DESIGN SYSTEMS, INC. Manufacturing Engineering & Consulting



Excellence by Design

Load Study

Does your equipment have enough power?

Ensure you have enough power for your next installation by performing a load evaluation on your facilities substation and bus ducts. The load study will reveal how much power is being drawn from a distribution system and identify the remaining capacity for any future equipment installations. By evaluating the bus duct loading, we understand the power draw of each piece of equipment within the system. We can then identify areas with excessive draw and make recommendations to rebalance the load distribution to confirm all equipment is sufficiently powered and operating at peak performance. Doing so will guarantee each piece of equipment will have the power it needs to function and protect the bus duct from overloading



Load Study

÷ 9			2.2		Substati	on Roor	n		2	5				10	23
Breaker Position	Breaker Rating/Sensor	Designation	Facility Load			Process Loads			2	Total Projected					
			Conn. (KVA)	Conn. (Amps)	Demand (Amps)	Conn. (KVA)	Conn. (Amps)	Demand (Amps)	Busway Diversity	Conn. (KVA)	Conn. (Amps)	Demand with Diversity Applied (Amps)	ity % Loaded	Rated Load Ampacity	Estimated Substation Loading (KVA)
WEST SUE	STATION (2500	KVA AA / 3325 KVA FA)	- 83	2	20. V	8		S	S. 3		5	-		0	
211	4000A	MAIN BREAKER				2	· · · ·				1 C		()	S	2
6AT	4000A	TIE BREAKER													0
2W-1	1600A	80-2W-1	122	146	332	1585	1907	1167	1,25	1707	2053	1266	83%	1520	768
2W-2	1600A	ED-2W-2	157	189	754	284	342	255	1.25	441	531	958	635	1520	715
2W-3	1600A	80-2W-2	145	176	330	1450	1754	950	1.25	1604	1930	1090	72%	1520	726
		SUBSTATION 2W TOTALS	425	511	1416	3328	4003	2372	-	3753	4514	0	86%	2500	2209
10 - A			174		22	2	A.2	922	A. 0	Transfor	mer w/ Fan	kVA Rating	66%	3325	

Real-World Applications

- Proper planning for future projects.
- Guarantee future installations have the power required to function.
- Identify distribution systems in danger of overloading.
- Ensure all equipment is receiving sufficient electrical power.
- Provide on-site evaluation of each piece of equipment and power draw pertaining to a distribution system.

The DSI Advantage

We have a specialized team that have conducted numerous load study investigations. The focus is to identify the power draw of each piece of equipment in an electrical distribution system. Our electrical load study assessments are based upon the summations of each individual piece of equipment, and are completely unbiased, objective, and independent. We do not sell any equipment, parts, or maintenance, our customers can have confidence in our findings. The final report we provide is easily understood by facility workers, engineering, and management.

DSI DELIVERS

- Detailed report of each piece of equipment in distribution system and electrical requirements.
- Elaborate analysis of total bus/substation power draw.
- Evaluation of loading and recommendations in places of overloading.

DESIGN SYSTEMS FAMILY OF COMPANIES

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