



AA PROJECTS

DELIVERING EXCELLENCE WITH DREES & SOMMER

Heritage Statement

PSDS3 Decarbonisation Works

Manchester City Council

February 2023

Didsbury Library

692 Wilmslow Rd

Didsbury

Manchester

M20 2DN





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1.0 Introduction

The purpose of this heritage statement is to outline proposals to decarbonise the energy use of the building and reduce the overall amount of energy used. The works have been identified as essential as part of the Manchester City Council Public Sector Decarbonisation Scheme (PSDS). This heritage statement is submitted in conjunction with a Listed Building Consent and Planning Application for Didsbury Library, on behalf of Manchester City Council.

This heritage statement has been prepared by Robert Swiatek MRICS of AA Projects Ltd, on behalf of Manchester City Council. The site considered under this proposal and heritage statement is Didsbury Public Library, 692 Wilmslow Road, Didsbury, Manchester M20 2DN and is outlined in red on the plan below.



The works involve replacement of the existing gas boilers with new electric powered air source heat pumps (ASHP) along with replacement of existing fluorescent lighting with new low energy LED units throughout the building.

This Statement has been prepared in accordance with requirements of the NPPF (2018) (Chapter 16) and paragraph 189 which requires details of the significance of any heritage assets which may be impacted by the proposals. The level of detail and assessment provided are proportionate to the asset's importance and allow an understanding of the overall impact of the proposals on the asset's significance.



2.0 The Heritage Asset

Didsbury Public Library is a grade II listed building, entry number 1254968.

The building was erected in 1915, founded by Fletcher Moss, designed by City Architect Henry Price and funded by American philanthropist Andrew Carnegie. The building occupies a prominent position off Wilmslow Road, with pedestrian access gained via the leading approach to the principal elevation and main entrance. The library is in close proximity to the Church of Emmanuel, located to the west of the library. This church is also a grade II listed building and is important to the setting of the library.

The library is constructed in the fifteenth century gothic style, with facades of red brick and Portland stone, which is well harmonised with the surroundings within and outside the curtilage of the library. Tracery windows and emblems of Science, Knowledge, Literature, Music and Arts and Crafts are distributed over the building in stone.

To the west of the building is the vehicular access via the tarmac surfaced drive off Barlow Moor Road, leading into the small car park, enclosed by local red brick boundary walls.

Planting and shrubbery are prominent around the site and softens the setting of the building, with trees in some cases obscuring views of the building's elevations.

Historic England gives the following detail on the asset, its arrangement and its listing.

“Public library. 1915, by Henry Price (City Architect). Red brick with dressings of Portland stone, slate roofs. Triangular plan with 2 wings at an acute angle hinged on an octagonal drum, the angle between the wings filled by a hall. Eclectic style with Gothic features. High single storey, dominated by the drum. This rises to a clerestory and has coupled corner pilasters, 3-light mullioned windows with cusped tracery and hoodmoulds, an emphatic sill-band carried round, a deep stone parapet with an upstand in each side, and an octahedral roof surmounted by a finial with weathervane. The front (to the north-east) is enclosed (inter alia) by a single-storey 3-sided porch in the form of a buttressed arcade of 2-centred arches, with an embattled parapet and



pyramidal roof, and the parapet carries round angled side-lobbies on both sides. The wings have mullioned and double-transomed windows rising into gablets above the parapet; and hipped roofs.”

3.0 The Development

The proposed development is to replace the existing gas boilers with new ASHP and replace all of the current aged and inefficient lighting throughout the building with new low energy, LED lighting.

The new ASHP are to be located in the northwest corner of the existing car park, backed against the existing masonry wall. The new ASHP will be screened visually using a 2.4m high living wall screen to minimise the visual impact of the installation on the external surroundings of the library.

Trenching will be required from the ASHP location into the basement plantroom of the building. The existing gas boilers are located in the basement. They will be removed completely and the basement used for expansion vessels, associated plant and incoming distribution equipment.

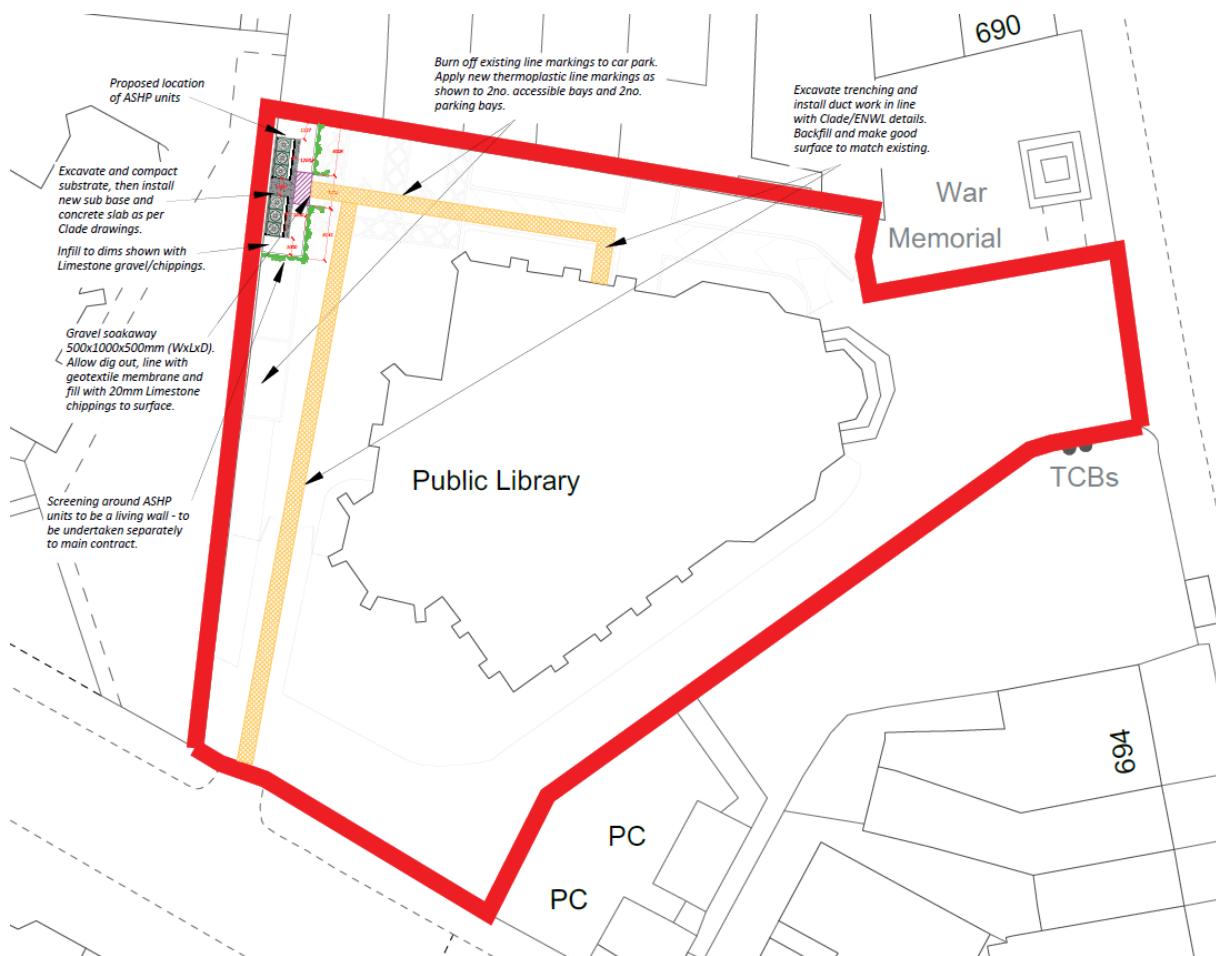
Entry of distribution pipework and cables into the building will be via the existing and poor condition basement window shown in the adjacent photograph. The window will be replaced with a solid panel allowing services to pass through without affecting the historic masonry fabric.





The ASHP will draw additional electrical load from the grid and this requires an improved incoming mains supply to the building. This will be installed by Electricity North West (ENW) and will be gained via trench from the south of the site on Barlow Moor Road to the service entry point in the basement window of the building.

The principal external works are outlined in the proposed site plan extracted below. Proposed trenching is highlighted in orange.



The existing basement boiler room will remain a plantroom. The existing mechanical and electrical infrastructure and plant will be completely removed to make space for new equipment. The existing equipment in this space is not known to have any historical significance or relationship to the building's listing.



The internal areas of the building will have their existing light fittings removed, and new light fittings installed in the existing position. The existing wiring will be reused minimising any disruption to wider internal fabric and finishes.

The new ASHP will run hot water around the building's heating system at a lower temperature than the current gas boilers. This will require the installation of additional heat emitters, or radiators, in various locations. Six new radiators will be installed on the ground floor, and two new radiators to the first floor. The new radiators will be supplied from the existing radiators in close proximity to the proposed locations. Pipework will be surface mounted. This will avoid long pipe runs from the plantroom and minimise the impact to internal fabric and finishes.

3.1 The Design Concept

The overarching design concept applied to this proposal is to minimise the physical impact of the installations to the existing historic fabric, and to minimise the visual impact to the setting and aesthetics of the building and its surroundings.

The screening of the ASHP is important, as the ASHP themselves are not visually sensitive to the surrounding area. The proposal is to screen the ASHP using a living wall, or 'green screen', consisting of low maintenance planting on a 2.4m high framework, to create a wall of plants. The plants will be evergreen and low maintenance and be selected to increase biodiversity to this corner of the car park.

The ASHP and screen is orientated with the narrowest end facing the approach off Barlow Moor Road, again minimising the visual impact of the installation.

The trenching to bring the services into the building will have no long lasting visual impact, however excavation within the curtilage of the building may uncover some areas of interesting archaeology. The Greater Manchester Archaeological Advisory Service (GMAAS) has been consulted on this and have confirmed that no special measures need to be employed when excavating the trenches and ASHP base.

4.0 Impact Assessment

4.1 Summary of Significance

Significance is defined in the NPPF as ‘the value of a heritage asset to this and future generations because of its heritage interest. Significance derives not only from a heritage asset’s physical presence but also from its setting’.

The building is statutory listed and is therefore designated as a heritage asset in accordance with NPPF 2018 and as such has been reviewed in accordance with Historic England’s Conservation Principles. A summary of this assessment of significance is provided below:

Significance Value	Detail
Historic Value	Fine example of City Architect Henry Price’s work, retained in good condition and in its original form. Gothic style features and stone tracery are in the eclectic style and are preserved well, preserving the character of the building and its setting.
Archaeological Value	The largely intact nature of the plan form and elevation aesthetics demonstrate value from the building’s ability to accommodate continual community use over the last century. The building remains a vital part of the community and a prominent building in Didsbury.
Aesthetic Value	The external aesthetics of the building are well preserved and maintained. They form an important part of the street scene and surrounding setting in Didsbury. Maintaining the external appearance is important in this development.



4.2 On Physical Fabric

The design process has carefully considered existing building and historic setting and has successfully minimised the physical and visual impact to all areas where work is planned.

Externally, the use of a living wall to screen the ASHP will allow the installation to blend in with existing planting and shrubbery around the site and approaches to the building and car park. The new screen will improve the aesthetics of the car park and will improve biodiversity to this corner of the site by using carefully selected low maintenance plants, suitable to be planted in a vertical arrangement.

The impact to the historic fabric is minimised by bringing services into the building using either existing routes and penetrations, or by using an existing poor condition basement window which is in need of replacement to rectify the current security breach.

The replacement lighting locations have been designed to make use of the existing positions, again minimising the impact to the existing internal finishes and fabric and avoiding the need to pull new cables and cut new holes in the ceilings.

The position of new radiators have been carefully selected to allow connection into adjacent heating pipe supplies. This minimises the need for new pipework, and avoids any long pipe runs back to the basement plantroom, minimising associated impact to the internal finishes and fabric.

4.3 On Energy Use and Justification for Proposals

The library currently uses 230,994 kWh/Year of fossil fuel energy in the form of natural gas used to heat hot water and the internal spaces within the building. The introduction of ASHP and the removal of the gas fired boilers will completely remove gas consumption on the site and the ASHPs will be powered by 100% mains grid electricity. As the ASHPs are significantly more efficient than the gas boilers this will only require an increase of 56,046 kWh of electricity for the offset gas. This will save almost 42.5 tonnes of carbon per year.



The replacement of lighting with new LED lights will reduce the electricity used for lighting from 37,603 kWh/Year to 28,919 kWh/Year.

These are significant reductions and importantly, this is a project that completely decarbonises Didsbury Library's energy use.

5.0 Conclusion

The Public Sector Decarbonisation Scheme is a central government project to remove carbon generating energy use from public buildings. This agenda will always be challenging where historic buildings are concerned and Didsbury Library is no exception.

The proposals put forward as part of this project are sensitive to the historic building and surrounding area. The visual impact to the external setting and façade is minimised by the use of planting, naturalising the installations against existing shrubbery and planting. The use of new planting to increase biodiversity on this site is a further positive environmental outcome of the project.

The replacement of internal lighting maximises the reduction in energy use with minimal physical and visual impact. Replacing all internal lights to Didsbury Library offers attractive energy savings and a solution that is much more sympathetic to the historic fabric and setting than the installation of electricity generation such as photovoltaic panels or a small wind turbine. The internal design solution to use the existing electrical wiring, lighting locations and existing heating pipework allow impact to internal fabric and finishes to be minimised.

The impact of the proposed project to the building and its setting has been shown to be minimal. The benefits of the proposal to decarbonise the building are strong and far outweigh the inconvenience and disruption that remains inherent to this project.



6.0 Conditions of Use of this Report

This report is to be regarded as confidential to and for the sole use of the recipient. Consequently, no responsibility is accepted to any third party in respect of its contents in whole or in part.



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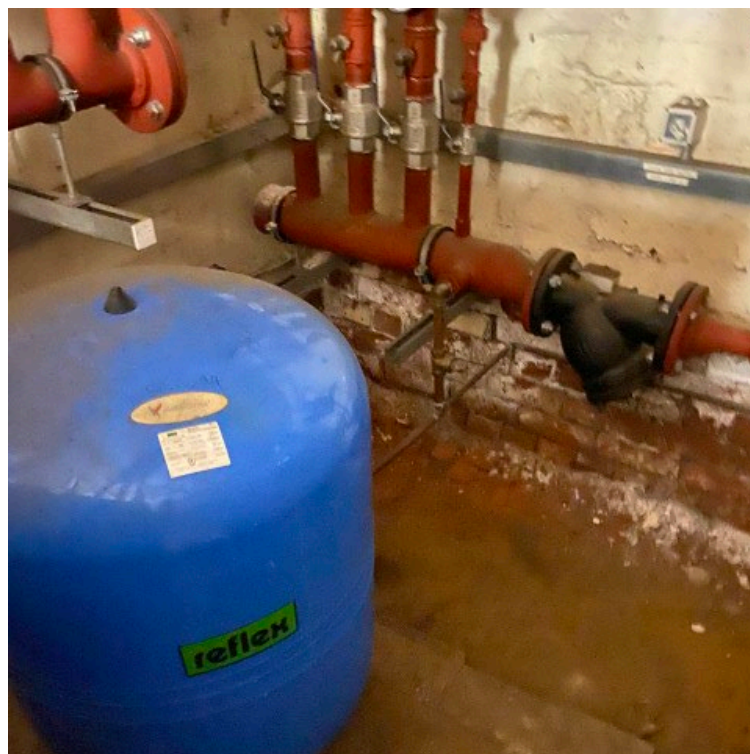
Equans MCC – Heritage Statement
PSDS3 Decarbonisation Works – Didsbury Library

Appendix A

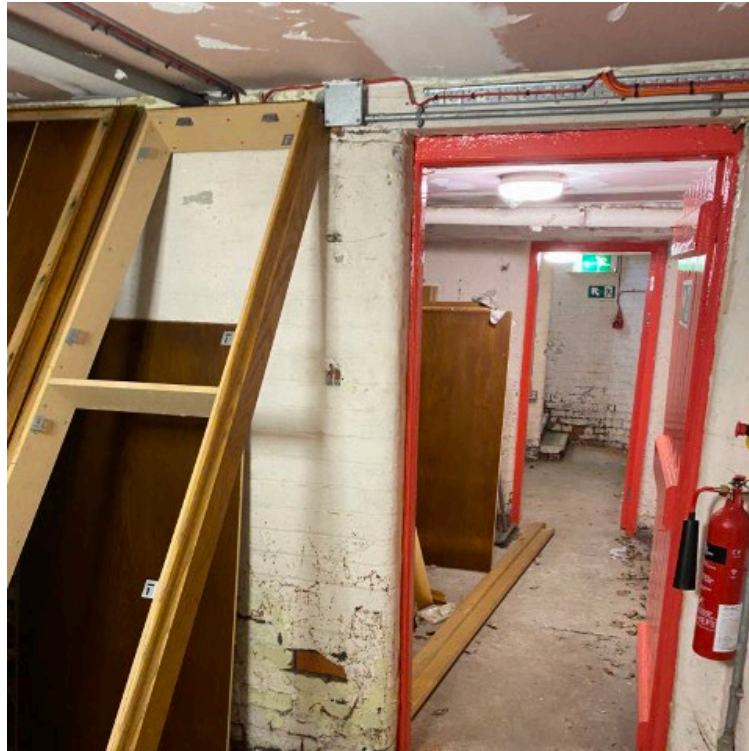
Photograph Schedule



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



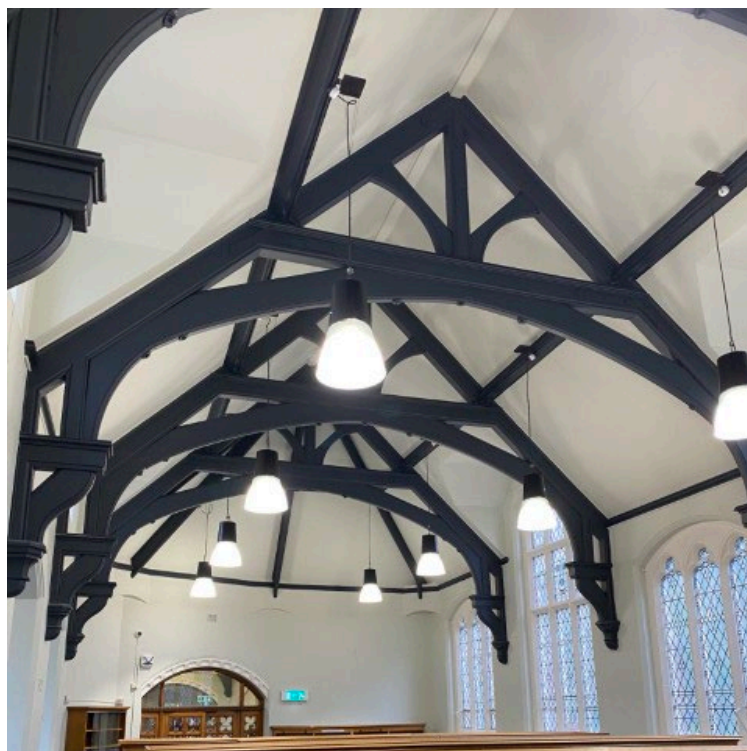
Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



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Appendix B

Proposed Product Information – Lighting and Radiators



STRADA AND STRADA HYBRID

LOW WATER CONTENT RADIATOR FOR HEATING AND COOLING





jaga

CLIMATE DESIGNERS

Climate change and evolution of construction techniques demand new ecological solutions for heating, cooling and ventilation.

New technologies have to consume far less energy. They have to ensure a better indoor climate without damaging the outdoor climate. Traditional systems with fire and carbon emissions have to be extinguished. We have to evolve towards a green flame and build a sustainable path towards a better future. Choosing the sustainable path is no longer a matter of choice, it's an obligation.

Always honouring its values, Jaga Climate Designers continually look for the most ecological solutions for heating, cooling and ventilation.

***A COMFORTABLE INDOOR
CLIMATE YEAR ROUND
WITH MINIMAL IMPACT ON
THE OUTDOOR CLIMATE***

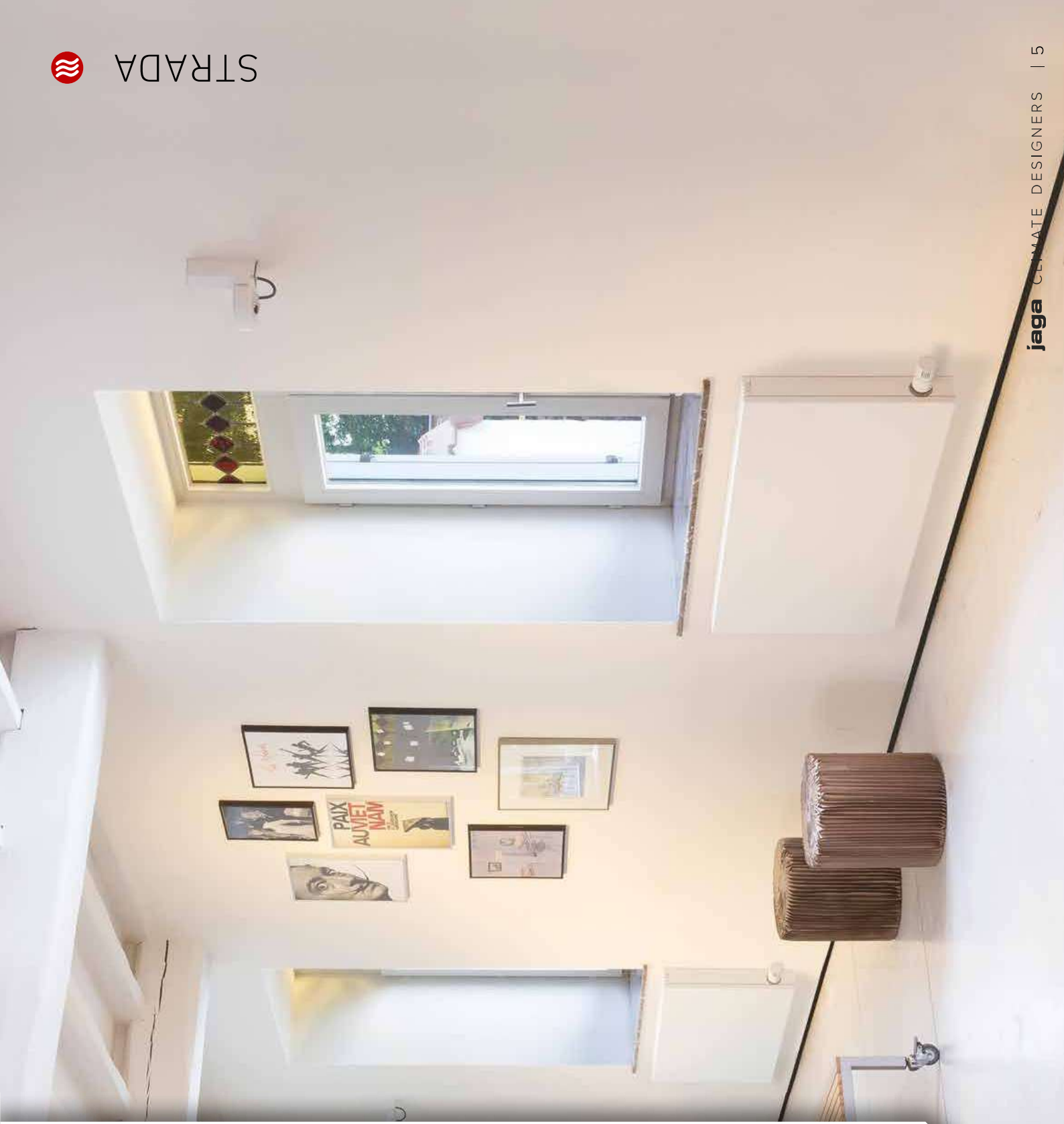
STRADA

Warmth and efficiency
with cutting-edge design

- Slimline, contemporary design radiator that is discreet and enhances any room.
- The sustainable choice, less material, fast to respond, highly efficient and recyclable.
- Compact size and high power output using low water content (Low-H₂O) heat exchanger technology.
- Ideally suited to renewable energy systems with low flow water temperature.
- Safe-to-touch casing in standard white and grey colours, with other colour options and finishes also available.
- Can offer cooling via Jaga's Dynamic Boost Hybrid (DBH) technology and ventilation via Jaga's oxygen system.



design award
winner



LOW-H₂O: LIGHTER, FASTER, MORE EFFICIENT

THE LOW WATER CONTENT RADIATOR

Jaga's Low-H₂O radiators contain 90% less water than that of a steel panel radiator, so they are faster to heat up and cool down. This means Low-H₂O radiators react faster to the occupants' needs as well as changes to ambient temperature. This ensures better comfort with less energy consumption, no wasteful over-heating and reduced demand on the heating system itself. They also have no heavy steel panels that require pre-heating, are far lighter to install and remain much lighter when fully filled during usage.

The ultra-modern aluminium and copper heat exchanger, which comes with a 30 year guarantee, provides rapid, energy-efficient heat to any space.

Research by Dutch certification and testing body, KIWA, shows that Low-H₂O radiators consume between 9 and 16%* less energy than a system with steel panel radiators. They achieve the desired temperature faster with less heat wasted through unnecessary over-heating, common in heavier radiators.

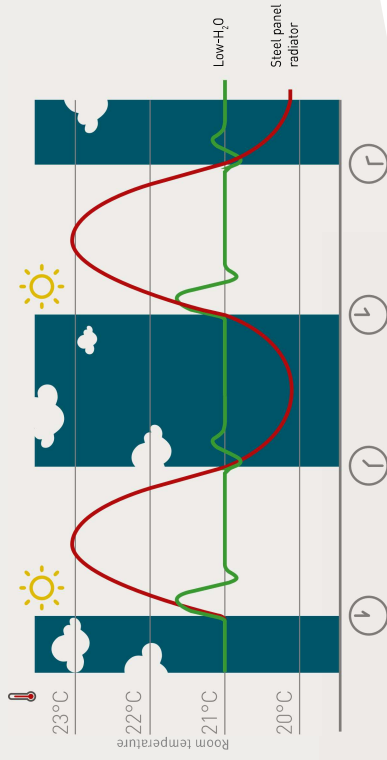


Comparison Low-H₂O/panel radiators

	Water temp. > 50°C Saving	Water temp. ≤ 50°C Saving
Renovation	13%	16%
New-builds	9%	10%

**THERE IS A CLEAR CONNECTION
BETWEEN THE WEIGHT OF THE
RADIATOR, ITS REACTION TIME AND
THE ENERGY SAVINGS IT OFFERS.**

COMPARISON OF RESPONSE TIME TO TEMPERATURE CHANGES



GUARANTEE
30
YEAR
HEAT EXCHANGER



Jaga's Low-H₂O technology has been thoroughly tested over the years by a variety of independent bodies, achieving consistently high efficiency performance standards every time.

Low-H₂O radiators are more efficient at all water temperatures, making them the perfect partner for renewable systems and boilers alike.

In all conditions Low-H₂O radiators achieve the maximum scores set by ISO. Without a maximum score*, the Low-H₂O exchanger would achieve even higher. KIWA found Low-H₂O to be at least 5% more economical than underfloor heating.

*The minimum required score is 1,00 (100%) for Low-H₂O as per the quality declaration, and average score of 0,05 (95%) for underfloor heating, according to NEN7120, Table 14.1, delivery efficiency up to 8m.

**FASTEST RESPONSE TIME
FOR MAXIMUM COMFORT.**

STRADA HYBRID

The only radiator that provides heating, cooling and ventilation

Always leading the way in sustainable HVAC innovation, Jaga has developed pioneering technology with Dynamic Boost Hybrid (DBH).

DBH provides high outputs with all water temperatures, hot and cold, making it perfectly suited to heat pumps and other renewable energy systems.

DBH is an enhanced version of Jaga's former Dynamic Boost Effect (DBE) technology, utilising small electric actuators inside the unit to significantly boost output. But with the added benefit of providing light cooling.

- All the benefits of Strada, but even more compact and more powerful with DBH.
- The ultimate radiator solution for low flow temperatures associated with renewable energy technology.
- Low-cost light cooling when used with reverse cycle heat pumps providing cooled water.
- Breeze functionality offering ambient air circulation.



STRADA HYBRID

DBH: DOUBLE OUTPUTS + COOLING WITH HEAT PUMPS

ONE ECO FRIENDLY SOLUTION

Heat pumps and solar thermal energy generally require much larger radiators as they operate with very low water temperatures that often don't exceed 35°C. Low-H₂O radiators do not need to increase in size when working with lower water temperatures.

With DBH technology, the same heat output can be achieved from a similar size radiator compared to a radiator working with a gas or oil fired heating system, allowing the installation of renewable heating systems without compromising on comfort and aesthetics.

- Efficient and effortless heating with heat pumps and low temperature boilers.
- Suitable for environmentally friendly light cooling (non-condensing) in combination with any heat pump that can supply cooling water.
- Easy installation on almost all new and existing Jaga Low-H₂O heating units.



THE SAME OUTPUT AT ALMOST HALF THE SIZE OF A STEEL PANEL RADIATOR



Jaga Strada Hybrid T11
Size: 50 cm x 100 cm
Output: 1173 Watts
Weight: 16.7 kg
Water content: 1.3 litres

Steel Panel Heater
Size: 70 cm x 180 cm
Output: 1210 Watts
Weight: 73 kg
Water content: 13.7 litres

Based on conditions of 45/40/20



INTELLIGENT OPERATION

DBH has a simple control panel to adjust settings and modes, with automatically dimming coloured LED lights to indicate the selected setting.

There are three alternative configurations set at time of order: TPT (Temperature control) (default), ACO (Auto-changeover), BMS (Building Management System control).

ACO configuration: mode button can be used to switch between Heating, Cooling and Breeze modes.

- Thermal activators run based on water temperature and chosen fixed speed.
- Breeze mode can be selected whereby the thermal activators operate independently of water temperature.

BMS configuration:

- DBH can be connected to an external controller, such as BMS or room thermostat to control thermal activator speed and changeover remotely. Please contact Jaga's technical team for more information.

TPT configuration (default): mode button can be used to switch between Heating and Cooling modes.

- Thermal activators run once the water temperature is above set-point (28°C default) and the measured room temperature is below the set-point, speeding up and slowing to achieve the desired room temperature.
- Boost mode can be activated where thermal activators run at max. speed for 15 minutes.

FAQs

WHAT IS JAGA LIGHT COOLING ?

Light cooling (also referred to as 'non-condensing cooling') is a form of gentle cooling whereby the water temperature is always higher than the condensing temperature (or dew point), usually around 15°C depending on weather conditions, and therefore no condensation water is formed. This is an energy-efficient way of cooling that's ideal in combination with low temperature heating.

HOW MUCH ENERGY DOES LIGHT COOLING USE ?

The energy consumption is lower than with low temperature cooling systems such as air conditioning systems, especially in combination with a ground source heat pump.

WHAT MAKES JAGA THE SUSTAINABLE CHOICE?

Sustainability does not just start when the product is in use, but from the sourcing of the materials and throughout the product life cycle. Being sustainable and reducing our impact on the environment is what we do. There is no Planet B. One of Jaga's company values is to respect nature, and this is at the heart of everything we do.

HIGHEST EFFICIENCY RATINGS

Jaga's Low-H₂O uses less energy than any other radiator and contains 90% less water than that of an equivalent steel panel, meaning faster response times and no wasteful over-heating.

BUILT TO LAST

The heat exchanger consists of aluminium heating fins, copper and brass irrigation tubes and brass collectors. Totally rust-free, resistant to very high working pressures and with a 30-year guarantee. A long life means lower environmental impact.

EFFICIENT USE OF MATERIALS

Since copper and aluminium are such efficient heat conductors, only a relatively small quantity of these materials are required, this includes the casing. A Low-H₂O radiator weighs much less and uses a lot less materials than a steel panel radiator.

FULLY RECYCLABLE

Copper and aluminium are highly efficient, long-life materials, and crucially, they are always fully recyclable. The use of these materials contributes to an improved LCA score.



*"LOW-H₂O RADIATORS
REDUCE THE CO₂ EMISSIONS
OF AN AVERAGE HOUSE BY
ABOUT 1000 KG."*

JAGA LOW-H₂O RADIATORS REDUCE WASTE

Life cycle analysis (LCA) according to the Ovam Ecolizer database and weight. Example for a 10 kW/ heating system, 45/35/20 temperature profile.

	Underfloor Heating	Cast Iron Radiator	Steel Panel Radiator	Jaga Low-H ₂ O Radiator
LCA Score	248700	248744	185853	66517
Total Weight incl. Water (kg)	6252	360	216.7	48.8

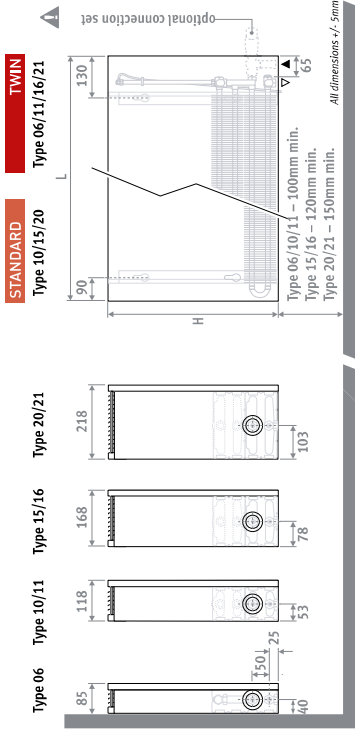
What is an LCA score?
LCA or 'Life Cycle Assessment' is a system designed to compare products and their overall impact on the environment. This looks at all processes from design, materials sourced, manufacturing, and energy usage until the product is ultimately 'retired'. Governments are trying to standardise LCA systems and to integrate them into the legislation. Jaga uses Ovam's Ecolizer 2.0 based on the Eco-Indicator EI-99 database. The lower the LCA score, the less adverse impact on the environment. Jaga Low-H₂O radiators consistently score significantly better than other radiators or heating systems.



BEST LCA SCORE



TECHNICAL INFORMATION



DELIVERY

All Stradas are made to order. Split deliveries option available. Please contact our customer service team to discuss your requirements.

PACKAGE INCLUDES:

- Low-H₂O heat exchanger with wall brackets and fixing kit, air vent 1/8" and drain plug 1/2".
- Casing for connection left or right at low level.
- Cover plate in stainless steel effect for the side panel at the opposite end from the valve.

COLOURS

Environmentally friendly, scratch-resistant, high UV resistant powder coating. See colour chart document for full details of our standard and special colours.

CONNECTION

Standard connection:
Bottom end left or right, to the wall or to the floor. Connection to the wall via the bottom of the casing, or totally concealed within the casing, depending on the valve or connection set chosen.

Optional high level valve:
add to the code of the radiator /30 (left) or /60 (right)

E.g. STRW.035 050 06.xxx/60
For more details, see 'Valves, TRV Heads and Accessories' on p28.

Optional remote controlled valve:
add to the code of the radiator /00.
E.g. STRW.035 050 06.xxx/00



ORDERING CODE

code	height	length	type	colour
STRW .	020	050	10	XXX
enter colour code 'J'				

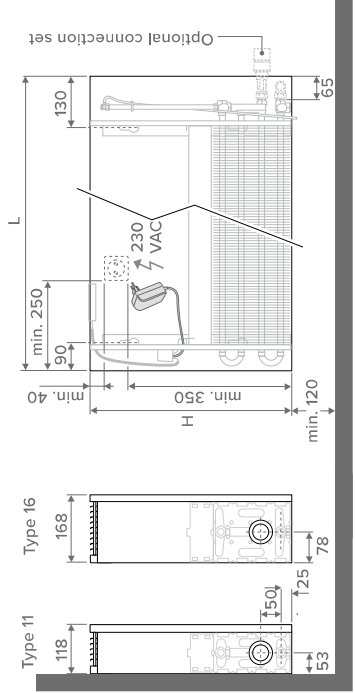
TOWEL RAIL

in chrome-plated aluminium



CODE

CODE	L
5501.001	560
5501.002	660



COLOURS

The DBH unit sits inside the Strada Hybrid. Therefore outer casing colour information remains the same as for standard Stradas.

ELECTRICAL CONNECTION

The DBH system requires an electrical outlet near the heating unit. If it has a height of 500mm, 650mm and 950mm an electrical outlet or power cable can be installed in the casing. If the height is 300mm, only the power cable can be installed inside the casing. Connection to an external electrical outlet is always possible.

Do not connect the electrical and hydraulic connection to the same side of the coil.

HYDRAULIC CONNECTION

Heating

Supply/return on the bottom left or right, to the wall or floor. Wall connection via bottom or completely invisible within the cladding with valve set 225/265.

Heating and cooling

The same connections and valve sets can be used for heating and cooling as for heating only. For the valve sets, use the version with the Heimeier thermostat head HC for heating and cooling or the version with a manual valve.

OPERATION OF DBH SYSTEM

- Suitable for heating or heating + cooling.
- Noise level monitoring, officially measured according to ISO 3741:2010.
- Coloured LEDs indicate setting.

- The DBH system will not control the heat pump or the boiler and therefore cannot replace a room thermostat.

In the UK, Strada Hybrid is equipped with the DBH control in TPT mode (temperature control) by default. If you require ACO mode or BMS mode, this must be configured at time of ordering so must be included in the ordering code.

In TPT, the thermal activators run once the water temperature is above set-point (28°C default) and the measured room temperature is below the setpoint.

DELIVERY

All Strada Hybrids are made to order. Split deliveries option available.

Please contact our customer service team to discuss your requirements.

PACKAGE INCLUDES:

- Low-H₂O heat exchanger with wall brackets and fixing kit, air vent 1/8" and drain plug 1/2".
- Casing for connection left or right at low level.
- Cover plate in stainless steel effect for the side panel at the opposite end from the valve.
- Easy to install DBH unit with operation, control and 24VDC power supply.
- Clear installation instructions.

This heater is not equipped with a condensation monitor. It has to be integrated into the installation (only for cooling).

The room temperature set-point is selectable using the push button controller between 16°C and 24°C.

The thermal activators run at a maximum speed to achieve the equivalent noise level of 30dB(A), therefore the speed varies depending on radiator length.

The thermal activators will speed up and slow down to achieve the desired room temperature, switching off if the room temperature is achieved. The water temperature set-points and the maximum fan speed can be adjusted using the control panel.

Boost mode: can be activated by the user by pressing and holding the + button, providing the water temperature is above the set-point. The thermal activators will run at maximum speed for 15 minutes, then revert to temperature control as detailed above. If water temperature drops below set-point, the thermal activators will switch off.

Cooling mode: the aforementioned operation is reversed, the default water temperature is set to 24°C and the room temperature range is between 31°C and 21°C. For the thermal activators to operate, the water temperature must be below set-point and the room temperature must be above set-point.

ORDERING CODE

code	length	DBH type	control strategy
DBHS .	060	10	TPT

The order code for the DBH set is made up of:

1. Order code to indicate it is a complete set – DBHS,
2. Nominal element length to which it is being fitted – 060, 070, 080, ...280,
3. Activator type – 10 or 15,
4. Control strategy – TPT, ACO or BMS.

Example – DBHS.:2010/TPT = DBH set to suit 120cm long heat exchanger type 10 or 11, with temperature control strategy.

DBH to be ordered in addition to Strada to make Strada Hybrid.

HEIGHT 200 - OUTPUT TABLES

STRADA

STRW.020.LLL.TT.XXX

L	SINGLE			WEIGHT		WATER CONTENT		TWIN		WEIGHT		WATER CONTENT	
	Type	Watts	Watts	kg	l	Type	Watts	Watts	kg	l	Type	Watts	Watts
500	-	-	-	-	-	-	06	269	131	-	-	-	-
	10	328	159	3.8	0.33	11	-	-	-	-	-	-	-
	15	545	265	4.7	0.49	16	-	-	-	-	-	-	-
	20	766	373	5.7	0.66	21	-	-	-	-	-	-	-
600	-	-	-	-	-	-	06	323	157	-	-	-	-
	10	393	191	4.5	0.39	11	-	-	-	-	-	-	-
	15	654	319	5.6	0.59	16	-	-	-	-	-	-	-
	20	919	448	6.8	0.79	21	-	-	-	-	-	-	-
700	-	-	-	-	-	-	06	377	183	-	-	-	-
	10	459	223	5.3	0.46	11	-	-	-	-	-	-	-
	15	763	372	6.6	0.69	16	-	-	-	-	-	-	-
	20	1072	522	8.0	0.92	21	-	-	-	-	-	-	-
800	-	-	-	-	-	-	06	430	209	-	-	-	-
	10	524	255	6.0	0.52	11	-	-	-	-	-	-	-
	15	872	425	7.5	0.78	16	-	-	-	-	-	-	-
	20	1226	597	9.1	1.06	21	-	-	-	-	-	-	-
900	-	-	-	-	-	-	06	484	236	-	-	-	-
	10	590	287	6.8	0.59	11	-	-	-	-	-	-	-
	15	981	478	8.5	0.88	16	-	-	-	-	-	-	-
	20	1379	672	10.3	1.19	21	-	-	-	-	-	-	-
1000	-	-	-	-	-	-	06	538	262	-	-	-	-
	10	655	318	7.5	0.65	11	-	-	-	-	-	-	-
	15	1090	531	9.4	0.98	16	-	-	-	-	-	-	-
	20	1532	746	11.4	1.32	21	-	-	-	-	-	-	-
1100	-	-	-	-	-	-	06	592	288	-	-	-	-
	10	721	350	8.3	0.72	11	-	-	-	-	-	-	-
	15	1199	584	10.3	1.08	16	-	-	-	-	-	-	-
	20	1685	821	12.5	1.45	21	-	-	-	-	-	-	-
1200	-	-	-	-	-	-	06	646	314	-	-	-	-
	10	786	382	9.0	0.78	11	-	-	-	-	-	-	-
	15	1308	637	11.3	1.18	16	-	-	-	-	-	-	-
	20	1838	895	13.7	1.58	21	-	-	-	-	-	-	-
1400	-	-	-	-	-	-	06	753	366	-	-	-	-
	10	917	446	10.5	0.91	11	-	-	-	-	-	-	-
	15	1526	743	13.2	1.37	16	-	-	-	-	-	-	-
	20	2145	1045	16.0	1.85	21	-	-	-	-	-	-	-
1600	-	-	-	-	-	-	06	861	419	-	-	-	-
	10	1048	509	12.0	1.04	11	-	-	-	-	-	-	-
	15	1744	850	15.0	1.57	16	-	-	-	-	-	-	-
	20	2451	1194	18.2	2.11	21	-	-	-	-	-	-	-
1800	-	-	-	-	-	-	06	968	471	-	-	-	-
	10	1179	573	13.5	1.17	11	-	-	-	-	-	-	-
	15	1962	956	16.9	1.76	16	-	-	-	-	-	-	-
	20	2758	1343	20.5	2.38	21	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	06	1076	524	-	-	-	-
	10	1310	637	15.0	1.30	11	-	-	-	-	-	-	-
	15	2180	1062	18.8	1.96	16	-	-	-	-	-	-	-
	20	3064	1493	22.8	2.64	21	-	-	-	-	-	-	-
2400	-	-	-	-	-	-	06	1291	628	-	-	-	-
	10	1572	764	18.0	1.56	11	-	-	-	-	-	-	-
	15	2616	1274	22.6	2.35	16	-	-	-	-	-	-	-
	20	3677	1791	27.4	3.17	21	-	-	-	-	-	-	-
2800	-	-	-	-	-	-	06	1506	733	-	-	-	-
	10	1834	891	21.0	1.82	11	-	-	-	-	-	-	-
	15	3052	1487	26.3	2.74	16	-	-	-	-	-	-	-
	20	4290	2090	31.9	3.70	21	-	-	-	-	-	-	-

EN442 output at 20°C room temperature.



HEIGHT 350 - OUTPUT TABLES - TECHNICAL INFO

STRADA

STRW.035 LLL TT.XXX				SINGLE		WEIGHT		WATER CONTENT		TWIN		WEIGHT		WATER CONTENT	
L	Type	Watts	Watts	kg	l	kg	l	Watts	Watts	Watts	Watts	kg	l	Watts	l
mm		75/65	55/45					75/65	55/45						
500	-	-	-	-	-	-	-	06	395	194		4.5	0.32		
	10	449	220	4.9	0.33	11	598	287				5.6	0.67		
	15	735	361	6.0	0.49	16	797	378				7.1	0.99		
	20	1030	506	7.0	0.66	21	1057	498				8.4	1.33		
600	-	-	-	-	-	-	-	06	474	233		5.4	0.38		
	10	539	264	5.9	0.39	11	718	344				6.7	0.80		
	15	862	434	7.1	0.59	16	956	454				8.5	1.19		
	20	1236	608	8.4	0.79	21	1268	598				10.0	1.60		
700	-	-	-	-	-	-	-	06	553	271		6.3	0.44		
	10	629	308	6.9	0.46	11	837	401				7.8	0.93		
	15	1029	506	8.3	0.69	16	1115	529				9.9	1.39		
	20	1442	709	9.8	0.92	21	1480	698				11.7	1.86		
800	-	-	-	-	-	-	-	06	632	310		7.2	0.50		
	10	718	351	7.8	0.52	11	957	459				9.0	1.06		
	15	1176	578	9.5	0.78	16	1274	605				11.4	1.58		
	20	1648	810	11.2	1.06	21	1691	797				13.4	2.13		
900	-	-	-	-	-	-	-	06	711	349		8.1	0.57		
	10	808	395	8.8	0.59	11	1076	516				10.1	1.20		
	15	1323	650	10.7	0.88	16	1434	681				12.8	1.78		
	20	1854	911	12.6	1.19	21	1903	897				15.0	2.39		
1000	-	-	-	-	-	-	-	06	790	388		9.0	0.63		
	10	898	439	9.8	0.65	11	1196	573				11.2	1.33		
	15	1470	723	11.9	0.98	16	1593	756				14.2	1.98		
	20	2060	1013	14.0	1.32	21	2114	997				16.7	2.66		
1100	-	-	-	-	-	-	-	06	869	427		9.9	0.69		
	10	988	483	10.8	0.72	11	1316	631				12.3	1.46		
	15	1617	795	13.1	1.08	16	1752	832				15.6	2.18		
	20	2266	1114	15.4	1.45	21	2325	1096				18.4	2.93		
1200	-	-	-	-	-	-	-	06	948	465		10.8	0.76		
	10	1078	528	11.8	0.78	11	1435	688				13.4	1.60		
	15	1764	867	14.3	1.18	16	1912	908				17.0	2.38		
	20	2472	1215	16.8	1.58	21	2537	1196				20.0	3.19		
1400	-	-	-	-	-	-	-	06	1106	543		12.6	0.88		
	10	1257	615	13.7	0.91	11	1674	802				15.7	1.86		
	15	2058	1012	16.7	1.37	16	2230	1059				19.9	2.77		
	20	2864	1418	19.6	1.85	21	2960	1396				23.4	3.72		
1600	-	-	-	-	-	-	-	06	1264	620		14.4	1.01		
	10	1437	703	15.7	1.04	11	1914	917				17.9	2.13		
	15	2352	1156	19.0	1.57	16	2549	1210				22.7	3.17		
	20	3276	1620	22.4	2.11	21	3382	1594				26.7	4.26		
1800	-	-	-	-	-	-	-	06	1422	698		16.2	1.13		
	10	1616	791	17.6	1.17	11	2153	1032				20.2	2.39		
	15	2646	1301	21.4	1.76	16	2867	1361				25.6	3.56		
	20	3708	1823	25.2	2.38	21	3805	1794				30.1	4.79		
2000	-	-	-	-	-	-	-	06	1582	776		18.0	1.26		
	10	1796	879	19.6	1.30	11	2392	1146				22.4	2.66		
	15	2940	1445	23.8	1.96	16	3186	1513				28.4	3.96		
	20	4120	2025	28.0	2.64	21	4228	1993				33.4	5.32		
2400	-	-	-	-	-	-	-	06	1896	931		21.6	1.51		
	10	2155	1055	23.5	1.56	11	2870	1375				26.9	3.19		
	15	3528	1734	28.6	2.35	16	3823	1815				34.1	4.75		
	20	4944	2431	33.6	3.17	21	5074	2392				40.1	6.38		
2800	-	-	-	-	-	-	-	06	2212	1086		25.2	1.76		
	10	2514	1230	27.4	1.82	11	3349	1605				31.4	3.72		
	15	4116	2024	33.3	2.74	16	4460	2118				39.8	5.54		
	20	5768	2836	39.2	3.70	21	5919	2791				46.8	7.45		

EN16430 output at 20°C room temperature.

HEIGHT 350 - OUTPUT TABLES - TECHNICAL INFO

STRADA HYBRID

STRW.035 LLL TT.XXX + DBHS.LLL TT/PT																					
		HEATING					HEATING					COOLING		SOUND PRESSURE		POWER					
L	Type	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	dB(A)	dB(A)	Boost	Boost	Watts	Watts	
mm		75/65	55/45	45/35	35/30	35/30	35/30	35/30	35/30	35/30	35/30	75/65	55/45	45/35	35/30	16/18	16/18	Comfort	Boost	Max	Max
500	06	Refer to Jaga Technical Dept.																			
	11	943	534	337	203							1102	624	394	237	158	185	30.0	38.8	5.1	
	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
600	06	Refer to Jaga Technical Dept.																			
	11	1223	693	438	263							1447	820	518	311	205	242	30.0	40.0	6.8	
	16	1503	851	538	323							1989	1126	712	428	230	305	30.0	41.1	7.2	
	21	1935	1125	725	447							2561	1488	940	591	251	332	30.0	41.1	7.2	
700	06	Refer to Jaga Technical Dept.																			
	11	1498	848	536	322							1791	1014	641	385	251	300	30.0	41.0	7.9	
	16	1747	989	625	376							2313	1310	828	498	236	312	30.0	41.1	7.2	
	21	2123	1234	796	490							2810	1633	1053	648	258	341	30.0	41.1	7.2	
800	06	Refer to Jaga Technical Dept.																			
	11	1770	1002	633	381							2136	1210	764	460	296	358	30.0	41.8	9.1	
	16	2188	1239	783	471							2936	1663	1050	632	335	450	30.0	42.4	9.0	
	21	2818	1638	1056	650							3781	2197	1418	873	366	490	30.0	42.4	9.0	
900	06	Refer to Jaga Technical Dept.																			
	11	2037	1154	729	438							2480	1405	887	534	341	415	30.0	42.4	10.3	
	16	2503	1418	896	539							3409	1931	1220	734	383	522	30.0	43.3	10.7	
	21	3224	1874	1209	744							4391	2552	1646	1013	418	570	30.0	43.3	10.7	
1000	06	Refer to Jaga Technical Dept.																			
	11	2301	1303	823	495							2825	1600	1011	608	385	473	30.0	43.0	12.2	
	16	2817	1595	1008	606							3883	2199	1389	836	431	595	30.0	44.1	10.7	
	21	3627	2108	1360	837							5000	2906	1875	1154	471	649	30.0	44.1	10.7	
1100	06	Refer to Jaga Technical Dept.																			
	11	2582	1462	924	556							3169	1795	1134	682	432	531	30.0	43.5	14.0	
	16	3051	1728	1092	657							4207	2383	1505	905	437	602	30.0	44.1	12.5	
	21	3808	2213	1428	879							5249	3051	1968	1211	477	658	30.0	44.1	12.5	
1200	06	Refer to Jaga Technical Dept.																			
	11	2822	1598	1010	607							3514	1990	1257	756	473	589	30.0	44.0	14.8	
	16	3472	1966	1242	747							4830	2735	1728	1039	532	740	30.0	44.8	14.3	
	21	4471	2598	1676	1032							6220	3615	2332	1435	580	807	30.0	44.8	14.3	
1400	06	Refer to Jaga Technical Dept.																			
	11	3333	1888	1193	717							4203	2380	1504	905	558	704	30.0	44.8	17.5	
	16	4117	2332	1473	886							5777	3272	2067	1243	630	885	30.0	45.4	14.4	
	21	5302	3081	1988	1224							7440	4324	2789	1717	688	965	30.0	45.4	14.4	
1600	06	Refer to Jaga Technical Dept.																			
	11	3855	2172	1372	825							4892	2771	1750	1053	642	819	30.0	45.5	19.2	
	16	4717	2671	1688	1015							6724	3808	2406	1447	722	1030	30.0	46.4	19.6	
	21	6075	3531	2278	1402							8659	5032	3246	1998	788	1123	30.0	46.4	19.6	
1800	06	Refer to Jaga Technical Dept.																			
	11	4376	2478	1566	942							5581	3161	1997	1201	733	935	30.0	46.0	22.0	
	16	5171	2929	1850	1113							7371	4175	2637	1586	733	1045	30.0	46.4	19.6	
	21	6424	3734	2408	1482							9157	5322	3433	2113	801	1142	30.0	46.4	19.6	
2000	06	Refer to Jaga Technical Dept.																			
	11	4821	2730	1725	1037							6270	3551	2243	1349	807	1050	30.0	46.5	24.0	
	16	5971	3382	2136	1285							8618	4881	3083	1855	914	1320	30.0	47.1	23.5	
	21	7690	4469	2883	1775							11098	6450	4161	2561	998	1440	30.0	47.1	23.5	
2400	06	Refer to Jaga Technical Dept.																			
	11	5738	3250	2053	1235							7648	4331	2736	1646	961	1281	30.0	47.2	28.0	
	16	7168	4060	2565	1543							10512	5954	3761	2262	1098	1610	30.0	48.1	29.7	
	21	9231	5365	3461	2130							13538	7868	5075	3124	1197	1756	30.0	48.1	29.7	
2800	06	Refer to Jaga Technical Dept.																			
	11	6599	3737	2361	1420							8790	4978	3145	1892	1056	1406	30.0	47.8	31.4	
	16	8348	4728	2987	1797							12406	7026	4439	2670	1278	1900	30.0	48.9	34.5	
	21	10751	6248	4031	2487							15977	9786	5996	3687	1395	2072	30.0	48.9	34.5	

HEIGHT 500 ■ OUTPUT TABLES ■ TECHNICAL INFO

STRADA

STRW 050 LLL TXXX									
SINGLE			WEIGHT		TWIN		WATER CONTENT		
L	Type	Watts	kg	l	Type	Watts	kg	l	
mm		75/65 55/45				75/65 55/45			
500	-	-	-	-	6	474 235	5.6	0.32	
	10	538 265	6.0	0.33	11	693 332	6.8	0.67	
	15	867 430	7.2	0.49	16	949 449	8.4	0.99	
	20	1213 602	8.4	0.66	21	1291 605	9.8	1.33	
600	-	-	-	-	6	568 282	6.7	0.38	
	10	646 318	7.2	0.39	11	832 399	8.1	0.80	
	15	1040 516	8.6	0.59	16	1139 539	10.0	1.19	
	20	1455 722	10.0	0.79	21	1549 725	11.7	1.60	
700	-	-	-	-	6	663 329	7.8	0.44	
	10	753 371	8.4	0.66	11	970 465	9.5	0.93	
	15	1214 602	10.1	0.69	16	1329 629	11.7	1.39	
	20	1698 842	11.7	0.92	21	1807 846	13.7	1.86	
800	-	-	-	-	6	758 376	8.9	0.50	
	10	861 424	9.6	0.52	11	1109 532	10.8	1.06	
	15	1387 688	11.5	0.78	16	1518 719	13.4	1.58	
	20	1940 962	13.4	1.06	21	2066 968	15.6	2.13	
900	-	-	-	-	6	852 423	10.0	0.57	
	10	968 477	10.8	0.59	11	1247 598	12.2	1.20	
	15	1561 774	13.0	0.88	16	1708 809	15.0	1.78	
	20	2183 1083	15.0	1.19	21	2324 1088	17.6	2.39	
1000	-	-	-	-	6	947 470	11.1	0.63	
	10	1076 530	12.0	0.65	11	1386 665	13.5	1.63	
	15	1734 860	14.4	0.98	16	1898 898	16.7	1.98	
	20	2425 1203	16.7	1.32	21	2582 1209	19.5	2.66	
1100	-	-	-	-	6	1062 517	12.2	0.69	
	10	1184 584	13.2	0.72	11	1525 732	14.9	1.46	
	15	1907 946	15.8	1.08	16	2088 988	18.4	2.18	
	20	2668 1323	18.4	1.45	21	2840 1330	21.5	2.93	
1200	-	-	-	-	6	1136 564	13.3	0.76	
	10	1291 636	14.4	0.78	11	1663 798	16.2	1.60	
	15	2081 1032	17.3	1.18	16	2278 1078	20.0	2.38	
	20	2910 1443	20.0	1.58	21	3098 1451	23.4	3.19	
1400	-	-	-	-	6	1326 638	15.5	0.88	
	10	1506 742	16.8	0.91	11	1940 931	18.9	1.86	
	15	2428 1204	20.2	1.37	16	2657 1258	23.4	2.77	
	20	3395 1684	23.4	1.85	21	3615 1693	27.3	3.72	
1600	-	-	-	-	6	1515 752	17.8	1.01	
	10	1722 849	19.2	1.04	11	2218 1064	21.6	2.13	
	15	2774 1376	23.0	1.57	16	3037 1438	26.7	3.17	
	20	3880 1924	26.7	2.11	21	4131 1935	31.2	4.26	
1800	-	-	-	-	6	1705 846	20.0	1.13	
	10	1937 955	21.6	1.17	11	2495 1197	24.3	2.39	
	15	3121 1548	25.9	1.76	16	3416 1617	30.1	3.56	
	20	4265 2165	30.1	2.38	21	4648 2177	35.1	4.79	
2000	-	-	-	-	6	1894 940	22.2	1.26	
	10	2152 1061	24.0	1.30	11	2772 1330	27.0	2.66	
	15	3468 1720	28.8	1.96	16	3796 1797	33.4	3.96	
	20	4850 2405	33.4	2.64	21	5164 2418	39.0	5.32	
2400	-	-	-	-	6	2273 1128	26.6	1.51	
	10	2582 1273	28.8	1.56	11	3326 1596	32.4	3.19	
	15	4162 2064	34.6	2.25	16	4555 2156	40.1	4.75	
	20	5820 2886	40.1	3.17	21	6197 2902	46.8	6.38	
2800	-	-	-	-	6	2652 1316	31.1	1.76	
	10	3013 1485	33.6	1.82	11	3881 1862	37.8	3.72	
	15	4855 2408	40.3	2.74	16	5314 2516	46.8	5.54	
	20	6790 3367	46.8	3.70	21	7230 3386	54.6	54.6	

EN442 output at 20°C room temperature.

20 | **jaga** CLIMATE DESIGNERS

HEIGHT 500 ■ OUTPUT TABLES ■ TECHNICAL INFO

STRADA HYBRID

STRW-050 LLL TT-XXX + DBHS-LLL TT/TPT														
L	Type	HEATING				HEATING				COOLING		SOUND PRESSURE		POWER
		Comfort				Boost				Comfort		Boost		
		Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	dB(A)	dB(A)	Boost	Watts	
mm		75/65	55/45	45/35	35/20	75/65	55/45	45/35	35/20	16/18	16/18	16/18	16/18	
500	06	Refer to Jaga Technical Dept.												
	11	943	534	337	203	1102	624	394	237	158	185	30.0	38.8	5.1
	16	-	-	-	-	-	-	-	-	-	-	-	-	-
	21	-	-	-	-	-	-	-	-	-	-	-	-	-
600	06	Refer to Jaga Technical Dept.												
	11	1223	693	438	263	1447	820	518	311	205	242	30.0	40.0	6.8
	16	1503	851	538	323	1989	1126	712	428	230	305	30.0	41.1	7.2
	21	1935	1125	725	447	2561	1488	940	591	251	332	30.0	41.1	7.2
700	06	Refer to Jaga Technical Dept.												
	11	1498	848	536	322	1791	1014	641	385	251	300	30.0	41.0	7.9
	16	1747	989	625	376	2313	1310	828	498	236	312	30.0	41.1	7.2
	21	2123	1234	796	490	2810	1633	1053	648	258	341	30.0	41.1	7.2
800	06	Refer to Jaga Technical Dept.												
	11	1770	1002	633	381	2136	1210	764	460	296	358	30.0	41.8	9.1
	16	2188	1239	783	471	2936	1643	1050	632	335	450	30.0	42.4	9.0
	21	2818	1638	1056	650	3781	2197	1418	873	366	490	30.0	42.4	9.0
900	06	Refer to Jaga Technical Dept.												
	11	2037	1154	729	438	2480	1405	887	534	341	415	30.0	42.4	10.3
	16	2503	1418	896	539	3409	1931	1220	734	383	522	30.0	43.3	10.7
	21	3224	1874	1209	744	4391	2552	1646	1013	418	570	30.0	43.3	10.7
1000	06	Refer to Jaga Technical Dept.												
	11	2301	1303	823	495	2825	1600	1011	608	385	473	30.0	43.0	12.2
	16	2817	1595	1008	606	3883	2199	1389	836	431	595	30.0	44.1	10.7
	21	3627	2108	1360	837	5000	2906	1875	1154	471	649	30.0	44.1	10.7
1100	06	Refer to Jaga Technical Dept.												
	11	2582	1462	924	556	3169	1795	1134	682	432	531	30.0	43.5	14.0
	16	3051	1728	1092	657	4207	2383	1505	905	437	602	30.0	44.1	12.5
	21	3808	2213	1428	879	5249	3051	1968	1211	477	658	30.0	44.1	12.5
1200	06	Refer to Jaga Technical Dept.												
	11	2822	1598	1010	607	3514	1990	1257	756	473	589	30.0	44.0	14.8
	16	3472	1964	1242	747	4830	2735	1728	1039	532	740	30.0	44.8	14.3
	21	4471	2598	1676	1032	6220	3615	2332	1435	580	807	30.0	44.8	14.3
1400	06	Refer to Jaga Technical Dept.												
	11	3333	1888	1193	717	4203	2380	1504	905	558	704	30.0	44.8	17.5
	16	4117	2332	1473	886	5777	3272	2067	1243	630	885	30.0	45.4	14.4
	21	5302	3081	1988	1224	7440	4324	2789	1717	688	945	30.0	45.4	14.4
1600	06	Refer to Jaga Technical Dept.												
	11	3855	2172	1372	825	4892	2771	1750	1053	642	819	30.0	45.5	19.2
	16	4717	2471	1488	1015	6724	3808	2406	1447	722	1030	30.0	46.4	19.6
	21	4075	3531	2278	1402	8659	5032	3246	1998	788	1123	30.0	46.4	19.6
1800	06	Refer to Jaga Technical Dept.												
	11	4376	2478	1566	942	5581	3161	1997	1201	733	935	30.0	46.0	22.0
	16	5171	2929	1850	1113	7371	4175	2637	1586	733	1045	30.0	46.4	19.6
	21	6424	3734	2408	1482	9157	5322	3433	2113	801	1142	30.0	46.4	19.6
2000	06	Refer to Jaga Technical Dept.												
	11	4821	2730	1725	1037	6270	3551	2243	1349	807	1050	30.0	46.5	24.0
	16	5971	3382	2136	1285	8618	4881	3083	1855	914	1320	30.0	47.1	23.5
	21	7690	4469	2883	1775	11098	6450	4161	2561	998	1440	30.0	47.1	23.5
2400	06	Refer to Jaga Technical Dept.												
	11	5738	3250	2053	1235	7648	4331	2736	1646	961	1281	30.0	47.2	28.0
	16	7168	4040	2565	1543	10512	5954	3761	2262	1098	1610	30.0	48.1	29.7
	21	9231	5365	3461	2130	13538	7688	5075	3124	1197	1756	30.0	48.1	29.7
2800	06	Refer to Jaga Technical Dept.												
	11	4599	3737	2361	1420	8790	4928	3145	1892	1056	1406	30.0	47.8	31.4
	16	8348	4728	2987	1797	12406	7076	4439	2670	1278	1900	30.0	48.9	34.5
	21	10751	6248	4031	2481	15977	9286	5996	3687	1395	2072	30.0	48.9	34.5

EN16430 output at 20°C room temperature for heating and 27°C for cooling.

EN16430 output at 20°C room temperature for heating and 27°C for cooling.

HEIGHT 650 - OUTPUT TABLES - TECHNICAL INFO

STRADA

STRW.065 LLL TT.XXX				SINGLE		WEIGHT		WATER CONTENT		TWIN		WEIGHT		WATER CONTENT	
L	Type	Watts	Watts	kg	l	kg	l	Type	Watts	Watts	kg	l	Type	Watts	Watts
mm		75/65	55/45						75/65	55/45					
500	-	-	-	-	-	-	-	06	533	267	6.7	0.32			
	10	606	301	7.2	0.33	11	772	371	7.9	0.67					
	15	961	481	8.5	0.49	16	1087	513	9.6	0.99					
	20	1343	672	9.7	0.66	21	1515	705	11.1	1.33					
600	-	-	-	-	-	-	-	06	640	321	8.0	0.38			
	10	727	361	8.6	0.39	11	926	444	9.5	0.80					
	15	1153	577	10.1	0.59	16	1304	615	11.5	1.19					
	20	1611	806	11.6	0.79	21	1818	846	13.3	1.60					
700	-	-	-	-	-	-	-	06	746	374	9.3	0.44			
	10	848	421	10.0	0.46	11	1080	518	11.1	0.93					
	15	1345	673	11.8	0.69	16	1521	718	13.4	1.39					
	20	1880	941	13.6	0.92	21	2121	987	15.5	1.86					
800	-	-	-	-	-	-	-	06	853	428	10.6	0.50			
	10	949	481	11.4	0.52	11	1234	592	12.6	1.06					
	15	1538	770	13.5	0.78	16	1738	820	15.4	1.58					
	20	2148	1075	15.5	1.06	21	2424	1128	17.7	2.13					
900	-	-	-	-	-	-	-	06	959	481	12.0	0.57			
	10	1090	541	12.9	0.59	11	1389	667	14.2	1.20					
	15	1730	866	15.2	0.88	16	1956	923	17.3	1.78					
	20	2417	1210	17.5	1.19	21	2727	1269	19.9	2.39					
1000	-	-	-	-	-	-	-	06	1066	535	13.3	0.63			
	10	1211	601	14.3	0.65	11	1543	741	15.8	1.33					
	15	1922	962	16.9	0.98	16	2173	1026	19.2	1.98					
	20	2685	1344	19.4	1.32	21	3030	1410	22.1	2.66					
1100	-	-	-	-	-	-	-	06	1173	589	14.6	0.69			
	10	1332	661	15.7	0.72	11	1697	814	17.4	1.46					
	15	2114	1058	18.6	1.08	16	2390	1128	21.1	2.18					
	20	2954	1478	21.3	1.45	21	3333	1551	24.3	2.93					
1200	-	-	-	-	-	-	-	06	1279	642	16.0	0.76			
	10	1453	721	17.2	0.78	11	1852	889	19.0	1.60					
	15	2306	1154	20.3	1.18	16	2608	1231	23.0	2.38					
	20	3222	1613	23.3	1.58	21	3636	1692	26.5	3.19					
1400	-	-	-	-	-	-	-	06	1492	749	18.6	0.88			
	10	1695	841	20.0	0.91	11	2160	1037	22.1	1.86					
	15	2691	1347	23.7	1.37	16	3042	1436	26.9	2.77					
	20	3759	1881	27.2	1.85	21	4242	1975	30.9	3.72					
1600	-	-	-	-	-	-	-	06	1706	856	21.3	1.01			
	10	1938	942	22.9	1.04	11	2469	1185	25.3	2.13					
	15	3075	1539	27.0	1.57	16	3477	1641	30.7	3.17					
	20	4296	2150	31.0	2.11	21	4848	2257	35.4	4.26					
1800	-	-	-	-	-	-	-	06	1919	963	23.9	1.13			
	10	2180	1082	25.7	1.17	11	2777	1333	28.4	2.39					
	15	3640	1732	30.4	1.76	16	3911	1846	34.6	3.56					
	20	4833	2419	34.9	2.38	21	5454	2539	39.8	4.79					
2000	-	-	-	-	-	-	-	06	2132	1070	26.6	1.26			
	10	2422	1202	28.6	1.30	11	3086	1481	31.6	2.66					
	15	3844	1924	33.8	1.96	16	4346	2051	38.4	3.96					
	20	5370	2688	38.8	2.64	21	6060	2821	44.2	5.32					
2400	-	-	-	-	-	-	-	06	2558	1284	31.9	1.51			
	10	2906	1443	34.3	1.56	11	3703	1777	37.9	3.19					
	15	4613	2309	40.6	2.35	16	5215	2461	46.1	4.75					
	20	6444	3225	46.6	3.17	21	7272	3385	53.0	6.38					
2800	-	-	-	-	-	-	-	06	2985	1498	37.2	1.76			
	10	3391	1683	40.0	1.82	11	4320	2073	44.2	3.72					
	15	5382	2694	47.3	2.74	16	6084	2871	53.8	5.54					
	20	7518	3743	54.3	3.70	21	8484	3949	61.9	7.45					

EN16430 output at 20°C room temperature.

HEIGHT 650 - OUTPUT TABLES - TECHNICAL INFO

STRADA HYBRID

STRW.065 LLL TT.XXX + DBHS.LLL TT/PT																					
L mm		HEATING Comfort					HEATING Boost					COOLING Comfort		COOLING Boost		SOUND PRESSURE		POWER			
		Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts					dB(A)	dB(A)	Boost	Max		
500		75/65	55/45	45/35	35/30	35/30	75/65	55/45	45/35	35/30	75/65	55/45	45/35	35/30	16/18	16/18	30.0	38.8	5.1	-	
Refer to Jaga Technical Dept.																					
11		943	534	337	203	203	1102	624	394	237	146	171	30.0	38.8	5.1	-	-	-	-	-	
16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
600		Refer to Jaga Technical Dept.					1447	820	518	311	190	224	30.0	40.0	6.8	-	-	-	-	-	
11		1223	693	438	263	263	1989	1126	712	428	213	282	30.0	41.1	7.2	-	-	-	-	-	
16		1503	851	538	323	323	2561	1488	940	591	232	307	30.0	41.1	7.2	-	-	-	-	-	
21		1935	1125	725	447	447	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
700		Refer to Jaga Technical Dept.					1791	1014	641	385	232	278	30.0	41.0	7.9	-	-	-	-	-	
11		1498	848	536	322	322	2313	1310	828	498	218	289	30.0	41.1	7.2	-	-	-	-	-	
16		1747	989	625	376	376	2810	1633	1053	648	239	316	30.0	41.1	7.2	-	-	-	-	-	
21		2123	1234	796	490	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
800		Refer to Jaga Technical Dept.					2136	1210	764	460	274	331	30.0	41.8	9.1	-	-	-	-	-	
11		1770	1002	633	381	381	2936	1663	1050	632	310	416	30.0	42.4	9.0	-	-	-	-	-	
16		2188	1239	783	471	471	3781	2197	1418	873	338	454	30.0	42.4	9.0	-	-	-	-	-	
21		2818	1638	1056	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
900		Refer to Jaga Technical Dept.					2480	1405	887	534	316	384	30.0	42.4	10.3	-	-	-	-	-	
11		2037	1154	729	438	438	3409	1931	1220	734	355	483	30.0	43.3	10.7	-	-	-	-	-	
16		2503	1418	896	539	539	4391	2552	1646	1013	387	527	30.0	43.3	10.7	-	-	-	-	-	
21		3224	1874	1209	744	744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1000		Refer to Jaga Technical Dept.					2825	1600	1011	608	356	438	30.0	43.0	12.2	-	-	-	-	-	
11		2301	1303	823	495	495	3883	2199	1389	836	399	550	30.0	44.1	10.7	-	-	-	-	-	
16		2817	1595	1008	606	606	5000	2906	1875	1154	435	600	30.0	44.1	10.7	-	-	-	-	-	
21		3627	2108	1360	837	837	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1100		Refer to Jaga Technical Dept.					3169	1795	1134	682	400	491	30.0	43.5	14.0	-	-	-	-	-	
11		2582	1462	924	556	556	4207	2383	1505	905	404	557	30.0	44.1	12.5	-	-	-	-	-	
16		3051	1728	1092	657	657	5249	3051	1968	1211	441	608	30.0	44.1	12.5	-	-	-	-	-	
21		3808	2213	1428	879	879	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1200		Refer to Jaga Technical Dept.					3514	1990	1257	756	438	545	30.0	44.0	14.8	-	-	-	-	-	
11		2822	1598	1010	607	607	4830	2735	1728	1039	492	685	30.0	44.8	14.3	-	-	-	-	-	
16		3472	1964	1242	747	747	6220	3415	2332	1435	536	746	30.0	44.8	14.3	-	-	-	-	-	
21		4471	2598	1676	1032	1032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1400		Refer to Jaga Technical Dept.					4203	2380	1504	905	516	651	30.0	44.8	17.5	-	-	-	-	-	
11		3333	1888	1193	717	717	5777	3272	2067	1243	583	819	30.0	45.4	14.4	-	-	-	-	-	
16		4117	2332	1473	886	886	7440	4324	2789	1717	636	893	30.0	45.4	14.4	-	-	-	-	-	
21		5302	3081	1988	1224	1224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1600		Refer to Jaga Technical Dept.					4892	2771	1750	1053	594	758	30.0	45.5	19.2	-	-	-	-	-	
11		3855	2172	1372	825	825	6724	3908	2406	1447	668	953	30.0	46.4	19.6	-	-	-	-	-	
16		4717	2671	1688	1015	1015	8659	5032	3246	1998	729	1039	30.0	46.4	19.6	-	-	-	-	-	
21		6075	3531	2278	1402	1402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1800		Refer to Jaga Technical Dept.					5581	3161	1997	1201	678	865	30.0	46.0	22.0	-	-	-	-	-	
11		4376	2478	1566	942	942	7371	4175	2637	1586	678	966	30.0	46.4	19.6	-	-	-	-	-	
16		5171	2929	1850	1113	1113	9157	5322	3433	2113	741	1056	30.0	46.4	19.6	-	-	-	-	-	
21		6424	3734	2408	1482	1482	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2000		Refer to Jaga Technical Dept.					6270	3551	2243	1349	746	971	30.0	46.5	24.0	-	-	-	-	-	
11		4821	2730	1725	1037	1037	8618	4881	3083	1855	845	1221	30.0	47.1	23.5	-	-	-	-	-	
16		5971	3382	2136	1285	1285	11098	6450	4161	2561	923	1332	30.0	47.1	23.5	-	-	-	-	-	
21		7690	4469	2883	1775	1775	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2400		Refer to Jaga Technical Dept.					7648	4331	2736	1646	889	1185	30.0	47.2	28.0	-	-	-	-	-	
11		5738	3250	2053	1235	1235	10512	5954	3761	2262	1016	1489	30.0	48.1	29.7	-	-	-	-	-	
16		7168	4060	2565	1543	1543	13538	7688	5075	3124	1108	1624	30.0	48.1	29.7	-	-	-	-	-	
21		9231	5365	3461	2130	2130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2800		Refer to Jaga Technical Dept.					8790	4978	3145	1892	977	1301	30.0	47.8	31.4	-	-	-	-	-	
11		4599	2737	2361	1420	1420	12406	7026	4439	2670	1182	1758	30.0	48.9	34.5	-	-	-	-	-	
16		8348	4728	2987	1797	1797	15977	9286	5996	3687	1290	1917	30.0	48.9	34.5	-	-	-	-	-	
21		10751	6248	4031	2481	2481	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



SPECIFICATION PACK

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INTRODUCTION

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DEXTRA GROUP – THE LEADING UK LIGHTING MANUFACTURER

DEXTRA GROUP IS THE LARGEST INDEPENDENTLY OWNED UK LIGHTING MANUFACTURER

Dextra Group plc has been committed to British lighting manufacturing for over 40 years, never shifting its emphasis from the importance of producing quality lighting products on British soil, to deliver an industry leading service to our clients.

The company's ongoing commitment to 'Made in Britain' and investment in the finest UK lighting manufacturing equipment available, will help to boost the economy, promote innovation, reduce its carbon footprint and supply local jobs, even while others have been turning to cheaper foreign imports.

As the largest privately owned UK lighting manufacturer in the country, designing and manufacturing lighting products, both standard and bespoke, from our purpose-built factory in North Dorset, distributing them via our own fleet of vehicles and offering a recycling service to clients in line with current WEEE legislation as a registered AATF.



UNRIVALLED SERVICE

From our inception, service, in its true meaning, has been our mantra and investment in the finest UK lighting manufacturing equipment and facilities has helped the company to reach and maintain that goal.

The introduction of LED components was seen as a great opportunity and the resulting investment has placed Dextra Group at the forefront of the UK lighting industry for both standard and special products.

Our substantial mixed fleet of liveried vehicles, many with mounted forklifts for fast unloading where a client's facility may be limited, is the last link in our JIT systems.

"The company's ongoing commitment to 'Made in Britain' and investment in the finest UK lighting manufacturing equipment available, will help to boost the economy, promote innovation, reduce its carbon footprint and supply local jobs, even while others have been turning to cheaper foreign imports"

Rupert Martin | Dextra Group Chairman

DEXTRA GROUP – THE LEADING UK LIGHTING MANUFACTURER

CONTINUAL INVESTMENT IN UK LIGHTING MANUFACTURING

The recent addition of two new Salvagninis with the latest metal working technology, Aluminium Processing and 3D Commercial printing facilities enhances the already impressive array of cutting edge manufacturing equipment.

This supports the company's 'just in time' manufacturing ethos and enables the design and manufacture of exciting and innovative new product ranges.

Our commitment to investment in UK manufacturing places the company at the forefront of the British lighting industry.



A PROUD MEMBER OF THE MADE IN BRITAIN ORGANISATION

Made in Britain brings together the best in the British manufacturing community, united with the use of the registered collective mark.

The mark is protected and can only be used by members of Made in Britain that meet the criteria they set to guarantee the member is a British manufacturer.



AMENITY DECORATIVE IP65



INTRODUCTION

The Amenity Decorative IP65 offers the decorative and aesthetic benefits of our Amenity Decorative range with a tough IP65 housing for applications with a risk of water and dust ingress as well as an IK10 rating to protect against impact. Manufactured with high quality mid power LEDs the Amenity Decorative IP65 offers excellent energy efficiency and longevity with L90 at 60,000 operating hours. With lumen outputs ranging from 1500 to 6000 as well as integral lithium emergency and dimmable options the Amenity Decorative IP65 can easily be tailored to suit a wide range of applications.

Energy savings can be further enhanced with a selection of integral presence detection and bright out microwave sensors including on / off, bi level dimming and wireless variants allowing luminaires to be grouped for simultaneous operation.

- CE
- IP65
- IK10
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

- Canteen
- Commercial / Offices
- Corridor
- Education

AMENITY DECORATIVE IP65

- Healthcare / Social Housing
- Hotel / Leisure
- Industrial / Manufacturing
- Retail
- Stairwell
- Store Room
- Toilet
- Transport
- Warehouse / Storage

SPECIFICATION

CONSTRUCTION

- Housing: Injection moulded polycarbonate
- Finish: Matt white
- Diffuser: Injection moulded high transmission opal polycarbonate
- IK10
- IP65

PERFORMANCE

- Part L2 compliant
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 128 luminaire lumens per circuit Watt

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- All critical components are mounted on a single tray for simple end of life repair or upgrade.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.
- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty and lifetime.
- Optional Reacta-Link wireless emergency for automated centralised reporting.

AMENITY DECORATIVE IP65

- Optional Reacta-Control wireless emergency for automated centralised reporting.
- Optional central battery changeover relay

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional Integral R25 microwave presence and bright out sensor
- Optional Integral R25W wireless microwave presence and bright out sensor
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for surface installation
- Retrofit in existing luminaires

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of lumen outputs
- Available with optional night light

IMAGES

PRODUCT IMAGES



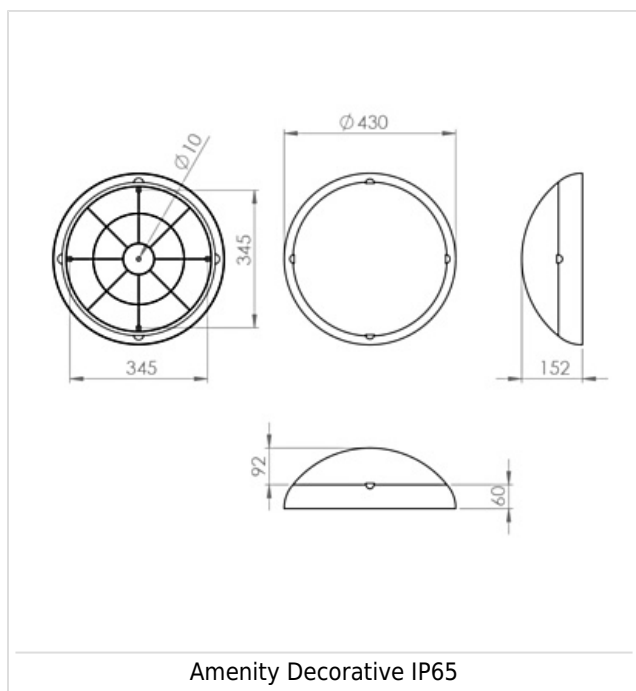
Amenity Decorative IP65

PROJECT IMAGES

AMENITY DECORATIVE IP65



TECHNICAL



ORDER CODES

LUMINAIRE

Code	Description	Power	Llm/W
AMEDIP65 L15	Amenity Decorative IP65, 1,214lm, Colour 84	10.3W	117
AMEDIP65 L20	Amenity Decorative IP65, 1,616lm, Colour 84	13.7W	117
AMEDIP65 L30	Amenity Decorative IP65, 2,425lm, Colour 84	20.9W	116
AMEDIP65 L40	Amenity Decorative IP65, 3,234lm, Colour 84	28.0W	115
AMEDIP65 L60	Amenity Decorative IP65, 4,854lm, Colour 84	37.6W	128

AMENITY DECORATIVE IP65

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
C	Bi-Level Dimming For Standalone Switched Sensor

CONTROL

Code	Description
R25E	Reacta 25, Presence & Bright Out, On / Off, 2.5-4M
R25C*	Reacta 25, Presence & Bright Out, Bi-Level Dimming, 2.5-4M
R25W	Reacta 25, Wireless, Presence & Bright Out, Dimmable, 2.5-4M
R25WE	Reacta 25, Wireless, Presence & Bright Out, On / Off, 2.5-4M
RLI	Reacta-Link, Wireless Enabled Luminaire
RLM	Reacta-Link, Wireless, Presence, 2.5-4M
RC	Reacta-Control, Wireless Enabled Luminaire
RCMC*	Reacta-Control, Presence & Bright Out, Bi-level Dimming, 2.5-4M
RCME	Reacta-Control, Presence & Bright Out, On / Off, 2.5-4M

Please click [here](#) for full details on our wireless controls.

*Bi-Level Dimming will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off.

EMERGENCY

Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour
CB	Central Battery, Please Specify 50V, 110V or 230V when Ordering

Emergency not available with L60 variants

Emergency not available with L60 variants.

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
NL	Night Light (Non Emergency Variants Only)
TRS	Tamper Resistant Screws
TRS INSTALL KIT	Tamper Resistant Compatible Screwdriver Heads
LSF	Low Smoke Zero Halogen



INTRODUCTION

The Amenity Decorative range offers an attractive solution for amenity applications such as corridors and stairwells and is manufactured from robust injection moulded polycarbonate to ensure it can withstand light accidental impact that can occur in such applications. This flexible range is available in 1500, 2000, 3000 and 4000 lumen outputs, as well a range of dimming and integral lithium emergency variants.

Manufactured with high quality mid power LEDs the Amenity Decorative offers excellent energy efficiency and longevity with L90 at 60,000 operating hours. The energy savings offered can be further enhanced with a selection of integral presence detection and bright out microwave sensors including on / off, bi level dimming and wireless variants allowing luminaires to be grouped for simultaneous operation. Optional angled rings are also available in white, brass and chrome to enable the appearance of this range be tailored to blend with its surroundings.

- CE
- IP40
- IK08
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

- Canteen
- Commercial / Offices

AMENITY DECORATIVE

- Corridor
- Education
- Healthcare / Social Housing
- Hotel / Leisure
- Industrial / Manufacturing
- Retail
- Stairwell
- Store Room
- Toilet
- Transport
- Warehouse / Storage

SPECIFICATION

CONSTRUCTION

- Housing: Injection moulded polycarbonate
- Finish: Matt white
- Diffuser: Injection moulded high transmission opal polycarbonate
- IK08
- IP40

PERFORMANCE

- Part L2 compliant
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 119 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- All critical components are mounted on a single tray for simple end of life repair or upgrade.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.
- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty

AMENITY DECORATIVE

and lifetime.

- Optional Reacta-Link wireless emergency for automated centralised reporting.
- Optional Reacta-Control wireless emergency for automated centralised reporting.
- Optional central battery changeover relay

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional Integral R25 microwave presence and bright out sensor
- Optional Integral R25W wireless microwave presence and bright out sensor
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for conduit installation
- Suitable for surface installation
- Retrofit in existing luminaires

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of lumen outputs
- Available with optional night light

IMAGES

PRODUCT IMAGES

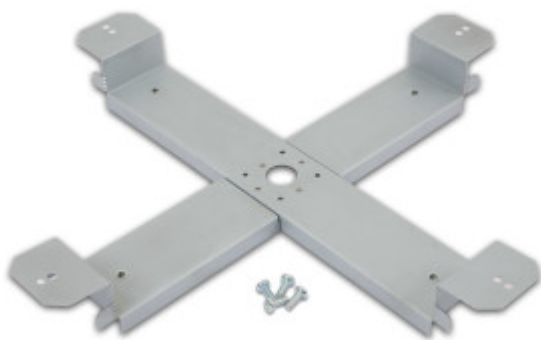


Amenity Decorative



Amenity Decorative Rings

AMENITY DECORATIVE

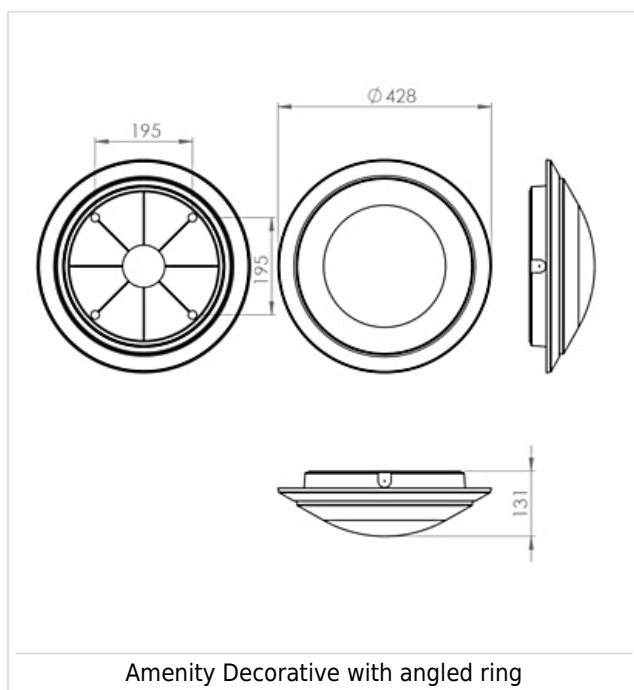


Amenity Decorative Halo Recessing Kit

PROJECT IMAGES



TECHNICAL



AMENITY DECORATIVE

ORDER CODES

LUMINAIRE

Code	Description	Power	Llm/W
AMED L15	Amenity Decorative, 1,234llm, White Opal, Colour 84	9.7W	127
AMED L20	Amenity Decorative, 1,636llm, White Opal, Colour 84	13.0W	126
AMED L30	Amenity Decorative, 2,427llm, White Opal, Colour 84	19.7W	123
AMED L40	Amenity Decorative, 3,271llm, White Opal, Colour 84	26.8W	122

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
C	Bi-Level Dimming For Standalone Switched Sensor

CONTROL

Code	Description
R25E	Reacta 25, Presence & Bright Out, On / Off, 2.5-4M
R25C*	Reacta 25, Presence & Bright Out, Bi-Level Dimming, 2.5-4M
R25W	Reacta 25, Wireless, Presence & Bright Out, Dimmable, 2.5-4M
R25WE	Reacta 25, Wireless, Presence & Bright Out, On / Off, 2.5-4M
RLM	Reacta-Link, Wireless, Presence, 2.5-4M
RC	Reacta-Control, Wireless Enabled Luminaire
RCMC*	Reacta-Control, Presence & Bright Out, Bi-level Dimming, 2.5-4M
RCME	Reacta-Control, Presence & Bright Out, On / Off, 2.5-4M

Please click [here](#) for full details on our wireless controls.

*Bi-Level Dimming will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off.

EMERGENCY

Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour
CB	Central Battery, Please Specify 50V, 110V or 230V when Ordering

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
NL	Night Light (Non Emergency Variants Only)
AMED SRB	Amenity Decorative Semi Recessing Kit (330mm cut out)
AMED AWR	Amenity Decorative Angled White Ring
AMED ACR	Amenity Decorative Angled Chrome Ring
AMED ABR	Amenity Decorative Angled Brass Ring
LSF	Low Smoke Zero Halogen



INTRODUCTION

The Capo XL is a modern take on the classic Highbay luminaire used in countless warehouse, manufacturing and retail applications around the country. The Capo XL provides a modern and attractive appearance with similar lumen output to traditional 250W and 400W HID luminaires with typically half the energy consumption and minimal maintenance requirements ensuring that the Capo XL provides rapid return on investment in the vast majority of applications. With a matt grey or white aluminium rear housing, a translucent collar available in a range of colours and opal refractor the Capo XL can also be customised to suit any corporate theme.

The Capo XL is available in three lumen outputs, 6,513lm, 12,676lm and 17,718lm luminaire lumens ensuring it can be used as an effective replacement for the majority of HID sources and is also available in dimming and lithium emergency variants eliminating the need for costly separate emergency lighting systems. Wireless dimming and control can be offered with our Reacta-Dim system and Reacta-Link options are also available where web based control and reporting of luminaires is required.

- CE
- IP20
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

- Industrial / Manufacturing
- Retail

- Warehouse / Storage

SPECIFICATION

CONSTRUCTION

- Housing: Spun aluminium
- Finish: Matt grey
- Diffuser: Injection moulded high transmission opal polycarbonate
- IP20
- Translucent collar available in a range of colour options.

PERFORMANCE

- Part L2 compliant
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 85 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.
- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty and lifetime.
- Optional Reacta-Link wireless emergency for automated centralised reporting.
- Optional Reacta-Control wireless emergency for automated centralised reporting.

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for suspended installation
- Supplied complete with single point suspension kit allowing for simple replacement of traditional highbay luminaires.

CAPO XL

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of lumen outputs
- Available with a range of collar colours

IMAGES

PRODUCT IMAGES



Capo XL Grey Housing



Capo XL White Housing



Capo XL Black Housing



Capo XL Opal Collar



Capo XL Green Collar



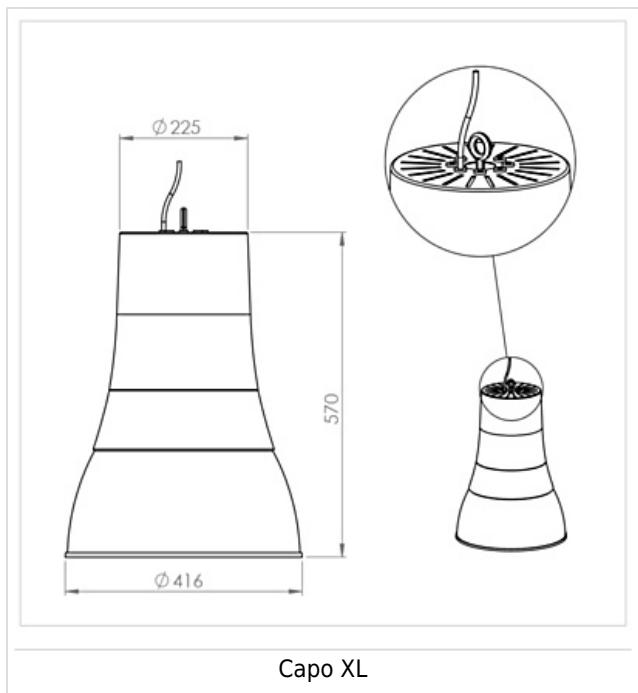
Capo XL Orange Collar

CAPO XL

PROJECT IMAGES



TECHNICAL



ORDER CODES

LUMINAIRE

Code	Description	Power	Llm/W
CAP XL L80	Capo XL, 6,513lm, Grey Housing, Colour 84	76.3W	85
CAP XL L160	Capo XL, 12,676lm, Grey Housing, Colour 84	154.3W	82
CAP XL L240	Capo XL, 17,718lm, Grey Housing, Colour 84	225.3W	78

Supplied with suspension kit

CAPO XL

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
C	Bi-Level Dimming For Standalone Switched Sensor

The Capo XL L160 uses two drivers and the L260 uses three drivers requiring an address per driver on the DALI network.

CONTROL

Code	Description
RLI	Reacta-Link, Wireless Enabled Luminaire
RC	Reacta-Control, Wireless Enabled Luminaire

[Please click here for full details on our wireless controls.](#)

EMERGENCY

Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
WH	White Finish
BL	Black Finish
RED	Red Collar
ORA	Orange Collar
GRN	Green Collar
BLE	Blue Collar
OP	Opal Collar
LSF	Low Smoke Zero Halogen

Collar colours may be subject to minimum order quantity



INTRODUCTION

The Graduate is a mainstay of the Dextra range and has been extensively used in academia and healthcare applications nationwide. Available in four lengths ranging from 600mm to 1800mm, a wide range of lumen outputs as well as dimming and lithium emergency options the Graduate can be tailored for use in applications ranging from classrooms and hospital wards through to circulation and ancillary areas. With a steel housing, polycarbonate diffuser and screw retained injection moulded end caps, long life drivers and LEDs with a lifetime of L90 to 60,000 operating hours the Graduate is designed to offer excellent service life and reliability with minimal maintenance.

The Graduate is suitable for installation on conduit, surface mounting or suspension and can be offered with an optional integral microwave sensor, or the Reacta-Air sensor where wireless grouping of luminaires is required for simultaneous operation. Wireless dimming and control can be offered with our Reacta-Dim system and Reacta-Link options are also available where web based control and reporting of luminaires is required. For healthcare applications a nightlight can be specified to provide low level lighting during rest periods.

- CE
- IP20
- IP40
- IK08
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

- Canteen
- Commercial / Offices
- Corridor
- Education
- Food / Clean Area
- Healthcare / Social Housing
- Hotel / Leisure
- Industrial / Manufacturing
- Retail
- Stairwell
- Store Room
- Transport
- Warehouse / Storage

SPECIFICATION

CONSTRUCTION

- Housing: 0.7mm CR4 steel
- Finish: Polyester powder painted BS 00E55 matt white 60% gloss
- Endcaps: Injection moulded polycarbonate
- Diffuser: 2mm extruded high transmission opal prismatic polycarbonate
- IK08
- IP20
- IP40

PERFORMANCE

- Part L2 compliant
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 147 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- All critical components are mounted on a single tray for simple end of life repair or upgrade.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.

GRADUATE

- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty and lifetime.
- Optional Reacta-Link wireless emergency for automated centralised reporting.
- Optional Reacta-Control wireless emergency for automated centralised reporting.
- Optional central battery changeover relay

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional White tunable
- Optional Integral R25 microwave presence and bright out sensor
- Optional Integral R25W wireless microwave presence and bright out sensor
- Optional Integral Reacta-Air wireless presence and daylight regulations sensor
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for suspended installation
- Suitable for surface installation

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of housing sizes and lumen outputs
- Available with optional night light

IMAGES

PRODUCT IMAGES



Graduate 1500mm



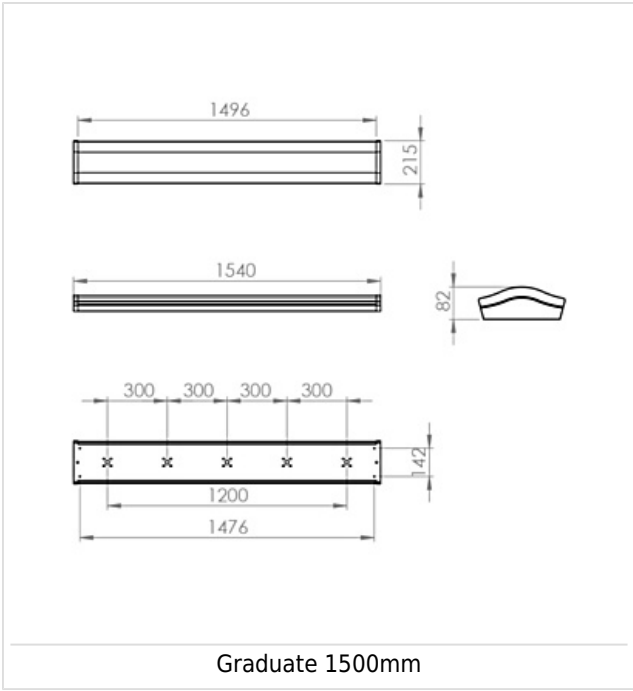
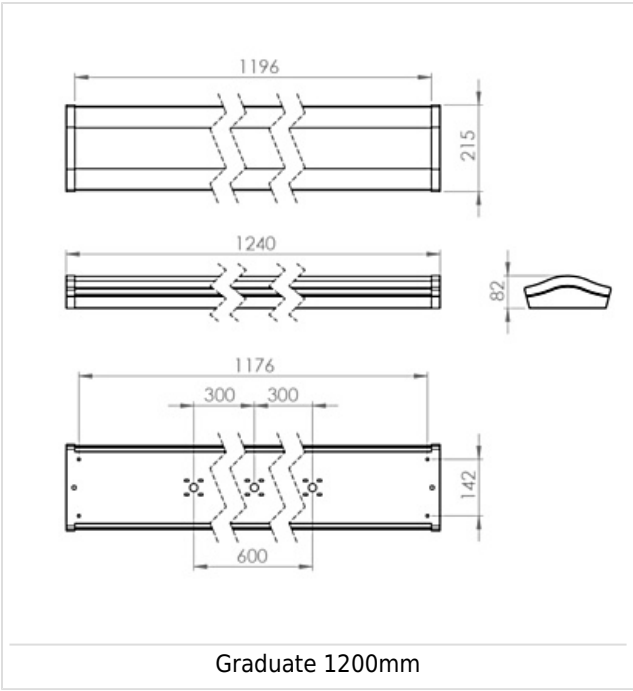
Graduate Reacta-Air

GRADUATE

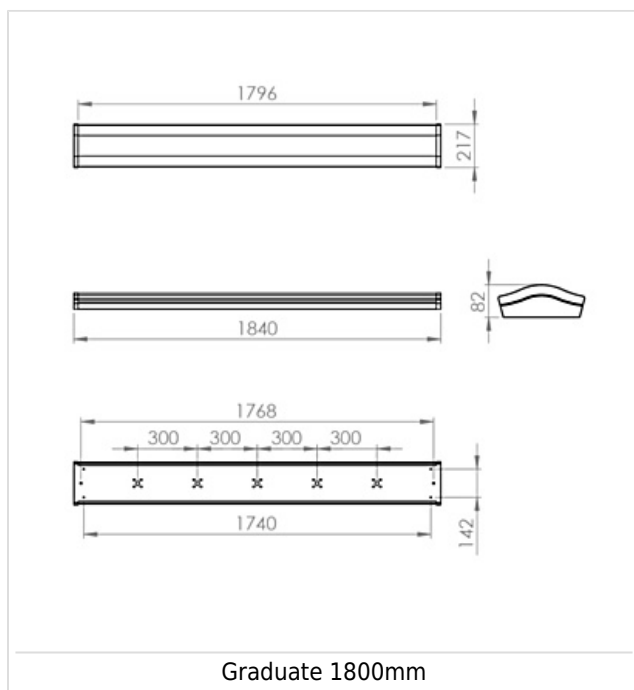
PROJECT IMAGES



TECHNICAL



GRADUATE



ORDER CODES

LUMINAIRE

Code	Description	Power	Llm/W
GRD L22 OPTPA	Graduate, 600mm, 1,693llm, Opal Diffuser, Colour 84	15.1W	105
GRD L26 OPTPA	Graduate, 1200mm, 2,056llm, Opal Diffuser, Colour 84	16.4W	125
GRD L38 OPTPA	Graduate, 1200mm, 3,026llm, Opal Diffuser, Colour 84	23.4W	129
GRD L87 OPTPA	Graduate, 1200mm, 6,811llm, Opal Diffuser, Colour 84	49.4W	137
GRD L35 OPTPA	Graduate, 1500mm, 2,752llm, Opal Diffuser, Colour 84	21.9W	125
GRD L45 OPTPA	Graduate, 1500mm, 3,520llm, Opal Diffuser, Colour 84	26.0W	135
GRD L54 OPTPA	Graduate, 1500mm, 4,242llm, Opal Diffuser, Colour 84	31.7W	133
GRD L63 OPTPA	Graduate, 1500mm, 4,953llm, Opal Diffuser, Colour 84	37.6W	131
GRD L80 OPTPA	Graduate, 1500mm, 6,288llm, Opal Diffuser, Colour 84	47.7W	132
GRD L96 OPTPA	Graduate, 1500mm, 7,494llm, Opal Diffuser, Colour 84	53.0W	141
GRD L132 OPTPA	Graduate, 1500mm, 10,296llm, Opal Diffuser, Colour 84	74.9W	137
GRD L45 OPTPA 6FT	Graduate, 1800mm, 3,582llm, Opal Diffuser, Colour 84	26.9W	133
GRD L65 OPTPA 6FT	Graduate, 1800mm, 5,155llm, Opal Diffuser, Colour 84	38.0W	135
GRD L90 OPTPA 6FT	Graduate, 1800mm, 7,137llm, Opal Diffuser, Colour 84	48.5W	147

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
H	HFR Analogue 1-10v
C	Bi-Level Dimming For Standalone Switched Sensor
WT	White Tunable (Lumen Outputs Vary from Standard)

Please click [here](#) for full details on our white tunable offer.

CONTROL

GRADUATE

Code	Description
R25E	Reacta 25, Presence & Bright Out, On / Off, 2.5-4M
R25C*	Reacta 25, Presence & Bright Out, Bi-Level Dimming, 2.5-4M
R25W	Reacta 25, Wireless, Presence & Bright Out, Dimmable, 2.5-4M
R25WE	Reacta 25, Wireless, Presence & Bright Out, On / Off, 2.5-4M
RAS	Reacta-Air Bluetooth, Wireless, Presence & Daylight, 2.5-4M
RLI	Reacta-Link, Wireless Enabled Luminaire
RLM	Reacta-Link, Wireless, Presence, 2.5-4M
RC	Reacta-Control, Wireless Enabled Luminaire
RCMC*	Reacta-Control, Presence & Bright Out, Bi-level Dimming, 2.5-4M
RCME	Reacta-Control, Presence & Bright Out, On / Off, 2.5-4M

Please click [here](#) for full details on our wireless controls.

*Bi-Level dimming. Will only dim the luminaire to 10% during absence and bright out, it will not turn the luminaire off unless combined with separate photocell for dusk to dawn operation.

Should a Clear Prismatic TPA Option be required, please refer to the Sales Team.

EMERGENCY

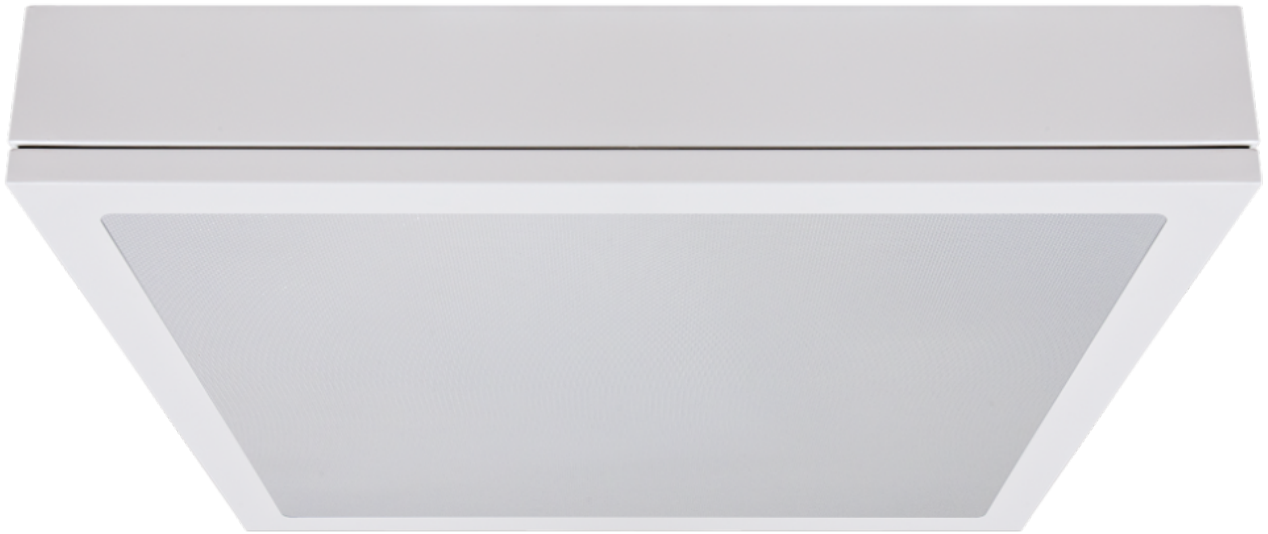
Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour
CB	Central Battery, Please Specify 50V, 110V or 230V when Ordering

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
P410	Four Point Suspension Kit
NL	Night Light (Non Emergency Variants Only)
LSF	Low Smoke Zero Halogen
GRD IP40 Gasket	IP40 Gasket

Night light available on request, we recommend the use of Corridor Function dimming in most nightlight applications, however a separate source can be supplied for our highest lumen output variants.

MOD UGR SURFACE / SUSPENDED



INTRODUCTION

The MOD UGR Surface / Suspended is a traditional flat panel luminaire with uniformly lit diffuser using backlit technology ensuring superb efficiency as well as benefitting LED lifetime by using a high chip count run at low output to minimise operating temperature. This range is available in three housing sizes, a wide range of lumen outputs, dimming and lithium emergency variants and can be either suspended or surface mounted. Wireless dimming and control can be offered with our Reacta-Dim system and Reacta-Link options are also available where web based control and reporting of luminaires is required. The high transmission microprism optic provides excellent efficiency whilst also ensuring compliance with the glare requirements of BSEN 12464 allowing for installation in areas such as hospitals and schools.

The combination of energy efficiency, flexibility and attractive minimalist design makes the MOD UGR Surface / Suspended an excellent choice for installations where the client demands an appealing aesthetic with premium performance.

- CE
- IP40
- IP44
- IK08
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

- Commercial / Offices

MOD UGR SURFACE / SUSPENDED

- Education
- Office

SPECIFICATION

CONSTRUCTION

- Housing: 0.7mm CR4 steel
- Finish: Polyester powder painted BS 00E55 matt white 60% gloss
- Diffuser: Combined 2mm high transmission opal polycarbonate TP(a) rated and 2mm microprism anti glare PMMA
- Diffuser: Injection moulded clear polycarbonate
- IK08
- IP40

PERFORMANCE

- Part L2 compliant
- BSEN 12464-1:2011 3000 Candela 65° and UGR 19 compliance
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 118 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- All critical components are mounted on a single tray for simple end of life repair or upgrade.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.
- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty and lifetime.
- Optional Reacta-Link wireless emergency for automated centralised reporting.
- Optional Reacta-Control wireless emergency for automated centralised reporting.
- Optional central battery changeover relay

CONTROL

- HFR 1-10v analogue dimming and phase cut dimming
- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming

MOD UGR SURFACE / SUSPENDED

- Optional White tunable
- Optional Integral R44 presence and daylight sensor
- Optional Integral Reacta-Air wireless presence and daylight regulations sensor
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for surface installation

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of housing sizes and lumen outputs

IMAGES

PRODUCT IMAGES



MOD UGR Surface 600x600



MOD UGR Surface 1200x300



MOD UGR Surface 1200x600



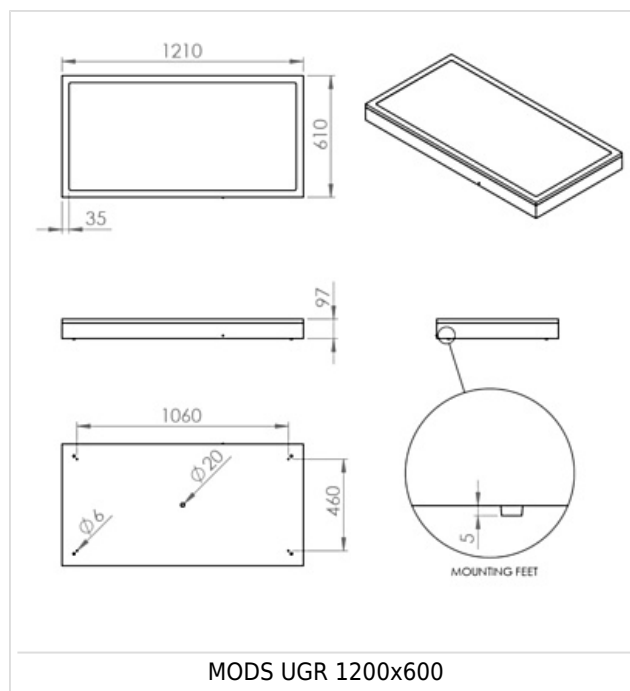
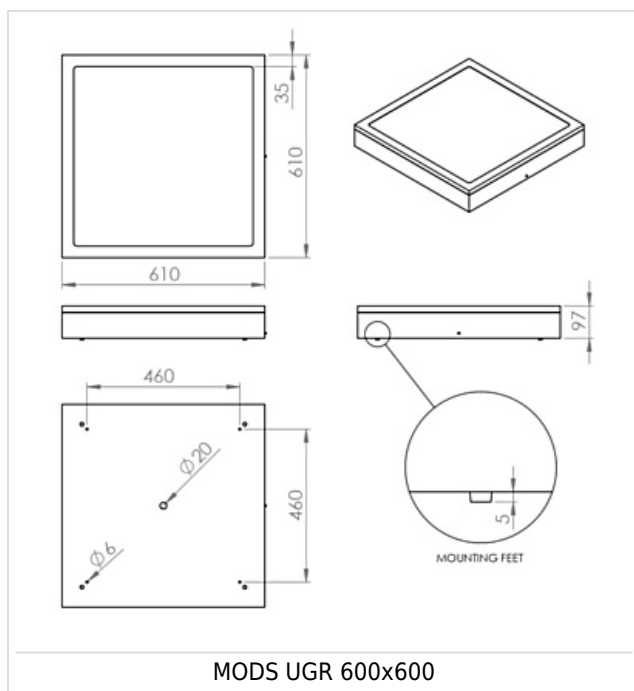
MOD UGR Surface 600x600 with RAS

PROJECT IMAGES

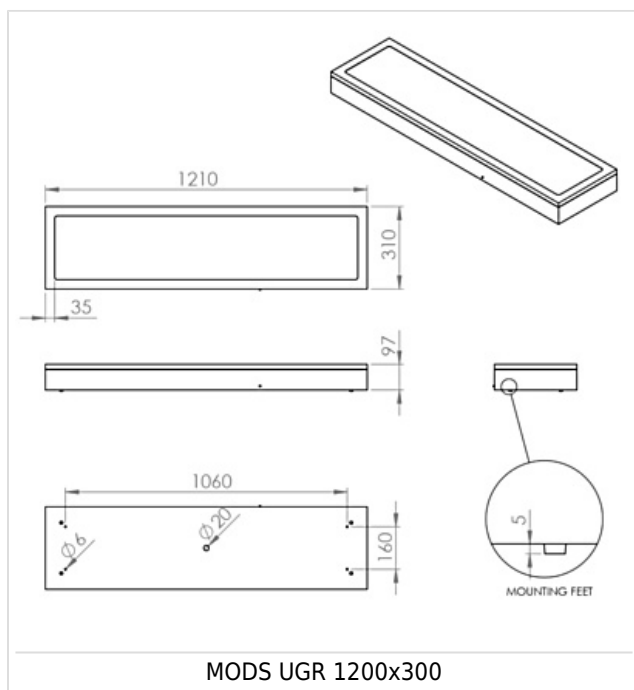
MOD UGR SURFACE / SUSPENDED



TECHNICAL



MOD UGR SURFACE / SUSPENDED



ORDER CODES

LUMINAIRE

Code	Description	Power	lIm/W
MODSU L29	MOD UGR Surface/Suspended, 600x600, 1,894lIm, Colour 84	17.1W	110
MODSU L35	MOD UGR Surface/Suspended, 600x600, 2,286lIm, Colour 84	21.6W	105
MODSU L45	MOD UGR Surface/Suspended, 600x600, 2,939lIm, Colour 84	26.5W	110
MODSU L68	MOD UGR Surface/Suspended, 600x600, 4,440lIm, Colour 84	39.9W	111
MODSU 123 L35	MOD UGR Surface/Suspended, 1200x300, 2,284lIm, Colour 84	20.7W	110
MODSU 123 L45	MOD UGR Surface/Suspended, 1200x300, 2,939lIm, Colour 84	26.5W	110
MODSU 123 L68	MOD UGR Surface/Suspended, 1200x300, 4,441lIm, Colour 84	39.9W	111
MODSU 126 L58	MOD UGR Surface/Suspended, 1200x600, 3,787lIm, Colour 84	31.9W	118
MODSU 126 L70	MOD UGR Surface/Suspended, 1200x600, 4,571lIm, Colour 84	43.3W	105
MODSU 126 L90	MOD UGR Surface/Suspended, 1200x600, 5,877lIm, Colour 84	60.0W	97
MODSU 126 L136	MOD UGR Surface/Suspended, 1200x600, 8,881lIm, Colour 84	80.4W	110

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
H	HFR Analogue 1-10v
C	Bi-Level Dimming For Standalone Switched Sensor
WT	White Tunable (Lumen Outputs Vary from Standard)

Please click [here](#) for full details on our white tunable offer.

CONTROL

Code	Description
R44	Reacta 44, Presence & Daylight, 2.5-7M
RAS	Reacta-Air Bluetooth, Wireless, Presence & Daylight, 2.5-4M

MOD UGR SURFACE / SUSPENDED

RLI	Reacta-Link, Wireless Enabled Luminaire
RLS	Reacta-Link Wireless, Presence, 2.5-4M
RC	Reacta-Control, Wireless Enabled Luminaire
RCS	Reacta-Control Wireless, Presence, Daylight, 2.5-4M

Please click [here](#) for full details on our wireless controls.

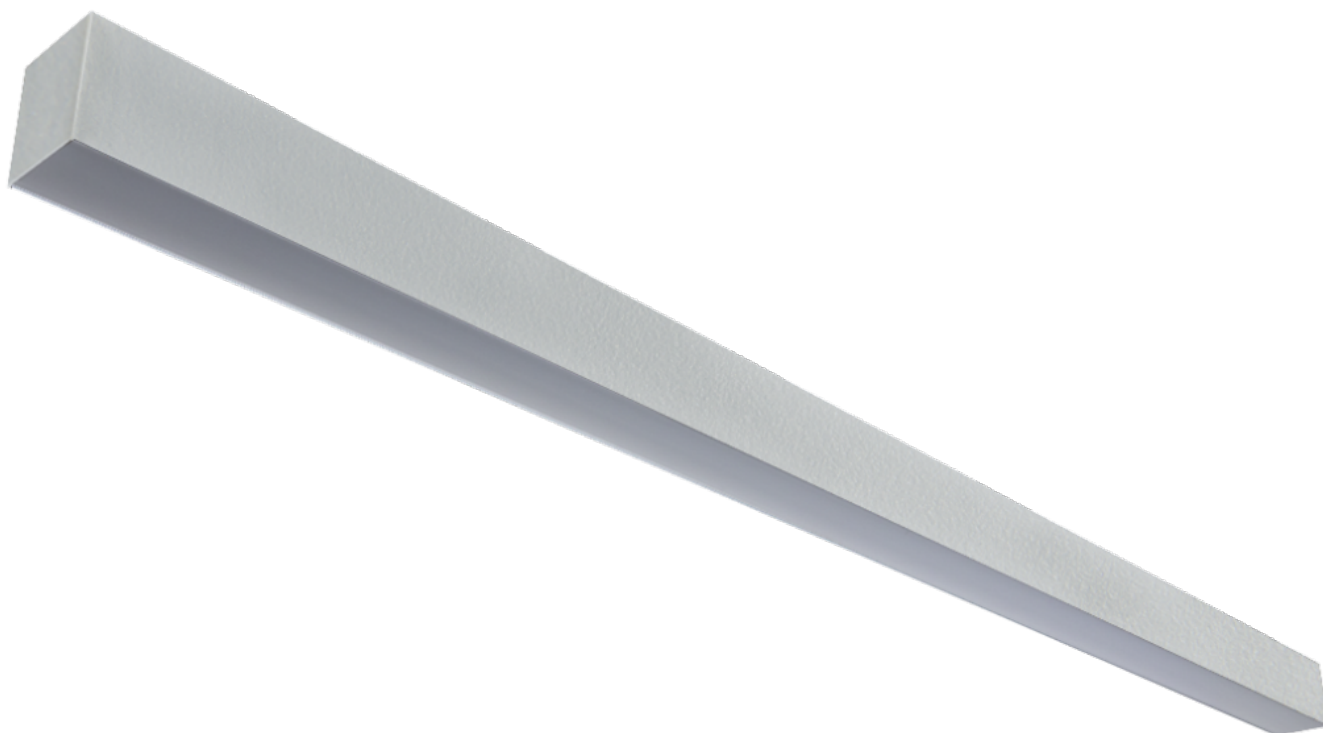
EMERGENCY

Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour
CB	Central Battery, Please Specify 50V, 110V or 230V when Ordering

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
P410	Four Point Suspension Kit
LSF	Low Smoke Zero Halogen

RUNWAY SURFACE/SUSPENDED



INTRODUCTION

Where lighting must fulfil both architectural and practical purposes the Runway Surface Suspended provides a slim line appearance with an extruded aluminium housing available in three colour options, offering the versatility of a range of lengths and lumen outputs as well as bi-directional variants ensuring that you can create a layout that enhances any space creating an attractive environment for workers or to entice customers.

This flexibility is further enhanced with optional integral emergency, white tunable, dimming, integral sensors and two optic styles, a minimalist opal finish or microprism for glare compliance for use in office and school areas. The Runway also incorporates the latest mid power LEDs ensuring optimal energy efficiency with minimal need for maintenance over the course of its lifetime.

The Runway is also available in a wide range of variants including continuous, recessed and pendant cross or square shapes.

- CE
- IP20
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

- Education
- Office

RUNWAY SURFACE/SUSPENDED

- Retail

SPECIFICATION

CONSTRUCTION

- Housing: Extruded aluminium
- Finish: Polyester powder painted BS 00E55 matt white 60% gloss
- Finish: Polyester powder painted RAL 9006 matt grey
- Finish: Polyester powder painted RAL 9005 matt black
- Endcaps: High pressure die cast aluminium
- Diffuser: 2mm extruded high transmission opal polycarbonate
- Diffuser: Combined 2mm extruded clear polycarbonate and 2mm microprism anti glare PMMA
- IP20

PERFORMANCE

- Part L2 compliant
- BSEN 12464-1:2011 3000 Candela 65° and UGR 19 compliance
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 128 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- All critical components are mounted on a single tray for simple end of life repair or upgrade.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.
- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty and lifetime.
- Optional Reacta-Link wireless emergency for automated centralised reporting.
- Optional Reacta-Control wireless emergency for automated centralised reporting.

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional White tunable

RUNWAY SURFACE/SUSPENDED

- Optional Integral R44 presence and daylight sensor
- Optional Integral Reacta-Air wireless presence and daylight regulations sensor
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for suspended installation
- Suitable for surface installation

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of housing sizes and lumen outputs
- Available in white, black or grey finishes

IMAGES

PRODUCT IMAGES



Runway Grey



Runway Black



Runway White



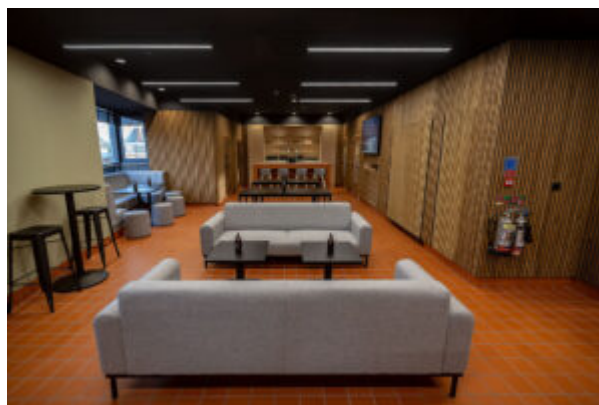
Runway Opal Diffuser

RUNWAY SURFACE/SUSPENDED

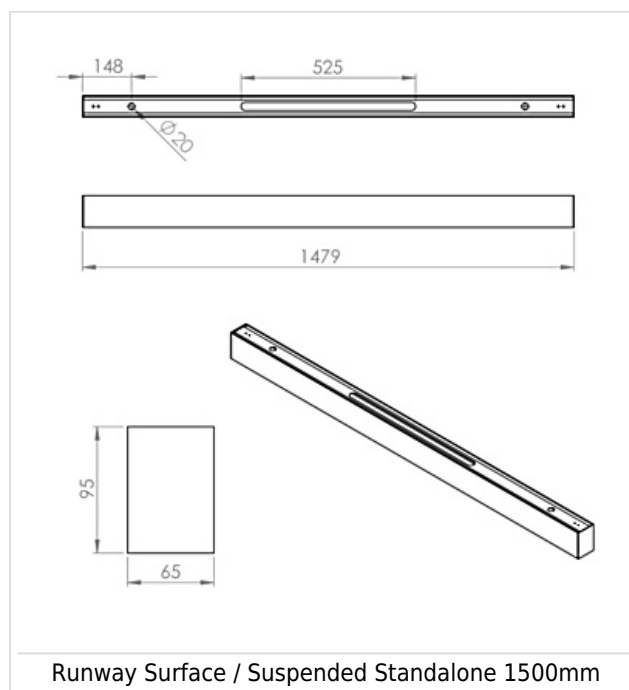
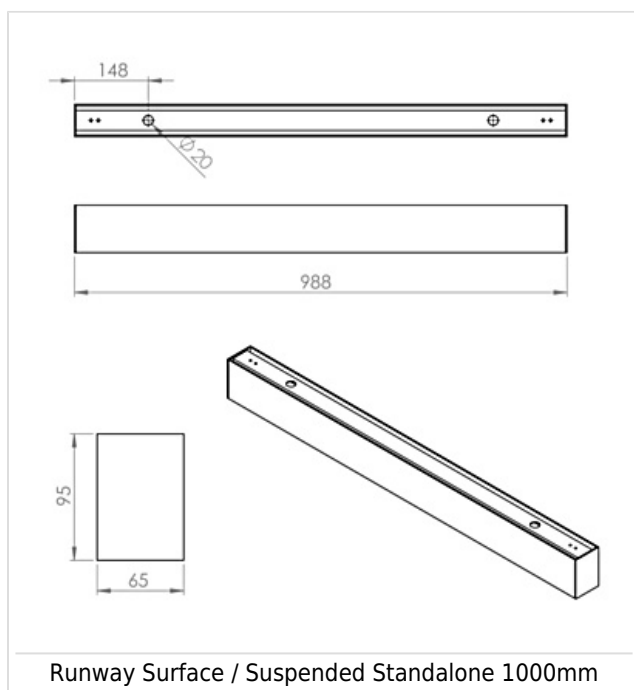


Runway Microprism Diffuser

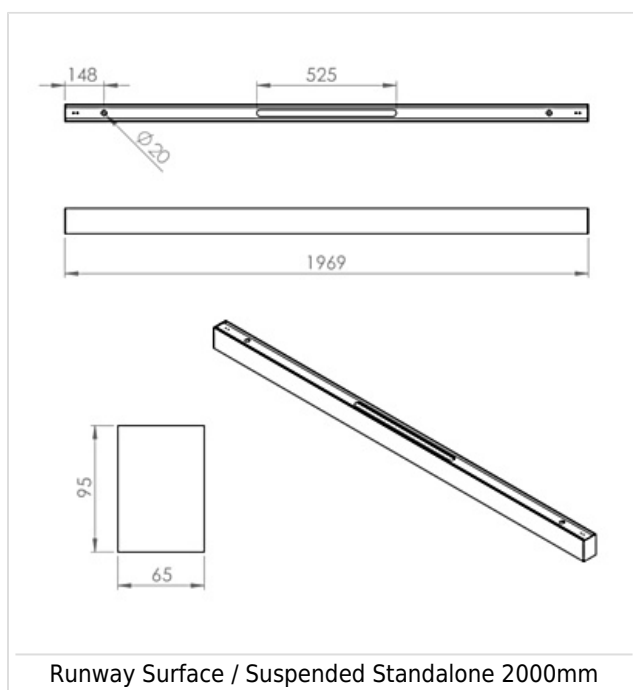
PROJECT IMAGES



TECHNICAL



RUNWAY SURFACE/SUSPENDED



ORDER CODES

LUMINAIRE

Code	Description	Power	Llm/W
Standalone Surface / Suspended			
RWY 1000 L14 OP GY	Runway, 1000mm, 938llm, Opal, Grey, Colour 84	9.6W	98
RWY 1000 L14 MP GY	Runway, 1000mm, 871llm, Microprism, Grey, Colour 84	9.6W	91
RWY 1000 L20 OP GY	Runway, 1000mm, 1,331llm, Opal, Grey, Colour 84	13.2W	100
RWY 1000 L20 MP GY	Runway, 1000mm, 1,233llm, Microprism, Grey, Colour 84	13.2W	93
RWY 1000 L30 OP GY	Runway, 1000mm, 2,000llm, Opal, Grey, Colour 84	18.9W	106
RWY 1000 L30 MP GY	Runway, 1000mm, 1,853llm, Microprism, Grey, Colour 84	18.9W	98
RWY 1500 L22 OP GY	Runway, 1500mm, 1,628llm, Opal, Grey, Colour 84	13.9W	117
RWY 1500 L22 MP GY	Runway, 1500mm, 1,519llm, Microprism, Grey, Colour 84	13.9W	109
RWY 1500 L30 OP GY	Runway, 1500mm, 2,221llm, Opal, Grey, Colour 84	18.9W	117
RWY 1500 L30 MP GY	Runway, 1500mm, 2,072llm, Microprism, Grey, Colour 84	18.9W	110
RWY 1500 L45 OP GY	Runway, 1500mm, 3,331llm, Opal, Grey, Colour 84	27.3W	122
RWY 1500 L45 MP GY	Runway, 1500mm, 3,108llm, Microprism, Grey, Colour 84	27.3W	114
RWY 1500 L96 OP GY	Runway, 1500mm, 7,104llm, Opal, Colour 84	54.4W	131
RWY 1500 L96 MP GY	Runway, 1500mm, 6,630llm, Microprism, Colour 84	54.4W	122
RWY 1500 L127 BD OP GY	Runway, 1500mm, 8,976llm, Opal, Bi-Directional, Colour 84	72.8W	123
RWY 1500 L127 BD MP GY	Runway, 1500mm, 8,446llm, Microprism, Bi-Directional, Colour 84	72.8W	116
RWY 1500 L29 BD OP GY	Runway, 1500mm, 2,146llm, Bi-Directional, Opal, Grey, Colour 84	17.1W	125
RWY 1500 L29 BD MP GY	Runway, 1500mm, 1,929llm, Bi-Directional, Microprism, Grey, Colour 84	17.1W	113
RWY 1500 L40 BD OP GY	Runway, 1500mm, 2,829llm, Bi-Directional, Opal, Grey, Colour 84	24.5W	115
RWY 1500 L40 BD MP GY	Runway, 1500mm, 2,660llm, Bi-Directional, Microprism, Grey, Colour 84	24.5W	108
RWY 1500 L60 BD OP GY	Runway, 1500mm, 4,244llm, Bi-Directional, Opal, Grey, Colour 84	34.6W	123
RWY 1500 L60 BD MP GY	Runway, 1500mm, 3,990llm, Bi-Directional, Microprism, Grey, Colour 84	34.6W	115
RWY 2000 L29 OP GY	Runway, 1500mm, 2,146llm, Opal, Grey, Colour 84	17.1W	124
RWY 2000 L29 MP GY	Runway, 2000mm, 2,001llm, Microprism, Grey, Colour 84	17.1W	116

RUNWAY SURFACE/SUSPENDED

RWY 2000 L40 OP GY	Runway, 2000mm, 2,960Ilm, Opal, Grey, Colour 84	24.5W	121
RWY 2000 L40 MP GY	Runway, 2000mm, 2,760Ilm, Microprism, Grey, Colour 84	24.5W	113
RWY 2000 L60 OP GY	Runway, 2000mm, 4,440Ilm, Opal, Grey, Colour 84	34.6W	128
RWY 2000 L60 MP GY	Runway, 2000mm, 4,140Ilm, Microprism, Grey, Colour 84	34.6W	120
RWY 2000 L38 BD OP GY	Runway, 2000mm, 2,987Ilm, Bi-Directional, Opal, Grey, Colour 84	23.4W	128
RWY 2000 L38 BD MP GY	Runway, 2000mm, 2,687Ilm, Bi-Directional, Microprism, Grey, Colour 84	23.4W	115
RWY 2000 L53 BD OP GY	Runway, 2000mm, 4,166Ilm, Bi-Directional, Opal, Grey, Colour 84	30.7W	136
RWY 2000 L53 BD MP GY	Runway, 2000mm, 3,747Ilm, Bi-Directional, Microprism, Grey, Colour 84	30.7W	122
RWY 2000 L80 BD OP GY	Runway, 2000mm, 5,656Ilm, Bi-Directional, Opal, Grey, Colour 84	40.1W	141
RWY 2000 L80 BD MP GY	Runway, 2000mm, 5,320Ilm, Bi-Directional, Microprism, Grey, Colour 84	40.1W	133

Please refer to the Runway Design Consideration notes in the Technical section prior to placing your order

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
H	HFR Analogue 1-10v
C	Bi-Level Dimming For Standalone Switched Sensor
WT	White Tunable (Lumen Outputs Vary from Standard)

Please click here for full details on our white tunable offer.

Please refer to the Runway Design Consideration notes in the Technical section prior to placing your order.

CONTROL

Code	Description
R44	Reacta 44, Presence & Daylight, 2.5-7M
RAS	Reacta-Air Bluetooth, Wireless, Presence & Daylight, 2.5-4M
RLI	Reacta-Link, Wireless Enabled Luminaire
RLS	Reacta-Link Wireless, Presence, 2.5-4M
RC	Reacta-Control, Wireless Enabled Luminaire
RCS	Reacta-Control Wireless, Presence, Daylight, 2.5-4M

Please click here for full details on our wireless controls.

Please refer to the Runway Design Consideration notes in the Technical section prior to placing your order.

EMERGENCY

Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour

Please refer to the Runway Design Consideration notes in the Technical section prior to placing your order.

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
WH	White Finish
BL	Black Finish
RWY SMK	Runway Surface Mount Kit
RWY SUSP 3M X2	Runway 3M suspension Kit Two Drops
RWY INSTALL KIT	Runway Installation Kit
LSF	Low Smoke Zero Halogen

Please refer to the Runway Design Consideration notes in the Technical section prior to placing your order.



INTRODUCTION

The Typhon is a robust and durable IP65 luminaire suitable for a wide range of industrial and commercial applications where protection against water and dust ingress and light impact is critical.

Manufactured with a glass reinforced polyester housing and supplied with stainless steel clips as standard, the Typhon offers excellent chemical resistance, whilst the polycarbonate diffuser ensures resilience against accidental impacts. The Typhon is supplied complete with snap on mounting clips for the luminaire rear providing both suspension and surface mounting points without the need to drill the luminaire housing, whilst the gear tray is mounted via spring release clips ensuring installation and ongoing maintenance can be undertaken quickly and simply.

The Typhon is available in both 1200mm and 1500mm variants in two housing widths and is suitable for use in temperatures ranging from -20°C to +25°C. All common dimming and lithium emergency variants are available as well as a wide range of lumen outputs. Wireless dimming and control can be offered with our Reacta-Dim system and Reacta-Link options are also available where web based control and reporting of luminaires is required.

- CE
- IP65
- IP66
- L90 / 60K OPERATING HOURS
- 3 STEP MACADAM ELLIPSE

APPLICATION

TYPHON

- Corridor
- Exterior
- Food / Clean Area
- Healthcare / Social Housing
- Hotel / Leisure
- Industrial / Manufacturing
- Parking / Exterior
- Retail
- Stairwell
- Store Room
- Transport
- Warehouse / Storage

SPECIFICATION

CONSTRUCTION

- Housing: Injection moulded glass reinforced polyester
- Finish: Matt grey
- Diffuser: Injection moulded high transmission opal polycarbonate
- IP65

PERFORMANCE

- Part L2 compliant
- 3SCDM Three step Macadams ellipse
- TM21: L90 at 60,000 operating hours
- Up to 155 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive.
- All critical components are mounted on a single tray for simple end of life repair or upgrade.
- Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- Contains no single use plastics or polystyrene packaging.
- Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- Designed to allow simple disassembly for end of life recycling.
- UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty

TYPHON

and lifetime.

- Optional Reacta-Link wireless emergency for automated centralised reporting.
- Optional Reacta-Control wireless emergency for automated centralised reporting.
- Optional central battery changeover relay

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional White tunable
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for suspended installation
- Suitable for trunking installation
- Suitable for conduit installation
- Suitable for surface installation
- Suitable for external use when protected under canopy.

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of housing sizes and lumen outputs

IMAGES

PRODUCT IMAGES



Typhon Single 1200mm



Typhon Twin 1500mm

TYPHON



Typhon Single 1500mm



Typhon Single 1500mm Rear



Typhon Bracket



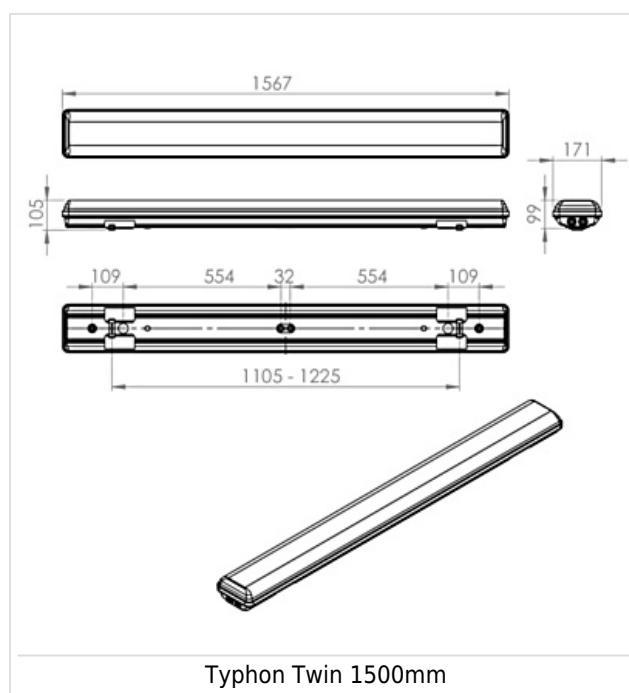
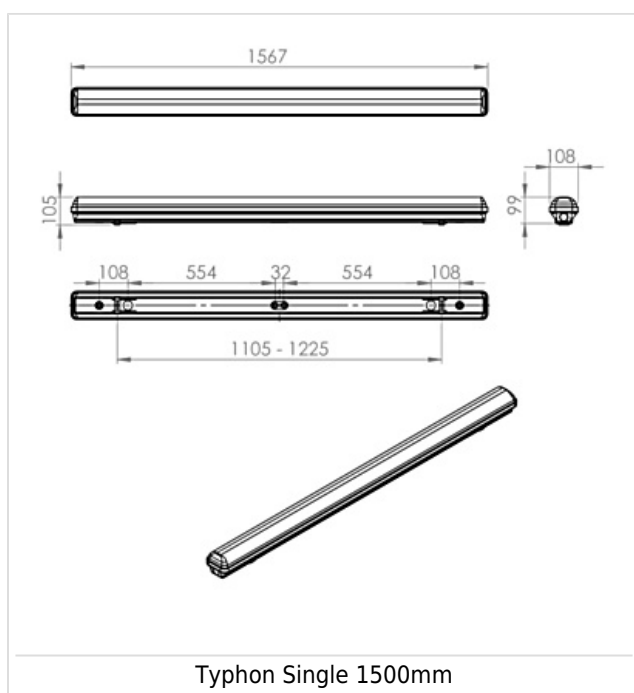
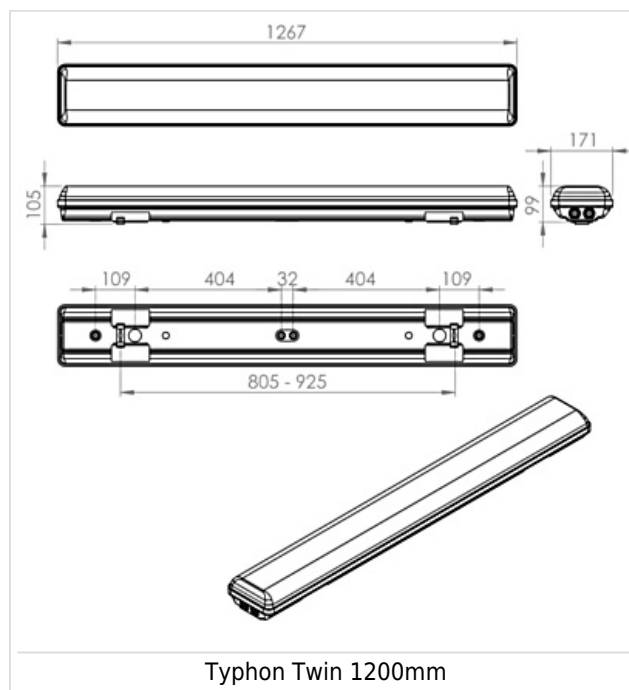
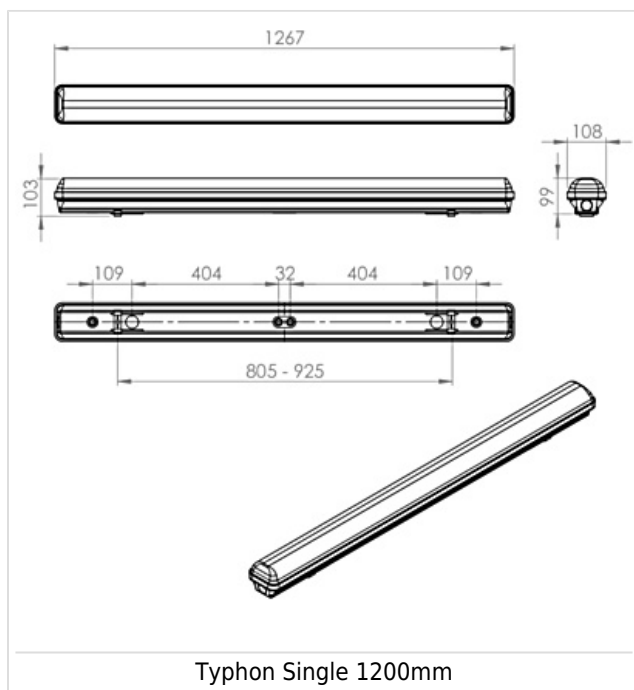
Typhon Suspension

PROJECT IMAGES



TECHNICAL

TYPHON



ORDER CODES

LUMINAIRE

Code	Description	Power	Llm/W
TYP L26 PC 4S	Typhon, 1200mm, 2,236lm, Polycarbonate Diffuser, Single, Colour 84	16.0W	140
TYP L38 PC 4S	Typhon, 1200mm, 3,268lm, Polycarbonate Diffuser, Single, Colour 84	23.8W	137
TYP L87 PC 4T	Typhon, 1200mm, 7,343lm, Polycarbonate Diffuser, Twin, Colour 84	52.7W	139
TYP L35 PC 5S	Typhon, 1500mm, 3,010lm, Polycarbonate Diffuser, Single, Colour 84	22.2W	136

TYPHON

TYP L45 PC 5S	Typhon, 1500mm, 3,870lm, Polycarbonate Diffuser, Single, Colour 84	26.4W	146
TYP L54 PC 5S	Typhon, 1500mm, 4,644lm, Polycarbonate Diffuser, Single, Colour 84	33.4W	139
TYP L63 PC 5S	Typhon, 1500mm, 5,418lm, Polycarbonate Diffuser, Single, Colour 84	39.6W	137
TYP L80 PC 5S	Typhon, 1500mm, 6,880lm, Polycarbonate Diffuser, Single, Colour 84	47.7W	144
TYP L96 PC 5S	Typhon, 1500mm, 8,256lm, Polycarbonate Diffuser, Single, Colour 84	53.0W	156
TYP L132 PC 5T	Typhon, 1500mm, 11,147lm, Polycarbonate Diffuser, Twin, Colour 84	78.5W	142
TYP L160 PC 5T	Typhon, 1500mm, 13,842lm, Polycarbonate Diffuser, Twin, Colour 84	84.4W	164
TYP L200 PC 5T	Typhon, 1500mm, 16,880lm, Polycarbonate Diffuser, Twin, Colour 84	107.9W	156

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
H	HFR Analogue 1-10v
C	Bi-Level Dimming For Standalone Switched Sensor
WT	White Tunable (Lumen Outputs Vary from Standard)

Please click [here](#) for full details on our white tunable offer.

CONTROL

Code	Description
RC	Reacta-Control, Wireless Enabled Luminaire

EMERGENCY

Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour
CB	Central Battery, Please Specify 50V, 110V or 230V when Ordering

L200 variant is not available with emergency.

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering; C83, C84, C85, C865, C93, C94
LSF	Low Smoke Zero Halogen