Motori sommersi 6”-8” — 6”-8” Submersible motors — Moteurs immergés 6”-8” — Unterwassermotoren 6”-8” — Motores sumergibles 6”-8”

400-380V standard version
3PH Hz50 2 pol.

Dati prestazionali Motori 6” - Performance data 6” motors - Données de performance moteurs 6”
Leistungsdaten 6” Motoren - Datos de servicio motores 6”

Motore tipo / Motor type	P_N		U_N	I_N	η%			cos φ			r.p.m.	F_{max}	Avv. Diretto D.O.L. Starting		Avviamento Y/Δ Y/Δ Starting	
	HP	kW	V	Amp. 4/4	η% 4/4	η% 3/4	η% 2/4	cos φ 4/4	cos φ 3/4	cos φ 2/4	min^{-1}	N	Is/In	Cs/Cn	Is/In	Cs/Cn
PA6-5	5,5	4	400	9,9	77,0	78,0	77,0	0,770	0,730	0,600	2840	16 500	5,2	1,9	1,75	0,63
			380	10,0	77,0	78,0	77,0	0,800	0,750	0,620	2830					
PA6-7	7,5	5,5	400	13,8	76,5	79,0	77,0	0,760	0,720	0,610	2850		5,1	1,85	1,8	0,6
			380	13,5	78,5	80,0	78,0	0,790	0,740	0,630	2835					
PA6-10	10	7,5	400	17,4	79,0	81,0	78,5	0,790	0,740	0,620	2850		5,25	1,85	1,85	0,63
			380	17,8	78,0	79,5	78,0	0,800	0,750	0,630	2830					
PA6-12	12,5	9,3	400	22,1	80,5	82,0	80,0	0,770	0,745	0,635	2845		5,4	2,1	1,75	0,68
			380	22,5	80,0	81,5	80,0	0,790	0,760	0,650	2830					
PA6-15	15	11	400	24,7	81,0	82,5	81,0	0,800	0,760	0,670	2845		5,45	2,1	1,65	0,68
			380	25,0	82,0	83,0	81,0	0,825	0,780	0,690	2830					
PA6-17	17,5	13	400	29,3	82,0	83,0	81,0	0,790	0,750	0,690	2850		5,55	2,15	1,7	0,69
			380	29,7	81,0	82,0	81,5	0,810	0,770	0,700	2830					
PA6-20	20	15	400	33,0	83,0	84,0	83,0	0,800	0,750	0,680	2865		5,6	2,1	1,55	0,68
			380	33,5	83,5	84,5	83,0	0,820	0,765	0,700	2850					
PA6-25	25	18,5	400	41,0	83,0	83,0	81,0	0,800	0,750	0,690	2840		5,7	2,1	1,7	0,68
			380	41,5	82,5	83,0	81,0	0,820	0,765	0,715	2825					
PA6-30	30	22	400	49,0	83,0	85,0	83,0	0,810	0,760	0,680	2850	27 500	5,85	2,3	1,85	0,72
			380	49,5	83,0	85,0	83,0	0,830	0,775	0,700	2835					
PA6-35	35	26	400	57,5	83,0	85,0	83,0	0,790	0,720	0,640	2840		5,9	2,3	1,8	0,72
			380	58,5	83,0	85,0	83,0	0,810	0,740	0,680	2820					
PA6-40	40	30	400	66,2	84,0	85,5	83,5	0,790	0,730	0,620	2860		5,8	2,2	1,9	0,69
			380	66,5	84,0	85,0	83,5	0,820	0,750	0,650	2840					
PA6-50	50	37	400	80,0	85,0	86,5	85,0	0,800	0,755	0,640	2860		5,6	2,2	1,85	0,69
			380	80,5	85,5	86,0	85,0	0,825	0,775	0,660	2840					
PA6-60	60	45	400	98,0	83,5	84,0	83,0	0,800	0,740	0,650	2830		5,8	2,25	1,8	0,72
			380	98,5	83,5	84,5	82,5	0,820	0,760	0,670	2820					

Max. P_N
- per avviamento diretto: PA6≤ 22kW PA8≤ 52kW
- for D.O.L. starting: PA6≤ 22kW PA8≤ 52kW
- our démarrage direct: PA6≤ 22kW PA8≤ 52kW
- für direkt Start: PA6≤ 22kW PA8≤ 52kW
- por arranque directo: PA6≤ 22kW PA8≤ 52kW

- Installazione orizzontale: per motori 6” fino PA6-30, per motori 8” fino a PA8-70
- Horizontal installation: for 6” motors up to PA6-30, for 8” motors up to PA8-70
- Fonctionnement horizontal: pour moteurs 6” jusqu’au PA6-30, pour moteurs 8” jusqu’au PA8-70
- Horizontalefunktion: für 6” Motoren bis PA6-30 und für 8” Motoren bis PA8-70
- Instalación horizontal: para motor 6” hasta PA6-30, para motor 8” hasta PA8-70

P_N = Potenza nominale (meccanica) - Rated power (output) - Puissance nominale (mécanique) - Nennleistung (mechanische) - Potencia nominal (mecanica)
U_N = Tensione nominale - Rated voltage - Tension nominale - Nennspannung - Tension nominal
I_N = Corrente nominale - Rated current - Courant nominal - Nennstrom - Corriente nominal
cos φ = Fattore di potenza - Power factor - Facteur de puissance - Leistungfaktor - Factor de potencia
r.p.m. = Velocità nominale - r.p.m. - Vitesse nominale - Nenngeschwindigkeit - Velocidad nominal
F_{max} = Carico assiale - Thrust Axial load - Charge axial - Axialkraft - Carga axial
Is/In = Corrente avviamneto/Corrente nominale - Starting current/Rated current - Courant au démarrage/Courant nominale Anzugsstrom/Nennstrom - Corriente de arranque/Corriente nominal
Cs/Cn = Coppia avviamento/Coppia nominale - Starting torque/Rated torque - Couple de démarrage/Couple nominale Anzugsmoment/Nennmoment - Par de torsiòn de arranque/Par de torsiòn nominal

- Costruzione dei motori e relative tolleranze in conformità alle Norme: IEC EN 60034-1, IEC EN 60204-1, NEMA MG1 18.145-18.181
- Motors’ manufacture and relevant tolerances in conformity with IEC EN 60034 - 1 , IEC EN 60204 - 1 and NEMA MG1 18.145 - 18.181
- Fabrication des moteurs et relative tolérances en conformité avec Normes IEC EN 60034-1, IEC EN 60204-1 et Normes NEMA MG1 18.145-18.181
- Aufbau des Motoren und relative Toleranz nach dem Gesetz IEC EN 60034-1, IEC EN 60204-1 und NEMA MG1 18.145-18.181
- Construcción de los motores y sus tolerancias en conformidad con las Normas: IEC EN 60034-1, IEC EN 60204-1, NEMA MG1 18.145 -18.181

BIZZI & TEDESCHI

Serie PA8

Motori sommersi 6”-8” — 6”-8” Submersible motors — Moteurs immergés 6”-8” — Unterwassermotoren 6”-8” — Motores sumergibles 6”-8”

400-380V standard version
3PH Hz50 2 pol.

Dati prestazionali Motori 8” - Performance data 8” motors - Données de performance moteurs 8”
Leistungsdaten 8” Motoren - Datos de servicio motores 8”

Motore tipo / Motor type	P_N HP	P_N kW	U_N V	I_N Amp. 4/4	η% 4/4	η% 3/4	η% 2/4	cos φ 4/4	cos φ 3/4	cos φ 2/4	r.p.m. min^{-1}	F_{max} N	Avv. Diretto D.O.L. Starting Is/In	Avv. Diretto D.O.L. Starting Cs/Cn	Avviamento Y/Δ Y/Δ Starting Is/In	Avviamento Y/Δ Y/Δ Starting Cs/Cn
PA8-40	40	30	400	63,8	84,5	86,0	85,0	0,810	0,770	0,700	2910	45 000	5	1,8	1,9	0,6
			380	64,0	85,0	86,0	84,5	0,840	0,800	0,720	2900					
PA8-50	50	37	400	78,5	85,0	86,0	85,0	0,820	0,770	0,710	2915		5,3	1,85	1,95	0,61
			380	79,5	85,5	87,0	86,0	0,840	0,805	0,730	2900					
PA8-60	60	45	400	94,0	86,0	87,0	86,0	0,825	0,780	0,700	2920		5,7	1,7	2,0	0,58
			380	95,0	86,0	87,5	86,0	0,840	0,810	0,730	2910					
PA8-70	70	52	400	108,0	86,0	86,5	85,0	0,820	0,770	0,710	2910		5,8	1,8	2,1	0,6
			380	109,0	86,0	86,5	85,0	0,845	0,795	0,740	2900					
PA8-75	75	56	400	115,0	87,5	88,0	85,5	0,815	0,780	0,700	2925		6	1,8	2,0	0,6
			380	116,0	87,0	89,0	86,0	0,850	0,810	0,730	2915					
PA8-80	80	60	400	122,0	87,5	88,0	87,0	0,820	0,780	0,710	2910		6,2	1,9	2,1	0,62
			380	123,0	88,0	88,0	87,0	0,845	0,815	0,740	2900					
PA8-90	90	67	400	136,0	87,5	88,0	86,0	0,820	0,790	0,720	2910		6,1	2,0	1,95	0,65
			380	138,0	87,0	88,0	85,0	0,860	0,820	0,750	2900					
PA8-100	100	75	400	148,0	88,5	90,0	88,0	0,830	0,795	0,720	2915		6,1	2,1	2,1	0,68
			380	150,0	88,5	90,0	87,0	0,860	0,825	0,745	2905					
PA8-125	125	93	400	190,0	88,0	89,5	88,5	0,815	0,740	0,670	2930		6,2	2,0	2,0	0,65
			380	192,0	88,5	89,0	88,0	0,840	0,770	0,700	2920					
PA8-150	150	110	400	221,0	89,0	89,0	88,0	0,820	0,770	0,680	2910		6,1	2,0	2,1	0,65
			380	223,0	90,0	89,5	88,5	0,860	0,800	0,700	2900	55 000				
PA8-175	175	130	400	258,0	89,0	89,0	88,0	0,835	0,785	0,705	2900		5,9	1,9	2,0	0,63
			380	260,0	89,0	89,5	88,5	0,875	0,815	0,730	2890					

Max. temperatura acqua aspirata e condizioni di raffreddamento: vedi Tabelle 1 e 2 a pag. 8
Max. temperature of pumped water and cooling conditions: refer Tables 1 and 2 at page 8
Max. Temperatur für aspiriertes Wasser und Kühlungsbedingungen: siehe Tabellen 1 und 2 auf Seite 8
Max. température de l’eau aspirée et conditions de refroidissement: voir Tableaux 1 et 2 à la page 8
Max. temperatura del agua aspirada y condiciones de enfriamiento: ver tablas 1 y 2 de pag. 8

Max. variazione di tensione ammissibile riferita a 400V: +5%-8%
Max. allowable voltage variation referred to 400V: +5%-8%
Max. variation de tension admissible pour 400V: +5%-8%
Max. Spannungsänderung für 400V: +5%-8%
Máx. variación de tensión admisible referido a 400 V: +5%/-8%

VERIFICA DELLE CONDIZIONI DI RAFFREDDAMENTO MOTORE
CHECK OF THE MOTOR COOLING CONDITIONS

Formula per la verifica della portata minima atta a garantire un sufficiente raffreddamento

Formula to check the minimum discharge suitable to assure the minimum cooling conditions

$$Q \geq 2,83 \cdot 10^{-3} \cdot V_{c\,min} \cdot \left(Ø_1^2 - Ø_{mot}^2\right)$$

Formula per il calcolo del massimo diam. interno ($Ø_1$) della campana di induzione per garantire un sufficiente raffreddamento

Formula to calculate the max. internal diam. ($Ø_1$) of the flow inducer sleeve suitable to assure the minimum cooling conditions

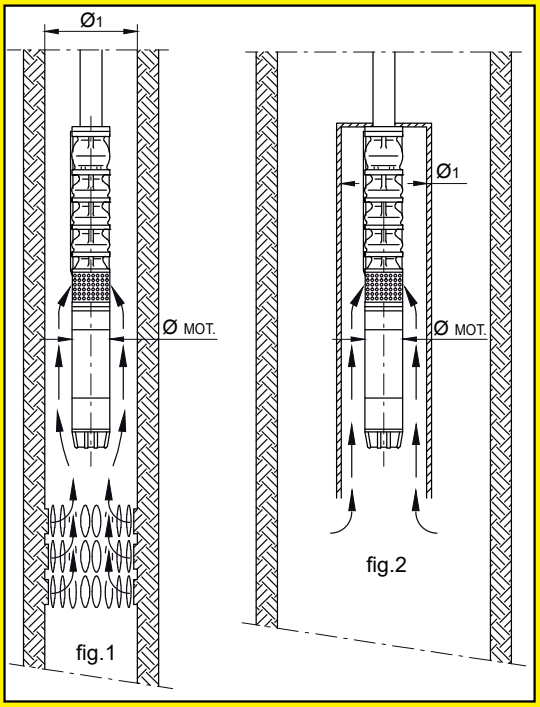
$$Ø_1 \leq \sqrt{\frac{353 \cdot Q}{V_{c\,min}} + Ø_{mot}^2}$$

Q [m³/h]=
- portata minima per soddisfare la condizione minima di raffreddamento
- minimum discharge suitable to satisfy the minimum cooling conditions

Vc [m/sec]=
- valore minimo ammissibile della velocità di circolazione acqua intorno al motore (come indicati in Tab. 1-2 a pag.8)
- minimum allowable value of the water flow speed around the motor (as indicate in Tab. 1-2 at pag.8)

$Ø_1$ [mm]=
- diametro interno del pozzo o della campana in prossimità del motore
- internal diam. of the well or of the flow inducer sleeve in proximity to the motor

$Ø_{mot}$ [mm]=
- diametro esterno del motore
- external motor diameter



versione standard “per ACQUA FREDDA”
standard version “for COLD WATER”

Tab.1

Motore tipo / Motor type	P_N		T_{max} H_2O 30°C Vc min	T_{max} H_2O 25°C Vc min	Filo avvolgimento isolato in winding wire insulation in Fil accouplement isolé en Isolierter Draht für Kupplung aus Hilo bobinado aislado en
	HP	kW	m/sec	m/sec	
PA6-5	5,5	4	0,15	0,08	PVC
PA6-7	7,5	5,5			
PA6-10	10	7,5			
PA6-12	12,5	9,3			
PA6-15	15	11			
PA6-17	17,5	13			
PA6-20	20	15			
PA6-25	25	18,5	0,25	0,15	
PA6-30	30	22			
PA6-35	35	26			
PA6-40	40	30	0,50	0,25	
PA6-50	50	37			
PA6-60	60	45	NO	0,50	
PA8-40	40	30	0,25	0,15	
PA8-50	50	37			
PA8-60	60	45			
PA8-70	70	52			
PA8-75	75	56			
PA8-80	80	60			
PA8-90	90	67			
PA8-100	100	75	0,50	0,25	
PA8-125	125	93			
PA8-150	150	110			PE2+PA
PA8-175	175	130	1,00	0,50	PE2+PA

- Per temperature acqua superiori (fino a 40°C) o condizioni di raffreddamento inferiori a quelle indicate in Tab.1 vedi curve Derating Tab.A,B,C,D
- For higher water temperatures (up to 40°C) or cooling conditions lower than those indicated in Tab.1 see Derating curves Tab.A,B,C,D
- Pour températures de l’eau supérieures (jusqu’au 40°C) ou condittions de refroidissement inférieures par rapport aux celles indiquées dans le Tab.1, voir courbes Derating Tab.A,B,C,D
- Für höhere Wassertemperatur (bis 40°C) oder bei niedrigeren Kühlungsbedingungen als in der Tab.1 gezeigt, siehe Derating Kurven Tab.A,B,C,D
- Para temperaturas agua superiores (hasta 40°C) o condiciones de enfriamiento inferiores aquellas indicadas en Tab.1: ver curvas Derating Tab.A,B,C,D

versione speciale “per ACQUA CALDA”
special version “for HOT WATER”

Tab.2

Motore tipo / Motor type (PE2+PA)	P_N		T_{max} H_2O 50°C Vc min	T_{max} H_2O 45°C Vc min	Filo avvolgimento isolato in winding wire insulation in Fil accouplement isolé en Isolierter Draht für Kupplung aus Hilo bobinado aislado en
	HP	kW	m/sec	m/sec	
PA6-5	5,5	4	0,25	0,15	PE2+PA
PA6-7	7,5	5,5			
PA6-10	10	7,5			
PA6-12	12,5	9,3			
PA6-15	15	11			
PA6-17	17,5	13			
PA6-20	20	15			
PA6-25	2 5	18,5	0,50	0,25	
PA6-30	30	22			
PA6-35	35	26			
PA6-40	40	30			
PA6-50	50	37			
PA6-60	60	45	NO		
PA8-40	40	30	0,25	0,15	
PA8-50	50	37			
PA8-60	60	45			
PA8-70	70	52			
PA8-75	75	56	0,50	0,25	PE2+PA
PA8-80	80	60			
PA8-90	90	67			
PA8-100	100	75			
PA8-125	125	93			
PA8-150	150	110	NO		
PA8-175	175	130	NO		

- Per temperature acqua superiori (fino a 60°C) o condizioni di raffreddamento inferiori a quelle indicate in Tab.2 vedi curve Derating Tab.E,F,G,H
- For higher water temperatures (up to 60°C) or cooling conditions lower than those indicated in Tab.2 see Derating curves Tab.E,F,G,H
- Pour températures de l’eau supérieures (jusqu’au 60°C) ou condittions de refroidissement inférieures par rapport aux celles indiquées dans le Tab.2, voir courbes Derating Tab.E,F,G,H
- Für höhere Wassertemperatur (bis 60°C) oder bei niedrigeren Kühlungsbedingungen als in der Tab.2 gezeigt, siehe Derating Kurven Tab.E,F,G,H
- Para temperaturas agua superiores (hasta 60°C) o condiciones de enfriamiento inferiores aquellas indicadas en Tab.2: ver curvas Derating Tab.E,F,G,H

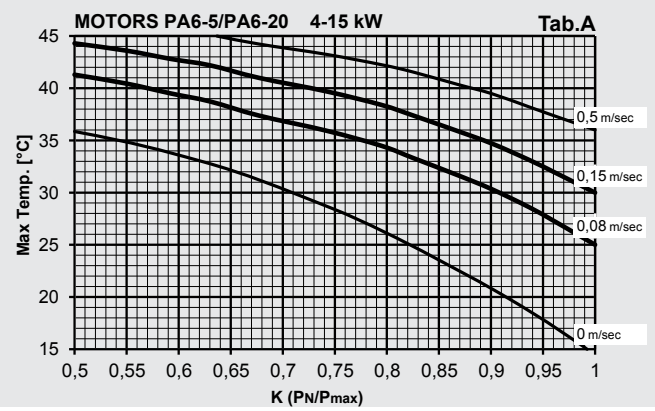
Vc min
= valore minimo ammesso della velocità dell’acqua intorno al motore (condizioni di raffreddamento minima)
= allowable minimum value of water flow speed around the motor (minimum cooling condition)
= valeur minimum admissible vitesse de l’eau autour de moteur (conditions de refridissement minimums)
= Zulässiger Mindestwert Wassergeschwindigkeit um den Motor (Minima Kühlungsbedingungen)
= Valor mínimo admisible velocidad del agua alrededor del motor (condicion de enfriamiento minima)

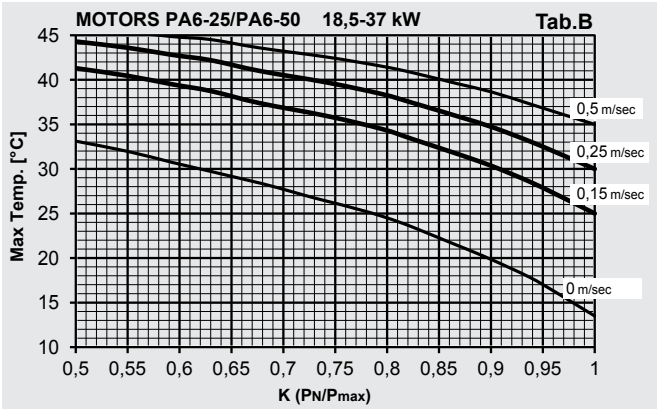
T_{max} H_2O
= temperatura massima ammissibile dell’acqua aspirata con Vc minimo indicato nelle tabelle
= maximum allowable pumped water with minimum Vc as per above tables
= maxima température admissible de l’eau aspirée avec Vc minimum indiqué dans les tableaux
= Maximum zulässigere Temperatur des aspiriertes Wasser mit minimum Vc als in der Tabellen gezeigt
= temperatura maxima admisible del agua aspirada con el valor Vc mínimo indicado en las tablas

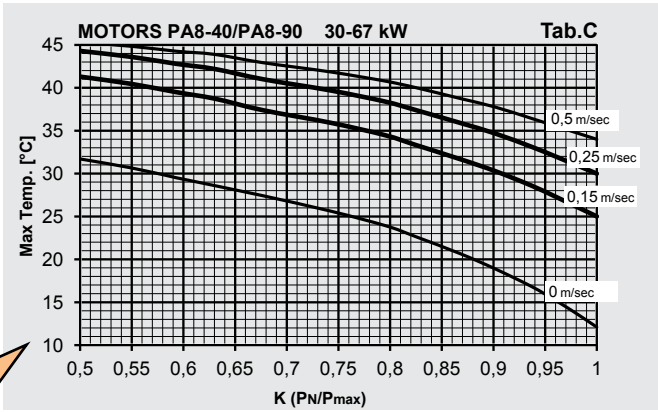
Esempio d’uso tabelle DERATING:
Temperatura Acqua= 37°C Vc=0,25m/sec
Max potenza meccanica assorbita dalla pompa=35kW
Dalla tab.C K=0,83
35kW/0,83=**42,2kW (potenza meccanica richiesta al motore)**
Motore scelto: PA8-60 potenza nominale 45kW

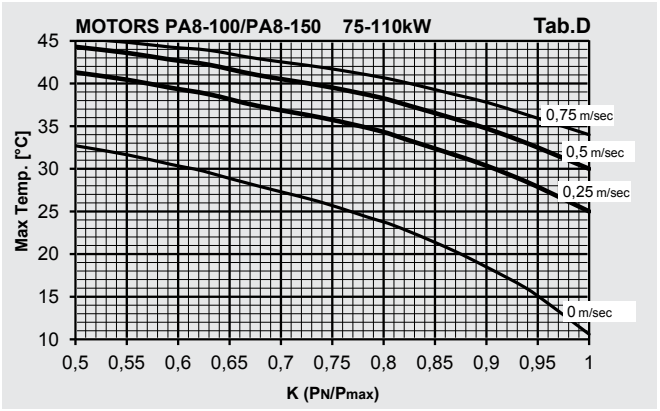
Example of use DERATING tables:
Water temperature= 37°C Vc= 0,25m/sec
Max pump input power= 35 kW
From tab.C K=0,83
35kW/0,83=**42,2 kW (required motor output)**
Selected motor: PA8-60 rated power 45kW

Tabelle DERATING per motori PA6-PA8 per “**ACQUA FREDDA**” (versione standard)
DERATING tables for PA6-PA8 motors “**COLD WATER**” (standard version)



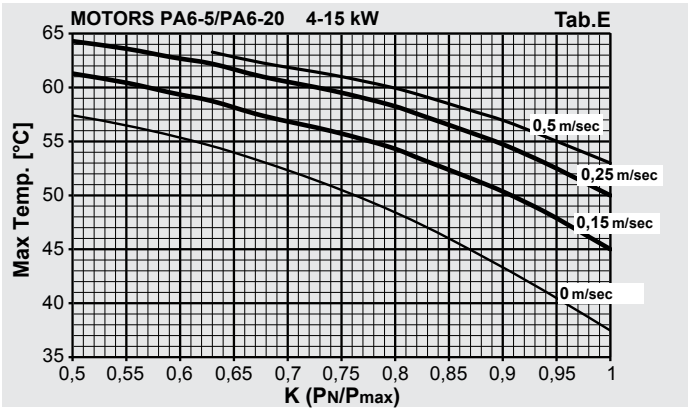


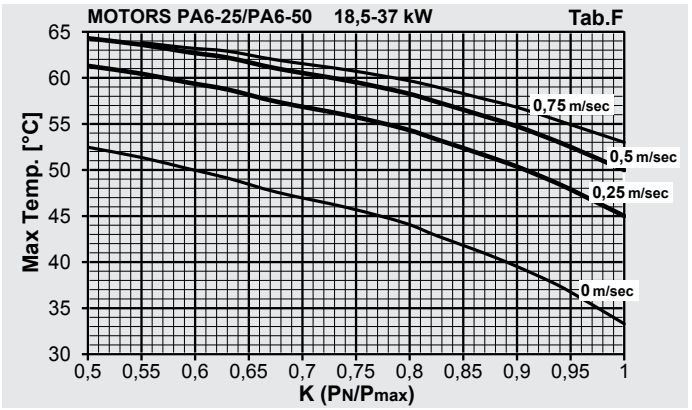


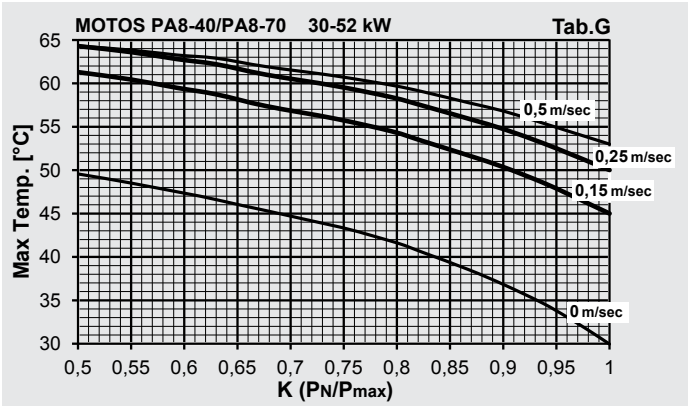


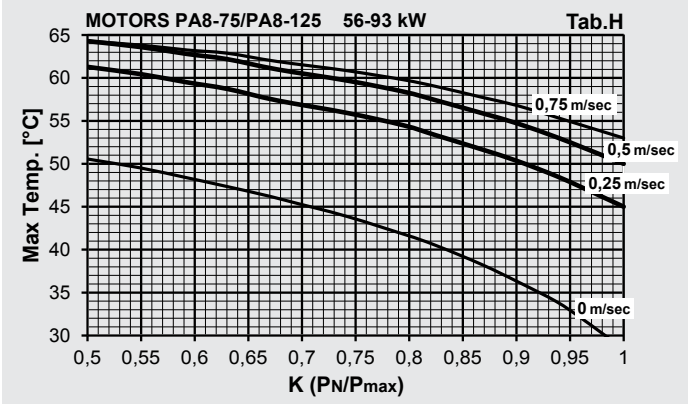
Motori per “**ACQUA FREDDA**”: DERATING possibile fino ad una temperatura massima dell’acqua aspirata di 40°C
Motors for “**COLD WATER**”: possible DERATING up to a maximum pumped water temperature of 40°C

Tabelle DERATING per motori PA6-PA8 per “**ACQUA CALDA**” (versione speciale)
DERATING tables for PA6-PA8 motors “**HOT WATER**” (special version)









Motori per “**ACQUA CALDA**”: DERATING possibile fino ad una temperatura massima dell’acqua aspirata di 60°C
Motors for “**HOT WATER**”: possible DERATING up to a maximum pumped water temperature of 60°C

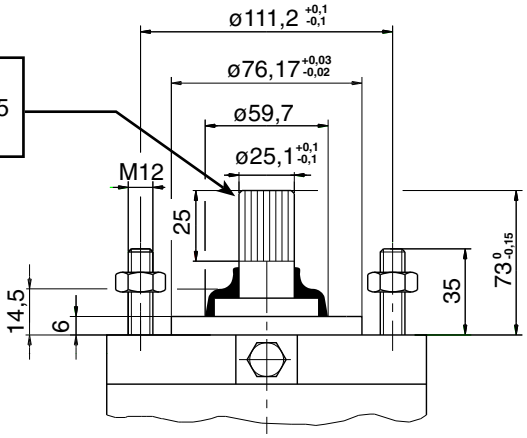
Ø nominale - Nominal Ø Ø nom. - Nennweite - Ø nom.	Motore tipo Motor type - Moteur type Motortyp - Motor tipo	P_N Potenza Nominale Rated Power Puissance Nominal Nennleistung Potencia Nominal		Dimensioni Dimensions Dimensions Abmessungen Dimensiones		Peso - Weight Poids - Gewicht - Peso	Cavo di uscita - Motor leads - Cable de sortie Motorleitung - Cable de salida				
							Sezione in mm² - Section in mm² Section en mm² - Querschnitt in mm² Secciòn en mm²				Lunghezza - Length Long. - Lange - Longit.
							Avviamento - Starting Démarrage - Einschaltung Arranque				
							Diretto - D.O.L. Direct - Direkt Directo		Y/Δ		
		HP	kW	A (mm)	L (mm)	Kg	400-380 V	230-220 V	400/690 V 380/660 V	230/400 V 220/380 V	m
6”	PA6-5	5,5	4	625	698	43	4 x (1 x 4)	4 x (1 x 4)	7 x (1 x 4)	7 x (1 x 4)	3,5
	PA6-7	7,5	5,5	625	698	44					
	PA6-10	10	7,5	660	733	47					
	PA6-12	12,5	9,3	700	773	52		4 x (1 x 6)			
	PA6-15	15	11	755	828	57					
	PA6-17	17,5	13	795	868	61					
	PA6-20	20	15	845	918	67					
	PA6-25	25	18,5	885	958	71	4 x (1 x 6)	4 x (1 x 10)		7 x (1 x 6)	4,0
	PA6-30	30	22	965	1038	80					
	PA6-35	35	26	1025	1098	86			7 x (1 x 6)		
	PA6-40	40	30	1115	1188	94					
	PA6-50	50	37	1215	1288	106	4 x (1 x 10)	-		7 x (1 x 10)	
	PA6-60	60	45	1395	1468	129			7 x (1 x 10)	-	5,5

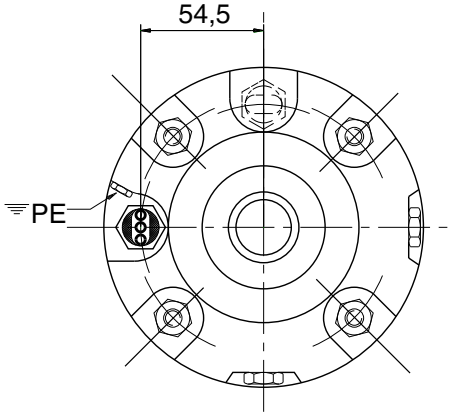
MOTORE - MOTOR - MOTEUR 6”

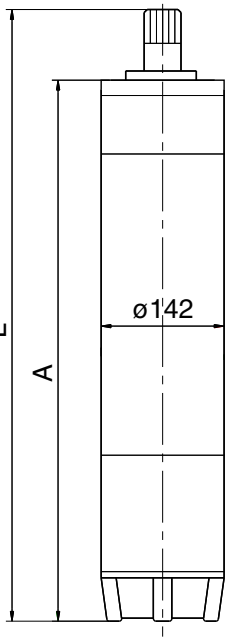
Flangia di accoppiamento motore conforme alle norme Nema
Motor coupling according Nema standards

PA6

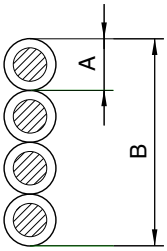
Splined shaft : 15 teeth, 16/32 pitch, 30° pressure angle, tolerance class 5 in accordance with ANSI B92.1







mm²	A	B
4 x (1 x 4)	7,0	28,0
4 x (1 x 6)	7,4	29,6
4 x (1 x 10)	8,8	35,2



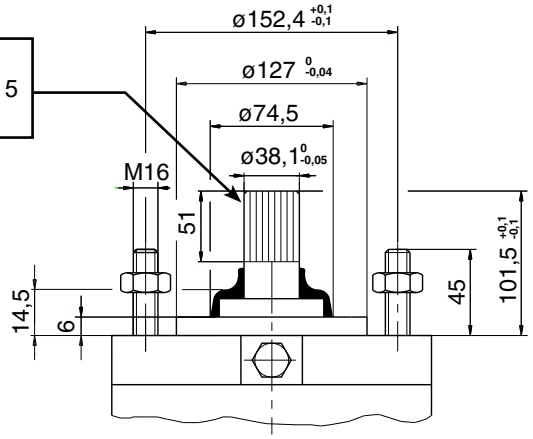
Ø nominale - Nominal Ø Ø nom. - Nennweite - Ø nom.	Motore tipo Motor type - Moteur type Motortyp - Motor tipo	P_N Potenza Nominale Rated Power Puissance Nominal Nennleistung Potencia Nominal		Dimensioni Dimensions Dimensions Abmessungen Dimensiones		Peso - Weight Poids - Gewicht - Peso	Cavo di uscita - Motor leads - Cable de sortie Motorleitung - Cable de salida				
							Sezione in mm² - Section in mm² Section en mm² - Querschnitt in mm² Secciòn en mm²				Lunghezza - Length Long. - Lange - Longit.
							Avviamento - Starting Démarrage - Einschaltung Arranque				
							Diretto - D.O.L. Direct - Direkt Directo		Y/Δ		
		HP	kW	A (mm)	L (mm)	Kg	400-380 V	230-220 V	400/690 V 380/660 V	230/400 V 220/380 V	m
8”	PA8-40	40	30	970	1072	133	4 x (1 x 10)	4 x (1 x 10)	7 x (1 x 10)	7 x (1 x 10)	5
	PA8-50	50	37	1060	1162	154		4 x (1 x 16)			
	PA8-60	60	45	1140	1242	166					
	PA8-70	70	52	1230	1332	184	4 x (1 x 16)	4 x (1 x 25)		7 x (1 x 16)	
	PA8-75	75	56	1280	1382	197					
	PA8-80	80	60	1350	1452	208					
	PA8-90	90	67	1450	1552	218					
	PA8-100	100	75	1510	1612	229	4 x (1 x 25)			7 x (1 x 25)	
	PA8-125	125	93	1750	1852	279		-	7 x (1 x 16)		6,5
	PA8-150	150	110	1812	1914	289	-		7 x (1 x 25)	-	
	PA8-175	175	130	1846	1948	295					

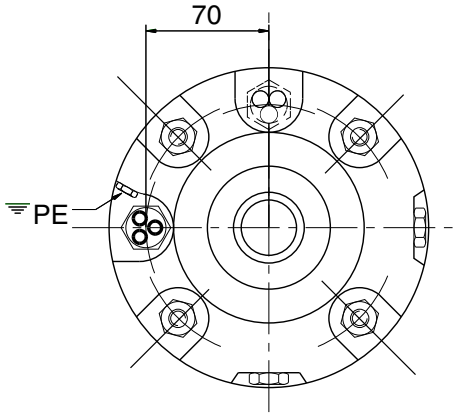
MOTORE - MOTOR - MOTEUR 8”

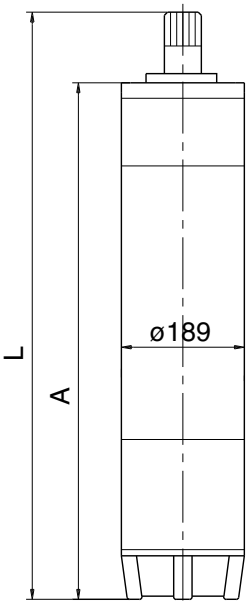
Flangia di accoppiamento motore conforme alle norme Nema
Motor coupling according Nema standards

PA8

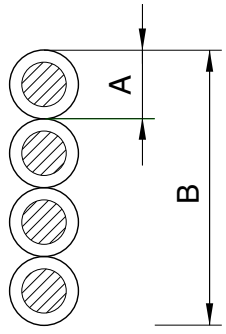
Splined shaft : 23 teeth, 16/32 pitch, 30° pressure angle, tolerance class 5 in accordance with ANSI B92.1







mm²	A	B
4 x (1 x 10)	9,0	36,0
4 x (1 x 16)	11,0	44,0
4 x (1 x 25)	12,2	48,8



230-220V special version
3PH Hz50 2 pol.

Dati prestazionali Motori 6”-8” - Performance data 6”-8” motors - Données de performance moteurs 6”-8”
Leistungsdaten 6”-8” Motoren - Datos de servicio motores 6”-8”

Motore tipo / Motor type	P_N HP	P_N kW	U_N V	I_N A 4/4	η% 4/4	η% 3/4	η% 2/4	cos φ 4/4	cos φ 3/4	cos φ 2/4	r.p.m. min^{-1}	F_{max} N
PA6-5	5,5	4	**230**	17,1	77,0	78,0	77,0	0,770	0,730	0,600	2840	16 500
			220	17,3	77,0	78,0	77,0	0,800	0,750	0,620	2830	
PA6-7	7,5	5,5	**230**	23,9	76,5	79,0	77,0	0,760	0,720	0,610	2850	
			220	23,4	78,5	80,0	78,0	0,790	0,740	0,630	2835	
PA6-10	10	7,5	**230**	30,1	79,0	81,0	78,5	0,790	0,740	0,620	2850	
			220	30,8	78,0	79,5	78,0	0,800	0,750	0,630	2830	
PA6-12	12,5	9,3	**230**	38,3	80,5	82,0	80,0	0,770	0,745	0,635	2845	
			220	39,0	80,0	81,5	80,0	0,790	0,760	0,650	2830	
PA6-15	15	11	**230**	42,8	81,0	82,5	81,0	0,800	0,760	0,670	2845	
			220	43,3	82,0	83,0	81,0	0,825	0,780	0,690	2830	
PA6-17	17,5	13	**230**	50,7	82,0	83,0	81,0	0,790	0,750	0,690	2850	
			220	51,4	81,0	82,0	81,5	0,810	0,770	0,700	2830	
PA6-20	20	15	**230**	57,2	83,0	84,0	83,0	0,800	0,750	0,680	2865	
			220	58,0	83,5	84,5	83,0	0,820	0,765	0,700	2850	
PA6-25	25	18,5	**230**	71,0	83,0	83,0	81,0	0,800	0,750	0,690	2840	
			220	71,9	82,5	83,0	81,0	0,820	0,765	0,715	2825	
PA6-30	30	22	**230**	85,0	83,0	85,0	83,0	0,810	0,760	0,680	2850	27 500
			220	85,7	83,0	85,0	83,0	0,830	0,775	0,700	2835	
PA6-35	35	26	**230**	99,6	83,0	85,0	83,0	0,790	0,720	0,640	2840	
			220	101,3	83,0	85,0	83,0	0,810	0,740	0,680	2820	
PA6-40	40	30	**230**	115	84,0	85,5	83,5	0,790	0,730	0,620	2860	
			220	115	84,0	85,0	83,5	0,820	0,750	0,650	2840	
PA6-50	50	37	**230**	139	84,5	85,0	83,5	0,800	0,755	0,640	2830	
			220	140	84,0	85,0	83,0	0,825	0,775	0,660	2840	
PA8-40	40	30	**230**	110,5	84,5	86,0	85,0	0,810	0,770	0,700	2910	45 000
			220	111,0	85,0	86,0	84,5	0,840	0,800	0,720	2900	
PA8-50	50	37	**230**	136,0	85,0	86,0	85,0	0,820	0,770	0,710	2915	
			220	137,7	85,5	87,0	86,0	0,840	0,805	0,730	2900	
PA8-60	60	45	**230**	162,8	86,0	87,0	86,0	0,825	0,780	0,700	2920	
			220	164,5	86,0	87,5	86,0	0,840	0,810	0,730	2910	
PA8-70	70	52	**230**	187,0	86,0	86,5	85,0	0,820	0,770	0,710	2910	
			220	189,0	86,0	86,5	85,0	0,845	0,795	0,740	2900	
PA8-75	75	56	**230**	199,0	87,5	88,0	85,5	0,815	0,780	0,700	2925	
			220	201,0	87,0	89,0	86,0	0,850	0,810	0,730	2915	
PA8-80	80	60	**230**	211,0	87,5	88,0	87,0	0,820	0,780	0,710	2910	
			220	213,0	88,0	88,0	87,0	0,845	0,815	0,740	2900	
PA8-90	90	67	**230**	235,5	87,5	88,0	86,0	0,820	0,790	0,720	2910	
			220	239,0	87,0	88,0	85,0	0,860	0,820	0,750	2900	
PA8-100	100	75	**230**	256,0	88,5	90,0	88,0	0,830	0,795	0,720	2915	
			220	260,0	88,5	90,0	87,0	0,860	0,825	0,745	2905	

Temperatura acqua aspirata, condizioni di raffreddamento e Derating sono gli stessi indicati nelle tabelle a pag. 8 e 9
Pumped water temperature, cooling conditions and Derating are the same as indicated on tables at page 8-9
Température de l’eau aspirée, conditions de refroidissement et Derating sont les mêmes indiquées dans les Tableaux à la page 8 et 9
Temperatur des aspiriertes Wasser, Kühlungsbedingungen und Derating sind die Selben wie in der Tabelle auf Seite 8 und 9 gezeigt
Temperatura del agua, condiciones de enfriamiento y Derating son los mismos de los indicados en las tablas a pag. 8 y 9

415V special version
3PH Hz50 2 pol.

Dati prestazionali Motori 6”-8” - Performance data 6”-8” motors - Données de performance moteurs 6”-8”
Leistungsdaten 6”-8” Motoren - Datos de servicio motores 6”-8”

Motore tipo / Motor type	P_N		U_N	I_N	η%			cos φ			r.p.m.	F_{max}
	HP	kW	V	A 4/4	η% 4/4	η% 3/4	η% 2/4	cos φ 4/4	cos φ 3/4	cos φ 2/4	min^{-1}	N
PA6-5	5,5	4	**415**	9,5	77,0	78,0	77,0	0,770	0,730	0,600	2840	16 500
PA6-7	7,5	5,5	**415**	13,3	76,5	79,0	77,0	0,760	0,720	0,610	2850	
PA6-10	10	7,5	**415**	16,8	79,0	81,0	78,5	0,790	0,740	0,620	2850	
PA6-12	12,5	9,3	**415**	21,3	80,5	82,0	80,0	0,770	0,745	0,635	2845	
PA6-15	15	11	**415**	23,8	81,0	82,5	81,0	0,800	0,760	0,670	2845	
PA6-17	17,5	13	**415**	28,2	82,0	83,0	81,0	0,790	0,750	0,690	2850	
PA6-20	20	15	**415**	31,8	83,0	84,0	83,0	0,800	0,750	0,680	2865	
PA6-25	25	18,5	**415**	39,5	83,0	83,0	81,0	0,800	0,750	0,690	2840	
PA6-30	30	22	**415**	47,2	83,0	85,0	83,0	0,810	0,760	0,680	2850	27 500
PA6-35	35	26	**415**	55,4	83,0	85,0	83,0	0,790	0,720	0,640	2840	
PA6-40	40	30	**415**	63,8	84,0	85,5	83,5	0,790	0,730	0,620	2860	
PA6-50	50	37	**415**	77,1	85,0	86,5	85,0	0,800	0,755	0,640	2860	
PA6-60	60	45	**415**	94,5	83,5	84,0	83,0	0,800	0,740	0,650	2830	
PA8-40	40	30	**415**	61,5	84,5	86,0	85,0	0,810	0,770	0,700	2910	45 000
PA8-50	50	37	**415**	75,7	85,0	86,0	85,0	0,820	0,770	0,710	2915	
PA8-60	60	45	**415**	90,6	86,0	87,0	86,0	0,825	0,780	0,700	2920	
PA8-70	70	52	**415**	104,1	86,0	86,5	85,0	0,820	0,770	0,710	2910	
PA8-75	75	56	**415**	110,8	87,5	88,0	85,5	0,815	0,780	0,700	2925	
PA8-80	80	60	**415**	117,6	87,5	88,0	87,0	0,820	0,780	0,710	2910	
PA8-90	90	67	**415**	131,1	87,5	88,0	86,0	0,820	0,790	0,720	2910	
PA8-100	100	75	**415**	142,7	88,5	90,0	88,0	0,830	0,795	0,720	2915	
PA8-125	125	93	**415**	183,1	88,0	89,5	88,5	0,815	0,740	0,670	2930	
PA8-150	150	110	**415**	213,0	89,0	89,0	88,0	0,820	0,770	0,680	2910	55 000
PA8-175	175	130	**415**	250,0	89,0	89,0	88,0	0,835	0,785	0,705	2900	

Temperatura acqua aspirata, condizioni di raffreddamento e Derating sono gli stessi indicati nelle tabelle a pag. 8 e 9
Pumped water temperature, cooling conditions and Derating are the same as indicated on tables at page 8-9
Température de l’eau aspirée, conditions de refroidissement et Derating sont les mêmes indiquées dans les Tableaux à la page 8 et 9
Temperatur des aspiriertes Wasser, Kühlungsbedingungen und Derating sind die Selben wie in der Tabelle auf Seite 8 und 9 gezeigt
Temperatura del agua, condiciones de enfriamiento y Derating son los mismos de los indicados en las tablas a pag. 8 y 9

500-525V special version
3PH Hz50 2 pol.

Dati prestazionali Motori 6”-8” - Performance data 6”-8” motors - Données de performance moteurs 6”-8”
Leistungsdaten 6”-8” Motoren - Datos de servicio motores 6”-8”

Motore tipo / Motor type	P_N HP	P_N kW	U_N V	I_N A 4/4	η% 4/4	η% 3/4	η% 2/4	cos φ 4/4	cos φ 3/4	cos φ 2/4	r.p.m. min^{-1}	F_{max} N
PA6-5	5,5	4	**525**	7,5	77,0	78,0	77,0	0,770	0,730	0,600	2840	16 500
			500	7,6	77,0	78,0	77,0	0,800	0,750	0,620	2830	
PA6-7	7,5	5,5	**525**	10,5	76,5	79,0	77,0	0,760	0,720	0,610	2850	
			500	10,3	78,5	80,0	78,0	0,790	0,740	0,630	2835	
PA6-10	10	7,5	**525**	13,3	79,0	81,0	78,5	0,790	0,740	0,620	2850	
			500	13,5	78,0	79,5	78,0	0,800	0,750	0,630	2830	
PA6-12	12,5	9,3	**525**	16,8	80,5	82,0	80,0	0,770	0,745	0,635	2845	
			500	17,1	80,0	81,5	80,0	0,790	0,760	0,650	2830	
PA6-15	15	11	**525**	18,8	81,0	82,5	81,0	0,800	0,760	0,670	2845	
			500	19,0	82,0	83,0	81,0	0,825	0,780	0,690	2830	
PA6-17	17,5	13	**525**	22,3	82,0	83,0	81,0	0,790	0,750	0,690	2850	
			500	22,6	81,0	82,0	81,5	0,810	0,770	0,700	2830	
PA6-20	20	15	**525**	25,1	83,0	84,0	83,0	0,800	0,750	0,680	2865	
			500	25,5	83,5	84,5	83,0	0,820	0,765	0,700	2850	
PA6-25	25	18,5	**525**	31,2	83,0	83,0	81,0	0,800	0,750	0,690	2840	
			500	31,5	82,5	83,0	81,0	0,820	0,765	0,715	2825	
PA6-30	30	22	**525**	37,3	83,0	85,0	83,0	0,810	0,760	0,680	2850	27 500
			500	37,6	83,0	85,0	83,0	0,830	0,775	0,700	2835	
PA6-35	35	26	**525**	43,8	83,0	85,0	83,0	0,790	0,720	0,640	2840	
			500	44,5	83,0	85,0	83,0	0,810	0,740	0,680	2820	
PA6-40	40	30	**525**	50,4	84,0	85,5	83,5	0,790	0,730	0,620	2860	
			500	50,5	84,0	85,0	83,5	0,820	0,750	0,650	2840	
PA6-50	50	37	**525**	61,0	85,0	86,5	85,0	0,800	0,755	0,640	2860	
			500	61,2	85,5	86,0	85,0	0,825	0,775	0,660	2840	
PA6-60	60	45	**525**	74,7	83,5	84,0	83,0	0,800	0,740	0,650	2830	
			500	74,9	83,5	84,5	82,5	0,820	0,760	0,670	2820	
PA8-40	40	30	**525**	48,6	84,5	86,0	85,0	0,810	0,770	0,700	2910	45 000
			500	48,6	85,0	86,0	84,5	0,840	0,800	0,720	2900	
PA8-50	50	37	**525**	59,8	85,0	86,0	85,0	0,820	0,770	0,710	2915	
			500	60,4	85,5	87,0	86,0	0,840	0,805	0,730	2900	
PA8-60	60	45	**525**	71,6	86,0	87,0	86,0	0,825	0,780	0,700	2920	
			500	72,2	86,0	87,5	86,0	0,840	0,810	0,730	2910	
PA8-70	70	52	**525**	82,3	86,0	86,5	85,0	0,820	0,770	0,710	2910	
			500	82,8	86,0	86,5	85,0	0,845	0,795	0,740	2900	
PA8-75	75	56	**525**	87,6	87,5	88,0	85,5	0,815	0,780	0,700	2925	
			500	88,2	87,0	89,0	86,0	0,850	0,810	0,730	2915	
PA8-80	80	60	**525**	93,0	87,5	88,0	87,0	0,820	0,780	0,710	2910	
			500	93,5	88,0	88,0	87,0	0,845	0,815	0,740	2900	
PA8-90	90	67	**525**	103,6	87,5	88,0	86,0	0,820	0,790	0,720	2910	
			500	104,9	87,0	88,0	85,0	0,860	0,820	0,750	2900	
PA8-100	100	75	**525**	112,8	88,5	90,0	88,0	0,830	0,795	0,720	2915	
			500	114,0	88,5	90,0	87,0	0,860	0,825	0,745	2905	
PA8-125	125	93	**525**	144,8	88,0	89,5	88,5	0,815	0,740	0,670	2930	
			500	145,9	88,5	89,0	88,0	0,840	0,770	0,700	2920	
PA8-150	150	110	**525**	168,4	89,0	89,0	88,0	0,820	0,770	0,680	2910	55 000
			500	169,5	90,0	89,5	88,5	0,860	0,800	0,700	2900	
PA8-175	175	130	**525**	196,5	89,0	89,0	88,0	0,835	0,785	0,705	2900	
			500	197,6	89,0	89,5	88,5	0,875	0,815	0,730	2890	

Temperatura acqua aspirata, condizioni di raffreddamento e Derating sono gli stessi indicati nelle tabelle a pag. 8 e 9
Pumped water temperature, cooling conditions and Derating are the same as indicated on tables at page 8-9
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Temperatur des aspiriertes Wasser, Kühlungsbedingungen und Derating sind die Selben wie in der Tabelle auf Seite 8 und 9 gezeigt
Temperatura del agua, condiciones de enfriamiento y Derating son los mismos de los indicados en las tablas a pag. 8 y 9