



Saves Your Energy

UL-listed enclosures & components



Global Enclosure Solutions

Non-metallic polycarbonate enclosures

Ensto Cubo D, S and O

Polycarbonate is highly suited for demanding outdoor applications. The material does not rust, offers nearly the impact resistance of steel, and unlike steel is light weight and an electrical insulator. Ensto's range of enclosures are produced exclusively from premium grade polycarbonate raw material tested and approved for outdoor use and carry UL f1 rating and UL 5V flammability rating. The enclosures are rated for continuous operation in temperatures ranging from -40 °C (-40 °F) to +80 °C (+176 °F) and are available in over 65 different sizes to meet all of your requirements.

Qualities of polycarbonate

- UV resistant
- High impact resistance
- Good resistance to chemicals
- Wide operating temperature range
- Easily machined
- Light weight
- Excellent electrical insulation properties
- Available as transparent

Ensto Cubo polycarbonate enclosures

Technical information	
Degree of protection:	IP 66/67
Impact resistance:	IK 08 (-25 °C... +35 °C / -13 °F... +95 °F)
Flammability rating:	UL 746C 5V
Continuous operating temperature:	-40 °C ... +80 °C / -40 °F ... +176 °F
Max. short term operating temperature:	+120 °C / +248 °F
Outdoor suitability:	UL 746C f1
Environmental type (UL):	4X, 4, 12 and 13*
Insulation:	Enclosure enables insulation suitable for class III assemblies
Material	
Base:	Fibreglass reinforced polycarbonate (Cubo D only polycarbonate)
Cover:	Polycarbonate
Cover screws:	Fibreglass reinforced polyamide
Gasket:	PUR (polyurethane)
Standard colour	
Base:	Gray RAL 7035
Cover:	Gray RAL 7035 or transparent

* 13 not for Cubo S

Product ordering guidelines

Characters	Product family	Dimensions in cm (rounding to 10 mm)			Cover color G = gray T = transparent	U = UL labeled
		Width	Length	Depth		
Polycarbonate, small	D P C P	WW	LL	DD	G or T	.U
Polycarbonate, medium	S P C P	WW	LL	DD	G or T	.U
Polycarbonate, large	O P C P	WW	LL	DD	G or T	.U
Fiberglass	N G R P	WW	LL	DD	G - only	.U

Examples

D P C P	12	20	09	T.U
Ensto Cubo D, polycarbonate small	120 mm 4.7"	200 mm 7.8"	86 mm 2.8"	Transparent cover UL labeled
N G R P	25	30	14	G.U
Ensto Cubo N, fiberglass	250 mm 9.8"	300 mm 11.8"	140 mm 5.5"	Gray cover UL labeled

Ensto Cubo D — small (DPCP)



Inch				mm			
Width	Length	Depth	Inner depth	Width	Length	Depth	Inner depth
2.1	2.2	1.4	1.1	53	55	36	27.5
	2.5	1.4	1.0	63	36	36	25.0
3.2	3.2	2.2	1.7	80	82	56	42.0
		3.4	2.8			86	72.0
	4.7	2.2	1.7		120	56	42.0
		3.4	2.8			86	72.0
4.7	6.3	2.2	1.7		160	56	42.0
		3.4	2.8			86	72.0
	4.8	2.2	1.7	120	122	56	42.0
		3.4	2.8			86	72.0
5.9	6.3	3.6	3.1	160	91	77.5	
	7.9	3.4	2.8	200	86	72.0	
	7.9	3.0	2.4	150	200	76	62.0
6.3	9.5	3.6	3.1	160	240	91	77.5
		4.8	4.2			121	107.5
	9.1	11.8	3.4	2.9	230	300	86
		4.4	3.8			111	97.5

Ensto Cubo S — medium (SPCP)



Inch			mm			
Width	Length	Depth alternatives	Width	Length	Depth alternatives	
3.0	4.9	1.9 / 2.0 / 2.4 / 3.0 / 4.0 / 4.9	75	125	35 / 50 / 60 / 75 / 100 / 125	
3.9	3.9	1.4 / 2.4	100	100	35 / 60	
4.9	4.9	1.4 / 2.0 / 2.4 / 3.0 / 3.9 / 4.9	125	125	35 / 50 / 60 / 75 / 100 / 125	
	6.9	1.4 / 2.0 / 2.4 / 3.0 / 3.9 / 4.9 / 5.9	175	175	35 / 50 / 60 / 75 / 100 / 125 / 150	
6.9	9.8	4.9	250	125		
6.9	9.8	3.0 / 3.9 / 4.9 / 5.9	175	175	75 / 100 / 125 / 150	
		3.0 / 3.9 / 5.9	250	250	75 / 100 / 150	

Ensto Cubo O — large (OPCP)



Inch				mm					
Width	Length	Depth	Inner depth	Width	Length	Depth	Inner depth		
7.9	7.9	5.2	4.5	200	200	132	115.0		
		7.4	6.7			187	170.0		
		7.4	4.5			300	132	115.0	
	11.8	7.4	5.2			4.5	400	132	115.0
			7.4			6.7	187	170.0	
			7.4			6.7	400	132	115.0
11.8	11.8	5.2	4.5	300	300	132	115.0		
		7.4	6.7			187	170.0		
		7.4	4.5			400	132	115.0	
	23.6	7.4	5.2			4.5	600	132	115.0
			7.4			6.7	187	170.0	
			7.4			6.7	400	132	115.0
15.8	15.8	5.2	4.5	400	400	132	115.0		
		7.4	6.7			187	170.0		
		7.4	6.7			600	132	115.0	

All enclosures are available with opaque or transparent covers, hinges and mounting lugs.

Non-metallic fiberglass enclosures

Ensto Cubo N



Ensto Cubo N wall cabinets in brief:

- Sizes up to 24 x 32 inch
- Available with plain door or with a polycarbonate window
- Can be used for indoor as well as outdoor installations
- Sturdy construction and high resistance to corrosion and solvents
- Quick fixture guides in the back that permit fitting without drilling.
- Built-in surrounding protection edge guarantees the possibility to open the door 180° in built-in installations and also prevents entrance of water while opening the door
- Vertical patterns in the interior of the door enables the correct fitting of devices

Conformity	
GRP enclosures:	K 4 2 3
Technical information	
Degree of protection:	IP 66
Impact resistance:	IK 08 (-25°C... +35°C / -13°F... +95°F)
Flammability rating:	UL 746C 5V
UL File no:	E189312
UL category:	NITW, NITW7
Environmental type (UL):	4X (also 4,12 and 13)
Insulation:	Enclosure enables insulation suitable for class XXXX assemblies
Material	
Base/cover:	Fibreglass reinforced polyester
Gasket:	PUR (polyurethane)
Standard colour	
Base/cover:	Gray RAL 7035

Inch			mm		
Width	Length	Depth	Width	Length	Depth
9.8	11.8	5.5	250	300	140
11.8	15.8	7.9	300	400	200
15.8	15.8	7.9	400	400	200
	19.7	7.9		500	200
	23.6	9.1		600	230
19.7	23.6	9.1	500	600	230
23.6	31.5	11.8	600	800	300

Stainless steel for hazardous locations

Ensto Cubo X



Ensto Cubo X enclosure in brief:

- IP 66/67 or IP 66
- Certified to meet the demanding Division 2 and Zone 1 hazardous locations
- Available as empty enclosures or equipped junction enclosures
- Scalable dimensioning:
 - Width: 5.9 - 59.1 in / 150 - 1500 mm
 - Length: 5.9 - 39.4 in / 150 - 1000 mm
 - Depth: 3.5 - 11.8 in / 90 - 300 mm
- Four different versions for fastening the cover
- Possibility for an inspection window or a padlocking system
- All hinges and lugs are welded for maximum strength
- High-tension base collar structure
- Flexible, closed-cell special gasket
- Certified: EU, IEC, USA and Canada



Ensto Cubo X Certificates	
Empty enclosures	
Approvals/certificate:	Class I, Division 2, Groups A, B, C, D Class II, Division 2, Groups F, G Class III, Division 1 & 2 DNV 11 ATEX 98909U IECEx DNV 11.0005U POCC FI.F605.B03815 ROSTECHNADZOR (RTN) PERMIT
Protection types:	AEx e IIC AEx t IIIC IP__ Ex e & Ex tD Group II, Equipment category 2, (Gb) zone 1 Group III, (Db) Zone 21, IP66/67 or IP66 Ex -Ia Group II
Service temperature:	Minimum ambient temperature -67 °F Maximum ambient temperature +320 °F Max. ambient temperature (painted) +185 °F Maximum ambient temperature (AISI with window) +100 °C
Equipped junction enclosures	
Approvals/certificate:	UL listed and UL Classified DNV 11 ATEX 98913X IECEx DNV 11.0006X POCC FI.F605.B03816 ROSTECHNADZOR (RTN) PERMIT
Temperature classes (Gas):	T4: 130 °C T5: 95 °C T6: 80 °C
Max power dissipation method	
Ambient temperatures:	-55 to +40 °C / -67 to +104 °F -55 to +55 °C / -67 to +131 °F -55 to +65 °C / -67 to +149 °F
Material	
Base/cover:	Polyester painted steel, stainless steel AISI 304 or AISI 316L

Inch			mm		
Width	Length	Depth	Width	Length	Depth
5.9	5.9	3.5	150	150	90
	7.9	3.9		200	100
7.9	7.9	3.9	200	200	100
		4.7		300	120
	6.3			160	
11.8	11.8	5.9	300	300	150
		6.3			160
	7.9	400		160	
15.7	11.8	5.9	400	300	150
		6.3		400	160
19.7	23.6	7.9	500	600	200
		7.9		800	200
	11.8			300	
23.6	31.5	11.8	600	800	300
31.5	39.4	11.8	800	1000	300
39.4	39.4	11.8	1000	1000	300
47.2	39.4	11.8	1200	1000	300
59.1	39.4	11.8	1500	1000	300

Local disconnect switches

Rotary and toggle controllers

Ensto Original disconnect switches in brief:

- Complete line of traditional, reliable manual motor controllers and local disconnect switches.
- Series includes 3- and 4-pole rotary and toggle switches (nominal currents of 25 A to 100 A.)
- UL-listed controllers, UL File No. 164205; UL 508, "Manual Motor Controllers Suitable as Motor Disconnect."
- Small in size but big in grunt; they have proven their rugged reliability in thousands of applications.
- Can be directly actuated, and, in addition, all Ensto Origin rotary switches can be through-door (extended-shaft) actuated.
- Wide range of accessories (e.g. auxiliary contacts and handles)

Rotary Controllers

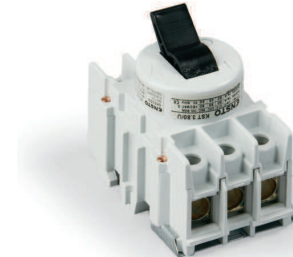
Amperage	Voltage	Product code
3 x 40 A	600 VAC	KSR3.40/U
3 x 60 A	480 VAC	KSR3.60/U
3 x 80 A	600 VAC	KSR3.80/U
3 x 100 A	480 VAC	KSR3.100/U
4 x 40 A	480 VAC	KSR4.40/U



KSR3.80/U

Toggle Controllers

Amperage	Voltage	Product code
3 x 40 A	600 VAC	KST3.40/U
3 x 60 A	480 VAC	KST3.60/U
3 x 80 A	600 VAC	KST3.80/U
3 x 100 A	480 VAC	KST3.100/U
4 x 40 A	480 VAC	KST4.40/U



KST3.80/U

Handles

Product code	Description
Direct handles	
KK57.18/U	Direct handle, black/gray for KSR3.40/U-KSR3.60/U
KK57.19/U	Direct handle, black/gray for KSR3.80/U-KSR3.100/U
KK57.37/U	Direct handle, black/gray for KSR4.40/U
External handles	
KK29/U	Black, IP54, not padlockable, 011
KSH48/U	Padlockable, yellow with red handle, 0 OFF11 ON, Environmental type 4X and 13
KSH48.01/U	Padlockable, black, 0 OFF11 ON, Environmental type 4X and 13
KSH75/U	Pistol grip handle, black, padlockable, 0 OFF11 ON, Environmental type 4X and 12
KSH75RY/U	Pistol grip handle, yellow with red handle, padlockable, 0 OFF11 ON, Environmental type 4X and 12
PMR716.1/U	Handle shaft guide replacement KSH48/U and KSH48.01/U



KSH48/U



Saves Your Energy

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