

 <b>LCI Furnaces</b> DIVISION OF LOCHABER CORNWALL INC	<b>DATA SHEET</b>			DOC NBR:	21-007	802-101501	RO
	<b>IR FURNACE SYSTEM POWER &amp; CURRENT</b>			MODEL:	RTC LA-306	APVL:	SLB 3/30/16
				SERIAL NBR:	1306039101	CONF:	JMC 9/17/21
	Customer:				PRINT:	12/01/21	SHT

INPUT TABLE	Entry OK?	VALID
Enter Line Voltage: (208,220,230,240)	208 Vac	TRUE
Limit Lamps to Max Rating? (Y/N)	Y	TRUE
Line Frequency (50/60)	60 Hz	TRUE
Number of Phases:	1 Φ	TRUE
Lamp Length (6, 9, 15, 24, 36)	6 inches	TRUE
Typical Operating %	39 %	TRUE

SUMMARY OF RESULTS	
Max Power:	13.8 kW
Max Current:	66.6 A
Typical Power:	5.6 kW
Typical Current:	27.1 A

HARDWARE	
Lamps: 28	SCRs: 6
EMs: 12 LEDs	TCs: 3
EM IDC5: n/a	
Nbr strings 12	
Nbr Lamps in 10" zone: 6	AOV-25: none AITM: none

CONFIGURATION	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	Zone 12	Totals
Length (6.6,7.5,10,14.3,15,20,30) in.	6.6	14.3	6.6										28 in.
Length Entry OK?	TRUE	TRUE	TRUE										
(F)urn., Furn. (1) SCR-Zn, (D)ryer	F	F	F										3
Zone Type OK?	TRUE	TRUE	TRUE										
No. Lamps in Series/String (1-5)	2	3	2										
Lamps/String OK?	TRUE	TRUE	TRUE										
No. Lamps in Top/Bottom Power	4/4	6/6	4/4										Plenum: 110
	F	H	F										
SCR PHASE	Zone Entry OK?	VALID	VALID	VALID									Lamp Balance (kW)
Top Lamp Phase (1/2/3):	1	2	3										Phase 1: 4.8
Bottom Lamp Phase (1/2/3):	1	2	3										Phase 2: 3.9
													Phase 3: 4.8
SCR POWER													<-- Vrms
Rated Lamp Voltage	104	104	104										
Max. Lamp Wired Voltage	104	69	104										
50% Power SCR Cal Span Setting	147	147	147										
Max. Lamp Wired Power (W)	600	321	600										
No. Strings per SCR	2	2	2										
Max. Current per String (A)	5.8	4.6	5.8										
No. Lamps in Zone	8	12	8									28	
No. SCRs in Zone	2	2	2									6	
No. Strings in Furnace Zones	4	4	4									12	
	Nbr. lamp strings per element monitor:												4
Top Lamp Power (kW)	2.4	1.9	2.4										
Bottom Lamp Power (kW)	2.4	1.9	2.4										
Total Power/Zone (kW)	4.8	3.9	4.8									13.5	
Current Required Top SCR (A)	11.5	9.3	11.5										
Current Required Bottom SCR (A)	11.5	9.3	11.5										
Color Temp (K) (nominal: 2500K)	2500	2152	2500										
Peak Wavelength (µm)	1.16	1.35	1.16										
Estimated Lamp Life (hrs)	6000 hr	Long	6000 hr										
Lumen Output vs. Rated (%)	100	27	100										

Furnace Total	Number of Item?	Voltage (Vac)	Current (Amps)	Power (kW)		Phase Assigned	EH in EM? (y/n)	Other Items
				Max	Typical			
Lamps	28	208	as above	13.5	5.2	as above	N	10" Cabinet or CACT Fans, 117 Vac, 0.30/029 A for 50/60 Hz
PC, Monitor	0	117	1.3			1	TRUE	4" Box (Muffin) Fans, product cooling, 117 Vac, 0.16 A
Belt, Opto22, EM	1	117	2.1	0.2	0.2	1		Cross-flow Fans, product cooling, 230 Vac, 1.27 A max
UC (Pump & Gen)		117	10.0					Lower Cabinet Blowers (Impellers), 230 Vac, 0.72 A max
UC (Tank Heater)		117	8.4					H2 Igniters, 120 Vac, 5 A 24 Vdc PS, 120 Vac, 2 A
UCD (Blower)		117	2.0					No more than 8 SCRs/phase per TRx xfmr 24 Vac secondary
UCD (Heater)		208	6.9					TR1: 2 TR2: 2 TR3: 2
Edg Htr 1 Length								EH1 Ω: Current: Cal Span:
Edg Htr 2 Length								EH2 Ω: Current: Cal Span:
Edg Htr 3 Length								EH3 Ω: Current: Cal Span:
Cabinet Vent Fan 10"	1	117	0.29	0.0	0.0	1	OK	Cabinet/CACT/Control Box Fans: 1.25 A
CACT Fans 10"	0	117	0.29					
CACT Fans 4"	4	117	0.16	0.1	0.1	1	OK	
Control Box Fans 4"	2	117	0.16	0.0	0.0	1	OK	
Prod Cooling fans		117	0.16					
Furnace Totals:				13.8	5.6			

  

PHASE	PHASE BALANCING			TOTAL
	1	2	3	
LAMP PWR, kW	4.8	3.9	4.8	13.5
EH/OTHER	0.4	0.0	0.0	0.4
TOTAL	5.2	3.9	4.8	13.8