

Questionnaire for Selecting MicroFUSION Model Number

1. What is the load type?

- This will determine whether phase-angle or zero-cross firing mode can be used. See figure 10.1 of the SCR selection guide. This chart also recommends desired features based on the load type.

2. Is the load transformer coupled?

- If yes & a transformer is connected between the SCR/Thyristor and the load, phase-angle mode or ZCT mode is required. For single phase MicroFUSION, phase-angle is default. For 3-phase MicroFUSION & FUSION, 6SCR version is required for phase-angle firing.

3. What is the load configuration?

- Single-phase
- 3-phase (must be specified as time of order)
 - Delta/wye
 - 4-wire wye
 - Inside delta
 - 3-phase/2-leg (multiple units can benefit from sync-guard feature)

4. What is the load size?

- Control Concepts MicroFUSION and FUSION products are rated for continuous duty of frame rating at or below 50 degrees C.
- Single-phase: total load Watts/supply Voltage
- 3-phase: total load Watts/supply Voltage/1.73

5. Is an adjustable current limit needed?

- If yes, the SX-L or either of the HX options are required

6. Are digital communications needed?

- Available options: Profinet, Ethernet IP, Modbus TCP, Profibus, EtherCat, & RS-485
- If communications are needed: What is the goal for communications? (setpoint control, monitoring, data logging, etc.)
- Monitoring capabilities:
 - SX-S = line voltage
 - SX-L = line voltage & load current
 - HX-L = line voltage, load voltage & load current
 - HX-P = line voltage, load voltage, load current, load resistance, Kilo-Watt/Hours & true RMS power.
 - Alarms and statuses can be monitored with any version

7. What type of feedback? (type of control)

- Voltage feed-forward (all models)
- Current feedback (SX-L, HX-L, HX-P)
- RMS Voltage feedback (HX-L & HX-P) –most common when available

- True RMS power feedback (HX-P only)

8. Are any other optional features required?

- Alarm relay (standard on HX models)
- AUX I/O retransmits (2 analog outputs. HX required)
- Sync-guard (when using zero-cross firing mode only. Connect up to 10 units)
- Zero-cross transformer mode (ZCT. Allows zero-cross firing into a transformer)

9. Are branch rated fuses required? (recommended)

- Class-T or Class-J are approved with MicroFUSION's SCCR and CE approval.
- Control Concepts does not use any I₂T fuses.

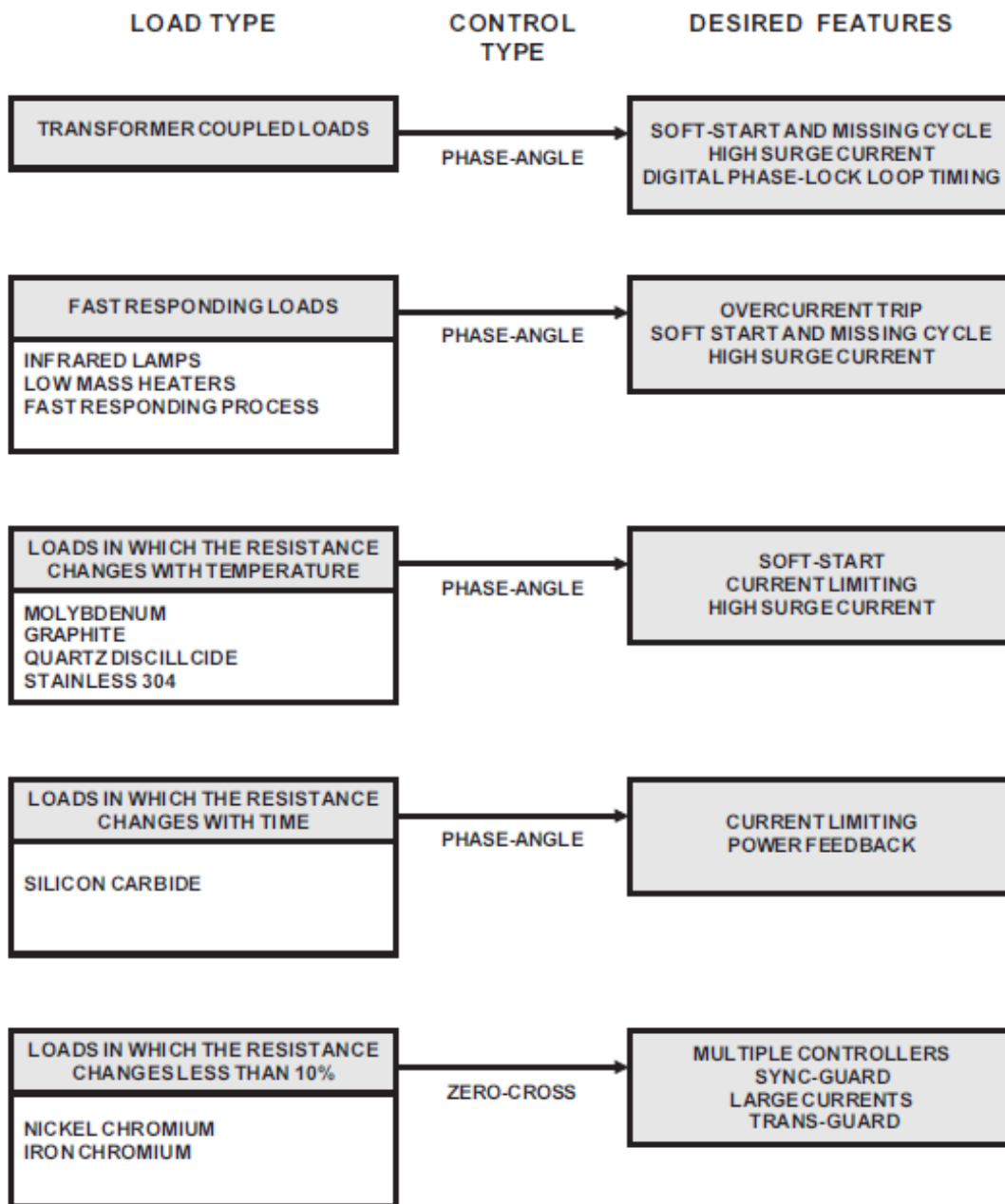


Figure 10.1 SCR Controller Selection Guide