Dryer

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TODO: This page needs to be completed.

Dryer - Residential Dryer (explicit model)

Synopsis

```
class dryer {
        parent residential_enduse;
        class residential_enduse {
                loadshape shape;
                enduse load; // the enduse load description
                complex energy[kVAh]; // the total energy consumed since the last meter reading
                complex power[kVA]; // the total power consumption of the load
                complex peak_demand[kVA]; // the peak power consumption since the last meter reading
                double heatgain[Btu/h]; // the heat transferred from the enduse to the parent
                double cumulative_heatgain[Btu]; // the cumulative heatgain from the enduse to the parent
                double heatgain_fraction[pu]; // the fraction of the heat that goes to the parent
                double current_fraction[pu]; // the fraction of total power that is constant current
                double impedance_fraction[pu]; // the fraction of total power that is constant impedance
                double power_fraction[pu]; // the fraction of the total power that is constant power
                double power_factor; // the power factor of the load
                complex constant_power[kVA]; // the constant power portion of the total load
                complex constant_current[kVA]; // the constant current portion of the total load
                complex constant_admittance[kVA]; // the constant admittance portion of the total load
                double voltage_factor[pu]; // the voltage change factor
                double breaker_amps[A]; // the rated breaker amperage
                set {IS220=1, IS110=0} configuration; // the load configuration options
                enumeration {OFF=2, ON=1, NORMAL=0} override;
                enumeration {UNKNOWN=2, ON=1, OFF=0} power_state;
        }
        double motor_power[W];
        double dryer_coil_power[W];
        double controls_power[W];
        double circuit_split;
        double queue[unit]; // number of loads accumulated
        double queue_min[unit];
        double queue_max[unit];
        double stall_voltage[V];
        double start_voltage[V];
        complex stall_impedance[Ohm];
        double trip_delay[s];
        double reset_delay[s];
        double total_power[W];
        enumeration {CONTROL_ONLY=5, MOTOR_COIL_ONLY=3, MOTOR_ONLY=4, TRIPPED=2, STALLED=1, STOPPED=0} st
        double energy_baseline[kWh];
        double energy_used[kWh];
        double next_t;
        bool control_check;
        bool motor_only_check1;
        bool motor_only_check2;
        bool motor_only_check3;
        bool motor_only_check4;
        bool motor_only_check5;
        bool motor_only_check6;
        bool dryer_on;
        bool dryer_ready;
        bool dryer_check;
```

```
        bool motor_coil_only_check1;
        bool motor_coil_only_check2;
        bool motor_coil_only_check3;
        bool motor_coil_only_check4;
        bool motor_coil_only_check5;
        bool motor_coil_only_check6;
        double dryer_run_prob;
        double dryer_turn_on;
        double pulse_interval_1[s];
        double pulse_interval_2[s];
        double pulse_interval_3[s];
        double pulse_interval_4[s];
        double pulse_interval_5[s];
        double pulse_interval_6[s];
        double pulse_interval_7[s];
        double energy_needed[kWh];
        double daily_dryer_demand[kWh];
        double actual_dryer_demand[kWh];
        double motor_on_off;
        double motor_coil_on_off;
        bool is_240; // load is 220/240 V (across both phases)
}
```

See also

- Residential module
  - User's Guide
  - Appliances
  - house class – Single-family home model.
  - residential_enduse class – Abstract residential end-use class.
  - occupantload – Residential occupants (sensible and latent heat).
  - ZIPload – Generic constant impedance/current/power end-use load.
- Technical Documents
  - Requirements
  - Specifications
  - Developer notes
  - Technical support document
  - Validation

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