

# SPECIALTY CRYOCOOLERS

Cold Head Model		CH-204-N	CH-210-N	<b>NEW</b> CH-210L	RDK-400B	RDK-500B	CH-104	CH-110	CH-110LT
1st Stage Capacity	50 Hz	—	—	75 W @ 60 K	54 W @ 40 K	40 W @ 20 K / 80 W @ 30 K	34 W @ ≤77 K	175 W @ ≤77 K	80 W @ ≤40 K
	60 Hz	—	20 W @ 35 K	90 W @ 60 K	70 W @ 40 K	50 W @ 20 K / 95 W @ 30 K	42 W @ ≤77 K	200 W @ ≤77 K	95 W @ ≤40 K
2nd Stage Capacity	50 Hz	2.5 W @ ≤10 K	—	9.5 W @ 20 K	—	—	—	—	—
	60 Hz	3.0 W @ ≤10 K	3.0 W @ 10 K	11 W @ 20 K	—	—	—	—	—
Minimum Temperature <sup>1</sup>		6.5 K	10 K	10 K	<25 K	<14 K	≤40 K	≤40 K	<15 K
Cooldown Time (min) <sup>1</sup>	50 Hz	40	—	<60	<30	<70	<40	<35	<35
	60 Hz	35	60	<60	<30	<70	<30	<30	<30
Weight		7.8 kg (17.2 lbs.)	13.8 kg (30.4 lbs.)	12.1 kg (26.7 lbs.)	16.0 kg (35.3 lbs.)	25.0 kg (55.1 lbs.)	7.9 kg (17.5 lbs.)	13.7 kg (30.2 lbs.)	13.7 kg (30.2 lbs.)
Bakeable Option		•	•	•			•	•	•
<b>Water-Cooled Compressor Options</b>									
HC-4E		•					•	3	
HC-8E		•					•	3	
F-50L/H					•				
F-70L/H		2	•	•	•		2	•	•
F-100L/H									
<b>Air-Cooled Compressor Options</b>									
Zephyr <sup>®</sup>		•					•	3	
CSA-71A					•				
<b>NEW</b> FA-70L/H					•			•	•

# PULSE TUBE CRYOCOOLERS

Cold Head Model		RP-062B2	RP-062B2S	RP-082B2	RP-082B2S	<b>NEW</b> RP-182B2S
1st Stage Capacity	50 Hz	30 W @ 65 K	25 W @ 65 K	40 W @ 45 K	35 W @ 45 K	36 W @ 48 K
	60 Hz	30 W @ 65 K	25 W @ 65 K	40 W @ 45 K	35 W @ 45 K	36 W @ 48 K
2nd Stage Capacity	50 Hz	0.5 W @ 4.2 K	0.4 W @ 4.2 K	1.0 W @ 4.2 K	0.9 W @ 4.2 K	1.5 W @ 4.2 K
	60 Hz	0.5 W @ 4.2 K	0.4 W @ 4.2 K	1.0 W @ 4.2 K	0.9 W @ 4.2 K	1.5 W @ 4.2 K
Minimum Temperature <sup>1</sup>		<3.0 K	<3.0 K	<3.0 K	<3.0 K	<2.8 K
Cooldown Time (min) <sup>1</sup>	50 Hz	<100	<100	<80	<90	<60
	60 Hz	<90	<90	<80	<90	<60
Weight		23.2 kg (51.2 lbs.)	23.5 kg (51.8 lbs.)	25.0 kg (55.1 lbs.)	26.0 kg (57.3 lbs.)	28.0 kg (61.7 lbs.)
<b>Water-Cooled Compressor Options</b>						
HC-4E						
HC-8E						
F-50L/H		•	•			
F-70L/H				•	•	
<b>NEW</b> F-100L/H						•
<b>Air-Cooled Compressor Options</b>						
Zephyr <sup>®</sup>						
CSA-71A						
<b>NEW</b> FA-70L/H				•	•	

1 Lowest temperature and cooldown time are for reference only.  
 2 Up to two (2) cold heads can be operated with the F-70 Compressor.  
 3 Reduced capacities when operated with Zephyr, HC-4E or HC-8E Compressors.  
 Specifications subject to change without notice.  
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# 4K CRYOCOOLERS

Cold Head Model		RDK-101D	RDK-305D	RDK-205D	RDK-408D2	<b>NEW</b> RDE-412D4	RDK-415D
1st Stage Capacity	50 Hz	3.0 W @ 60 K	15 W @ 40 K	3.0 W @ 50 K	40 W @ 43 K	53 W @ 43 K	35 W @ 50 K
	60 Hz	5.0 W @ 60 K	20 W @ 40 K	4.0 W @ 50 K	50 W @ 43 K	60 W @ 43 K	45 W @ 50 K
2nd Stage Capacity	50 Hz	0.1 W @ 4.2 K <sup>1</sup>	0.4 W @ 4.2 K	0.5 W @ 4.2 K	1.0 W @ 4.2 K	1.25 W @ 4.2 K	1.5 W @ 4.2 K
	60 Hz	0.1 W @ 4.2 K <sup>1</sup>	0.4 W @ 4.2 K	0.5 W @ 4.2 K	1.0 W @ 4.2 K	1.25 W @ 4.2 K	1.5 W @ 4.2 K
Minimum Temperature <sup>2</sup>		<3.0 K	<3.5 K	<3.5 K	<3.5 K	<3.5 K	<3.5 K
Cooldown Time (min) <sup>2</sup>	50 Hz	<150	<120	<90	<60	<60	<60
	60 Hz	<150	<120	<90	<60	<60	<60
Weight		7.2 kg (15.9 lbs.) <sup>3</sup>	16.0 kg (35.3 lbs.)	14.0 kg (30.9 lbs.)	18.0 kg (39.7 lbs.)	20.0 kg (44.1 lbs.)	18.5 kg (40.8 lbs.)
Bakeable Option							
<b>Water-Cooled Compressor Options</b>							
HC-4E		•					
CKW-21A				•			
HC-8E							
<b>NEW</b>	F-40L/H		•	•	4		
F-50L/H					•	•	•
F-70L/H					•		•
<b>Air-Cooled Compressor Options</b>							
CNA-11		•					
Zephyr <sup>®</sup>		•					
<b>NEW</b>	FA-40L/H		•	•	4		
CSA-71A					•	•	•
<b>NEW</b>	FA-70L/H				•		•

# 10K CRYOCOOLERS

Cold Head Model		CH-202	CH-204	CH-208R	CH-208L	CH-210	RDK-408S2
1st Stage Capacity	50 Hz	7.3 W @ 77 K	13.5 W @ 77 K	65 W @ 77 K	28 W @ 77 K	110 W @ 77 K	35 W @ 45 K
	60 Hz	8.8 W @ 77 K	16.2 W @ 77 K	80 W @ 77 K	35 W @ 77 K	120 W @ 77 K	40 W @ 45 K
2nd Stage Capacity	50 Hz	1.8 W @ 20 K	6.7 W @ 20 K	6.0 W @ 20 K	8.0 W @ 20 K	6.0 W @ 20 K	5.4 W @ 10 K
	60 Hz	2.2 W @ 20 K	7.1 W @ 20 K	7.0 W @ 20 K	10.0 W @ 20 K	7.0 W @ 20 K	6.3 W @ 10 K
Minimum Temperature <sup>2</sup>		10 K	10 K	10 K	10 K	10 K	<7 K
Cooldown Time (min) <sup>2</sup>	50 Hz	75	35	55	50	35	<60
	60 Hz	65	30	45	40	30	<60
Weight		6.8 kg (15.0 lbs.)	7.8 kg (17.2 lbs.)	11.6 kg (25.6 lbs.)	11.8 kg (26.0 lbs.)	13.8 kg (30.4 lbs.)	17.2 kg (37.9 lbs.)
Bakeable Option		•	•	•	•	•	
<b>Water-Cooled Compressor Options</b>							
HC-4E		•	•				
CKW-21A							
HC-8E			•	•	•		
<b>NEW</b>	F-40L/H						
F-50L/H							•
F-70L/H			5	•	•	•	
<b>Air-Cooled Compressor Options</b>							
CNA-11							
Zephyr <sup>®</sup>		•	•				
<b>NEW</b>	FA-40L/H						
CSA-71A							•
<b>NEW</b>	FA-70L/H						•

1 With HC-4E2 and Zephyr compressors, 2nd stage capacity is 0.16/0.2 W @ 4.2 K (50/60 Hz). 1st stage capacity is 3.0/5.0 W @ 45 K (50/60 Hz).  
 2 Lowest temperature and cooldown time are for reference only.  
 3 Cold Head only. Drive unit weighs 1.0 kg (2.2 lbs.)  
 4 Reduced capacities when operated with F-40 or FA-40 Compressors.  
 5 Up to two (2) cold heads can be operated with the F-70 Compressor.  
 Specifications subject to change without notice.

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