

Heater Selection for Freeze Protection up to -13°F / -25°C

1 Required heating power in instrument enclosures

		MULTIBOX								DIABOX			MINI-BOX
Insulation	Window	25	48	60	70	80	100	150	170	87	107	137	21
without	without	100W	200W	200W	200W	250W	250W	300W	400W	200W	250W	300W	75W
	with	150W	200W	200W	250W	300W	300W	400W	400W	250W	250W	300W	75W
arctic-PP arctic-Alu	without	50W	50W	50W	75W	75W	75W	100W	100W	50W	50W	50W	50W
	with	50W	75W	75W	100W	100W	100W	150W	150W	50W	75W	75W	50W

For INTERTEC protective cabinets and shelters: $P=K[W/K]*40K$. K taken from data sheet or INTERTEC S software.

These values take into account thermal losses in standard installations as well as the wind factor.

If the installation requires many openings, holes, cable entries etc., we recommend selecting a heater with the next higher power rating.

2 Heaters for hazardous areas (CP)

Required heating power	Type of heater Temperature class T3	Type of heater Temperature class T4
50W	CP MICROTHERM xNA 75 T3 TS	CP MULTITHERM xNA 50 T4 TS
75W	CP MICROTHERM xNA 75 T3 TS	CP MULTITHERM xNA 75 T4 TS
100W	CP MULTITHERM xNA 100 T3 TS	CP MULTITHERM xPA 100 T4 TS
150W	CP MULTITHERM xNA 150 T3 TS	CP VARITHERM xPA 200 T4 80 TS
200W	CP MULTITHERM xPA 200 T3 TS	CP VARITHERM xPA 200 T4 80 TS
250W	CP MULTITHERM xPA 250 T3 TS	CP VARITHERM xPA 300 T4 120 TS
300W	CP VARITHERM xPA 300 T3 60 TS	CP VARITHERM xPA 300 T4 120 TS
400W	CP VARITHERM xPA 400 T3 80 TS	

We recommend selecting a T3 heater, if permitted by the safety zone. T6 heaters are available upon request.

3 Heaters for non-hazardous areas (not Ex)

Required heating power	Type of heater Ingress Protection IP 68/ NEMA 4X (completely sealed)	Type of heater Ingress Protection IP 20/ NEMA 1
50W	CP MULTITHERM 75 N TS	E 156
75W	CP MULTITHERM 75 N TS	E 156
100W	CP MULTITHERM 100 N TS	E 156
150W	CP MULTITHERM 150 N TS	E 156
200W	CP MULTITHERM 200 P TS	E 156
250W	CP MULTITHERM 250 P TS	E 156
300W	CP VARITHERM 300/60 TS	E 155
400W	CP VARITHERM 400/80 TS	E 155

Heaters with the suffix TS have an integrated freeze-protection thermostat in the connection cable or at the junction box, switching the heater off at temperatures exceeding approx. 50°F / 10°C .

