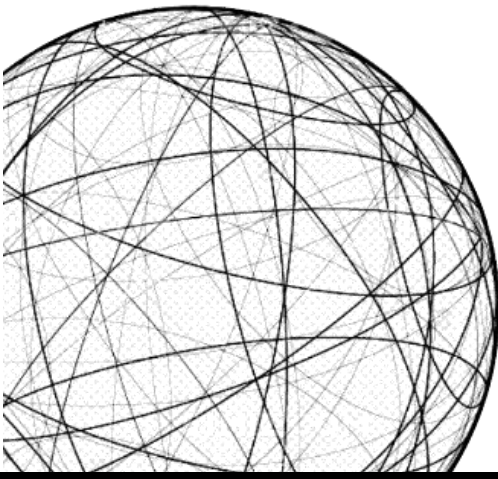
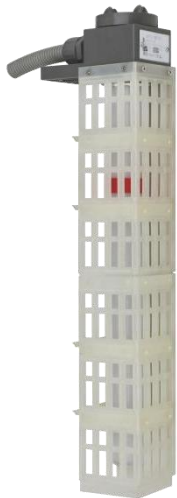




Quartz heater

• High temperature resistance • Good insulation performance • It can be conveniently and easily designed into various shapes according to needs, and the cost is low.

Can be used for • Three acid / two acid polishing tank • Sulfamic acid liquid • Chemical acid



Quartz tube

QM SERIES, QUARTZ HEATERS WITH METAL ELEMENTS						QM & 3QM SERIES GUARDS		Ship Weight	
WATTS	VOLTS	HOT ZONE In./ (mm)	OVERALL LENGTH In./ (mm)	ELEMENT MODEL NUMBER	TUBE MODEL NUMBER	SINGLE GUARD MODEL #	TRIPLE GUARD MODEL #	SINGLE ASSEMBLY SHIP WT. Lbs./ (kg)	TRIPLE ASSEMBLY SHIP WT. Lbs./ (kg)
500	120	7	10	QM.5110E	QM.5110J-**-	QM10G	3QM10G	9	21
	240	(178)	(254)	QM.5210E	QM.5210J-**-			(4.1)	(9.5)
1000	120	7	11	QM1111E	QM1111J-**-	QM11G	3QM11G	10	22
	240	(178)	(279)	QM1211E	QM1211J-**-			(4.5)	(10)
1000	120	7	17	QM1117E	QM1117J-**-	QM17G	3QM17G	11	26
	240	(178)	(430)	QM1217E	QM1217J-**-			(5)	(11.8)
2000	240	12	17	QM2217E	QM2217J-**-	QM17G	3QM17G	11	26
	480	(305)	(432)	QM2417E	QM2417J-**-			(5)	(11.8)
2000	240	12	23	QM2223E	QM2223J-**-	QM23G	3QM23G	14	30
	480	(305)	(584)	QM2423E	QM2423J-**-			(6.4)	(13.6)
3000	240	18	23	QM3223E	QM3223J-**-	QM23G	3QM23G	14	30
	480	(457)	(584)	QM3423E	QM3423J-**-			(6.4)	(13.6)
3000	240	18	29	QM3229E	QM3229J-**-	QM29G	3QM29G	17	34
	480	(457)	(737)	QM3429E	QM3429J-**-			(7.7)	(15.4)
3500	240	21	29	QM3.5229E	QM3.5229J-**-	QM29G	3QM29G	17	34
	480	(533)	(737)	QM3.5429E	QM3.5429J-**-			(7.7)	(15.4)
4000	240	28	35	QM4235E	QM4235J-**-	QM35G	3QM35G	20	38
	480	(711)	(889)	QM4435E	QM4435J-**-			(9.1)	(17.2)
4000	240	28	41	QM4241E	QM4241J-**-	QM41G	3QM41G	23	44
	480	(711)	(1041)	QM4441E	QM4441J-**-			(10.4)	(20)
5000	240	33	41	QM5241E	QM5241J-**-	QM41G	3QM41G	23	44
	480	(838)	(1041)	QM5441E	QM5441J-**-			(10.4)	(20)
5000	240	33	47	QM5247E	QM5247J-**-	QM47G	3QM47G	26	48
	480	(838)	(1194)	QM5447E	QM5447J-**-			(11.8)	(21.8)
6000	240	39	47	QM6247E	QM6247J-**-	QM47G	3QM47G	26	48
	480	(991)	(1194)	QM6447E	QM6447J-**-			(11.8)	(21.8)
6000	240	39	52	QM6252E	QM6252J-**-	QM52G	3QM52G	29	52
	480	(991)	(1321)	QM6452E	QM6452J-**-			(13.2)	(23.6)
8000	240	49	59	QM8259E	QM8259J-**-	QM59G	3QM59G	31	55
	480	(1245)	(1499)	QM8459E	QM8459J-**-			(14.1)	(25)
10000	240	62	71	QM10271E	QM10271J-**-	QM71G	3QM71G	34	65
	480	(1575)	(1803)	QM10471E	QM10471J-**-			(15.4)	(29.5)

QM Series Heater Features and Benefits

SUPERIOR CHEMICAL RESISTANCE:

◆ For use in most aqueous acidic plating solutions and pickling tanks. Check solution recommendation chart or with your chemical supplier for proper sheath material selection.

RUGGED CONSTRUCTION:

◆ Heavy wall quartz sheath with replaceable metal element and polypropylene guards (complete assembly).

OUTSTANDING PERFORMANCE:

◆ Watt densities up to 25 watts per square inch (4 w/ cm²) ensure long service life.

CORROSION RESISTANT HEAD:

◆ Vapor resistant, flame retardant polypropylene terminal enclosure with 3 ft (.9m) flexible PVC liquid tight conduit.

SAFETY FEATURES:

◆ Grounded internal metal element.
◆ Thermal protector built in. Replaceable P1 protector standard for solutions up to 180°F (82°C).

CERTIFICATIONS: cULus listed (less than 4000 watts), and CE certified (less than 600 volts).

SIZES: 500 watts to 10,000 watts.

VOLTAGES: 120 to 600 volts.

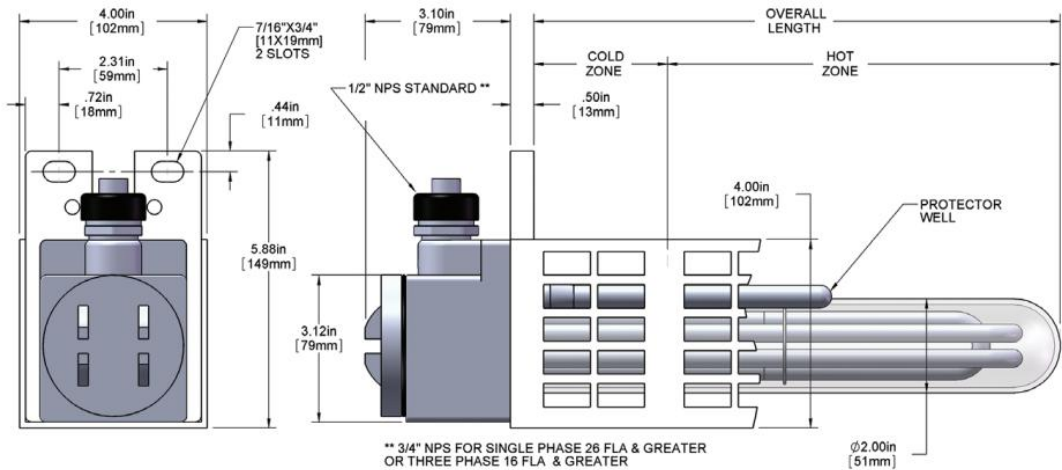
OPTIONS AVAILABLE (consult factory):

- ◆Replaceable thermal protectors: P4: for solutions up to 230°F (110°C).
- ◆Resettable thermal protectors: P2: for solutions up to 180°F (82°C). P6: for solutions up to 230°F (110°C).
- ◆Special configurations and lengths.
- ◆Longer wire and conduit lengths.

- ◆Three phase elements.
- ◆Fluoropolymer (PTFE) guards for chromic acid or solutions over 180°F (82°C).
- ◆Lower watt densities for highly viscous solutions.
- ◆Temperature and level controls sized to match the heater (sold separately).

NOTE: Not for use in hydrofluoric acid or alkaline solutions.

DIMENSIONS



Each single tube quartz heater consists of:

Heating element + Quartz tube + Single guard = Complete QM heater assembly

Each triple tube quartz heater consists of elements, 3 quartz tubes and guard to create a complete triple tube quartz heater:

3 heating elements + 3 quartz tubes + Triple guard = Complete QM heater assembly

SINGLE QUARTZ ELEMENT ORDERING

Series	Wattage	Voltage	Length	Options	Type of Protector	Wire and Conduit Length
	5 = 500 1 = 1000 2 = 2000 3 = 3000 3.5 = 3500 4 = 4000 5 = 5000 6 = 6000 8 = 8000 10 = 10000	1 = 120 2 = 240 4 = 480 -208 = 208 -380 = 380 -415 = 415 -600 = 600	10 = .5kW 11 = 1kW 17 = 2kW 23 = 3kW 29 = 3.5kW 35 = 4kW 41 = 5kW 47 = 6kW 59 = 8kW 71 = 10kW specify custom lengths, not to exceed tank depth			36" length standard (no designator) specify variations from standard Ex: -X84 = 84"
	QM = Quartz				Replaceable Protector P1 (std) for solutions up to 180°F P4 for solutions up to 230°F	
					Resettable Protector (additional control components required) P2 for solutions up to 180°F P6 for solutions up to 180°F	
					no designator = single phase power (standard) -3 = three phase power	

