

# HYBRID CONTROL GEAR



- Available in 1Step/4Step and TRI Control DALI/0-10V/Simple Switch
- Suitable for RAPTOR 3/4, BRITELINE 1/2
- IP20 and IP65 models
- 240V and 415V options
- Simple 2 wire connection connection between driver and luminaire\* (Luminaire must be earthed)
- Maximum distance between gear and floodlight:

Cable Size (mm <sup>2</sup> )	RAPTOR (3/4) Length (m)	BRITELINE (G1/G2) Length (m)
1.5	1000	500
2.5	2000	1000
4.0	3200	1600
6.0	4800	2400

- High immunity to surges, low inrush /leakage current



\*DALI versions require 3 core + earth

## Hybrid Control BENEFITS

- Available in 1Step/4Step and TRI Control DALI/0-10V/Simple Switch
- Suitable for RAPTOR 3/4, BRITELINE 1/2
- IP20 and IP65 models available in both 240V and 415V
- Requires a two core cable + Earth between the driver and luminaire\*, providing an ideal solution for HID Floodlight retrofits. Installation of earthing is required as per Australian Standards
- For new installations, the distance between the control gear and the floodlight has been greatly improved. This offers benefits for both installation and maintenance
- Proven to offer protection in extreme environments with up to 65°C ambient temperature for IP20 model, 50°C for IP65 model.
- Offering high immunity to surges and low inrush/leakage current
- Low leakage current <0.2mA\*\*
- Power factor >0.95 Typical



IP65 Hybrid weather proof drivers

\*DALI versions require 3 core + earth

\*\* +0.8mA for DALI versions

## GENERAL INFORMATION

RCM Mark	Yes
ROHS compliant	Yes
Testing standard	AS/NZS 61347.1:2016 AS/NZS 61347.2.13:2018
Electromagnetic compatibility (EMC)	AS/NZS CISPR15

## HOUSING AND FINISH IP 20

Housing	Steel
Housing finish	Powder coated satin black
Tightness level	IP 20

## HOUSING AND FINISH IP 65

Housing	Die cast aluminium
Housing finish	Powder coated grey
Tightness level	IP 65

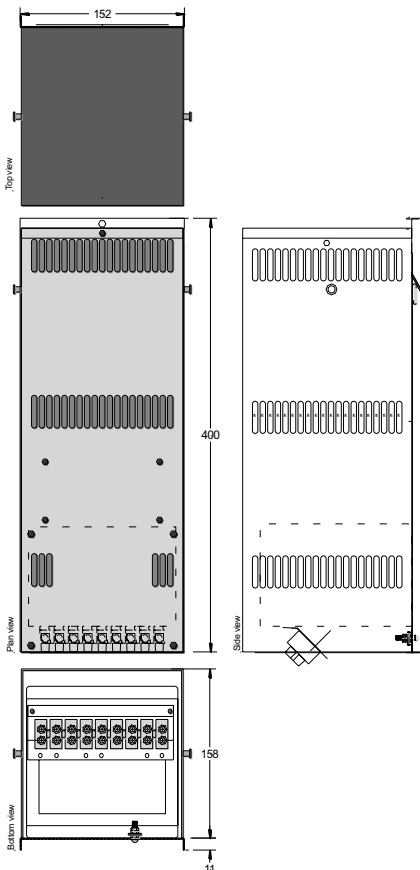
## ELECTRICAL INFORMATION

Electrical class	Class I
Nominal voltage	240V/415V – 50Hz/60Hz
Power factor (at full load)	> 0.95
Surge protection (kV)	10kV for 1 & 4 Step 8kV for DALI

## DIMENSIONS

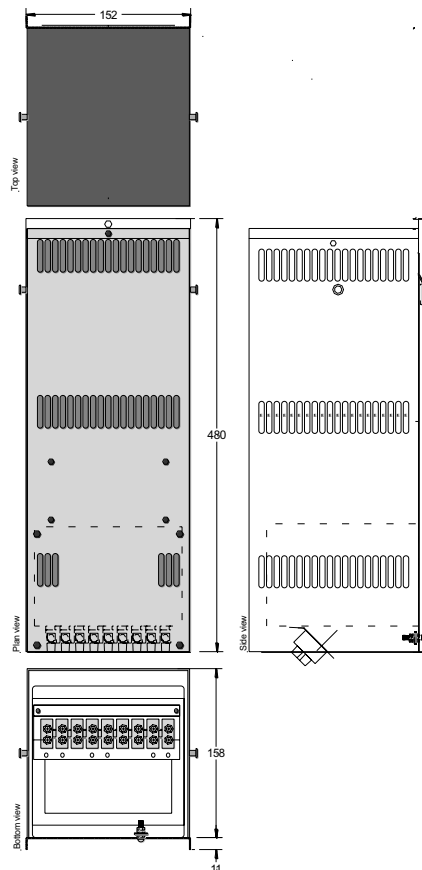
### IP20 1 STEP Gear

HYB1ST240V  
HYB1ST415V



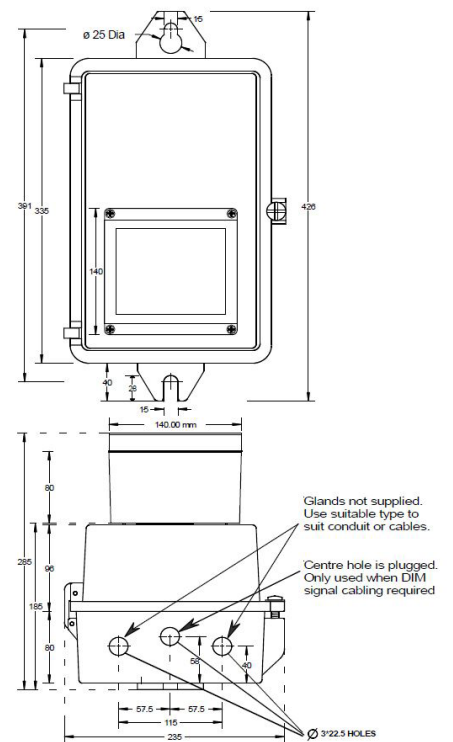
### IP20 4 STEP/ TRI CONTROL DALI

HYB4ST240V  
HYB4ST415V  
  
HYBD240V  
HYBD415V



### IP65 1 Step/4Step/TRI Control DALI

HYB1ST240VIP65  
HYB1ST415VIP65



ORDER CODES

Product Code	Description	Voltage (V)	Control	IP Rating	Operating Ambient (°C)	Weight (Kg)	Dimensions LxWxH (mm)
HYB1ST240V	G/TRAY HYBRID 1420W 240V 1 STP RAPTOR 2/3/4 BRITELINE 1/2	240	1 Step (50%)	20	65	17.5	400 x 152 x 158
HYB1ST415V	G/TRAY HYBRID 1420W 415V 1 STP RAPTOR 2/3/4 BRITELINE 1/2	415	1 Step (50%)	20	65	17.5	400 x 152 x 158
HYB4ST240V	G/TRAY HYBRID 1420W 240V 4 STP RAPTOR 2/3/4 BRITELINE 1/2	240	4 Step (Nom 15%, 25%, 50%, 100%)	20	65	18.5	480 x 152 x 158
HYB4ST415V	G/TRAY HYBRID 1420W 415V 4 STP RAPTOR 2/3/4 BRITELINE 1/2	415	4 Step (Nom 15%, 25%, 50%, 100%)	20	65	18.5	480 x 152 x 158
HYBD240V	G/TRAY HYBRID 1420W 240V DALI RAPTOR 2/3/4 BRITELINE 1/2	240	TRI Control (DALI, 0-10V, Simple Switch)	20	65	20.5	480 x 152 x 158
HYBD415V	G/TRAY HYBRID 1420W 415V DALI RAPTOR 2/3/4 BRITELINE 1/2	415	TRI Control (DALI, 0-10V, Simple Switch)	20	65	20.5	480 x 152 x 158
HYB1ST240VIP65	W/P BOX HYBRID 1420W 240V 1 STP RAPTOR 2/3/4 BRITELINE 1/2	240	1 Step (50%)	65	50	20.5	426 x 235 x 285
HYB1ST415VIP65	W/P BOX HYBRID 1420W 415V 1 STP RAPTOR 2/3/4 BRITELINE 1/2	415	1 Step (50%)	65	50	20.5	426 x 235 x 285

ACCESSORIES

Product Code	Name	Voltage (V)
PSU-003-A1	220-430VAC/12 DC Dim Signal PSU	240/415

## ELECTRONIC CONTROL GEAR

### 1.8KW DALI-2. Suitable for RAPTOR 4



- Nominal input voltage: 220-415Vac
- 3 output channels
- Output current 1400 mA (per output channel)
- 6C+E cable between driver and luminaire
- DALI-2 and D4i Certified
- Output voltage range 176 – 500 VDC (per output channel)
- Max remote distance 300 meters
- Surge level 10 kV for both common mode and differential mode
- Adaptable thermal protection for LED Modules
- Lifetime: 89,000 hours (220Vac input, 80% load, 70°C case temperature)
- Short circuit, over voltage and over power protections
- IP66 enclosure

Class I non-insulated, 1800W (600W x 3 channels) output constant current DALI-2 programmable. An IP66 enclosure makes it also suitable for outdoor applications and its electrical characteristics make it suitable for TV broadcasting applications.

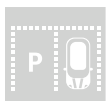


IK 08

IP 66



SPORTS



CAR PARKS



LARGE  
AREAS

**GENERAL INFORMATION**

RCM Mark	Yes
ROHS compliant	Yes
Testing standard	AS/NZS 61347.1:2016 AS 61347.2.13:2018
Electromagnetic compatibility (EMC)	AS/NZS CISPR15

**HOUSING AND FINISH**

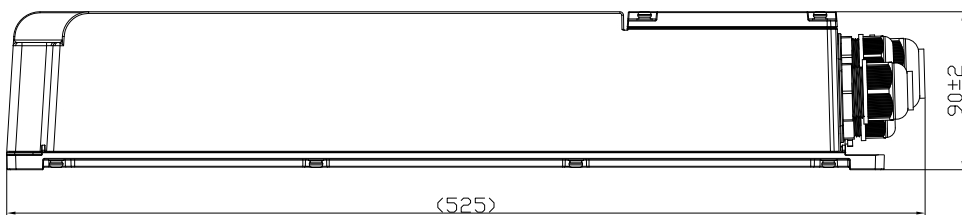
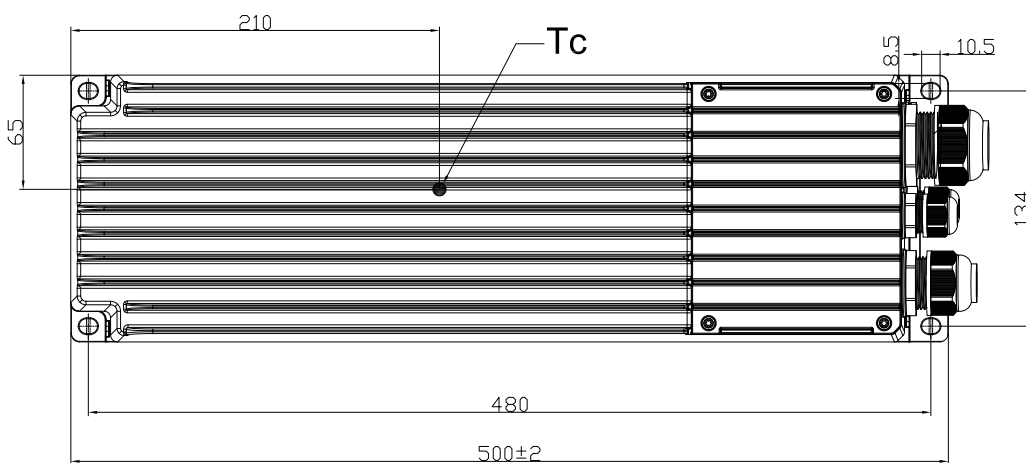
Housing	Die cast EN AC-44300 Aluminium alloy
Housing finish	Powder coated finish
Standard colour(s)	Pantone 877U
Tightness level	IP66
Impact resistance	IK08

**ELECTRICAL INFORMATION**

Electrical class	Class I
Nominal voltage	220-415 Vac – 50Hz/60Hz
Power factor (at full load)	> 0.95
Surge protection (kV)	10kV
I/O Connections	Push-in connectors Input Connections: L1, L2, PE Control Connections: DA+, DA-, (double connection for DALI line for re-launch) Output connections (LED+, LED-) x 3 channels + PE lum + OTP

**DIMENSIONS AND MOUNTING**

L x W x H (mm)	500 x 152 x 90 mm
Weight (kg)	7



**ORDER CODES**

Product Code	Description	Wattage (KW)	Control	IP Rating	Voltage (V)	Weight (kg)	Dimensions LxWxH(mm)
NES-1K8T210BC-P	RAPTOR 4 ELECTRONIC DRIVER 3 CHANNEL 1.4A	1.8	DALI-2	IP66	220-415	7	500x152x90