AESVC(B/S)-Series 50HZ
In-Line Vertical Single Stage Centrifugal Pump

Introduction
APEC In-Line, vertical, single stage centrifugal pump series are available in 3 different types of materials, namely, Spheroidal Graphite cast iron, Bronze and various grades of stainless steel castings.

Features
* Top pull-out design- easy maintenance
* Compact structure- space-saving
* Standard IEC motors
* 3D curvature hydraulic design, high efficiency impeller
* Bearing-free pump design, less maintenance and service
* Dynamically balanced impeller assures smooth vibration-free operation
* Air vent design. No entrained air in the mechanical seal chamber. Mechanical seal faces are lubricated at all times.

Applications
* Pumping of clean raw water, softened and demineralized water, brackish water,sea water, aggressive waters and liquids
* Supply and boosting of tap water and groundwater.
* Circulation and boosting of cold and hot waters in air conditioning system,fire-fighting system, water flushing system, water circulation system for swimming pools and variety of mechanical services.
* Different applications in industrial processes.

Operating Conditions :
Temperature Range : - 20 Deg. C to + 180 Deg. C
Flow Rate: up to 800 m3/hr
Head: up to 100 m
Max. operating pressure : 16 bar
Inlet Pressure: Minimum inlet pressure according to the NPSH curve. It is recommended to add a safety margin of 0.5 meter.
The nominal flow rates VS heads of the pumps are complying with ISO 2858 standard.

Pump nozzle flange ratings are designed according to DIN 2532 PN16. Other nozzles flange ratings are available upon request. The dimensions of suction and discharge nozzles are identical.
On top of both suction and discharge nozzle flanges are tapped for pressure gauge fitting. A drain plug is fitted in the bottom of the suction nozzle.
The circulation of liquid in the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

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Mortor

IEC standard motor,totally enclosed, fan cooled squirrel-cage motor is used.

Mounting designation : V1
Enclosure Class : IP 54.
Insulation Class : F
Standard Voltages :
* Motor size under 15 Hp with Star-Delta connection

3 x 220-240V	50 Hz	3 x 220-277V	60 Hz
3 x 380-415V	50 Hz	3 x 380-480V	60 Hz

* Motor size above 15 Hp with Star-Delta connection

3 x 220-240V/380-415V	50 Hz	3 x 220-277V/380-480V	60Hz
3 x 380-415V/660-690V	50 Hz	3 x 380-480V/660-690V	60Hz

Pump Key

AESVC 50-160/182

Single stage In-Line Pump

Martial :
C :Cast iron
B : Bronze
S : SST

Suction and discharge nozzles flange size

Nominal diameter of impeller

Actual diameter of impeller

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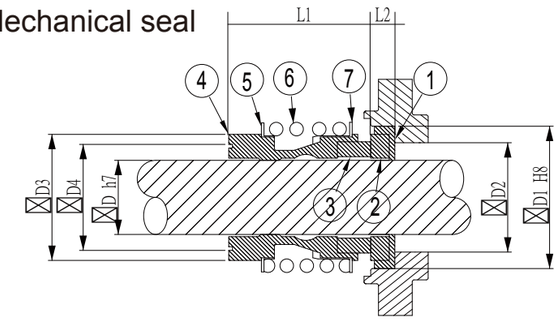
Mechanical seal



D	D1	D2	D3	L1	L2
33	48	42	41	35	7.5
43	61	54	53	36	9
53	73	65	63	36.5	11
60	80	72	70	41.5	11

Unit:mm

Type 1 (for general application)

No.	Part name	Material
1	O-ring	NBR
2	Seat face	Carbon
3	Rotary face	SiC
4	Bellows	NBR
5	"L"Ring	AISI 304
6	Spring	AISI 304
7	"L"Ring	AISI 304

Type 2 (for ordinary chemicals)

No.	Part name	Material
1	O-ring	Viton
2	Seat face	Sic
3	Rotary face	SiC
4	Bellows	Viton
5	"L"Ring	AISI 316
6	Spring	AISI 316
7	"L"Ring	AISI 316

Type 3 (for most chemicals)

No.	Part name	Material
1	O-ring	Viton
2	Seat face	TC
3	Rotary face	TC
4	Bellows	Viton
5	"L"Ring	AISI 316
6	Spring	AISI 316
7	"L"Ring	AISI 316

Other mechanical seals variants for special applications are available upon request.

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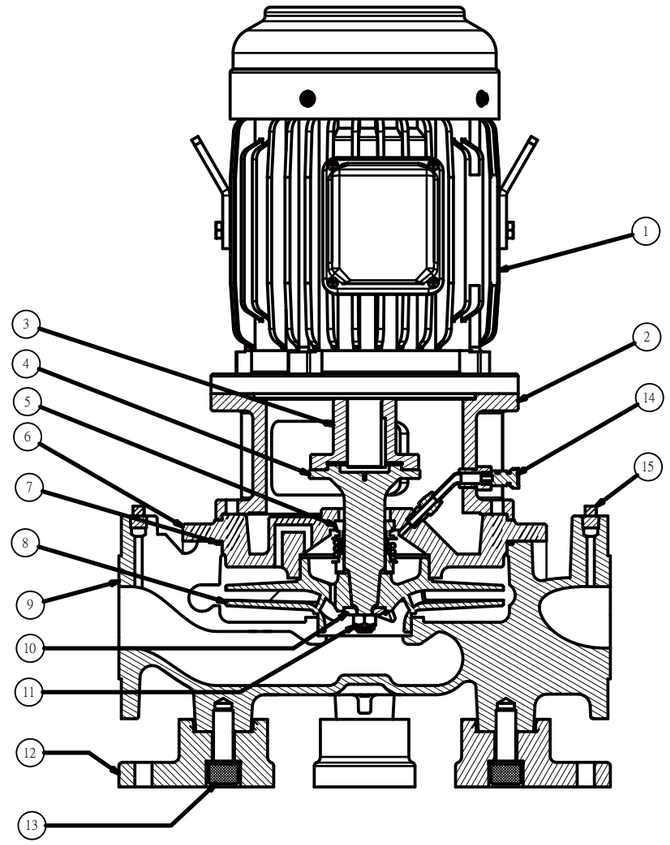
Construction



Item No.	Part name	Material	Item No.	Part name	Material
1	Motor	Type V1	9	Casing	DI/BZ/SS
2	Bell Housing	Cast Iron	10	Impeller Washer	S.S.
3	Coupling	S.G Cast Iron	11	Impeller Nut	S.S.
4	Shaft	S.S.	12	Rubber Cushion	EPDM
5	Mechanical Seal	Assembly	13	Bolt&Washer	S.S.
6	Backplate	DI/BZ/SS	14	Air Vent	Assembly
7	"O"Ring	NBR/Viton	15	Casing Plug	S.S.
8	Impeller	DI/BZ/SS			

DI: Spheroidal Graphite Cast Iron
BZ: Bronze
SS: Austenitic, Duplex, Super Duplex Stainless Steel

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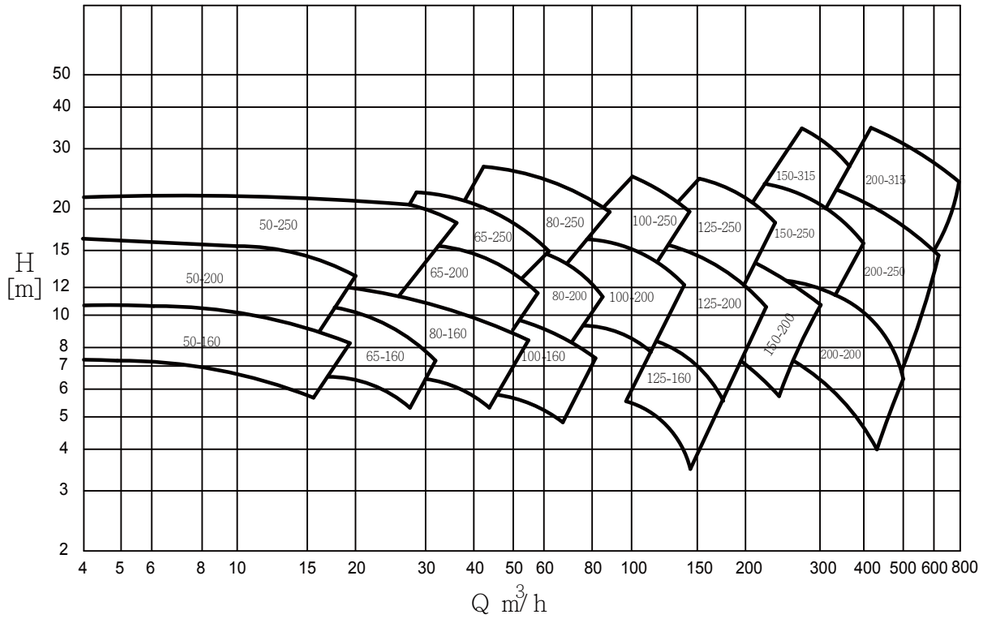
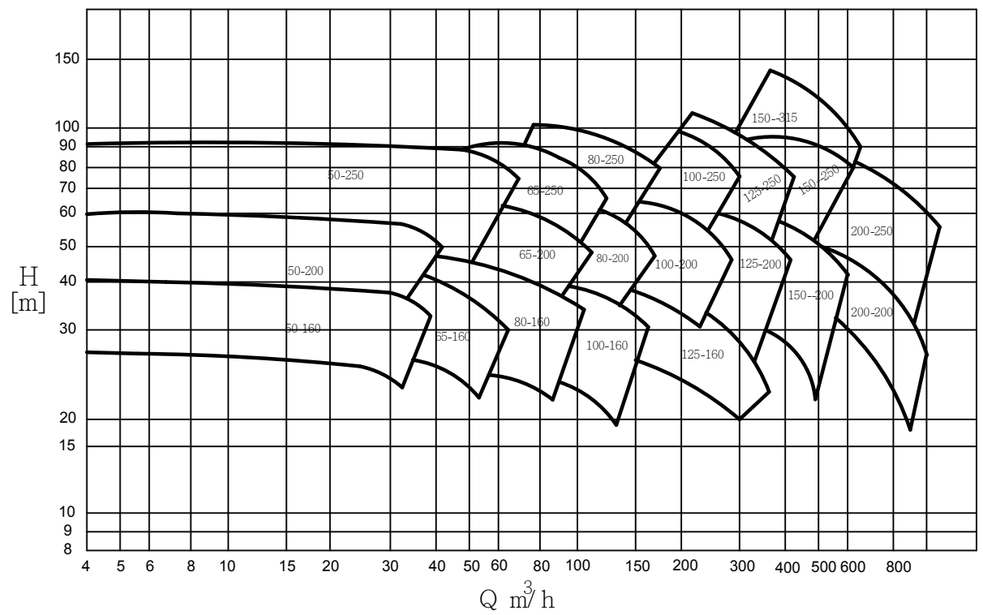
Performance Range

4 Poles, 50 HZ



2 Poles, 50 HZ



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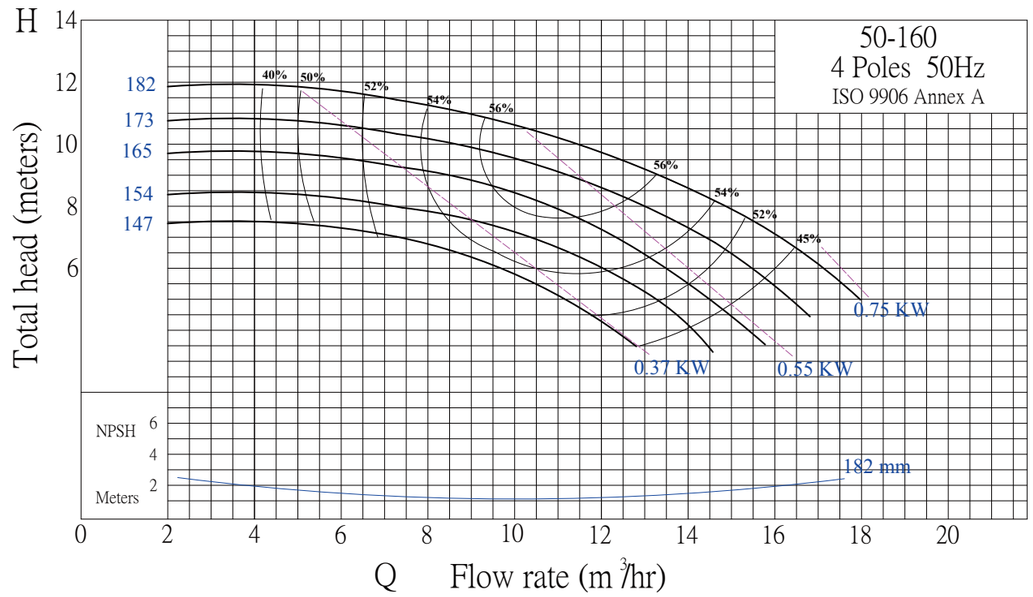
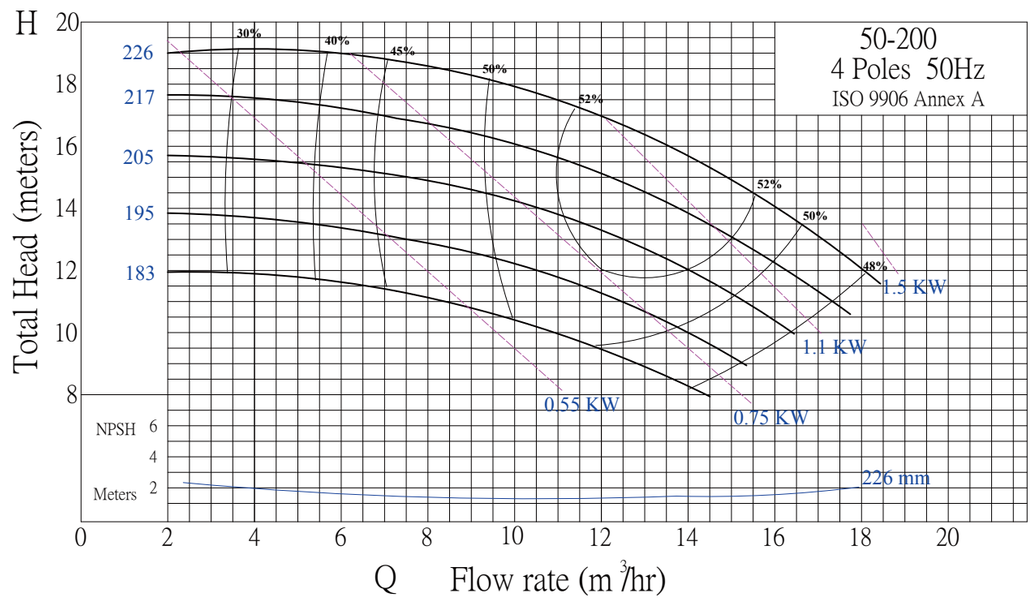
Performance Curve





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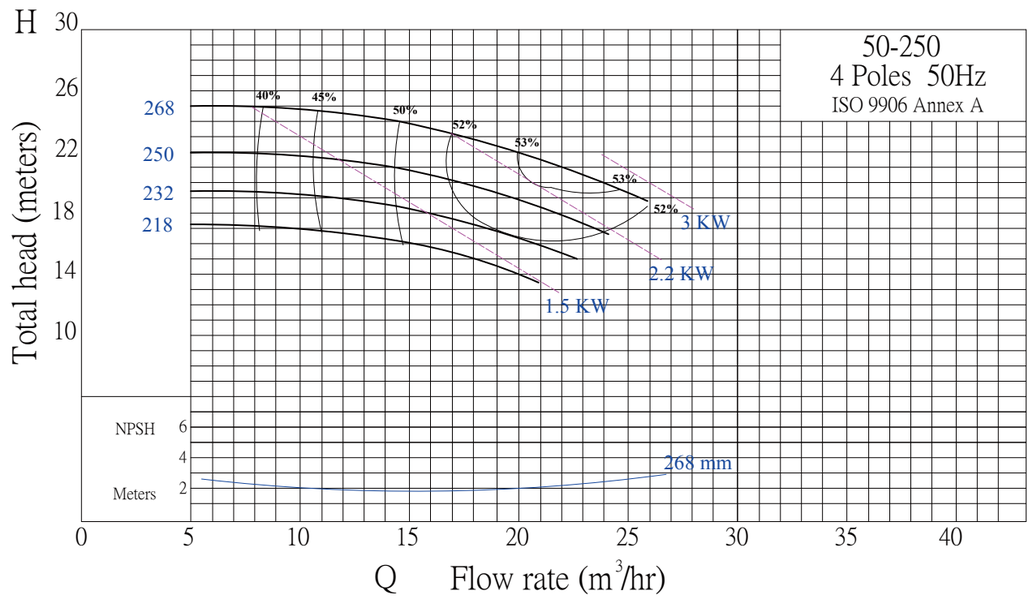

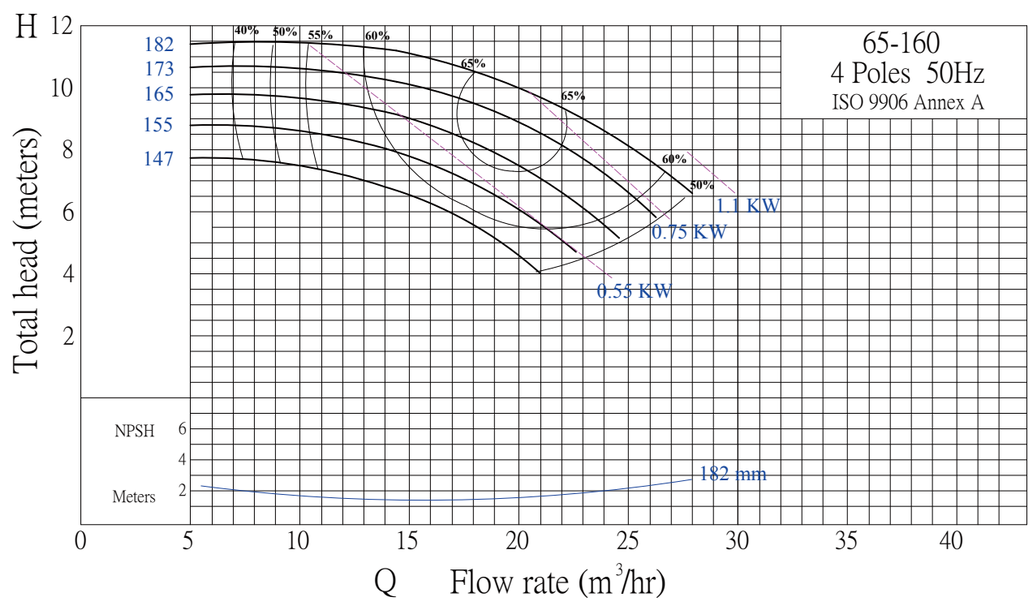

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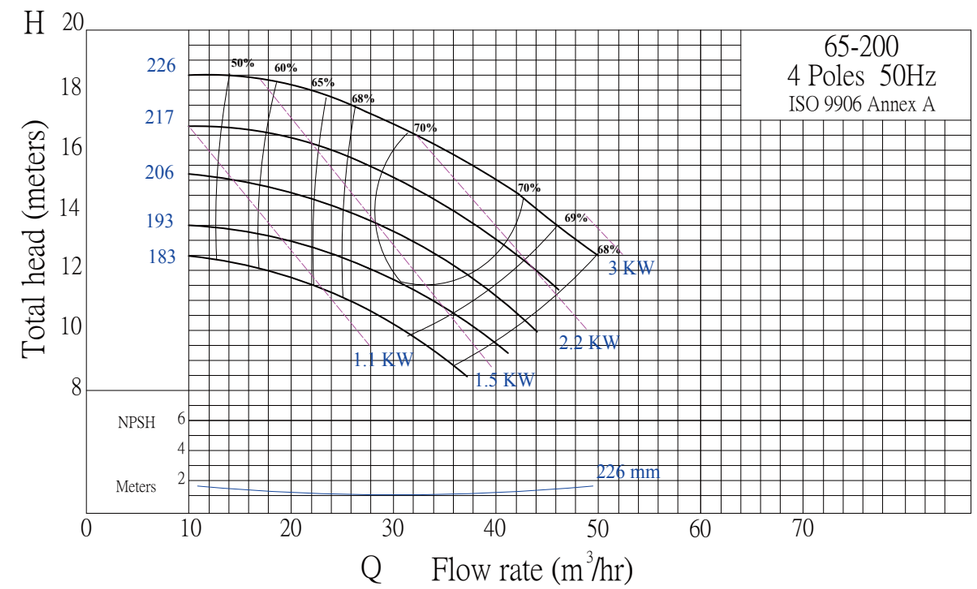

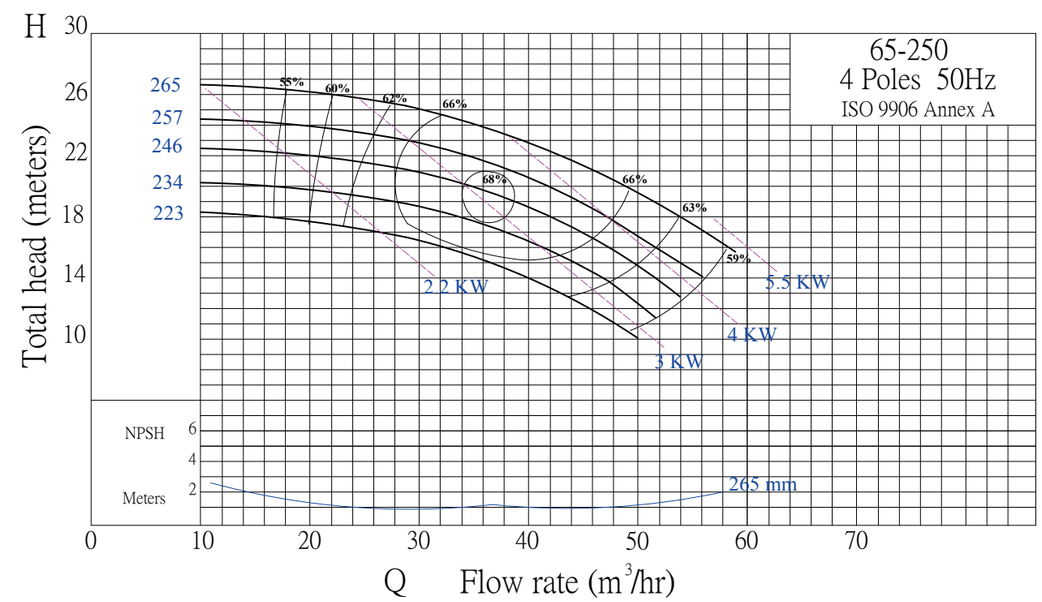

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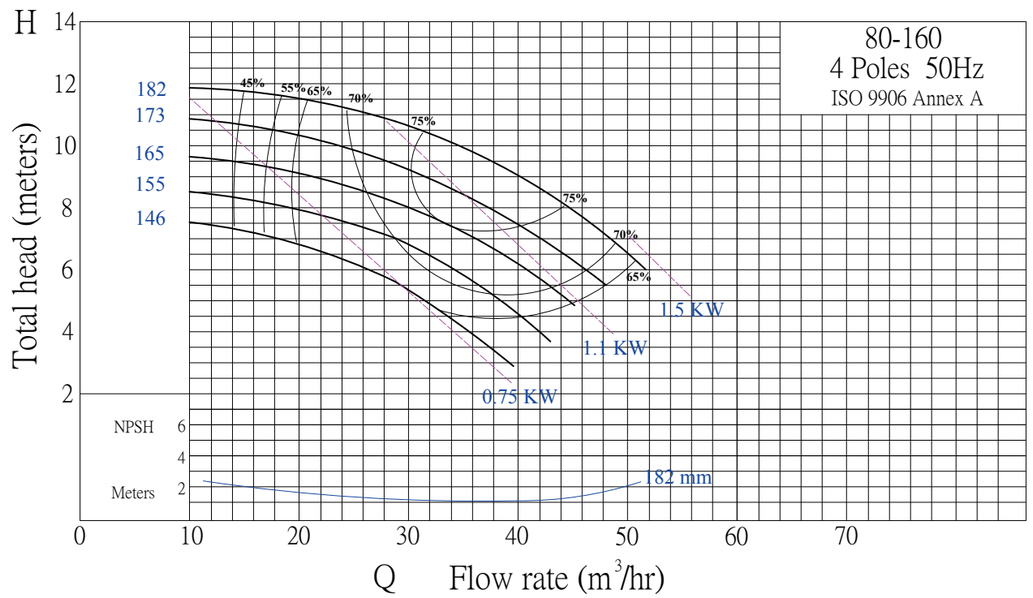

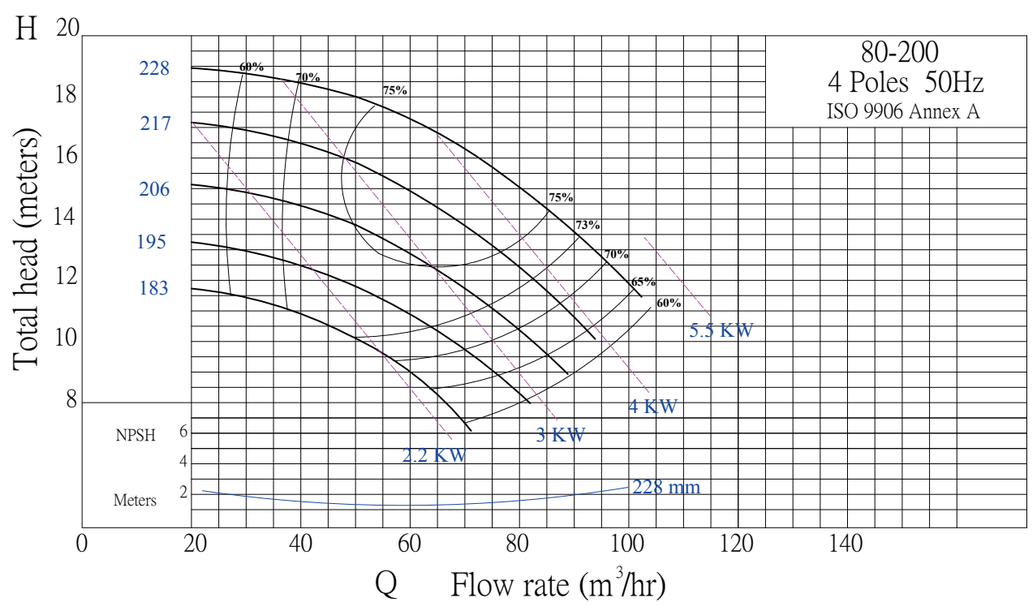

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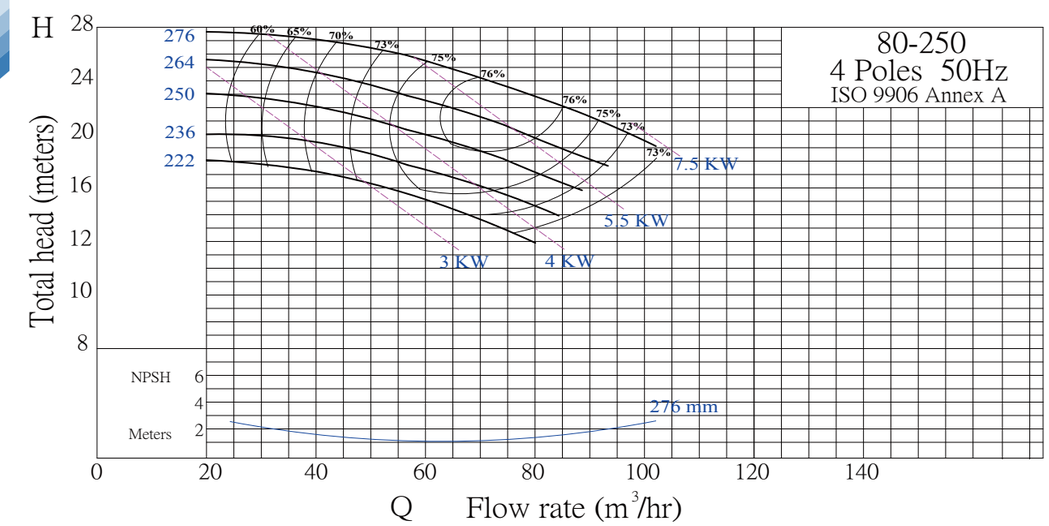

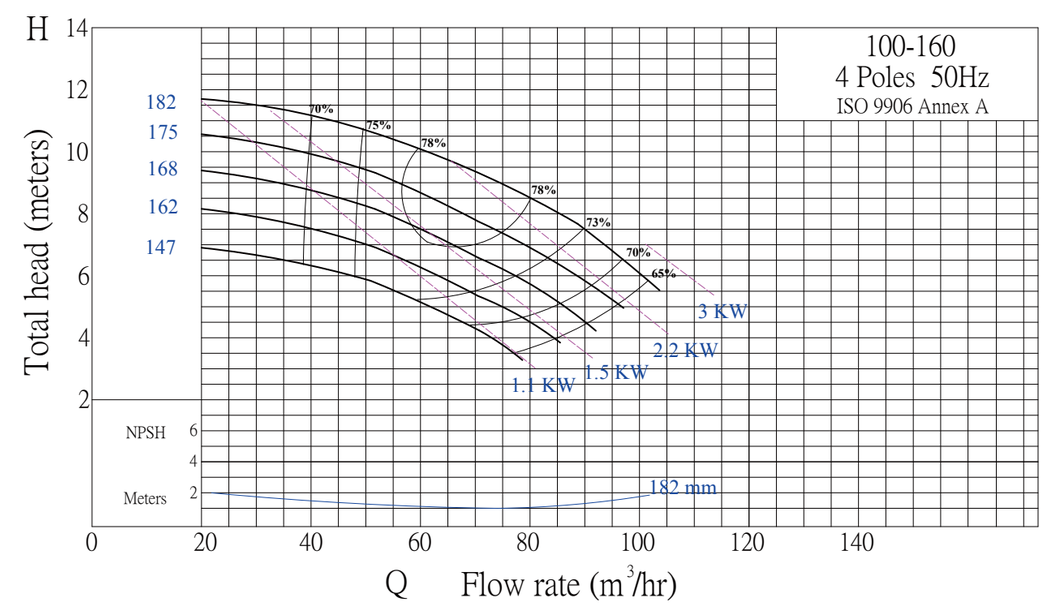

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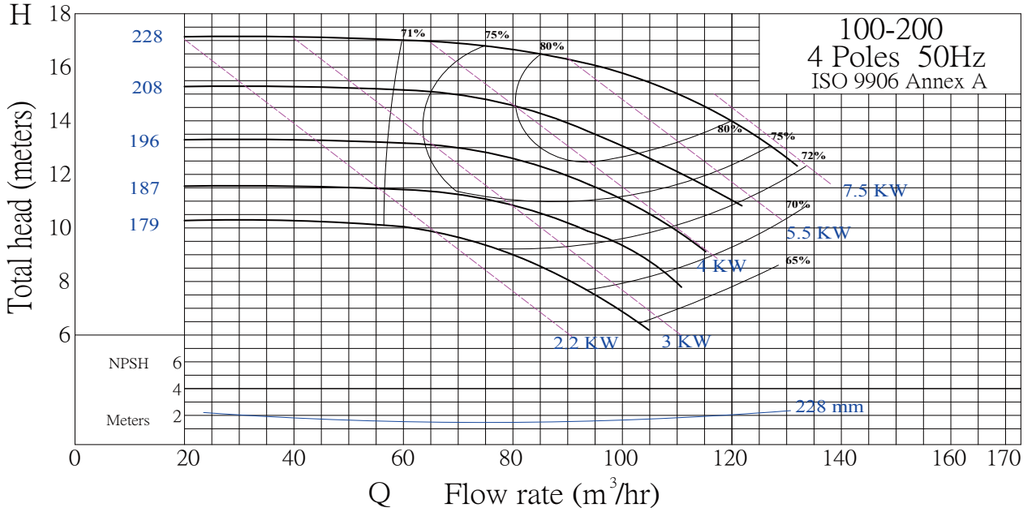

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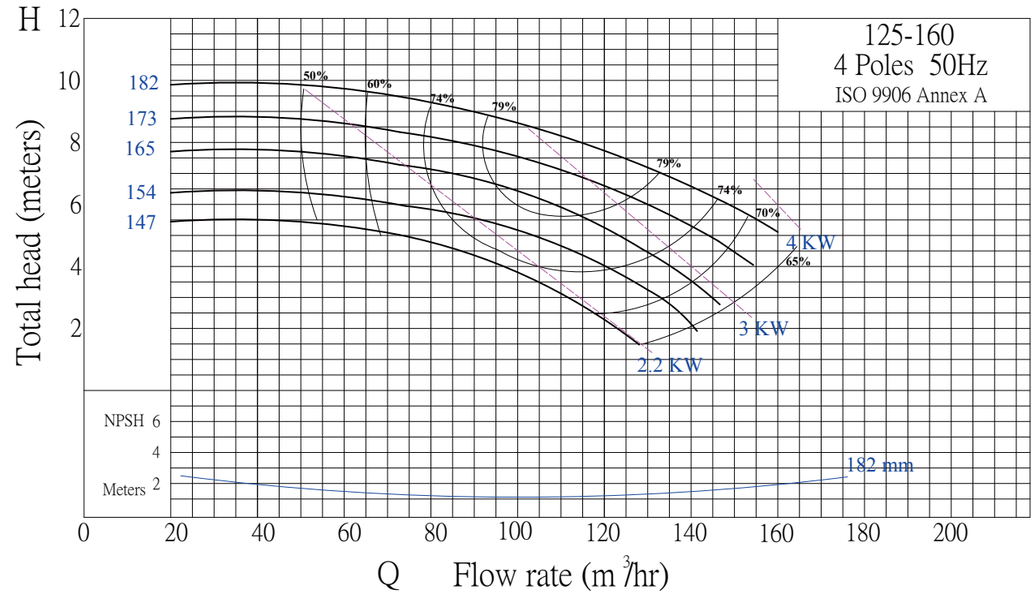

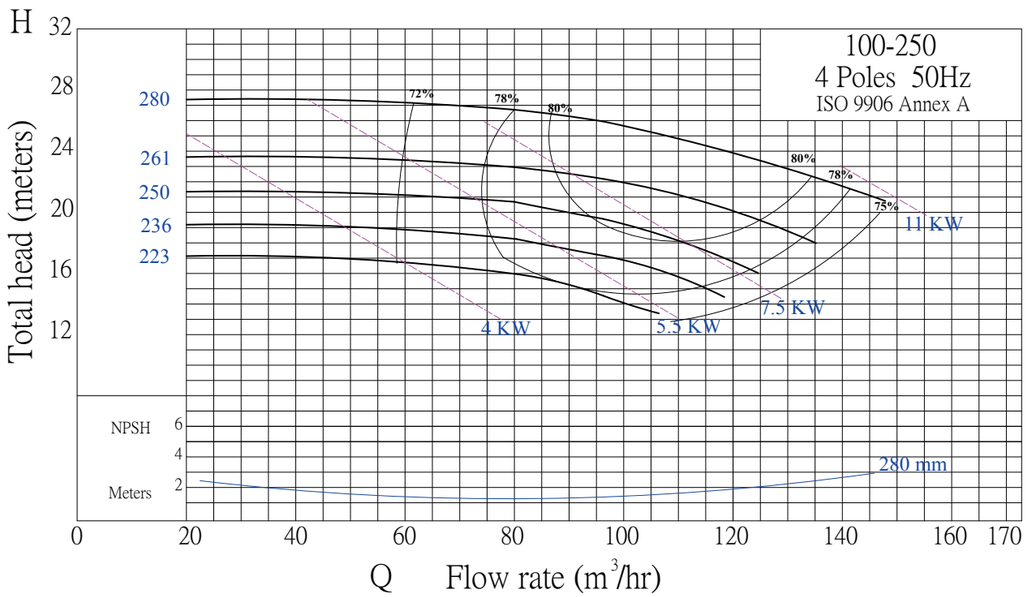

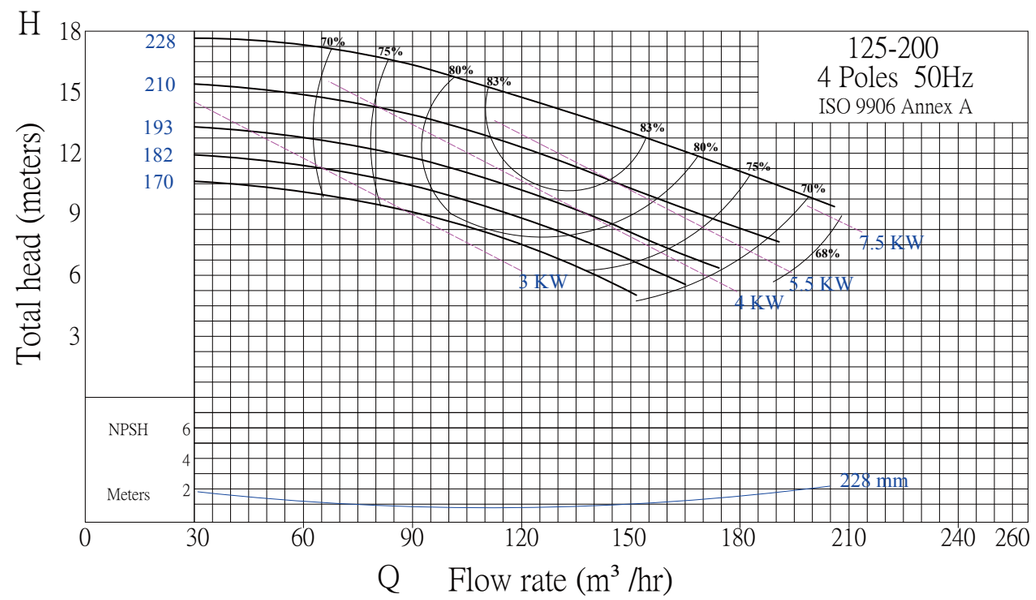

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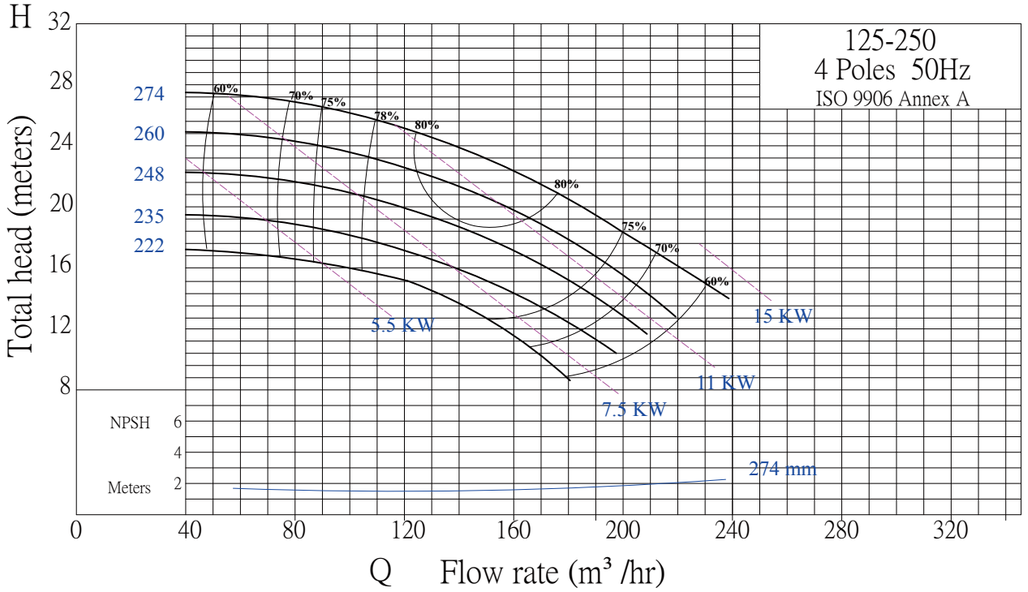

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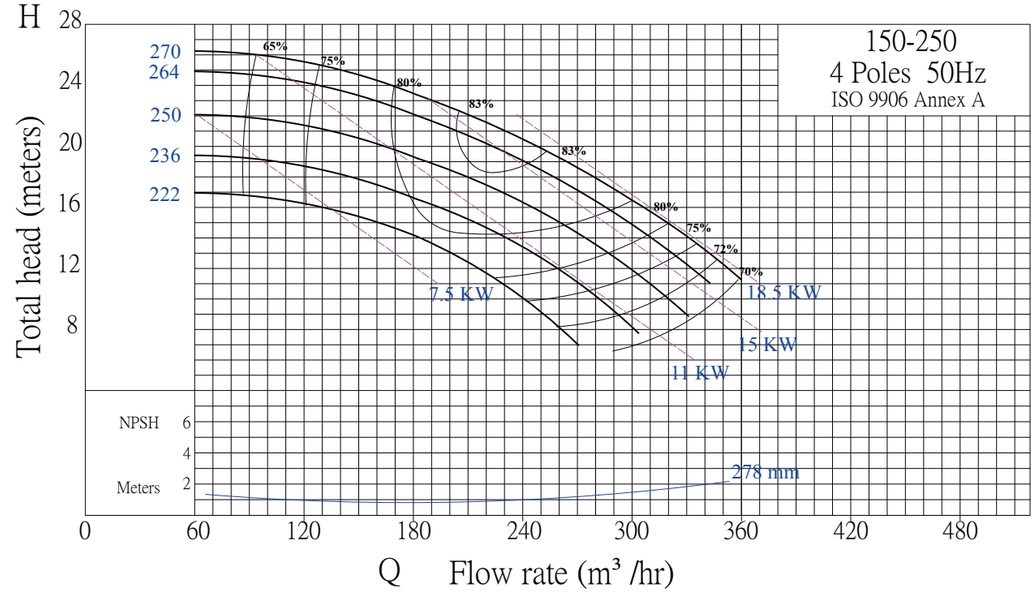

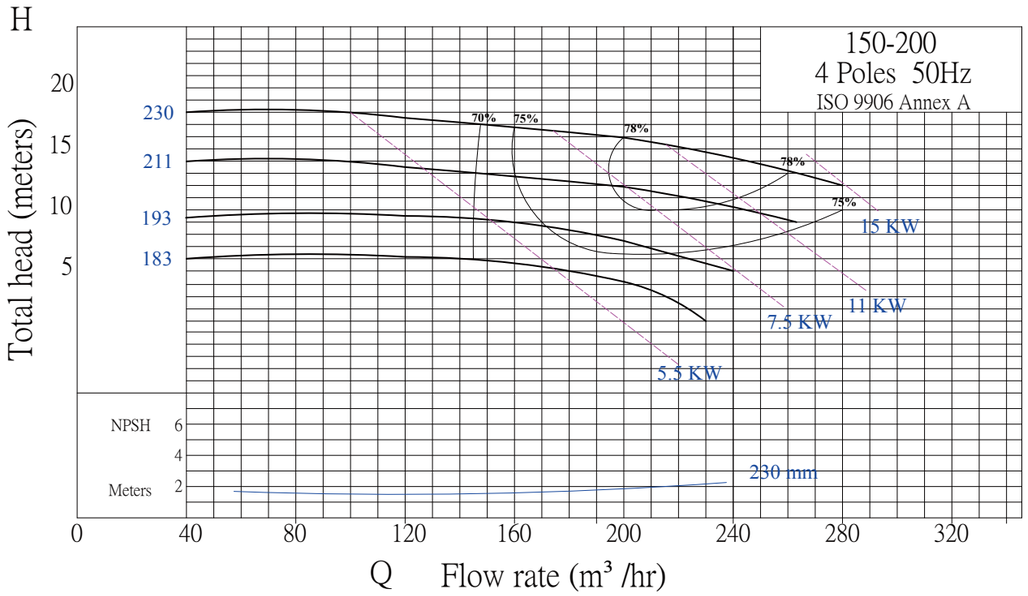

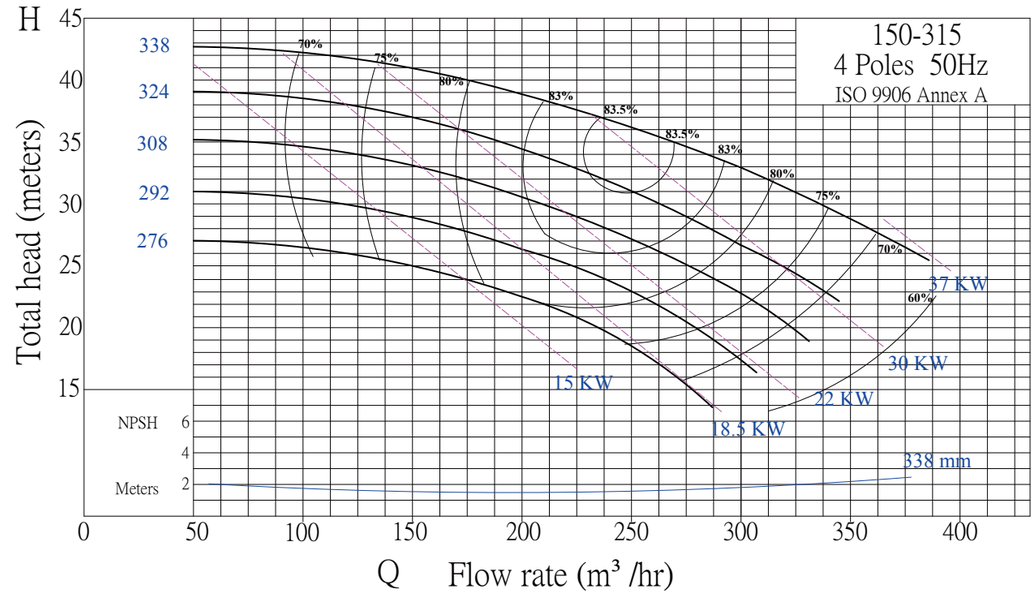

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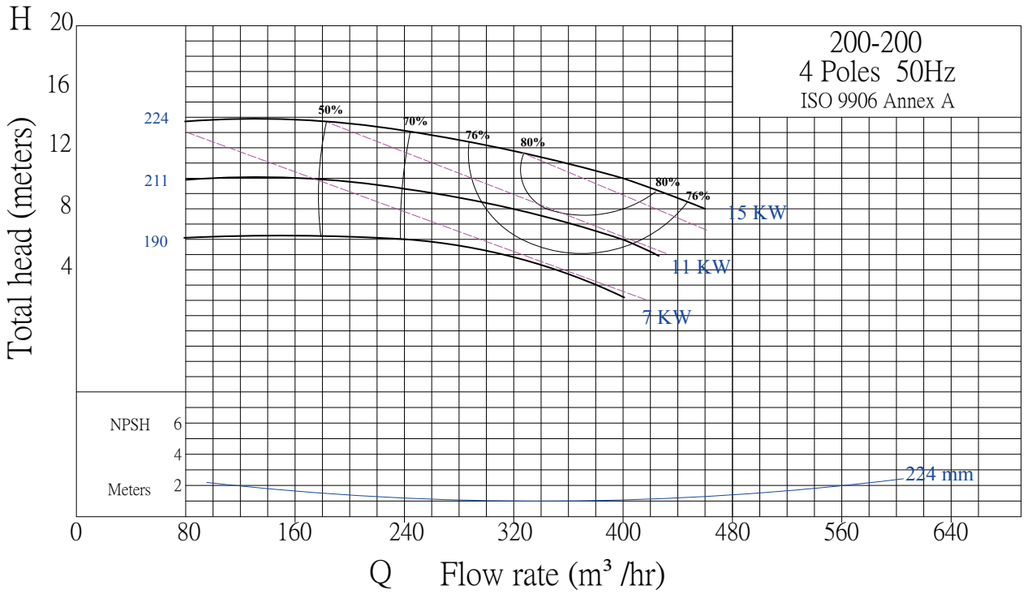

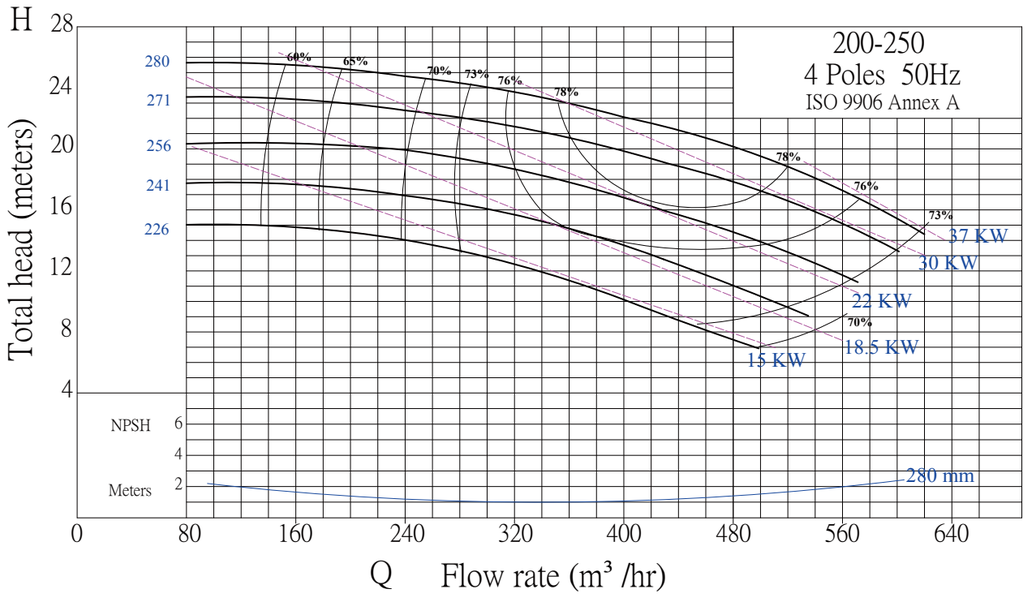

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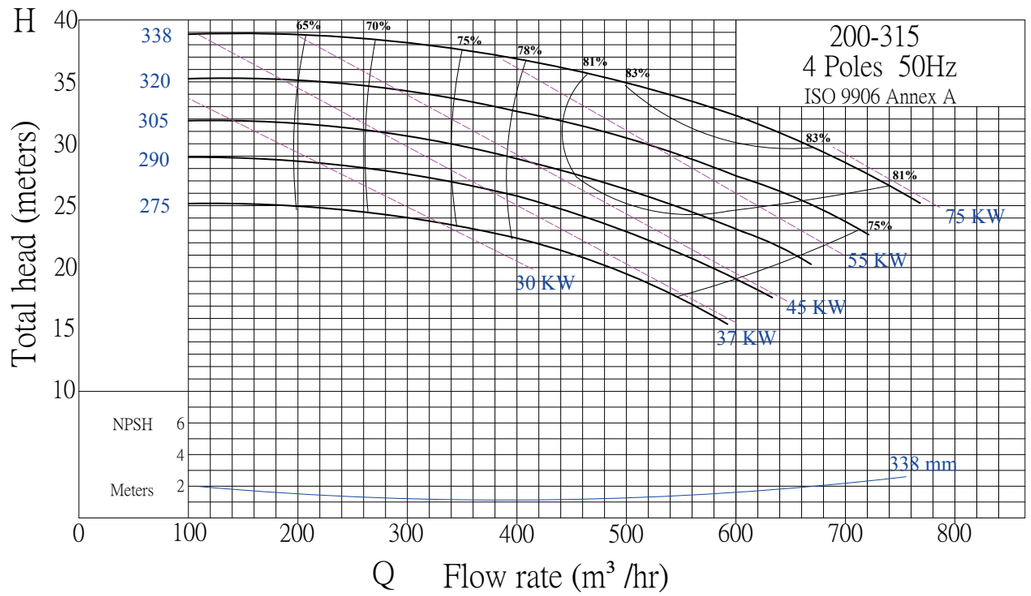

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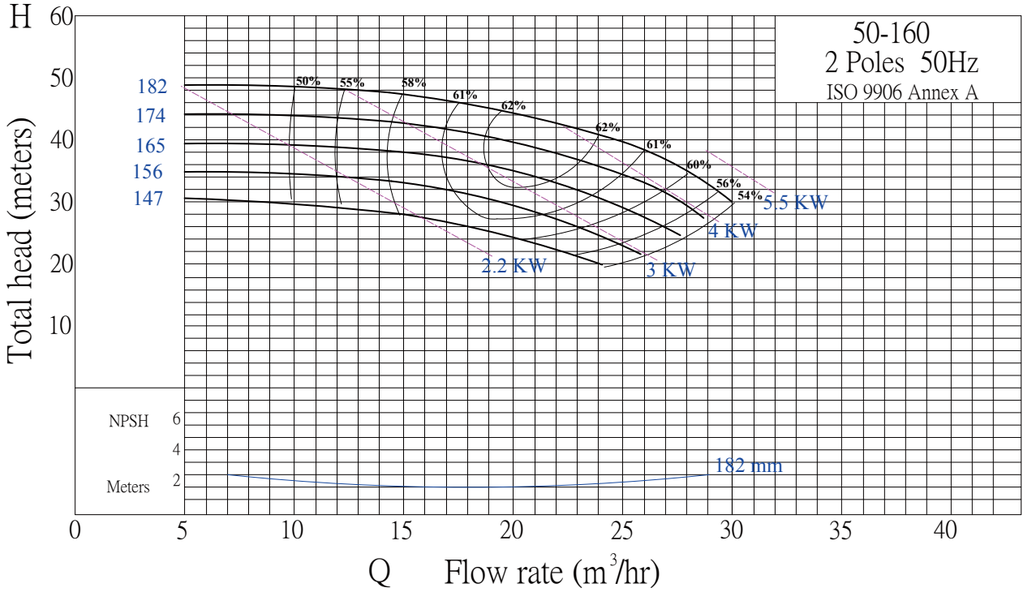

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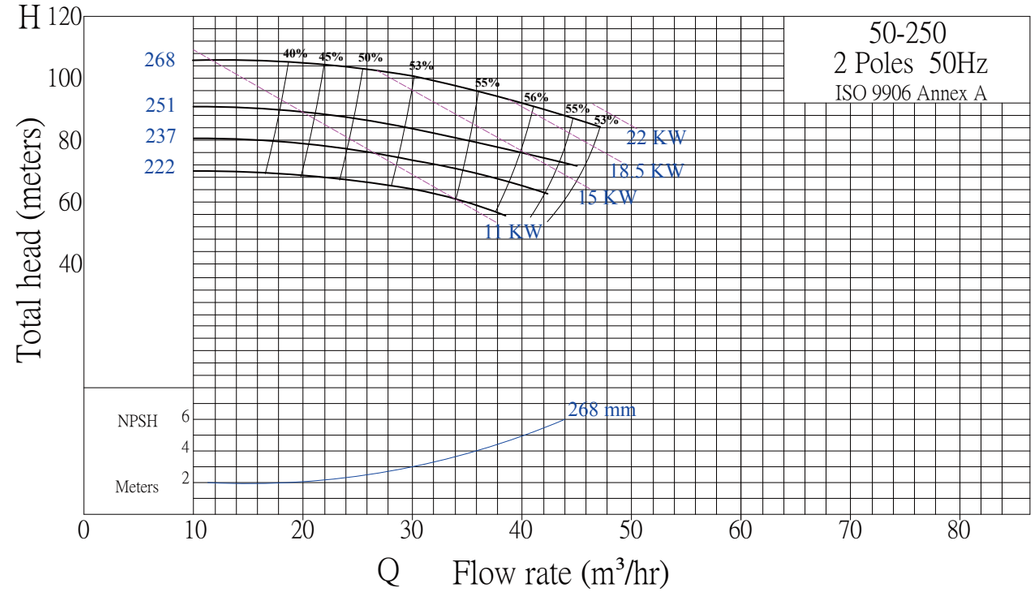

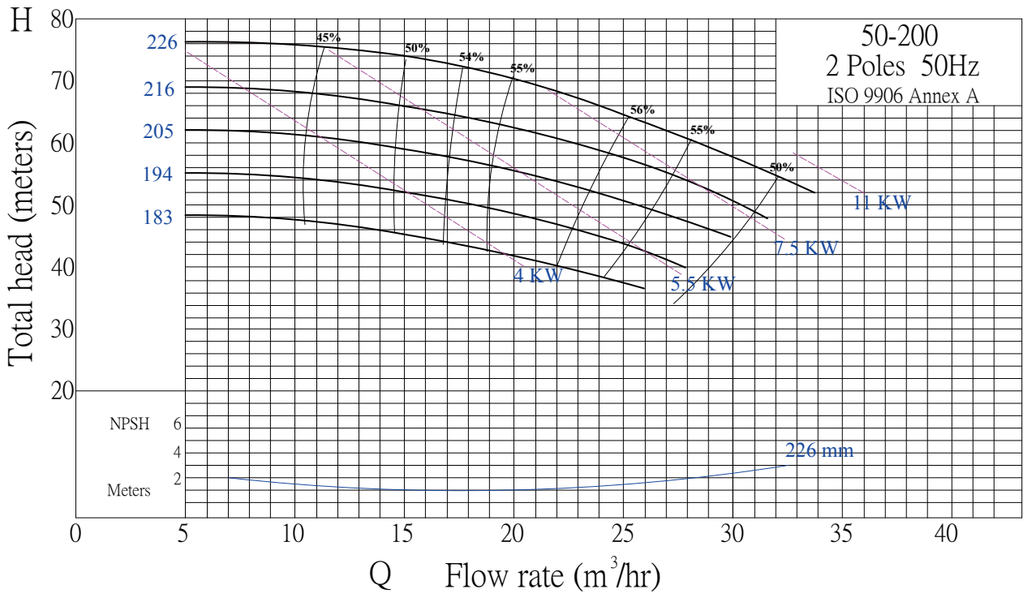

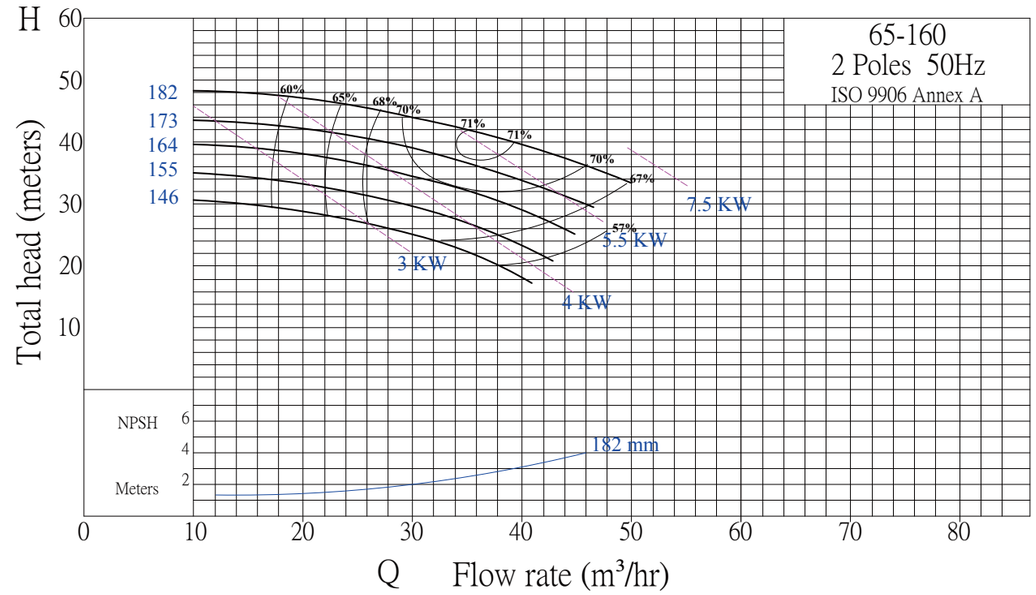

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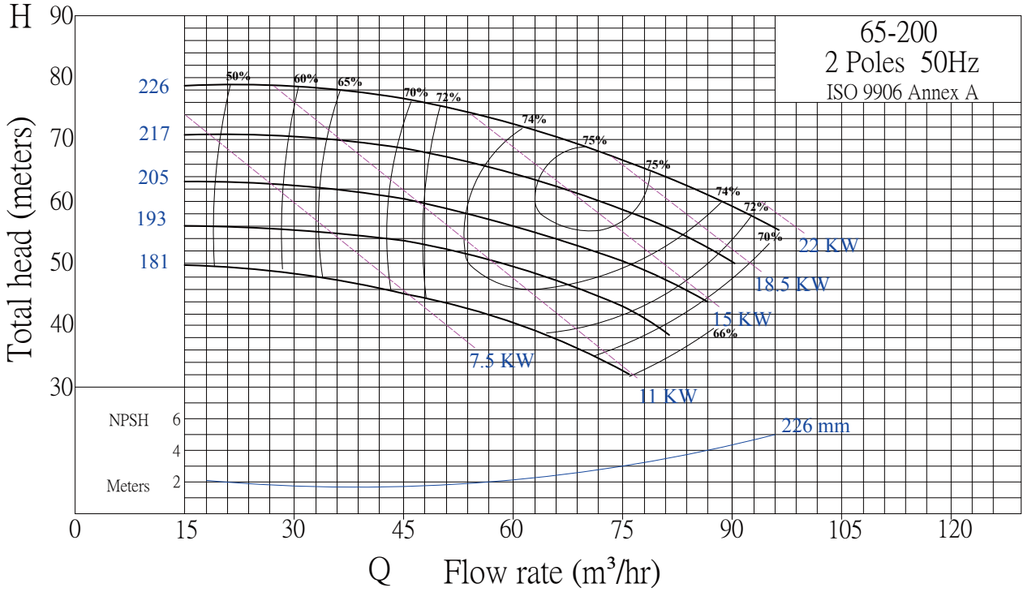

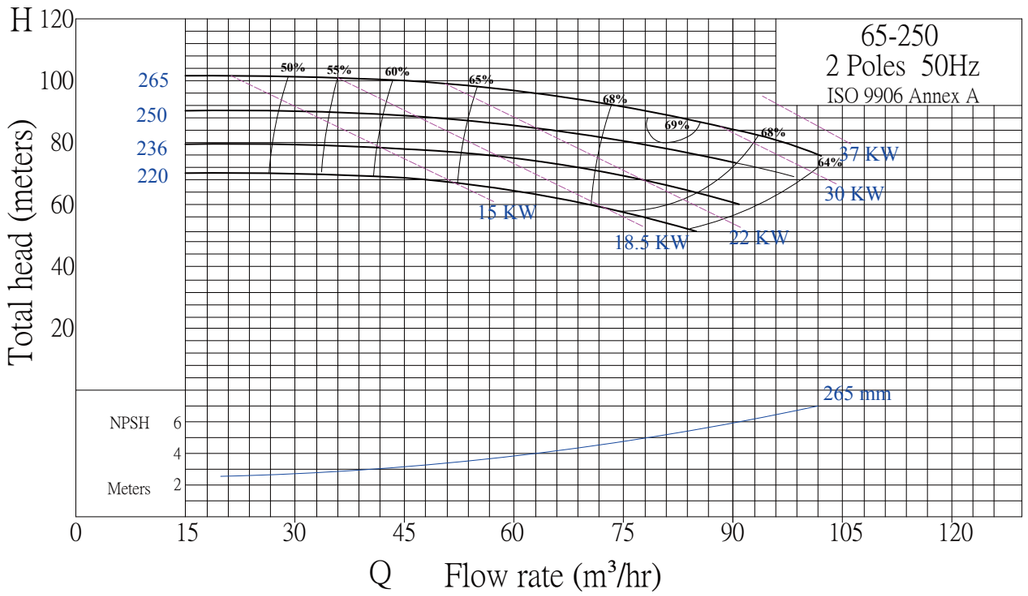

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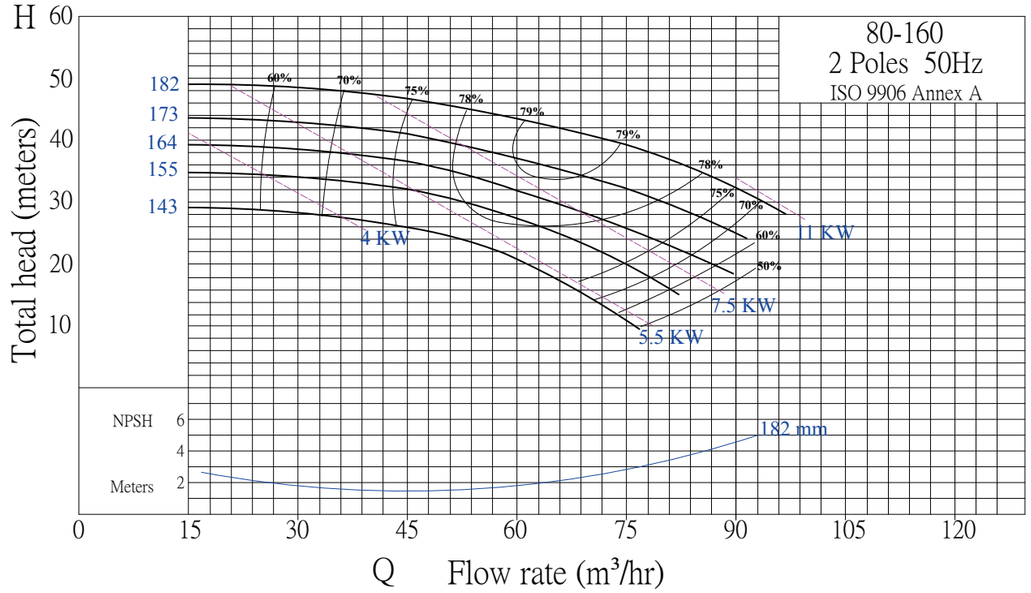

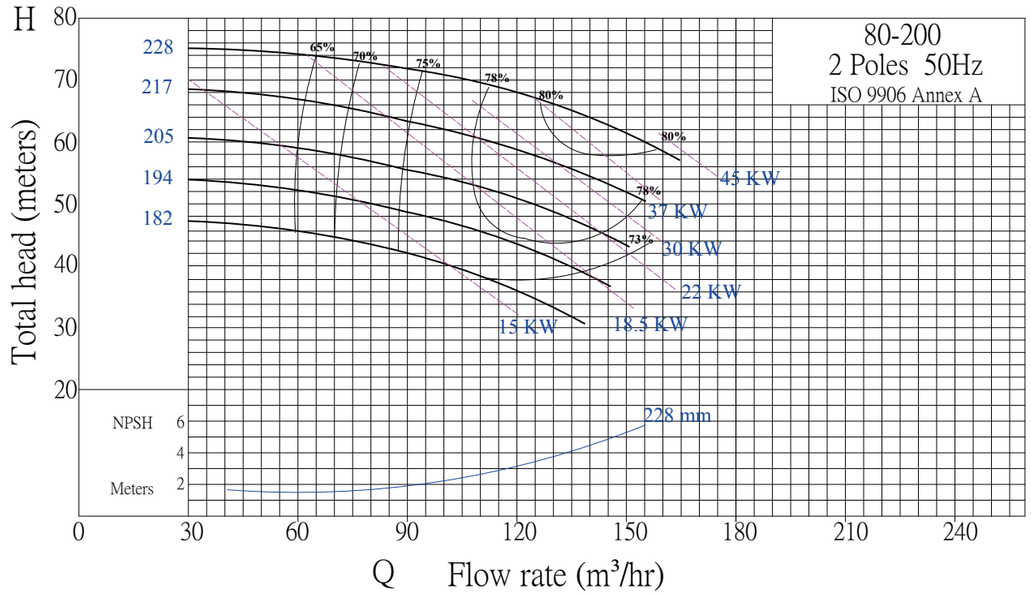

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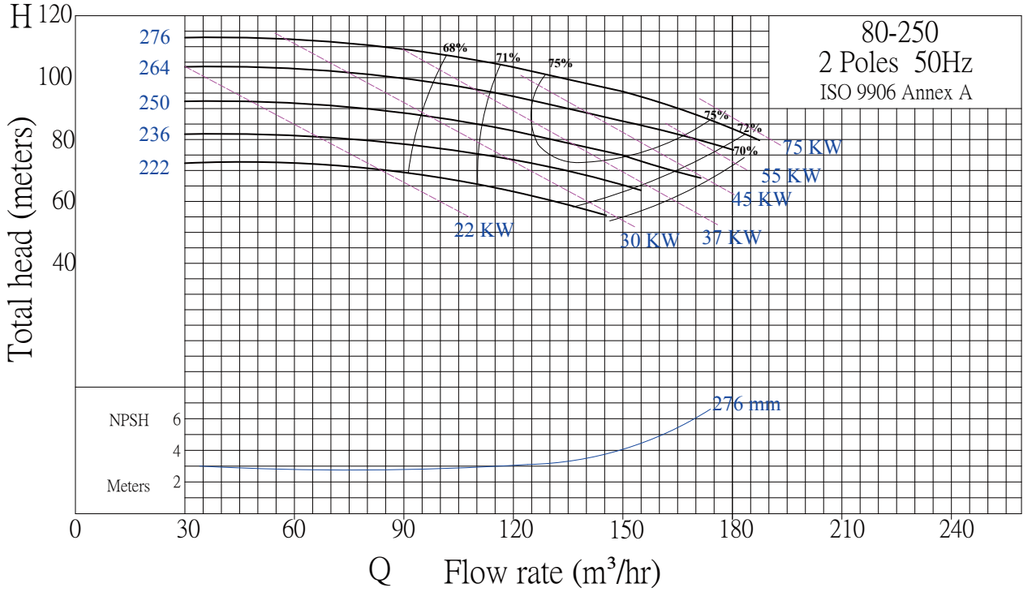

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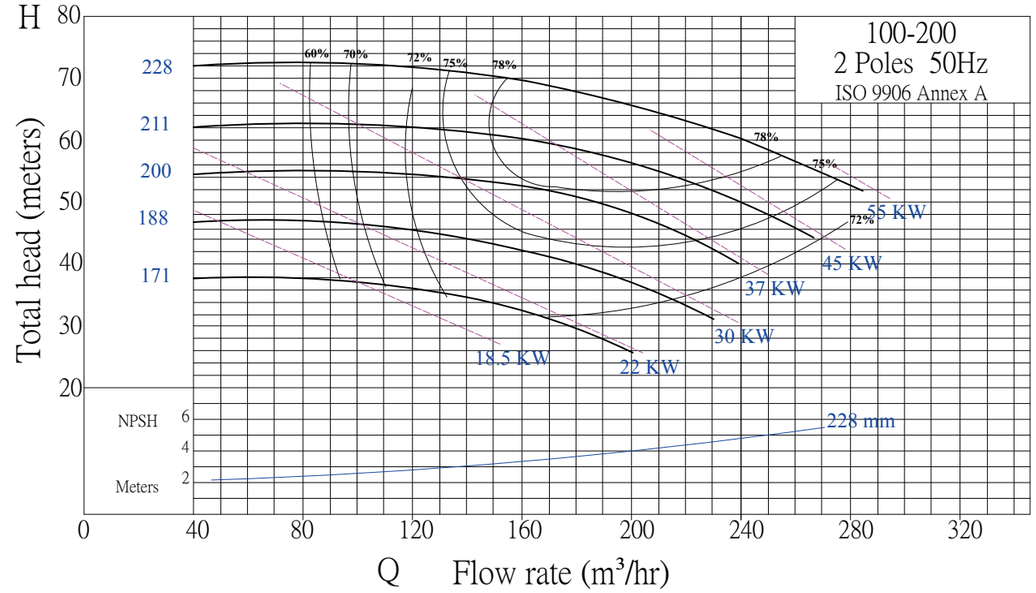

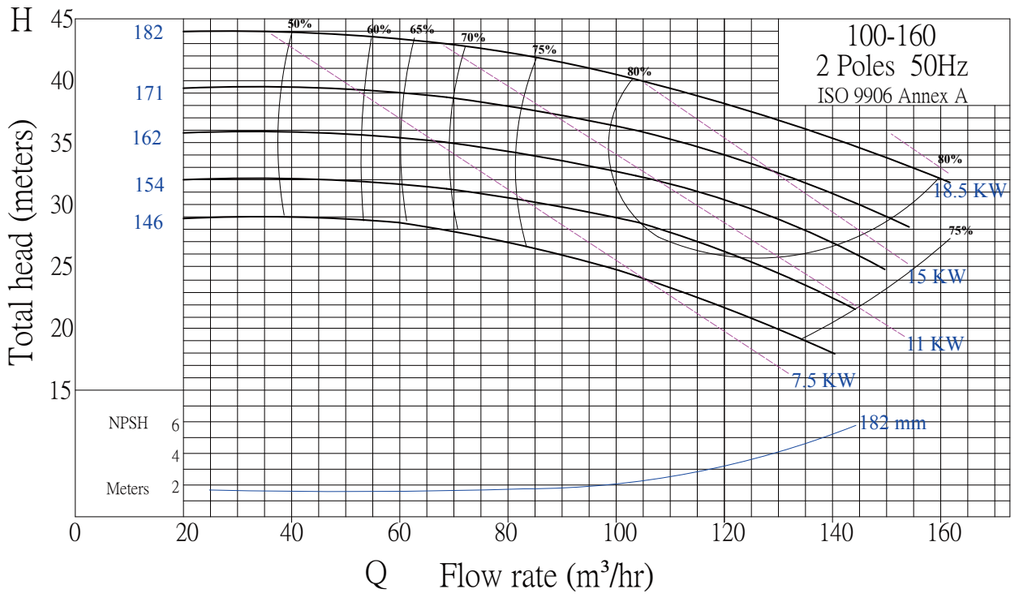

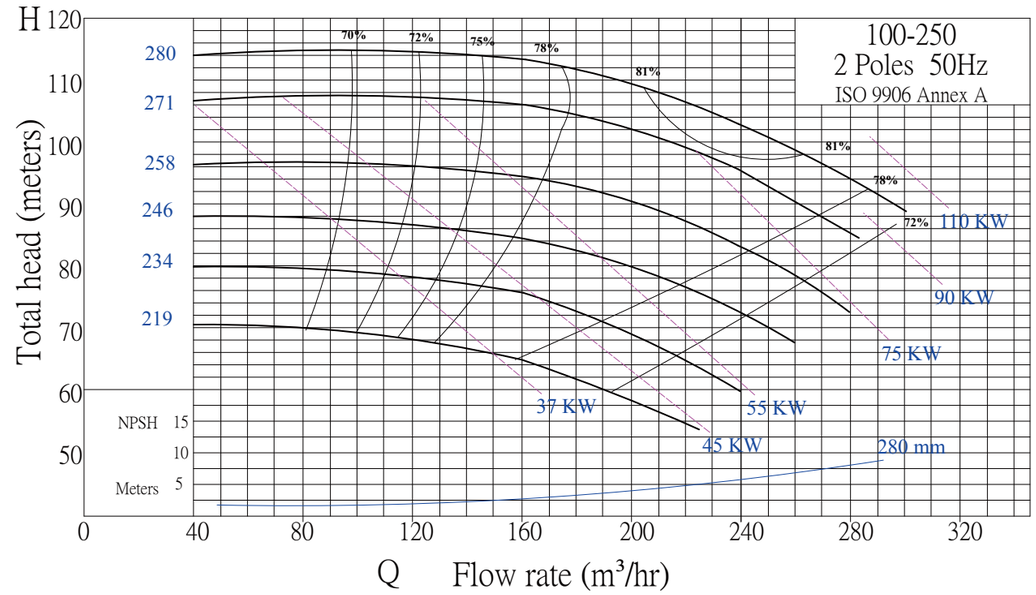

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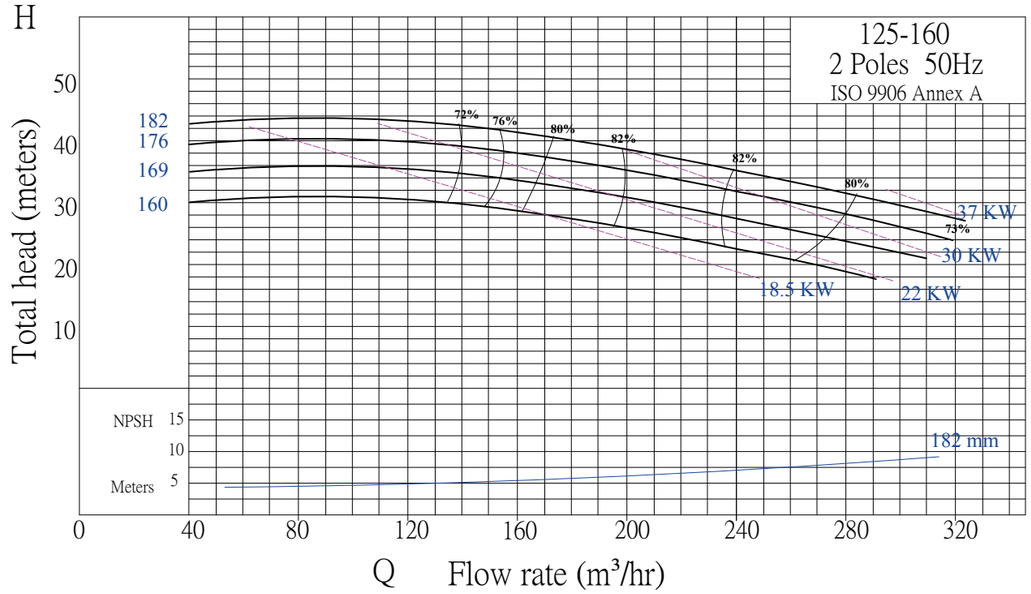

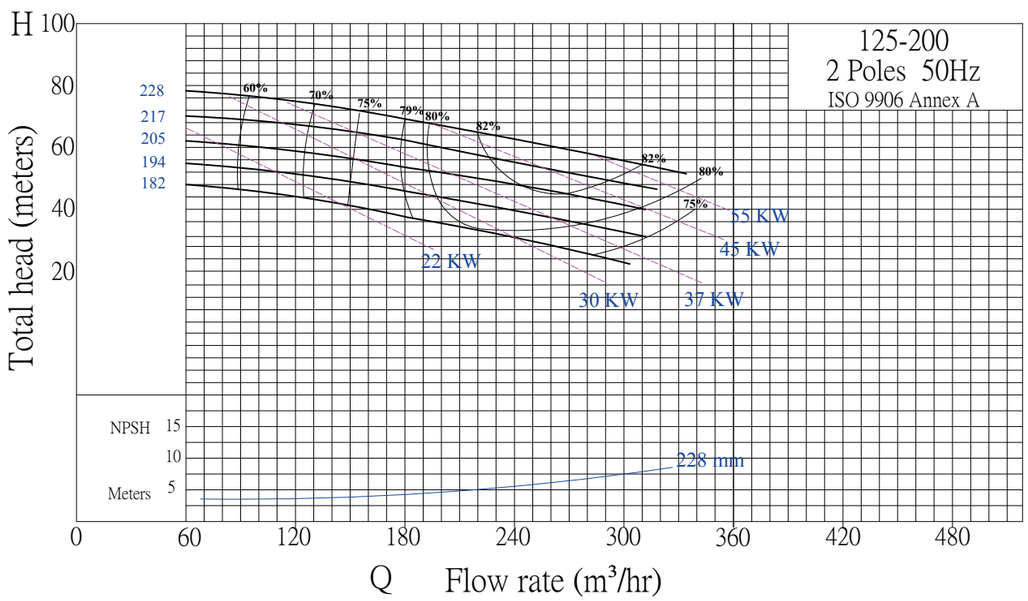

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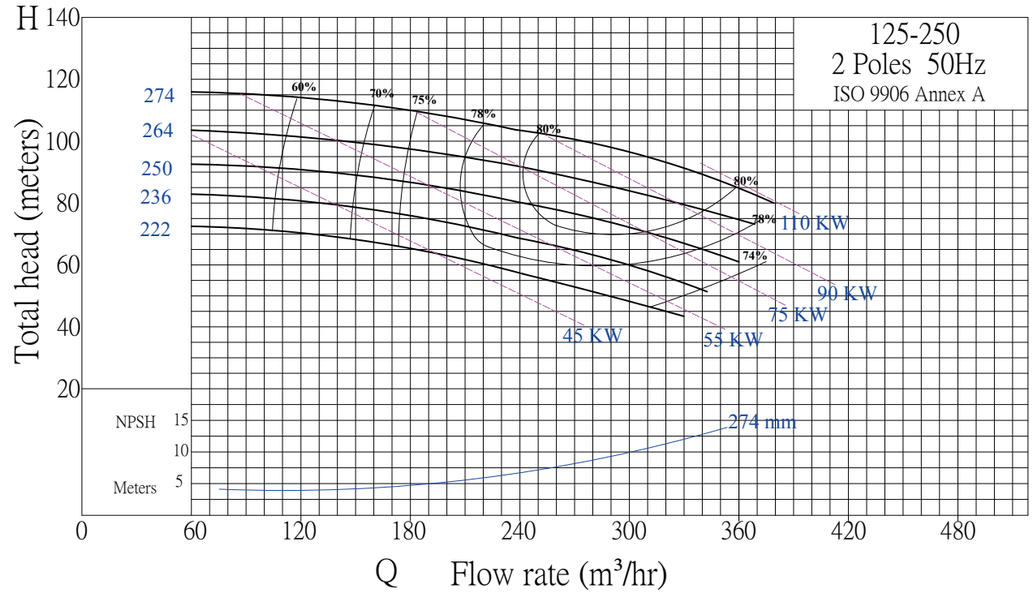

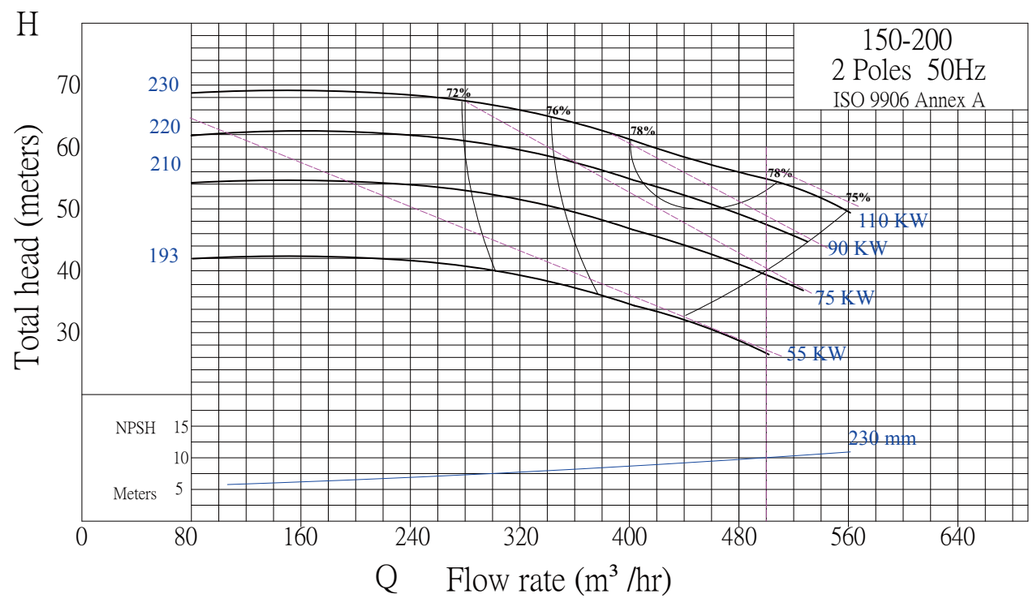

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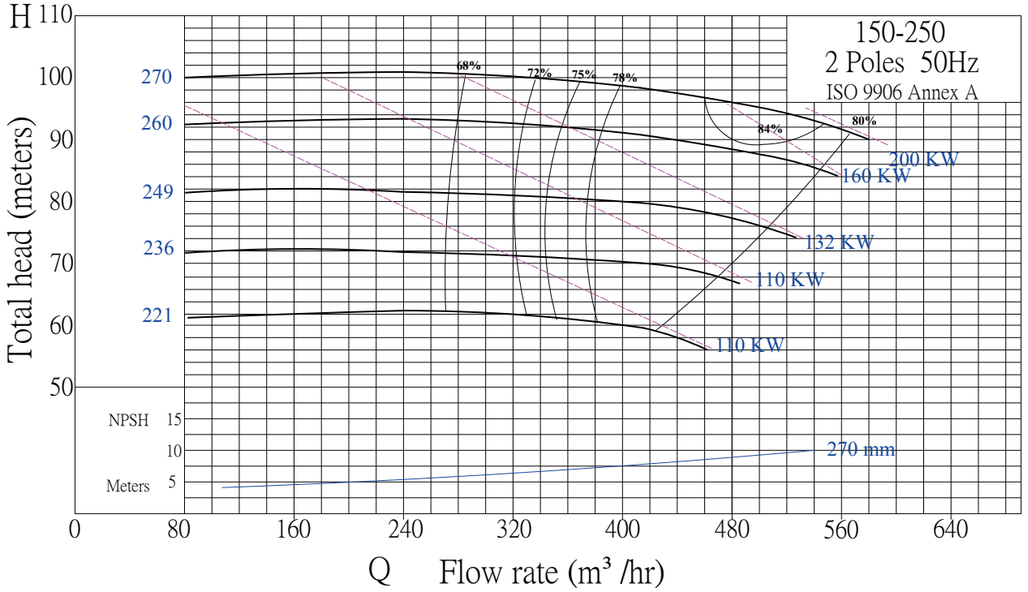
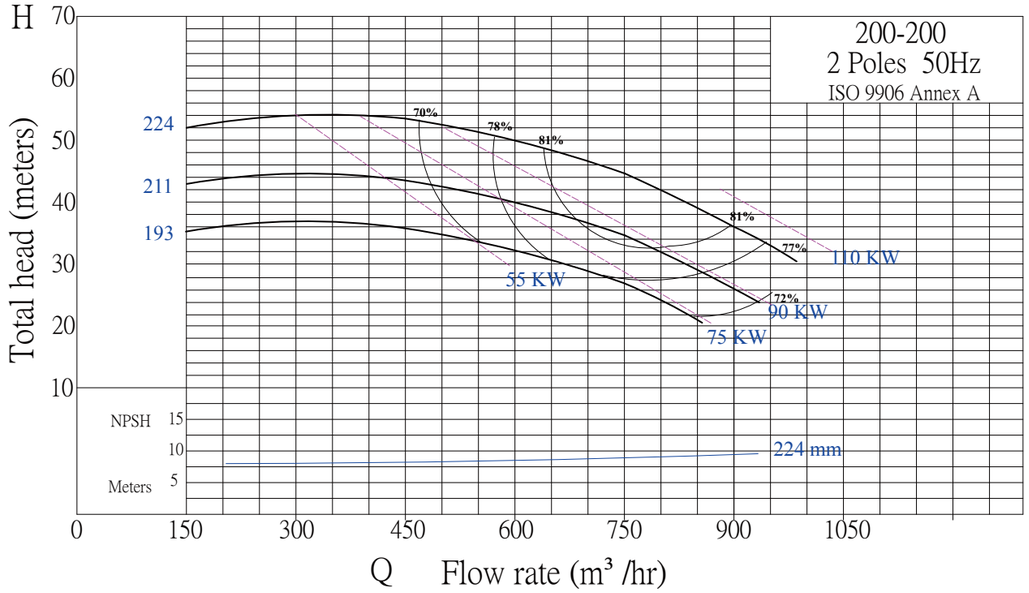
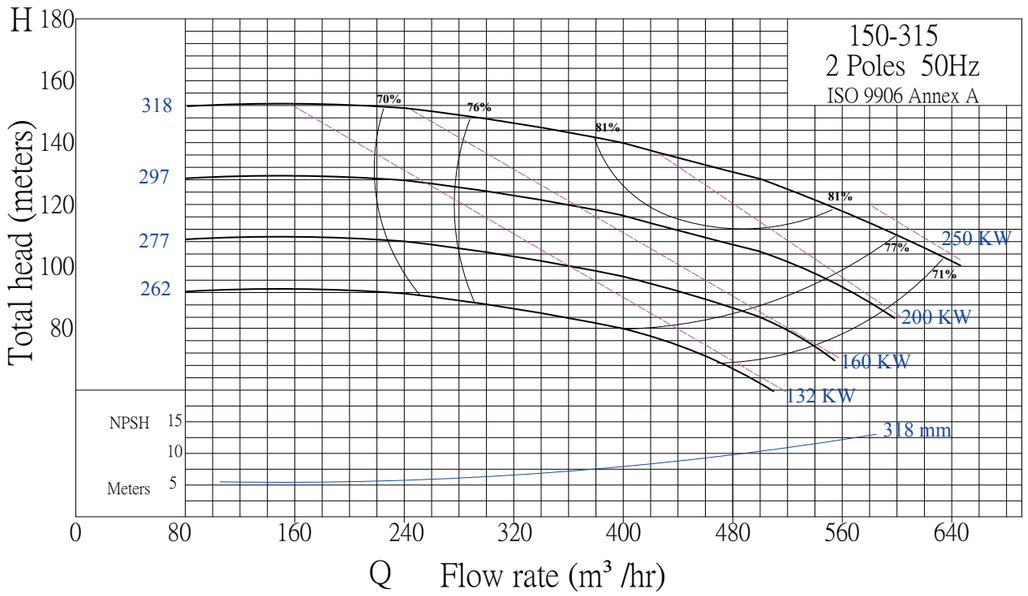
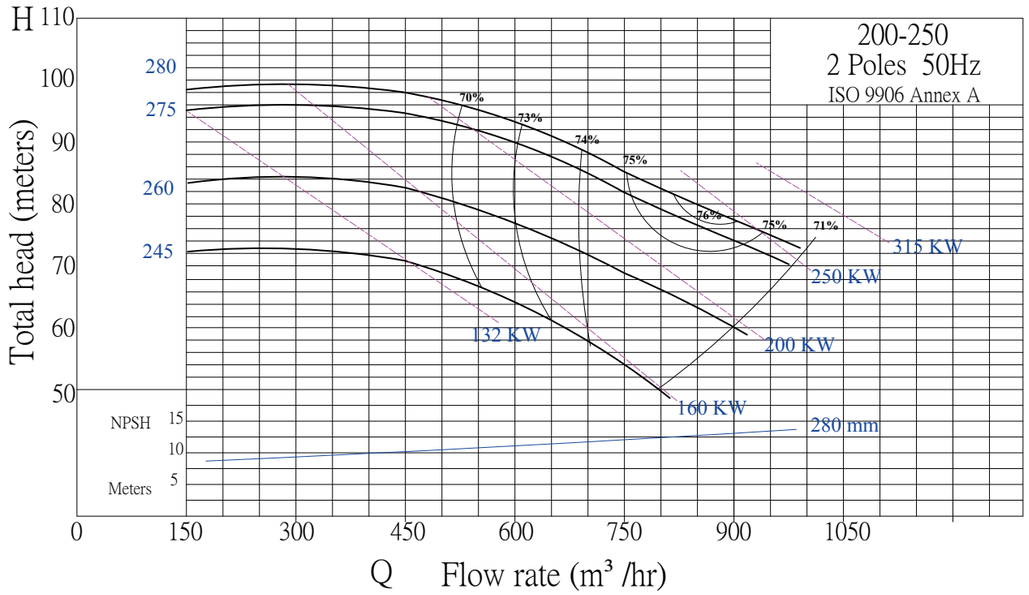


AESVC(B/S)-Series 50HZ
In-Line Vertical Single Stage Centrifugal Pump

Performance Curve