Unistat® 930w

Controlling a Buchi Glas Uster CR101, a 100-litre GLSS reactor from 20 °C to -40 °C

Requirement
The graphic demonstrates the capability of a Unistat 930w to cool a 100-litre reactor from 20 °C to -40 °C.

Method
The Unistat and reactor are connected using two 2-metre insulated metal hoses. The reactor is filled with 75 litre of "M90.055.03", a Huber supplied silicon based HTF.

Results
The process temperature reaches its target of -40 °C within 43 minutes representing a ramp-rate > 1.4 K/min.

Setup details
Unistat® 930w & 100-litre Buchi Glas Uster «chemReactor» CR101

Temperature range:	-90...200 °C
Cooling power:	20 kW @ 0...-40 °C 15 kW @ -60 °C
Heating power:	24 kW
Hoses:	2x1.5 m; M38x1.5 (#6656)
HTF:	DW-Therm (#6479)
Reactor:	100-litre glass-lined (enameled) steel reactor
Reactor content:	75 litre M90.055.03 (#6259)
Stirrer speed:	80 rpm
Control:	process