

GAUMER PROCESS

HEATERS
SYSTEMS
CONTROLS

APPLICATIONS

90, 60, and 45 Watts Per Square Inch

- Industrial water heating - many aqueous solutions which are compatible with steel and Incoloy.

23 and 20 Watts Per Square Inch

- For heat transfer oil, cleaners, high temperature air and gas heating.

15 and 12 Watts Per Square Inch

- For lubricating oils, medium viscosity oils, high temperature air and gas heating.

8 and 6 Watts Per Square Inch

- For #5 and #6 fuel oil heating, viscous materials, raw crude oil, residual oils, high temperature air and gas heating.

4 and 2 Watts Per Square Inch

- For asphalt and other hard-to-heat materials, extra high temperature air and gas.

SPECIAL FEATURES

- Explosion Resistant Terminal Enclosure
- Moisture Resistant Terminal Enclosure
- Sheath Sensing Type K (J) Thermocouple attached to one element for overheat protection.
- Offset (Spaced Away) Terminal Housing
- Space Heater Mounted in Term. Encl.
- 2" Calcium Silicate Insulation with Alum. Jacke
- 2" Calcium Silicate Insulation with SS Jacket
- Insulation Jacket - Weatherproof Const.
- Custom Insulation Jacket
- 300#, 600#, 900#, etc. Construction
- Stainless Steel Construction - Type 304, 316
- ASME Coded and Stamped Chamber
- Thermowell/TC (Type J/K) mtd. in Outlet

OTHER CAPABILITIES

- Double Ended PBodies to 38 ft. Available
- Multiple Chamber Units Available
- Designs Available to 3000 psig and 1200°F.
- Special Material Assemblies are Available
- Special Coatings and Finishes are Available

7/3/2002

Circulation Heaters - Type IC



STANDARD FEATURES

Pipebody Chamber

- All Welded Construction
- 100% Hydrostatic Tested
- Sizes to 24 in. Diam. Available as Standard
- Over 200 Nozzle Arrangements are Standard
- Both Vertical and Horizontal Models Standar
- Either Mtg Brackets or Saddles are Standard
- Drain Plugs Where Applicable are Standard
- Large Selection of Standard Inlet and Outlet Sizes
- Chamber Connection Type and Size other than that detailed on Catalog Page

Heating Elements

- Incoloy 800 Sheath Material, Sealed Terminal
- Heavy Wall (.035 in.), Large diameter (.475 in.

Spacers

- Rugged Design, High Temp Alloy Material
- "Evenflow" Configuration Standard

Construction

- Welded Heating Elements
- Welded Terminal Housings and Spacers

Installation

- Flying Leadwires Provided
- Only Standard Materials Needed in Field

Service

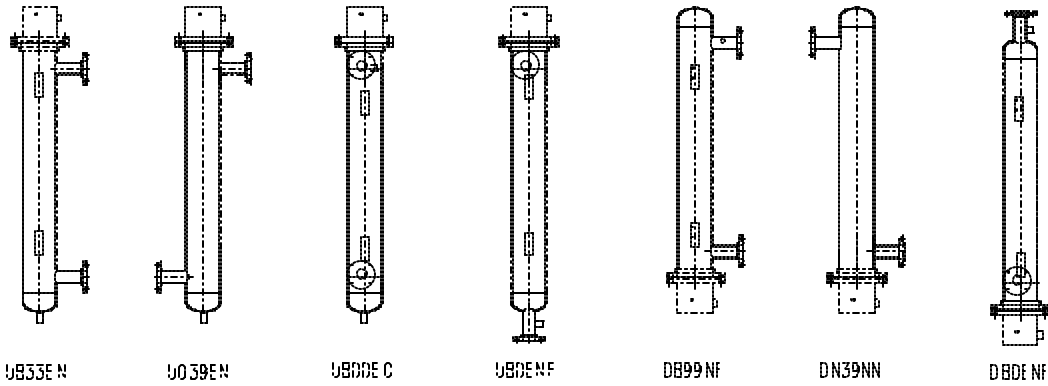
- Wiring Modifiable in Field
- Assembly Repairable at Factory

Circulation Heaters

Type IC

Gaumer Drawing No. IC-100 (Arrangement Option Detail)

HEATER COMPONENT LOCATION CODE



UBS3EN

UO39EN

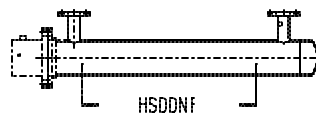
UBDDC

UBDEF

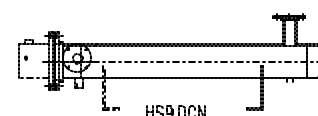
DB99NF

DN39NN

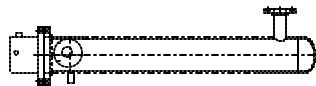
DBDEF



HSDDNF



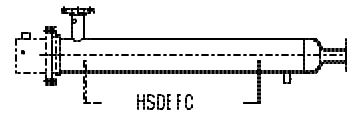
HS9DCN



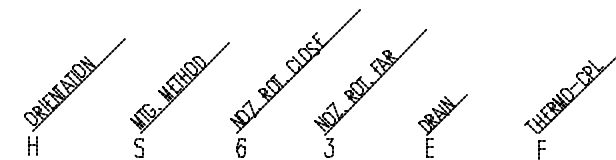
HN3DCN



DBDDNN



HSDEF



1) HEATER ORIENTATION

H---HORIZONTAL
U---UP (RELATIVE TO HEATER FLANGE)
D---DOWN (RELATIVE TO HEATER FLANGE)

2) MOUNTING METHOD (ALWAYS AT THE 6 POSITION)

S---SADDLES
B---MOUNTING BLOCKS
N---NONE

3) CLOSE CONNECTION (RELATIVE TO HEATER FLANGE)

D
3
6
9

VIEW LOOKING AT HEATER HOUSING

4) FAR CONNECTION (SAME AS CLOSE CONNECTION)

D
3
6
9
E---END

5) DRAIN

C---CLOSE
F---FAR
E---END
N---NONE

6) THE THERMOCOUPLE

C---CLOSE
F---FAR
N---NONE

7/3/2002

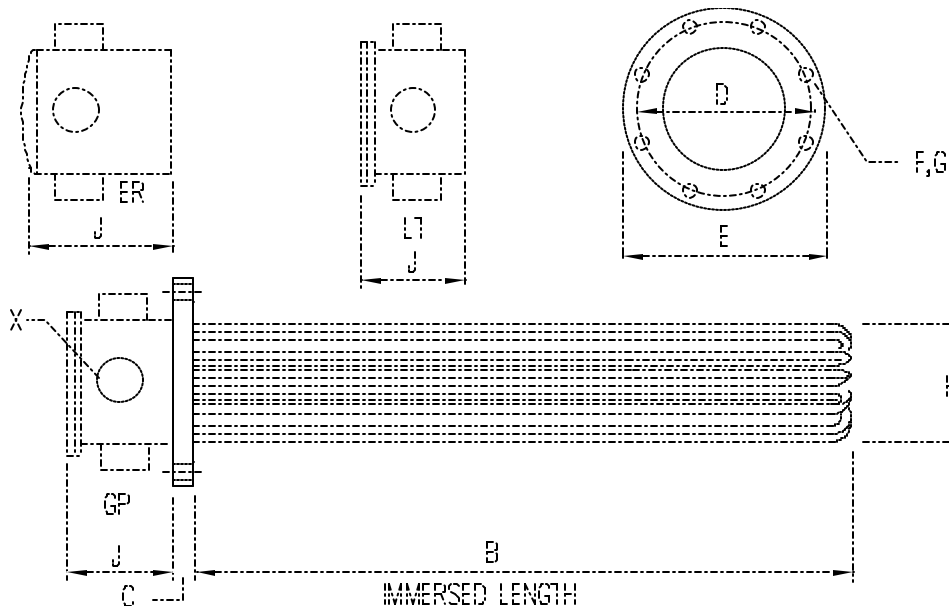
Page 2 of 13

Circulation Heaters

Type IC

Gaumer Drawing No. IF-200 (Dimension Flange Heater Detail)

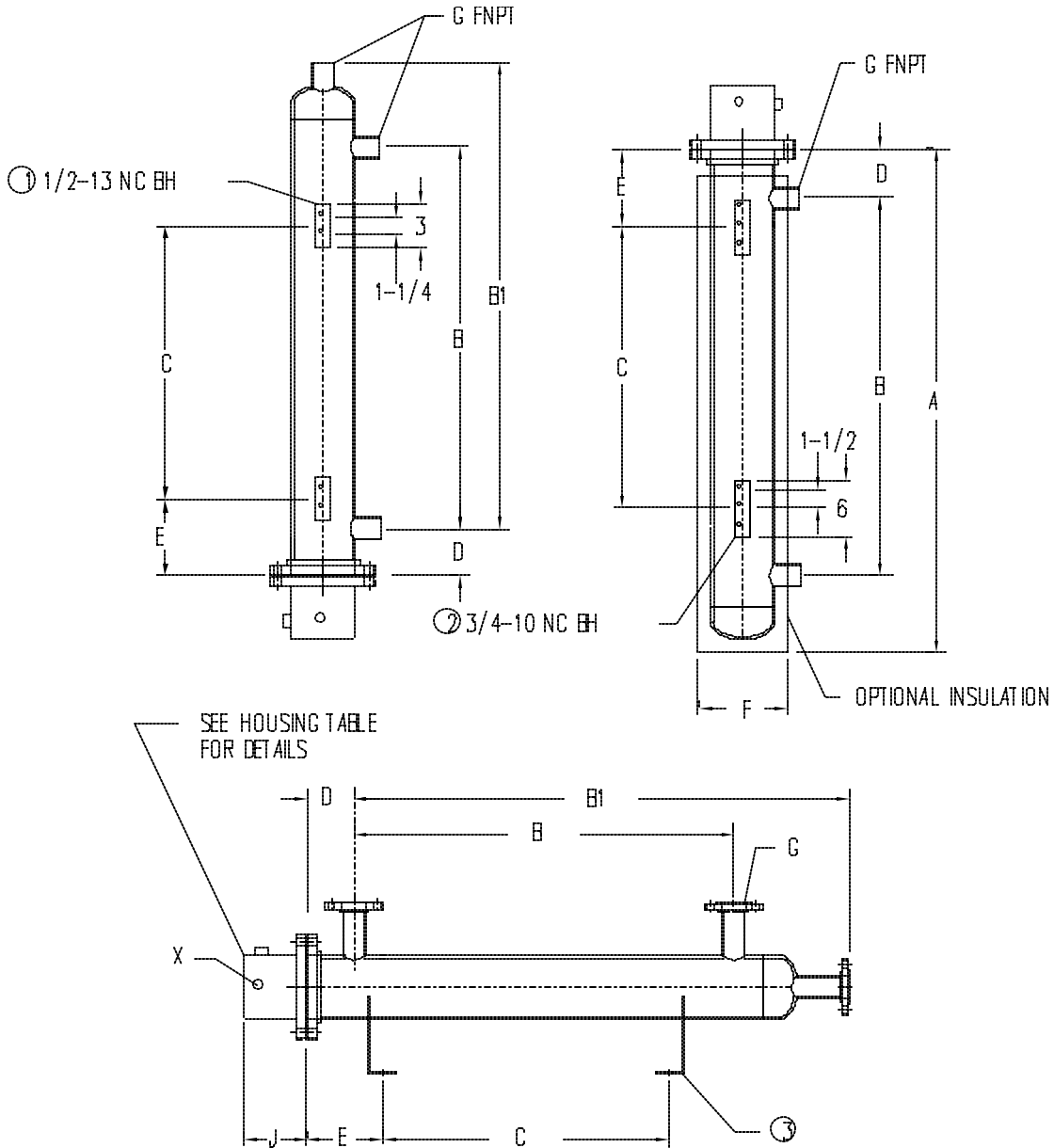
Flange Size (in)	Pressur Class (lb.)	Flange Dimensions (inches)			Hole Size F	No. of Holes G	Min.Hole Diam. H	Housing Height (inches)			X - No and Size Conduit Connection		
		C Thick	D Diam:	E Diam:				J GP:	J ER:	J LT:	GP:	ER:	LT:
2-1/2	150	7/8	5-1/2	7	3/4	4	2-1/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
2-1/2	300	1	5-7/8	7-1/2	7/8	8	2-1/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
3	150	0-15/16	6	7-1/2	3/4	4	2-3/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
3	300	1-1/8	6-5/8	8-1/4	7/8	8	2-3/4	2-5/8	5-1/2	2-5/8	1@1	2@1-1/4	1@1
4	150	0-15/16	7-1/2	9	3/4	8	3-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
4	300	1-1/4	7-7/8	10	7/8	8	3-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
5	150	0-15/16	8-1/2	10	7/8	8	4-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
5	300	1-3/8	9-1/4	11	7/8	8	4-13/16	5-1/2	6-1/2	5-1/2	4@1-1/2	2@1-1/2	4@1-1/2
6	150	1	9-1/2	11	7/8	8	5-3/4	5-1/2	8	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
6	300	1-7/16	10-5/8	12-1/2	7/8	12	5-3/4	5-1/2	8	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
8	150	1-1/8	11-3/4	13-1/2	7/8	8	7-13/16	5-1/2	9	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
8	300	1-5/8	13	15	1	12	7-13/16	5-1/2	9	5-1/2	4@1-1/2	4@1-1/2	4@1-1/2
10	150	1-3/16	14-1/4	16	1	12	9-5/8	7	11	7	4@2	4@2	4@2
10	300	1-7/8	15-1/4	17-1/2	1-1/8	16	9-5/8	7	11	7	4@2	4@2	4@2
12	150	1-1/4	17	19	1	12	11-5/8	7	11	7	4@2	4@2	4@2
12	300	2	17-3/4	20-1/2	1-1/4	16	11-5/8	7	11	7	4@2	4@2	4@2
14	150	1-3/8	18-3/4	21	1-1/8	12	12-1/2	7	11	7	4@2	4@2	4@2
14	300	2-1/8	20-1/4	23	1-1/4	20	12-1/2	7	11	7	4@2	4@2	4@2
16	150	1-7/16	21-1/4	23-1/2	1-1/8	16	14-1/2	9	13	9	4@2	4@2	4@2
16	300	2-1/4	22-1/2	25-1/2	1-3/8	20	14-1/2	9	13	9	4@2	4@2	4@2
18	150	1-9/16	22-3/4	25	1-1/4	16	16-3/8	9	13	9	4@2	4@2	4@2
18	300	2-3/8	24-3/4	28	1-3/8	24	16-3/8	9	13	9	4@2	4@2	4@2
20	150	1-11/16	25	27-1/2	1-1/4	20	18-5/16	9	13	9	4@2	4@2	4@2
20	300	2-1/2	27	30-1/2	1-3/8	24	18-5/16	9	13	9	4@2	4@2	4@2
24	150	1-7/8	29-1/2	32	1-3/8	20	22-1/8	11	15	11	6@2	6@2	6@2
24	300	2-3/4	32	36	1-5/8	24	22-1/8	11	15	11	6@2	6@2	6@2



Circulation Heaters

Type IC

Gaumer Drawing No. IC-300
(Dimension Option Detail)



- ① FOR SIZES 3" THRU 6"
- ② FOR SIZES 8" THRU 14"
- ③ SADDLES OPTIONAL

Circulation Heaters

Type IC

Watt Density: 45

Diameter (in.): 2.5

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,						D = 3 E = N/A		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volts	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)	
C2F3N13H2	4.5	240	19	N/A	N/A	5-1/2	15	1 FNPT	17	2 FNPT	19	1 150#	20	2 150#	
C2F3N13H4	4.5	480	19	N/A	N/A	5-1/2	15	1 FNPT	17	2 FNPT	19	1 150#	20	2 150#	
C2F3N18H2	6	240	23	N/A	N/A	5-1/2	19	1 FNPT	21	2 FNPT	23	1 150#	24	2 150#	
C2F3N18H4	6	480	23	N/A	N/A	5-1/2	19	1 FNPT	21	2 FNPT	23	1 150#	24	2 150#	
C2F3N20H2	7.5	240	26	N/A	N/A	5-1/2	22	1 FNPT	24	2 FNPT	26	1 150#	27	2 150#	
C2F3N20H4	7.5	480	26	N/A	N/A	5-1/2	22	1 FNPT	24	2 FNPT	26	1 150#	27	2 150#	
C2F3N25H2	9	240	31	N/A	N/A	5-1/2	27	1 FNPT	29	2 FNPT	31	1 150#	32	2 150#	
C2F3N25H4	9	480	31	N/A	N/A	5-1/2	27	1 FNPT	29	2 FNPT	31	1 150#	32	2 150#	
C2F3N33H2	12	240	38	N/A	N/A	5-1/2	35	1 FNPT	37	2 FNPT	38	1 150#	39	2 150#	
C2F3N33H4	12	480	38	N/A	N/A	5-1/2	35	1 FNPT	37	2 FNPT	38	1 150#	39	2 150#	
C2F3N40H2	15	240	46	N/A	N/A	5-1/2	42	1 FNPT	44	2 FNPT	46	1 150#	47	2 150#	
C2F3N40H4	15	480	46	N/A	N/A	5-1/2	42	1 FNPT	44	2 FNPT	46	1 150#	47	2 150#	
C2F3N48H2	18	240	53	N/A	N/A	5-1/2	50	1 FNPT	52	2 FNPT	54	1 150#	55	2 150#	
C2F3N48H4	18	480	53	N/A	N/A	5-1/2	50	1 FNPT	52	2 FNPT	54	1 150#	55	2 150#	
C2F3N61H2	25	240	67	N/A	N/A	5-1/2	63	1 FNPT	65	2 FNPT	67	1 150#	67	2 150#	
C2F3N61H4	25	480	67	N/A	N/A	5-1/2	63	1 FNPT	65	2 FNPT	67	1 150#	68	2 150#	
C2F3N78H2	33.3	240	84	N/A	N/A	5-1/2	80	1 FNPT	82	2 FNPT	84	1 150#	85	2 150#	
C2F3N78H4	33	480	84	N/A	N/A	5-1/2	80	1 FNPT	82	2 FNPT	84	1 150#	85	2 150#	
C2F3N88H4	37.5	480	94	N/A	N/A	5-1/2	90	1 FNPT	92	2 FNPT	94	1 150#	95	2 150#	
C2F3N106H4	41.7	480	112	N/A	N/A	5-1/2	108	1 FNPT	110	2 FNPT	112	1 150#	113	2 150#	
C2F3N120H4	45	480	126	N/A	N/A	5-1/2	122	1 FNPT	124	2 FNPT	126	1 150#	127	2 150#	
C2F3N140H4	52.5	480	146	N/A	N/A	5-1/2	142	1 FNPT	144	2 FNPT	146	1 150#	147	2 150#	
C2F3N160H4	60	480	166	N/A	N/A	5-1/2	162	1 FNPT	164	2 FNPT	166	1 150#	167	2 150#	
C2F3N180H4	67.5	480	186	N/A	N/A	5-1/2	182	1 FNPT	184	2 FNPT	186	1 150#	187	2 150#	

Diameter (in.): 3

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,						D = 4 E = 6		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volts	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)	
C3F3N13H2	4.5	240	19-1/2	N/A	7	6-1/2	16	1 FNPT	18	2 FNPT	20	1 150#	21	3 150#	
C3F3N13H4	4.5	480	19-1/2	N/A	7	6-1/2	16	1 FNPT	18	2 FNPT	20	1 150#	21	3 150#	
C3F3N18H2	6	240	24-1/2	N/A	9	6-1/2	21	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#	
C3F3N18H4	6	480	24-1/2	N/A	9	6-1/2	21	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#	
C3F3N20H2	7.5	240	26-1/2	N/A	11	6-1/2	23	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#	
C3F3N20H4	7.5	480	26-1/2	N/A	11	6-1/2	23	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#	
C3F3N25H2	9	240	31-1/2	N/A	16	6-1/2	28	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#	
C3F3N25H4	9	480	31-1/2	N/A	16	6-1/2	28	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#	
C3F3N33H2	12	240	39-1/2	N/A	24	6-1/2	36	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#	
C3F3N33H4	12	480	39-1/2	N/A	24	6-1/2	36	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#	
C3F3N40H2	15	240	46-1/2	N/A	31	6-1/2	43	1 FNPT	45	2 FNPT	47	1 150#	48	3 150#	
C3F3N40H4	15	480	46-1/2	N/A	31	6-1/2	43	1 FNPT	45	2 FNPT	47	1 150#	48	3 150#	
C3F3N48H2	18	240	54-1/2	N/A	39	6-1/2	51	1 FNPT	53	2 FNPT	55	1 150#	56	3 150#	

Circulation Heaters

Type IC

Diameter (in.): 3

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4 E = 6		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C3F3N48H4	18	480	54-1/2	N/A	39	6-1/2	51	1 FNPT	53	2 FNPT	55	1 150#	56	3 150#		
C3F3N61H2	25	240	67-1/2	N/A	52	6-1/2	64	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C3F3N61H4	25	480	67-1/2	N/A	52	6-1/2	64	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C3F3N78H2	33	240	84-1/2	N/A	69	6-1/2	81	1 FNPT	83	2 FNPT	85	1 150#	86	3 150#		
C3F3N78H4	33	480	84-1/2	N/A	69	6-1/2	81	1 FNPT	83	2 FNPT	85	1 150#	86	3 150#		
C3F3N88H4	38	480	94-1/2	N/A	79	6-1/2	91	1 FNPT	93	2 FNPT	95	1 150#	96	3 150#		
C3F3N106H4	42	480	112-1/2	N/A	97	6-1/2	109	1 FNPT	111	2 FNPT	113	1 150#	114	3 150#		
C3F3N120H4	45	480	126-1/2	N/A	111	6-1/2	123	1 FNPT	125	2 FNPT	127	1 150#	128	3 150#		
C3F3N140H4	53	480	146-1/2	N/A	131	6-1/2	143	1 FNPT	145	2 FNPT	147	1 150#	148	2 150#		
C3F3N160H4	60	480	166-1/2	N/A	151	6-1/2	163	1 FNPT	165	2 FNPT	167	1 150#	168	3 150#		
C3F3N180H4	68	480	186-1/2		171	6-1/2	183	1 FNPT	185	2 FNPT	187	1 150#	188	3 150#		

Diameter (in.): 4

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4 E = 6		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C4F6N13H2	9	240	20	9	7	7-1/2	17	1 FNPT	18	2 FNPT	20	1 150#	21	3 150#		
C4F6N13H4	9	480	20	9	7	7-1/2	17	1 FNPT	18	2 FNPT	20	1 150#	21	3 150#		
C4F6N18H2	12	240	25	14	9	7-1/2	22	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#		
C4F6N18H4	12	480	25	14	9	7-1/2	22	1 FNPT	23	2 FNPT	25	1 150#	26	3 150#		
C4F6N20H2	15	240	27	16	11	7-1/2	24	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#		
C4F6N20H4	15	480	27	16	11	7-1/2	24	1 FNPT	25	2 FNPT	27	1 150#	28	3 150#		
C4F6N25H2	18	240	32	21	16	7-1/2	29	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#		
C4F6N25H4	18	480	32	21	16	7-1/2	29	1 FNPT	30	2 FNPT	32	1 150#	33	3 150#		
C4F6N33H2	24	240	40	29	24	7-1/2	37	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#		
C4F6N33H4	24	480	40	29	24	7-1/2	37	1 FNPT	38	2 FNPT	40	1 150#	41	3 150#		
C4F6N40H2	30	240	47	36	31	7-1/2	43	1 FNPT	44	2 FNPT	46	1 150#	47	3 150#		
C4F6N40H4	30	480	47	36	31	7-1/2	43	1 FNPT	44	2 FNPT	46	1 150#	47	3 150#		
C4F6N48H2	36	240	55	44	39	7-1/2	52	1 FNPT	53	2 FNPT	55	1 150#	56	3 150#		
C4F6N48H4	36	480	55	44	39	7-1/2	52	1 FNPT	53	2 FNPT	55	1 150#	56	3 150#		
C4F6N61H2	50	240	68	57	52	7-1/2	65	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C4F6N61H4	50	480	68	57	52	7-1/2	65	1 FNPT	66	2 FNPT	68	1 150#	69	3 150#		
C4F6N78H2	67	240	85	74	69	7-1/2	83	1 FNPT	84	2 FNPT	86	1 150#	87	3 150#		
C4F6N78H4	67	480	85	74	69	7-1/2	83	1 FNPT	84	2 FNPT	86	1 150#	87	3 150#		
C4F6N88H4	19	480	95	84	79	7-1/2	93	1 FNPT	94	2 FNPT	96	1 150#	97	3 150#		
C4F6N106H4	21	480	113	102	97	7-1/2	110	1 FNPT	111	2 FNPT	113	1 150#	114	3 150#		
C4F6N120H4	23	480	127	116	111	7-1/2	124	1 FNPT	125	2 FNPT	127	1 150#	128	3 150#		
C4F6N140H4	105	480	147	136	131	7-1/2	144	1 FNPT	145	2 FNPT	147	1 150#	148	3 150#		
C4F6N160H4	121	480	167	156	151	7-1/2	164	1 FNPT	165	2 FNPT	167	1 150#	168	3 150#		
C4F6N180H4	135	480	187	176	171	7-1/2	184	1 FNPT	185	2 FNPT	187	1 150#	188	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 5

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3							D = 4-1/2		Nozzles		Nozzles		Nozzles		Nozzles	
Dimensions (Inches) A, B, B1, C, D, E,							E = 8		Option 1		Option 2		Option 3		Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C5F6N13H2	9	240	20-3/4	8-1/2	5	8-1/2	18	2 FNPT	19	2-1/2 FNPT	20	2 150#	21	3 150#		
C5F6N13H4	9	480	20-3/4	8-1/2	5	8-1/2	18	2 FNPT	19	2-1/2 FNPT	20	2 150#	21	3 150#		
C5F6N18H2	12	240	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F6N18H4	12	480	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F6N20H2	15	240	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F6N25H2	18	240	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		
C5F6N33H2	24	240	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F6N33H4	24	480	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F6N40H2	30	240	47-3/4	35-1/2	28-3/4	8-1/2	45	2 FNPT	46	2-1/2 FNPT	47	2 150#	48	3 150#		
C5F6N40H4	30	480	47-3/4	35-1/2	28-3/4	8-1/2	45	2 FNPT	46	2-1/2 FNPT	47	2 150#	48	3 150#		
C5F6N48H2	36	240	55-3/4	43-1/2	36-3/4	8-1/2	53	2 FNPT	54	2-1/2 FNPT	55	2 150#	56	3 150#		
C5F6N48H4	36	480	55-3/4	43-1/2	36-3/4	8-1/2	53	2 FNPT	54	2-1/2 FNPT	55	2 150#	56	3 150#		
C5F6N61H2	50	240	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F6N61H4	50	480	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F6N78H2	67	240	85-3/4	73-1/2	66-3/4	8-1/2	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C5F6N78H4	67	480	85-3/4	73-1/2	66-3/4	8-1/2	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C5F6N88H4	75	480	95-3/4	88-1/2	71-3/4	8-1/2	98	2 FNPT	99	2-1/2 FNPT	100	2 150#	101	3 150#		
C5F6N106H4	21	480	113-3/4	101-1/2	94-3/4	8-1/2	111	2 FNPT	112	2-1/2 FNPT	113	2 150#	114	3 150#		
C5F6N120H4	90	480	127-3/4	115-1/2	108-3/4	8-1/2	125	2 FNPT	126	2-1/2 FNPT	127	2 150#	128	3 150#		
C5F6N140H4	105	480	147-3/4	135-1/2	128-3/4	8-1/2	145	2 FNPT	146	2-1/2 FNPT	147	2 150#	148	3 150#		
C5F6N160H4	121	480	167-3/4	155-1/2	148-3/4	8-1/2	165	2 FNPT	166	2-1/2 FNPT	167	2 150#	168	3 150#		
C5F6N180H4	135	480	187-3/4	175-1/2	168-3/4	8-1/2	185	2 FNPT	186	2-1/2 FNPT	187	2 150#	188	3 150#		
C5F9N13H2	14	240	20-3/4	8-1/2	5	8-1/2	18	2 FNPT	19	2-1/2 FNPT	20	2 150#	21	3 150#		
C5F9N13H4	14	480	20-3/4	8-1/2	5	8-1/2	18	2 FNPT	19	2-1/2 FNPT	20	2 150#	21	3 150#		
C5F9N18H2	18	240	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F9N18H4	18	480	25-3/4	13-1/2	10	8-1/2	23	2 FNPT	24	2-1/2 FNPT	25	2 150#	26	3 150#		
C5F9N20H2	23	240	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F9N20H4	23	480	27-3/4	15-1/2	9-1/2	8-1/2	25	2 FNPT	26	2-1/2 FNPT	27	2 150#	28	3 150#		
C5F9N25H2	27	240	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		
C5F9N25H4	27	480	32-3/4	20-1/2	13-3/4	8-1/2	30	2 FNPT	31	2-1/2 FNPT	32	2 150#	33	3 150#		
C5F9N33H2	36	240	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F9N33H4	36	480	40-3/4	28-1/2	21-3/4	8-1/2	38	2 FNPT	39	2-1/2 FNPT	40	2 150#	41	3 150#		
C5F9N40H2	45	240	47-3/4	35-1/2	28-3/4	8-1/2	45	2 FNPT	46	2-1/2 FNPT	47	2 150#	48	3 150#		
C5F9N40H4	45	480	47-3/4	35-1/2	28-3/4	8-1/2	45	2 FNPT	46	2-1/2 FNPT	47	2 150#	48	3 150#		
C5F9N48H2	54	240	55-3/4	43-1/2	36-3/4	8-1/2	53	2 FNPT	54	2-1/2 FNPT	55	2 150#	56	3 150#		
C5F9N48H4	54	480	55-3/4	43-1/2	36-3/4	8-1/2	53	2 FNPT	54	2-1/2 FNPT	55	2 150#	56	3 150#		
C5F9N61H2	75	240	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F9N61H4	75	480	68-3/4	56-1/2	49-3/4	8-1/2	66	2 FNPT	67	2-1/2 FNPT	68	2 150#	69	3 150#		
C5F9N78H2	100	240	85-3/4	73-1/2	66-3/4	8-1/2	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C5F9N78H4	100	480	85-3/4	73-1/2	66-3/4	8-1/2	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C5F9N88H4	113	480	95-3/4	88-1/2	71-3/4	8-1/2	98	2 FNPT	99	2-1/2 FNPT	100	2 150#	101	3 150#		
C5F9N106H4	125	480	113-3/4	101-1/2	94-3/4	8-1/2	111	2 FNPT	112	2-1/2 FNPT	113	2 150#	114	3 150#		
C5F9N120H4	135	480	127-3/4	115-1/2	108-3/4	8-1/2	125	2 FNPT	126	2-1/2 FNPT	127	2 150#	128	3 150#		
C5F9N140H4	158	480	147-3/4	135-1/2	128-3/4	8-1/2	145	2 FNPT	146	2-1/2 FNPT	147	2 150#	148	3 150#		
C5F9N160H4	181	480	167-3/4	155-1/2	148-3/4	8-1/2	165	2 FNPT	166	2-1/2 FNPT	167	2 150#	168	3 150#		
C5F9N180H4	203	480	187-3/4	175-1/2	168-3/4	8-1/2	185	2 FNPT	186	2-1/2 FNPT	187	2 150#	188	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 6

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3							D = 4-1/2		Nozzles		Nozzles		Nozzles		Nozzles	
Dimensions (Inches) A, B, B1, C, D, E,							E = 8		Option 1		Option 2		Option 3		Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C6F12N13H2	18	240	21-1/4	8-1/2	5	9-5/8	19	2 FNPT	19	2-1/2 FNPT	21	2 150#	22	3 150#		
C6F12N13H4	18	480	21-1/4	8-1/2	5	9-5/8	19	2 FNPT	19	2-1/2 FNPT	21	2 150#	22	3 150#		
C6F12N18H2	24	240	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F12N18H4	24	480	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F12N20H2	30	240	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F12N20H4	30	480	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F12N25H2	36	240	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F12N25H4	36	480	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F12N33H2	48	240	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F12N33H4	48	480	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F12N40H2	60	240	48-1/4	35-1/2	28-3/4	9-5/8	46	2 FNPT	46	2-1/2 FNPT	48	2 150#	49	3 150#		
C6F12N40H4	60	480	48-1/4	35-1/2	28-3/4	9-5/8	46	2 FNPT	46	2-1/2 FNPT	48	2 150#	49	3 150#		
C6F12N48H2	72	240	55-1/4	43-1/2	33-3/4	9-5/8	54	2 FNPT	54	2-1/2 FNPT	56	2 150#	57	3 150#		
C6F12N48H4	72	480	55-1/4	43-1/2	33-3/4	9-5/8	54	2 FNPT	54	2-1/2 FNPT	56	2 150#	57	3 150#		
C6F12N61H2	100	240	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F12N61H4	100	480	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F12N78H2	133	240	86-1/4	73-1/2	66-3/4	9-5/8	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C6F12N78H4	133	480	86-1/4	73-1/2	66-3/4	9-5/8	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C6F12N88H4	38	480	96-1/4	83-1/2	76-3/4	9-5/8	94	2 FNPT	94	2-1/2 FNPT	96	2 150#	97	3 150#		
C6F12N106H4	167	480	114-1/4	101-1/2	94-3/4	9-5/8	112	2 FNPT	112	2-1/2 FNPT	114	2 150#	115	3 150#		
C6F12N120H4	180	480	128-1/4	115-1/2	108-3/4	9-5/8	126	2 FNPT	126	2-1/2 FNPT	128	2 150#	129	3 150#		
C6F12N140H4	210	480	148-1/4	135-1/2	128-3/4	9-5/8	146	2 FNPT	146	2-1/2 FNPT	148	2 150#	149	3 150#		
C6F12N160H4	241	480	168-1/4	155-1/2	148-3/4	9-5/8	166	2 FNPT	166	2-1/2 FNPT	168	2 150#	169	3 150#		
C6F12N180H4	270	480	188-1/4	175-1/2	168-3/4	9-5/8	186	2 FNPT	186	2-1/2 FNPT	188	2 150#	189	3 150#		
C6F15N13H2	23	240	21-1/4	8-1/2	5	9-5/8	19	2 FNPT	19	2-1/2 FNPT	21	2 150#	22	3 150#		
C6F15N13H4	23	480	21-1/4	8-1/2	5	9-5/8	19	2 FNPT	19	2-1/2 FNPT	21	2 150#	22	3 150#		
C6F15N18H2	30	240	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F15N18H4	30	480	26-1/4	13-1/2	10	9-5/8	24	2 FNPT	24	2-1/2 FNPT	26	2 150#	27	3 150#		
C6F15N20H2	38	240	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F15N20H4	38	480	28-1/4	15-1/2	9-1/2	9-5/8	26	2 FNPT	26	2-1/2 FNPT	28	2 150#	29	3 150#		
C6F15N25H2	45	240	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F15N25H4	45	480	33-1/4	20-1/2	13-3/4	9-5/8	31	2 FNPT	31	2-1/2 FNPT	33	2 150#	34	3 150#		
C6F15N33H2	60	240	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F15N33H4	60	480	41-1/4	28-1/2	21-3/4	9-5/8	39	2 FNPT	39	2-1/2 FNPT	41	2 150#	42	3 150#		
C6F15N40H2	75	240	48-1/4	35-1/2	28-3/4	9-5/8	46	2 FNPT	46	2-1/2 FNPT	48	2 150#	49	3 150#		
C6F15N40H4	75	480	48-1/4	35-1/2	28-3/4	9-5/8	46	2 FNPT	46	2-1/2 FNPT	48	2 150#	49	3 150#		
C6F15N48H2	90	240	55-1/4	43-1/2	33-3/4	9-5/8	54	2 FNPT	54	2-1/2 FNPT	56	2 150#	57	3 150#		
C6F15N48H4	90	480	55-1/4	43-1/2	33-3/4	9-5/8	54	2 FNPT	54	2-1/2 FNPT	56	2 150#	57	3 150#		
C6F15N61H2	125	240	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F15N61H4	125	480	69-1/4	56-1/2	49-3/4	9-5/8	67	2 FNPT	67	2-1/2 FNPT	69	2 150#	70	3 150#		
C6F15N78H2	167	240	86-1/4	73-1/2	66-3/4	9-5/8	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C6F15N78H4	167	480	86-1/4	73-1/2	66-3/4	9-5/8	84	2 FNPT	85	2-1/2 FNPT	86	2 150#	87	3 150#		
C6F15N88H4	188	480	96-1/4	83-1/2	76-3/4	9-5/8	94	2 FNPT	94	2-1/2 FNPT	96	2 150#	97	3 150#		
C6F15N106H4	209	480	114-1/4	101-1/2	94-3/4	9-5/8	112	2 FNPT	112	2-1/2 FNPT	114	2 150#	115	3 150#		
C6F15N120H4	225	480	128-1/4	115-1/2	108-3/4	9-5/8	126	2 FNPT	126	2-1/2 FNPT	128	2 150#	129	3 150#		
C6F15N140H4	262	480	148-1/4	135-1/2	128-3/4	9-5/8	146	2 FNPT	146	2-1/2 FNPT	148	2 150#	149	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 6

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3							D = 4-1/2		Nozzles		Nozzles		Nozzles		Nozzles	
Dimensions (Inches) A, B, B1, C, D, E,							E = 8		Option 1		Option 2		Option 3		Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C6F15N160H4	301	480	168-1/4	155-1/2	148-3/4	9-5/8	166	2 FNPT	166	2-1/2 FNPT	168	2 150#	169	3 150#		
C6F15N180H4	338	480	188-1/4	175-1/2	168-3/4	9-5/8	186	2 FNPT	186	2-1/2 FNPT	188	2 150#	189	3 150#		

Diameter (in.): 8

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3							D = 4-1/2		Nozzles		Nozzles		Nozzles		Nozzles	
Dimensions (Inches) A, B, B1, C, D, E,							E = 8-1/2		Option 1		Option 2		Option 3		Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C8F18N13H2	27	240	21-3/4	8-1/2	4-1/2	11-5/8	19	2 FNPT	20	2-1/2 FNPT	22	2 150#	22	3 150#		
C8F18N13H4	27	480	21-3/4	8-1/2	4-1/2	11-5/8	19	2 FNPT	20	2-1/2 FNPT	22	2 150#	22	3 150#		
C8F18N18H2	36	240	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F18N18H4	36	480	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F18N20H2	45	240	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F18N20H4	45	480	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F18N25H2	54	240	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F18N25H4	54	480	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F18N33H2	72	240	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F18N33H4	72	480	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F18N40H2	90	240	48-3/4	35-1/2	28-1/4	11-5/8	46	2 FNPT	47	2-1/2 FNPT	49	2 150#	49	3 150#		
C8F18N40H4	90	480	48-3/4	35-1/2	28-1/4	11-5/8	46	2 FNPT	47	2-1/2 FNPT	49	2 150#	49	3 150#		
C8F18N48H2	108	240	56-3/4	43-1/2	36-1/4	11-5/8	54	2 FNPT	55	2-1/2 FNPT	57	2 150#	57	3 150#		
C8F18N48H4	108	480	56-3/4	43-1/2	36-1/4	11-5/8	54	2 FNPT	55	2-1/2 FNPT	57	2 150#	57	3 150#		
C8F18N61H2	150	240	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F18N61H4	150	480	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F18N78H2	200	240	87-1/4	73	65-1/4	11-5/8	84	2 FNPT	85	2-1/2 FNPT	87	2 150#	88	3 150#		
C8F18N78H4	200	480	87-1/4	73	65-1/4	11-5/8	84	2 FNPT	85	2-1/2 FNPT	87	2 150#	88	3 150#		
C8F18N88H4	225	480	97-1/4	83	75-1/4	11-5/8	94	2 FNPT	95	2-1/2 FNPT	96	2 150#	97	3 150#		
C8F18N106H4	250	480	115-1/4	101	93-1/4	11-5/8	112	2 FNPT	113	2-1/2 FNPT	114	2 150#	115	3 150#		
C8F18N120H4	270	480	123-1/4	115	107-1/4	11-5/8	126	2 FNPT	127	2-1/2 FNPT	128	2 150#	129	3 150#		
C8F18N140H4	315	480	149-1/4	135	127-1/4	11-5/8	146	2 FNPT	147	2-1/2 FNPT	148	2 150#	149	3 150#		
C8F18N160H4	361	480	169-1/4	155	147-1/4	11-5/8	166	2 FNPT	167	2-1/2 FNPT	168	2 150#	169	3 150#		
C8F18N180H4	405	480	189-1/4	175	167-1/4	11-5/8	186	2 FNPT	187	2-1/2 FNPT	188	2 150#	189	3 150#		
C8F24N13H2	36	240	21-3/4	8-1/2	4-1/2	11-5/8	19	2 FNPT	20	2-1/2 FNPT	22	2 150#	22	3 150#		
C8F24N13H4	36	480	21-3/4	8-1/2	4-1/2	11-5/8	19	2 FNPT	20	2-1/2 FNPT	22	2 150#	22	3 150#		
C8F24N18H2	48	240	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F24N18H4	48	480	26-3/4	13-1/2	9-1/2	11-5/8	24	2 FNPT	25	2-1/2 FNPT	27	2 150#	27	3 150#		
C8F24N20H2	60	240	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F24N20H4	60	480	28-3/4	15-1/2	11-1/2	11-5/8	26	2 FNPT	27	2-1/2 FNPT	29	2 150#	29	3 150#		
C8F24N25H2	72	240	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F24N25H4	72	480	33-3/4	20-1/2	13-1/4	11-5/8	31	2 FNPT	32	2-1/2 FNPT	34	2 150#	34	3 150#		
C8F24N33H2	96	240	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F24N33H4	96	480	41-3/4	28-1/2	21-1/4	11-5/8	39	2 FNPT	40	2-1/2 FNPT	42	2 150#	42	3 150#		
C8F24N40H2	120	240	48-3/4	35-1/2	28-1/4	11-5/8	46	2 FNPT	47	2-1/2 FNPT	49	2 150#	49	3 150#		
C8F24N40H4	120	480	48-3/4	35-1/2	28-1/4	11-5/8	46	2 FNPT	47	2-1/2 FNPT	49	2 150#	49	3 150#		
C8F24N48H2	144	240	56-3/4	43-1/2	36-1/4	11-5/8	54	2 FNPT	55	2-1/2 FNPT	57	2 150#	57	3 150#		
C8F24N48H4	144	480	56-3/4	43-1/2	36-1/4	11-5/8	54	2 FNPT	55	2-1/2 FNPT	57	2 150#	57	3 150#		

Circulation Heaters

Type IC

Diameter (in.): 8

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 4-1/2 E = 8-1/2		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C8F24N61H2	200	240	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F24N61H4	200	480	70-1/4	56	48-1/4	11-5/8	67	2 FNPT	68	2-1/2 FNPT	69	2 150#	70	3 150#		
C8F24N78H2	267	240	87-1/4	73	65-1/4	11-5/8	84	2 FNPT	85	2-1/2 FNPT	87	2 150#	88	3 150#		
C8F24N78H4	267	480	87-1/4	73	65-1/4	11-5/8	84	2 FNPT	85	2-1/2 FNPT	87	2 150#	88	3 150#		
C8F24N88H4	300	480	97-1/4	83	75-1/4	11-5/8	94	2 FNPT	95	2-1/2 FNPT	96	2 150#	97	3 150#		
C8F24N106H4	333	480	115-1/4	101	93-1/4	11-5/8	112	2 FNPT	113	2-1/2 FNPT	114	2 150#	115	3 150#		
C8F24N120H4	362	480	123-1/4	115	107-1/4	11-5/8	126	2 FNPT	127	2-1/2 FNPT	128	2 150#	129	3 150#		
C8F24N140H4	421	480	149-1/4	135	127-1/4	11-5/8	146	2 FNPT	147	2-1/2 FNPT	148	2 150#	149	3 150#		
C8F24N160H4	483	480	169-1/4	155	147-1/4	11-5/8	166	2 FNPT	167	2-1/2 FNPT	168	2 150#	169	3 150#		
C8F24N180H4	541	480	189-1/4	175	167-1/4	11-5/8	186	2 FNPT	187	2-1/2 FNPT	188	2 150#	189	3 150#		

Diameter (in.): 10

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6-3/4 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C10F27N52H4	162	480	63-1/4	45-1/4	46-3/4	15	60	3 150#	61	4 150#	62	6 150#	63	8 150#		
C10F27N61H4	225	480	72-1/4	54-1/4	53-3/4	15	69	3 150#	70	4 150#	71	6 150#	72	8 150#		
C10F27N78H4	300	480	89-1/4	71-1/4	72-3/4	15	86	3 150#	86	4 150#	87	6 150#	88	8 150#		
C10F27N88H4	337	480	99-1/4	81-1/4	82-3/4	15	96	3 150#	97	4 150#	98	6 150#	99	8 150#		
C10F27N106H4	375	480	117-1/4	99-1/4	100-3/4	15	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C10F27N120H4	405	480	131-1/4	113-1/4	114-3/4	15	128	3 150#	129	4 150#	130	6 150#	131	8 150#		
C10F30N52H4	180	480	63-1/4	45-1/4	46-3/4	15	60	3 150#	61	4 150#	62	6 150#	63	8 150#		
C10F30N61H4	250	480	72-1/4	54-1/4	53-3/4	15	69	3 150#	70	4 150#	71	6 150#	72	8 150#		
C10F30N78H4	333	480	89-1/4	71-1/4	72-3/4	15	86	3 150#	86	4 150#	87	6 150#	88	8 150#		
C10F30N88H4	375	480	99-1/4	81-1/4	82-3/4	15	96	3 150#	97	4 150#	98	6 150#	99	8 150#		
C10F30N106H4	417	480	117-1/4	99-1/4	100-3/4	15	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C10F30N120H4	450	480	131-1/4	113-1/4	114-3/4	15	128	3 150#	129	4 150#	130	6 150#	131	8 150#		
C10F36N33H4	144	480														
C10F36N40H4	180	480														
C10F36N52H4	216	480	63-1/4	45-1/4	46-3/4	15	60	3 150#	61	4 150#	62	6 150#	63	8 150#		
C10F36N78H4	399	480	89-1/4	71-1/4	72-3/4	15	86	3 150#	86	4 150#	87	6 150#	88	8 150#		
C10F36N88H4	450	480	99-1/4	81-1/4	82-3/4	15	96	3 150#	97	4 150#	98	6 150#	99	8 150#		
C10F36N106H4	501	480	117-1/4	99-1/4	100-3/4	15	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C10F36N120H4	541	480	131-1/4	113-1/4	114-3/4	15	128	3 150#	129	4 150#	130	6 150#	131	8 150#		
C10F36N140H4	631	480														
C10F36N160H4	723	480														
C10F36N180H4	811	480														

Diameter (in.): 12

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C12F36N52H4	216	480	63-1/4	46	37-1/4	16	61	3 150#	62	4 150#	63	6 150#	64	8 150#		

Circulation Heaters

Type IC

Diameter (in.): 12

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C12F36N61H4	300	480	72-1/4	55	46-1/4	16	70	3 150#	71	4 150#	72	6 150#	73	8 150#		
C12F36N78H4	400	480	89-1/4	72	63-1/4	16	87	3 150#	88	4 150#	89	6 150#	90	8 150#		
C12F36N88H4	450	480	99-1/4	82	73-1/4	16	97	3 150#	98	4 150#	99	6 150#	100	8 150#		
C12F36N106H4	500	480	117-1/4	100	91-1/4	16	115	3 150#	116	4 150#	117	6 150#	118	8 150#		
C12F36N120H4	540	480	131-1/4	114	105-1/4	16	129	3 150#	130	4 150#	131	6 150#	132	8 150#		
C12F36N140H4	630	480	151-1/4	134	129-1/4	16	149	3 150#	150	4 150#	151	6 150#	152	8 150#		
C12F36N160H4	723	480	171-1/4	154	145-1/4	16	169	3 150#	170	4 150#	171	6 150#	172	8 150#		
C12F36N180H4	810	480	191-1/4	174	165-1/4	16	189	3 150#	190	4 150#	191	6 150#	192	8 150#		
C12F48N52H4	288	480	63-1/4	46	37-1/4	16	61	3 150#	62	4 150#	63	6 150#	64	8 150#		
C12F48N61H4	400	480	72-1/4	55	46-1/4	16	70	3 150#	71	4 150#	72	6 150#	73	8 150#		
C12F48N78H4	533	480	89-1/4	72	63-1/4	16	87	3 150#	88	4 150#	89	6 150#	90	8 150#		
C12F48N88H4	600	480	99-1/4	82	73-1/4	16	97	3 150#	98	4 150#	99	6 150#	100	8 150#		
C12F48N106H4	667	480	117-1/4	100	91-1/4	16	115	3 150#	116	4 150#	117	6 150#	118	8 150#		
C12F48N120H4	720	480	131-1/4	114	105-1/4	16	129	3 150#	130	4 150#	131	6 150#	132	8 150#		
C12F48N140H4	828	480	151-1/4	134	129-1/4	16	149	3 150#	150	4 150#	151	6 150#	152	8 150#		
C12F48N160H4	951	480	171-1/4	154	145-1/4	16	169	3 150#	170	4 150#	171	6 150#	172	8 150#		
C12F48N180H4	1065	480	191-1/4	174	165-1/4	16	189	3 150#	190	4 150#	191	6 150#	192	8 150#		

Diameter (in.): 14

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C14F48N52H4	288	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#		
C14F48N61H4	400	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#		
C14F48N78H4	533	480	89-3/4	72	63-1/4	17	88	3 150#	89	4 150#	90	6 150#	91	8 150#		
C14F48N88H4	600	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#		
C14F48N106H4	667	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#		
C14F48N120H4	720	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#		
C14F48N140H4	840	480	151-3/4	134	129-1/4	17	150	3 150#	151	4 150#	152	6 150#	153	8 150#		
C14F48N160H4	965	480	171-3/4	154	145-1/4	17	170	3 150#	171	4 150#	172	6 150#	173	8 150#		
C14F48N180H4	1080	480	191-3/4	174	165-1/4	17	190	3 150#	191	4 150#	192	6 150#	193	8 150#		
C14F54N52H4	324	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#		
C14F54N61H4	450	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#		
C14F54N78H4	600	480	89-3/4	72	63-1/4	17	88	3 150#	89	4 150#	90	6 150#	91	8 150#		
C14F54N88H4	675	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#		
C14F54N106H4	750	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#		
C14F54N120H4	810	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#		
C14F54N140H4	944	480	151-3/4	134	129-1/4	17	150	3 150#	151	4 150#	152	6 150#	153	8 150#		
C14F54N160H4	1085	480	171-3/4	154	145-1/4	17	170	3 150#	171	4 150#	172	6 150#	173	8 150#		
C14F54N180H4	1214	480	191-3/4	174	165-1/4	17	190	3 150#	191	4 150#	192	6 150#	193	8 150#		
C14F60N52H4	360	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#		
C14F60N61H4	500	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#		
C14F60N78H4	666	480	89-3/4	72	63-1/4	17	88	3 150#	89	4 150#	90	6 150#	91	8 150#		
C14F60N88H4	750	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#		
C14F60N106H4	834	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#		

7/3/2002

Page 11 of 13

Circulation Heaters

Type IC

Diameter (in.): 14

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 6 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C14F60N120H4	900	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#		
C14F60N140H4	1050	480	151-3/4	134	129-1/4	17	150	3 150#	151	4 150#	152	6 150#	153	8 150#		
C14F60N160H4	1206	480	171-3/4	154	145-1/4	17	170	3 150#	171	4 150#	172	6 150#	173	8 150#		
C14F60N180H4	1350	480	191-3/4	174	165-1/4	17	190	3 150#	191	4 150#	192	6 150#	193	8 150#		
C14F72N52H4	432	480	63-3/4	46	37-1/4	17	62	3 150#	63	4 150#	64	6 150#	65	8 150#		
C14F72N61H4	600	480	72-3/4	55	46-1/4	17	71	3 150#	72	4 150#	73	6 150#	74	8 150#		
C14F72N78H4	800	480	89-3/4	72	63-1/4	17	88	3 150#	89	4 150#	90	6 150#	91	8 150#		
C14F72N88H4	900	480	99-3/4	82	73-1/4	17	98	3 150#	99	4 150#	100	6 150#	101	8 150#		
C14F72N106H4	1001	480	117-3/4	100	91-1/4	17	116	3 150#	117	4 150#	118	6 150#	119	8 150#		
C14F72N120H4	1080	480	131-3/4	114	105-1/4	17	130	3 150#	131	4 150#	132	6 150#	133	8 150#		
C14F72N140H4	1260	480	151-3/4	134	129-1/4	17	150	3 150#	151	4 150#	152	6 150#	153	8 150#		
C14F72N160H4	1447	480	171-3/4	154	145-1/4	17	170	3 150#	171	4 150#	172	6 150#	173	8 150#		
C14F72N180H4	1620	480	191-3/4	174	165-1/4	17	190	3 150#	191	4 150#	192	6 150#	193	8 150#		

Diameter (in.): 16

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 8-1/2 E = 10		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C16F84N106H4	1168	480	120-1/4	97-1/2	89-1/4	19	114	3 150#	115	4 150#	116	6 150#	117	8 150#		
C16F84N120H4	1260	480	134-1/4	111-1/2	103-1/4	19	128	3 150#	129	4 150#	130	6 150#	131	8 150#		
C16F84N140H4	1470	480	154-1/4	131-1/2	123-1/4	19	148	3 150#	149	4 150#	150	6 150#	151	8 150#		
C16F84N160H4	1688	480	174-1/4	151-1/2	143-1/4	19	168	3 150#	169	4 150#	170	6 150#	171	8 150#		
C16F84N180H4	1890	480	194-1/4	171-1/2	164-1/4	19	188	3 150#	189	4 150#	190	6 150#	191	8 150#		

Diameter (in.): 18

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 9-1/2 E = 12		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C18F108N106H4	1501	480	122-1/2	96-1/2	86	21	114	3 150#	115	4 150#	116	6 150#	118	8 150#		
C18F108N120H4	1620	480	136-1/2	110-1/2	100	21	127	3 150#	128	4 150#	129	6 150#	131	8 150#		
C18F108N140H4	1890	480	156-1/2	130-1/2	120	21	147	3 150#	148	4 150#	149	6 150#	151	8 150#		
C18F108N160H4	2171	480	176-1/2	150-1/2	140	21	167	3 150#	168	4 150#	169	6 150#	171	8 150#		
C18F108N180H4	2430	480	196-1/2	170-1/2	160	21	187	3 150#	188	4 150#	189	6 150#	191	8 150#		

Diameter (in.): 20

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 9-3/4 E = 12		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C20F144N106H4	2002	480	123-1/2	96-1/4	86	23	115	3 150#	116	4 150#	117	6 150#	119	8 150#		
C20F144N120H4	2160	480	137-1/2	110-1/4	100	23	129	3 150#	130	4 150#	131	6 150#	133	8 150#		
C20F144N140H4	2520	480	157-1/2	130-1/4	120	23	149	3 150#	150	4 150#	151	6 150#	153	8 150#		
C20F144N160H4	2894	480	177-1/2	150-1/4	140	23	169	3 150#	170	4 150#	171	6 150#	173	8 150#		

Circulation Heaters

Type IC

Diameter (in.): 20

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 9-3/4 E = 12		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C20F144N180H4	3240	480	197-1/2	170-1/4	160	23	189	3 150#	190	4 150#	191	6 150#	193	8 150#		

Diameter (in.): 24

Watt Density (w/sq.in.): 45

GCI Circulation Heater Drawing No. IC-3 Dimensions (Inches) A, B, B1, C, D, E,							D = 10-1/2 E = 12		Nozzles Option 1		Nozzles Option 2		Nozzles Option 3		Nozzles Option 4	
Catalog Number	kW	Volt	A	B	C	F	B1	G1(in.)	B1	G2(in.)	B1	G3(in)	B1	G4(in)		
C24F192N106H4	2669	480	126	95-1/2	85	27	116	6 150#	117	8 150#	118	10 150#	120	12 150#		
C24F192N120H4	2880	480	140	109-1/2	99	27	130	6 150#	131	8 150#	132	10 150#	134	12 150#		
C24F192N140H4	3360	480	160	129-1/2	119	27	150	6 150#	151	8 150#	152	10 150#	154	12 150#		
C24F192N160H4	3859	480	180	149-1/2	139	27	170	6 150#	171	8 150#	172	10 150#	174	12 150#		
C24F192N180H4	4320	480	200	169-1/2	159	27	190	6 150#	191	8 150#	192	10 150#	194	12 150#		