

PULSE TUBE CRYOCOOLERS

		4 K Cryocoolers				
		RP-062B2	RP-062B2S	RP-082B2	RP-082B2S	RP-182B2S
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
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
Minimum Temperature ¹		<3.0 K	<3.0 K	<3.0 K	<3.0 K	<2.8 K
Cooldown Time (min) ¹	50 Hz	<100	<100	<80	<90	<60
	60 Hz	<90	<90	<80	<90	<60
Weight		23.2 kg (51.1 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.)
Water-Cooled Compressor Options						
F-50L/H		•	•			
F-70L/H				•	•	
F-100L/H						•
Air-Cooled Compressor Options						
FA-70L/H				2	2	






SINGLE-STAGE GM CRYOCOOLERS

		20K Cryocoolers	40 K Cryocoolers		77 K Cryocoolers			
		NEW RDK-500B2	RDK-400B	CH-110LT	RD-125D	CH-104	CH-110	NEW CH-160D2
1st Stage Capacity	50 Hz	45 W @ 20 K	54 W @ 40 K	80 W @ 40 K	30 W @ 77 K	34 W @ 77 K	175 W @ 77 K	525 W @ 77 K
	60 Hz	50 W @ 20 K	70 W @ 40 K	95 W @ 40 K	30 W @ 77 K	42 W @ 77 K	200 W @ 77 K	630 W @ 77 K
Minimum Temperature ¹		<14 K	<25 K	<15 K	<30 K	≤40 K	≤40 K	<35 K
Cooldown Time (min) ¹	50 Hz	<50	<30	<35	<25	<40	<35	<20
	60 Hz	<45	<30	<30	<25	<30	<30	<20
Weight		25.0 kg (55.1 lbs.)	16.0 kg (35.3 lbs.)	13.8 kg (30.5 lbs.)	15.0 kg (33.1 lbs.)	7.9 kg (17.5 lbs.)	13.7 kg (30.2 lbs.)	36.0 kg (79.4 lbs.)
Water-Cooled Compressor Options								
F-20L NEW						•		
F-40L/H				2		•	2	
F-50L/H				•				
F-70L/H		•		•		3	•	4
F-100L/H								5
Air-Cooled Compressor Options								
CNA-11					•			
FA-20L NEW						•		
FA-40L/H							2	
FA-70L/H			•	•			•	

1 Lowest temperature and cooldown time are for reference only.
 2 Reduced capacities when operated with FA-70 Compressor.
 Specifications subject to change without notice.
 © SHI Cryogenics Group 8/23

1 Lowest temperature and cooldown time are for reference only.
 2 Reduced capacities when operated with F-40 or FA-40 Compressors.
 3 Up to two (2) cold heads can be operated with the F-70 Compressor.
 4 Requires two (2) F-70 Compressors.
 5 Reduced capacities when operated with F-100 Compressors.
 Specifications subject to change without notice.

TWO-STAGE GM CRYOCOOLERS

		2 K Cryocooler	4 K Cryocoolers							6.5K Cryocooler	10 K Cryocoolers							
		RDC-02K	RDK-101D(L)	RDK-305D2	RDK-205D2	RDK-408D2	RDE-412D4	RDK-415D2	RDE-418D4	CH-204-N	CH-202	CH-204	CH-208R	CH-208L	CH-210	CH-210L	CH-210-N	RDK-408S
2nd Stage Capacity	50 Hz	0.02 W @ 2.3 K	0.16 W @ 4.2 K ¹	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	1.8 W @ 4.2 K	2.5 W @ ≤10 K	1.8 W @ 20 K	7.5 W @ 20 K	6.0 W @ 20 K	8.0 W @ 20 K	6.0 W @ 20 K	9.5 W @ 20 K	—	5.4 W @ 10 K
	60 Hz	0.02 W @ 2.3 K	0.2 W @ 4.2 K ¹	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	2.0 W @ 4.2 K	3.0 W @ ≤10 K	2.2 W @ 20 K	9.0 W @ 20 K	7.5 W @ 20 K	10.0 W @ 20 K	7.0 W @ 20 K	11 W @ 20 K	3.0 W @ 10 K	6.3 W @ 10 K
1st Stage Capacity	50 Hz	1 W @ 60 K	3.0 W @ 45 K	15 W @ 40 K	3.0 W @ 50 K	40 W @ 43 K	53 W @ 43 K	35 W @ 50 K	42 W @ 50 K	—	7.3 W @ 77 K	13.5 W @ 80 K	65 W @ 77 K	28 W @ 77 K	110 W @ 77 K	75 W @ 60 K	—	30 W @ 45 K
	60 Hz	3 W @ 60 K	5.0 W @ 45 K	20 W @ 40 K	4.0 W @ 50 K	50 W @ 43 K	60 W @ 43 K	45 W @ 50 K	50 W @ 50 K	—	8.8 W @ 77 K	16.2 W @ 80 K	80 W @ 77 K	35 W @ 77 K	120 W @ 77 K	90 W @ 60 K	20 W @ 35 K	35 W @ 45 K
Minimum Temperature ²		<2.2 K	<3.0 K (RDK-101D)/ <2.3 K (RDK-101DL)	<3.5 K	<3.5 K	<3.5 K	<3.5 K	<3.5 K	<3.5 K	6.5 K	10 K	10 K	10 K	10 K	10 K	10 K	10 K	<7 K
Cooldown Time (min) ²	50 Hz	<90	<150	<120	<90	<60	<60	<60	<60	40	75	35	55	50	60	<60	—	<60
	60 Hz	<65	<150	<120	<90	<60	<60	<60	<60	35	65	30	45	40	50	<60	60	<60
Weight		6.9 kg (15.2 lbs.)	7.2 kg (15.9 lbs.) ³	16.0 kg (35.3 lbs.)	14.0 kg (30.9 lbs.)	18.0 kg (39.7 lbs.)	18.5 kg (40.8 lbs.)	18.5 kg (40.8 lbs.)	20.0 kg (44.1 lbs.)	7.8 kg (17.2 lbs.)	7.2 kg (16.0 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.)	12.1 kg (26.7 lbs.)	13.8 kg (30.4 lbs.)	17.2 kg (37.9 lbs.)
Bakeable Option										•	•	•	•	•	•	•	•	
Water-Cooled Compressor Options																		
F-20L 			•							•	•	•						
F-40L/H				•	•		4						•	•				
F-50L/H						•	•	•	•									•
F-50SL/SH 							•	•	•									
F-70L/H						•	•	•	•	5		5	•	•	•	•	•	
Air-Cooled Compressor Options																		
CNA-11		•	•															
FA-20L 			•							•	•	•						
FA-40L/H				•	•		4											
FA-50L/H 						•	•	•	•									•
FA-50SL/SH 							•	•	•									
FA-70L/H						•	•	•	•									•

1 With CNA-11 compressor, 2nd stage capacity is 0.1 W @ 4.2 K (50/60 Hz). 1st stage capacity is 3.0/5.0 W @ 60 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.

Visit us anytime, worldwide. www.shicryogenics.com