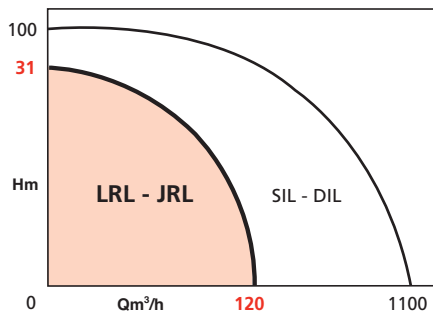


RANGE OF APPLICATION

Flows up to:	120 m ³ /h
Manometric head up to:	31 m
Maximum working pressure:	10 bar
Temperature range:	-20° to +110°C
Nominal diameter ports:	25 to 80
MEI* of reference:	≥ 0,10

*Minimum Efficiency Index



ADVANTAGES

- Low electrical consumption.
- Mounts directly onto horizontal or vertical pipework.
- Not coupled: no need to align the shafts.
- Device to de-aerate the mechanical seal permanently.
- Easy and quick to install.

JRL

- A backup pump permanently available.
- The two pumps can be operated in parallel to increase the flow.
- Manual or automatic pump switchover by MGP box.



• LRL-U: horizontal motor



• JRL: horizontal motors



• LRL: vertical motor



• JRL: vertical motors



• LRL: moteur vertical

LRL - JRL

SINGLE AND DOUBLE IN-LINE PUMPS

Heating - Air conditioning - E.C.S.*
50 Hz

*A.C.S. Standard: contact us

APPLICATIONS

- Heating small and medium multiple dwellings.
 - Air conditioning.
 - Domestic hot water systems.
 - Many industrial and agricultural applications.
 - Heating greenhouses..
 - Transferring antifreeze.
 - Circulating iced water.
- A.C.S. Standard: contact us.

LRL - JRL

DESIGN

Hydraulic part

- Centrifugal, single-stage.
- Intake and outlet ports in line.
- Flanged pump housing with ports for connecting pressure gauges, or connector union (version U).
- Bearing lantern linking pump to motor.
- Dynamically balanced impeller, mounted directly on the shaft of the motor.
- Waterproof mechanical seal.

JRL

- Double pump in one housing.
- The two pumps are hydraulically separated by silent-operating valve.

Motor

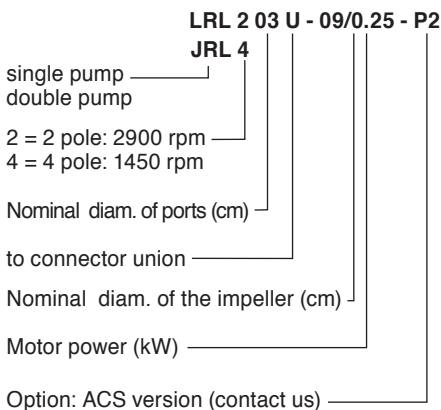
- IE2
- One end of shaft lengthened.
- The rotor shaft's guide bearings selected for silent operation.

Speed:	1450 - 2900 rpm
3 ~ winding ≤ 3 kW:	230 V Δ 400 V Y
3 ~ = 4kW:	400 V Δ
Frequency:	50 Hz (option 60 Hz)
Insulation class:	155 (F)
Protection class:	IP 55
EC Compliant:	EN 809

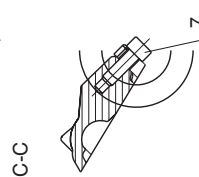
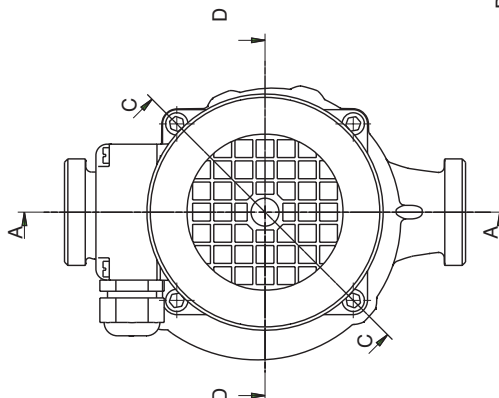
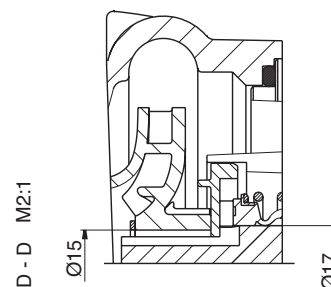
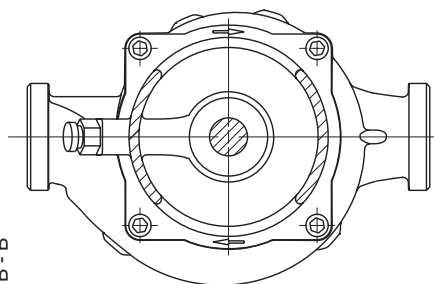
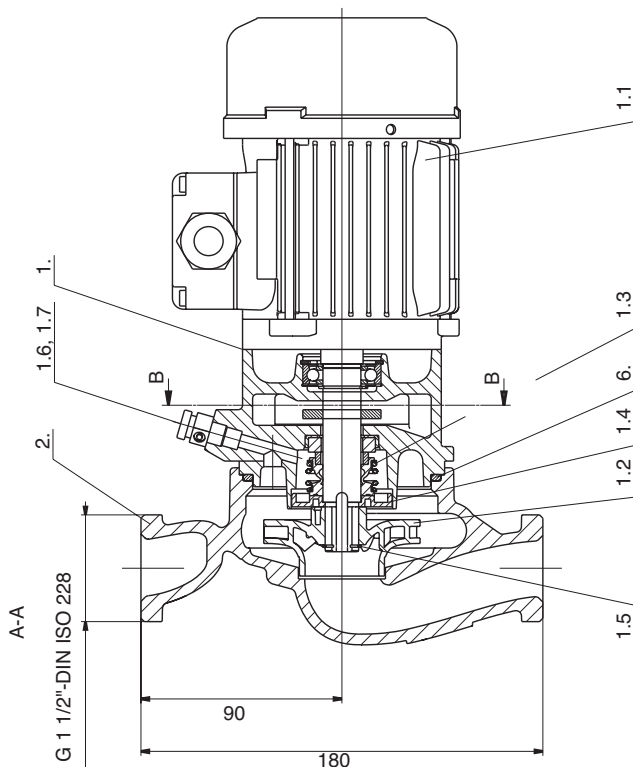
BASIC CONSTRUCTION

Main components	Material
Pump housing	Cast iron EN GJL 250
Bearing lantern	Cast iron EN GJL 250
Shaft	Steel X20 - Cr13
Mechanical seal	Graphite/Carbide Si/EP
Joint of corps	Ethylene Propylene
Impeller	Composite

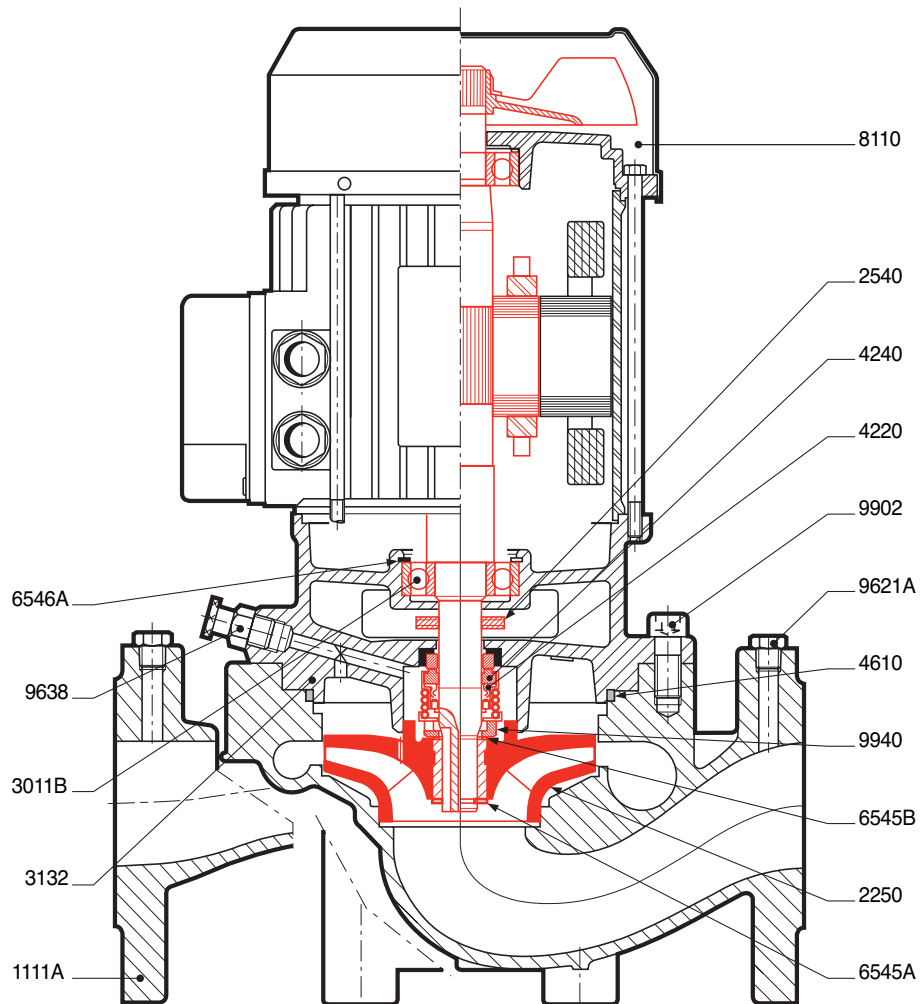
IDENTIFICATION



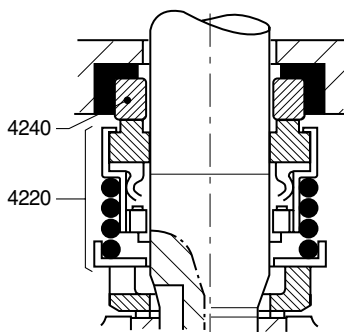
LRL-U – PLAN AND CROSS-SECTION



LRL - PLAN AND CROSS-SECTION



GARNITURE MÉCANIQUE (LRL-JRL)

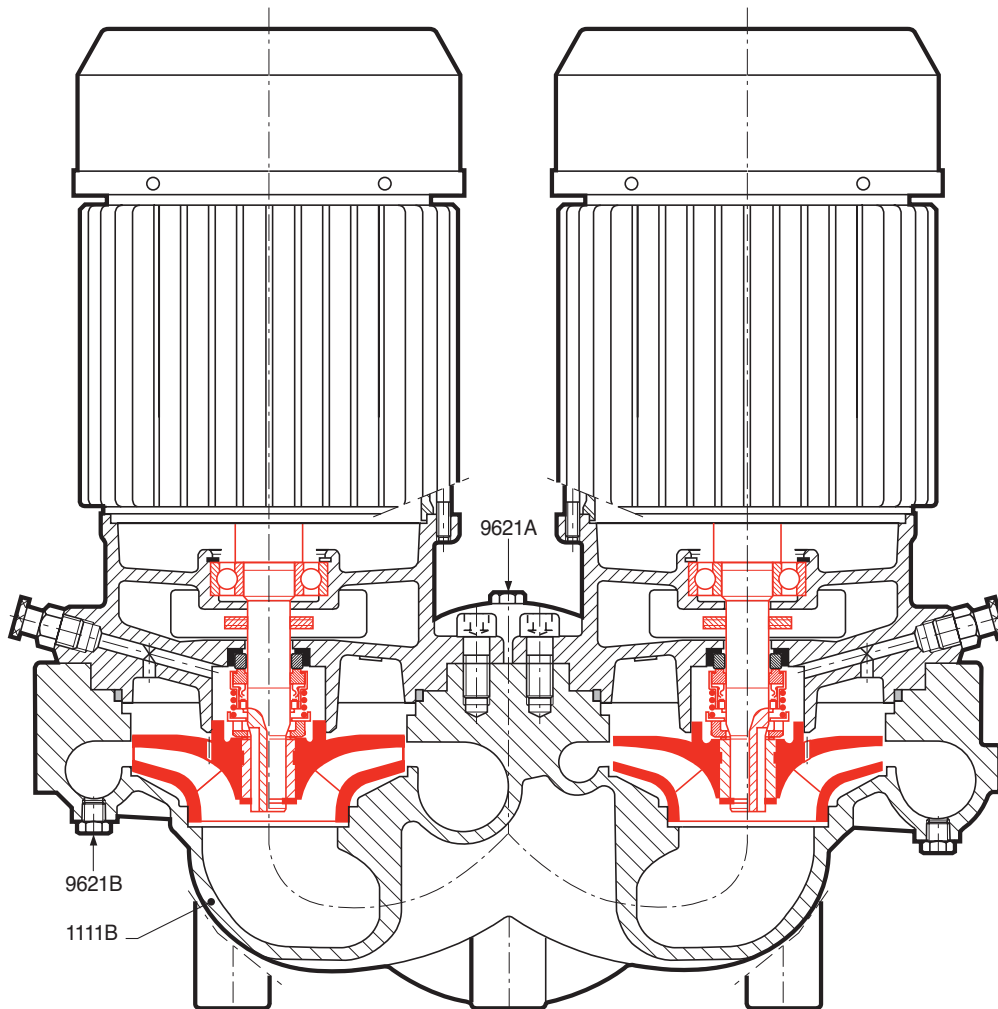


List (common to LRL - JRL)

- 1111A - Single pump housing
- 1111B - Double pump housing
- 2250 - Impeller
- 2540 - Deflector
- 3011B - Guide bearing
- 3132H - Bearing lantern
- 4220H - Rotating ring of mechanical seal
- 4240H - Fixed ring of mechanical seal
- 4610H - Fixed ring of mechanical seal
- 6545A - Snap ring on shaft
- 6545B - Snap ring on shaft
- 6546A - Circlip of bearing
- 8110H - Electric motor
- 9621A - Plug for pressure gauge take-off
- 9621B - Drain plugs (JRL)
- 9638 - De-aerator of mechanical seal
- 9647H - Outlet valve (JRL)
- 9902H - Bearing lantern retaining screw
- 9940H - Axial bearing of mechanical seal
- (•) Spare parts recommended

LRL - JRL

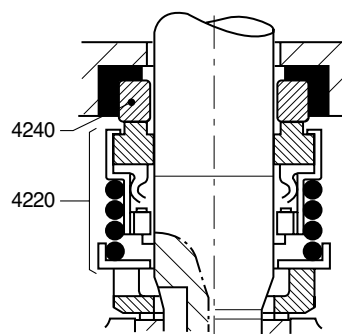
JRL – PLAN AND CROSS-SECTION



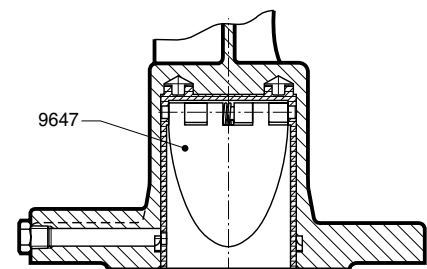
List (common to LRL - JRL)

- 1111A - Single pump housing
 - 1111B - Double pump housing
 - 2250 - Impeller
 - 2540 - Deflector
 - 3011B - Guide bearing
 - 3132H - Bearing lantern
 - 4220H - Rotating ring of mechanical seal
 - 4240H - Fixed ring of mechanical seal
 - 4610H - O-ring pump housing
 - 6545A - Snap ring on shaft
 - 6545B - Snap ring on shaft
 - 6546A - Circlip of bearing
 - 8110H - Electric motor
 - 9621A - Plug for pressure gauge take-off
 - 9621B - Drain plugs (JRL)
 - 9638 - Deaerator of mechanical seal
 - 9647H - Outlet valve (JRL)
 - 9902H - Bearing lantern retaining screw
 - 9940H - Axial bearing of mechanical seal
- (-) Spare parts recommended

MECHANICAL SEAL
(LRL-JRL)

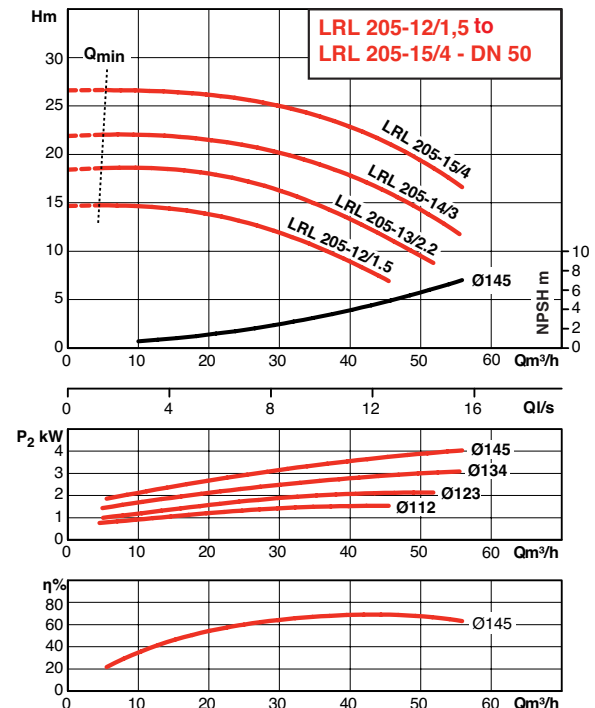
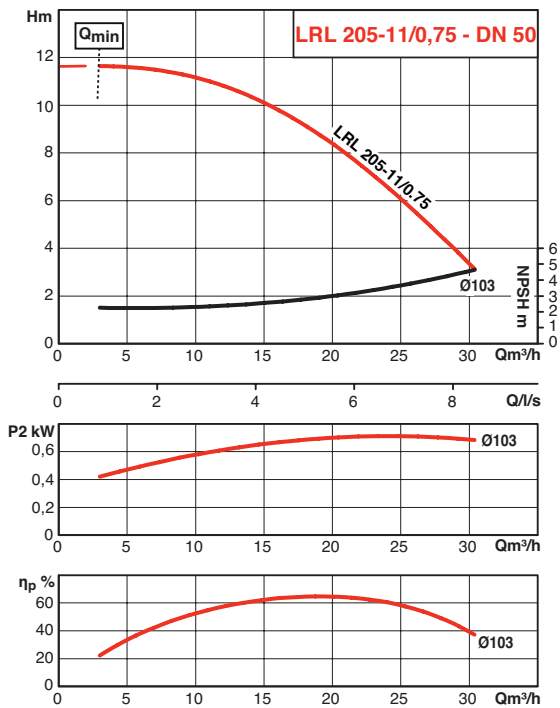
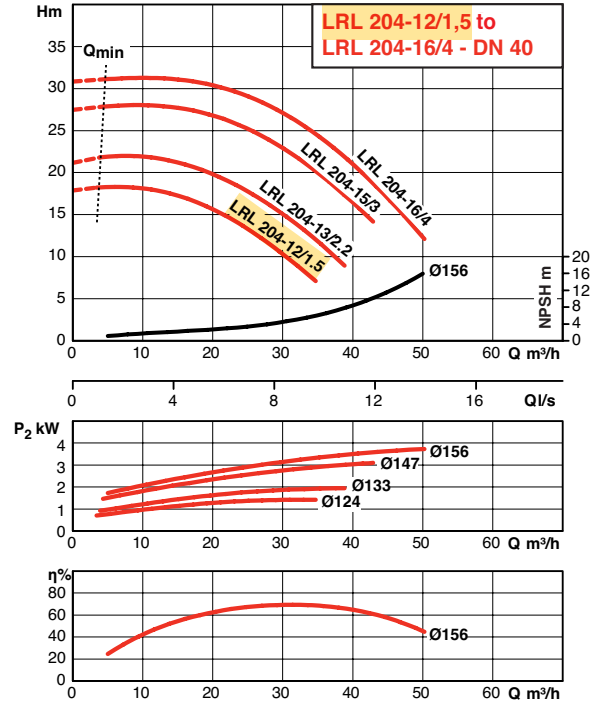
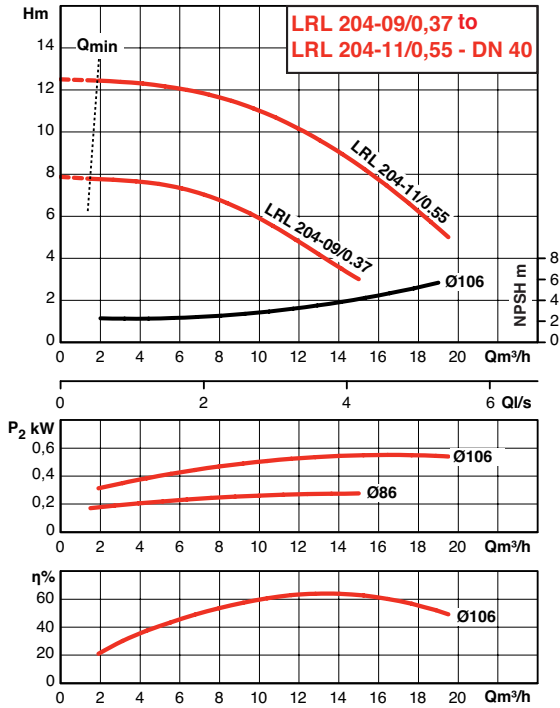


DETAILS OF OUTLET (JRL)
VALVE

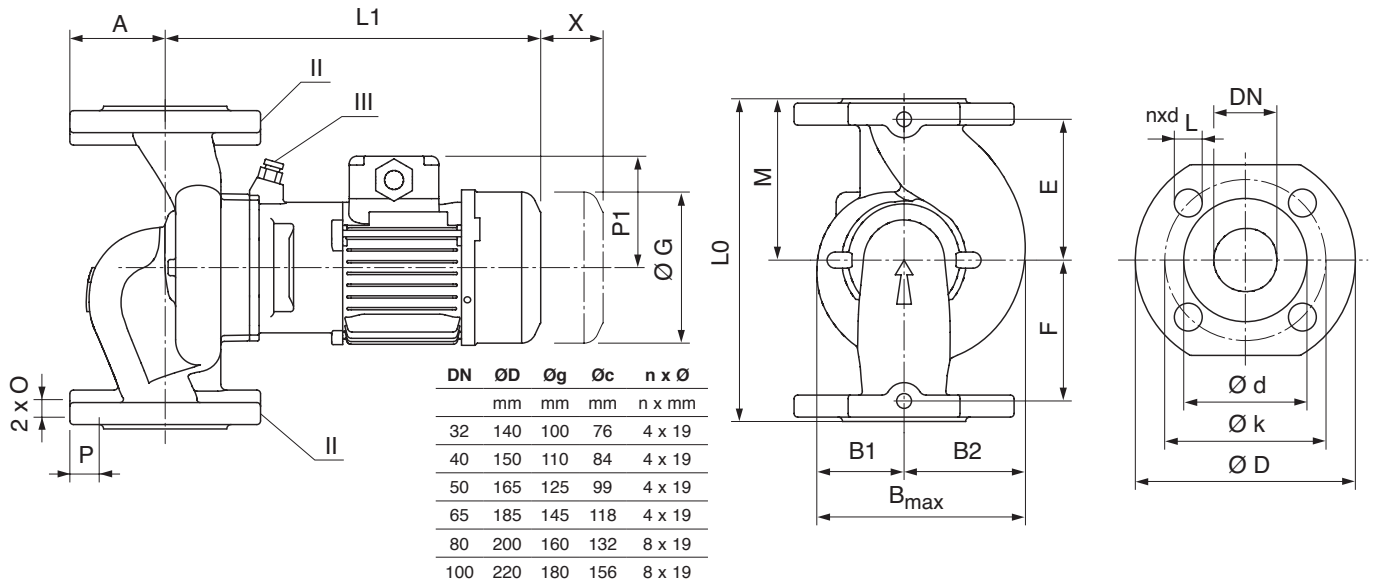


LRL - JRL

HYDRAULIC PERFORMANCE LRL 2 POLE



LRL: ELECTRICAL CHARACTERISTICS AND SIZES



ORDER REFERENCE	MOTOR					PUMP																	mass
	P2 W	Efficiency of motor %	Power factor	Nominal speed	Nominal current (approx.)	DN	A	T	B max	B1	B2	L1	L0	P1	C	E	F	M	O	P	X	ØG	
		η	cos φ	rpm	in A	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
LRL203-16/1.1	370	72.8	0.78	2900	0.86	32	70	55	207	101	106	321	260	121	90	40	50	130	M10	20	150	141.2	20,7
LRL203-09/0.37	550	75.5	0.76	2900	1.33	32	70	55	207	101	106	321	260	121	90	40	50	130	M10	20	150	141.2	23
LRL203-10/0.55	750	77.4	0.81	2900	1.7	32	70	55	207	101	106	341	260	128	90	40	50	130	M10	20	150	185	25,5
LRL203-11/0.75	1100	79.6	0.83	2900	2.4	32	70	55	207	101	106	341	260	128	90	40	50	130	M10	20	150	185	26,1
LRL203-13/1.1	1100	79.6	0.83	2900	2.4	32	70	55	207	101	106	341	260	128	90	40	50	130	M10	20	150	185	26,1
LRL204-07/0.12	120	64	0.75	2780	0.33	40	65	61	159	75	84	259	220	76	-	95	95	110	M10	20	150	106	11
LRL204-09/0.37	370	72.8	0.78	2900	0.86	40	65	50	170	80	90	320	250	121	-	110	110	125	M10	20	150	141.2	19,2
LRL204-11/0.55	550	75.5	0.76	2900	1.33	40	65	50	170	80	90	320	250	121	-	110	110	125	M10	20	150	141.2	20,1
LRL204-12/1.5	1500	81.3	0.78	2900	3.3	40	75	49	234	113	121	373,5	320	149,5	90	40	50	160	M10	20	150	193	29,5
LRL204-13/2.2	2200	83.2	0.82	2900	4.52	40	75	49	234	113	121	373,5	320	149,5	90	40	50	160	M10	20	150	193	31,5
LRL204-15/3	3000	84.6	0.84	2900	6.05	40	75	49	234	113	121	408	320	169,5	90	40	50	160	M10	20	150	217	37,6
LRL204-16/4	4000	85.8	0.84	2900	7.77	40	75	49	234	113	121	439,5	320	174,5	90	40	50	160	M10	20	150	232	45,7
LRL205-11/0.75	750	77.4	0.81	2900	1.7	50	75	56	192	91	101	346	280	128	-	125	125	140	M10	20	150	146	27,2
LRL205-15/4	4000	85.8	0.84	2900	7.77	50	86	51	247	116	131	441,5	340	174,5	104	40	50	170	M10	20	150	193	32,5
LRL205-13/2.2	2200	83.2	0.82	2900	4.52	50	86	51	247	116	131	375,5	340	149,5	104	40	50	170	M10	20	150	193	34,5
LRL205-14/3	3000	84.6	0.84	2900	6.05	50	86	51	247	116	131	410	340	169,5	104	40	50	170	M10	20	150	217	40,6
LRL205-15/4	4000	85.8	0.84	2900	7.77	50	86	51	247	116	131	441,5	340	174,5	104	40	50	170	M10	20	150	232	48,7
LRL206-11/2.2	2200	83.2	0.82	2900	4.52	65	93	57	257	119	138	381,5	340	149,5	135	40	55	170	M10	20	150	193	37
LRL206-12/1.5	1500	81.3	0.78	2900	3.3	65	80	67	218	100	118	386,8	340	151	-	155	155	170	M10	20	150	193	34,6
LRL206-12/3	3000	84.6	0.84	2900	6.05	65	93	57	257	119	138	416	340	169,5	135	40	55	170	M10	20	150	217	43,1
LRL206-13/4	4000	85.8	0.84	2900	7.77	65	93	57	257	119	138	447,5	340	174,5	135	40	55	170	M10	20	150	232	51
LRL208-10,5/3	3000	84.6	0.84	2900	6.05	80	105	63	278	125	153	422	360	169,5	135	40	55	180	M10	20	150	217	46,9
LRL208-11/4	4000	85.8	0.84	2900	7.77	80	105	-	282	125	157	453	360	174,5	135	40	55	180	M10	20	150	232	57
LRL208-12/2.2	2200	83.2	0.82	2900	4.52	80	98	69	245	110	135	388,8	360	151	-	165	165	180	M10	20	150	193	41,5
LRL208-12/4	4000	85.8	0.84	2900	7.77	80	105	63	278	125	153	453,5	360	174,5	135	40	55	180	M10	20	150	232	55
LRL403-11/0.25	250	74	0.7	1450	0.69	32	70	55	207	101	106	297	260	120	90	40	50	130	M10	20	150	141.2	20
LRL403-16/0.25	250	74	0.7	1450	0.69	32	70	55	207	101	106	297	260	120	90	40	50	130	M10	20	150	141.2	20
LRL404-08/0.09	90	67.9	0.73	1500	0.26	40	65	65	146	68	78	272	250	107	-	110	110	125	M10	20	150	125	14,1
LRL404-11/0.12	120	69.7	0.72	1500	0.34	40	65	50	170	80	90	294	250	120	-	110	110	125	M10	20	150	141.2	18,1
LRL404-13/0.25	250	74	0.7	1450	0.69	40	75	49	234	113	121	291	320	120	90	40	50	160	M10	20	150	141.2	21
LRL404-15/0.37	370	76.1	0.71	1450	1.06	40	75	49	234	113	121	291	320	120	90	40	50	160	M10	20	150	141.2	22,2
LRL405-11/0.25	250	74	0.7	1450	0.69	50	75	56	192	91	101	298,5	280	120	-	125	125	140	M10	20	150	141.2	21,7
LRL405-12/0.25	370	76.1	0.71	1450	1.06	50	86	51	247	116	131	293	340	120	104	40	50	170	M10	20	150	141.2	24
LRL405-13/0.37	370	76.1	0.71	1450	1.06	50	86	51	247	116	131	293	340	120	104	40	50	170	M10	20	150	141.2	25,2
LRL405-15/0.55	550	78.1	0.71	1450	1.45	50	86	51	247	116	131	327	340	128	104	40	50	170	M10	20	150	185	29
LRL406-11/0.25	250	74	0.7	1450	0.69	65	93	57	257	119	138	299	340	120	135	40	55	170	M10	20	150	141.2	26,5
LRL406-12/0.37	370	76.1	0.71	1450	1.06	65	93	57	257	119	138	299	340	120	135	40	55	170	M10	20	150	141.2	27,7
LRL406-13/0.55	550	78.1	0.71	1450	1.45	65	93	57	257	119	138	333	340	128	135	40	55	170	M10	20	150	185	31,5
LRL408-12,5/0.75	750	79.6	0.72	1450	1.9	80	105	63	278	125	153	339	360	128	135	40	55	180	M10	20	150	185	36,4
LRL408-12/0.55	550	78.1	0.71	1450	1.45	80	105	-	282	125	157	338,5	360	128	135	40	55	180	M10	20	150	185	37,3
LRL408-14/1.1	1100	81.4	0.78	1450	2.5	80	105	63	278	125	153	372,5	360	146	135	40	55	180	M10	20	150	176.5	40,8