DBC1220GL

Signal Dimmer Controller

Wall mount multi-protocol control solution for large lighting loads

The Philips Dynalite DBC1220GL is a 12-channel signal dimmer controller, featuring a maximum of load of 20 A per channel and a total device load of 180 A. It is designed for use with DALI, 1-10 V and DSI dimmable drivers and transformers.
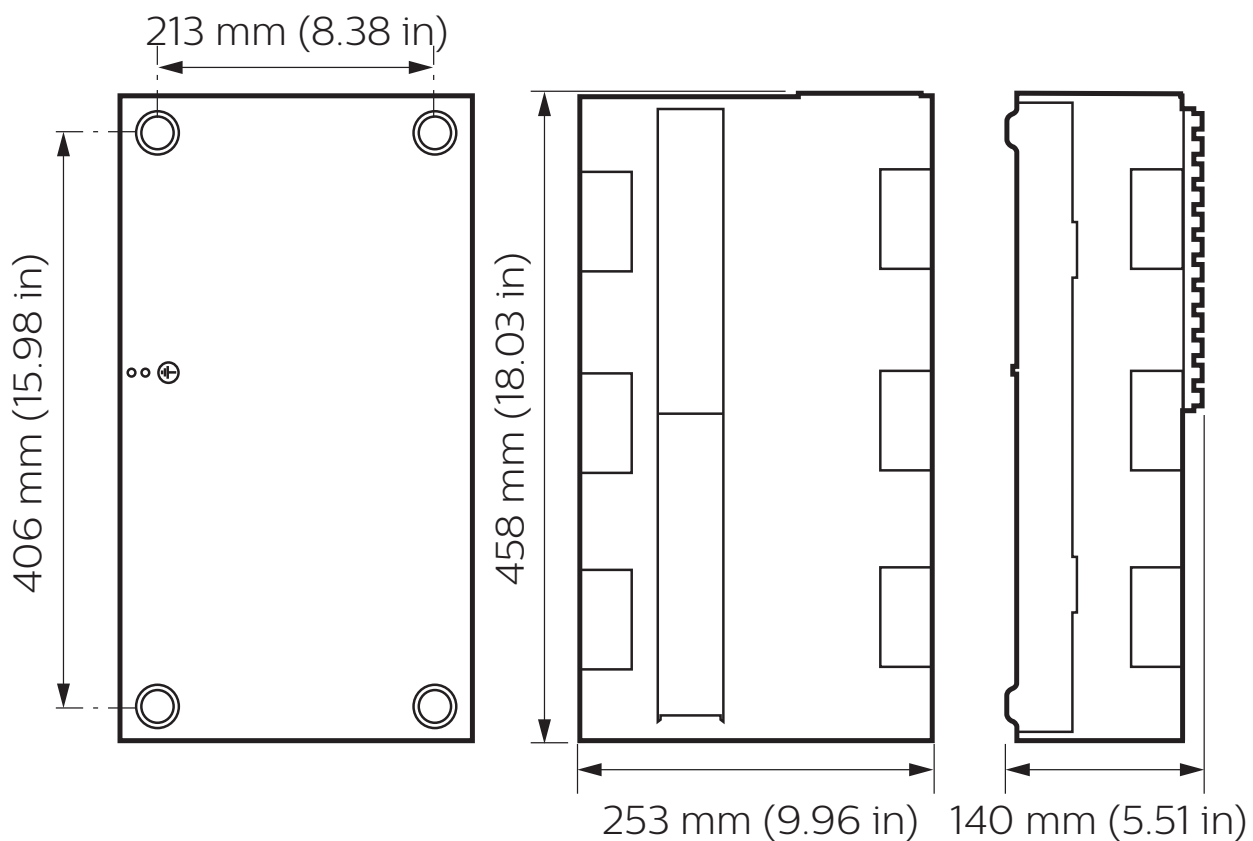
DBC1220GL

Wall mount multi-protocol control solution for large lighting loads

- **Multiple protocols supported** – Compatible with a range of fittings and devices including; DSI drivers, DSI electronic low voltage transformers, DALI drivers (broadcast mode only), DALI electronic low voltage transformers (broadcast mode only), 1-10 V drivers and other switched loads.

- **Service override switch** – Incorporated as standard, forces all channels to 100%.

- **Inbuilt diagnostic functionality** – Features Device Online/Offline status indication.

- **Options available** – Including an additional RS-485 DyNet/DMX512 port, and earth leakage and overload protection on each channel.

Dimensions

213 mm (8.38 in)

406 mm (15.98 in)

458 mm (18.03 in)

253 mm (9.96 in)   140 mm (5.51 in)

Specifications

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

DBC1220GL
Signal Dimmer Controller

Electrical

Supply Type	Single-Phase Three-phase
Single-Phase Supply	240 VAC @ 63 A
Three-Phase Supply	240 / 400 VAC 人 @ 63 A/phase
DyNet DC Output Voltage	12 VDC
DyNet DC Output Current	120 mA
Switched Outputs	12 x 20 A resistive
Electrical Protection	12 x 20 A circuit breakers (Single pole thermal magnetic, 6 kA surge)
Maximum Device Load	180 A
Maximum CH-CH Voltage	400 VAC
IEC Overvoltage Category	III

Control

Serial Ports	1 x RS-485
Supported Protocols	DyNet DMX Rx
DMX Rx Channels	12
Control Channel Outputs	12 (DALI Broadcast, DSI or 1-10 V)
Dry Contact Inputs	1 (AUX)
User Input	1 x service override switch (Forces all channels to 100%)
Indicators	1 x diagnostic LED
Diagnostic Functions	Device online/offline status

Physical

Dimensions (H x W x D) RCBO Versions:	458 x 253 x 140 mm (18.31 x 9.96 x 5.51 in) 585 x 252 x 126 mm (23.03 x 9.92 x 4.96 in)
Packed Weight	10.25 kg (22.60 lb)
Construction	Polycarbonate DIN rail enclosure (12 unit)
Serial Ports	1 x RJ12 1 x 6-way pluggable screw terminal
Serial Port Conductor Size	2.5 mm^2 (#12 AWG) (max)
Supply Terminals	3 x screw terminal
Supply Terminal Conductor Size	10 mm^2 (#8 AWG) (max)
Control Terminals	24 x screw terminal
Control Terminal Conductor Size	5 mm^2 (#10 AWG) (max)
Output Terminals	12 x screw terminal
Output Terminal Conductor Size	16 mm^2 (#6 AWG) (max)
Earth Bar Terminals	14 x screw terminal
Earth Bar Terminal Conductor Size	2 x 16 mm^2 (#6 AWG) (max) 12 x 5mm^2 (#10 AWG) (max)
Neutral Bar Terminals	14 x screw terminal
Neutral Bar Terminal Conductor Size	1 x 16 mm^2 (#6 AWG) (max) 13 x 5 mm^2 (#10 AWG) (max)

Environment

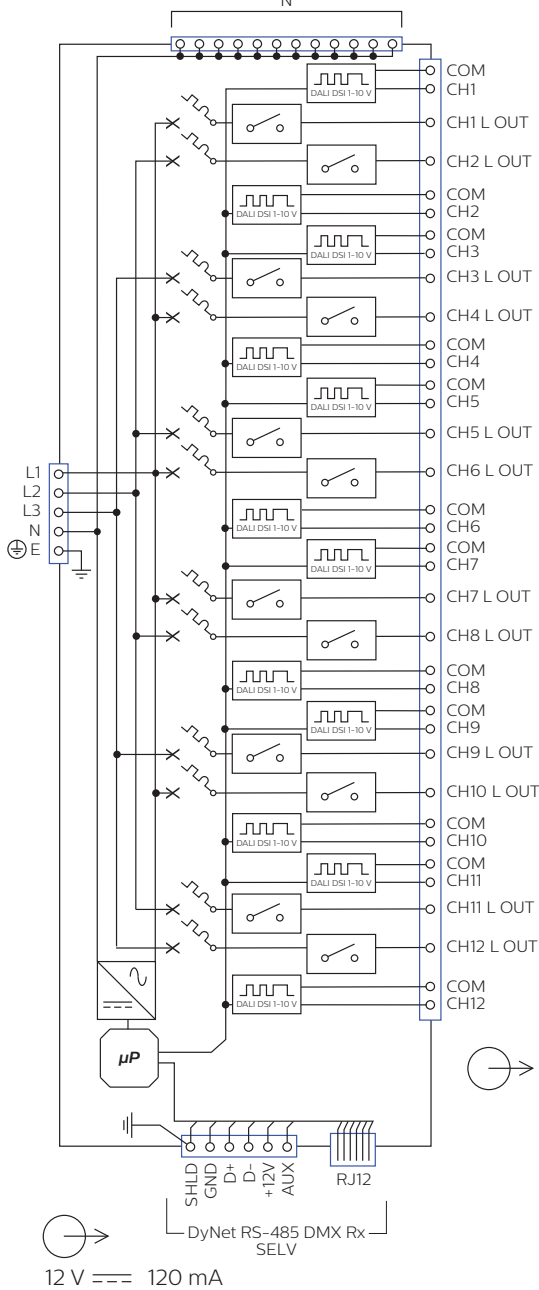|	
Operating Temperature	0° to 40°C ambient (32° to 104°F)
Storage/Transport Temperature	-25° to 70°C ambient (-13° to 158°F)
Relative Humidity	0 to 90% non-condensing
IEC Pollution Degree	II

Compliance

Certification	CE, RCM, RoHS

Electrical

1 ∿ 240 V ∿ 63 A
3 ∿ 240 /400 V ∿ 人 3 x 63 A

12 V === 120 mA

Control Channel Ratings

DALI/DSI	Channel	Device
Output Voltage	12 VDC	
Guaranteed Current	128 mA	
Maximum Current	250 mA	
Maximum Drivers	64	400
Insulation	Basic	

1–10 V	Channel
Current	sink 50 mA source 50 mA

Output Channel Ratings

Load Type	Maximum Rating per Output CH1–CH12
Electronic Ballast*	20 A, 240 VAC
Inrush Current	500 A

* Load de-rating may need to be applied to avoid nuisance circuit breaker tripping.

Ordering Code

Product	Philips 12NC
DBC1220GL (Standard product)	913703038009
DBC1220GL–A (Additional DyNet/DMX512 Port)	913703038109
DBC1220GL–RCBO (Earth leakage/overload protection)	913703038509
DBC1220GL–A–RCBO (Additional Port & RCBO)	913703032809

lighting.philips.com/dynalite