

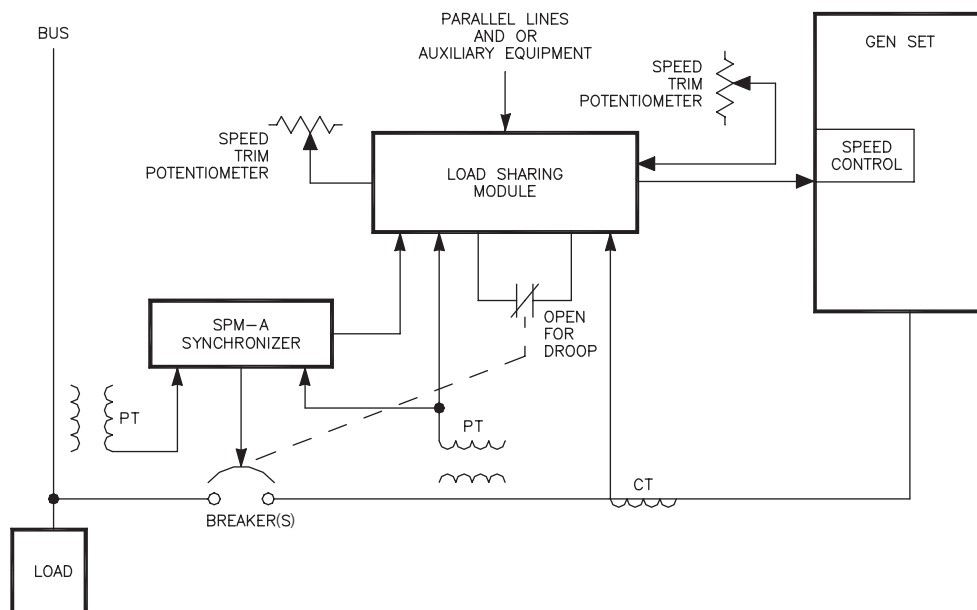
LOAD SHARING MODULE

The Load Sharing Module provides isochronous and droop load-sharing capability for engines in generator set applications. It is designed for use with engines equipped with speed controls that accept a Pulse-Width Modulated (PWM) input where Real (kW) Load Sharing between engine generator sets is desired.



FEATURES

- Isochronous and droop load sharing
- Allows load sharing with Caterpillar and non-Caterpillar controls and load sharing modules
- EC Compliant
- UL/cUL Listed



Typical System Using a Load Sharing Module

SPECIFICATIONS

Power Supply

DC Model 18–32 Vdc, approximately 5 W.

Inputs

3-phase PT Inputs 95–130 or 190–260 Vac line-to-line, 50–400 Hz.
 PT input burden is 1.6 W per phase at 240 Vac, 0.4 W per phase at 120 Vac.
 3–7 Arms at full load, CT input burden at full load is 0.1 VA per phase.
 Load Sharing Input 0–3 Vdc into 25 k Ω impedance in isochronous mode, open circuit in droop mode.

Sync Input

Compatible with optional Woodward SPM-A synchronizer.

Speed Trim

Allows manual adjustment of output level with an external 10 k Ω potentiometer.

Droop Switch

The external droop switch is to be wired in series with the auxiliary circuit breaker contact. Droop mode is selected when either the droop switch or the auxiliary circuit breaker is open.

Outputs

Load Signal

DC signal proportional to total real current sensed by the Load Sharing Module.

Used to adjust load gain.

Output to Speed Control

Pulse-Width Modulated (PWM).

Adjustments

Droop

Provides for output reduction between no-load and full-load conditions.

Load Gain

Provides adjustment of the load on an individual generator when two or more generators are paralleled. Adjusts specified full load condition from 3 to 7 Arms.

Environmental

Operating Temperature

–40 to +70° C (–40 to +158° F).

Salt Fog

Tested at 5% NaCl, 35° C, 48 hrs wet, 48 hrs dry.

Humidity

Tested at 95% RH, 65° C, non-condensing, 5 cycles at 24 hrs/cycle.

Vibration

Swept sine: Tested at 4 G, 5 mm, 5–2000 Hz, 3 hr min/axis, including 4 30-minute dwells at resonant frequencies.

Shock

40 G, 11 ms sawtooth pulse.

Installation Overvoltage

Category

Category III.

Air Quality

Pollution Degree 2.

Physical Characteristics

Dimensions

Length: 273.6 mm (10.77 in.)

Width: 214.1 mm (8.43 in.)

Height: 59.2 mm (2.33 in.)

Weight/Mass

1397 g (49.3 oz.) approximate

Safety and EMC Standards Compliance

Module conforms to EMC Directive 89/336/EEC. Conformity established by testing to EN 50081-2, EN 50082-2.

Module conforms to Low Voltage Directive 73/23/EEC when used in accordance with instructions. Conformity established by testing to EN 50178, 1997, and EN 61010-1, 1993, +A1.

Listed to UL and cUL Industrial Control Equipment (UL508).