

B9300 Power Reference Unit

- Setting of generator capacity via SELCO load sharers
- Adjustable from 0 to 100%
- DC output (0 - 1V DC, ±1V DC, 0 - 3V DC or 0 - 5V DC)
- Knob for manual control
- Screw lock for knob
- 50 hours burn-in before test
- Ambient temperature range: -20°C to +70°C
- Flush mounted unit

Application

The B9300 Power Reference Unit is applied for setting the capacity to be provided by the engine driven generator(s) when the generators are operated in parallel with a grid (utility) or a shaft generator.

The B9300 is used as a complementary unit to SELCO's range of load sharers (Load Sharer type T4300, T4400 and T4800).

Function

The load sharer will adjust the power of an engine driven generator according to the setting of the knob placed on the front panel of the Power Reference Unit. The setting is 0 - 10 (equivalent to 0 - 100 %).

A finger screw is provided for locking the dial.

The same Power Reference Unit can also be connected to several load sharers where a multi engine installation is operating in parallel with a grid supply.

The output of the B9300 Power Reference Unit (terminals 5 and 3) is connected to the parallel lines of the load sharer(s) (terminals 12 and 13).

The connection of terminal 5 of the B9300 Power Reference Unit and terminal 13 on the SELCO T4800 Load Sharer will disable the frequency control function in the load sharer. This is used when running parallel to the grid (utility) or other frequency determining power sources.

Please note that the dead band zone in the T4800 Load Sharer will be reduced



to half of its original setting. If instability occurs, the dead band zone should be increased by increasing the STABILITY setting on the T4800.

The B9300 Power Reference Unit is for flush mounting and it has standard instrument dimensions 96 x 96 x 80mm (H x W x D).

Option

In order to obtain remote setting of the power reference function, a combination of Selco's E7800 Motorized Potentiometer Type and B9300 Power Reference Unit is available. The unit is specified E7800-9x. For details, please refer to the data sheet for the E7800 Motorized Potentiometer. This data sheet can be downloaded from our web site www.selco.com

Example of setting:
 Generator rating: 695A at PF 0.8
 Active current: $695 \times 0.8 = 556A$
 Current transformer: 800/5
 Maximum on dial: 10
 Full load on dial: $10 \times 556 / 800 = 6.95$ (69.5%)

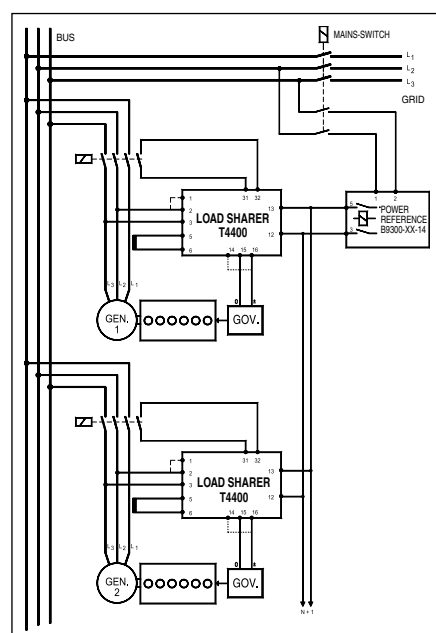


Fig. 1. Application Diagram. B9300 with T4400.

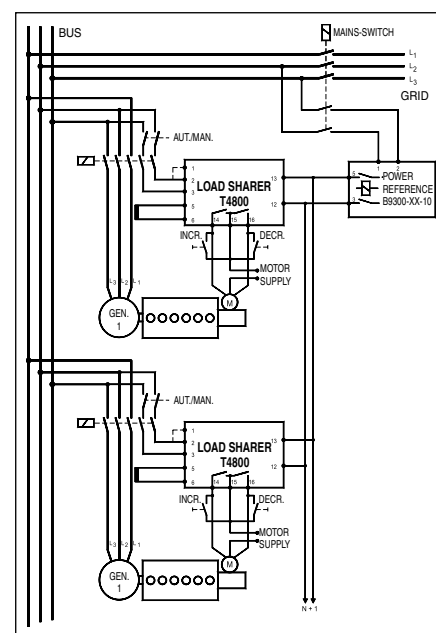


Fig. 2. Application Diagram. B9300 with T4800.

Specifications

B9300 Power Reference Unit

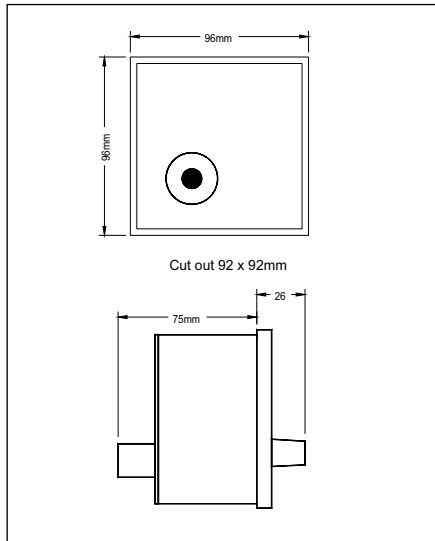


Fig. 3. Dimensions.

| | |
|------------------------------|--|
| Max. voltage | 480V |
| Voltage range | 90 - 120% |
| Consumption | 2VA at U_N |
| DC output | 0 - 1V DC, $\pm 1V$ DC, 0 - 3V DC or 0 - 5V DC |
| Operating temperature | -20 to +70°C |
| EMC | CE according to EN50081-1, EN50082-1, EN50081-2, EN50082-2 |
| Burn-in | 50 hours before final test |
| Weight | 0.7kg |
| Dimensions | 96 x 96 x 80mm (H x W x D) |
| Panel cut out | 92 X 92mm (H x W) |

The specifications are subject to change without notice.

Type Selection Table

| Type | Terminals | |
|------------|-----------|---|
| | 1-2 | Function |
| B9300.0010 | 220-240V | Output 0 - 1V DC |
| B9300.0030 | 220-240V | Output 0 - 3V DC, to be used with T4300/T4400-xx |
| B9300.0040 | 220-240V | Output 0 - 3V, to be used with T4300/T4400-xx, max. adjustment from 1.5 - 3V DC |
| B9300.0050 | 100-110V | Output 0 - 1V DC |
| B9300.0060 | 380-450V | Output 0 - 1V DC |
| B9300.0070 | 380-450V | Output $\pm 1V$ DC |
| B9300.0090 | 415-480V | Output 0 - 1V DC |

Other voltages and combinations are available on request.

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