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Guide to Selecting Control Units According to Functions

You can easily find and select the control unit you need.

Excluding the PSCC Series, PSB4 Series, and PSB3-30024.

PD4/PD4-A Series	PD3 Series	PD2 Series	CD-VA Series	CC-ST-1024	POD Series	CN-EPOE Series	CN-4024-2-EIPT	PTU2 Series	PB-2430-1	PF Series
Refer to P. 291 .	Refer to P. 299 .	Refer to P. 307 .	Refer to P. 311 .	Refer to P. 335 .	Refer to P. 317 .	Refer to P. 329 .	Refer to P. 331 .	Refer to P. 321 .	Refer to P. 333 .	Dedicated Light Units ▶ P.129 Refer to P. 323 .

▶ Search by Power Supply

★ Control units recommended by CCS

- **AC input**
  - ★ **PD4/PD4-A** Series
  - ★ **PD3** Series
  - **PD2** Series
- **DC input**
  - ★ **PD3** Series
  - ★ **CD-VA** Series
  - **CC-ST-1024**
  - **CN-4024-2-EIPT**
  - **PB-2430-1**
- **PoE input**
  - ★ **CN-EPOE** Series
- **PC-mounted board type**
  - ★ **CX-PV** Series

▶ Search by Capacity

Actual capacity varies depending on the product. Refer to the corresponding product specifications for details.

- **100 W**: ★ **PD4/PD4-A** Series, **PD3** Series
- **50 W**: ★ **PD4** Series, **PD3/PD2** Series, **CD-VA** Series
- **40 W**: **CN-4024-2-EIPT**
- **30 W**: ★ **PD4-A** Series, **PD3** Series, **PD2** Series, **PB-2430-1**
- **10 W** (Capacity): ★ **CC-ST-1024**, **CN-EPOE** Series, **PD2** Series

▶ Search by Number of Channels

- 1 2 3 4 5 6 7 8: ★ **PD4-A** Series, **PD3** Series
- 1 2 3 4: ★ **PD4/PD4-A** Series, **PD3** Series, **PD2** Series, **CD-VA** Series, **CN-EPOE** Series
- 1 2: ★ **PD4/PD4-A** Series, **CD-VA** Series, **CN-4024-2-EIPT**
- 1 (Number of channels): ★ **CC-ST-1024**, **PB-2430-1**

▶ Search by External Control

- If you want prompt control by receiving set values in a batch:
  - **Parallel communication**
    - ★ **PD4/PD4-A** Series
    - **PD3** Series
    - **PD2** Series
    - **CD-VA** Series
- If you want to individually manage multi-drop wiring:
  - **Serial communication**
    - EIA-485
    - **PD3** Series
- If you want to manage the control units from an upper level network:
  - **Ethernet communication**
    - TCP/IP UDP/IP
    - ★ **PD4/PD4-A** Series
    - **PD3** Series
    - **CD-VA** Series
    - **CN-EPOE** Series
  - **Ethernet communication**
    - EtherNet/IP
    - TCP/IP
    - **CN-4024-2-EIPT**

▶ Search by ON/OFF Control

- Use when continuously emitting light:
  - **Continuous lighting**
    - ★ **PD4/PD4-A** Series
    - **PD3** Series
    - **PD2** Series
    - **CD-VA** Series
    - **CC-ST-1024**
    - **CN-EPOE** Series
    - **CN-4024-2-EIPT**
    - **PB-2430-1**
- Use for emitting light only when necessary:
  - **ON/OFF lighting**
    - ★ **PD4/PD4-A** Series
    - **PD3** Series
    - **PD2** Series
    - **CD-VA** Series
    - **CC-ST-1024**
    - **CN-4024-2-EIPT**
- Use for emitting light momentarily:
  - **Strobe lighting**
    - **No overdrive**
      - ★ **PD4/PD4-A** Series
      - **PD3** Series
      - **CC-ST-1024**
      - **CN-EPOE** Series
      - **CN-4024-2-EIPT**
      - (Continuous emitting type)
    - If you want to emit light brighter than ON/OFF lighting or strobe lighting without overdrive:
      - **Overdrive specifications**
        - Light emission is made even brighter by increasing the output to light units for a short time.
        - ★ **POD** Series **CD-VA** Series
        - **CN-4024-2-EIPT**
        - **PTU2** Series
        - **PF** Series (Used with dedicated light units for strobe emitting) ▶ P.129

Guide to Selecting Control Units for the Spot Lights HLV Series

PD3 Series	PJ2 Series	PJ Series	CC-PJ-0707
Refer to P. 299 .	Refer to P. 337 .	Refer to P. 339 .	Refer to P. 341 .

Search by Output Voltage

Selection is not necessary.

Search by Capacity

If you want to use the HLV3 Series, check the input current of the spot light and select the applicable control unit.
Also note that you cannot connect multiple spot lights with a branch cable.

If you are connecting any light units other than the spot lights HLV Series to the PD3 Series, be sure to check that the total power consumption of the light unit is within the output power of the control unit before using.

★ Control units recommended by CCS

*1 The PD3-3024-3 and PD3-5024-3 Series are not applicable to the spot lights HLV Series.
*2 The HLV3-4M/HLV3-4S/HLV3-22-4-NR/HLV3-3M-RGB-4 must be used with the PJ2 Series.

▶ Search by Power Supply

- **AC input**
  - ★ **PD3** Series*1
  - ★ **PJ2** Series*2
  - **PJ** Series
- **DC input**
  - ★ **PD3** Series*1
  - **PJ** Series
  - **CC-PJ-0707**

▶ Search by Number of Channels

- 1 2 3 4 5 6 7 8: ★ **PD3** Series*1
- 1 2 3 4: ★ **PJ2** Series*2
- 1 2 3: **PJ** Series
- 1 (Number of channels): ★ **CC-PJ-0707**

▶ Search by External Control

- If you want to individually manage IP addresses from an upper level network:
  - **Ethernet communication**
    - TCP/IP UDP/IP
    - ★ **PD3** Series*1
    - ★ **PJ2** Series*2
- If you want prompt control by receiving set values in a batch:
  - **Parallel communication**
    - ★ **PD3** Series*1
    - ★ **PJ2** Series*2
- If you want to control intensity by analog voltage:
  - **Analog input**
    - ★ **PJ** Series
- If you want to individually manage multi-drop wiring:
  - **Serial communication**
    - EIA-485
    - ★ **PD3** Series*1

▶ Search by Intensity Control Method

- **Variable-current control**
  - ★ **PD3** Series*1
  - ★ **PJ2** Series*2
  - **PJ** Series
  - **CC-PJ-0707**

▶ Search by ON/OFF Control

- Use when continuously emitting light:
  - **Continuous lighting**
    - ★ **PD3** Series*1
    - ★ **PJ2** Series*2
    - **PJ** Series
    - **CC-PJ-0707**
- Use for emitting light only when necessary:
  - **ON/OFF lighting**
    - ★ **PD3** Series*1
    - ★ **PJ2** Series*2
    - **PJ** Series
    - **CC-PJ-0707**
- Use for emitting light momentarily:
  - **Strobe lighting**
    - ★ **CC-PJ-0707**
    - No overdrive

Refer to the Technical Guide on P. 396 for details regarding the technical structure and meanings of terminology for PWM, variable voltage and other types of control.

List of Control Unit Specifications

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Digital Control Units　Analog Control Units　Excluding the PF Series, PJ2 Series, PJ Series, and CC-PJ-0707.

Model name	PD4-6024-2-P	PD4-6024-2-E	PD4-6024-4-P	PD4-6024-4-E	PD4-12024-2-P	PD4-12024-2-E	PD4-12024-4-P	PD4-12024-4-E
Output voltage	24 V							
Output power	60 W				120 W			
Number of channels	2		4		2		4	
Lighting method	Continuous / Strobe lighting							
Intensity control method	PWM control / Lighting time control							
PWM frequency	125 kHz							
Intensity value	1,024 or 256 levels							
Input voltage	100 to 240 VAC							
Frequency	50 / 60 Hz							
Power consumption	155 VA	152 VA	155 VA	152 VA	170 VA	168 VA	170 VA	168 VA
Parallel communication	○	—	○	—	○	—	○	—
EIA-485 communication	—							
Ethernet	—	○	—	○	—	○	—	○
RS-232C communication	—							
USB communication	○							
Analog input	—							
Manual control	○							
ON/OFF lighting	○							
Strobe lighting	○ (no overdrive)							
Lighting time	0 to 992 µs (in steps of 8 µs) or 0 to 40 ms (in steps of 1 ms)							
Lighting delay time	0 to 999 µs or 0 to 1,000 ms							
CE marking	○							
Weight	1.5 kg							
Cooling method	Natural air cooling							
Mounting method	DIN rail and bottom mounting							
Relevant page	P.291							

Model name	PD3-5024-4-PI(A)	PD3-5024-4-SI(A)	PD3-5024-4-EI(A)	PD3-10024-8-PI	PD3-10024-8-SI(A)	PD3-10024-8-EI(A)
Output voltage	24 V					
Output power	46 W			95 W		
Number of channels	4			8		
Lighting method	Continuous / Strobe lighting					
Intensity control method	PWM control / Lighting time control					
PWM frequency	125 kHz					
Intensity value	256 levels					
Input voltage	100 to 240 VAC					
Frequency	50 / 60 Hz					
Power consumption	70 VA			130 VA		
Parallel communication	○	—	—	○	—	
EIA-485 communication	—	○	—		○	—
Ethernet	—		○	—		○
RS-232C communication	—					
USB communication	—					
Analog input	—					
Manual control	○					
ON/OFF lighting	○					
Strobe lighting	○ (no overdrive)					
Lighting time	40 µs / 80 µs / 120 µs / 200 µs / 600 µs / 1 ms / 4 ms / 10 ms / 20 ms / 40 ms					
Lighting delay time	20 µs max.					
CE marking	○					
Weight	1.2 kg				1.5 kg	
Cooling method	Forced cooling					
Mounting method	DIN rail and bottom mounting					
Relevant page	P.299					

Model name	PD4-3024A-2-P	PD4-3024A-2-E	PD4-3024A-4-P	PD4-3024A-4-E	PD4-12024A-8-P	PD4-12024A-8-E	PD3-3024-3-PI	PD3-3024-3-SI(A)	PD3-3024-3-EI(A)
Output voltage	24 V						24 V		
Output power	30 W				120 W		28 W		
Number of channels	2		4		8		3		
Lighting method	Continuous / Strobe lighting						Continuous / Strobe lighting		
Intensity control method	PWM control / Lighting time control						PWM control / Lighting time control		
PWM frequency	Select from 125 kHz / 500 kHz						125 kHz		
Intensity value	1,024 or 256 levels*1						256 levels		
Input voltage	100 to 240 VAC						100 to 240 VAC		
Frequency	50 / 60 Hz						50 / 60 Hz		
Power consumption	82 VA	84 VA	82 VA	84 VA	165 VA	168 VA	78 VA		
Parallel communication	○	—	○	—	○	—	○	—	
EIA-485 communication	—						—	○	—
Ethernet	—	○	—	○	—	○	—		○
RS-232C communication	—						—		
USB communication	○						—		
Analog input	—						—		
Manual control	○						○		
ON/OFF lighting	○						○		
Strobe lighting	○ (no overdrive)						○ (no overdrive)		
Lighting time	8 to 992 µs (in steps of 8 µs) or 1 to 40 ms (in steps of 1 ms)						40 µs / 80 µs / 120 µs / 200 µs / 600 µs / 1 ms / 4 ms / 10 ms / 20 ms / 40 ms		
Lighting delay time	0 to 999 µs or 1 to 1,000 ms						10 µs max.		
CE marking	○*2						○		
Weight	620 g				1.3 kg		600 g		
Cooling method	Natural air cooling						Natural air cooling		
Mounting method	DIN rail and bottom mounting						DIN rail and bottom mounting		
Relevant page	P.291						P.299		

*1 256 levels when selecting PWM frequency 500 kHz.
*2 CE compliance is conditional for PWM frequency 500 kHz. For details, please refer to the operation manual.

Model name	PD3-3024-3-PT	PD3-3024-3-ET(A)	PD3-5024-3-PT	PD3-5024-3-ET(A)	PD3-5024-4-PT(A)	PD3-5024-4-ET(A)
Output voltage	24 V					
Output power	28 W		48 W		46 W	
Number of channels	3				4	
Lighting method	Continuous / Strobe lighting					
Intensity control method	PWM control / Lighting time control					
PWM frequency	125 kHz					
Intensity value	256 levels					
Input voltage	24 VDC					
Frequency	—					
Power consumption	32 W		52 W			
Parallel communication	○	—	○	—	○	—
EIA-485 communication	—					
Ethernet	—	○	—	○	—	○
RS-232C communication	—					
USB communication	—					
Analog input	—					
Manual control	○					
ON/OFF lighting	○					
Strobe lighting	○ (no overdrive)					
Lighting time	40 µs / 80 µs / 120 µs / 200 µs / 600 µs / 1 ms / 4 ms / 10 ms / 20 ms / 40 ms					
Lighting delay time	10 µs max.				20 µs max.	
CE marking	○					
Weight	400 g				850 g	
Cooling method	Natural air cooling				Forced cooling	
Mounting method	DIN rail and bottom mounting					
Relevant page	P.299					

List of Control Unit Specifications

List of Control Unit Specifications

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Digital Control Units　Analog Control Units　Excluding the PF Series, PJ2 Series, PJ Series, and CC-PJ-0707.

Model name	PD2-1024(A)	PD2-3024(A)	PD2-3024-2(A)	PD2-3024-4(A)	PD2-3024-8(A)	PD2-5024(A)
Output voltage	24 V					
Output power	9 W	28 W		27 W	25 W	46 W
Number of channels	1	2		4	8	1
Lighting method	Continuous lighting					
Intensity control method	PWM control					
PWM frequency	62.5 kHz					
Intensity value	256 levels					
Input voltage	100 to 120 VAC					
Frequency	50/60 Hz					
Power consumption	27 VA	78 VA				122 VA
Parallel communication	○					
EIA-485 communication	—					
Ethernet	—					
RS-232C communication	—					
USB communication	—					
Analog input	—					
Manual control	○					
ON/OFF lighting	○					
Strobe lighting	—					
Lighting time	—					
Lighting delay time	—					
CE marking	○					
Weight	700 g	1.1 kg		1.2 kg	1.5 kg	1.3 kg
Cooling method	Natural air cooling					Forced cooling
Mounting method	Bottom mounting	Bottom and side mounting				
Relevant page	P.307					

Model name	CD-VA10024-2P	CD-VA10024-2PE	CD-VA20024-4P	CD-VA20024-4PE	POD-5024-2-PEI	POD-22024-4-PEI
Output voltage	PWM mode: 24 V Strobe mode: 48 V*3 Variable-voltage mode: LOW: 12 to 24 V, HIGH: 18 to 24 V				24 V to 48 V (Overdrive mode)	
Output power	100 W (Max. 50 W for each channel)		200 W (Max. 50 W for each channel)		See specifications table on P.319 *5	
Number of channels	2		4		2	4
Lighting method	Continuous / Strobe lighting (overdrive when lighting time is 1,000 µs or less)				Strobe / Continuous lighting	
Intensity control method	PWM control / Variable-voltage control				Variable-voltage control / PWM control	
PWM frequency	100 kHz or 130 kHz				125 kHz	
Intensity value	1,000 levels				512 levels	
Input voltage	24 VDC				100 to 240 VAC	
Frequency	—				50/60 Hz	
Power consumption	250 W max.		500 W max.		65 VA	260 VA
Parallel communication	○				○	
EIA-485 communication	—				—	
Ethernet	—	○	—	○	○	
RS-232C communication	○				—	
USB communication	○				—	
Analog input	—				—	
Manual control	○				○	
ON/OFF lighting	○				○	
Strobe lighting	○ (with overdrive *4)				○ (with overdrive)	
Lighting time	At PWM frequency 100 kHz: 10 µs to 999 µs (10 µs steps), 1 ms to 999 ms (1 ms steps) At PWM frequency 130 kHz: 7.7 µs to 7,684.6 µs (7.7 µs steps), 1 ms to 999 ms (1 ms steps)				1 to 1,000 µs (1 µs steps)	
Lighting delay time	0 µs to 999 µs				0 to 1,000 µs (1 µs steps)	
CE marking	○				○	
Weight	260 g	360 g	260 g	360 g	1.5 kg	3.3 kg
Cooling method	Natural air cooling				Forced cooling	
Mounting method	DIN rail and bottom mounting				Bottom mounting	
Relevant page	P.311				P.317	

*3 Automatically switches to 24 VDC drive when strobe lighting time exceeds 1 ms. Also uses 48 VDC drive when strobe lighting time is 1,000 µs (µs steps selected).
*4 Overdrive is unavailable in variable-voltage mode.
*5 Confirm the peak current of the LED lights and use them within the output current of the control unit. For information on the combination of control units and LED lights, please refer to our website.

Model name	CN-4024-2-EIPT	PTU2-3024(A)	CX-PV6024-4X	CX-PV12024-4X	CN-1024-2-EPOE	CN-1024-4-EPOE	CC-ST-1024
Output voltage	24 V or 48 V (Overdrive)	48 V	24 V		24 V		24 V
Output power	See specifications table on P.332 *5	27 W	60 W	120 W	Channel total: 10 W		10 W
Number of channels	2	2	4		2	4	1
Lighting method	Strobe / Continuous lighting	Strobe lighting	Continuous / Strobe lighting		Continuous / Strobe lighting		Continuous / Strobe lighting
Intensity control method	Lighting time control / PWM control	Lighting time control	PWM control / Variable-voltage control *6		PWM control / Lighting time control		PWM control / Lighting time control
PWM frequency	125 kHz	—	125 kHz		125 kHz		100 kHz
Intensity value	512 levels	10% to 100%	1,024 levels		256 levels		100 levels
Input voltage	24 VDC	100 to 240 VAC	PCI Express auxiliary power supply (6-pin)	PCI Express auxiliary power supply (8-pin)	RJ-45 connector (based on PoE)		24 VDC
Frequency	—	50/60 Hz	—		—		—
Power consumption	45 W (average), 71.3 W (peak)	78 VA	75 W	150 W	13.9 W		11 W
Parallel communication	—	○	—		—		—
EIA-485 communication	—	—	—		—		—
Ethernet	○*5	—	—		○		—
RS-232C communication	—	—	—		—		—
USB communication	—	—	—		—		—
Analog input	—	—	—		—		—
Manual control	○	○	—		—		○
ON/OFF lighting	—	—	○		○		○
Strobe lighting	○ (with overdrive)	○ (with overdrive)	○ (no overdrive)		○ (no overdrive)		○ (no overdrive)
Lighting time	See Instruction Manual	10 to 990 µs (10 µs steps)	During PWM control: 0 to 992 µs (8 µs steps) or 1 ms to 40 ms (1 ms steps) During variable-voltage control: 0 to 999 µs or 1 ms to 40 ms (1 ms steps)		8 µs to 100 ms (8 µs steps)		50 µs/100 µs/ 250 µs/500 µs/ 1 ms/4 ms/ 10 ms/40 ms
Lighting delay time	0 to 10,000 µs (1 µs steps)	15 µs max.	0 to 999 µs or 1 to 1,000 ms max.		0 µs to 100 ms (10 µs steps)		3 µs max.
CE marking	○	○	—		○		○
Weight	500 g	1.2 kg	200 g	230 g	140 g		80 g
Cooling method	Natural air cooling	Natural air cooling	Natural air cooling		Natural air cooling		Natural air cooling
Mounting method	DIN rail mounting	Bottom mounting	PCI Express x1		DIN rail and bottom mounting		DIN rail mounting
Relevant page	P.331	P.321	P.327		P.329		P.335

Model name	PSCC-30048(A)	PSCC-60048(A)	PSB4-30024-PEI	PSB4-60024-2-PEI	PSB3-30024
Output voltage	43 V		24 V		24 V
Output power	300 W	600 W	300 W	300 W (1 channel max.)	300 W
Number of channels	1		1	2	1
Lighting method	Continuous lighting				
Intensity control method	Variable-current control		Variable-voltage control		
PWM frequency	—		—		—
Intensity value	256 or 1,000 levels		256 or 1,024 levels		256 levels
Input voltage	100 to 240 VAC				
Frequency	50/60 Hz				
Power consumption	360 VA	750 VA	388 VA	765 VA	410 VA
Parallel communication	○		○		○
EIA-485 communication	○		—		○
Ethernet	○		○		—
RS-232C communication	—		—		—
USB communication	—		—		—
Analog input	—		—		○
Manual control	○				
ON/OFF lighting	○				
Strobe lighting	—		—		—
Lighting time	—		—		—
Lighting delay time	—		—		—
CE marking	○				
Weight	3.1 kg	7.0 kg	2.4 kg	4.1 kg	2.3 kg
Cooling method	Forced cooling				
Mounting method	Bottom mounting				
Relevant page	P.343		P.345		P.347

*5 Confirm the peak current of the LED lights and use them within the output current of the control unit. For information on the combination of control units and LED lights, please refer to our website.
*6 When using variable-voltage control, the intensity value settings are shared across all channels.

List of Control Unit Specifications