

Section 1
SPECIFICATIONS
Table 1. Model 5403 Specifications

Pole Diameter:	76 mm (3 inch)
Pole Gap: (variable gap setting)	0 – 86 mm (0 to 3.4 inch)
Coil Gap:	86 mm (3.4 inch)
Standard Pole Face:	76 mm (3 inch) cylindrical 38 mm (1.5 inch) tapered
Coils (series connection)	
coil resistance (20°C)	0.45 ohm
max resistance (hot)*	0.55 ohm
max continuous power (air cooled)	20A/10V (0.2kW)
max intermittent power (air cooled) duty cycle 1:3, 4 minute max ON	40A/20V (0.8kW)
max continuous power (water cooled)	50A/25V (1.25kW)
max intermittent power (water cooled) duty cycle 1:2, 10 minute max ON	70A/35V (2.5kW)
Self Inductance	approx 60mH
Water Cooling (18°C)	2 liters/m (0.5 US gpm) 0.5 bar (8 psid)
Overtemperature Interlock	Elmwood 3450G thermostat part number 3450G 611-1 L50C 89/16 mounted on each coil and wired in series. Contact rating 120Vac, 0.5A. Closed below 50° C.
Dimensions	Drawing 11901200 604 mm W x 282 mm D x 359 mm H 23.8 inch W x 11.1 inch D x 14.1 inch H
Mass	130 kg (286 lb)

***CAUTION** - The value of maximum coil resistance given should not be exceeded. At this resistance the coils are at maximum safe temperature for continuous operation.

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Table 2. Model 5403 Electrical and Water Connections

DC Current (as seen from the front refer to Drawing 11901200/11901100)

Left hand terminal: Positive

Right hand terminal: Negative

Ground

An M6 screw (Item 16 on drawing 11901200/11901100) is inside the terminal cover to enable the magnet frame to be grounded according to local safety regulations. It is normally appropriate to connect the magnet frame to the power supply ground.

Interlocks (refer to Drawing 11901200/11901100).

The temperature interlock wiring connections are made directly onto the temperature thermostats (Item 10 on drawing 11901200/11901100).

Water (refer to Drawing 11901200/11901100).

Outlet 1/8 inch NPT

Inlet 1/8 inch NPT

(mating couplings for 0.25 inch id hose provided)

CAUTION - Ensure that the high current connections are tight. Loose connections may lead to oxidation and overheating. The field stability may be degraded and the current terminations damaged.