



# Lowara Rewindable motors L6W - L8W - L10W - L12W Series 60 Hz





## L6W-L8W-L10W-L12W MOTORS SUBMERSIBLE REWINDABLE LIQUID COOLED MOTOR - DIAMETERS 6" TO 12" - LW SERIES.

Water filled submersible motors. The choice of component materials ensures optimum operating performances, superior quality, reliability and ease of installation.

### SPECIFICATIONS

- Shaft extension and coupling dimensions according to **NEMA** standards (6" and 8"). 10"-12" coupling dimensions see technical documentation.
- **Rewindable stator.**
- Class **Y insulation** (standard).
- Protection class: **IP68.**
- Compensating diaphragm for internal liquid expansion.
- Kingsbury bi-directional axial thrust bearing.
- Sandproof **mechanical seal.**
- Maximum **immersion depth: 350 m.**
- Maximum number of **starts per hour** evenly distributed:
  - 15 (6")
  - 10 (8")
  - 8 (10")
  - 4 (12")
- Maximum permissible line **voltage variations:** 10%

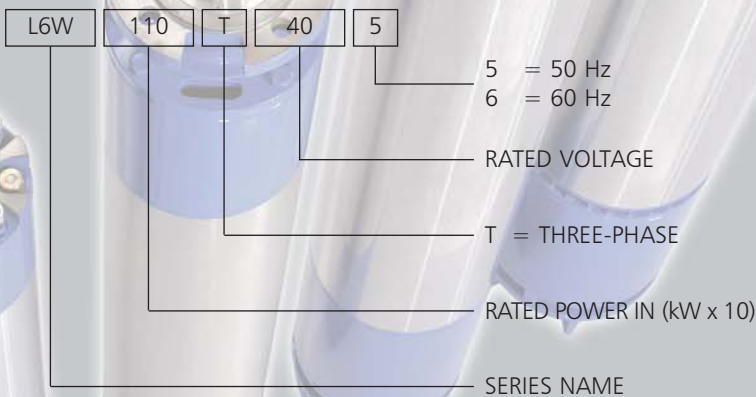
### • Axial thrust:

- 6" up to 22 kW - 16000 N
- 6" from 26 kW to 37 kW - 30000 N
- 8" - 50000 N
- 10"-12" - 65000 N

### VERSIONS

- 6" from 4 kW to 37 kW
  - 8" from 30 kW to 93 kW
  - 10" from 93 kW to 150 kW
  - 12" from 185 kW to 300 kW
- Different voltages available on request.

### IDENTIFICATION CODE



EXAMPLE: L6W110T405

L6W MOTOR:

RATED POWER 11 kW; THREE-PHASE; RATED VOLTAGE 400 V; 50 Hz



- Superior thrust bearing design: **performances higher than NEMA Standard**
- **Bidirectional motor operation** at maximum thrust
- Protection class: **IP68**
- **WRAS** and **ACS** approved cables
- **Stator easy to rewind**
- Different versions available on request



- The thrust bearing is designed to support the maximum thrust of the pump in the worst conditions
- Horizontal and vertical installation\*
- Mechanical seal as standard Carbon/Ceramic
- All the thrust bearings are designed to support the maximum axial load
  - 6" up to 22 kW 16000 N
  - 6" from 26 kW to 37 kW 30000 N
  - 8" 50000 N
  - 10" and 12" 65000 N
- The outside pressure is compensated internally by the use of a special membrane which works with a non-return valve that does not allow water to enter the motor from the borehole well.
- The cable is WRAS and ACS approved.
- Maximum allowed voltage fluctuation +/-10%
- **Rewindable stator:** the design of the winding heads are easy to inspect and repair
- **SPECIAL VERSIONS**
  - Motors for star/delta start.
  - L6WN series: complete range in AISI 316 stainless steel
  - L6WR series: complete range in Duplex stainless steel.
  - HT series: complete range for applications in high temperature environments (up to 60°C) or under inverter.
- **OPTIONAL FEATURES**
  - Silicon Carbide mechanical seal.
  - Special voltages.
- **ACCESSORIES**
  - Temperature sensor PT 100 / PTC.

\* See the limits reported in the instruction manual





**Mechanical seal as standard**

**Upper and lower carbon bearing bush**

**Up thrust ring included**

**Wet rewindable stator**

**Kingsbury bi-directional axial thrust bearing**

**Stator Easy to Rewind**



## L6W MOTOR SERIES

MOTOR TYPE	RATED POWER		RATED VOLTAGE	OPERATING CHARACTERISTICS AT RATED POWER				DIRECT ON-LINE STARTING			SERVICE FACTOR	SERVICE FACTOR AMPS	MAX WATER TEMP. °C	CABLE TYPE			
	kW	HP		A	rpm	η %	cos φ	Is/In	Ts/Tn	Tmax/Tn				CABLE TYPE			
														Sec. (mm <sup>2</sup> )	DOL	Y/D	L (m)
L6W40T236	4	5,5	230	17,3	3500	72,8	0,80	4,51	1,28	2,01	1,15	19,0	30	4	4	4	
L6W40T386			380	9,94	3490	73,0	0,84	4,75	1,29	2,02							11,2
L6W40T405			460	8,09	3485	73,0	0,85	4,82	1,29	2,02							9,16
L6W55T236	5,5	7,5	230	24,3	3505	75,4	0,75	5,01	1,59	2,54	1,15	26,4	30	4	4	4	
L6W55T386			380	13,7	3495	76,3	0,80	5,38	1,60	2,55							15,1
L6W55T405			460	10,9	3490	76,8	0,82	5,59	1,60	2,55							12,2
L6W75T236	7,5	10	230	30,6	3500	78,2	0,79	5,33	1,69	2,49	1,15	33,6	30	4	4	4	
L6W75T386			380	17,4	3490	78,8	0,83	5,67	1,70	2,50							19,4
L6W75T405			460	14,1	3485	78,9	0,84	5,78	1,70	2,50							15,8
L6W93T236	9,3	12,5	230	37,6	3495	79,4	0,78	5,52	1,84	2,69	1,15	41,3	30	4	4	4	
L6W93T386			380	21,3	3485	79,9	0,83	5,90	1,85	2,70							23,8
L6W93T405			460	17,3	3480	80,0	0,84	6,00	1,85	2,70							19,5
L6W110T236	11	15	230	43,5	3490	80,3	0,79	5,38	1,52	2,56	1,15	47,9	30	4	4	4	
L6W110T386			380	24,7	3480	80,7	0,84	5,73	1,53	2,57							27,8
L6W110T405			460	20,2	3475	80,8	0,85	5,79	1,53	2,57							22,8
L6W130T236	13	17,5	230	52,5	3495	80,5	0,77	5,33	1,66	2,55	1,15	57,4	30	4	4	4	
L6W130T386			380	29,5	3485	81,2	0,82	5,74	1,67	2,55							32,9
L6W130T405			460	23,3	3475	81,4	0,86	6,00	1,67	2,56							26,4
L6W150T236	15	20	230	56,4	3485	83,1	0,80	6,21	1,93	3,02	1,15	62,5	30	4	4	4	
L6W150T386			380	32,5	3470	83,3	0,84	6,52	1,94	3,03							36,6
L6W150T405			460	27,2	3475	83,3	0,83	6,44	1,94	3,03							30,5
L6W185T236	18,5	25	230	71,1	3495	83,4	0,78	6,24	2,39	3,10	1,15	78,2	30	4	4	4	
L6W185T386			380	40,4	3485	83,8	0,83	6,65	2,40	3,11							45,1
L6W185T405			460	32,6	3480	83,9	0,85	6,81	2,40	3,11							36,7
L6W220T236	22	30	230	82,5	3510	84,8	0,79	5,70	0,98	2,95	1,15	91,9	30	6	4	4	
L6W220T386			380	47,5	3500	84,7	0,83	5,99	0,98	2,96							53,8
L6W220T405			460	40,0	3500	84,7	0,82	5,88	0,98	2,96							45,0
L6W260T236	26	35	230	107	3510	84,4	0,72	5,45	1,17	2,81	1,15	117	30	6	4	4	
L6W260T386			380	59,8	3500	85,0	0,78	5,90	1,18	2,82							66,5
L6W260T405			460	47,8	3495	85,0	0,80	6,10	1,18	2,82							53,7
L6W300T236	30	40	230	112	3510	84,4	0,79	6,04	2,49	2,75	1,15	126	30	10	4	4	
L6W300T386			380	64,9	3500	84,4	0,83	6,31	2,49	2,75							72,6
L6W300T405			460	53,9	3505	84,5	0,83	6,28	2,49	2,75							61,0
L6W370T386	37	50	380	86,2	3495	83,4	0,78	5,40	1,32	2,63	1,15	95,9	30	10	6	4	
L6W370T405			460	68,6	3490	83,6	0,81	5,61	1,32	2,63							77,1

Ts/Tn = ratio between starting torque and nominal torque.

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Tmax/Tn = ratio between maximum torque and nominal torque.

## L10W MOTOR SERIES

MOTOR TYPE	RATED POWER		RATED VOLTAGE	OPERATING CHARACTERISTICS AT RATED POWER				DIRECT ON-LINE STARTING			SERVICE FACTOR	SERVICE FACTOR AMPS	MAX WATER TEMP. °C	CABLE TYPE		
	kW	HP		A	rpm	η %	cos φ	Is/In	Ts/Tn	Tmax/Tn				CABLE TYPE		
														Sec. (mm <sup>2</sup> )	DOL	Y/D
L10W930T386	93	125	380	199	3510	85,0	0,84	5,55	1,02	2,22	1,15	228	30	50	25	5
L10W930T405			460	164										35	16	
L10W1100T386	110	150	380	275	3520	85,5	0,82	6,38	1,43	2,19	1,15	316	30	70	25	5
L10W1100T405			460	227										50	16	
L10W1300T386	130	175	380	286	3520	85,5	0,81	6,31	1,5	2,22	1,15	329	30	70	35	5
L10W1300T405			460	236										50	25	
L10W1500T386	150	200	380	329	3525	85,5	0,81	6,24	1,56	2,22	1,15	379	30	70	35	5
L10W1500T405			460	272										70	35	

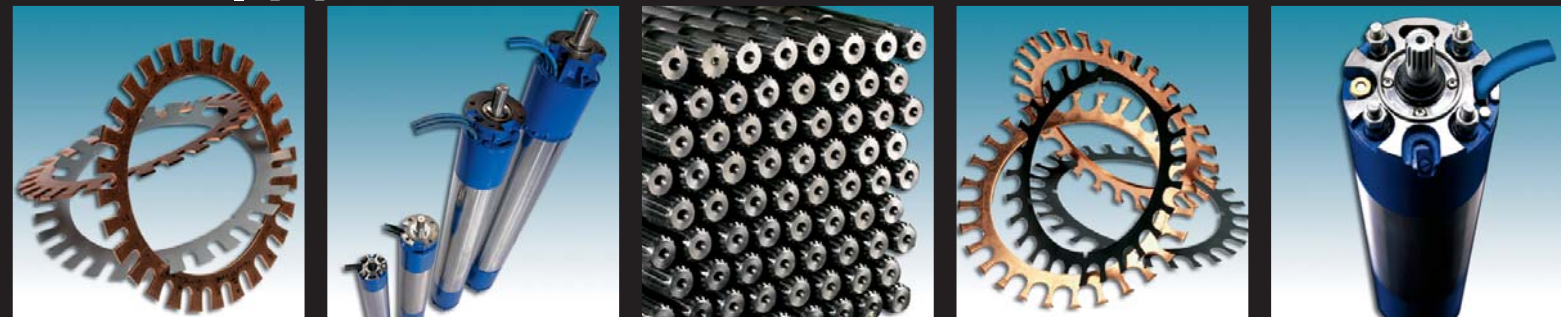
Ts/Tn = ratio between starting torque and nominal torque.

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Tmax/Tn = ratio between maximum torque and nominal torque.



# ITT



## L8W MOTOR SERIES

MOTOR TYPE THREE-PHASE	RATED POWER		RATED VOLTAGE V	OPERATING CHARACTERISTICS AT RATED POWER				DIRECT ON-LINE STARTING			SERVICE FACTOR SF	SERVICE FACTOR AMPS SFA	MAX WATER TEMP. °C	CABLE TYPE		
	kW	HP		A	rpm	$\eta$ %	$\cos \phi$	Is/In	Ts/Tn	Tmax/Tn				Sec. (mm <sup>2</sup> )		
			DOL								Y/D	L (m)				
L8W300T386	30	40	380	67,8	3470	81,5	0,83	5,50	1,04	2,22	1,15	78,0	30	10	6	5,5
L8W300T405			460	56,0								64,4		10	4	
L8W370T386	37	50	380	83,5	3475	81,5	0,83	5,26	1,04	2,23	1,15	96,1	30	16	6	5,5
L8W370T405			460	69,0								79,4		10	6	
L8W450T386	45	60	380	99,3	3480	83	0,83	4,98	0,98	2,22	1,15	114	30	16	10	5,5
L8W450T405			460	82,0								94,3		16	6	
L8W520T386	52	70	380	116	3475	83	0,82	5,56	1,06	2,22	1,15	134	30	25	10	5,5
L8W520T405			460	96,0								110		16	10	
L8W550T386	55	75	380	121	3475	83,5	0,83	5,44	1,06	2,24	1,15	139	30	25	10	5,5
L8W550T405			460	100								115		16	10	
L8W600T386	60	80	380	130	3480	84	0,84	5,07	1,04	2,23	1,15	149	30	25	16	5,5
L8W600T405			460	107								123		16	10	
L8W670T386	67	90	380	146	3480	84	0,83	5,13	1,03	2,23	1,15	168	30	35	16	5,5
L8W670T405			460	121								139		25	10	
L8W750T386	75	100	380	162	3485	84	0,84	5,04	1,01	2,22	1,15	187	30	35	16	5,5
L8W750T405			460	134								154		25	16	
L8W830T386	83	110	380	179	3485	84	0,84	4,79	0,97	2,28	1,15	206	30	35	16	5,5
L8W830T405			460	148								170		35	16	
L8W930T386	93	125	380	201	3490	84	0,84	4,6	1,02	2,22	1,15	231	30	50	25	5,5
L8W930T405			460	166								191		35	16	

Ts/Tn = ratio between starting torque and nominal torque.

Tmax/Tn = ratio between maximum torque and nominal torque.

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## L12W MOTOR SERIES

MOTOR TYPE THREE-PHASE	RATED POWER		RATED VOLTAGE V	OPERATING CHARACTERISTICS AT RATED POWER				DIRECT STARTING			SERVICE FACTOR SF	SERVICE FACTOR AMPS SFA	MAX WATER TEMP. °C	CABLE TYPE		
	kW	HP		A	rpm	$\eta$ %	$\cos \phi$	Is/In	Ts/Tn	Tmax/Tn				Sec. (mm <sup>2</sup> )		
			DOL								Y/D	L (m)				
L12W1850T386	185	250	380	387	3515	85,5	0,85	6,59	1,50	2,22	1,15	445	30	95	50	5
L12W1850T405			460	320								368		70	35	
L12W2200T386	220	300	380	466	3515	85,5	0,84	6,66	1,41	2,22	1,15	536	30	120	70	5
L12W2200T405			460	385								443		95	50	
L12W2600T386	260	350	380	541	3515	86,0	0,85	6,05	1,41	2,22	1,15	622	30	150	70	5
L12W2600T405			460	447								514		120	50	
L12W3000T386	300	400	380	620	3515	86,5	0,85	6,43	1,18	2,22	1,15	713	30	-	95	5
L12W3000T405			460	512								589		2x70	70	

Ts/Tn = ratio between starting torque and nominal torque.

Tmax/Tn = ratio between maximum torque and nominal torque.

l12w-2p60\_b\_te



ITT



ITT-Lowara ([www.lowara.com](http://www.lowara.com)), headquarters of "Residential and Commercial Water - EMEA" part of the ITT Corporation and located in Montecchio Maggiore, Vicenza - Italy, is a leading manufacturer of hydraulic pumps and water handling and control systems. It has 1.616 employees in Europe, 671 operating in Italy. In 2010 its consolidated sales totalled about 306 million €, or over 404 million \$. ITT Corporation is a high-technology engineering and manufacturing company operating on all seven continents in three vital markets: water and fluids management, global defense and security, and motion and flow control. With a heritage of innovation, ITT partners with its customers to deliver extraordinary solutions that create more livable environments, provide protection and safety and connect our world. Headquartered in White Plains, N.Y., the company generated 2010 revenue of \$11.0 billion.

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*Lowara reserves the right to make modifications  
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