

# Minimum Efficiency Index

REGULATION (EU) No 547/2012

MEI only applies to water pumps with full size impellers, water pumps supplied with trimmed impellers are not applicable to the standard.

The benchmark for most efficient water pumps is  $MEI \geq 0,70$ .

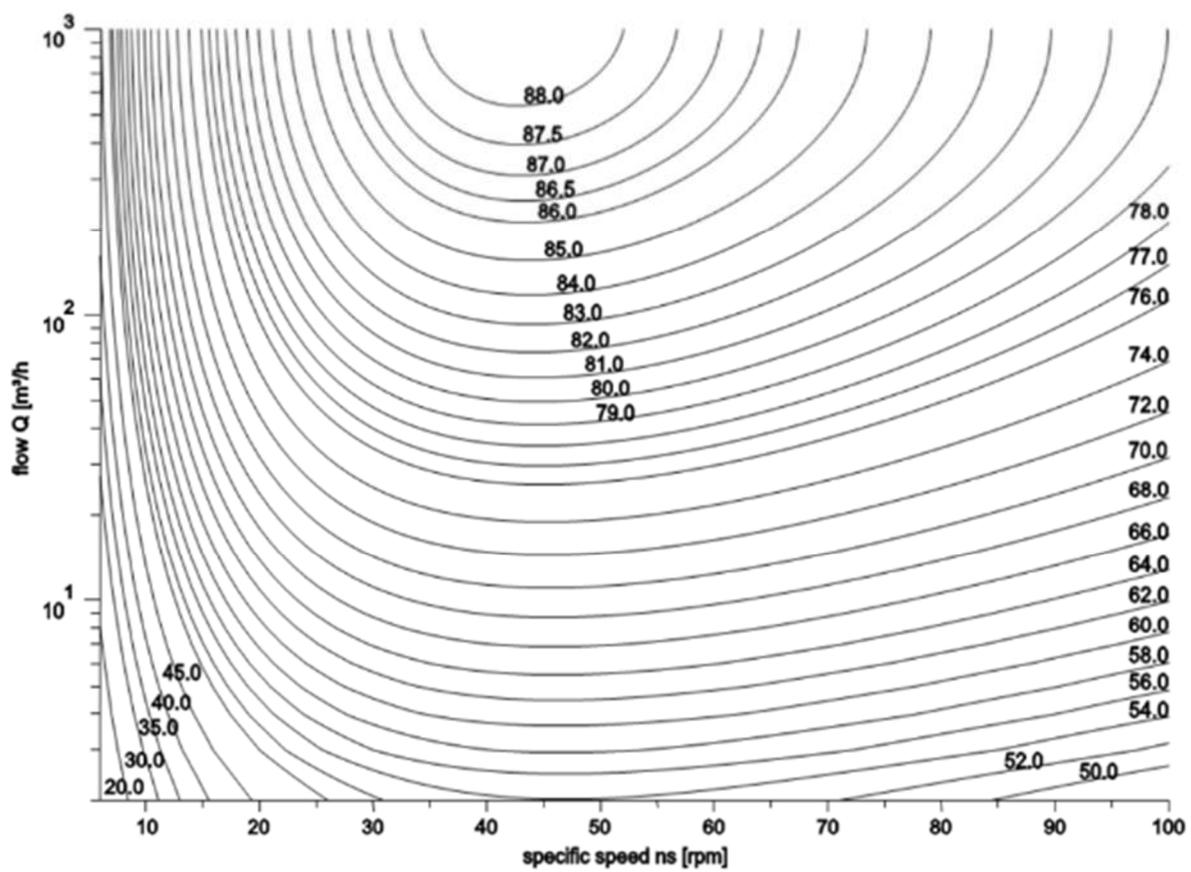
The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.

The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

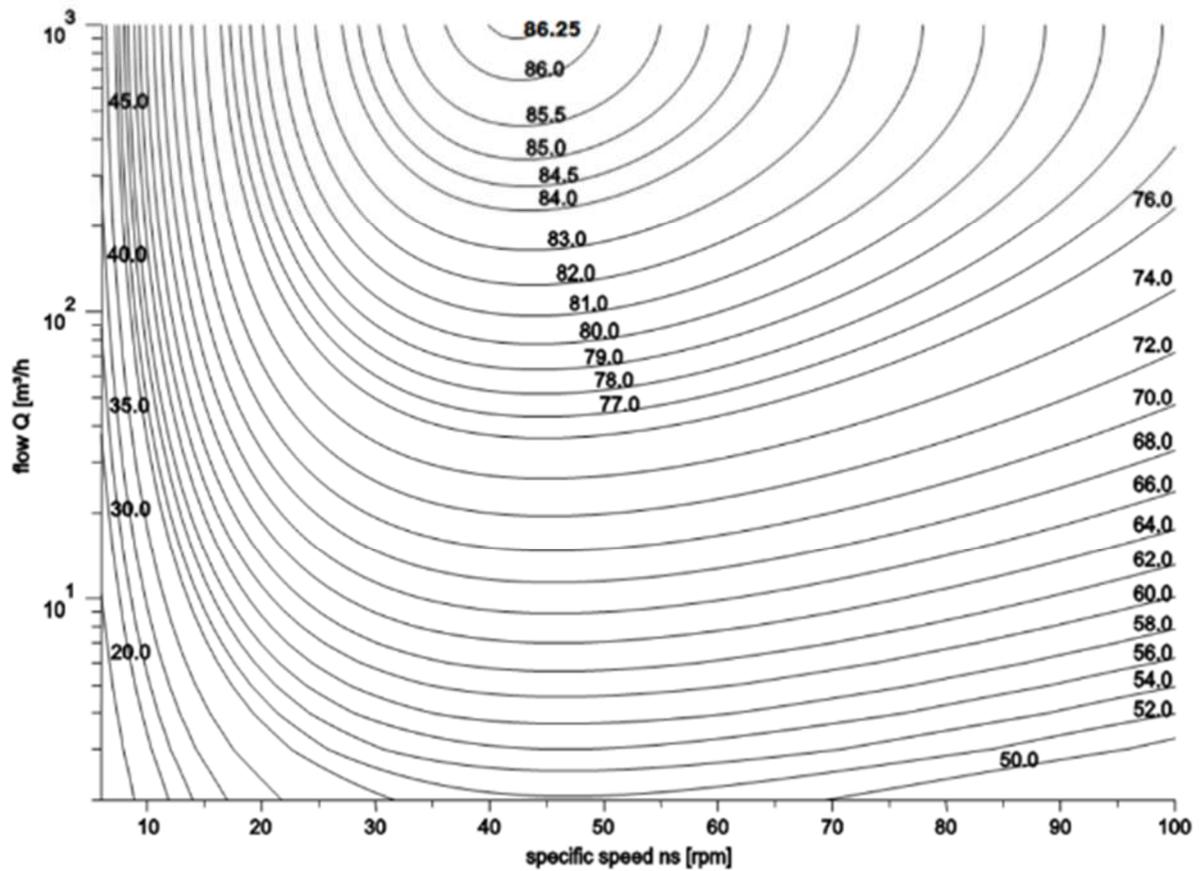
Benchmark efficiency fingerprint graphs for MEI 0.7 and 0.4 across end suction own bearing, and close coupled pumps for two and four pole motors are as follows;

*Benchmark efficiency graph for MEI = 0.7 for End suction own bearing water pump (ESOB);*

### MEI = 0.7 for ESOB 1450 rpm

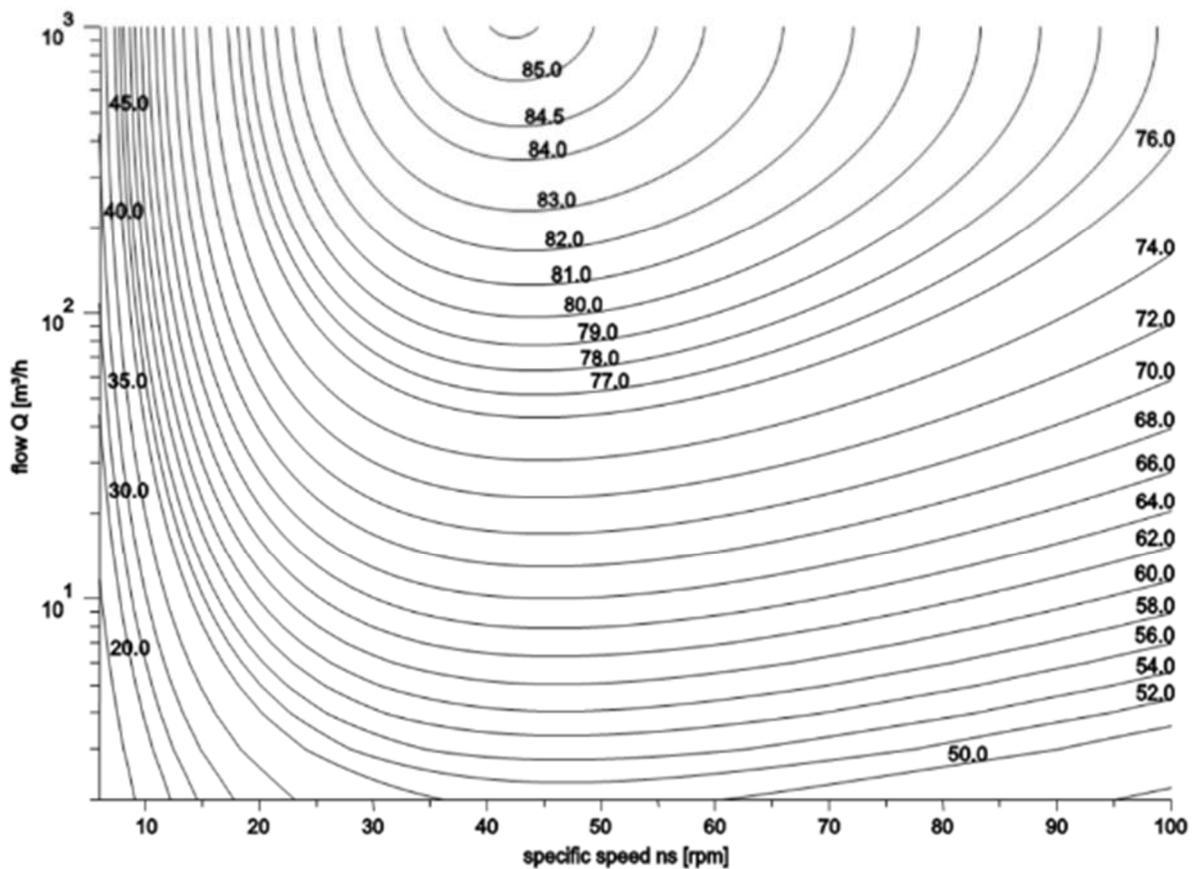


## MEI = 0.7 for ESOB 2900rpm

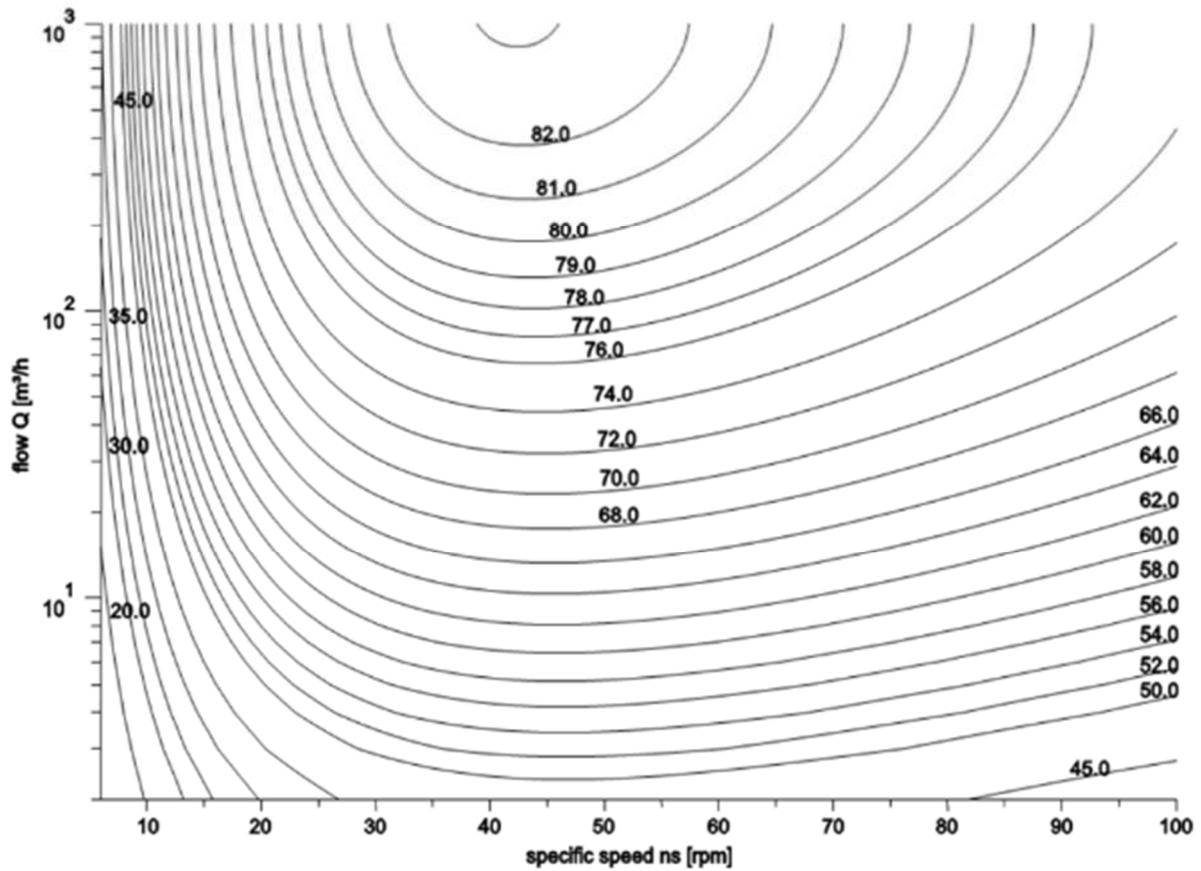


Benchmark efficiency graph for  $MEI = 0.4$  for End suction own bearing water pump (ESOB);

### MEI = 0.4 for ESOB 1450

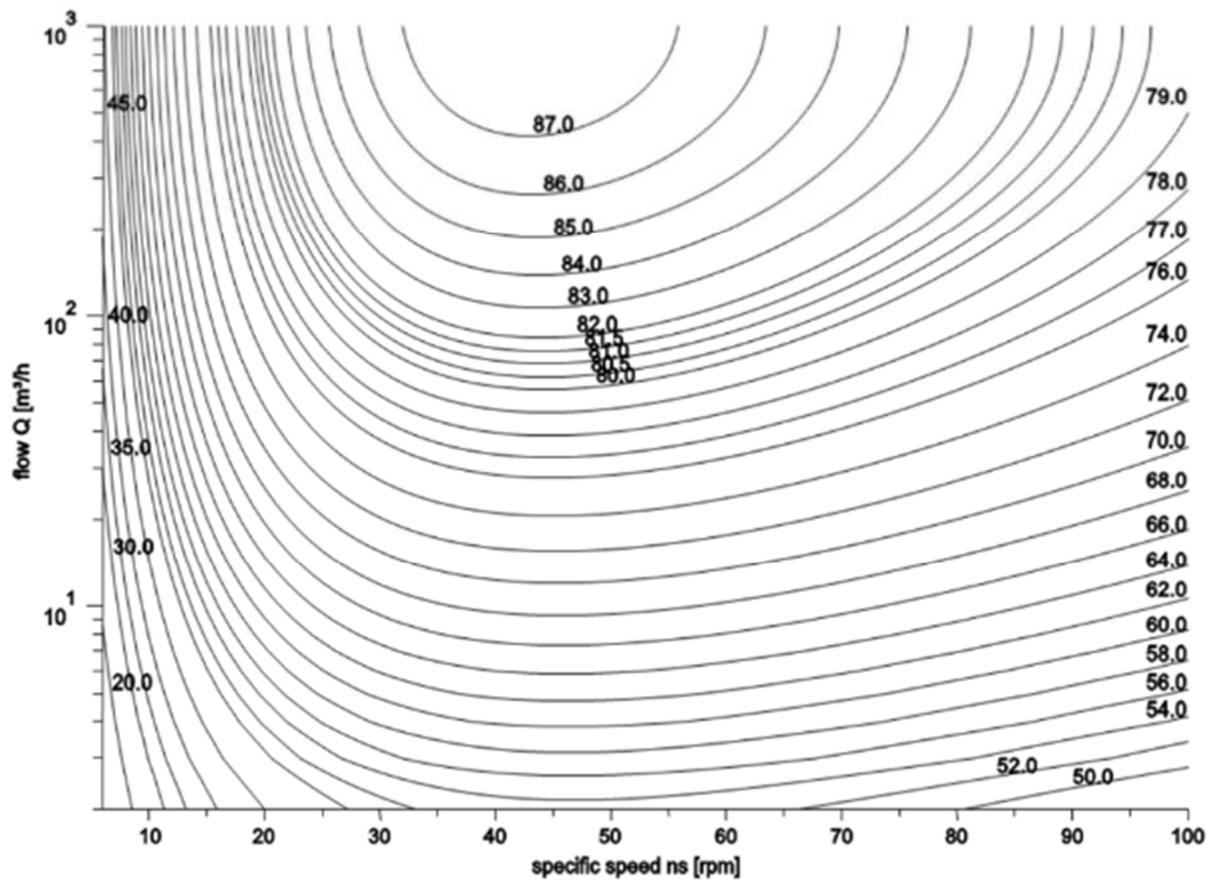


## MEI = 0.4 for ESOB 2900 rpm

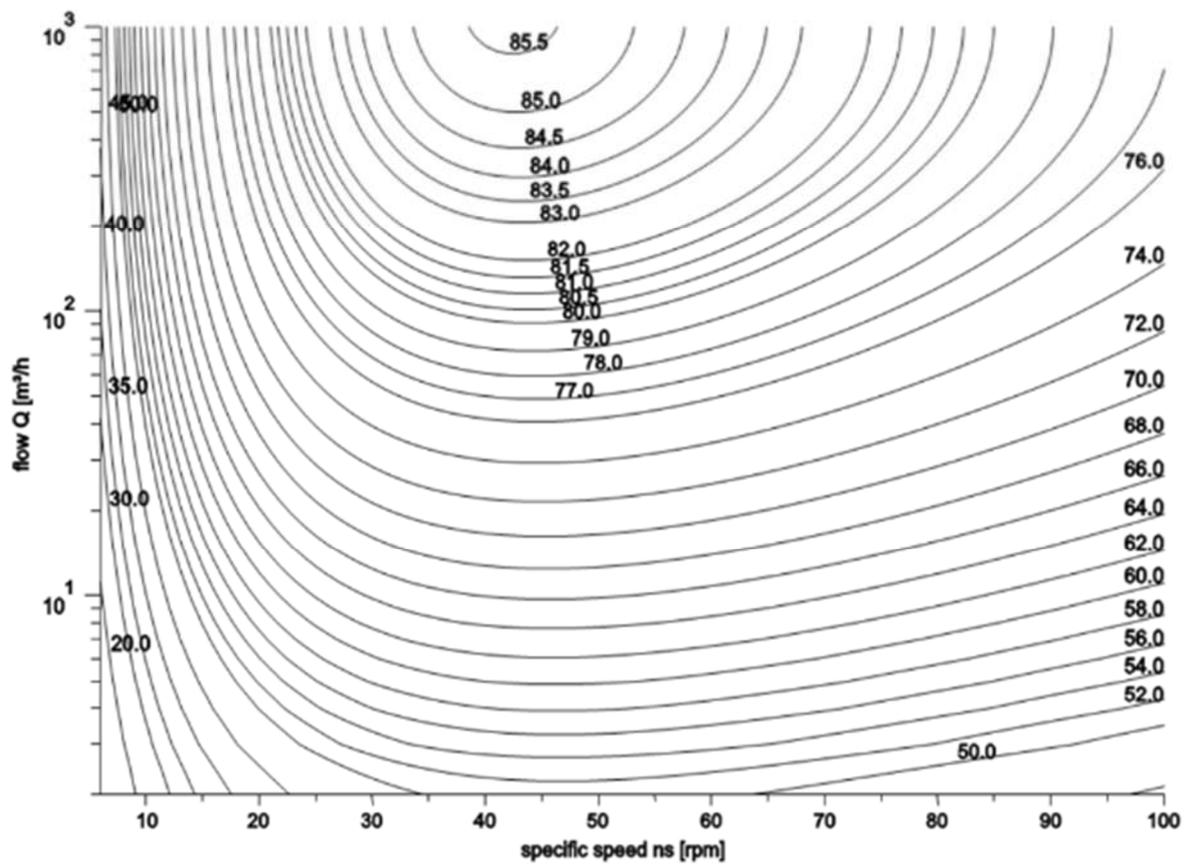


Benchmark efficiency graph for  $MEI = 0.7$  for End suction close coupled water pump (ESCC);

### MEI = 0.7 for ESCC 1450rpm

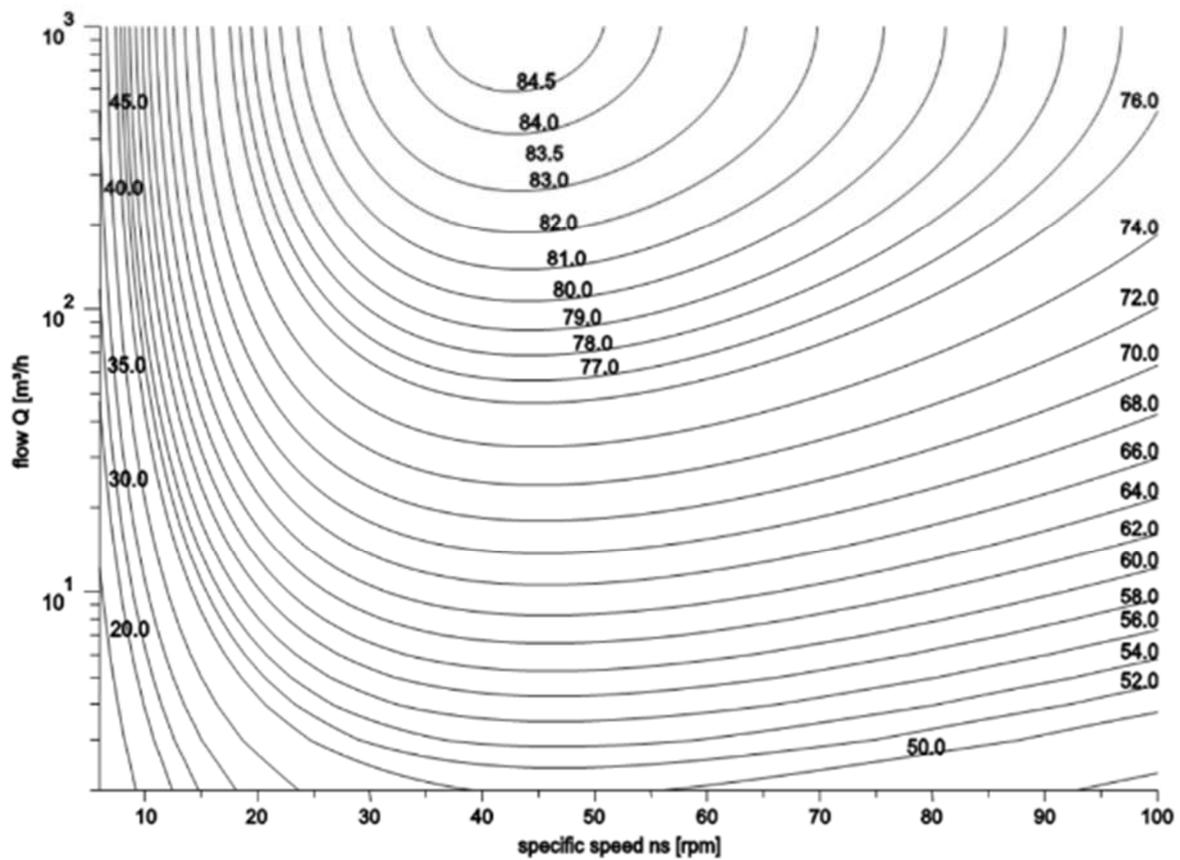


## MEI = 0.7 for ESCC 2900rpm



Benchmark efficiency graph for  $MEI = 0.4$  for End suction close coupled water pump (ESCC);

### MEI=0.4 for ESCC 1450rpm



**MEI = 0.4 for ESCC 2900 rpm**