HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

GENERAL INFORMATION

The MEI index (Minimum Efficiency Index) was issued with the objective of defining a performance threshold value applicable to all the water pumps found on the market. The MEI index takes into account the size of the pump, its specific speed, and its speed of rotation.
The regulation applies to centrifugal pumps used for pumping clean waters included in the following categories:

- Axial suction pumps with support (ESOB)
- Horizontal monobloc axial suction pumps (ESCC)
- In-line monobloc axial suction pumps (ESCCI)
- Multistage vertical pumps (MS-V)
- Multistage submerged pumps (MSS)

MEI is a dimensionless indicator for hydraulic performance, and a measure of the quality of the sizing of the pump in relation to the performance.
The higher the MEI value, the better is the sizing of the pump in relation to the performance, and the lower is the annual energy consumption due to the use of the pump. In theory, the upper limit of the MEI values is open, and only depends on physical and technological limitations.

The minimum efficiency index (MEI) is based on the maximum diameter of the impeller.

The value of reference for the more efficient water pumps is MEI $\geq$ 0,70.

The efficiency of a pump with turned impeller is generally lower to that of a pump with full impeller diameter. The turning of the impeller adapts the pump to a fixed point of operation, resulting in lower energy consumption.

The operation of this water pump with variable operating points can be more efficient and economical if controlled, for example, by means of a variable speed motor adapting the operation of the pump to the system.

The information on the efficiency of reference can be found at the address: **www.dabpumps.com**. In alternative contact your local sales representatives.

The MEI=0,7 and MEI=0,4 efficiency charts for the different types of pumps can be found at the website: **www.europump.org/efficiencycharts**

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 40	2p	**KLPE 40/1200**	Full	$\geq$ 0,40	56,6	59,5	58,5
		KLPE 40/600	Turned		48,2	51,2	50,6

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 50	2p	**KLPE 50/1200**	Full	$\geq$ 0,40	62,8	65,4	64,8
	4p	**KLME 50/600**	Full	$\geq$ 0,40	57,6	61,6	61,1

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 65	2p	**KLPE 65/1200**	Full	$\geq$ 0,40	64,5	69,2	68,1
	4p	**KLME 65/600**	Full	$\geq$ 0,40	65,9	68,6	67,9

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 80	2p	**KLPE 80/1200**	Full	$\geq$ 0,40	66,6	70,6	69,2
	4p	**KLME 80/600**	Full	$\geq$ 0,40	70,4	73,1	72,6

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		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 40	2p	CPE 40/6200	Full	≥ 0,40	51,5	54,0	52,9
		CPE 40/5500	Turned		50,5	53,0	52,0
		CPE 40/4700	Turned		49,0	52,0	51,3
		CPE 40/3500	Full	≥ 0,60	53,5	56,6	56,3
		CPE 40/2300	Turned		52,1	54,7	54,0
		DCPE 40/2450 T	Full	≥ 0,40	57,3	60,8	60,4
		DCPE 40/1650 T	Turned		51,0	53,1	52,6
	4p	CME 40-1450	Full	≥ 0,40	51,5	55,0	54,0
		CME 40-870	Full	≥ 0,60	52,7	55,5	55,1
		DCME 40-620 T	Full	≥ 0,40	61,8	64,5	64,1

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 50	2p	CPE 50/5650	Full	≥ 0,40	55,1	58,0	57,2
		CPE 50/4600	Turned		52,6	56,3	55,1
		CPE 50/4100	Full	≥ 0,60	54,1	57,1	56,7
		CPE 50/2600	Turned		47,2	51,7	51,1
		DCP 50/2450 T	Full	≥ 0,40	63,8	67,4	66,6
		DCP 50/1550 T	Turned		61,8	65,0	64,5
		DCP 50/3650 T	Full	≥ 0,40	61,8	67,1	64,0
	4p	CME 50-1420	Full	≥ 0,40	57,0	59,0	58,0
		CME 50-1000	Full	≥ 0,60	50,0	52,8	52,3
		DCME 50-880 T	Full	≥ 0,40	57,2	60,2	59,6
		DCME 50-460 T	Turned	≥ 0,40	59,9	62,3	61,8

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 65	2p	CP-GE 65- 5500	Turned	≥ 0,60	62,9	66,2	65,4
		CP-GE 65- 4700	Turned		56,9	59,6	59,1
		CP-GE 65- 4100	Full	≥ 0,60	67,9	71,2	70,7
		CP-GE 65- 3400	Turned		66,6	71,0	70,0
		CP-GE 65- 2640	Turned		66,3	69,5	69,5
		CP-GE 65- 2280	Turned		65,6	68,5	68,5
		CP-GE 65- 1470	Turned		63,5	67,3	66,7
	4p	CM-GE 65- 2380	Full	≥ 0,60	70,6	71,9	71,7
		CM-GE 65- 1680	Turned		68,5	70,6	70,2
		CM-GE 65- 1200	Turned		58,8	61,5	61,0
		CM-GE 65- 920	Full	≥ 0,60	68,8	72,2	71,5
		CM-GE 65- 660	Turned		64,0	67,0	66,0

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		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 80	2p	CP-GE 80- 4000	Full	≥ 0,60	74,7	79,2	78,3
		CP-GE 80- 3250	Turned		72,3	76,7	75,8
		CP-GE 80- 2770	Turned		71,2	75,3	74,5
		CP-GE 80- 2400	Full	≥ 0,60	75,4	78,8	78,5
		CP-GE 80- 2050	Turned		73,6	78,2	76,9
		CP-GE 80- 1400	Turned		57,0	61,2	60,4
	4p	CM-GE 80- 3420	Full	≥ 0,60	68,5	71,6	71,0
		CM-GE 80- 2700	Turned		65,9	70,6	69,8
		CM-GE 80- 2410	Full	≥ 0,40	65,8	69,4	68,8
		CM-GE 80- 1700	Full	≥ 0,60	82,0	83,5	83,3
		CM-GE 80- 1530	Turned		75,8	78,6	77,9
		CM-GE 80- 890	Turned	≥ 0,60	73,0	76,8	76,1
		CM-GE 80- 650	Full	≥ 0,60	72,9	75,7	75,1

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 100	2p	CP-GE 100- 3050	Turned	≥ 0,50	71,7	76,9	76,1
		CP-GE 100- 2400	Turned		66,1	71,8	70,9
		CP-GE 100- 2350	Full	≥ 0,40	71,2	76,3	75,5
		CP-GE 100- 1950	Turned		68,7	73,2	72,4
		CP-GE 100- 1600	Turned		64,6	67,1	66,5
	4p	CM-GE 100- 3290	Turned	≥ 0,40	68,0	73,0	72,5
		CM-GE 100- 2550	Full	≥ 0,40	72,5	76,1	75,2
		CM-GE 100- 2050	Turned		70,7	75,0	74,1
		CM-GE 100- 1650	Full	≥ 0,50	71,7	76,3	75,5
		CM-GE 100- 1320	Turned		69,0	74,3	72,5
		CM-GE 100- 1020	Full	≥ 0,60	81,2	85,0	84,3
		CM-GE 100- 865	Turned		68,2	74,6	73,5
		CM-GE 100- 510	Turned	≥ 0,60	65,1	70,9	69,9

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		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 125	4p	**CM-GE 125- 2550**	Full	≥ 0,40	69,9	73,2	72,2
		CM-GE 125- 2100	Turned		66,8	69,4	69,1
		CM-GE 125- 1560	Full	≥ 0,60	78,5	85,0	84,0
		CM-GE 125- 1270	Turned		73,3	78,0	77,1
		CM-GE 125- 1075	Turned		72,3	77,0	76,2

		PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
DN 150	4p	**CM-GE 150- 1950**	Turned	≥ 0,60	75,9	80,6	79,7
		CM-GE 150- 1600	Turned		72,2	77,1	76,3
		CM-GE 150- 1322	Turned		70,8	74,6	73,3
		CM-GE 150- 955	Turned		63,7	66,9	66,4

PUMP MODEL	IMPELLER	MEI	η PL	η BEP	η OL
KCE/KCVE 300	Full	≥ 0,40	65,5	71,8	70,4
KCE/KCVE 250	Full	≥ 0,40	63,4	66,9	66,5
KCE/KCVE 200	Turned		59,3	63,9	62,9
KCE/KCVE 150	Turned		58,9	62,5	61,4