BENTHIC ABUNDANCE. AMPHIPODS (exc AME)

G.T. 0.5 sieve.

26/2/82

	A	B	C	D+	Tot
$\bar{x}$	54.86	0.64	4.07	2.93	62.5
$n=14$ σ	20.10	1.39	5.09	4.86	25.56
$t_{0.05(2)} = 2.145$ 95% CL	3.079				

$\bar{x} = 7.71$
$\sigma = 9.14$

23–26/4 $n = 12$ $t = 2.179$

	A	B	C	D+	TOT
$\bar{x}$	48.83	5.5	1.16	7.66	61.83
σ	34.68	7.36	1.40	8.29	38.46
95% CL	6.297				

$\bar{x} = 14.33$
$\sigma = 9.0185$

25–26/6 $n = 19$ $t = 2.093$

	A	B	C	D+	TOT
$\bar{x}$	17.95	8.05	0.89	10.42	38.16
σ	9.09	10.75	1.56	10.18	19.83
95% CL	1.001				

$\bar{x}$ 20.79
σ 13.30

25/8 $n = 16$ $t = 2.120$

	A	B	C	D+	Tot
$\bar{x}$	48.81	2.81	0.81	18.12	70.75
σ	44.64	6.08	1.38	14.08	48.35
95% CL	5.915				

$\bar{x} = 21.75$
$\sigma = 11.77$

NORMAL $$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-(x_i-\mu)^2/2\sigma^2}$$

LOG NORMAL $$f(x) = \frac{1}{x\sigma\sqrt{2\pi}} e^{-\frac{1}{2\sigma^2}(x-\mu)^2}$$

~~INPUT X~~

STO 0 = X
STO 1 = $\bar{X}$ (μ)
STO 3 = σ

RCL 0
−
RCL 1
=
x^2
×
(
2
×
RCL 3
x^2
)
=
+/−
INV
ln x
×
(
(
2
×
π
)
$\sqrt{\ }$
×
RCL 3
×

DIVERSITY FM 25 [illegible] [illegible]

	HA	Co	ama	amo	PO	IB	nm	cap	UST	GAS	BIN	DEC	cu
APR 302	141	52	26	42	4	21	7	1	0	3	0	2	3
					0.7026								
138	57	2	6	42	4	1	9	12	0	0	0	2	3
JUN					0.6941								
AUG 85	42	2	32	2	1	2	0	1	1	0	0	2	0
					0.5324								

748.96
586.79

530

$\frac{n \text{ Design} + \Sigma h \text{ Design } h_i}{n}$ 1.70

h_i

5

Size freq of benthic samples apr 83 total = mean abundance calc from % freq size dist x = values of mean abund from benthic samples.

	.3	.5	.7	.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1
HA	718	851	58																						
IS	12	50	69	6																					
>.5 am	1	10	31	34	68	34	4	2	1																
.5 am	0	0	0	1	2	4	6	4	4	3	2	1	1	0	0										
.71 am	0	0	0	0	0	0	0	1	1	1	2	2	2	3	2	1	1								
>.71 am	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	2	1	2	1	1	0	0
TOT	731	891	158	41	70	38	13	10	6	4	4	3	3	4	3	2	3	2	2	1	2	1	1	0	0
	36.66	44.68	7.92	2.06	3.51	1.91	0.65	0.50	0.30	0.20	0.20	0.15	0.20	0.20	0.15	0.10	0.15	0.10	0.10	0.05	0.10	0.05	0.05	0.01	0.00
		1821				131				17					13			7				4			

GT = 1994

% Freq size dist of benthic samples apr. 83

obtained from subsamples of pooled benthic samples.

	.3	.5	.7	.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1
HA.	44.7	51.2	3.6																						
IS	0.1	44.4	50.0	4.5																					
V.S AH	0.5	5.7	16.5	18.0	24.6	18.0	3.6	1.0	0.5																
S AH	[illegible]																								
S am	0	0	1.0	1.0	5.5	11.3	17.8	23.3	13.3	10.3	5.5	3.5	2.0	1.0	0.5										
.71 am.	0	0	0	0	0	0	0	7.8	9.0	7.9	13.5	13.5	10.1	16.8	11.2	4.5	5.6								
>.71 am.	0	0	0	0	0	0	0	0	0	0	1.4	2.1	6.3	6.4	5.3	7.4	11.8	11.8	11.7	6.4	11.8	6.4	6.4	3.2	1.1

No Sample	A	B	C	D	E	F	G	H	?	B+	TOTAL	amph
1	33	24	0	1	1	●	1	0	0	0	59	26
2	73	0	0	12	3	▬	1	0	2	23	111	38
3 26/8	33	1	0	10	4	▬	0	0	0	28	72	39
4	53	0	0	12	5	▬	3	0	0	10	78	25
5	8	2	0	1	0	▬	1	0	0	1	13	5
6	22	5	0	0	0	0	2	0	0	0	29	7
7	32	3	2	3	1	0	1	0	0	5	46	14
8	13	0	2	3	0	0	0	2	0	8	28	15
9	67	1	0	7	0	0	0	1	0	2	78	11
10	35	1	0	3	2	0	0	0	0	13	52	17
11	178	0	2	8	15	0	2	0	2	6	198	20
12	113	0	0	6	2	0	1	0	0	23	143	30
13	65	0	5	3	6	0	3	0	0	6	82	17
14	1	8	1	1	0	0	0	0	0	0	11	10
15	22	0	1	7	5	0	0	0	2(cf)	22	54	32
16	33	0	0	3	18	0	0	0	0	39	75	42
T	781	45	13	80	–	0	15	3	6	186	1129 1130.	

BENTHIC SAMPLES – 25 – 26/8. Amphipods retained by 0.5 mm sieve.

SIZE FREQ ALL AMPHS Ret 0.5mm sieve

Av. No. / SAMPLE (0.0625 m^2) (1/16 m^2)

	FEB		%	APR		%	JUN		%	AUG		%
0.61 – 0.8	0	0	0	0.3	.3	0.5	0.1	0	0.3	0.7	.7	1.0
0.81 – 1.0	0	0	0	1.1	.8	1.8	1.1	.9	3.0	1.9	1.6	2.7
1.01 – 1.2	0.5	.5	0.8	3.7	0	6.0	2.5	1.8	6.8	3.5	2.7	5.0
1.21 – 1.4	3.1	.8	4.9	4.7	3.3	7.6	3.9	2.7	10.6	4.8	2	6.8
1.41 – 1.6	12.7	1.2	20.3	7.3	.5	11.8	3.4	2	9.2	6.1	2.7	8.7
1.61 – 1.8	9.1	1.1	14.5	7.2	4.0	11.7	4.5	1.8	12.2	4.3	2.9	6.1
1.81 – 2.0	4.0	1.1	6.4	5.4	.9	8.8	3.2	1.3	8.7	8.1	3	11.5
2.01 – 2.2	8.9	1.2	14.2	4.1	.9	6.6	2.4	.9	6.5	8.7	2	12.3
2.21 – 2.4	4.0	.8	6.4	4.4	1.7	7.1	2.5	1.2	6.8	7.3	1	10.4
2.41 – 2.6	2.2	.1	3.5	2.8	1.2	4.5	1.9	1.1	5.2	4.5	1	6.4
2.61 – 2.8	2.4	0	3.8	5.0	1.9	8.1	2.2	1.3	6.0	3.0	.5	4.3
2.81 – 3.0	1.8	.2	2.9	3.1	0	5.0	2.4	1.5	6.5	2.8	.5	4.0
3.01 – 3.2	2.5	.3	4.0	1.8	.7	2.9	1.2	.6	3.3	0.7	.4	1.0
3.21 – 3.4	1.6	0	2.6	1.6	.3	2.6	1.7	.9	4.6	2.2	.2	3.1
3.41 – 3.6	3.1	0	4.9	2.1	.5	3.4	1.0	.6	2.7	0.8	.2	1.1
3.61 – 3.8	2.4	0	3.8	1.8	0	2.9	1.1	.4	3.0	2.3	0	3.3
3.81 – 4.0	1.5	0	2.4	1.0	0	1.6	0.2	0	0.5	1.9	.2	2.7
4.01 – 4.2	1.3	.4	2.1	1.3	0	2.1	0.3	.2	0.8	2.0	0	2.8
4.21 – 4.4	1.2	0	1.9	1.1	0	1.8	0.3	0	0.8	1.1	0	1.6
4.41 – 4.6	0.3	0	0.5	0.9	0	1.5	0.2	0	0.5	1.4	0	2.0
4.61 – 4.8	0	0	0	0.9	0	1.5	0.3	0.1	0.8	1.6	.2	2.3
4.81 – 5.0	0	0	0	0	0	0	0.4	0	1.1	0	0	0
5.01 – 5.2	0.1	0	0.2	0.1	0	0.2	0.1	0	0.3	0.8	0	1.1
T	62.7			61.7			36.9			70.5		
$\bar{X}$	2.25			2.28			2.19			2.34		
	0.86			0.93			0.92			1.03		
σ												
25%	0.22			0.24			0.31			0.24		
>25	20.4			23.5			13.8			25.1		
6TH n	7			18								
x	1.98			2.01								
σ	.60			.69								

AMA

SIZE FREQ ~~AMA~~ AMPHS RET 0.5m sieve

AVERAGE No / SAMPLE

	FEB	%	APR	%	JUN	%	AUG	%
.61 – .8	0	0	0	0	0.1	0.6	0	0
.81 – 1.0	0	0	0.2	0.4	0.2	1.1	0.3	0.6
1.01 – 1.2	2.3	4.2	4.1	8.7	0.7	4.0	0.8	1.6
1.21 – 1.4	11.5	20.9	1.4	3.0	1.2	6.8	2.8	5.7
1.41 – 1.6	8.0	14.5	6.8	14.5	1.4	8.0	3.4	7.0
1.61 – 1.8	2.9	5.3	3.2	6.8	2.7	15.3	1.4	2.9
1.81 – 2.0	7.7	14.0	4.5	9.6	1.9	10.8	5.1	10.4
2.01 – 2.2	3.2	5.8	3.2	6.8	1.5	8.5	6.8	13.9
2.21 – 2.4	2.1	3.8	2.7	5.7	1.3	7.4	6.5	13.3
2.41 – 2.6	2.4	4.4	1.6	3.4	0.8	4.5	3.4	7.0
2.61 – 2.8	1.6	2.9	3.1	6.6	0.9	5.1	2.5	5.1
2.81 – 3.0	2.2	4.0	3.2	6.8	0.9	5.1	2.3	4.7
3.01 – 3.2	1.6	2.9	1.1	2.3	0.6	3.4	0.3	0.6
3.21 – 3.4	3.1	5.6	1.9	4.0	0.8	4.5	2.0	4.1
3.41 – 3.6	2.4	4.4	2.6	5.5	0.4	2.3	0.6	1.2
3.61 – 3.8	1.5	2.7	1.9	4.0	0.7	4.0	2.3	4.7
3.81 – 4.0	0.9	1.6	1.1	2.3	0.2	1.1	1.7	3.5
4.01 – 4.2	1.2	2.2	1.4	3.0	0.1	0.6	2.0	4.1
4.21 – 4.4	0.3	0.5	1.1	2.3	0.3	1.7	1.1	2.2
4.41 – 4.6	0	0	0.9	1.9	0.2	1.1	1.4	2.9
4.61 – 4.8	0	0	0.9	1.9	0.2	1.1	1.4	2.9
4.81 – 5.0	0.1	0.2	0	0	0.4	2.3	0	0
5.01 – 5.2	0	0	0.1	0.2	0.1	0.6	0.8	1.6
T	55		47		17.6		48.9	
$\bar{X}$ =	2.02		2.44		2.41		2.6	
σ =	0.79		0.99		1.00		0.99	
95%	0.21		0.29		0.49		0.28	

FEB S.F. Amphs.

	AMO+				AMALL	
	·5		·71			
·61–1·0						
1·01–1·2	2	7·2			7·2	7·2
1·21–1·4	3	10·8			10·8	42·9
1·41–1·6	5	18·0			18·0	178·4
1·61–1·8	4	14·4			14·4	126·7
1·81–2·0	3	10·8	3	5·1	15·9	56·0
2·01–2·2	2	7·2	5	8·5	15·7	124·0
2·21–2·4	1	3·6	4	6·8	10·4	55·7
2·41–2·6			1	1·7	1·7	30·6
2·61–2·8			0	0	0	33·4
2·81–3·0			2	3·4	3·4	25·3
3·01–3·2			2	3·4	3·4	34·7
3·21–3·4			0	0	6	21·9
3·41–3·6			0	0	0	43·7
3·61–3·8			0	0	0	33·3
3·81–4·0			0	0	0	20·8
4·01–4·2			3	5·1	5·1	17·5
4·21–4·4						16·6
4·41–4·6						4
4·61–4·8						0
4·81–5·2						0
	20		20		106	1
	72		34			

N = 14

FEB S.F. amphs. A.

Ama

AMATOT

	.5		.71		1.0		1.4		TOT
.81 – 1.0									
1.01 – 1.2									
1.21 – 1.4	4	32.1							32.1
1.41 – 1.6	20	160.4							160.4
1.61 – 1.8	14	112.3							112.3
1.81 – 2.0	5	40.1							40.1
2.01 – 2.2	10	80.2	6	28.1					108.3
2.21 – 2.4	2	16.0	7	29.3					45.3
2.41 – 2.6	1	8.0	5	20.9					28.9
2.61 – 2.8			8	33.4					33.4
2.81 – 3.0			4	16.7	1	5.2			21.9
3.01 – 3.2			5	20.9	2	10.4			31.3
3.21 – 3.4			4	16.7	1	5.2			21.9
3.41 – 3.6			6	28.1	3	15.6			43.7
3.61 – 3.8			5	20.9	2	10.4	2		33.3
3.81 – 4.0					4	20.8	0		20.8
4.01 – 4.2					2	10.4	2		12.4
4.21 – 4.4					3	15.6	1		16.6
4.41 – 4.6					0	0	4		4
4.61 – 4.8					0	0	0		0
4.81 – 5.0					0	0	0		0
5.01 – 5.2					1	5.2	1		1
	56		50		19		10		
	449		209		99		10		

n = 14

SIZE-FREQ Amphs APR 83 RET BY 0.5mm SIEVE

AMA – APR 83

all samples n=12

	·5		·71		1·0		1·4		TOT
·61–·8	0	0	0	0	0	0	0	0	0
·81–1·0	0	0	0	0	1	2	0	0	2
1·01–1·2	9	48·9	0	0	0	0	0	0	48·9
1·21–1·4	3	16·3	0	0	0	0	0	0	16·3
1·41–1·6	14	76	1	5·4	0	0	0	0	81·4
1·61–1·8	6	32·6	1	5·4	0	0	0	0	38·0
1·81–2·0	9	48·9	1	5·4	0	0	0	0	54·3
2·01–2·2	2	10·9	5	26·9	0	0	0	0	37·8
2·21–2·4	4	21·7	2	10·7	0	0	0	0	32·4
2·41–2·6	0	0	3	16·1	1	2	1	1·7	19·8
2·61–2·8	0	0	5	26·9	5	10	0	0	36·9
2·81–3·0	2	10·9	4	21·5	3	6	0	0	38·4
3·01–3·2	0	0	2	10·7	2	2	0	0	12·7
3·21–3·4	0	0	1	5·4	6	12	3	5·0	22·4
3·41–3·6	0	0	2	10·7	6	12	5	8·3	31·0
3·61–3·8	0	0	0	0	8	16	4	6·6	22·6
3·81–4·0	0	0	0	0	5	10	2	3·3	13·3
4·01–4·2	0	0	0	0	4	8	5	8·3	16·3
4·21–4·4	0	0	0	0	0	0	8	13·3	13·3
4·41–4·6	0	0	0	0	1	2	5	8·3	10·3
4·61–4·8	0	0	0	0	2	4	4	6·6	10·6
4·81–5·0	0	0	0	0	0	0	0	0	0
5·01–5·2	0	0	0	0	0	0	1	1·7	1·7
S.Tot	49		27		44		38		
TOT	266		145		88		63		

N=12

Size hog amphs APR 83 RET 0·5 SIEVE.

~~AM 0+~~ APR 83.

TOT AM.

	·5		·71		1·0		1·4		TOT.	%
·61 – ·8	2	3·7	0		0		0		3·7	
·81 – 1·0	6	11·2	0		1	1·8	0		13·0	
1·01 – 1·2	24	44·9	0		0		0		44·9	
1·21 – 1·4	30	56·1	0		0		0		56·1	
1·41 – 1·6	40	74·8	4	11·3	1	1·8	0		87·9	
1·61 – 1·8	40	74·8	4	11·3	0		0		86·1	
1·81 – 2·0	24	44·9	7	19·8	0		0		64·7	
2·01 – 2·2	14	26·2	8	22·6	0		0		48·8	
2·21 – 2·4	11	20·6	10	28·3	2	3·6	0		52·5	
2·41 – 2·6	7	13·1	6	16·9	1	1·8	1	1·7	33·5	
2·61 – 2·8	1	1·9	16	45·2	7	12·6	0		59·7	
2·81 – 3·0	2	3·7	8	22·6	6	10·8	0		37·1	
3·01 – 3·2	1	1·9	3	8·5	6	10·8	0		21·2	
3·21 – 3·4	0		1	2·8	6	10·8	3	5·1	18·7	
3·41 – 3·6	0		2	5·6	6	10·8	5	8·6	25	
3·61 – 3·8	0		0		8	14·4	4	6·8	21·2	
3·81 – 4·0	0		0		5	9·0	2	3·4	12·4	
4·01 – 4·2	0		0		4	7·2	5	8·6	15·8	
4·21 – 4·4	0		0		0		8	13·7	13·7	
4·41 – 4·6	0		0		1	1·8	5	8·6	10·4	
4·61 – 4·8	0		0		2	3·6	4	6·8	10·4	
4·81 – 5·0	0		0		0		0	0	0	
5·01 – 5·2	0		0		0		1	1·7	1·7	
ΣTOT	202		69		56		58		738·5	
TOT	378		195		101		65		739	

TOT of all samples ÷ by n for $\bar{x}$

N = 12

S.F. Amps JUNE Ret 0.5 sieve.

	amα	amb	amα+	TOT
.61 – .8	2	0	0	2
.81 – 1.0	3	2	16	21
1.01 – 1.2	14	5	29	48
1.21 – 1.4	22	11	42	75
1.41 – 1.6	27	12	26	65
1.61 – 1.8	52	10	23	85
1.81 – 2.0	36	12	13	61
2.01 – 2.2	29	10	7	46
2.21 – 2.4	24	17	7	48
2.41 – 2.6	15	14	8	37
2.61 – 2.8	18	14	9	41
2.81 – 3.0	18	18	9	45
3.01 – 3.2	12	6	5	23
3.21 – 3.4	16	11	6	33
3.41 – 3.6	8	7	4	19
3.61 – 3.8	14	3	3	20
3.81 – 4.0	3	0	1	4
4.01 – 4.2	2	0	3	5
4.21 – 4.4	5	0	0	5
4.41 – 4.6	3	0	1	4
4.61 – 4.8	4	0	1	5
4.81 – 5.0	7	0	1	8
5.01 – 5.2	1	0	0	1

TOTAL ALL SAMPLES N=19

SIZE-FREQ AMPHS AUG. Pot 0.5 sieve

	amaa		amb		amot		all.
.61 - .8	0	0	0	0	4	11.2	11.2
.81 - 1.0	1	4.5	0	0	9	25.3	29.8
1.01 - 1.2	3	13.5	2	3.7	14	39.3	56.5
1.21 - 1.4	10	45.1	2	3.7	10	28.0	76.8
1.41 - 1.6	12	54.1	1	1.9	15	42.1	98.2
1.61 - 1.8	5	22.6	4	7.5	14	39.3	69.4
1.81 - 2.0	18	81.3	0	0	17	47.7	129.0
2.01 - 2.2	24	108.3	3	5.6	9	25.3	139.2
2.21 - 2.4	23	103.8	1	1.9	4	11.2	116.9
2.41 - 2.6	12	54.2	2	3.7	5	14.0	71.9
2.61 - 2.8	9	40.6	1	1.9	2	5.6	48.1
2.81 - 3.0	8	36.1	2	3.7	2	5.6	45.4
3.01 - 3.2	1	4.5	2	3.7	1	2.8	11.0
3.21 - 3.4	7	31.6	2	3.7			35.3
3.41 - 3.6	2	9.0	2	3.7			12.7
3.61 - 3.8	8	36.1					36.1
3.81 - 4.0	6	27.1			1	2.8	29.9
4.01 - 4.2	7	31.6					31.6
4.21 - 4.4	4	18.1					18.1
4.41 - 4.6	5	22.6					22.6
4.61 - 4.8	5	22.6			1	2.8	25.4
4.81 - 5.0	0	0					0
5.01 - 5.2	3	13.5					13.5
STOT	173		24		108		
	781		45		303		

Tot all samples ÷ 4.

n = 16

FEB

20 amol of 0.5 sieve fraction	20 amol of 0.71 fraction
	2.1
~~2.1~~ 1.4	~~2.8~~
~~2.9~~ 1.9	3.2
~~2.8~~ 1.8	2.2
2.2	2.9
1.8	2.4
1.3	2.0
1.4	4.2
1.7	2.2
1.7	4.2
1.6	2.0
2.2	2.4
1.5	2.1
1.6	2.2
2.0	2.0
1.8	3.2
1.6	4.1
1.2	3.0
2.4	2.6
1.9	2.4
1.1	2.3

August

ama

4·0	3·0	2·1	2·4	2·0
1·6	2·4	4·4	2·5	2·1
3·2	4·7	4·3	5·4	1·9
3·3	2·5	2·7	2·2	2·0
4·5	3·0	2·2	2·1	2·6
1·4	3·0	2·8	1·3	1·4
4·1	2·6	3·4	2·2	3·8
2·1	4·2	2·6	1·8	4·6
2·1	2·2	1·9	2·3	4·8
1·4	1·2	1·5	4·0	2·2
2·1	2·1	1·8	2·5	2·6
1·3	1·8	2·7	2·4	2·8
2·4	2·6	2·6	4·8	2·2
4·4	3·7	2·0	4·2	3·8
2·0	1·8	1·6	2·9	3·7
1·5	3·7	2·1	2·4	3·9
1·1	2·1	4·1	1·9	3·8
2·4	2·4	2·3	1·6	1·4
5·3	1·5	1·9	2·0	1·0
2·6	2·9	1·6	4·1	3·0
2·3	1·6	2·2	3·4	2·8
3·8	4·2	22	3·9	
2·4	2·0	2·0	1·1	
4·5	2·3	2·4	1·9	
2·7	2·4	2·1	4·4	
1·6	3·4	1·4	2·2	
2·5	5·2	2·5	2·4	
1·6	3·3	4·1	2·2	
1·4	3·5	3·4	4·5	
2·7	4·0	2·4	2·8	
1·8	1·6	4·5	1·4	
2·1	2·4	4·0	2·4	
1·6	2·5	3·5	2·0	
2·3	2·4	2·9	2·3	
1·9	2·2	4·8	2·0	
3·8	2·0	1·9	1·4	
2·4	1·9	4·7	2·9	
2·2	2·3	5·7	2·1	

August

Amb

1·6
2·8
1·2
3·6
2·2
1·8
1·8
3·2
5·6
3·3
1·4
3·0
2·1
3·2
2·6
2·6
3·0
2·2
1·8
3·3
2·3
1·4
1·2
1·7

August

am0+

1.6	1.2	1.1
1.2	2.1	1.2
2.4	2.5	2.1
1.2	1.6	3.0
2.0	1.5	2.9
2.1	1.5	1.8
2.0	2.0	1.8
1.1	1.1	3.1
1.2	1.8	1.3
1.9	1.4	2.0
0.8	2.6	2.5
1.8	1.4	1.7
1.4	1.0	1.8
1.2	2.3	1.2
1.8	1.6	1.7
1.7	1.2	2.6
1.3	1.6	1.0
0.8	1.6	4.0
0.9	2.0	2.0
0.8	2.0	1.6
2.2	1.2	1.0
0.9	1.6	2.1
1.4	2.2	1.9
2.1	1.2	1.0
1.6	2.8	0.8
0.9	1.4	2.5
0.9	1.9	
2.0	1.0	
1.6	1.6	
2.3	2.2	
1.6	2.0	
1.4	1.7	
1.2	1.6	
1.5	1.9	
2.0	2.0	
1.4	1.8	
4.8	1.7	
2.3	1.3	
2.0	1.9	
1.7	2.1	
1.7	2.8	

HA

.2	IIII	4	4.7
.3	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 IIII	34	40.0
.4	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	40	47.0
.5	IIII	4	4.7
.6	I	1	1.2
.7	II	2	2.4

15

			%
.3	II	2	9.1
.4	IIII	4	18.2
.5	IIII	4	18.2
.6	𝍸 III	8	36.4
.7	III	3	13.6
.8	I	1	4.5

APR.

≤ .5 amps

.3	1
.4	5
.5	5
.6	18
.7	14
.8	19
.9	16
1.0	36
1.1	35
1.2	26
1.3	7
1.4	5
1.5	2
1.6	2
1.7	0
1.8	1

.5
2.6
2.6
9.3
7.2
9.8
8.2
18.6
18.0
13.4
4.6
2.6
1.0
1.0
0
.5

APR

.05 amps

.7	II
.9	II
1.0	𝍸 I
1.1	𝍸
1.2	𝍸 𝍸 𝍸 IIII
1.3	𝍸 𝍸
1.4	𝍸 𝍸 𝍸 𝍸
1.5	𝍸 𝍸 𝍸 I
1.6	𝍸 𝍸 𝍸 𝍸 IIII
1.7	𝍸 𝍸 𝍸 𝍸 III
1.8	𝍸 𝍸 𝍸 I
1.9	𝍸 𝍸 III
2.0	𝍸 𝍸
2.1	𝍸 𝍸 I
2.2	IIII
2.3	𝍸 II
2.4	𝍸 IIII
2.5	IIII
2.6	III
2.7	I
2.8	
2.9	II
3.0	
3.1	I

.7	2	1.0
.9	2	1.0
1.0	6	3.0
1.1	5	2.5
1.2	19	9.4
1.3	10	4.9
1.4	20	9.9
1.5	16	7.9
1.6	24	11.9
1.7	23	11.4
1.8	16	7.9
1.9	13	6.4
2.0	10	4.9
2.1	11	5.4
2.2	4	2.0
2.3	7	3.5
2.4	3	1.5
2.5	4	2.0
2.6	3	1.5
2.7	1	.5
2.8	0	0
2.9	2	1.0
3.0	0	0
3.1	1	.5

202

APR

.71 amps.

1.6	𝍸	5	5.6
1.7	II	2	2.2
1.8	III	3	3.4
1.9	𝍸	5	5.6
2.0	III	3	3.4
2.1	IIII	4	4.5
2.2	𝍸 III	8	9.0
2.3	IIII	4	4.5
2.4	𝍸 III	8	9.0
2.5	IIII	4	4.5
2.6	IIII	4	4.5
2.7	𝍸	5	5.6
2.8	𝍸 𝍸	10	11.2
2.9		5	5.6
3.0	𝍸 III	8	9.0
3.1	II	2	2.2
3.2	III	3	3.4
3.3	I	1	1.1
3.4	II	2	2.2
3.5	III	3	3.4

89

2.41.0 amps & 1.4

2.5	I	1	1.1	
2.6	II	2	2.1	1.5
2.7	IIII	4	4.2	
2.8	III	3	3.2	
2.9	III	3	3.2	
3.0	III	3	3.2	
3.1	II	2	2.1	
3.2	IIII	4	4.2	
3.3	III	3	3.2	
3.4	𝍸 I	6	6.4	
3.5	𝍸	5	5.4	
3.6	𝍸 I	6	6.4	
3.7	𝍸	5	5.4	
3.8	𝍸 II	7	7.5	
3.9	IIII	4	4.2	
4.0	III	3	3.2	
4.1	III	3	3.2	
4.2	𝍸 I	6	6.4	
4.3	𝍸	5	5.4	
4.4	III	3	3.2	
4.5	III	3	3.2	
4.6	III	3	3.2	
4.7	III	3	3.2	
4.8	II	2	2.1	
4.9	I	1	1.1	
5.1	I	1	1.1	

93

APR