

A2

SUBMERSIBLE PUMPS



Elettropompe sommergibili con girante monocanale aperto

Submersible electropumps with open channel impeller

Potenze / Power:	1.5÷9 kW
Mandate / Delivery:	DN65-80

Impieghi

La serie A2 poli trova impiego nel pompaggio e nel drenaggio di liquidi chiari e fognari. Le alte prestazioni le rendono efficaci in varie applicazioni: depuratori, canalizzazioni industriali, zootecnia, fognature.

Caratteristiche

Tutti i componenti principali sono realizzati in Ghisa GG25. Due tenute meccaniche separate (lato motore a bagno olio, lato girante a contatto con il liquido) e componentistica di prima qualità, ne garantiscono il perfetto funzionamento.

Motori

- Motori asincroni 2 poli con rotore a gabbia di scoiattolo
- Protezione termica T1 e T2 incorporato nel motore da collegare ad un apposito quadro di comando
- Isolamento statore classe F (155°C)
- Grado protezione IP 68

Raffreddamento

Raffreddamento effettuato dal liquido nel quale la pompa è immersa.

Limiti di impiego

- Temperatura massima del liquido: 40°C con unità completamente sommersa
- Disponibili versioni speciali (escluso ATEX) fino alla temperatura liquido di 60°C con unità completamente sommersa, non a servizio continuo (S1)
- Massima profondità di immersione: 20m
- Valori pH ammessi: 6-10
- Caratteristiche idrauliche valide per liquidi di densità <math>< 1,1 \text{ kg/dm}^3</math>
- Tensioni ammesse: 230/400V o 400/690V $\pm 5\%$ a seconda del modello
- Frequenza ammessa: 50Hz $\pm 2\%$

Application

The A2 poles Series is used in pumping and draining clear liquids and sewage. High performance renders it useful in a variety of applications: water treatment plants, industrial plants, farms and sewers.

Characteristic

All main components are made of grey cast iron GG25. Two individual mechanical seals (motor side in the oil chamber, impeller side in contact with the liquid) and high quality parts, ensure the perfect functioning and reliability of the product.

Motor range

- Squirrel cage motor at 2 poles
- Thermal protection T1 and T2 embedded in the motor winding (to be wired to the three pole contactor in the control panel)
- Class F insulation (155°C)
- IP 68 protection

Motor cooling

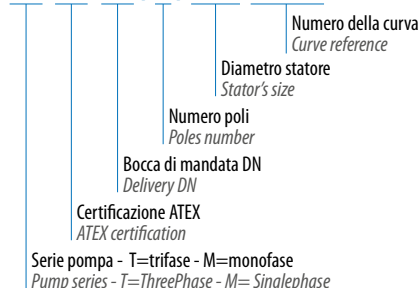
The cooling of the motor is ensured by the liquid where the pump is submerged.

Limits of use

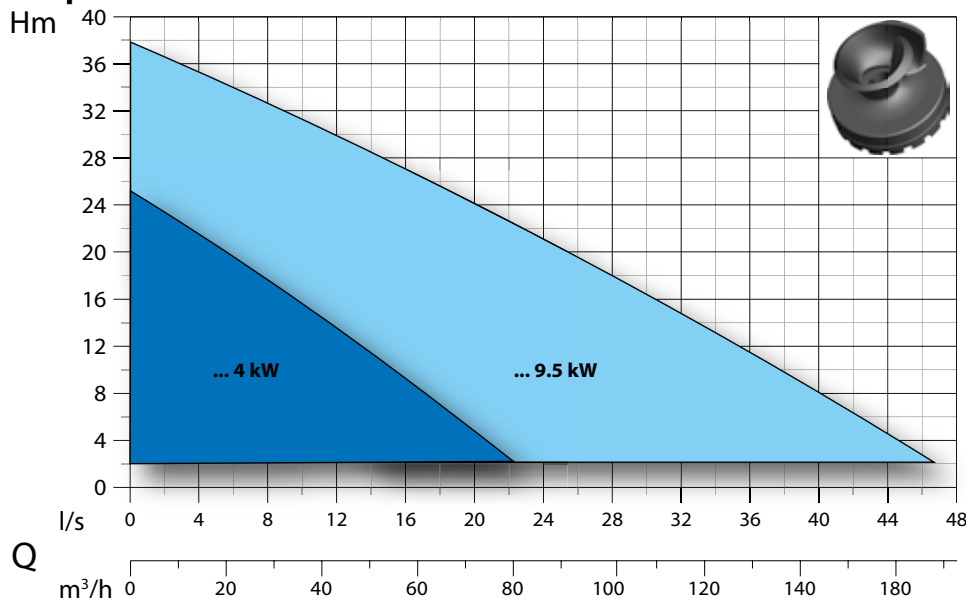
- Max. permissible liquid temperature: 40°C with pump fully submerged
- On request, special version (excluded ATEX) to withstand liquid temperature up to 60°C with pump fully submerged, no S1 service
- Maximum depth of immersion: 20 MT.
- Permissible pH value: 6-10
- Hydraulic features suitable for liquids with density <math>< 1,1 \text{ kg/dm}^3</math>
- Allowed voltage: 230/400V or 400/690V $\pm 5\%$ depending on the pump
- Allowed frequency: 50Hz $\pm 2\%$

Designazione / Designation

AT-EX 80 / 2 / 173 C.254



Campo di Prestazione / Performance Overview



Identificazione Curve

Curves Identification

- DN65
- DN80

Normative

Norms

Curve secondo ISO 9906:2012 3B2
According to ISO 9906:2012 3B2

Distinta dei componenti e materiali

List of components and materials

A2

Anello catena - Chain ring

Acciaio Inox AISI 416 - Stainless steel AISI 416

Cassa motore - Motor casing

Ghisa GG25 - Cast iron GG25

Cuscinetto superiore - Upper bearing

Albero motore - Motor shaft

Acciaio inox AISI 420 - Stainless steel AISI 420

Motore elettrico - Electric motor

Rotore - Rotor

Cuscinetto inferiore - Lower bearing

Porta cuscinetto - Flange support

Ghisa GG25 - Cast Iron GG25

Tenuta meccanica - Mechanical seal

Ceramica/Grafite - Carbon/Ceramic (CA/CE/Viton)

Porta motore - Motor holder

Ghisa GG25 - Cast Iron GG25

Tenuta meccanica - Mechanical seal

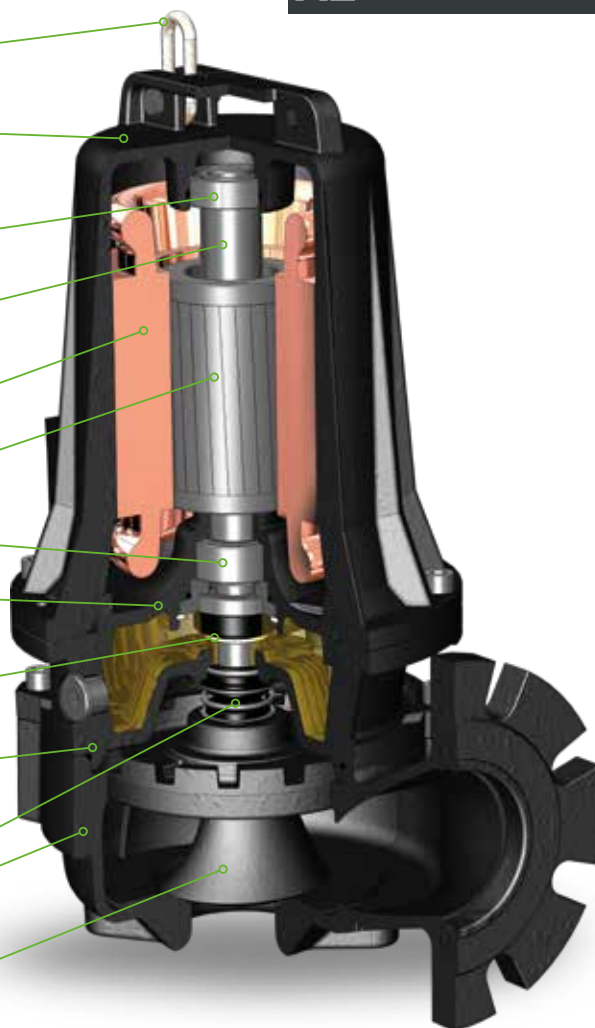
Carburo di silicio - Silicon/Carbide (SIC/SIC/Viton)

Corpo pompa - Body pump

Ghisa GG25 - Cast iron GG25

Girante - Impeller

Ghisa GG25 - Cast iron GG25



Tecnologie e Soluzioni

Technology and Features



Pompe antideflagranti / Explosion proof pumps



II 2G Ex db IIB T4 Gb
Ex h IIB T4 Gb
0° ≤ Ta ≤ 40°

EPT 17 ATEX 2702 X

Tutta la serie è disponibile con certificato ATEX su richiesta
Pumps with explosion proof available on request.



Giranti

La serie monta giranti Monocanali Aperti ad alte prestazioni. Il trancia-fibre integrato garantisce la massima affidabilità di lavoro, anche in presenza di liquidi con fibre e corpi solidi in sospensione.

Impellers

The A series is fitted with open single channel and highly efficient impellers. The shredding system ensures a high degree of reliability even in presence of fibrous materials and solids in suspension.



Sensore d'umidità

Sensore conforme alle norme sulla sicurezza integrata contro le esplosioni ATEX EN 60079-0, EN 60079-1 tramite barriera di protezione. Di serie su tutta la gamma.

Seal leak detector

The seal leak detector is certified according to the norm ATEX EN 60079-0, EN 60079-1 (through safety barrier) and fitted standard on all series.



Pressacavo

Pressacavo pressofuso in acciaio inox, conforme alla normative: ATEX EN 60079-0, EN 60079-1 con linguetta anti-strappo. Standard su tutta la serie.

Cable gland

The cable gland is made of stainless steel AISI 316 and certified according to the norm ATEX EN 60079-0, EN 60079-1. Standard on all series.

Mandata Orizzontale DN65 PN10 - RPM 2850 1/min 2 poli

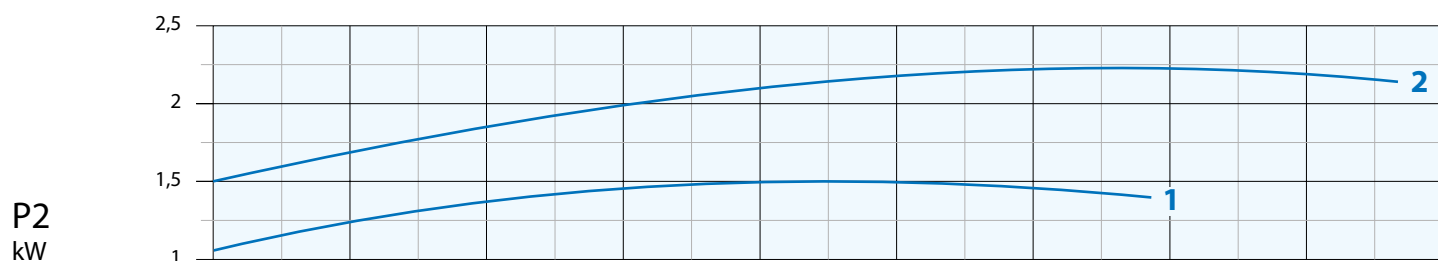
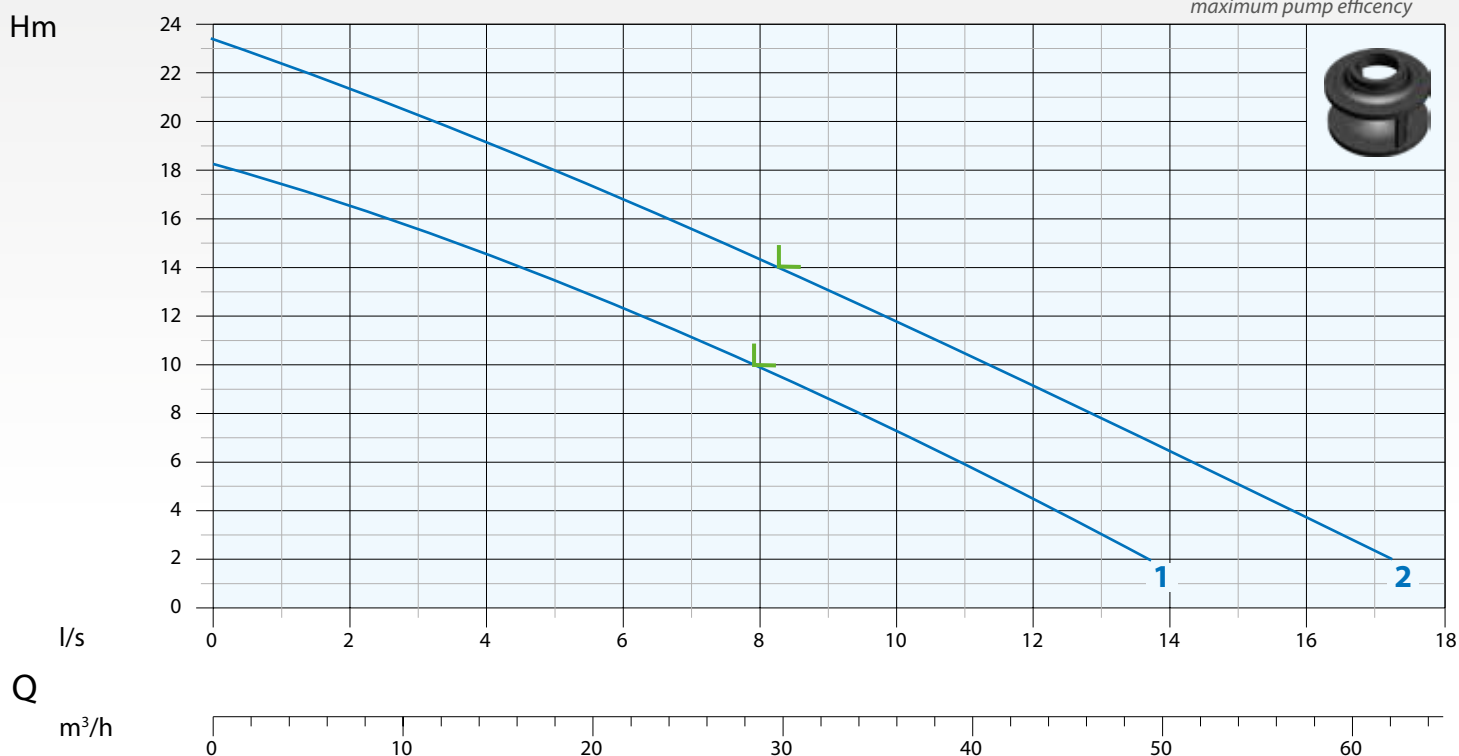
Horizontal Outlet DN65 PN10 - RPM 2850 1/min 2 poles

Immagine a solo scopo illustrativo
Picture for illustration purposes only



Curva di Prestazione Performance Curve

L = rendimento massimo pompa
maximum pump efficiency

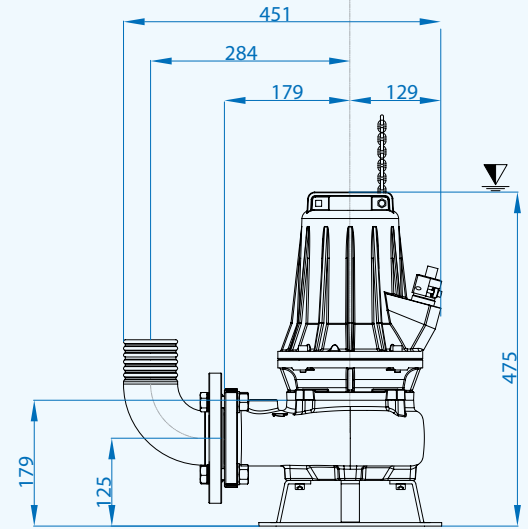
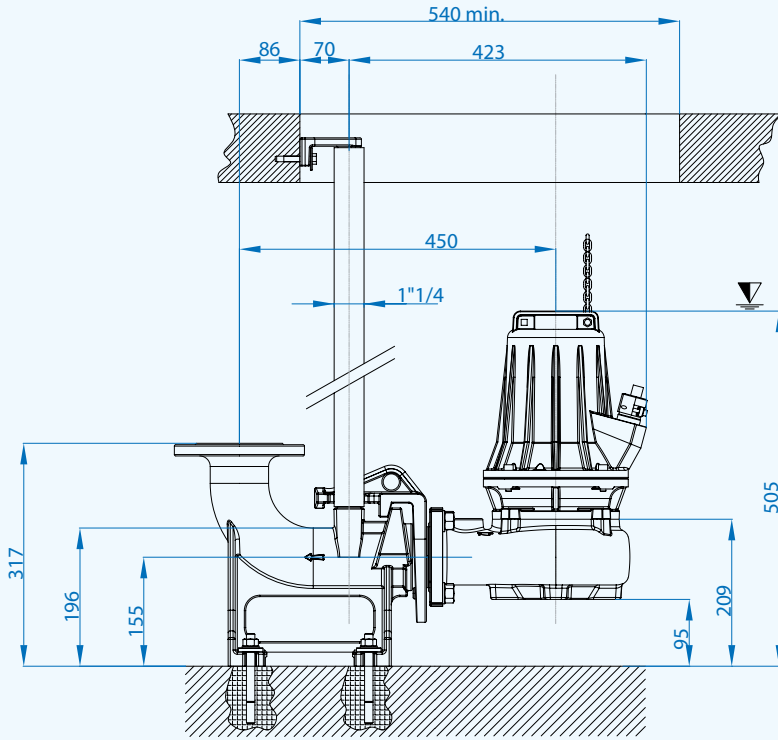


N°	Tipo Type	l/s	1	2	4	6	8	10	12	14	16
			l/m	60	120	240	360	480	600	720	840
		m³/h	3,6	7,2	14,4	21,6	28,8	36,0	43,2	50,4	57,6
1	AM-AT 65/2/125 C.236	mt	17,5	16,5	14,5	12,5	10	7	4,5	2	
2	AT 65/2/125 C.237		22,5	21,5	19	17	14,5	11,5	9	6,5	3,5

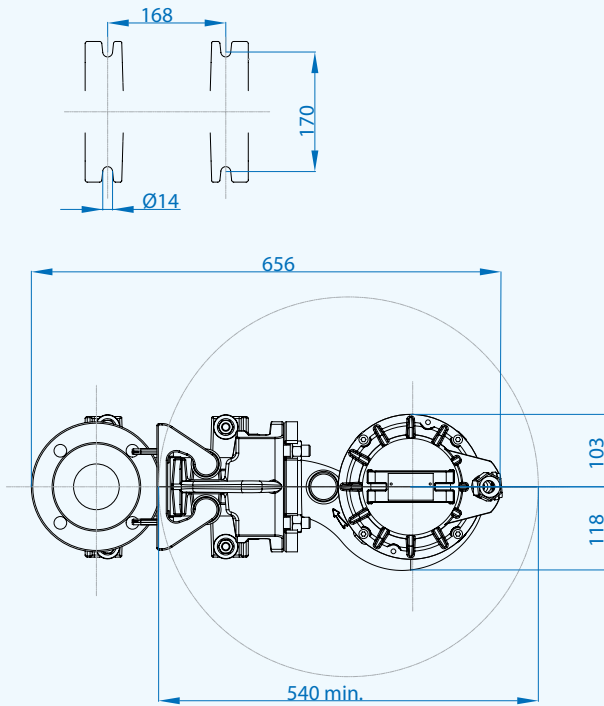
N°	Tipo Type	EX	Mandata Delivery	Passaggio Free Passage	kW		HP	R.P.M. 1/min	A		Hz
					P1	P2			1 Phase - 230V	3 Phase - 400V	
1	AM-AT 65/2/125 C.236	•	DN65 PN10	40 mm	2,3	1,5	2	2850	11	35	3,8
2	AT 65/2/125 C.237	•			3,1	2,2	3		5,3		

• Pompa antideflagrante disponibile con certificazioni: 0477 II 2G Ex db IIB T4 Gb Ex h IIB T4 Gb 0° ≤ Ta ≤ 40°
Available explosion proof pump with certifications: EPT 17 ATEX 2702 X

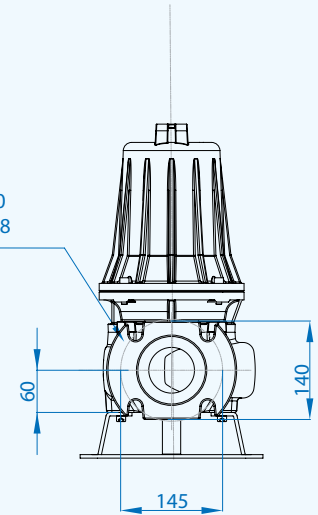
A2



▽ Sommergenza minima
Minimum submersion



DN65 PN10
ex UNI 2278



Quote in mm
Dimensions in mm

Cavi / Cables

Versione Version	Fasi Phases	Cavo Cable	Sezione cavo mm ² Cable cross section mm ²	mt
Standard	1 ~ 230V	H07RN8F	4x1,5+3x0,50 Ø15*	10
ATEX		NSSHÖU-J	4x1,5+3x0,50 Ø17*	10
Standard	3 ~ 400V	H07RN8F	4x1,5+3x0,50 Ø15**	10
ATEX		D.O.L.	NSSHÖU-J	4x1,5+3x0,50 Ø17**

* Di serie con Control-box (condensatore di spunto compreso)
Standard with Control-box (starting capacitor included)

** Terminali liberi - Free terminals

Dimensioni imballo / Packaging dimension

Tipo - Type	X mm	Y mm	Z mm	Kg
AM-AT 65/2/125 C.236	295	460	331	43
AT 65/2/125 C.237				43,5

Accessori - Optional



Piede di accoppiamento rapido
Tipo: DUTY 65 o B4(PN10)
Automatic coupling foot
Type: DUTY 65 or B4(PN10)



Curva flangiata portagomma N5
Base di sostegno P4 DN65
Flanged hose connection N5
Foot support P4 DN65



Manico inox
Stainless steel handle



Quadri ATEX disponibili su richiesta
Explosion proof control box available on request

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Mandata Orizzontale DN65 PN10 - RPM 2850 1/min 2 poli

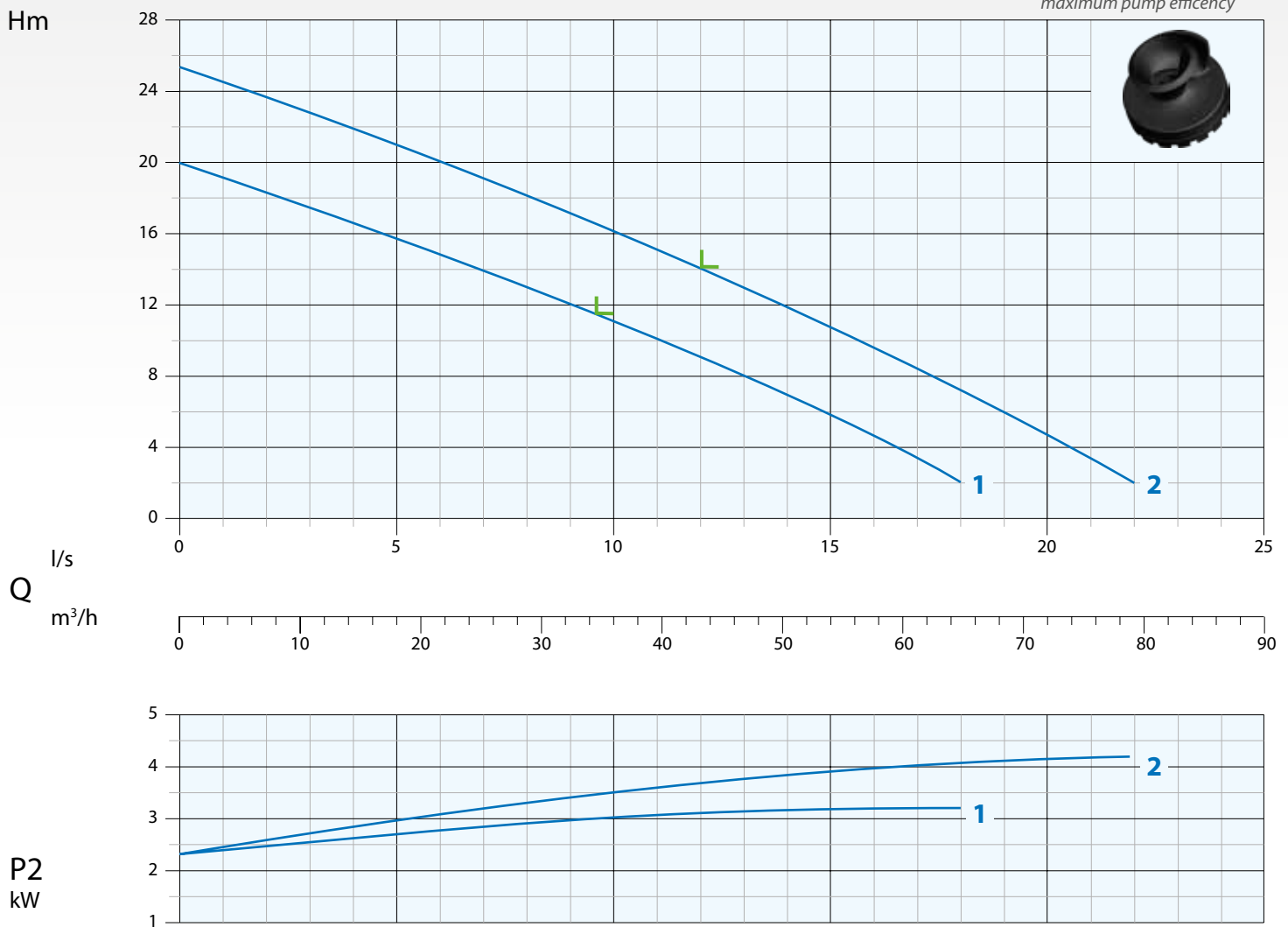
Horizontal Outlet DN65 PN10 - RPM 2850 1/min 2 poles

Immagine a solo scopo illustrativo
Picture for illustration purposes only



Curva di Prestazione Performance Curve

L = rendimento massimo pompa
maximum pump efficiency

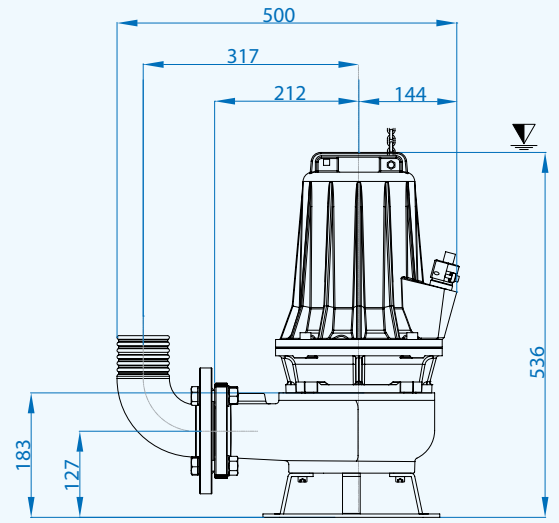
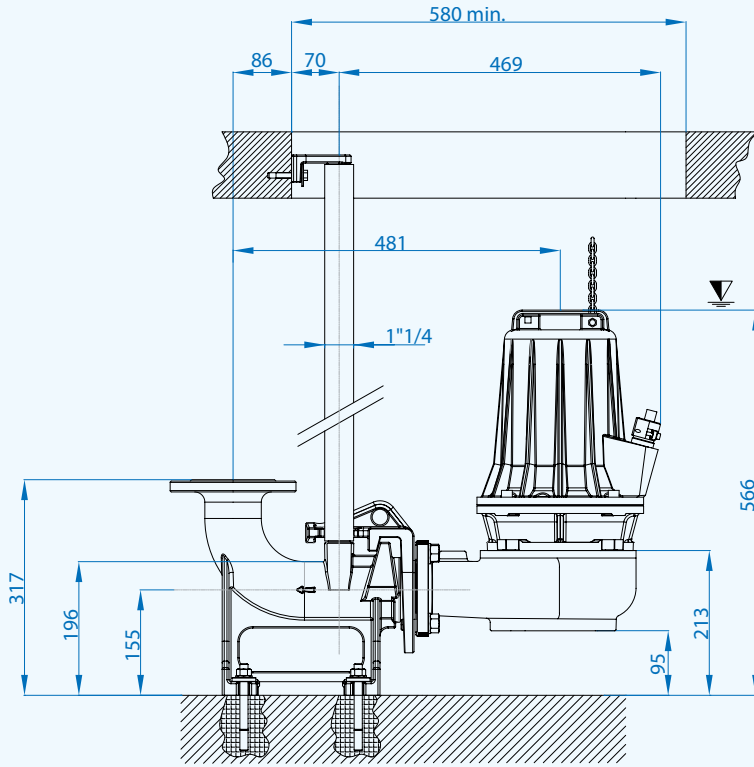


N°	Tipo Type	Flow (Q)										
		l/s	2	4	6	8	10	12	14	16	18	22
		l/m	120	240	360	480	600	720	840	960	1080	1320
		m³/h	7,2	14,4	21,6	28,8	36	43,2	50,4	57,6	64,8	79,2
1	AT 65/2/152 C. 246	mt	18	17	15	13	11	9	7	5	2	
2	AT 65/2/152 C. 247	mt	23,5	22	20	18	16	14	12	9,5	7,5	2

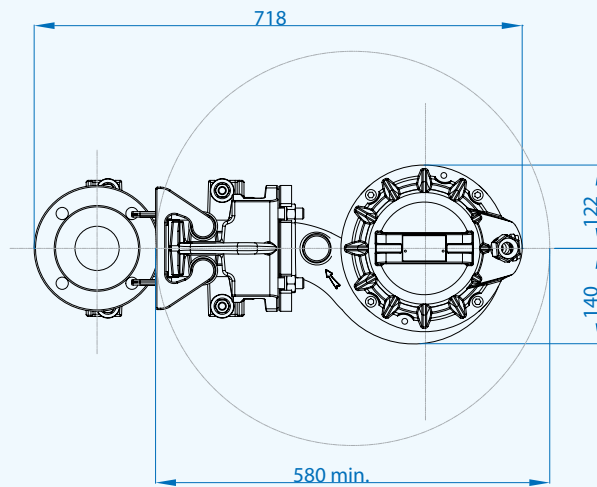
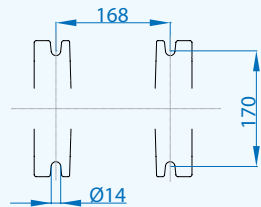
N°	Tipo Type	EX	Mandata Delivery	Passaggio Free Passage	kW		HP	R.P.M. 1/min	A	
					P1	P2			3 Phase - 400V	
1	AT 65/2/152 C. 246	•	DN65 PN10	45 mm	4,1	3,2	4	2850	6,9	50
2	AT 65/2/152 C. 247	•			5,6	4,2	5,5		9,4	50

• Pompa antideflagrante disponibile con certificazioni: 0477 II 2G Ex db IIB T4 Gb Ex h IIB T4 Gb 0° ≤ Ta ≤ 40°
Available explosion proof pump with certifications: EPT 17 ATEX 2702 X

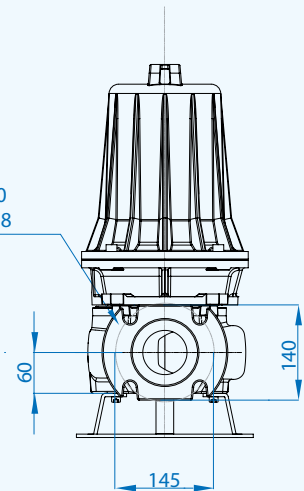
A2



∇ Sommergenza minima
Minimum submersion



DN65 PN10
ex UNI 2278



Quote in mm
Dimensions in mm

Cavi / Cables

Versione Version	Fasi Phases	Cavo Cable	Sezione cavo mm ² Cable cross section mm ²	mt
Standard	3 ~ 400V	H07RN8F	4x1,5+3x0,50 Ø15*	10
ATEX	D.O.L.	NSSHÖU-J	4x1,5+3x0,50 Ø17*	10

* Terminali liberi - Free terminals

Dimensioni imballo / Packaging dimension

Tipo - Type	X mm	Y mm	Z mm	Kg
AT 65/2/152 C. 246	355	580	420	60
AT 65/2/152 C. 247				62,5



Accessori - Optional



Piede di accoppiamento rapido
Tipo: DUTY 65 / B4 (PN10)
Automatic coupling foot
Type: DUTY 65 / B4 (PN10)



Curva flangiata portagomma N5
Base di sostegno P4 DN65
Flanged hose connection N5
Foot support P4 DN65



Manico inox
Stainless steel handle

Mandata Orizzontale DN80 PN16 - RPM 2850 1/min 2 poli

Horizontal Outlet DN80 PN16 - RPM 2850 1/min 2 poles

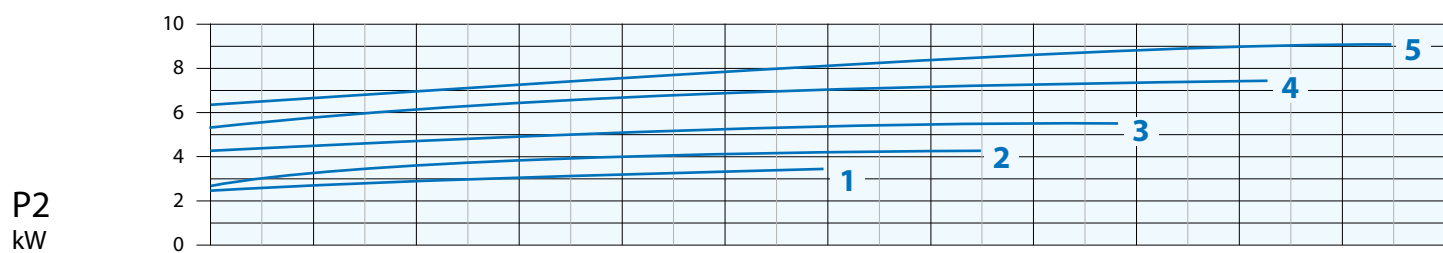
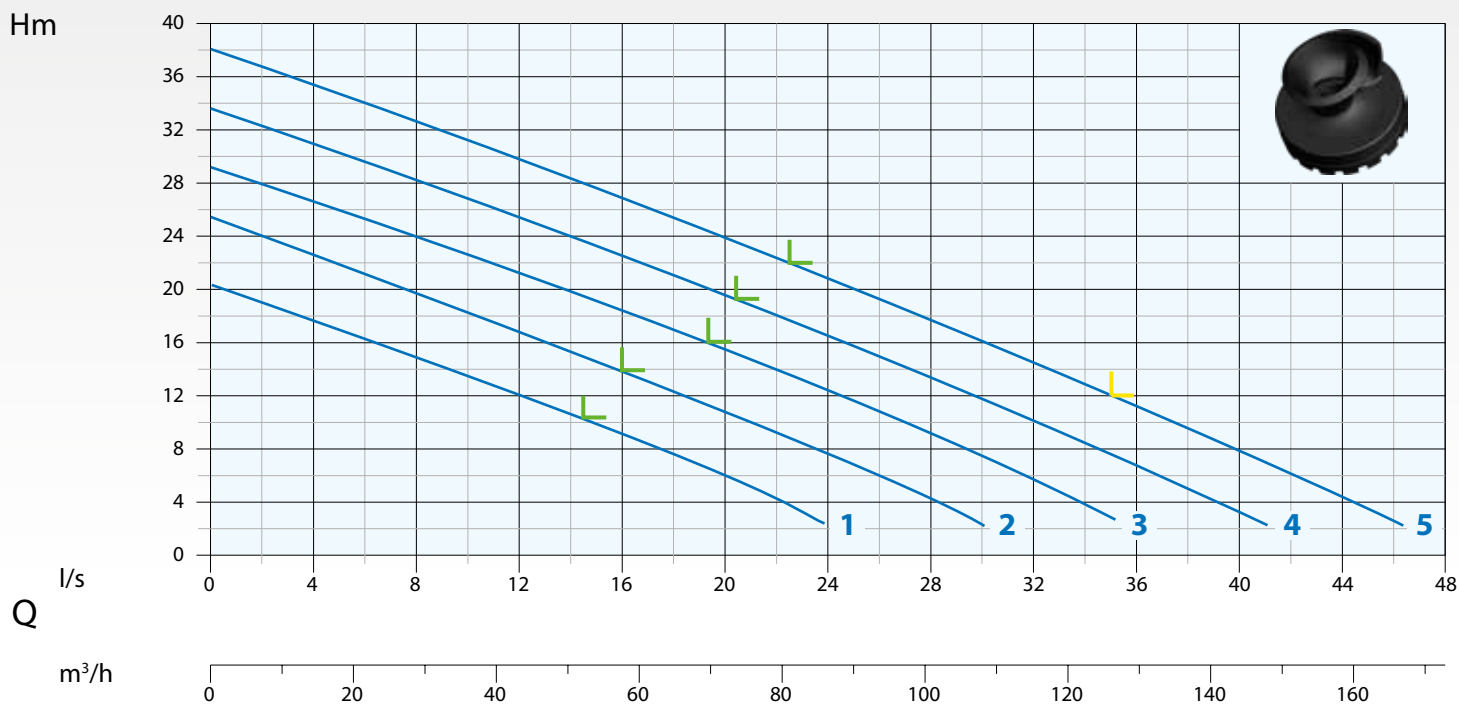
Immagine a solo scopo illustrativo
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Curva di Prestazione Performance Curve

L = rendimento massimo pompa
maximum pump efficiency

Y = Prevalenza minima per funzionamento ATEX
minimum head for ATEX operation



N°	Tipo Type	l/s	4	8	12	16	20	24	28	32	36	44
		l/m	240	480	720	960	1200	1440	1680	1920	2160	2640
		m³/h	14,4	28,8	43,2	57,6	72	86,4	100,8	115,2	129,6	158,4
1	AT 80/2/152 C.246	mt	18	15	12	9	6	2				
2	AT 80/2/152 C.247		22	20	17	14	11	8	4			
3	AT 80/2/173 C.254		26	24	21	18	15,5	12	9	6		
4	AT 80/2/173 C.257		31	28	25	22,5	19,5	17	13	10	7	
5	AT 80/2/173 C.259		35	33	30	27	24	21	17,5	14,5	11	4

N°	Tipo Type	EX	Mandata Delivery	Passaggio Free Passage	kW		HP	R.P.M. 1/min	A		
					P1	P2			3 Phase - 400V		Hz
1	AT 80/2/152 C.246	•	DN80 PN16	45 mm	4,0	3,2	4	2850	6,9		50
2	AT 80/2/152 C.247	•			5,6	4,2	5,5		9,4		
3	AT 80/2/173 C.254	•		60 mm	7	5,5	7,5		11,5		
4	AT 80/2/173 C.257	•			8,7	7,5	10		14,5		
5	AT 80/2/173 C.259	•			65 mm	11,1	9,1		12	18,6	

• Pompa antideflagrante disponibile con certificazioni:
Available explosion proof pump with certifications:



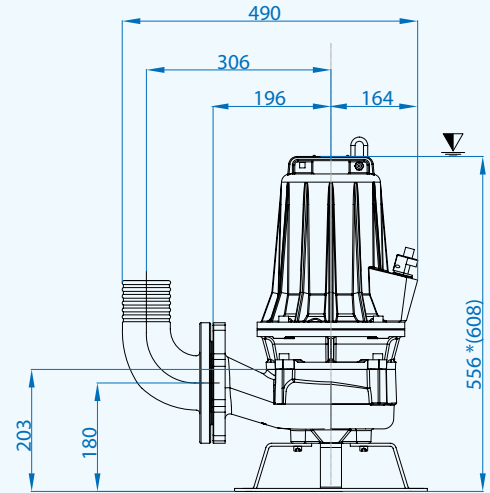
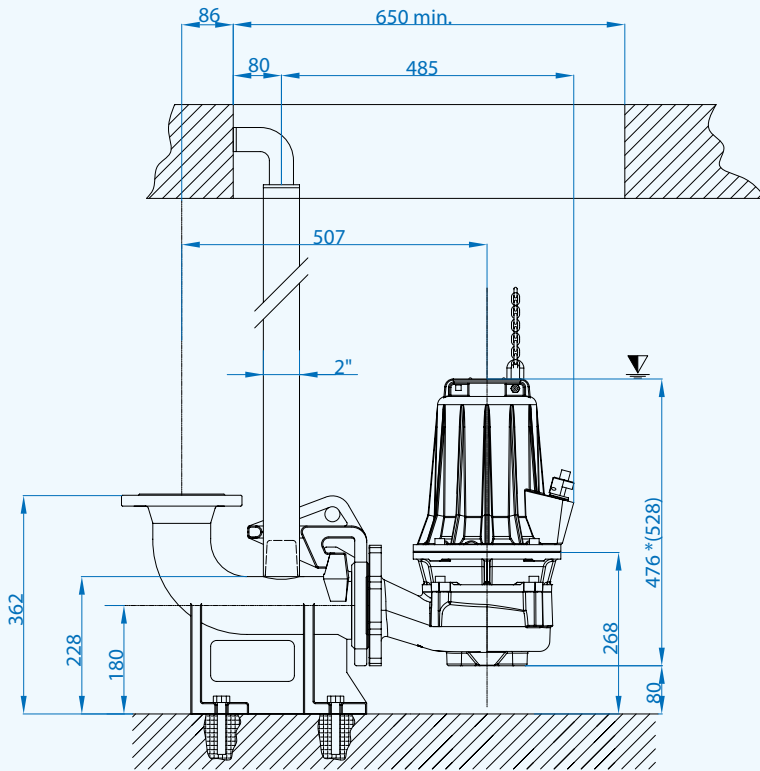
EPT 17 ATEX 2702 X



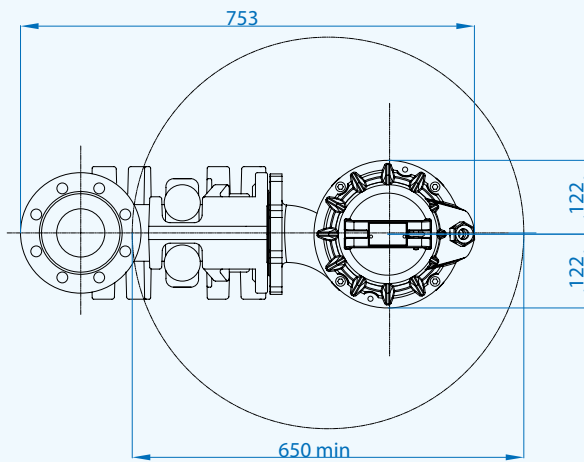
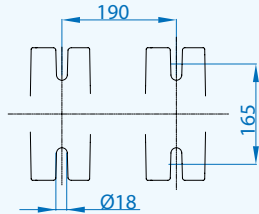
Ex db IIB T4 Gb
Ex h IIB T4 Gb
0° ≤ Ta ≤ 40°

A2

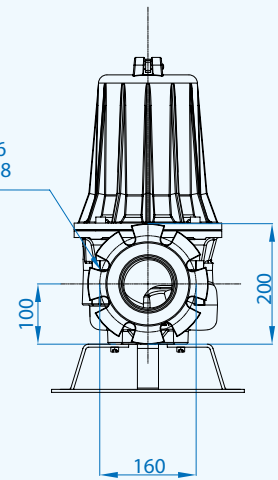
∇ Sommergenza minima
Minimum submersion



*(AT 80/2/173 C.254-257-259)



DN80 PN16
ex UNI 2278



Quote in mm
Dimensions in mm

Cavi / Cables

Pompe Pumps	Versione Version	Fasi Phases	Cavo Cable	Sezione cavo mm ² Cable cross section mm ²	mt
80/2/152	Standard	3 ~ 400V	H07RN8F	4x1,5+3x0,50 Ø17*	10
	ATEX	D.O.L.	NSSHÖU-J	4x1,5+3x0,50 Ø17*	10
80/2/173	Standard	3 ~ 400V	H07RN8F	7x1,5+3x0,50 Ø17*	10
	ATEX	Y-Δ	NSSHÖU-J	7x1,5+3x0,50 Ø17*	10

* Terminali liberi - Free terminals

Dimensioni imballo / Packaging dimension

Tipo - Type	X mm	Y mm	Z mm	Kg
AT 80/2/152 C.246				61
AT 80/2/152 C.247				65
AT 80/2/173 C.254	355	580	420	92
AT 80/2/173 C.257				93
AT 80/2/173 C.259				94,5

Accessori - Optional



Piede di accoppiamento rapido
Tipo: DUTY 80 e B5
Automatic coupling foot
Type: DUTY 80 and B5



Curva flangiata con portagomma N2
80/2/152 Base di sostegno P4
80/2/173 Base di sostegno P5
Flanged hose connection N2
80/2/152 Foot support P4
80/2/173 Foot support P5



Manico inox
Stainless Steel
Handle