The Watlow Power Series User’s Manual shows how to read the kVA load power on models equipped with heater diagnostics (PCxx-1xxx-1x00). Sometimes it is useful to read the kVA in fractional units using the serial communications option.

The kVA output is available in two Modbus™ registers. The integer portion of the number is read from the register shown in the user’s manual, and the fractional portion is read from the previous register (not shown in the user’s manual).

As an example: Register 156 – whole kVA 30
Register 155 – tenth kVA 0.7
Total kVA 30.7

Examples are:

1. Single phase or single zone. 30.6 kVA would be read as follows.
   A. Register 156 reads 30 kVA
   B. Register 155 reads 0.6 kVA

2. Two zone control. 16.5 KVA and 22.3 kVA
   A. Zone 1, Register 155 reads 16 kVA
      Register 156 reads 0.5 kVA
   B. Zone 2, Register 165 reads 22 kVA
      Register 166 reads 0.3 kVA

3. Three zone control (PC91) 12.8 kVA, 12.6 kVA, and 13.1 kVA.
   A. Zone 1, Register 156 reads 12 kVA
      Register 155 reads 0.8 kVA
   B. Zone 2, Register 166 reads 12 kVA
      Register 165 reads 0.6 kVA
   C. Zone 3, Register 176 reads 13 kVA
      Register 175 reads 0.1 kVA