



Entellisys™ 5.0 is the sensible choice to save you money over the lifetime of your system.

Entellisys™ Low-Voltage Switchgear is the first system to provide the power of knowledge about the entire switchgear lineup.

This power can be used:

- by the engineer to improve protection,
- by the installing contractor to shorten installation time,
- by the operator to stay out of the arc flash zone,
- by the maintenance personnel to save maintenance time and money, and
- by the owner to adapt the equipment to the dynamic needs of the facility.

Entellisys™ helps to reduce costs, shorten schedules, and increase reliability throughout the process of designing, installing, maintaining, and owning your low-voltage power distribution switchgear.

Entellisys™ is becoming the preferred solution in critical applications such as data centers, hospitals, petro/chem facilities and airports around the world. State-of-the-art protection, monitoring and control make it the intelligent choice to provide reliable power distribution now and in the future.

Contact your account manager and request a financial savings report, customized for your application.

**Layout and sizing .....17-2**



Entellisys™ indoor low voltage switchgear height is 92" (97" over the top wiring trough and 103.5" over the optional breaker hoist). The available breaker stacking space is 84".

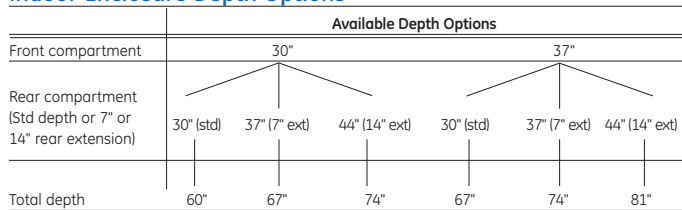
Breaker frame size and type determine the width of the breaker sections and also the minimum depth of the switchgear line-up. Refer to tables below for properly sizing Entellisys™ line-ups. The depth of the entire line-up is determined by the deepest device in the line-up. For example, a line-up with an EGF-20 breaker with a fuse roll-out (depth – 60") and EGF-08 breakers (depth – 67") would be a minimum of 67" deep – the EGF-08 being the deepest device. Also refer to the section arrangements on the following pages for available breaker stacking configurations.

### Switchgear Layout Considerations

1. Sections can be bussed together if there are matching bus levels in the adjacent sections. Refer to the sample Entellisys™ line-up.
2. Any breaker compartment shown on the section drawings can be made blank to provide additional space for mounting Entellisys™ devices.
3. The ampere ratings shown beside each breaker symbol indicate the range of frame sizes that are allowed in the particular section arrangement. This takes into consideration the temperature rise in the section due to breaker loading. Refer to ANSI C37.20.1-2002 para 8.4.2.3 for cumulative circuit breaker loading guidelines.
4. Devices cannot be mounted on breaker cubicle doors.
5. 3200A, 4000A, and 5000A fuse roll-outs are the same size as their respective breakers, therefore any compartment shown with a 3200, 4000, or 5000 amp breaker will also accommodate a fuse roll-out and vice versa.

6. Front busway connections to a circuit breaker require a blank compartment above the breaker for busway above or a blank compartment below the breaker for busway below.
7. Use of fused breakers does not necessarily require 200kA bus bracing. Bus bracing should be based on the available short circuit current on the switchgear bus.
8. 200kA bus bracing can limit feeder breaker placement. 200kA bus bracing does not allow adjacent 22 inch wide sections.
9. Factory review of layout is required for bus bracing greater than 100kA
10. Some cable entrance designs are not suitable for service entrance. Consult the factory if service entrance is required for the incoming cable section.
11. Additional cable and conduit space is available by making breaker sections wider (22 inch wide to 30 inch wide or 30 inch wide to 38 inch wide) or by making the line-up deeper (7 or 14 inches). Refer to the tables below.

### Indoor Enclosure Depth Options



Breaker Type	Device Combination or Bus Rating	Frame Size (Amperes)	Breaker Cubicle Vertical Height (Inches)	Minimum Section Width <sup>3</sup> (Inches)	Minimum Equipment Depth [Front/Rear Comp] (Inches)	Optional Equipment Depth (Inches)
EGS-08		800	21	22	60 [30/30]	67/74
EGH-08		800	21	22	60 [30/30]	67/74
EGX-08		800	21	22	60 [30/30]	67/74
EGF-08		800	21	22	67 [37/30]	74/81**
EGS-16		1600	21	22	60 [30/30]	67/74
EGH-16		1600	21	22	60 [30/30]	67/74
EGF-16		1600	21	22	67 [37/30]	74/81**
EGS-20		2000	21	22	60 [30/30]	67/74
	EGF-20 with fuse roll-out	2000	56	30	60 [30/30]	67/74/81 <sup>2</sup>
EGS-32		3200	35	30	60 [30/30]	67/74/81 <sup>2</sup>
EGH-32		3200	35	30	60 [30/30]	67/74/81 <sup>2</sup>
EGX-32		3200	35	30	60 [30/30]	67/74/81 <sup>2</sup>
	EGF-32 with fuse roll-out	3200	84	38	67 [37/30]	74/81**
EGS-40		4000	35	30	60 [30/30]	67/74/81 <sup>2</sup>
EGX-40		4000	35	30	60 [30/30]	67/74/81 <sup>2</sup>
	EGF-40 with fuse roll-out	4000	84	38	67 [37/30]	74/81**
EGS-50		5000	35	38	74 [37/37]	81**
EGX-50		5000	35	38	74 [37/37]	81**
	EGF-50 with fuse roll-out <sup>1</sup>	5000	35	38	74 [37/37]	81**
	1600-4000A main bus rating	—	—	—	60 [30/30]	67/74/81 <sup>2</sup>
	5000A main bus rating	—	—	—	67 [30/37]	74/81 <sup>2</sup>

<sup>1</sup> Breaker and fuse roll-out must be mounted in separate vertical sections.

<sup>2</sup> 81" depth available only when these devices are used in a line-up with items identified with \*\*.

<sup>3</sup> Section width can be increased for additional cable / conduit space. 22" sections can be increased to 30" wide, 30" wide sections can be increased to 38" wide.

