

enclosures with IP67 V-Type closure



The performance requirements in connection protection are increasingly varied and specialized.

To respond to this wide range of needs, ILME has developed several new solutions, including the innovative V-Type lever.

The new lever, due to the vertical closing movement, offers an IP66/IP67 degree of protection (according to EN 60529) when fitted with a complete and coupled connector and used with ILME standard hoods in die cast aluminium with pegs (without adaptor).

The high degree of protection is therefore not dependant on the use of special gaskets or locking devices.

The fixing flanges are the same as those fitted on traditional models.

This means it is possible to use the new housings as alternatives to the traditional version without affecting the interchangeability, or changing dimensions, spaces, flanges or fixing positions.

The new V-Type lever further extends the range, which includes the traditional version (CLASS series), with springs and rollers and the insulated version (T-Type series), thus, offering customers a complete and custom selection for all needs. ILME is the ONLY company that offers a lever system for all possible requirements.

The V-Type lever is the result of ongoing research on connection protection systems which confirms ILME as a proactive leader in new solutions with forty years experience.

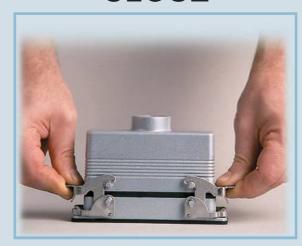
The new lever differs from other commercial ones because of its closing movement principle, consisting of 2 hinged elements that are then pivoted on the housing.

This composite movement enables to move the lever above the pin of the housing that has to be fixed in place with an initial rotatory movement and then press it downwards to engage the locking mechanism.





CLOSE



The tight seal after closure and the simplicity of the movement are key characteristics that only ILME has managed to combine into a single lever.

The V-Type lever also has other interesting functional characteristics for several applications:

- The friction on the pin is almost zero because the lever exerts its pressure vertically, thus significantly reducing wear in case of frequent use.
- The complete lever is manufactured in stainless steel and is fitted with a catch that prevents it from being accidentally detached.
- The absence of parts in plastic offers a higher resistance to impacts and in case of contact with oils and aggressive chemical substances or high ambient temperatures.
- The lever can be used for applications with vibrations because it has no springs and is therefore more rigid.
- The lever occupies a very small space during the closing phase.
- it is recommended in cases when the cable weight forces the levers to open, such as vertically installed connectors and the cable is mounted in the bottom.

The interchangeability with equivalent traditional levers with springs and rollers **simplifies the management of stocks**, **reduces costs and increases flexibility of use**.

Available in bulkhead or surface-mounted versions for sizes 44.27 with a single lever, 57.27, 77.27 and 104.27 with 2 levers. High construction models are available on request.

The item code identifies the new series with the suffix C7 or M7:

- C7I bulkhead mounting housing
- C7P surface mounting housing, Pg thread, standard height
- M7P surface mounting housing, metric thread, standard height
- C7AP surface mounting housing, Pg thread, high
- M7AP surface mounting housing, metric thread, high

enclosures with IP67 V-Type closure



Approved for degrees of protection UL Type 4 (= NEMA 4), UL Type 4X (=NEMA 4X) e UL Type 12 (=NEMA 12).

Our enclosures have been certified by UL, according to the American standard ANSI/UL50, as Recognised Components for the USA and Canada (cURus mark) as accessories of our set of UL and CSA certified connector inserts (file UL E115072, file CSA 082270 0 000).

With connector complete and with appropriate cable glands, it is possible to guarantee **IP69K protection rating compliant with** DIN 40050-9 (water jet at 80 °C (± 5 °C) at a pressure of 80bar ÷ 100 bar, for a period of 30s for each angle of inclination (0°, 30°, 60° and 90° w.r.t the plane).

Ambient temperature limits from -40 °C to +125 °C.

Enclosures can accommodate all connector inserts size 44.27, 57.27, 77.27 and 104.27 with crimp connection, screw, spring and the innovative Squich ® connection.

CMCE (to be crimped) and CMSE (with spring connection) series inserts cab be used for rated voltages up to 830V.

On request a version that also allows the inclusion of CME series fruits with rated voltage of 830V can be supplied, thanks to the additional insulation strips placed inside.

For bulkhead mounting housings, IP66/IP67 protection rating is guaranteed for mounting on a sufficiently rigid panel; use suitable length M4 screws (negligible surface buckling when subjected to tightening couple on the fixing screws of 0.8 ÷ 1.2 Nm or deformation caused by the weight of the complete connector). In case of insufficient rigidity use of C7.. FL flanges (page 259) is recommended, in which case use suitable length M4 screws and M4 flat/spring washers. In addition, the panel surface in contact with the flange gasket of the bulkhead mounting housings must be free from defects (deep scratches, grooves, burrs) that could negatively affect the performance of the gasket.

It is recommended to complete the enclosure with appropriate cable glands and connections.

The new series joins the family of traditional CLASS series enclosures and will support the various solutions: standard (grey), for aggressive environments (black), for temperatures up to 180 °C (red), with protection rating IP68 and in thermoplastic insulating material (T-Type).



1 lever



2 levers sizes 57.27, 77.27, 104.27



Also available 1-lever fixed enclosures and hoods with lever/s:



1 lever sizes 57.27, 77.27, 104,27





1 lever sizes 44.27, 57.27, 77.27, 104.27



2 levers sizes 57.27, 77.27, 104.27







- Threaded cable passage in various Pg diameters (types with pre-code "C") or metric passage (types with pre-code "M") in accordance with EN 60423, for cable entry devices in accordance with EN 50262 (NPT threading on request), may be located vertically, horizontally or frontally.
- Robust enclosures made of die cast aluminium alloy.
 Fixed surface-mounted, bulkhead and hood versions are available.
- Metallic enclosures with a coated finish of epoxy-polyester with high resistance to mechanical stress and external agents.
- The inserts are made of UL certified selfextinguishing fibreglass reinforced thermoplastics, and feature an operating temperature range between -40 °C and +125 °C.
- Insert profile polarised with asymmetrical guides to avoid incorrect matings. The inserts have a mechanical life equal to or higher than 500 mating cycles.
- Inserts are manufactured in compliance with European standard EN 61984 (DIN VDE 0627), certified and identified with UL and CSA markings.
- Special seal gaskets in anti-aging, oil-resistant, fuel-resistant, vinyl nitrile elastomer.
- 3 Stainless steel closure levers and springs guarantee a perfect closure and sealing.
- Locking device available in two versions, simple (with one lever), or double (with two levers).
- Captive insert fastening screws, with antislackening spring washer.
- Contact position identified with numbers or codes on both sides of each insert and printed with a laser system or from a die.
- Earthing terminal protection with ample contact surface



OPEN



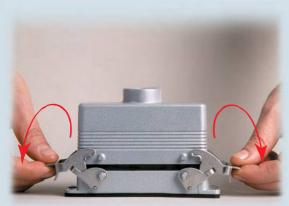
Lift the levers.

CLOSE

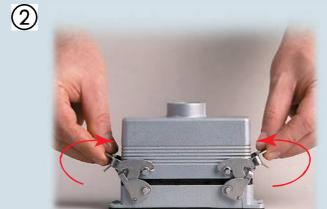


Position the connector.



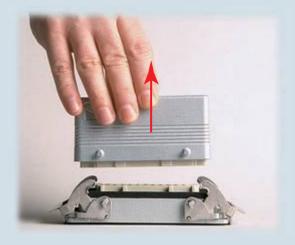


Lower the levers.



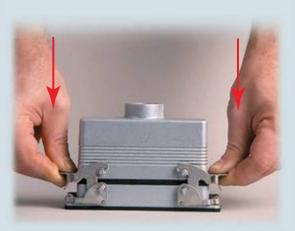
Hook the levers to the pegs.





Remove the connector.





Lower the lever until it clicks into place.

C7 - size 44.27

inserts:		page
CDD 24	poles + ⊕	59
CQE 10	poles + ⊕	80
CSH 6	poles + ⊕	88
CCE 6	poles + ⊕	94
CNE, CSE, JCNE, JCSE 6	poles + ⊕	95 and 106
CSS 6	poles + ⊕	118
CT, CTE, CTSE *) 6	poles + ⊕	126 and 130
MIXO 2	modules	156÷195

insert centre distance: 44 x 27 mm

bulkhead mounting housings with single lever in stainless steel



lever in stainless steel



surface mounting housings with single lever in stainless steel



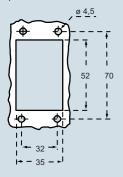
lever in stainless steel



description	part no.	part no.	entry Pg	part no.	entry M
with lever, size "44.27"	C7I 06 L				
with lever, size "44.27" with lever, high construction, size "44.27"		C7P 06 L C7P 06 L2 C7AP 06 L2 C7AP 06 L2 C7AP 06 L29	16 x 2 21 21 x 2 29	M7P 06 L20 M7P 06 L220 M7AP 06 L32 M7AP 06 L32 M7AP 06 L40	40

*) can be used only in bulkhead mounting housings

panel cut-out for bulkhead mounting housings in mm



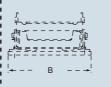
The new lever, due to the vertical closing movement, offers an IP66/IP67 protection rating (according to EN 60529) when fitted with a complete and coupled connector and used with ILME standard hoods in die cast aluminum with pegs (without adaptor).

For bulkhead mounting housings, IP66/IP67 protection rating is guaranteed for mounting on a sufficiently rigid panel; use suitable length M4 screws (negligible surface buckling when subjected to tightening couple on the fixing screws of 0.8 ÷ 1.2 Nm or deformation caused by the weight of the complete connector).

In case of insufficient rigidity use of C7.. FL flanges (page 259) is recommended, in which case use suitable length M4 screws and M4 (on the enclosure) and M4 (on the flange) flat/spring washers with M4 locknut. In addition, the panel surface in contact with the flange gasket of the bulkhead mounting housings must be free from defects (deep scratches, grooves, burrs) that could negatively affect the performance of the gasket.

dimensions in mm

71 L

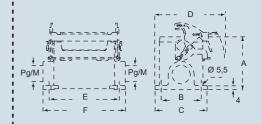




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C7I	06	Ē	_	_	_	_	_	_	_	66	3	_	_	8	2.5	_	

dimensions in mm

C7P L - C7AP L and M7P L - M7AP L



	Α	В	С	D	Е	F
C7P/M7P 06 L	53	40	52	70	70	82
C7AP/M7AP 06 L	73	45	57	72.5	70	82



Type 4/4X/12

 A
 B
 C
 D
 E
 F

 57
 40
 52
 122
 82
 93,5

 73
 45
 57
 122
 82
 93,5

C7P/M7P 10 C7AP/M7AP 10

C7 - C7A and M7 - M7A IP6	7 enclosures size "57.27"	V-Type lever version
inserts: page CDD	bulkhead mounting housings with 2 levers in stainless steel	surface mounting housings with 2 levers in stainless steel
description	part no.	part no. entry Pg Part no. entry M
with levers, size "57.27"	C7I 10	
with levers, size "57.27" with levers, size "57.27" with levers, high construction, size "57.27"		C7P 10 16 M7P 10.20 20 C7P 10.2 16 x 2 M7P 10.220 20 x 2 C7AP 10.21 21 M7AP 10.32 32 C7AP 10.221 21 x 2 M7AP 10.232 32 x 2 C7AP 10.29 29 M7AP 10.40 40 C7AP 10.229 29 x 2 M7AP 10.240 40 x 2
*) can be used only in bulkhead mounting housings	dimensions in mm	dimensions in mm
	C71	C7P - C7AP and M7P - M7AP
panel cut-out for bulkhead mounting housings in mm	A 58 58 45,5 6	Pg/M Pg/M Ø 5,5 A

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For bulkhead mounting housings, IP66/IP67 protection rating is guaranteed for mounting on a sufficiently rigid panel; use suitable length M4 screws (negligible surface buckling when subjected to tightening couple on the fixing screws of 0.8 ÷ 1.2 Nm or deformation caused by the weight of the complete connector). In case of insufficient rigidity use of C7.. FL flanges (page 259) is recommended, in which case use suitable length M4 screws and M4 (on the enclosure) and M4 (on the flange) flat/spring washers with M4 locknut.

In addition, the panel surface in contact with the flange gasket of the bulkhead mounting housings must be free from defects (deep scratches, grooves, burrs) that could negatively affect the performance of the gasket.



inserts:		page
CD 40	poles + ⊕	59
CT, CTS (10A) 40	•	56
CDD 72	•	62
CQE 32	•	82
	poles + 🖶	90
CCE 16	poles + 🖶	98
CNE, CSE, JCNE, JCSE 16	poles + 🖶	99 and 108
CSS 16	poles + 🖶	120
CT, CTE, CTSE (16A) *) 16	poles + 🕀	128 and 132
CMSE 6+2 (aux)	poles + 🖶	137
CMCE 6+2 (aux)	poles + 🖶	136
CP 6	poles + ⊕	149
CX 6/36 e 12/2	poles + ⊕	152÷153
CX 4/0 and 4/2	poles + 🖶	154
MIXO 4	modules	156÷195

insert centre distance: 77.5 x 27 mm

with levers, high construction, size "77.27"

with levers, high construction, size "77.27"

with levers, high construction, size "77.27" with levers, high construction, size "77.27"

description

C7 - size 77.27

with levers, size "77.27"

with levers, size "77.27" with levers, size "77.27" bulkhead mounting housings with 2 levers in stainless steel



lever in stainless steel

part no.

C7I 16



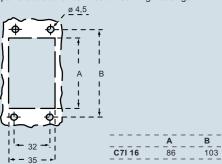
surface mounting housings with 2 levers in stainless steel



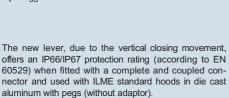
part no.	entry Pg	part no.	entry M
C7P 16 C7P 16.2 C7AP 16.21 C7AP 16.221	21 21 x 2 21 21 x 2	M7P 16.25 M7P 16.225 M7AP 16.32 M7AP 16.232	25 25 x 2 32 32 x 2

29 x 2

*) can be used only in bulkhead mounting housings

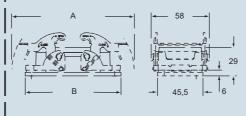


panel cut-out for bulkhead mounting housings in mm



dimensions in mm

C7I



-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
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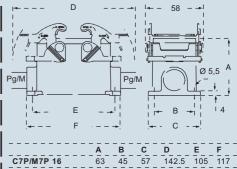
For bulkhead mounting housings, IP66/IP67 protection rating is guaranteed for mounting on a sufficiently rigid panel; use suitable length M4 screws (negligible surface buckling when subjected to tightening couple on the fixing screws of 0.8 ÷ 1.2 Nm or deformation caused by the weight of the complete connector). In case of insufficient rigidity use of C7.. FL flanges (page 259) is recommended, in which case use suitable length M4 screws and M4 (on the enclosure) and M4 (on the flange) flat/spring washers with M4 locknut.

In addition, the panel surface in contact with the flange gasket of the bulkhead mounting housings must be free from defects (deep scratches, grooves, burrs) that could negatively affect the performance of the gasket.

dimensions in mm

C7AP 16.29 C7AP 16.229

C7P - C7AP and M7P - M7AP



M7AP 16.40 M7AP 16.240

77 45 57 142.5 105 117

40 x 2

inserts:	page
CD	poles + ⊕ 51 poles + ⊕ 57
CDD 108	poles + ⊕ 64
CQE 46	poles + ⊕ 83
CSH 24	poles + ⊕ 91
CCE 24	poles + ⊕ 100
CNE, CSE, JCNE, JCSE 24	poles + @ 101 and 109
CSS 24	poles + ⊕ 121
CT, CTE, CTSE (16A) *) 24	poles + @ 129 and 133
CMSE 10+2 (aux)	poles + ⊕ 139
CMCE 10+2 (aux)	poles + ⊕ 138
CX 4/8	poles + ⊕ 155
MIXO 6	modules 156÷195

C7 - C7A and M7 - M7A IP67 enclosures

insert centre distance: 104 x 27 mm

bulkhead mounting housings with 2 levers in stainless steel



lever in stainless steel



size "104.27"

surface mounting housings with 2 levers in stainless steel



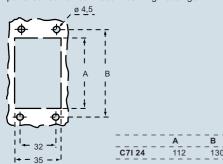
lever in	١
stainless	
steel	

IP66
IP67

description	part no.	part no.	entry Pg	part no.	entry M
with levers, size "104.27"	C7I 24				
with levers, size "104.27" with levers, size "104.27" with levers, high construction, size "104.27"		C7P 24 C7P 24.2 C7AP 24.21 C7AP 24.221 C7AP 24.29 C7AP 24.229	21 21 x 2 21 21 x 2 29 29 x 2	M7P 24.25 M7P 24.225 M7AP 24.32 M7AP 24.232 M7AP 24.40 M7AP 24.240	25 25 x 2 32 32 x 2 40 40 x 2

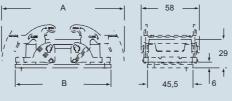
*) can be used only in bulkhead mounting housings

panel cut-out for bulkhead mounting housings in mm



The new lever, due to the vertical closing movement, offers an IP66/IP67 protection rating (according to EN 60529) when fitted with a complete and coupled connector and used with ILME standard hoods in die cast aluminum with pegs (without adaptor).

dimensions in mm



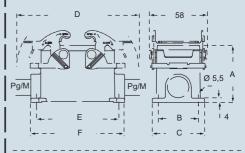
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(C7	112	24				-1	69				14	12	.5		
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For bulkhead mounting housings, IP66/IP67 protection rating is guaranteed for mounting on a sufficiently rigid panel; use suitable length M4 screws (negligible surface buckling when subjected to tightening couple on the fixing screws of 0.8 ÷ 1.2 Nm or deformation caused by the weight of the complete connector). In case of insufficient rigidity use of C7.. FL flanges (page 259) is recommended, in which case use suitable length M4 screws and M4 (on the enclosure) and M4 (on the flange) flat/spring washers with M4 locknut.

In addition, the panel surface in contact with the flange gasket of the bulkhead mounting housings must be free from defects (deep scratches, grooves, burrs) that could negatively affect the performance of the gasket.

dimensions in mm

C7P - C7AP and M7P - M7AP



	Α	В	C	ט	E	Ε.
C7P/M7P 24	63	45	57	169	132	144
C7AP/M7AP 24	80	45	57	169	132	144

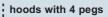
inserts:				page
CD	40, 64	poles +	۱ 🕀	49 and 51
CDD 24, 42	, 72, 108	poles +	+ 🕀	59÷64
CQE 10, 1	8, 32, 46	poles +	+ 🕀	80÷83
CSH 6, 1	0, 16, 24	poles +	+ 🕀	88÷91
CCE 6, 1	0, 16, 24	poles +	+ ⊕	94÷100
CNE, CSE 6, 1	0, 16, 24	poles +	+ 🕀	95÷101
JCNE, JCSE*) 6,	10, 16, 24	poles +	(106÷109
CMSE 3+2, 6	3+², 10+²	poles +	+ ⊕	135÷139
CMCE 3+2, 6	3+ ² , 10+ ²	poles +	+ ⊕	134÷138
CP	6	poles +	+ 🕀	149
CX 8/24, 6	/36, 12/2	poles +	+ ⊕	151÷153
CX 4/0	, 4/2, 4/8	poles +	+ ⊕	154÷155
MIXO	. 2, 3, 4,	6 modu	lles	156÷195

insert centre distance:

44 x 27 mm, 57 x 27 mm, 77,5 x 27 mm, 104 x 27 mm

hoods with 2 pegs









description	part no.	entry Pg	part no.	entry M	part no.	entry Pg	part no.	entry M
with pegs, side entry, size "44.27" with pegs, side entry, size "44.27" with pegs, side entry, high construction, size "44.27" with pegs, side entry, high construction, size "44.27"	CHO 06 L13 CHO 06 L16 CFO 06 L21 CFO 06 L29	13.5 16 21 29	MHO 06 L20 MHO 06 L25 MFO 06 L25 MFO 06 L32	20 25 25 32				
with pegs, side entry, size "57.27" with pegs, side entry, size "57.27" with pegs, side entry, high construction, size "57.27" with pegs, side entry, high construction, size "57.27"					CHO 10 CAO 10.21 CAO 10.29	16 21 29	MHO 10.20 MHO 10.25 MAO 10.32 MAO 10.40	20 25 32 40
with pegs, side entry, size "77.27" with pegs, side entry, size "77.27" with pegs, side entry, high construction, size "77.27" with pegs, side entry, high construction, size "77.27"					CHO 16 CAO 16.21 CAO 16.29	21 21 29	MHO 16.25 MHO 16.32 MAO 16.32 MAO 16.40	25 32 32 40
with pegs, side entry, size "104.27" with pegs, side entry, size "104.27" with pegs, side entry, high construction, size "104.27" with pegs, side entry, high construction, size "104.27"					CHO 24 CAO 24.21 CAO 24.29	21 21 29	MHO 24.25 MHO 24.32 MAO 24.32 MAO 24.40	25 32 32 40
with pegs, top entry, size "44.27" with pegs, top entry, size "44.27" with pegs, top entry, high construction, size "44.27" with pegs, top entry, high construction, size "44.27"	CHV 06 L13 CHV 06 L16 CFV 06 L21 CFV 06 L29	13.5 16 21 29	MHV 06 L20 MHV 06 L25 MFV 06 L25 MFV 06 L32	20 25 25 32				
with pegs, top entry, size "57.27" with pegs, top entry, size "57.27" with pegs, top entry, high construction, size "57.27" with pegs, top entry, high construction, size "57.27"					CHV 10 CAV 10.21 CAV 10.29	16 21 29	MHV 10.20 MHV 10.25 MAV 10.32 MAV 10.40	20 25 32 40
with pegs, top entry, size "77.27" with pegs, top entry, size "77.27" with pegs, top entry, high construction, size "77.27" with pegs, top entry, high construction, size "77.27"					CHV 16 CAV 16.21 CAV 16.29	21 21 29	MHV 16.25 MHV 16.32 MAV 16.32 MAV 16.40	25 32 32 40
with pegs, top entry, size "104.27" with pegs, top entry, size "104.27" with pegs, top entry, size "104.27" with pegs, top entry, high construction, size "104.27" with pegs, top entry, high construction, size "104.27"					CHV 24 CHV 24.29 CAV 2421 CAV 24.29	21 29 21 29	MHV 24.25 MHV 24.32 MHV 24.40 MAV 2432 MAV 24.40	25 32 40 32 40

The new lever, due to the vertical closing movement, offers an IP66/IP67 protection rating (according to EN 60529) when fitted with a complete and coupled connector and used with ILME standard hoods in die cast aluminum with pegs (without adaptor).



Type 4/4X/12



dimensions shown are not binding and may be changed without notice

dimensions in mm

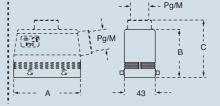
CHO L - CFO L and MHO L - MFO L CHV L - CFV L and MHV L - MFV L



	Α	В	С
CHO/MHO 06	60	47	-
CHO/MHO 10	73	52	
CHO/MHO 16	93.5	63	-
CHO/MHO 24	120	63	
CFO/MFO 06	60	72	
CAO/MAO 10	73	70	
CAO/MAO 16	93.5	76	
CAO/MAO 24	120	76	

dimensions in mm

CHO - CAO and MHO - MAO CHV - CAV and MHV - MAV



	Α	В	С
CHV/MHV 06	60	40	53
CHV/MHV 10	73	45	58
CHV/MHV 16	93.5	45	58
CHV/MHV 24	120	55	69.5
CFV/MFV 06	60	72	88
CAV/MAV 10	73	70	85
CAV/MAV 16	93.5	76	91
CAV/MAV 24	120	76	91

accessories for multiple connectors



covers



frames for bulkhead mounting housings



description	1.5	part no. with 4 pegs	part no.
 used with enclosures size "44.27" used with enclosures size "57.27" used with enclosures size "77.27" used with enclosures size "104.27" 	CHC 06 L	CHC 10 CHC 16 CHC 24	
size "44.27" size "57.27" size "77.27" size "104.27"			C7 06 FL C7 10 FL C7 16 FL C7 24 FL
The covers do not provide protection rating	dimensions in mm		dimensions in mm

The covers do not provide protection rating dimensions in mm IP66/IP67.

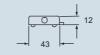




- for enclosures with 2 levers

CHC L





- for enclosures with 1 lever

CHC - CHC L	Α
06	60
10	73
16	93.5
24	120

C7..FL

	Α	В
C7 06 FL	96	70
C7 10 FL	109	83
C7 16 FL	129	103
C7 24 FL	156	130