

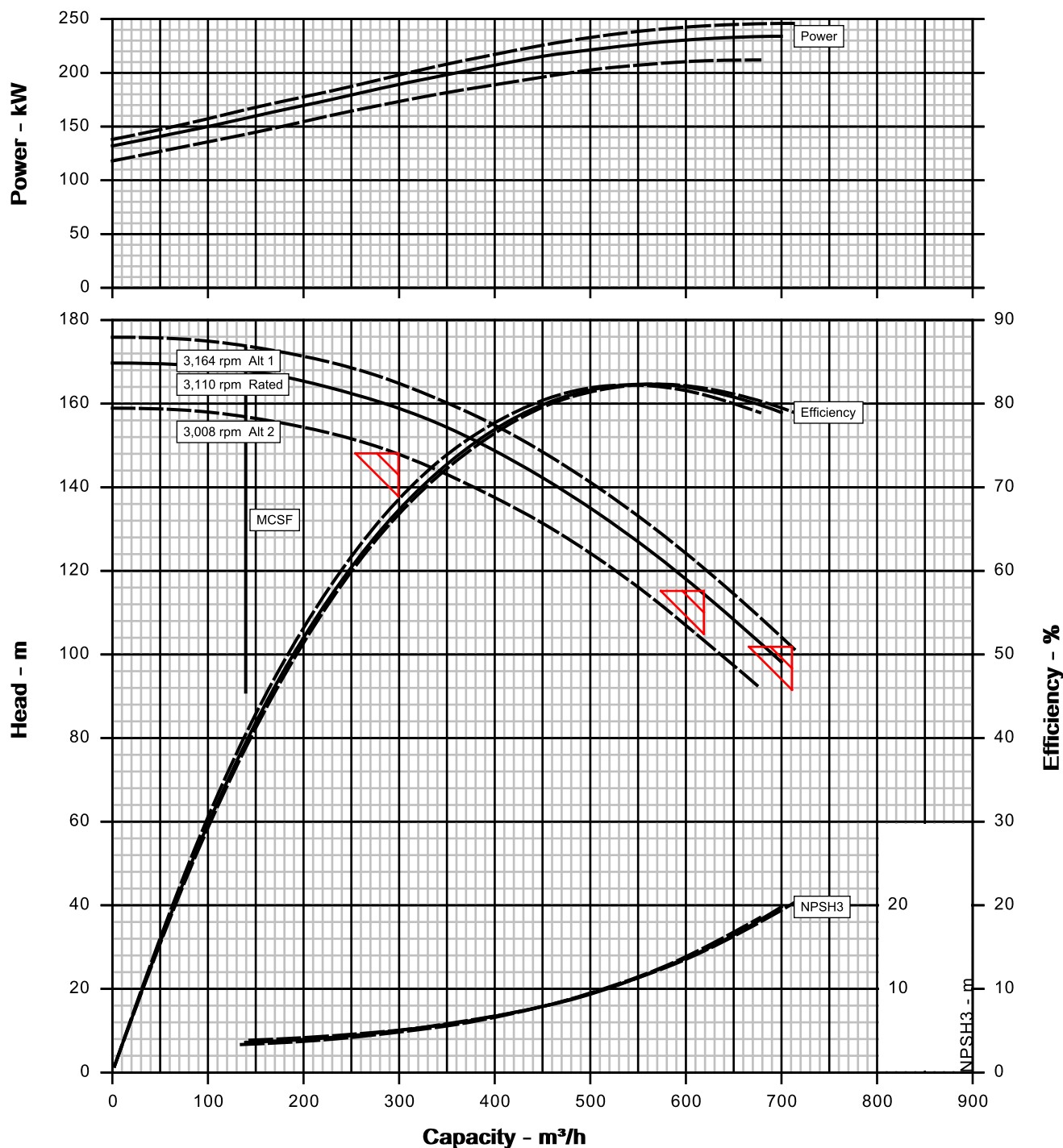


Pump size & type / Stages : 6HPX12C / 1
Based on curve no. : 6HPX12C-2-2
Impeller diameter : 324 mm

Customer : ENE-TEP,a.s.
Item number : P01_data03
Service : Hot water circulation
Flowserve reference : 1697557496
Date : November 21, 2018

Capacity : 618.0 m³/h
Head : 115.00 m
Density / Specific gravity : - / 0.986
Pump speed : 3110 rpm
Ns / Nss : 1965 / 11618 (Metric units)
Test tolerance : ISO 9906 Grade 1B

CURVES ARE APPROXIMATE, PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS; CAPACITY, HEAD, AND EFFICIENCY.



Customer	: ENE-TEP,a.s.	Pump / Stages	: 6HPX12C / 1
Customer reference	: P18P041	Based on curve no.	: 6HPX12C-2-2
Item number	: P01_data03	Flowserve reference	: 1697557496
Service	: Hot water circulation	Date	: November 21, 2018

	Unit	Hot water circulation	Qgar+15%	Q=300m3/h, H=148m	-
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Operating Conditions					
Capacity	m³/h	618.0	710.7	300.0	-
Water capacity / CQ	m³/h	- / 1.00	- / 1.00	- / 1.00	- / -
Normal capacity	m³/h	-	-	-	-
Total developed head	m	115.00	102.00	148.00	-
Water head / CH	m	- / 1.00	- / 1.00	- / 1.00	- / -
NPSH available (NPSHa)	m	39.9	39.9	39.9	-
NPSHa less NPSH margin	m	-	-	-	-
Maximum suction pressure	kPa.g	600.0	600.0	600.0	-
Rated suction pressure	kPa.g	300.0	300.0	300.0	-

Liquid					
Liquid type		Fresh water	Fresh water	Fresh water	-
Liquid description		hot water	hot water	hot water	-
Temperature / Specific gravity	°C/	55 / 0.986	55 / 0.986	55 / 0.986	- / -
Solid Size - Actual / Limit	mm/mm	- / 24.994	- / 24.994	- / 24.994	- / -
Viscosity / Vapor pressure	cP/kPa.a	1.00 / 15.65	1.00 / 15.65	1.00 / 15.65	- / -

Performance					
Actual head	m	115.00	102.00	148.00	-
Hydraulic power	kW	191	194	119	-
Pump speed	rpm	3110	3164	3008	-
Pump overall efficiency (CE=1.00)	%	81.9	79.2	68.8	-
NPSH required (NPSH3)	m	14.5	20.3	4.8	-
Rated brake power	kW	233	246	173	-
Maximum brake power	kW	234	246	212	-
Driver power rating	kW / hp	315 kW / 422 hp	315 kW / 422 hp	315 kW / 422 hp	-
Casing working pressure	kPa.g	2240.5	2298.0	2134.7	-
(based on shut off @ cut dia/rated SG)					
Maximum allowable	kPa.g	4138.0	4138.0	4138.0	-
Hydrostatic test pressure	kPa.g	6207.0	6207.0	6207.0	-
Estimated rated seal chamber pressure	kPa.g	320.7	320.7	320.7	-
Impeller diameter, Rated	mm	324	324	324	-
Impeller diameter, Maximum/Minimum	mm/mm	324 / 254	324 / 254	324 / 254	- / -
Ns / Nss	(Metric un...	1965 / 11618	1965 / 11641	1965 / 11560	- / -
Minimum continuous flow	m³/h	140.5	142.9	135.9	-
Maximum head at rated diameter	m	169.94	175.89	158.98	-
Flow at BEP	m³/h	560.7	570.4	542.3	-
Flow as % of BEP	%	110.2	124.6	55.3	-
Efficiency at normal flow	%	-	-	-	-
Impeller diameter ratio (rated/max)	%	100.0	100.0	100.0	-
Head rise to shut off	%	47.8	72.4	7.4	-
Total head ratio (rated / max) / (max / rated)	%	66.0 / 151.5	65.8 / 152.1	68.1 / 146.8	- / -

Materials / Specification					
Material column code	: S-6	Pump specification	: -		

Other Requirements	
Hydraulic selection : No specification	Performance data based on standard impeller
Construction : No specification	Seal configuration : Single Seal
Test tolerance : ISO 9906 Grade 1B	
Variable Speed - Maximize Efficiency	
Driver Sizing : Max Power(MCSF to EOC) using SF	