

HIGH TEMPERATURE CLOTH-FACED INFRARED PANEL HEATERS

QF Series



- ✓ **870°C (1600°F) Maximum Operating Temperature**
- ✓ **Black Quartz Ceramic Cloth Face**
- ✓ **Output Wavelength Between 2.5 and 6 Microns**
- ✓ **No External Reflectors Required**

OMEGALUX™ QF Series heaters are very popular infrared panel heaters used in a wide variety of applications. The QF Series panel heaters' radiant surface is constructed through a patented process using bonded high temperature cloth quartz. A black coating is applied to the face of the heater for greater emissivity. A 2.5 cm (1") thick ceramic fiber refractory board is grooved out to support the precision resistance coils. The resistance coil is then housed into the grooved-out refractory board. A layer of durable, high temperature, cement is used to bond the quartz face to the resistance coils as well as to the refractory coil support. The resistance coils used are an iron/chromium/aluminum alloy which can operate up to 1315°C (2400°F). These are then welded to stainless terminals which are routed to the back of the heater for external electrical connections. The welding insures the best possible electrical path. By changing to stainless buss bars and terminals, the conductivity is increased, insuring less heat buildup in the terminals. The heater board is then backed up by a high temperature insulation to prevent back heat loss. Finally, this is all packaged in a sturdy aluminized steel frame.

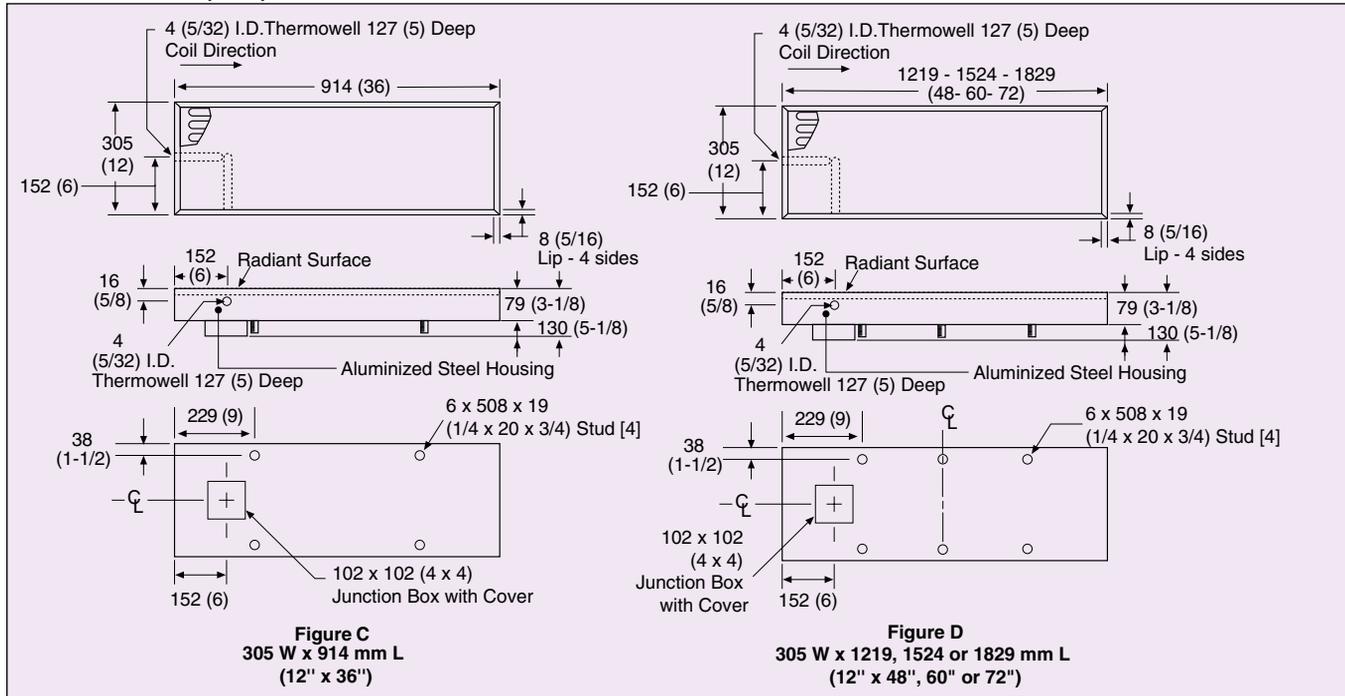


CHOOSING THE RIGHT IR HEATER

Not all infrared heaters are alike. Here is a list of some of the most important questions to answer when determining which heater to choose.

1. **RESPONSE TIME:** How quickly do heaters need to reach operating temperature? IR heaters can reach operating temperatures as quickly as 2 seconds or take as long as 1 hour. Most take between 5 seconds and 10 minutes.
2. **POWER REQUIREMENTS:** What watt density (usually referred to as watts per square inch) is required?
3. **ENVIRONMENT:** What will the ambient temperature be? Will there be any flux, fibers, hazardous chemicals, or any other matter disturbing the environment?
4. **CONTROL METHOD:** IR heaters can be controlled one of two ways: 1 having the heaters on a percentage timer (open loop) and 2 through the use of a temperature control (closed
5. **PROCESS NEEDS:** Is it a conveyor, indexing, or a stationary process? Does the process call for a cleanable surface on the heater? Are zones in the individual heaters required? Compensation?
6. **APPLICATION PROCESS:** What exactly is the application? Are you trying to cure something? Melt something? Cook something, etc.?
7. **SPACE RESTRICTIONS:** Is space limited?

Dimensions: mm (inch)



To Order

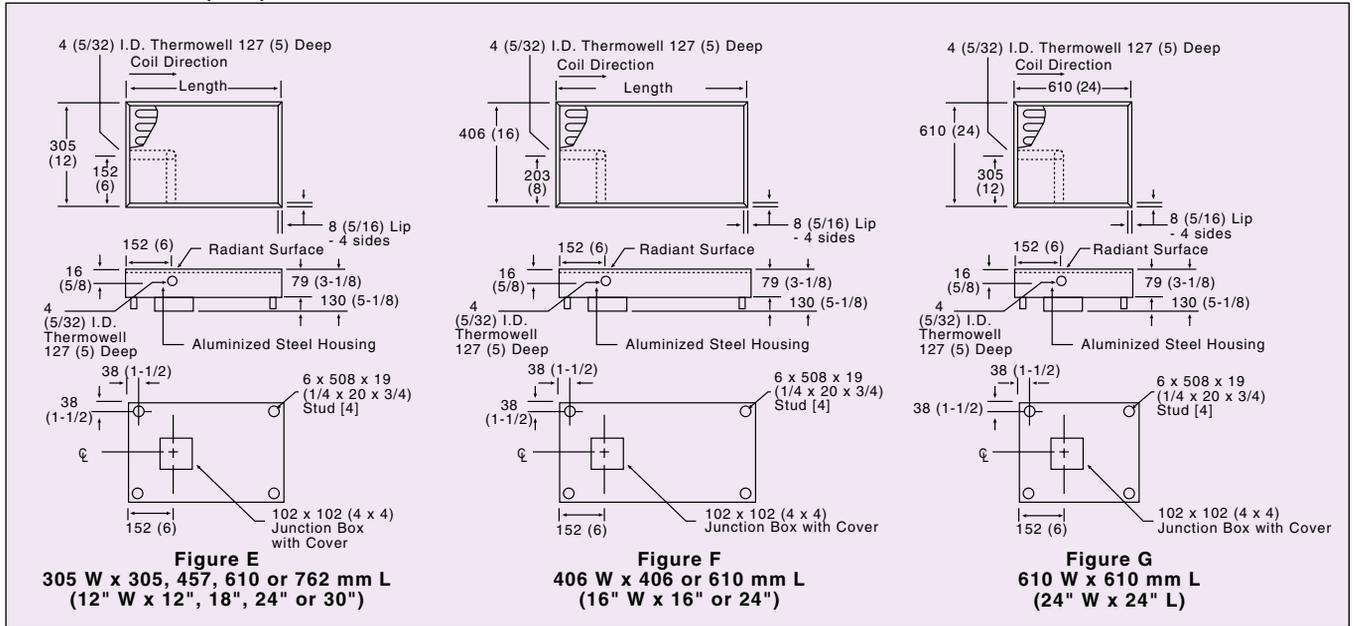
Width cm (in)	Length cm (in)	Wattage	Voltage	Phase	Without Thermowell Model No.	With Thermowell Model No.	Dim. Reference	Weight kg (lb)
10 W/in²								
15 (6)	30 (12)	720	120	1	QF-061210	QF-061210-T	Fig. A	1.4 (3)
15 (6)	46 (18)	1080	120/240	1	QF-061810	QF-061810-T	Fig. B	2.0 (4.5)
15 (6)	61 (24)	1440	120/240	1	QF-062410	QF-062410-T	Fig. B	2.7 (6)
15 (6)	76 (30)	1800	120/240	1	QF-063010	QF-063010-T	Fig. B	3.4 (7.5)
15 (6)	91 (36)	2160	240/480	1	QF-063610	QF-063610-T	Fig. B	4.1 (9)
15 (6)	122 (48)	2880	240/480	1	QF-064810	QF-064810-T	Fig. B	5.0 (11)
30 (12)	30 (12)	1440	240	1	QF-121210	QF-121210-T	Fig. E	2.7 (6)
30 (12)	46 (18)	2160	240/480	1	QF-121810	QF-121810-T	Fig. E	3.9 (8.5)
30 (12)	61 (24)	2880	240/480	1	QF-122410	QF-122410-T	Fig. E	5.0 (11)
30 (12)	76 (30)	3600	240/480	1	QF-123010	QF-123010-T	Fig. E	6.1 (13.5)
30 (12)	91 (36)	4320	240/480	1	QF-123610	QF-123610-T	Fig. C	6.8 (15)
30 (12)	122 (48)	5760	240/480	1	QF-124810	QF-124810-T	Fig. D	9.1 (20)
30 (12)	152 (60)	7200	240 or 480	3	QF-126010/*	QF-126010/*-T	Fig. D	11.8 (26)
30 (12)	183 (72)	8640	240 or 480	3	QF-127210/*	QF-127210/*-T	Fig. D	14.5 (32)
41 (16)	41 (16)	2560	240/480	1	QF-161610	QF-161610-T	Fig. F	4.5 (10)
61 (24)	61 (24)	5760	240 or 480	Dual	QF-242410/*	QF-242410/*-T	Fig. G	9.1 (20)
15 W/in²								
15 (6)	30 (12)	1080	120/240	1	QF-061215	QF-061215-T	Fig. A	1.4 (3)
15 (6)	46 (18)	1620	120/240	1	QF-061815	QF-061815-T	Fig. B	2.0 (4.5)
15 (6)	61 (24)	2160	240/480	1	QF-062415	QF-062415-T	Fig. B	2.7 (6)
15 (6)	76 (30)	2700	240/480	1	QF-063015	QF-063015-T	Fig. B	3.4 (7.5)
15 (6)	91 (36)	3240	240/480	1	QF-063615	QF-063615-T	Fig. B	4.1 (9)
15 (6)	122 (48)	4320	240/480	1	QF-064815	QF-064815-T	Fig. B	5.0 (11)
30 (12)	30 (12)	2160	240/480	1	QF-121215	QF-121215-T	Fig. E	2.7 (6)
30 (12)	46 (18)	3240	240/480	1	QF-121815	QF-121815-T	Fig. E	3.9 (8.5)
30 (12)	61 (24)	4320	240/480	1	QF-122415	QF-122415-T	Fig. E	5.0 (11)
30 (12)	76 (30)	5400	240/480	1	QF-123015	QF-123015-T	Fig. E	6.1 (13.5)
30 (12)	91 (36)	6480	240	3	QF-123615/	QF-123615/-T	Fig. C	6.8 (15)
30 (12)	122 (48)	8640	240 or 480	3	QF-124815/*	QF-124815/*-T	Fig. D	9.1 (20)
30 (12)	152 (60)	10800	240 or 480	3	QF-126015/*	QF-126015/*-T	Fig. D	11.8 (26)
30 (12)	183 (72)	12960	240 or 480	3	QF-127215/*	QF-127215/*-T	Fig. D	14.5 (32)
41 (16)	41 (16)	3840	240/480	1	QF-161615	QF-161615-T	Fig. F	4.5 (10)
41 (16)	61 (24)	5760	240 or 480	Dual	QF-162415/*	QF-162415/*-T	Fig. F	6.6 (14.5)
61 (24)	61 (24)	8640	480	Dual	QF-242415/480	QF-242415/480-T	Fig. G	9.1 (20)

Comes complete with mounting hardware and operator's manual.

* Specify voltage, i.e. insert **240** for 240V or **480** for 480V.

Ordering Example: QF-061810, 15 x 46 cm (6" x 18") 1080 Watt heater, 10 W/in² Watt density that may be powered by either 120 Vac or 240 Vac single phase.

Dimensions: mm (inch)



To Order								
Width cm (in)	Length cm (in)	Wattage	Voltage	Phase	Without Thermowell Model No.	With Thermowell Model No.	Dim. Reference	Weight kg (lb)
20 W/in²								
15 (6)	30 (12)	1440	240	1	QF-061220	QF-061220-T	Fig. A	1.4 (3)
15 (6)	46 (18)	2160	240/480	1	QF-061820	QF-061820-T	Fig. B	2.0 (4.5)
15 (6)	61 (24)	2880	240/480	1	QF-062420	QF-062420-T	Fig. B	2.7 (6)
15 (6)	76 (30)	3600	240/480	1	QF-063020	QF-063020-T	Fig. B	3.4 (7.5)
15 (6)	91 (36)	4320	240/480	1	QF-063620	QF-063620-T	Fig. B	4.1(9)
15 (6)	122 (48)	5760	240/480	1	QF-064820	QF-064820-T	Fig. B	5.0 (11)
30 (12)	30 (12)	2880	240/480	1	QF-121220	QF-121220-T	Fig. E	2.7 (6)
30 (12)	46 (18)	4320	240/480	1	QF-121820	QF-121820-T	Fig. E	3.9 (8.5)
30 (12)	61 (24)	5760	240/480	1	QF-122420	QF-122420-T	Fig. E	5.0 (11)
30 (12)	76 (30)	7200	240 or 480	3	QF-123020/*	QF-123020/*-T	Fig. E	6.1 (13.5)
30 (12)	91 (36)	8640	240 or 480	3	QF-123620/*	QF-123620/*-T	Fig. C	6.8 (15)
30 (12)	122 (48)	11520	240 or 480	3	QF-124820/*	QF-124820/*-T	Fig. D	9.1 (20)
30 (12)	152 (60)	14400	240 or 480	3	QF-126020/*	QF-126020/*-T	Fig. D	11.8 (26)
30 (12)	183 (72)	17280	240 or 480	3	QF-127220/*	QF-127220/*-T	Fig. D	14.5 (32)
41 (16)	41 (16)	5120	240 or 480	Dual	QF-161620/*	QF-161620/*-T	Fig. F	4.5 (10)
41 (16)	61 (24)	7680	480	Dual	QF-162420/480	QF-162420/480-T	Fig. F	6.6 (14.5)
61 (24)	61 (24)	11520	480	Dual	QF-242420/480	QF-242420/480-T	Fig. G	9.1 (20)
25 W/in²								
15 (6)	30 (12)	1800	120/240	1	QF-061225	QF-061225-T	Fig. A	1.4 (3)
15 (6)	46 (18)	2700	240/480	1	QF-061825	QF-061825-T	Fig. B	2.0 (4.5)
15 (6)	61 (24)	3600	240/480	1	QF-062425	QF-062425-T	Fig. B	2.7 (6)
15 (6)	76 (30)	4500	240/480	1	QF-063025	QF-063025-T	Fig. B	3.4 (7.5)
15 (6)	91 (36)	5400	240/480	1	QF-063625	QF-063625-T	Fig. B	4.1(9)
15 (6)	122 (48)	7200	240/480	1	QF-064825	QF-064825-T	Fig. B	5.0 (11)
30 (12)	30 (12)	3600	240/480	1	QF-121225	QF-121225-T	Fig. E	2.7 (6)
30 (12)	46 (18)	5400	240/480	1	QF-121825	QF-121825-T	Fig. E	3.9 (8.5)
30 (12)	61 (24)	7200	240 or 480	3	QF-122425/*	QF-122425/*-T	Fig. E	5.0 (11)
30 (12)	76 (30)	9000	240 or 480	3	QF-123025/*	QF-123025/*-T	Fig. E	6.1 (13.5)
30 (12)	91 (36)	10800	240 or 480	3	QF-123625/*	QF-123625/*-T	Fig. C	6.8 (15)
30 (12)	122 (48)	14400	240 or 480	3	QF-124825/*	QF-124825/*-T	Fig. D	9.1 (20)
30 (12)	152 (60)	18000	240 or 480	3	QF-126025/*	QF-126025/*-T	Fig. D	11.8 (26)
30 (12)	183 (72)	21600	240 or 480	3	QF-127225/*†	QF-127225/*-T	Fig. D	14.5 (32)
41 (16)	41 (16)	6400	240 or 480	Dual	QF-161625/*	QF-161625/*-T	Fig. F	4.5 (10)
41 (16)	61 (24)	9600	480	Dual	QF-162425/480	QF-162425/480-T	Fig. F	6.6 (14.5)
61 (24)	61 (24)	14400	480	Dual	QF-242425/480	QF-242425/480-T	Fig. G	9.1 (20)

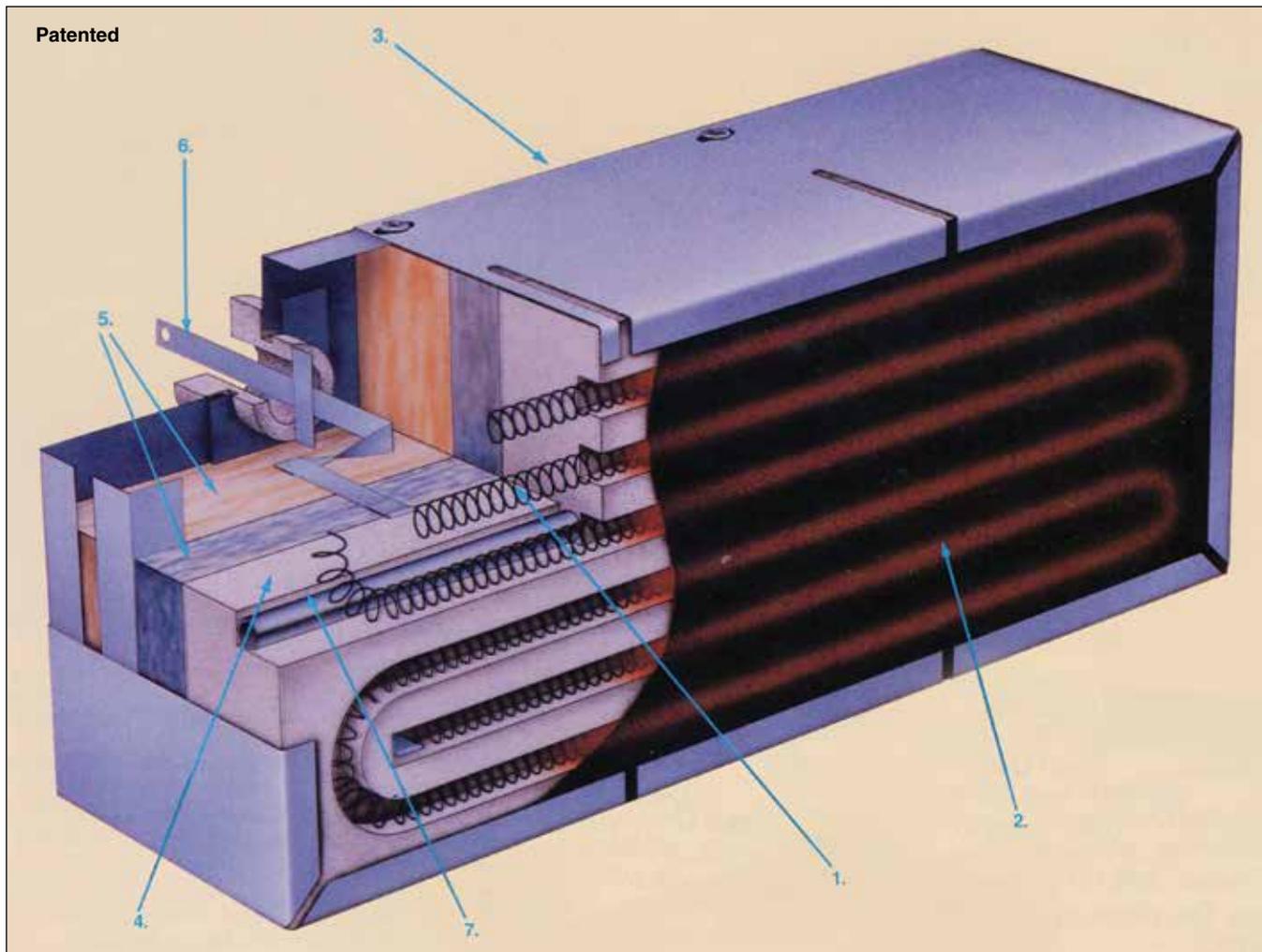
Comes complete with mounting hardware and operator's manual.

* Specify voltage, i.e. insert **240** for 240V or **480** for 480V.

† This heater has two junction boxes at opposite ends of the panel.

Ordering Example: QF-123625/240, 30 x 91 cm (12" x 36") 10800 Watt 3-phase heater, 25 W/in² Watt density, 240 Vac.

QF SERIES INFRARED PANEL HEATERS



CONSTRUCTION

1. Heater Element: precision iron/chrome/aluminum resistance wire, designed for uniform emission over entire heating surface and extended life.
2. Surface: rugged black woven ceramic cloth for high radiant energy transfer.
3. Frame: heat resistant, heavy gauge aluminized steel.
4. Heater Element Support: grooved ceramic fiber refractory board is used to support precision coil resistance wire. This helps to insulate the heater as well as reflect the infrared energy onto the application.
5. High Temperature Insulation: to minimize heat loss from the back of the heater.
6. Stainless Steel Terminals: all welded construction, for easy power connection.
7. Optional Quartz Thermowell: high temperature 4 mm ($5/32$ ") diameter 127 mm (5") long quartz thermowell, with strain relief.

APPLICATIONS

- ✓ Paint Drying
- ✓ Plastic Forming
- ✓ Wave Soldering
- ✓ Silk Screening
- ✓ Laminating
- ✓ Moisture Removal
- ✓ Thermo Forming

SPECIFICATIONS

Maximum Temperature Emitter

Face: 870°C (1600°F)

Power: 120, 240, 480 Vac single and dual voltage, 1 phase, 3 phase and dual phase

Wattage: 720 to 21,600 watts

Watt Density: 10, 15, 20, and 25 W/in²

Enclosure: Heavy gauge aluminized steel

Note: QF series heaters are intended for "radiant" heat. Never let material to be heated come into direct contact with the face of the heater. It is recommended that overtemperature control be used to prevent overheating.

CAUTION AND WARNING!

Fire and electrical shock may result if products are used improperly or installed or used by non-qualified personnel.