

Circulating Fluid Temperature Controller

Eldro-Chiller

Standard Type

Temperature stability ± 0.1 °C / Compact

The precision temperature control method by expansion valve and temperature sensor, realized high temperature stability of ± 0.1 °C and a small-size tank.

Model	Cooling capacity (50 Hz)	Size (mm)	Weight	Set temperature range
PWN-015	1100 W	L 498 x W 497 x H 680	~ 45 kg	5°C to 40°C
PWN-020	1700 W			
PWN-025	2100 W			
PWN-030	2600 W	L 450 x W 721 x H 930	~ 52 kg	
PWN-050	4700 W	L 450 x W 721 x H 930	~ 75 kg	
PWN-060	5300 W	L 450 x W 721 x H 930		

- Single-phase 100 VAC (50 / 60 Hz),
115 VAC (60 Hz)
- Single-phase 200 to 230 VAC (50 / 60 Hz)



Series PWN



Eldro-Chiller **Standard Type**

Single-phase 100 / 115 VAC

Series *PWN*

Air-cooled refrigeration

015	Cooling capacity 1100 / 1300 W (50 / 60 Hz)
020	Cooling capacity 1500 / 1700 W (50 / 60 Hz)



Model		PWN-015-A-10	PWN-020-A-10	
Cooling method		Air-cooled refrigeration		
Refrigerant		R407C (HFC)		
Control method		PID control		
Ambient temperature/humidity		Temperature: 5 to 40 °C, High temperature environment specification (option): 5 to 45 °C, Humidity: 30 to 70 %		
Circulating fluid system	Circulating fluid	Tap water, 15 % ethylene glycol aqueous solution		
	Set temperature range °C	5 to 40		
	Cooling capacity (50 / 60 Hz) W	1100 / 1300	1500 / 1700	
	Heating capacity (50 / 60 Hz) W	360 / 450		
	Temperature stability °C	±0.1		
	Pump	Rated flow (50 / 60 Hz) l/min	7 (0.13 MPa)/7 (0.18 MPa)	
		Maximum flow rate (50 / 60 Hz) l/min	27 / 29	
		Maximum pump head (50 / 60 Hz) m	14 / 19	
		Output W	200	
	Tank capacity L	Approx. 5		
Port size	Rc 1/2			
Fluid contact material	Stainless steel, Copper (Heat exchanger brazing), Bronze, Alumina ceramic, Carbon, PP, PE, POM, FKM, EPDM, PVC			
Electrical system	Power supply	Single-phase 100 VAC (50 / 60 Hz), 115 VAC (60 Hz) Allowable voltage range ±10 %		
	Circuit protector A	15		
	Applicable earth leakage breaker capacity A	15		
	Rated operating current A	7.5 / 8.3	7.7 / 8.4	
	Rated power consumption (50 / 60 Hz) kVA	0.7 / 0.8	0.8 / 0.8	
Noise level (50 / 60 Hz) dB	58 / 55			
Weight kg	40			

Eldro-Chiller **Standard Type**

Single-phase 100 / 115 VAC

Series **PWN**

Water-cooled refrigeration



015	Cooling capacity 1100 / 1300 W (50 / 60 Hz)
020	Cooling capacity 1500 / 1700 W (50 / 60 Hz)

Model		PWN-015-W-10	PWN-020-W-10	
Cooling method		Air-cooled refrigeration		
Refrigerant		R407C (HFC)		
Control method		PID control		
Ambient temperature/humidity		Temperature: 5 to 40 °C, High temperature environment specification (option): 5 to 45 °C, Humidity: 30 to 70 %		
Circulating fluid system	Circulating fluid	Tap water, 15 % ethylene glycol aqueous solution		
	Set temperature range °C	5 to 40		
	Cooling capacity (50 / 60 Hz) W	1100 / 1300	1500 / 1700	
	Heating capacity (50 / 60 Hz) W	360 / 450		
	Temperature stability °C	±0.1		
	Pump	Rated flow (50 / 60 Hz) l/min	7 (0.13 MPa)/7 (0.18 MPa)	
		Maximum flow rate (50 / 60 Hz) l/min	27 / 29	
		Maximum pump head (50 / 60 Hz) m	14 / 19	
		Output W	200	
	Tank capacity L	Approx. 5		
	Port size	Rc 1/2		
Fluid contact material	Stainless steel, Copper (Heat exchanger brazing), Bronze, Alumina ceramic, Carbon, PP, PE, POM, FKM, EPDM, PVC			
Facility Water system	Temperature range °C	5 to 40		
	Pressure range Mpa	0.3 to 0.5		
	Required flow rate (50 / 60 Hz) l/min	8	12	
	Inlet-outlet pressure differential of facility water Mpa	0.3 or more		
	Port size	Rc 3/8		
Fluid contact material	Stainless steel, Copper (Heat exchanger brazing), Bronze, Synthetic rubber			
Electrical system	Power supply	Single-phase 100 VAC (50 / 60 Hz), 115 VAC (60 Hz) Allowable voltage range ±10 %		
	Circuit protector A	15		
	Applicable earth leakage breaker capacity A	15		
	Rated operating current A	7.5 / 8.3	7.7 / 8.4	
	Rated power consumption (50 / 60 Hz) kVA	0.7 / 0.8	0.8 / 0.8	
Noise level (50 / 60 Hz) dB	58 / 55			
Weight kg	40			

Eldro-Chiller **Standard Type**

Single-phase 200 to 230 VAC

Series **PWN**

Air-cooled refrigeration

015	Cooling capacity 1100 / 1300 W (50 / 60 Hz)
020	Cooling capacity 1500 / 1700 W (50 / 60 Hz)
025	Cooling capacity 2100 / 2400 W (50 / 60 Hz)
030	Cooling capacity 2600 / 3200 W (50 / 60 Hz)
050	Cooling capacity 4700 / 5100 W (50 / 60 Hz)
060	Cooling capacity 5300 / 5900 W (50 / 60 Hz)



Model		PWN-015-A-20	PWN-020-A-20	PWN-025-A-20	PWN-030-A-20	PWN-050-A-20	PWN-060-A-20	
Cooling method		Air-cooled refrigeration						
Refrigerant		R407C (HFC)			R410A (HFC)			
Control method		PID control						
Ambient temperature/humidity		Temperature: 5 to 40 °C, High temperature environment specification (option): 5 to 45 °C, Humidity: 30 to 70 %						
Circulating fluid system	Circulating fluid	Tap water, 15 % ethylene glycol aqueous solution						
	Set temperature range °C	5 to 40						
	Cooling capacity (50 / 60 Hz) W	1100 / 1300	1700 / 1900	2100 / 2400	2600 / 3200	4700 / 5100	5300 / 5900	
	Heating capacity (50 / 60 Hz) W	530 / 650			600 / 640	1100 / 1400	1000 / 1300	
	Temperature stability °C	±0.1						
	Pump	Rated flow (50 / 60 Hz) l/min	7 (0.13 MPa)/7 (0.18 MPa)			23 (0.24 MPa)/28 (0.32 MPa)	23 (0.21 MPa)/28 (0.29 MPa)	
		Maximum flow rate (50 / 60 Hz) l/min	27 / 29			34 / 40	31 / 42	29 / 38
		Maximum pump head (50 / 60 Hz) m	14 / 19			50		
		Output W	200			550		
	Tank capacity L	Approx. 5						
Port size	Rc 1/2							
Fluid contact material	Stainless steel, Copper (Heat exchanger brazing), Bronze, Alumina ceramic, Carbon, PP, PE, POM, FKM, EPDM, PVC							
Electrical system	Power supply	Single-phase 200 to 230 VAC (50 / 60 Hz) Allowable voltage range ±10 %						
	Circuit protector A	10			20	30		
	Applicable earth leakage breaker capacity A	10			20	30		
	Rated operating current A	4.6 / 5.1	4.7 / 5.2	5.1 / 5.9	5.2 / 6.0	8 / 11	8.9 / 11.5	
	Rated power consumption (50 / 60 Hz) kVA	0.9 / 1.0	0.9 / 1.0	1.0 / 1.2	1.0 / 1.2	1.7 / 2.2	1.8 / 2.3	
Noise level (50 / 60 Hz) dB	60 / 61			62 / 65	65 / 68	66 / 68		
Weight kg	45			52	75			

Eldro-Chiller **Standard Type**

Single-phase 200 to 230 VAC

Series PWN

Water-cooled refrigeration

015	Cooling capacity 1100 / 1300 W (50 / 60 Hz)
020	Cooling capacity 1500 / 1700 W (50 / 60 Hz)
025	Cooling capacity 2100 / 2400 W (50 / 60 Hz)
030	Cooling capacity 2600 / 3200 W (50 / 60 Hz)
050	Cooling capacity 4700 / 5100 W (50 / 60 Hz)
060	Cooling capacity 5300 / 5900 W (50 / 60 Hz)



Model		PWN-015-W-20	PWN-020-W-20	PWN-025-W-20	PWN-030-W-20	PWN-050-W-20	PWN-060-W-20			
Cooling method		Water-cooled refrigeration								
Refrigerant		R407C (HFC)				R410A (HFC)				
Control method		PID control								
Ambient temperature/humidity		Temperature: 5 to 40 °C, High temperature environment specification (option): 5 to 45 °C, Humidity: 30 to 70 %								
Circulating fluid system	Circulating fluid	Tap water, 15 % ethylene glycol aqueous solution								
	Set temperature range °C	5 to 40								
	Cooling capacity (50 / 60 Hz) W	1100 / 1300	1700 / 1900	2100 / 2400	2600 / 3200	4700 / 5100	5300 / 5900			
	Heating capacity (50 / 60 Hz) W	530 / 650			400 / 600		1000 / 1300			
	Temperature stability °C	±0.1								
	Pump	Rated flow (50 / 60 Hz) l/min	7 (0.13 MPa)/7 (0.18 MPa)				23 (0.24 MPa)/28 (0.32 MPa)		23 (0.21 MPa)/28 (0.29 MPa)	
		Maximum flow rate (50 / 60 Hz) l/min	27 / 29			34 / 40		31 / 42		29 / 38
		Maximum pump head (50 / 60 Hz) m	14 / 19				50			
		Output W	200				550			
	Tank capacity L	Approx. 5								
Port size	Rc 1/2									
Fluid contact material	Stainless steel, Copper (Heat exchanger brazing), Bronze, Alumina ceramic, Carbon, PP, PE, POM, FKM, EPDM, PVC									
Facility water system	Temperature range °C	5 to 40								
	Pressure range Mpa	0.3 to 0.5								
	Required flow rate (50 / 60 Hz) l/min	8	12	14	15	16	17			
	Inlet-outlet pressure differential of facility water Mpa	0.3 or more								
	Port size	Rc 3/8								
Fluid contact material	Stainless steel, Copper (Heat exchanger brazing), Bronze, Synthetic rubber									
Electrical system	Power supply	Single-phase 200 to 230 VAC (50 / 60 Hz) Allowable voltage range ±10 %								
	Circuit protector A	10				20				
	Applicable earth leakage breaker capacity A	10				20				
	Rated operating current A	4.6 / 5.1	4.7 / 5.2	5.1 / 5.9	5.2 / 6.0	7.6 / 10	7.6 / 70.4			
	Rated power consumption (50 / 60 Hz) kVA	0.9 / 1.0	0.9 / 1.0	1.0 / 1.2	1.0 / 1.2	1.5 / 2.0	1.5 / 2.1			
Noise level (50 / 60 Hz) dB	60 / 61			62 / 65		65 / 68	66 / 68			
Weight kg	45			52		75				

Application Examples

Application Examples	Heat source	Automotive	Light electrical appliance	Food	Machinery	Medical	Semiconductor
Arc welding machine	Torch	√			√		
Resistance welding machine	Tip	√	√		√		
Laser welding machine	Oscillator	√	√		√		√
UV curing device	Lamp	√	√	√		√	
X-ray instrument			√			√	√
Electronic microscope	Lens		√			√	√
Laser marker	Oscillator	√	√	√		√	√
Ultra sonic wave inspection machine		√	√		√		
Atomizing device / Crushing equipment	Blade			√			
Linear motor	Motor	√			√		
Packaging machines (food products)	Dies/Welded portions			√			
Mold cooling	Mold	√	√	√		√	
Temperature control of adhesive and paint material	Paint material / Welding materials	√	√	√			
Cooling of vacuum pump	Pump	√					√
Shrink fit machine	Workpiece	√			√		
Gas cylinder cabinet							√
Concentrating equipment	Test liquid			√		√	
Reagent cooling equipment	Reagent			√		√	√
Cleaning machine (hydrocarbon-based)	Cleaning tank	√	√		√		
Printing machine	Roller		√	√	√		√
Chamber electrode	Electrode						
High frequency induction heating equipment	Power supply/Heating coil	√			√		



ISO-9001:2015
 ISO-13485:2016
 Comply to AS-9100
 Comply to MIL-STD



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