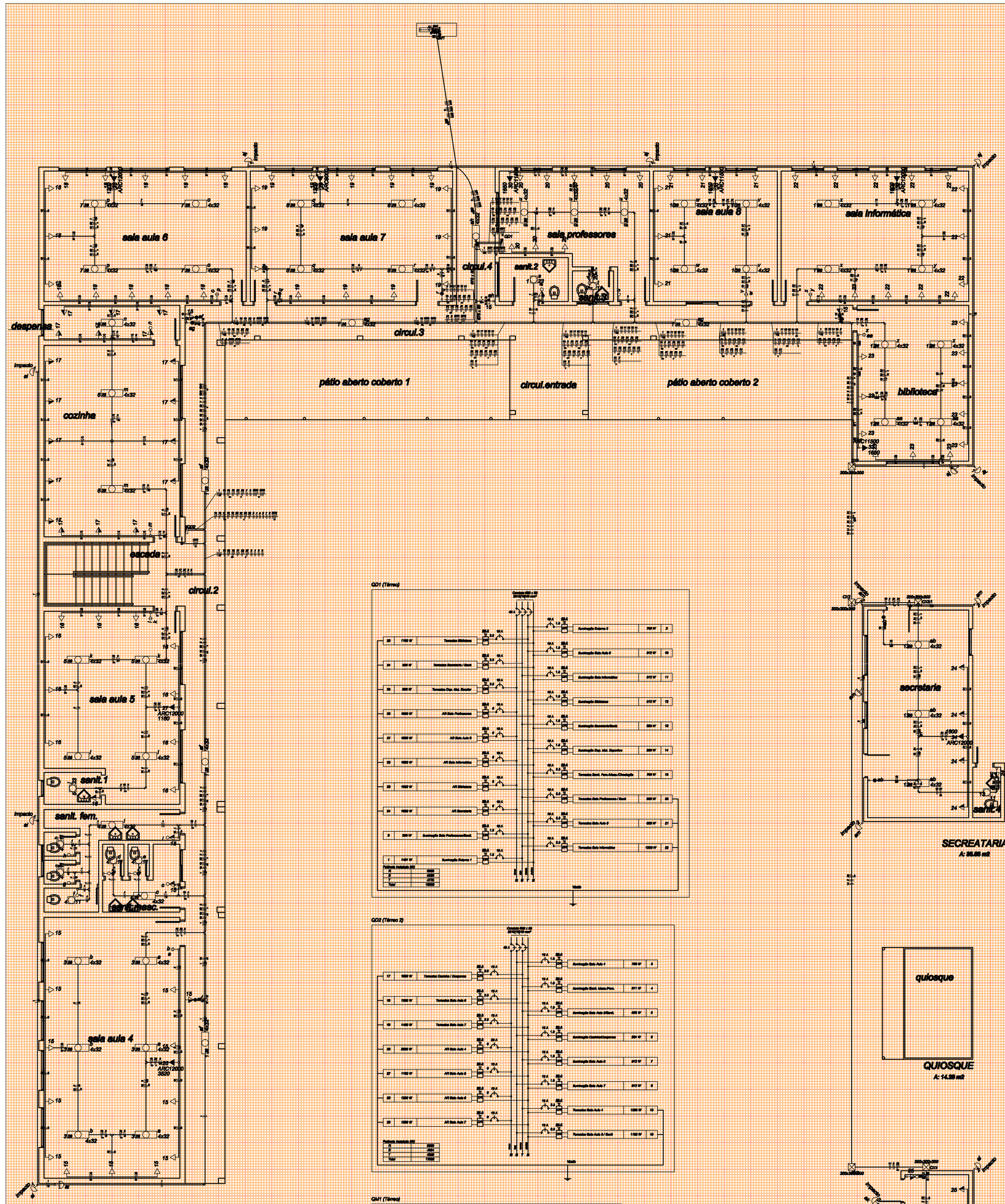


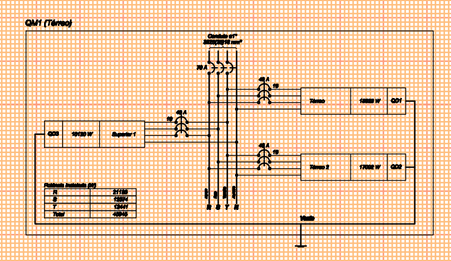


DIAGRAMA MULTIFILAR
s/esc.

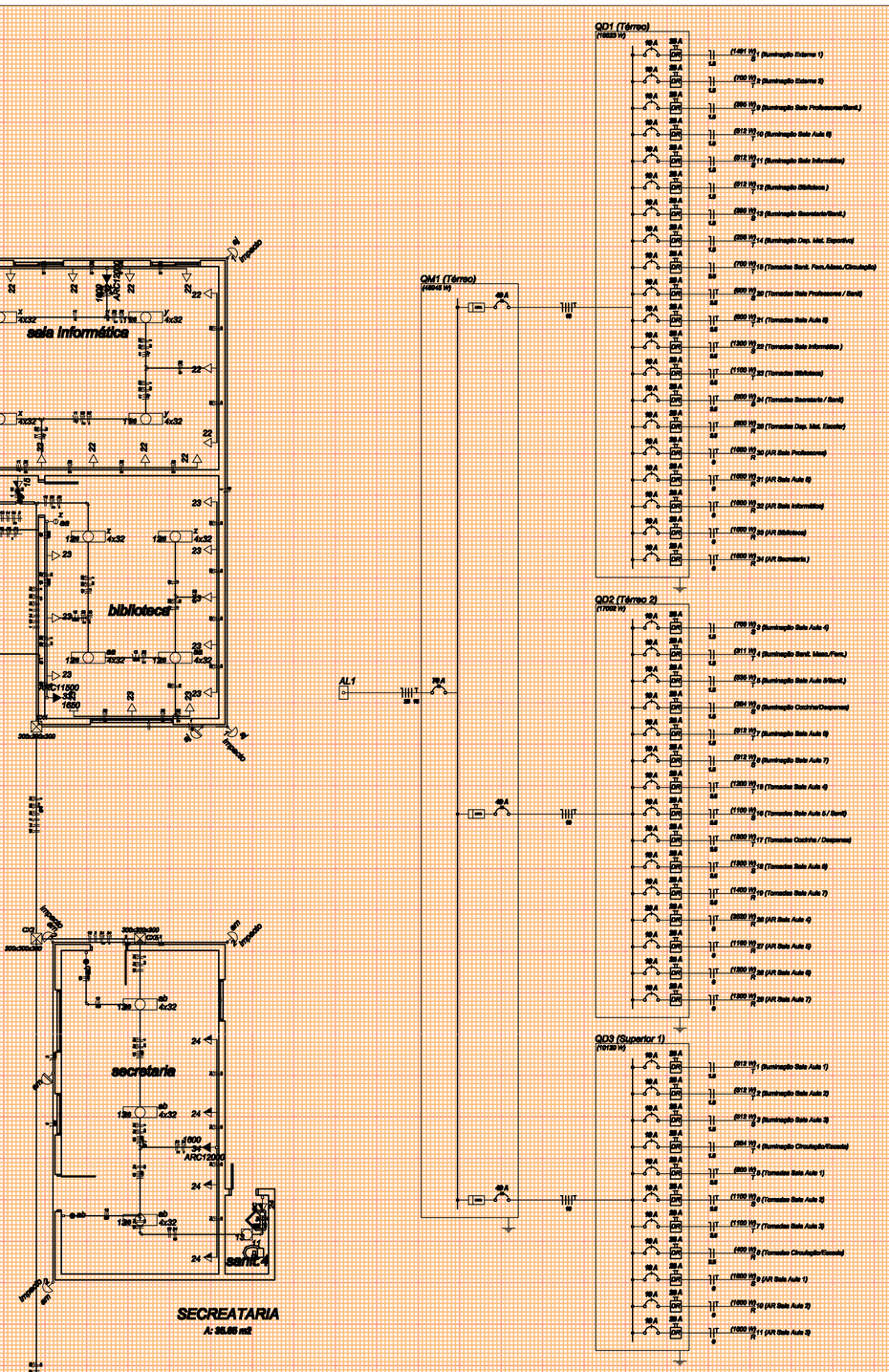
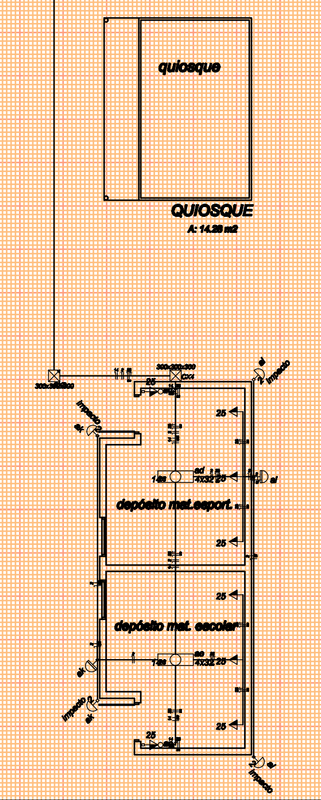


DIAGRAMA UNIFILAR
s/esc.



PLANTA BAIXA
1 / 100

LEGENDA
s/esc.

Quadro de Cargas (QD1)

Circuito	Descrição	Disjuntor	Bitolas de fase	V	Potência (W)							Pot. total	Pot. total	Fases	Pot.-R	Pot.-S	Pot.-T	Pot	Pot.	Af	Reator	Ib	Pd	dV.unit	dV.total	Bitola
					R	S	T	R0	S0	T0		(W)	(VA)		(W)	(W)	(W)	(W)	(VA)			(A)	(A)	(V)	(V)	
1	Iluminação Térreo 1	PVC	2F	220V			1					200	200	1			1	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"						1					200	200	1			1	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"						1					200	200	1			1	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"						1					200	200	1			1	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"						1					200	200	1			1	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"						1					200	200	1			1	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
2	Iluminação Térreo 2	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
3	Iluminação Sala Professores(Sul)	PVC	2F	220V	1	1						400	400	1		200	200	1,00	1,00	0,7	1,0	2,0	1,0	1,12	2,24	2S
	"											200	200	1			200	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
10	Iluminação Sala Aula 8	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
11	Iluminação Sala Informática	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
12	Iluminação Biblioteca	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
13	Iluminação Secretaria(Norte)	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
14	Iluminação Sec. Mat. Escolar	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	2,24	2S
15	Tomada Geral Térreo(Norte)	PVC	2F	220V				1				600	600	1	600			1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
16	Tomada Geral Térreo(Sul)	PVC	2F	220V					1			600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
17	Tomada Geral Térreo(Leste)	PVC	2F	220V						1		600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
18	Tomada Sala Aula 1	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
19	Tomada Sala Aula 2	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
20	Tomada Sala Aula 3	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
21	Tomada Sala Aula 4	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
22	Tomada Sala Aula 5	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
23	Tomada Sala Aula 6	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
24	Tomada Sala Aula 7	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
25	Tomada Sala Aula 8	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
26	Tomada Sala Aula 1 (Sul)	PVC	2F	220V				1				1500	1500	1	1500			1,00	1,00	0,7	1,0	7,5	1,0	1,12	8,40	2S
27	Tomada Sala Aula 2 (Sul)	PVC	2F	220V					1			1500	1500	1		1500		1,00	1,00	0,7	1,0	7,5	1,0	1,12	8,40	2S
28	Tomada Sala Aula 3 (Sul)	PVC	2F	220V						1		1500	1500	1			1500	1,00	1,00	0,7	1,0	7,5	1,0	1,12	8,40	2S
29	Tomada Sala Aula 4	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
30	Tomada Sala Aula 5	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
31	Tomada Sala Aula 6	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
32	Tomada Sala Aula 7	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
33	Tomada Sala Aula 8	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
34	Tomada Sala Aula 1	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
35	Tomada Sala Aula 2	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
36	Tomada Sala Aula 3	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
37	Tomada Sala Aula 4	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
38	Tomada Sala Aula 5	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
39	Tomada Sala Aula 6	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
40	Tomada Sala Aula 7	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
41	Tomada Sala Aula 8	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
TOTAL					6	6	6	1	1	1		19400	19400	24/17	2100	6600	10700					96,8			108,40	

Quadro de Cargas (QD2)

Circuito	Descrição	Disjuntor	Bitolas de fase	V	Potência (W)							Pot. total	Pot. total	Fases	Pot.-R	Pot.-S	Pot.-T	Pot	Pot.	Af	Reator	Ib	Pd	dV.unit	dV.total	Bitola
					R	S	T	R0	S0	T0		(W)	(VA)		(W)	(W)	(W)	(W)	(VA)			(A)	(A)	(V)	(V)	
3	Iluminação Sala Aula 4	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
4	Iluminação Sanit. Masc/Fem.	PVC	2F	220V	1							100	100	1		100		1,00	1,00	0,7	1,0	0,5	1,0	1,12	0,56	2S
	"				1							100	100	1		100		1,00	1,00	0,7	1,0	0,5	1,0	1,12	0,56	2S
	"				1							100	100	1		100		1,00	1,00	0,7	1,0	0,5	1,0	1,12	0,56	2S
	"				1							100	100	1		100		1,00	1,00	0,7	1,0	0,5	1,0	1,12	0,56	2S
	"				1							100	100	1		100		1,00	1,00	0,7	1,0	0,5	1,0	1,12	0,56	2S
	"				1							100	100	1		100		1,00	1,00	0,7	1,0	0,5	1,0	1,12	0,56	2S
5	Iluminação Sala Aula Mista	PVC	2F	220V	1	1						400	400	1		200	200	1,00	1,00	0,7	1,0	2,0	1,0	1,12	2,24	2S
	"											200	200	1			200	1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
6	Iluminação Secretaria(Sul)	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
7	Iluminação Sala Aula 5	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
8	Iluminação Sala Aula 6	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
9	Iluminação Secretaria(Norte)	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
10	Iluminação Sala Aula 7	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
11	Iluminação Sala Aula 8	PVC	2F	220V	1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
	"				1							200	200	1		200		1,00	1,00	0,7	1,0	1,0	1,0	1,12	1,12	2S
12	Tomada Sala Aula 1	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
13	Tomada Sala Aula 2 (Norte)	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
14	Tomada Sala Aula 3	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
15	Tomada Sala Aula 4	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
16	Tomada Sala Aula 5	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
17	Tomada Sala Aula 6	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
18	Tomada Sala Aula 7	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
19	Tomada Sala Aula 8	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
20	Tomada Sala Aula 1	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
21	Tomada Sala Aula 2	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
22	Tomada Sala Aula 3	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
23	Tomada Sala Aula 4	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
24	Tomada Sala Aula 5	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
25	Tomada Sala Aula 6	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
26	Tomada Sala Aula 7	PVC	2F	220V		1						600	600	1		600		1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
27	Tomada Sala Aula 8	PVC	2F	220V			1					600	600	1			600	1,00	1,00	0,7	1,0	3,0	1,0	1,12	3,36	2S
TOTAL					6	6	6					16800	16800	24/17		6600	10200					84,0			94,08	

Quadro de Cargas (QM1)

Circuito	Descrição	Disjuntor	Bitolas de fase	V	Pot. total	Pot. total	Fases	Pot.-R	Pot.-S	Pot.-T	Pot	Pot.	Af	Reator	Ib	Pd	dV.unit	dV.total	Bitola
					(W)	(VA)		(W)	(W)	(W)	(W)	(VA)			(A)	(A)	(V)	(V)	
QM1	Térreo	3P+N+T	4F	380/220V	2000	2000	3/N+T	2000	2000	2000		2000	1,00	1,00	3,0	3,0	1,12	3,36	4S
QM2	Térreo 2	3P+N+T	4F	380/220V	2000	2000	3/N+T	2000	2000	2000		2000	1,00	1,00	3,0	3,0	1,12	3,36	4S
TOTAL					4000	4000		4000	4000	4000		4000			6,0	6,0		6,72	

Quadro de Cargas (AL1)

Circuito	Descrição	Disjuntor	Bitolas de fase	V	Pot. total	Pot. total	Fases	Pot.-R	Pot.-S	Pot.-T	Pot	Pot.	Af	Reator	Ib	Pd	dV.unit	dV.total	Bitola
					(W)	(VA)		(W)	(W)	(W)	(W)	(VA)			(A)	(A)	(V)	(V)	
QAT	Térreo	3P+N+T	4F	380/220V	2000	2000	3/N+T	2000	2000	2000		2000	1,00	1,00	3,0	3,0	1,12	3,36	4S
TOTAL					2000	2000		2000	2000	2000		2000			3,0	3,0		3,36	

Quadro de Demanda (QD1)

Tipo de carga	Potência instalada (kVA)	Fator de demanda	Demanda (kVA)
Iluminação + 100% (Maior e condicionamento)	19,40	0,86	16,68
	6,60	1,00	6,60
	TOTAL		23,28

Quadro de Demanda (QM1)

Tipo de carga	Potência instalada (kVA)	Fator de demanda	Demanda (kVA)
Iluminação + 100% (Maior e condicionamento)	4,00	1,00	4,00
	TOTAL		4,00

Quadro de Demanda (QD2)

Tipo de carga	Potência instalada (kVA)	Fator de demanda	Demanda (kVA)
Iluminação + 100% (Maior e condicionamento)	16,80	0,86	14,45
	6,60	1,00	6,60
	TOTAL		21,05

Quadro de Demanda (AL1)

Tipo de carga	Potência instalada (kVA)	Fator de demanda	Demanda (kVA)
Iluminação + 100% (Maior e condicionamento)	2,00	1,00	2,00
	TOTAL		2,00

QUADRO DE CARGAS
s/esc.

SECRETARIA DE MUNICÍPIO DE DESENVOLVIMENTO URBANO
SMDUSEP
SUPERINTENDÊNCIA DE ELABORAÇÃO DE PROJETOS

PREFEITO MUNICIPAL: CÉZAR SCHIRMER
SECRETÁRIO: JÚLIO SILVA NETO
RUA VENÂNCIO AIRES 2277 - 5º ANDAR - CENTRO
CEP 97010-005 - SANTA MARIA - RS
(55) 3921-7068 - sdu@santamaria.rs.gov.br

Santa Maria, RS
PREFEITURA MUNICIPAL DE SANTA MARIA

OBRA: **EMEF SANTA HELENA**

LOCAL: Rua Congonhas esquina rua Manoel Machado, s/n. º , bairro Vila Santa Helena
cidade Santa Maria/RS

TITULO: 7.2.4 - PROJETO EXECUTIVO INSTALAÇÕES ELÉTRICAS, LÓGICA, CLIMATIZAÇÃO E GLP

ASSUNTO: PLANTA BAIXA - ELÉTRICO

PROPRIETÁRIO: MUNICÍPIO SANTA MARIA

PROJETO: ELDON ALBERTO RECKZIEGEL
ENGENHEIRO CIVIL - CREA/RS 48.490-D

RRT/ART: ART Nr: 8067605

DESENHO: CLÁUDIA RECKZIEGEL
ARQ E URB CAU/RS 114865-6

DATA: DEZ/2015

PRANCHA: 01/02

ÁREA: 772,05m²