



Preassembled UL-rated multipurpose control cabinets

A comprehensive range of lighting control solutions

This range of ready-to-deploy control solutions include a variety of Philips Dynalite DIN rail devices, installed and wired together inside a robust, wall-mountable steel cabinet.

Control options include 0-10V, DALI, forward/reverse-phase dimming, and relay switching. The addition of one or more network gateway cabinets provides powerful, secure connectivity and integration capabilities.

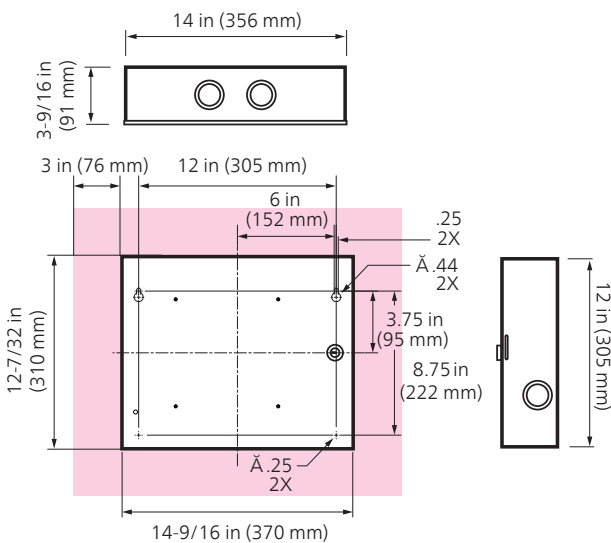
Preassembled UL-rated multipurpose control cabinets

A comprehensive range of lighting control solutions

- **Ready for immediate installation** – Eliminate the hassle of assembling cabinets in the field and save on installation and commissioning costs.
- **Made in the USA** – Assembled, programmed, and tested in the factory to provide complete out-of-the-box functionality in a NEMA 1 rated enclosure.
- **Fully scalable** – Connect any combination of cabinets to meet the requirements of even the most demanding projects in a single networked control system.
- **0-10V/DALI Broadcast control** – Up to 24 control outputs per cabinet, individually configurable to 0-10V or DALI Broadcast.
- **DALI-2 control** – Up to 3 DALI lines per cabinet with full support for addressing, tunable white, and RGBWAF*, as well as an inbuilt DALI power supply and driver power management.
- **Phase dimming control** – Up to 16 forward- or reverse-phase channels per cabinet.
- **Relay switching control** – Up to 24 relay outputs per cabinet.
- **Modular multipurpose control** – Populate up to 8 module bays per cabinet with any combination of forward/reverse-phase dimming, 1-10 V, DALI Broadcast, relay switching, and motorized curtain/blind control.
- **RS-485 network gateway** – Connect optically isolated network spurs and enable a range of third-party integration options including AV systems, building automation, Modbus power meters, and DMX512 lighting.
- **Ethernet gateway** – Enable LAN connectivity for commissioning and system management, an integrated web server for browser-based control and monitoring, and a huge range of enhanced functionality and integration options.

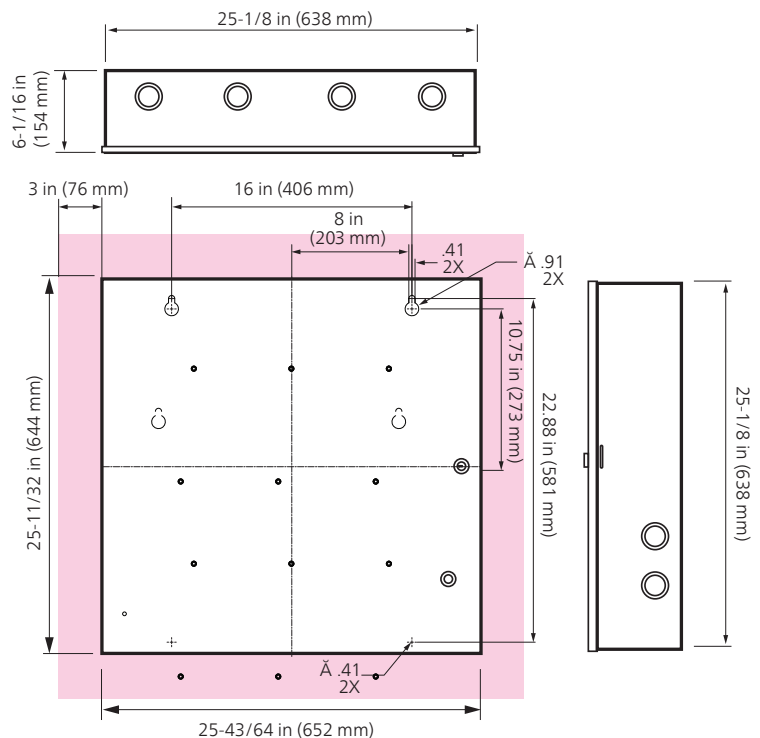
* DDBC320-DALI only.

Dimensions (ULC1)



■ Indicates minimum clearance required.

Dimensions (ULC2)



Specifications

Due to continuous improvements and innovations, specifications may change without notice.



Preassembled UL-rated multipurpose control cabinets

Electrical

Cabinet Supply	100-277 VAC @ 0.5 A
DBC320-DALI-ENC, PDEG-S-ENC	100-240 VAC @ 0.5 A
All Others	
DyNet Output	12 or 24 VDC (SELV/Class 2) Refer to Installation Instructions
IEC Overvoltage Category	III

Physical

ULC1 Dimensions (H x W x D)	12 ⁷ / ₃₂ x 14 ⁹ / ₁₆ x 3 ⁹ / ₁₆ in 310 x 370 x 91 mm
ULC2 Dimensions (H x W x D)	25 ¹ / ₃₂ x 25 ⁴³ / ₆₄ x 6 ¹ / ₁₆ in 644 x 652 x 154 mm
Construction	Steel wall mount enclosure Textured powder coat finish
Color	Raven Black (Cardinal Paint BK59)
Supply Terminals	3 x screw terminal
Supply Terminal Conductor Size	12-10 AWG (3-5 mm ²) Solid/stranded copper only
Relay Terminal Minimum Conductor Size	
ULC1	10 AWG (5 mm ²)
ULC2	12 AWG (3 mm ²)
DALI Terminal Conductor Size (-DALI cabinets only)	16 AWG (1.5 mm ²)

Packed Weight

DRC1220FR-GL-ENC	11.89 lb (5.39 kg)
DRC2420FR-GL-ENC	13.46 lb (6.11 kg)
DBC1220-GL-ENC	13.72 lb (6.22 kg)
DBC2420-GL-ENC	43.40 lb (19.69 kg)
DBC516FR-ENC	11.41 lb (5.18 kg)
DBC120-DALI-ENC	11.27 lb (5.11 kg)
DBC320-DALI-ENC	11.27 lb (5.11 kg)
DRPC802-ENC	11.65 lb (5.28 kg)
DRPC1602-ENC	13.50 lb (6.12 kg)
DFPC802-ENC	11.98 lb (5.43 kg)
DFPC1602-ENC	14.16 lb (6.42 kg)
DMPC802-ENC	11.40 lb (5.17 kg)
DMPC1602-ENC	13.01 lb (5.90 kg)
DNG485-ENC	10.90 lb (4.94 kg)
PDEG-ENC	10.87 lb (4.93 kg)
PDEG-S-ENC	11.22 lb (5.09 kg)

Environment*

Operating Temperature:

DRC1220/2420FR-GL-ENC DNG485-ENC PDEG-S-ENC	32° to 122°F ambient (0° to 50°C)
DBC1220/2420-GL-ENC DBC516FR-ENC DxPC802/1602-ENC	32° to 104°F ambient (0° to 40°C)
DBC120-DALI-ENC PDEG-ENC	-4° to 122°F ambient (-20° to 50°C)
DBC320-DALI-ENC	-13° to 122°F ambient (-25° to 50°C)

Storage/Transport Temperature:

ALL	13° to 158°F ambient (-25° to 70°C)
Relative Humidity	0 to 90% non-condensing
IEC Pollution Degree	II

Compliance

Certification	UL/cUL, FCC, RoHS T24, IECC, and ASHRAE compliant for building codes**
NEMA Rating	NEMA 1 Type 1

* For indoor installation only

** It is the responsibility of the local authority under jurisdiction to validate compliance against building codes.



Variants

Cabinet part code	Cabinet type	Included Devices	Output Description	Derated Total Box Load
DRC1220FR-GL-ENC	ULC 1	DDRC1220FR-GL	12 x 20 A Relay Outputs	130 A
DRC2420FR-GL-ENC	ULC 1	2 x DDRC1220FR-GL	24 x 20 A Relay Outputs	130 A per DDRC1220FR-GL
DBC1220-GL-ENC	ULC 1	DDBC1200	12 x 1-10 V/DALI Broadcast Outputs (12 x DALI Lines)	420 mA
		DDRC1220FR-GL	12 x 20 A Relay Outputs	130 A
DBC2420-GL-ENC	ULC 2	2 x DDBC1200	12 x 1-10 V/DALI Broadcast Outputs (12 x DALI Lines)	420 mA per DDBC1200
		2 x DDRC1220FR-GL	24 x 20 A Relay Outputs	130 A per DDRC1220FR-GL
DBC516FR-ENC	ULC 1	DDBC516FR	5 x 16 A Relay Outputs 5 x 1-10 V/DALI Outputs (1 x DALI Line)	11 A per relay output 160 mA per driver output
DBC120-DALI-ENC	ULC 1	DDBC120-DALI	1 x 16 A Relay Output 1 x DALI Addressable Output	11 A per relay output 160 mA per driver output
DBC320-DALI-ENC	ULC 1	DDBC320-DALI	3 x 16 A Relay Outputs 3 x DALI Addressable Outputs	11 A per relay output 160 mA per driver output
DRPC802-ENC	ULC 1	DDMC802	Modular Controller with selectable modules	10 A
		2 x DGTM402 modules	8 x 2 A Reverse-Phase Outputs	
DRPC1602-ENC	ULC 1	2 x DDMC802	Modular Controllers with selectable modules	10 A per DDMC802
		4 x DGTM402 modules	16 x 2 A Reverse-Phase Outputs	
DFPC802-ENC	ULC 1	DDMC802	Modular Controller with selectable modules	10 A
		2 x DGLM402 modules	8 x 2 A Forward-Phase Outputs	
DFPC1602-ENC	ULC 1	2 x DDMC802	Modular Controllers with selectable modules	10 A per DDMC802
		4 x DGLM402 modules	16 x 2 A Forward-Phase Outputs	
DMPC802-ENC	ULC 1	DDMC802 (No modules fitted)	Modular Controller with selectable modules	10 A
DMPC1602-ENC	ULC 1	2 x DDMC802 (No modules fitted)	Modular Controllers with selectable modules	10 A per DDMC802
DNG485-ENC	ULC 1	DDNG485	1 x RS-485 DyNet (12 VDC) 1 x RS-485 DyNet/DMX512 (12 VDC)	200 mA (Port 2 output)
		DSP10-15	15 VDC	670 mA (90-264 VAC supply) 670 mA (120-370 VDC supply)
PDEG-ENC	ULC 1	PDEG	1 x Ethernet (10/100 BaseT) 1 x RS-485 DyNet (12 V)	200 mA (RS-485 output)
		DSP10-15	15 VDC	670 mA (90-264 VAC supply) 670 mA (120-370 VDC supply)
PDEG-S-ENC	ULC 1	PDDEG-S (BACnet Gateway)	1 x Ethernet (10/100 BaseT), BACnet 1 x RS-485 DyNet (12 VDC)	300 mA (RS-485 output)

DDRC1220FR-GL Output Channel Ratings

Load Type	Maximum Rating per Output
	CH1-CH12
General Use Incandescent Standard Driver Single-Pole Driver	16 A, 277 VAC (UL)
Electronic Driver	16 A, 277 VAC
Motor	16 FLA (1 HP), 120 VAC 14.5 FLA (2 ½ HP), 240 VAC 14.1 FLA (3 HP), 277 VAC
Inrush Current	500 A

If CH-CH voltage = 277/480 V, you must leave a one channel gap between channels when they are on different phases.

Therefore, to use Channel 1 it must be on the same phase as the supply terminals.

DDBC1200 Control Channel Ratings

DALI Broadcast	Channel	Device
Guaranteed Current	160 mA	
Maximum Current	250 mA	
Maximum Drivers	80	300
Insulation	Basic	
DSI		
Maximum Drivers	80	300
0-10 V		
Sink	50 mA	
Source	50 mA	

DDBC520FR

Control Channel Ratings

DALI Broadcast	Channel	Device
Guaranteed Current	20 mA	
Maximum Current	250 mA	
Maximum Drivers	10	50
Insulation	Basic	
DSI		
Maximum Drivers	10	50
0-10 V		
Sink	10 mA	
Source	10 mA	

Output Channel Ratings

Load Type	Maximum Rating per Output
	CH1-CH5
General Use Incandescent Standard Driver Electronic Driver	16 A, 277 VAC
Motor	16 FLA (1 HP), 120 VAC 14.5 FLA (2 ½ HP), 240 VAC 14.1 FLA (3 HP), 277 VAC
Pilot Duty	6 A, 120 VAC 3 A, 240 VAC 2.6 A, 277 VAC

DDMC802 Module Output Channel Ratings

DGTM402 - 4 x 2 A Reverse-phase dimmer module

Load Type	Maximum Rating per Output
	CH1-CH2
Incandescent	2 A, 120 VAC (UL)
Electronic Driver	

Not compatible with magnetic transformers. Apply de-rating for electronic and LED loads.

DGLM402 - 4 x 2 A Forward-phase dimmer module

Load Type	Maximum Rating per Output
	CH1-CH2
Incandescent	2 A, 120 VAC (UL)
Electronic Driver*	
Magnetic with Halogen	

* Can be limited by load capacitance. Apply de-rating for electronic and LED loads.

DDBC120-DALI

Control Channel Ratings

DALI Addressable	Channel
Guaranteed Current	220 mA
Maximum Current	250 mA
Maximum Drivers	64
Insulation	Basic

Auto restart on DALI output overload or short circuit.

Output Channel Ratings

Load Type	Maximum Rating
Electronic Driver	16 A, 277 VAC (UL)
Inrush Current	500 A

DDBC320-DALI

Control Channel Ratings

DALI Addressable	Channel	Device
Guaranteed Current	220 mA	
Maximum Current	250 mA	
Maximum Drivers	64	192
Insulation	Basic	

Auto restart on DALI output overload or short circuit.

Output Channel Ratings

Load Type	Maximum Rating per Channel CH1-CH3
Electronic Driver	16 A, 277 VAC (UL)
Pilot Duty	6 A, 120 VAC 3 A, 240 VAC 2.6 A, 277 VAC
Inrush Current	500 A

Maximum Input Devices/Drivers Per DALI Line

Devices	10	11	12	13	14	15	16
Drivers	64	59	54	49	44	39	34

Ordering Codes

Device	12NC
DRC1220FR-GL-ENC	913703376209
DRC2420FR-GL-ENC	913703376309
DBC1220-GL-ENC	913703376009
DBC2420-GL-ENC	913703376109
DBC516FR-ENC	913703375909
DBC120-DALI-ENC	913703375709
DBC320-DALI-ENC	913703375809
DRPC802-ENC	913703378709
DRPC1602-ENC	913703378909
DFPC802-ENC	913703378809
DFPC1602-ENC	913703379009
DMPC802-ENC	913703375309
DMPC1602-ENC	913703375409
DNG485-ENC	913703376409
PDEG-ENC	913703379109
PDEG-S-ENC	913703376509

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