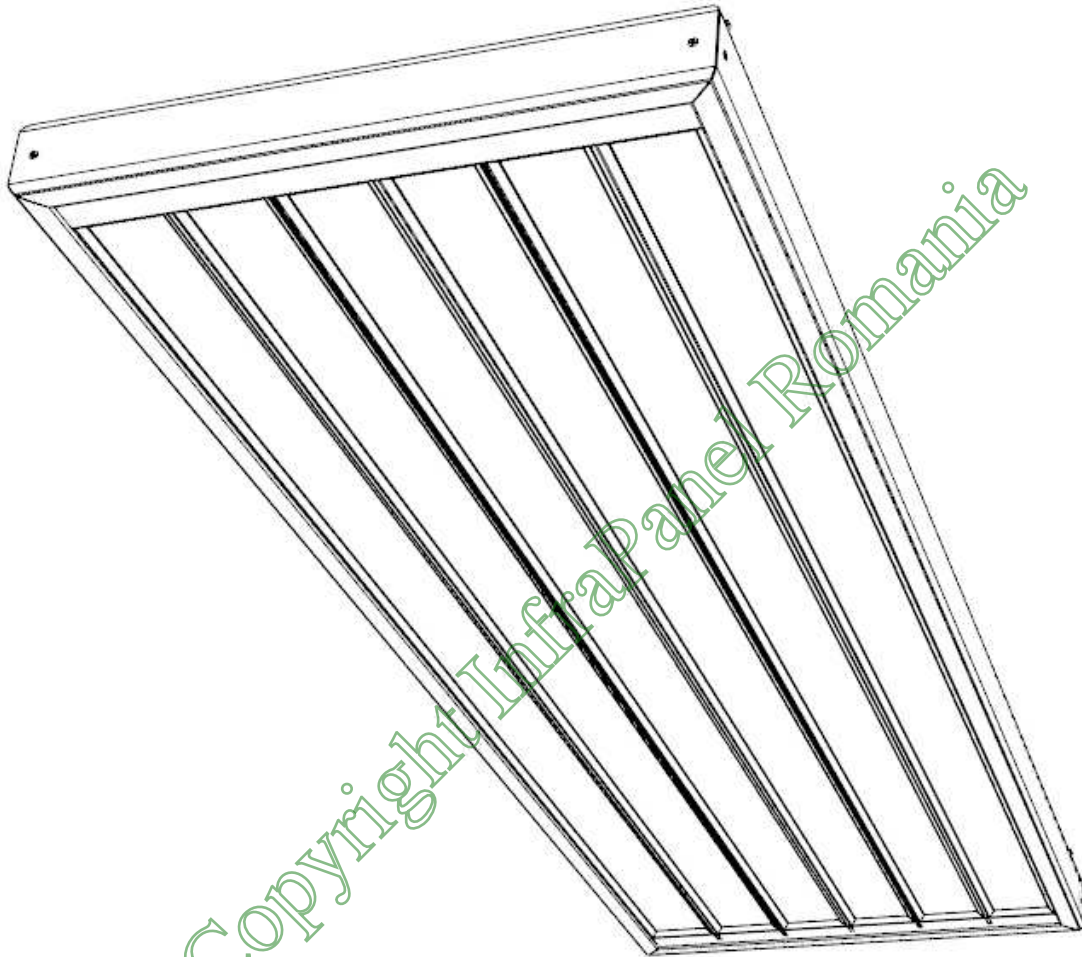


# THERMO



Please retain these instructions in a safe place for future reference.

Si prega di conservare con cura questo libretto di istruzioni per future consultazioni.

Bewaar deze gebruiksaanwijzing zorgvuldig voor toekomstig gebruik.

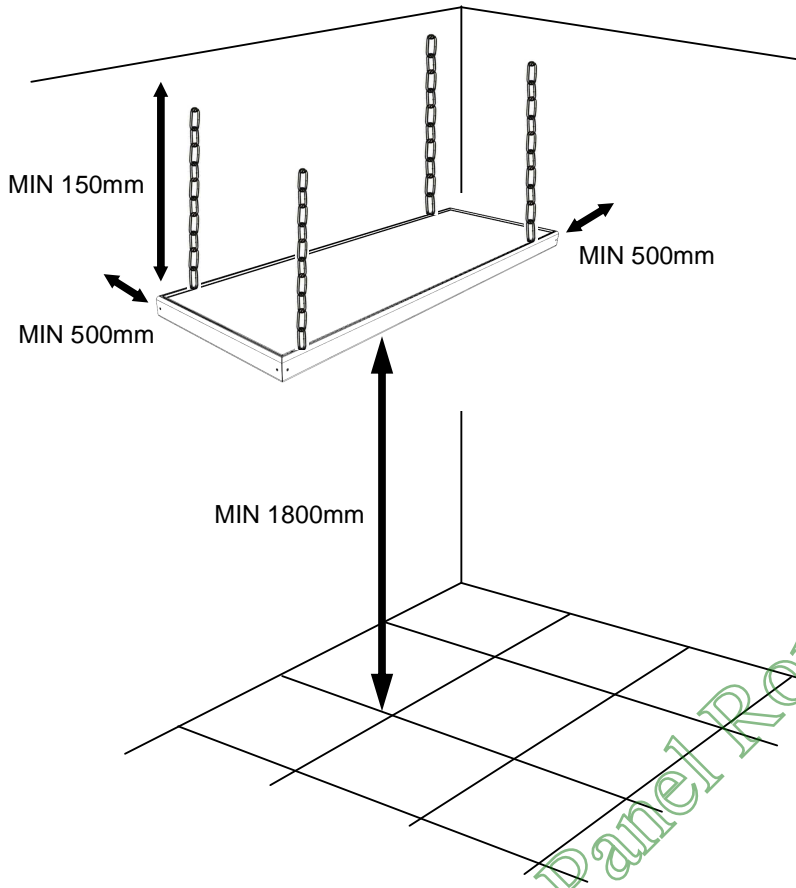
Conserver cette notice pour toute consultation ultérieure.

Es wird gebeten, diese Gebrauchsanleitung für ein zukünftiges Nachschlagen sorgfältig aufzubewahren.

Conservar las instrucciones de uso.

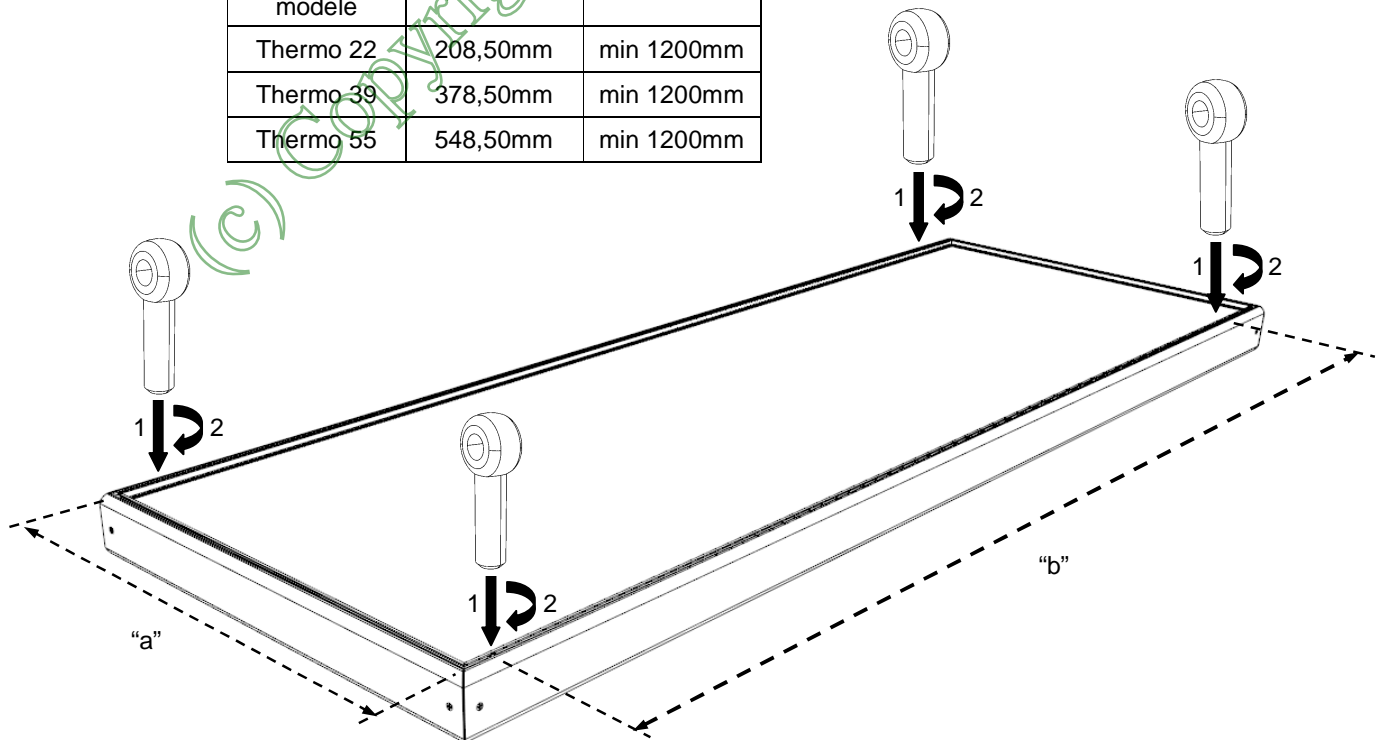
Va rugam sa pastrati cu grija acest manual de instructiuni pentru viitoare consultari.

1



2

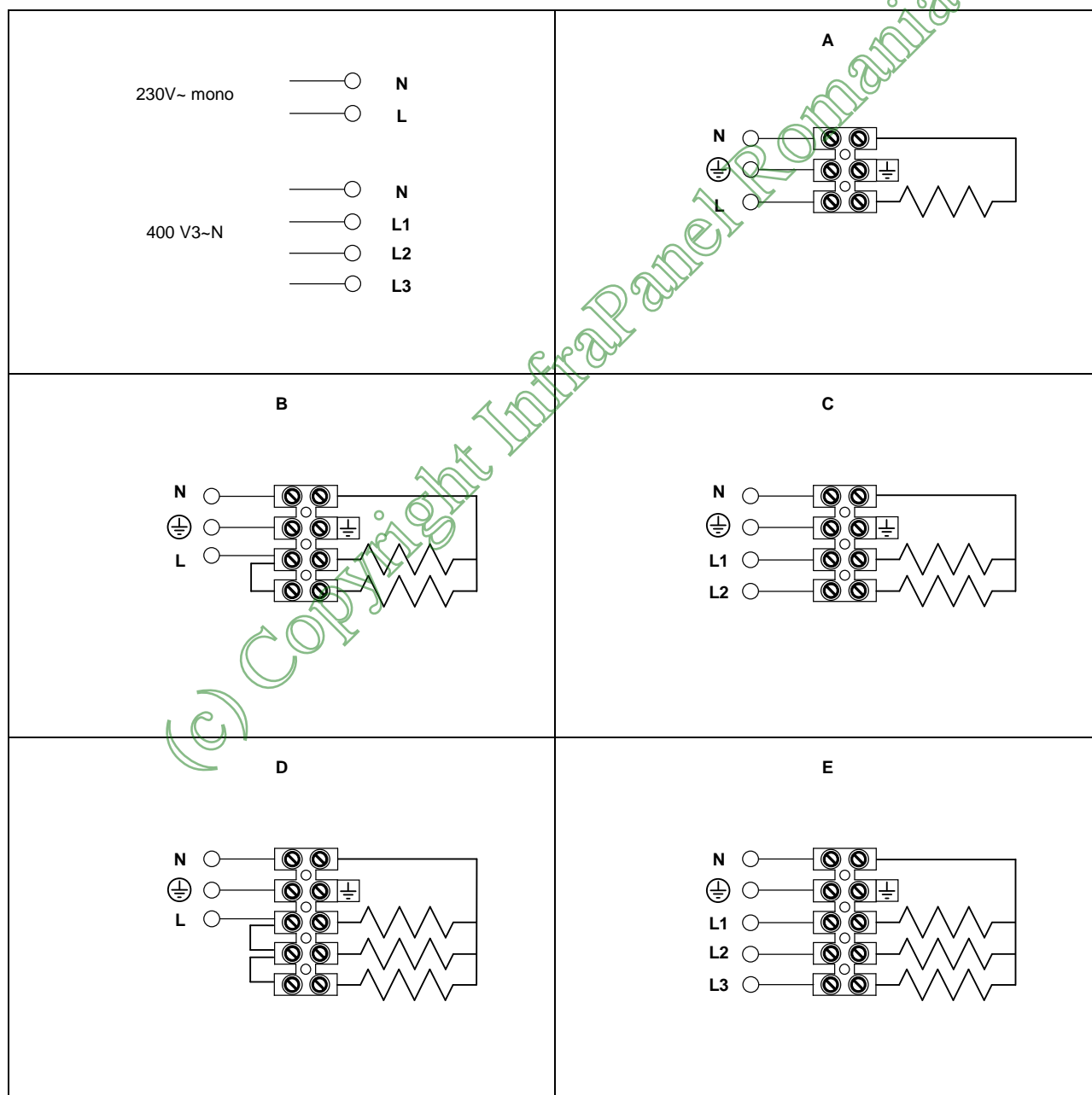
modello model modèle modele	a	b
Thermo 22	208,50mm	min 1200mm
Thermo 39	378,50mm	min 1200mm
Thermo 55	548,50mm	min 1200mm



TAB 1

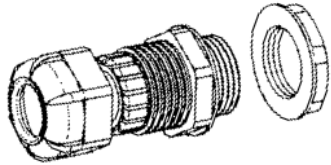
modello model modèle modele	tensione voltage tension tensine	potenza power puissance putere (+5% -10%)	corrente current courant curent (max)	frequenza frequency fréquence frecventa	sez. conduttori wiring section sections de fils sectiune fire (min)	connessione raccordement conectare (⇒ TAB 2)	peso weight poids greutate
<b>22 BT</b>	230V~ mono	700W	3,2A	50Hz	0,75mm <sup>2</sup>	A	7,5 Kg
<b>22 HT</b>	230V~ mono	1750W	8,0A	50Hz	1,0mm <sup>2</sup>	A	8,0 Kg
<b>39 BT</b>	230V~ mono / 400 V3~N	1400W	6,4A	50Hz	1,0mm <sup>2</sup>	B – C	11,3 Kg
<b>39 HT</b>	230V~ mono / 400 V3~N	3500W	16,0A	50Hz	1,5mm <sup>2</sup>	B – C	12,2 Kg
<b>55 BT</b>	230V~ mono / 400 V3~N	2100W	9,6A	50Hz	1,0mm <sup>2</sup>	D – E	15,3 Kg
<b>55 HT</b>	230V~ mono / 400 V3~N	5250W	24,0A	50Hz	2,5mm <sup>2</sup>	D – E	16,6 Kg

TAB 2



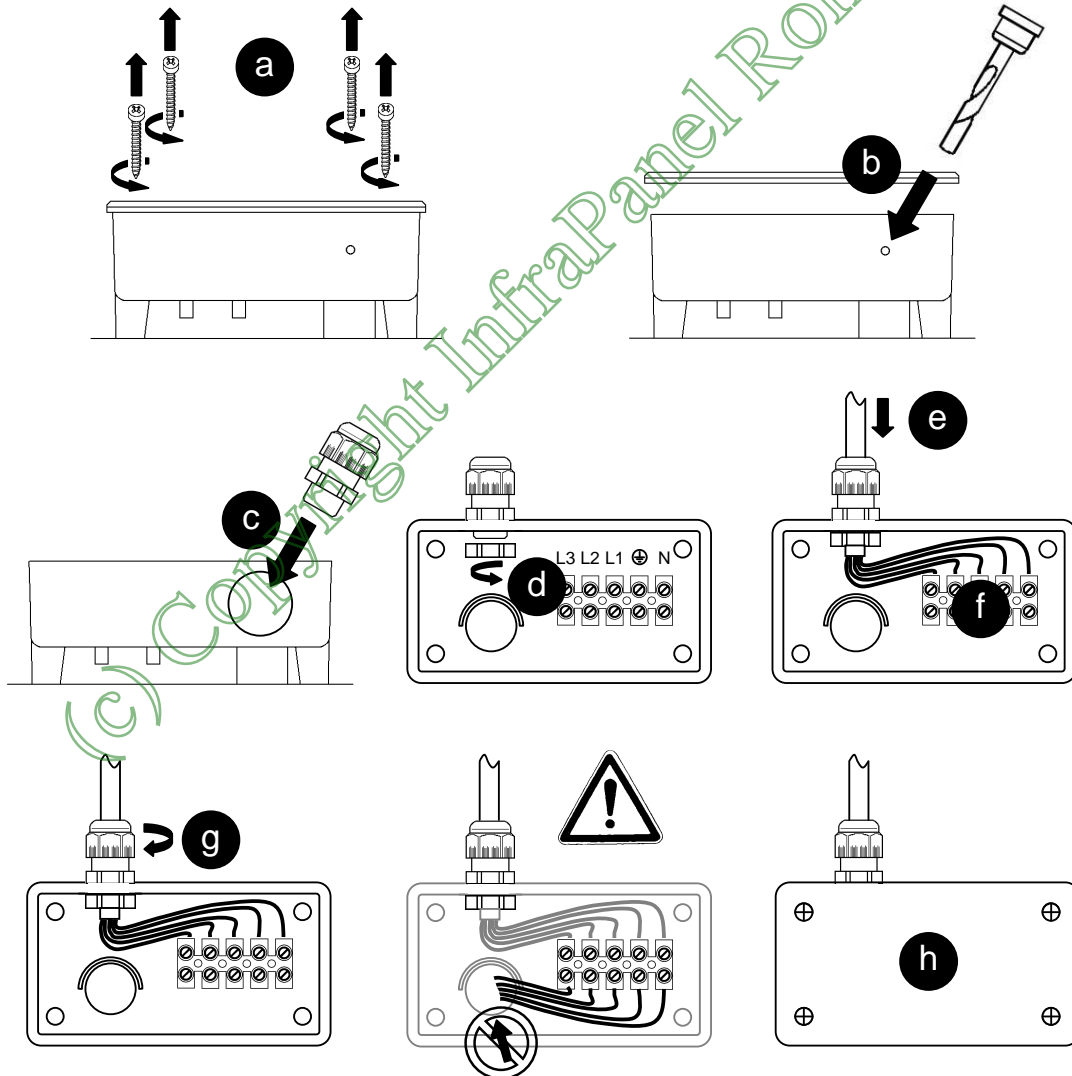
TAB 3

Diametro del cavo (mm)	6	7	8	9	10	11	12	13	14	Ø foro (mm) hole (mm) trou (mm) gaura (mm)
supply cord diameter (mm)										
diamètre du cable (mm)										
Diametru adaptor cablu (mm)	M20									20
	M16									16
							PG21			29
							PG16			23
							PG13,5			21
							PG11			19
							PG9			16
								GAS ¾"		29
							GAS 5/8"			23
							GAS ½"			21
	GAS 3/8									16



MIN. IP54

3



**ATTENZIONE: NON SPINGERE I CAVI DENTRO AL PRODOTTO**  
**WARNING: DO NOT PUSH THE WIRES INSIDE THE PRODUCT**  
**VORSICHT: DIE KABEL DÜRFEN NICHT INNERHALB DES GERÄTES VERSCHOBEN WERDEN**  
**ATTENTION: NE PUSSEZ PAS LES CABLES DEDANS L'INTERIEUR DU PRODUIT**  
**ATENȚIE: NU ÎMPINGEȚI CABLURILE ÎNĂUNTRUL PRODUSULUI**

## ROMANA

### INSTRUCTIUNI DE UTILIZARE SI INSTALARE

Va rugam sa cititi cu atentie aceste instructiuni inainte de a utiliza produsul, pentru a evita eventualele daune sau situatii periculoase. Orice utilizare a produsului altfel decat este indicat in acest manual poate cauza incendii sau raniri si anuleaza garantia.

Garantia nu se aplica in cazul oricaror defecte, deteriorari, pierderi, loviri sau daune datorate utilizarii incorecte a produsului. Raman in vigoare toate drepturile garantate de lege. Nici o conditie de garantie nu poate exclude sau modifica conditiile de garantie reglementate prin legile statului care nu pot fi in nici un mod modificate sau excluse.

Inainte de orice operatiune, indepartati cu grija ambalajul si controlati integritatea produsului. In cazul in care se observa defecte sau lovituri, nu instalati si nu incercati sa reparati aparatul, contactati furnizorul.

Nu lasati ambalajul la indemana copiilor si separati-l in parti componente in conformitate cu legile in vigoare.

#### 1. Pentru siguranta dumneavoastra

- ◆ Asigurati-va ca alimentarea de la retea corespunde cu datele de pe eticheta;
- ◆ Nu lasati niciodata animalele sau copiii sa se joace sau sa atinga produsul. Atentie! In timpul functionarii panoul poate deveni foarte cald (cca 160 grade C/320 grade F pentru versiunile BT si 320 grade C/608 grade F pentru versiunile HT);
- ◆ **IMPORTANT: pentru a evita supraincalzirea nu acoperiti niciodata produsul.** Nu asezati niciodata obiecte in contact cu aparatul.
- ◆ Acest produs nu trebuie utilizat de persoane (inclusiv copii) cu capacitati fizice, senzoriale sau mentale reduse sau cu experienta si cunostinte inadecvate, care nu sunt sub supravegherea unei persoane responsabile pentru siguranta lor sau care nu sunt instruite adecvat de catre o astfel de persoana. Copiii trebuie supravegheati pentru a ne asigura ca nu se joaca cu aparatul.
- ◆ Produsul este dotat cu un dispozitiv de control al temperaturii ambientale. Nu utilizati panoul incalzitor in spatii de mici dimensiuni daca acestea sunt ocupate de persoane (inclusiv copii) care nu pot fi lasate singure sau care nu sunt supravegheate de o persoana responsabila de siguranta lor.
- ◆ Nu utilizati produsul in camere in care exista gaze explozive, vapori generati de solventi si vopsele sau orice vapori/gaze inflamabile.
- ◆ Produsul trebuie pozitionat astfel incat priza de alimentare sa fie in pozitie accesibila.

#### 2. Pozitionare sigura

- ◆ Utilizati produsul numai in pozitie orizontala cu suprafata incalzitoare orientata in jos.
- ◆ Aparatul de incalzire nu trebuie pozitionat imediat langa o priza de curent si nu trebuie instalat intr-o scafa. Instalarea prescrisa este cea suspendata, lasand minim 15 cm intre partea posterioara a panoului si tavan si 180 cm intre produs si pardoseala.
- ◆ Suprafata radianta frontala a panoului trebuie sa fie libera si nu acoperita de obiecte care, in afara faptului ca panoul devine ineficient, pot provoca defecte sau se pot defecta in mod ireparabil si provoca risc de incendiu. Lasati o distanta de minimum 1m intre suprafata panoului si eventualele obiecte care se afla direct sub acesta. De asemenea panoul trebuie asezat la o distanta de minim 50cm fata de peretii laterali.
- ◆ Aparatul este construit cu o singura izolare electrica (clasa I) deci este necesara impamantarea;
- ◆ Atentie la respectarea distantelor minime fata de pereti, tavan sau pardoseala (fig.1).
- ◆ Nu instalati niciodata produsul in contact cu suprafete de lemn sau din material sintetic.
- ◆ Aparatul are grad de protectie la apa si praf IP54.

#### 3. Instalare

- ◆ Dupa ce ati citit cu atentie precedentele paragrafe procedati la fixare utilizand 4 lanturi metalice cu caracteristici adecvate produsului.
- ◆ In interiorul ambalajului exista o punga cu 4 suruburi cu inel pentru instalare (figura 2):
  - insurubati, fara a strange excesiv, cele 4 suruburi in locurile speciale din interiorul cornierului marginal posterior al produsului.
  - reglati suruburile in pozitia oportuna respectand figura 2;
  - blocati fortand suruburile cu inel in pozitia aleasa.
- ◆ Identificati cele 4 puncte in care veti fixa lanturile de instalare respectand distantele minime indicate in figura 1.
- ◆ Fixati cele 4 lanturi in punctele alese utilizand dibluri sau alte sisteme adecvate greutatii produsului si tipologiei suportului pe care se va face ancorarea.
- ◆ Suspendati produsul cu lanturi utilizand elemente adecvate de legatura.

#### 4. Conexiunea la retea electrica

- ◆ Inainte de a efectua orice operatie amintiti-va sa deconectati alimentarea de la retea si asigurati-va ca aceasta nu poate fi reactivata accidental.
  - ◆ Toate produsele din gama trebuie instalate si utilizate de persoane cu o calificare adecvata.
  - ◆ Instalarea trebuie efectuata in conformitate cu normativele in vigoare din tara dumneavoastra si cu indicatiile din acest manual. Inainte de instalarea produsului asigurati-va intotdeauna ca retea are caracteristicile specifice de alimentare cerute. Legarea electrica la retea prevede utilizarea unui intrerupator multipolar cu o distanta minima de deschidere intre contacte de 3mm.
  - ◆ Gama include diverse modele diferite atata prin numarul de elemente incalzitoare cat si prin puterea absorbita. Pentru ca instalarea sa fie cat mai flexibila si compatibila cu caracteristicile instalatiei, toate produsele sunt dotate cu o cutie de conexiuni externa. In interiorul cutiei se gaseste o conexiune cu mai multi poli pentru legarea la pamant, la nul si faza.
- Pentru produsele cu 2 sau 3 rezistente, toate fazele sunt disponibile in mod independent astfel incat sa fie posibila:
- realizarea circuitului de alimentare care permite activarea separata a fiecarui element incalzitor. Astfel este posibila reducerea puterii totale absorbite in perioadele in care este necesara reducerea puterii de incalzire

- conectarea produsului la o retea trifazata distribuind incarcarile pe faze diferite pana la echilibrarea instalatiei in mod optim.
- ◆ Pentru o instalare corecta si conectarea la reseaua electrica sunt necesare urmatoarele:
  1. Alegeți efectuarea unei conexiuni monofazice sau trifazice in functie de schemele indicate in tabelul 2 si in consecinta definiti numarul de conductori necesari;
  2. Respectati sectiunea minima a conductorilor indicata in tabelul 1 pentru modelul achizitionat;
  3. Decideti daca efectuati conexiunea cu un cablu de alimentare sau cu un tub (rigid sau flexibil) si alegeți presetupa sau garnitura de racord adecvata (grad de protectie minima IP54);
  4. Deschideti cutia de conexiuni (figura 3/a) pentru a o gauri in punctul predefinit (figura 3/b) si fixati dispozitivul de imbinare al cablului sau garnitura de racord (figura 3/cd). Diametrul gaurii din cutia de conexiuni difera in functie de presetupa sau garnitura de racord aleasa si aceasta gaura trebuie practicata in capacul superior al cutiei de conexiuni in corespondenta cu punctul central prefixat.
  5. Efectuati legatura electrica necesara (figura 3/e-f) fiind atenti sa nu decopertati conductorii mai mult de 8mm pentru a nu risca sa intre in contact cu alti conductori. Nu insurubati conexiunea pe izolatie.
  6. Strangeti adecvat presetupa sau garnitura de racord (fig.3/g).
  7. Reinchideti cutia de conexiuni cu suruburile speciale (fig.3/h).  
Deci, daca ati ales sa utilizati un cablu de alimentare trebuie:
    - sa alegeți un cablu tip H05RN-F sau FROR 450/750V;
    - identificati presetupa adecvata in functie de diametrul cablului utilizand tabelul 3;
    - aveti grija intotdeauna, dupa legarea cablului, ca acesta sa nu intre in contact cu partile metalice ale produsului.

#### Exemplu:

A fost achizitionat produsul THERMO 55 BT si se doreste utilizarea cablului de conexiune la o retea trifazica. Plecand de la aceasta premisa:

1. Identificati numarul de conductori necesari: am ales o conexiune de tip "E" (retea trifazata) si vom avea 5 conductori pentru: impamantare N, L1, L2 si L3;
2. Verificati sectiunea minima a conductorilor ca si in Tabelul 2: 1,0mm<sup>2</sup> in exemplul nostru
3. Alegeți tipul cablului: FROR 450/750V 5G19 cu conector galben/verde pentru impamantare satisfacand cerintele;
4. Identificati utilizand Tabelul 3 tipul de presetupa potrivit: pentru diametrul de 9,4mm se poate alege si o presetupa cu filet M20, PG13,5E GAS ½". Alegem PG13,5.
6. Verificam diametrul gaurii care trebuie realizata in cutia de conexiuni in functie de presetupa aleasa utilizand Tabelul 3: pentru PG 13,5 diametrul gaurii trebuie sa fie 21mm.
7. Gauriti cutia in punctul prefixat realizand o deschidere cu diametrul conform punctului precedent (figura 3/a-b);
8. Fixati presetupa in cutia de conexiune utilizand (figura 3/c-d)
9. Introduceti cablul in presetupa si efectuati conexiunile electrice (figura 3/e-f);
10. Strangeti presetupa (figura 3/g);
11. Inchideti cutia de conexiuni cu cele 4 suruburi prevazute (figura 3/h).

#### 5. Utilizarea produsului

- ◆ Produsul nu este prevazut cu un intrerupator sau dispozitiv de control al temperaturii si pornirea sa trebuie sa fie reglata de dispozitive speciale care trebuie prevazute in faza de realizare a instalatiei (ex. intrerupator diferential si intrerupator magnetotermic)
- ◆ Pentru versiunile cu 2 sau 3 rezistente se semnaleaza posibilitatea de realizare a circuitelor de alimentare diferite pana cand devine posibil activarea chiar si partiala a produsului pentru toate situatiile in care este ceruta o putere de incalzire redusa. Pentru versiunile cu 3 rezistente de exemplu se recomanda realizarea unui circuit pentru alimentarea elementului central (faza L2) si altul pentru elementele laterale (fazele L1 si L3) pana cand va fi posibil sa se beneficieze, in functie de necesitati 1/3, 2/3 sau 3/3 din puterea disponibila.
- ◆ Atentie: in primele ore de functionare succesive in cazul primei instalari este posibil ca produsul sa degaje un miros neplacut si/sau un fum usor. Acest lucru se datoreaza prezentei reziduurilor unor anumite substante utilizate in timpul procesului productiv si nu reprezinta un defect, o functionare necorespunzatoare sau o conditie de pericol pentru sanatatea si siguranta utilizatorilor.

#### 6. Intretinere

- ◆ Acest produs nu necesita o intretinere speciala.
- ◆ Va recomandam sa verificati ca produsul sa fie rece si alimentarea de la retea intrerupta inainte de efectuarea oricarei interventii.
- ◆ Daca este necesara repararea produsului contactati centrul de asistenta calificat.

-RO-



#### Mediul inconjurator si reciclarea

Pentru a contribui la protectia mediului, va cerem sa colectati in mod corect materialele utilizate pentru ambalare.

#### Dezmembrarea aparatelor uzate

■ Aparatele care poarta semnul evidentiat in partea dreapta nu trebuie aruncate impreuna cu deseurile urbane, ele trebuie colectate si dezmembrate separat. Dezmembrarea si colectarea aparatelor uzate se va face in conformitate cu legile in vigoare.



## ENGLISH

### OPERATING INSTRUCTIONS

**Before operating the heater, please read these instructions thoroughly to avoid damage and hazardous situations. Any use of this heater other than that stipulated in this instruction manual may cause fire, electric shock or injury, and voids all warranties.**

Warranty does not apply to any defect, deterioration, loss, injury or damage caused by, or as a result of, the misuse or abuse of this heater. The rights dictated by State law are not prejudiced. None of the terms of this warranty are to be taken as excluding any conditions or warranties implied by State law, which cannot be excluded or modified.

Before any operation remove the packaging and check product integrity. In case of defects or damages do not try to repair it yourself but contact your dealer.

Do not let children play with the packaging and protect the environment by disposing of the packaging in accordance with the national regulations for waste processing.

#### 1. For your safety

- ◆ Make sure that the mains power supply matches the rated inputs.
- ◆ Never allow animals or children to play with or touch the product. Attention! The panel may become very hot while it is working (160°C/320°F version BT e 320°C/608°F versions HT);
- ◆ **Warning: to avoid overheating do not cover the product. Never place any object in contact with the appliance.**
- ◆ This product may not be used by people (children included) with reduced physical, sensorial or mental capacities, or with inadequate experience and knowledge, unless they are under the supervision of a person responsible for their safety or have been suitably instructed by the latter. Children must be supervised to ensure they do not play with the product.
- ◆ Products do not include any ambient temperature control device. Do not use the radiant panel in small environment where there may be people with reduced physical capacities, who are not able to leave the room by themselves and that are not constantly supervised for their own safety.
- ◆ Do not use the product in rooms saturated with explosive gas, vapours generated by solvents or paints or flammable vapours/gas.
- ◆ Always position the product so that the plug is immediately accessible.

#### 2. Safe positioning

- ◆ Only use the product in its horizontal position with the heating surface facing the floor.
- ◆ Never position this appliance immediately underneath a power socket. The product must hang from the ceiling, leaving at least 15 cm between the rear surface of the product and the ceiling and 180 cm between the heating surface and the floor.
- ◆ Do not hang anything on the heater and do not cover it while it's working. Leave at least 1m distance from furniture and/or objects right beneath the product. The panel must be installed leaving at least 50 cm from the side walls.
- ◆ This product has a single electrical insulation construction (Class I) and therefore requires an earth connection;
- ◆ Always make observe the minimum distances from walls, furniture and/or objects, as indicated in picture 1.
- ◆ Never install the product on a surface made of wood or synthetic material.
- ◆ This product is IP54 protected. It may therefore be used in areas subject to water and dirt.

#### 3. Installation

- ◆ After carefully reading sections 1 and 2, proceed with installation using 4 steel chains that can bear the weight of the product;
- ◆ Inside the packaging you will find a plastic bag with 4 steel hooks to install the product (Fig. 2);
  - Fix the 4 hooks to the 4 nuts (without tighten them up to much) inside the aluminium frame placed in the back of the product;
  - Slide the hooks along the frame in the correct position, always beware of the ties reported in fig. 2;
  - Tighten the hooks screwing them firmly until they are blocked in the desired position.
- ◆ Choose the 4 points where the chains will be fixed for installation, according to the minimum distance in fig. 1
- ◆ Fix the 4 chains in the 4 chosen points using proper wall anchors or other systems that could bear the weight of the product and according to the surface you are hanging the product to;
- ◆ Hang the product to the chains using proper linking methods.

#### 4. Electrical connections

- ◆ Before starting a new installation always remember to disconnect electricity and be sure it can't be switched on accidentally.
- ◆ Every product of this range must be installed and used by trained and authorised people.
- ◆ Installation must comply with safety rules in force in your country and to notices reported in this instruction leaflet. Before installing the product make sure that the mains power supply matches the rated power inputs. The electrical connection to the mains power supply must also include a multi-pole switch with a minimum contact distance of 3mm. As a priority, always abide you national wiring rules.
- ◆ Our range includes different versions of panel heaters, diversified for the number of heating elements and their power input. To make installation more flexible and compatible with your actual electric system, every product has been provided with an external connection box to connect phase, neutral and earth wires.
- ◆ In products with 2 or 3 electric heating elements, every phase is accessible through the connection block in order to:
  - Create supply circuits that allow to separately activate each single heating element, to reduce the power input in mid-season when a reduced heating is needed.
  - Connect the product to a three-phase system, balancing power between the different phases to give constant power input to the system
- ◆ For a correct installation and connection to the electric grid, it is necessary to:
  1. Choose whether to use a mono phase or a three phase connection, according to the schemes in TAB 2 and therefore define the right number of conductors;
  2. Thoroughly select the right section of conductors for the purchased version of the product, as indicated in TAB1;
  3. Decide whether to do the connection with a power cable or through a duct (rigid or flexible) and choose the strain relief or the right joint connector (Minimum protection degree IP54).

4. Open the connection box (fig. 3/a), drill it through the marked point (fig. 3/b) and fix the strain relief or the joint connector (fig. 3/c-d). The diameter of the hole to drill on the connection box changes according to the dimension of either the strain relief or the joint connector, and the hole must be drilled on the top side of the box exactly where the point is marked.
  5. Make the necessary electric connections (fig. 3/e-f) caring not to peel the conductor more than 8mm to avoid the risk of contact between conductors. Do not screw the connection block on wires isolation sheath;
  6. Firmly tighten the strain relief or the joint connector (fig. 3/g)
  7. Lock the connection box with proper screws (fig. 3/h)
- ◆ In case you have chose to use a power cable you must:
    - Choose a cable type H05RN-F or FROR 450/750V;
    - Identify the correct strain relief according to the diameter of the cable shown in TAB 3;
    - Always be aware that once the cable is connected, it won't ever touch the steel parts of the product

#### Example:

You have purchased the Thermo version 55BT and you wish to use a power cable for a three-phase connection. Hence, you'll have to:

1. Identify the necessary number of conductors: you choose connection type "E" (three-phase), so you'll get 5 conductors for earth, neutral, L1, L2 and L3.
2. Verify the minimum section diameter of the conductors as indicated in TAB 2: 1,0mm<sup>2</sup> in this case;
3. Choose which type of wire you wish to use: type FROR 450/750V 5G1 (yellow/green connector for earth) is necessary for the required needs;
4. Verify the exterior diameter of the wire by measuring or contacting the supplier: section of the wire in this case is 9,4 mm
5. Identify the strain relief, according to TAB 3: for 9,4 diameter wire you could choose among strain relief with different threads: M20, PG13,5 and GAS ½". We choose PG13,5;
6. Verify the hole diameter you will have to drill on the connection box according to the strain relief you wish to use, according to TAB 3: for PG 13,5, hole diameter is 21 mm.
7. Drill the connection box on the marked spot with a hole diameter according to the previous point (fig. 3/a-b);
8. Fix the strain relief to the connection box with the right nut (fig. 3/c-d);
9. Insert the cable through the strain relief and connect the power wires (fig. 3/e-f)
10. Tighten the strain relief (fig. 3/g)
11. Lock the connection box with 4 proper screws (fig. 3/h).

## 5. Using the product

- ◆ No on-off switch or temperature control devices are provided with the product, and switch on/off has to be regulated by special devices to be included before the installation (es. leakage breaker or thermal magnetic switch).
- ◆ In versions with 2 or 3 heating resistances there is the possibility to realise independent power circuit to activate each single heating element to respond to the demand of reduced heating power when requested. Especially in the 3 heating elements version, we suggest to realise one power circuit just for the heating element in the middle (phase L2) and a different one for the heating elements on the side (phase L1 and L3) to maximise, according to the real heating needs, 1/3, 2/3 or the whole product power.
- ◆ Please mind: in the first hours after installation, the product could stink out the room where it has been installed. This is due to the presence of small residua during the assembly process and does not represent a defect or a malfunction of the product or any risk for the safety of end users.

## 6. Maintenance

- ◆ This product does not require any special maintenance.
- ◆ If the product requires repairing, contact an authorised technical service centre.
- ◆ Before operating on the product please wait until it has chilled.

- GB -



#### Environment and recycling

Please help us to protect the environment by disposing of the packaging in accordance with the national regulations for waste processing.

#### Recycling of obsolete appliances

Appliances with this label must not be disposed off with the general waste. They must be collected separately and disposed off according to local regulations.