

ECO800991 + ECOACTxxxx

Tri-sector Camouflage Hybrid Antenna

2L 4M 0H Passive / 5G MAK



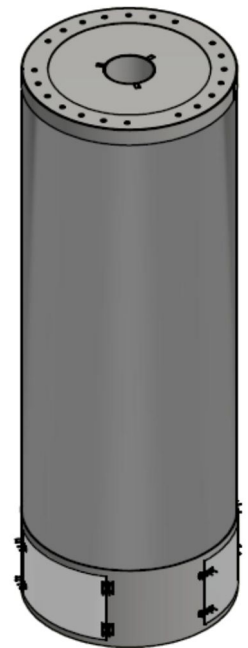
GENERAL INFORMATION

Type No.	ECO800991
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Short Description

Passive Tri-sector antenna enclosure composed by 3 panel Antennas integrated and electrically adapted to a cylindrical enclosure for camouflage. It has the option to provide an upper mechanical module to integrate 5G mMimo Active Antennas at the same diameter.

Passive Frequency Range	2x 698-960/ 2x 1427-2690/ 2x 1695-2690Mhz
Passive Antenna Reference	3x 800372991 (Ericsson)
N° Ports	36 x 4.3-10
Weight	350kgs approx.
Length incl. Service Area	2441mm
Diameter	800mm
Colour	RAL 9003 (white)
Variable Azimuth	±15° per sector
Shipping information	Wooden box 2680x1050x1190 // 520 kg

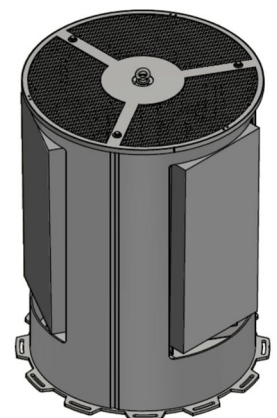


Type No.	ECOACTxxxx
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Short Description

Mechanical Active Kit (MAK) Module to host up to 3x 5G Active Antennas.

Weight	108kgs
Length	1163mm approx..
Diameter	800mm
Colour	RAL 9003 (White)
Mechanical Donwtilt	0°-6°
Shipping information	Wooden box 1400x1120x1250 // 230 kg



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GENERAL INFORMATION

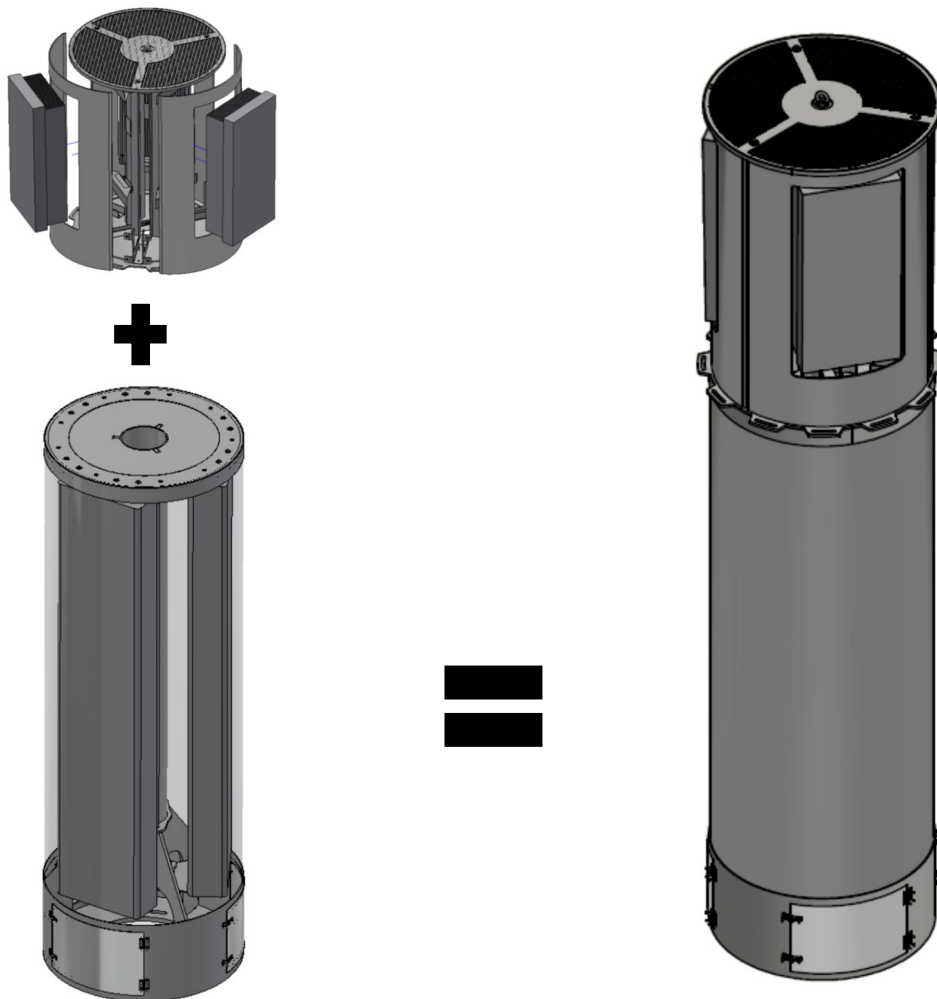
Active antenna correlative ordering matrix

Ref.	ERICSSON	HUAWEI
ECOACT6401	AIR6488	X
ECOACT6411	AIR6449	X
ECOACT3201	AIR3227	X
ECOACT6402	X	AAU5613
ECOACT6412	X	AAU5639W
ECOACT3212	X	AAU5339W

(ESB SISTEMAS does not provide Active antennas)

Short Description

In combination of Passive Antenna module (ECO800991) and Active Antenna Module (ECOACTXXXX) it may be deployed a full solution for 2G/3G/4G and 5G with full capacity features and sharing scenarios respecting the landscape architecture with a low visual impact solution.



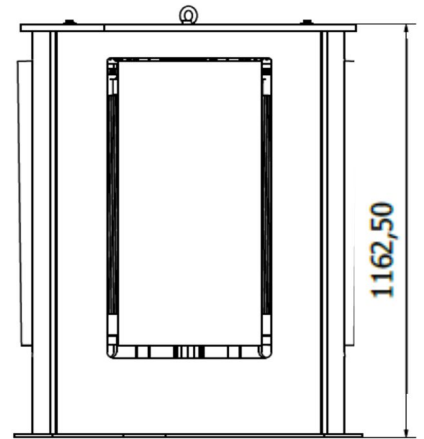
ECO800991 + ECOACTxxxx Tri-sector Camouflage Hybrid Antenna 2L 4M 0H Passive / 5G MAK



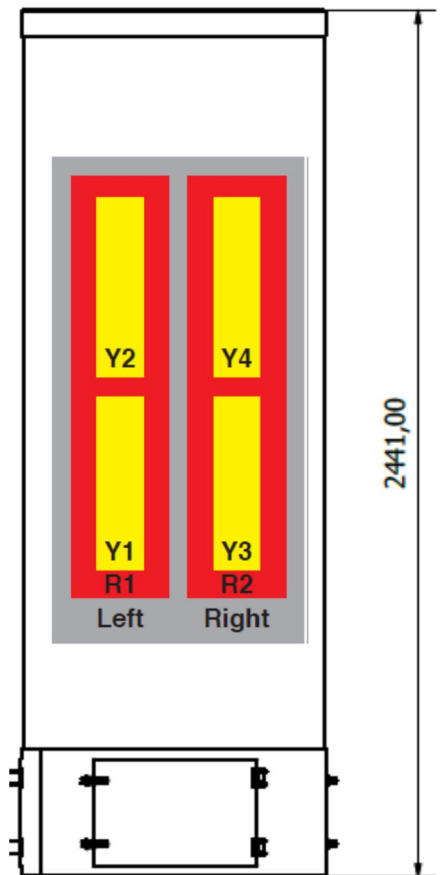
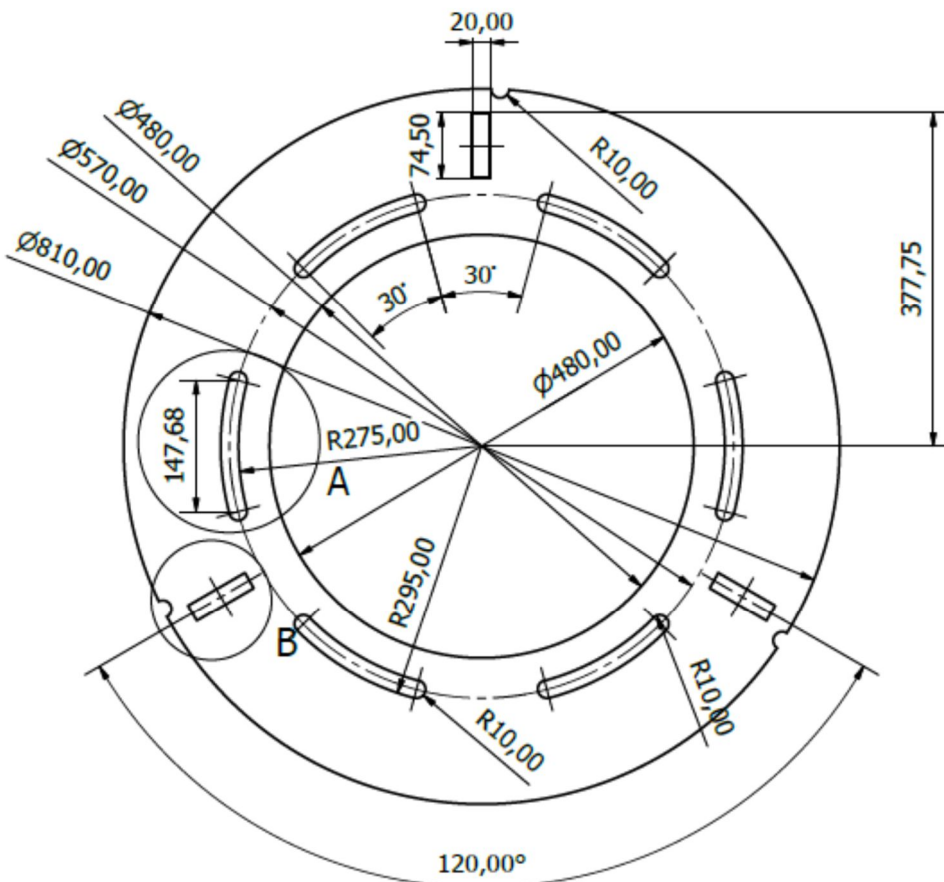
MECHANICAL INFORMATION

Type No.	ECO800991 + ECOACTXXXX
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Total Weight	458kg approx
Total Length	3604mm
Total Diameter	800mm
Total Windload	2439N at 150km/h
Radome material	Fiberglass (Passive)
Structure material	Galvanised Steel



(Detail of Passive Antenna bottom Flange)



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TECHNICAL INFORMATION

Type No.	ECO800991				
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R1	R2	Y1	Y2	Y3	Y4
698-960	698-960	1695-2690	1427-2690	1695-2690	1427-2690

	R1	R1
Frequency Range (Mhz)	698-960	698-960
Gain at Mid Tilt (dBi)	15.1	15.1
Azimuth Beamwidth (°)	60±7	60±7
Elevation Beawidth (°)	11.6±1.0	11.6±1.0
Electrical Downtilt (°)	2.5-11.5°	
Isolation (dB)	>24	
Passive Intermodulation (dBc)	<-153 (2x 43dBm carrier)	
VSWR	<1.5	

	Y1	Y2
Frequency Range (Mhz)	1695-2690	1427-2690
Gain at Mid Tilt (dBi)	15.8	16.0
Azimuth Beamwidth (°)	63±4	62±4
Elevation Beawidth (°)	9.9±0.9	8.3±0.9
Electrical Downtilt (°)	2-12°	
Isolation (dB)	>24	
Passive Intermodulation (dBc)	<-153 (2x 43dBm carrier)	
VSWR	<1.5	

	Y3	Y4
Frequency Range (Mhz)	1695-2690	1427-2690
Gain at Mid Tilt (dBi)	15.8	16.0
Azimuth Beamwidth (°)	63±4	62±4
Elevation Beawidth (°)	9.9±0.9	8.3±0.9
Electrical Downtilt (°)	2-12°	
Isolation (dB)	>24	
Passive Intermodulation (dBc)	<-153 (2x 43dBm carrier)	
VSWR	<1.5	

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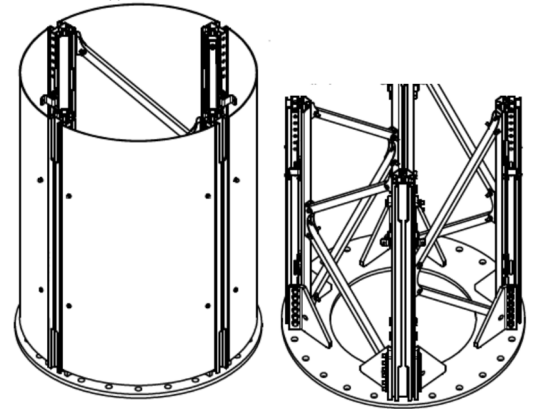
MAST POLE STRUCTURES

Type No.	ECOBS80-100
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Short Description

Base Module to provide additional length, stability, and installation options to ECO800XXX antennas series. It's delivered with aluminum doors to facilitate the installation and access to different internal located devices.

Length	1000mm
Weight	93Kg
Width	800mm
Structure Material	Aluminum + Galvanised steel (anchoring)
Radome Colour	RAL 9003 (White)
Total Windload	677N at 150Km/h
Radome material	Aluminum

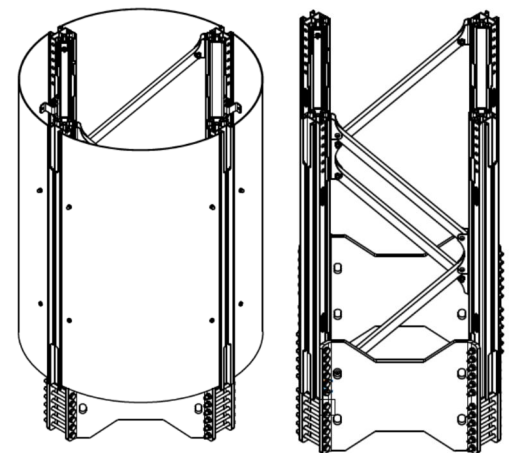


Type No.	ECOMP80-X00
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Short Description

Additional modular extension to increase length. It's delivered with aluminum doors to facilitate the installation and access to different internal located devices.

	ECOMP80-100	ECOMP80-200
Length	1000mm	2000mm
Weight	40Kg	80Kg
Width	800mm	800mm
Structure Material	Aluminum	Aluminum
Radome Colour	RAL 9003 (White)	RAL 9003 (White)
Total Windload	677N at 150Km/h	1354N at 150Km/h
Radome material	Aluminum	Aluminum



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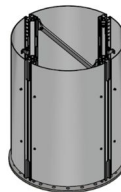
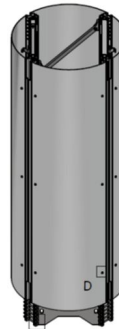
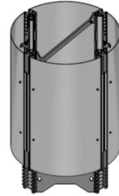
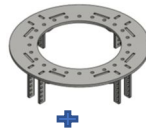
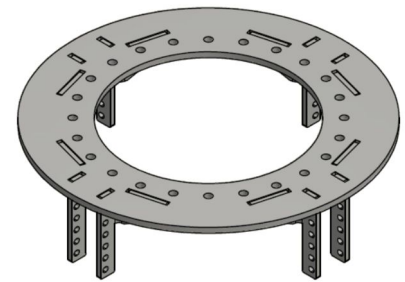
MAST POLE STRUCTURES

Type No.	ECOCAP80
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Short Description

Interface to install ECO800XXX Antenna on ECOMP80-X00 or ECOBS80-100 modules

	ECOCAP80
Length	115mm
Weight	50Kg
Width	800mm
Structure Material	Galvanised steel
Colour	Silver
Total Windload	68N at 150Km/h
Radome material	Aluminum



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MAST POLE STRUCTURES

MAST POLE CONFIGURATION GUIDELINE		
Type No.	Description	QTY
1 Meter Mast Pole		
ECOBS80-100	Aluminium standard base 800 mm x 1000 mm	1
ECOCAP80	Aluminium antenna / module interface 800 mm	1
2 Meters Mast Pole		
ECOBS80-100	Aluminium standard base 800 mm x 1000 mm	1
ECOMP80-100	Aluminium standard module 800 mm x 1000 mm	1
ECOCAP80	Aluminium antenna / module interface 800 mm	1
3 Meters Mast Pole		
ECOBS80-100	Aluminium standard base 800 mm x 1000 mm	1
ECOMP80-200	Aluminium standard module 800 mm x 2000 mm	1
ECOCAP80	Aluminium antenna / module interface 800 mm	1
4 Meters Mast Pole		
ECOBS80-100	Aluminium standard base 800 mm x 1000 mm	1
ECOMP80-200	Aluminium standard module 800 mm x 2000 mm	1
ECOMP80-100	Aluminium standard module 800 mm x 1000 mm	1
ECOCAP80	Aluminium antenna / module interface 800 mm	1



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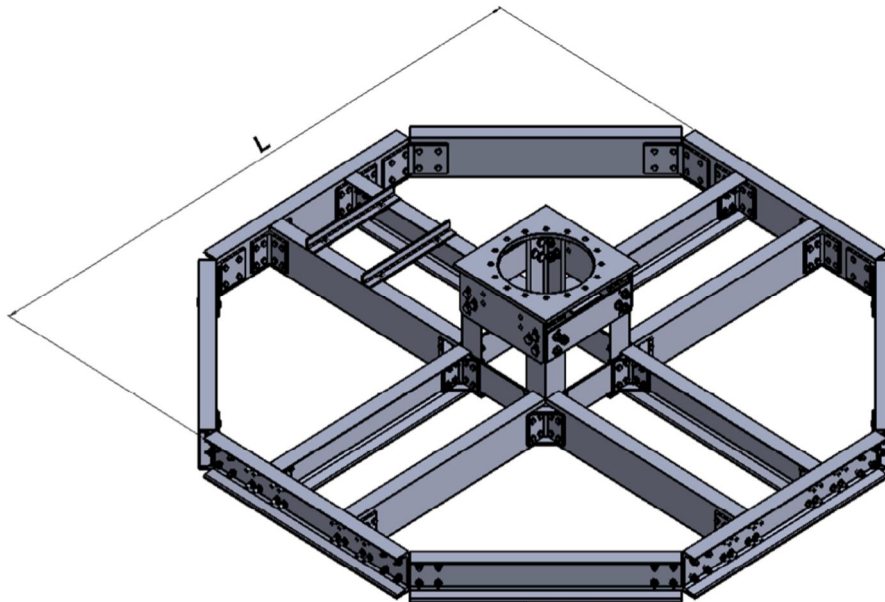


ANCHORING SOLUTIONS

Type No.	ECOBPX
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ECOBPX consists of a modular supplied bedplate that allows the anchoring of the complete solution on rooftop. Depending on weight and length, we provide 3 different sizes (M, L, XL). ECOBS80-100 shall be mounted on top of it.

Type No	ECOBPM	ECOBPL	ECOBPXL
Dimension (mm)	3330x500x3330	3854x500x3854	4250x500x4250
Height (mm)	500	500	500
Weight (kg)	564	644	
Material	Galvanized steel	Galvanized steel	Galvanized steel



(In order to calculate the appropriate size please keep in contact with your regional sales contact)

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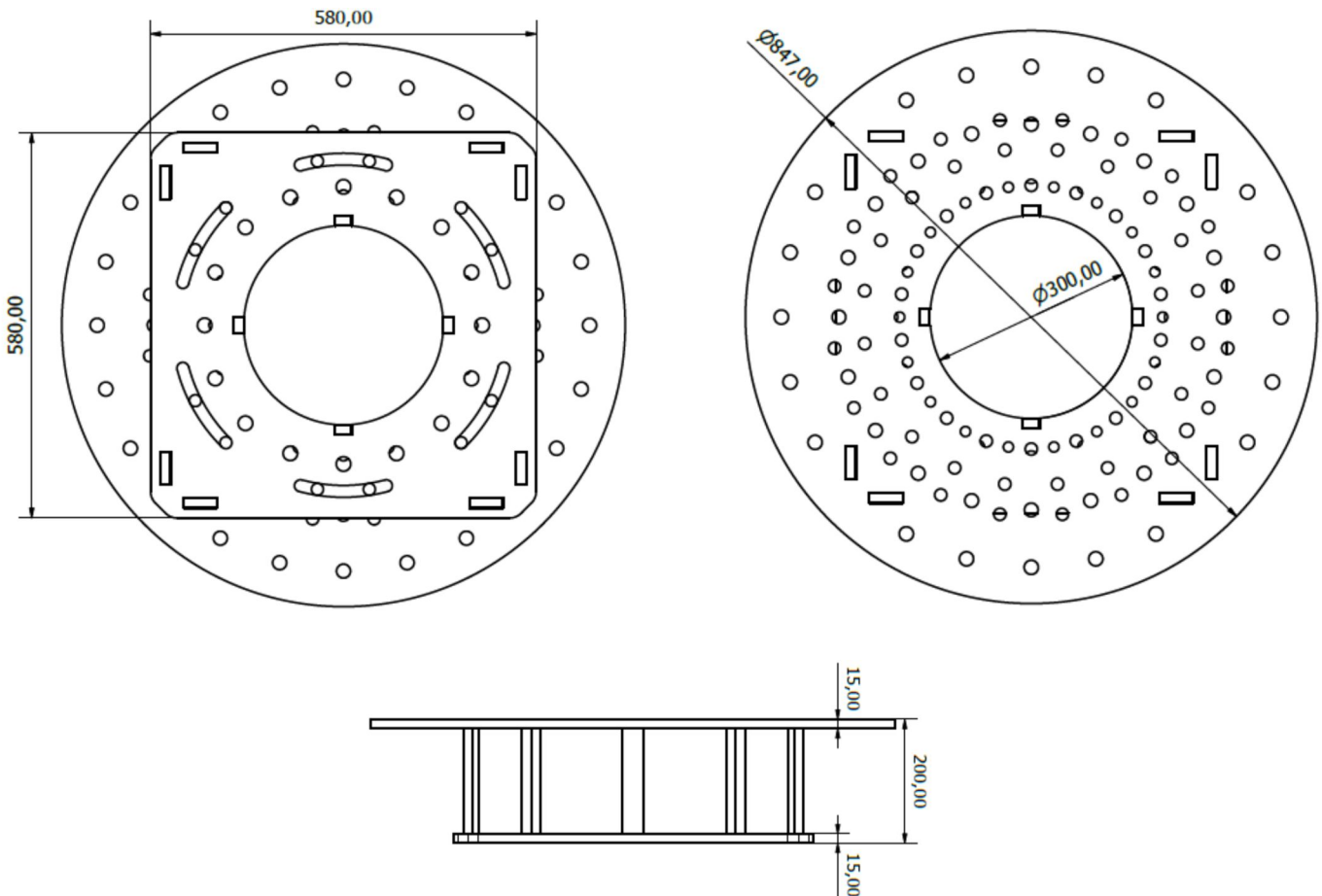
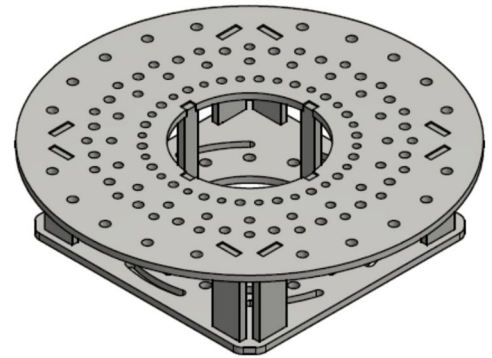


ANCHORING SOLUTIONS

Type No.	ECOGPV02
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ECOGPV02 consists on a pedestal to be mounted on concrete over the rooftop. ECOBS80-100 shall be mounted on top of it.

Dimension for ECOBSXX-100 mounting	847mm
Dimension for ground anchoring	580x580mm
Height (mm)	200mm
Weight (kg)	85
Material	Galvanized steel



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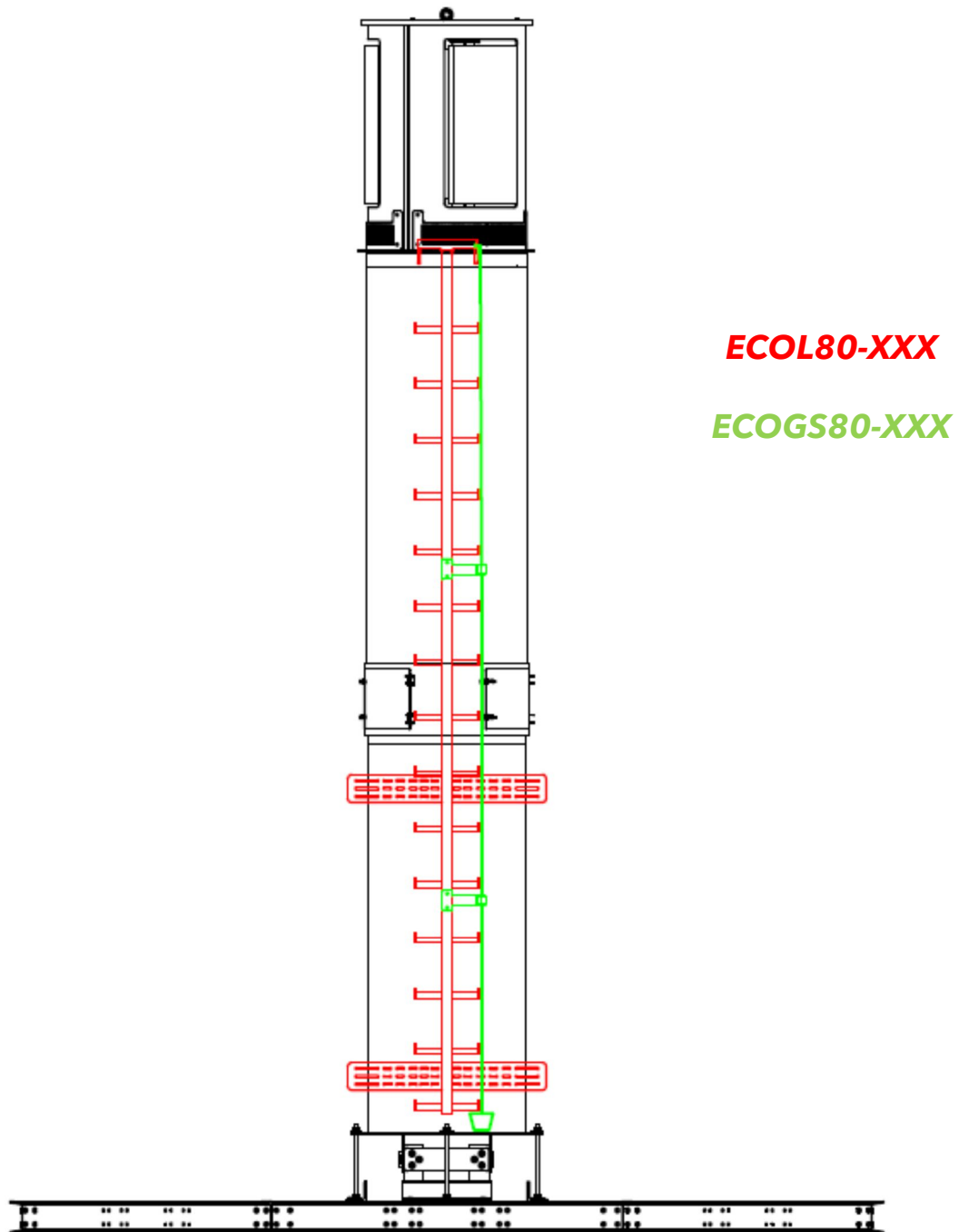
SAFETY SYSTEMS

Type No.	ECOL80-XXX
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Short Description

Safety ladder for installation and maintenance purposes on the ECOSITE 800mm antenna system. The ladder has been designed to be anchored to the ECOSITE® antenna system for the operator to be able to access to the MAK (ECOACTXXXX).

Depending on the height of the system, different configurations are offered:



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SAFETY SYSTEMS

ECOL80-XXX ORDERING GUIDELINE

Type No.	Description	QTY
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For passive antennas up to 2m length

ECOL80-100A	Safety ladder for 1m mast Pole + 2m Antenna	1
ECOL80-200A	Safety ladder for 2m mast Pole + 2m Antenna	1
ECOL80-300A	Safety ladder for 3m mast Pole + 2m Antenna	1
ECOL80-400A	Safety ladder for 4m mast Pole + 2m Antenna	1

For passive antennas up to 2.5m length

ECOL80-100B	Safety ladder for 1m mast Pole + 2.5m Antenna	1
ECOL80-200B	Safety ladder for 2m mast Pole + 2.5m Antenna	1
ECOL80-300B	Safety ladder for 3m mast Pole + 2.5m Antenna	1
ECOL80-400B	Safety ladder for 4m mast Pole + 2.5m Antenna	1

BILL OF MATERIAL ECOL80-XXX

Short Description

List below shows the BOM for each ECOL80-XXX configuration. An installation manual with full details is available upon request.

Reference	Ladder length			Inter Stage reinforcer	Top Hanger	Arc Holder
	1120mm	1960mm	2520mm			
ECOL80-100A			1	0	1	1
ECOL80-200A	1		1	1	1	2
ECOL80-300A		1	1	1	1	2
ECOL80-400A	1	1	1	2	1	2
ECOL80-100B	1	1		1	1	1
ECOL80-200B		2		1	1	2
ECOL80-300B			2	1	1	2
ECOL80-400B	1		2	2	1	2

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SAFETY SYSTEMS

Type No.	ECOGS80-XXX
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Short Description

Game system solution adapted to additionally prevent falling from higher levels.

ECOGS80-XXX ORDERING GUIDELINE

Type No.	Description	QTY
ECOGS80-100	Game system adapted to ECOL80-100A/B	1
ECOGS80-200	Game system adapted to ECOL80-200A/B	1
ECOGS80-300	Game system adapted to ECOL80-300A/B	1
ECOGS80-400	Game system adapted to ECOL80-400A/B	1



Important Note: ESB won't be responsible for the unappropriated handling and installation of their solutions. Professional team with valid and updated certifications is mandatory to perform risky works. Please make sure installation team has the appropriated tools to comply and perform these works. ESB recommends using Honeywell® products for a proper matching. Please visit <https://sps-support.honeywell.com/s/> or contact us for further information.