

Main motors

Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 132 – Forced ventilation

Dimensional drawings

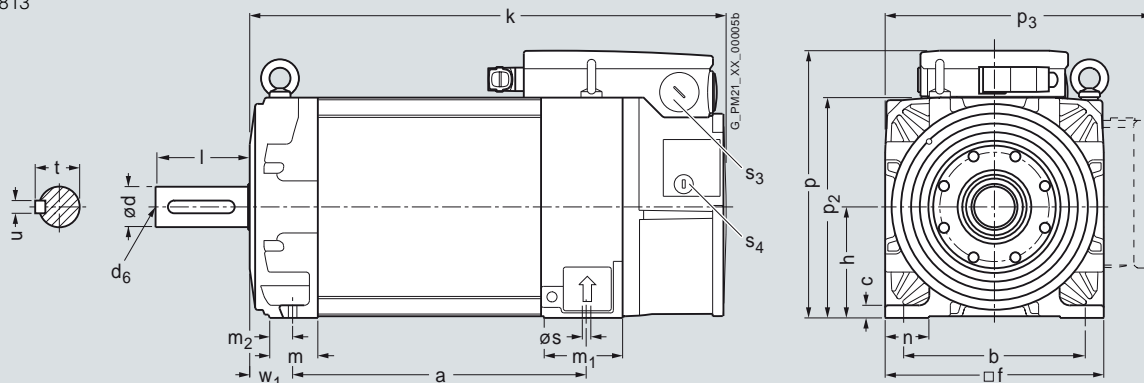
For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC B	a	a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	m BA	m ₁ –	m ₂ –	n AA	
1PH8, type of construction IM B3, forced ventilation																		
132	1PH8131	220.5 (8.68)	–	216 (8.50)	–	15 (0.59)	–	–	–	260 (10.24)	–	132 (5.20)	439 (17.28)	57 (2.24)	93 (3.66)	27 (1.06)	52 (2.05)	
	1PH8133	265.5 (10.45)											484 (19.06)					
	1PH8135	310.5 (12.22)											529 (20.83)					
	1PH8137	350.5 (13.80)											569 (22.40)					

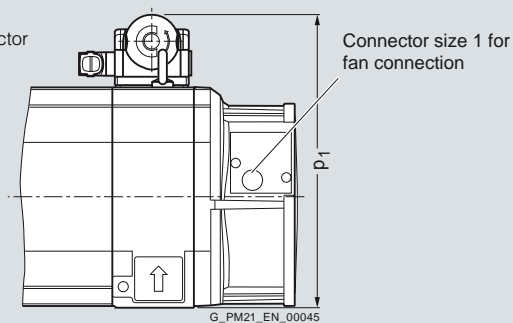
5

Shaft height	Type	DIN IEC HD	Shaft extension DE										d D	d ₆ –	l E	t GA	u F
			p ₁ –	p ₂ –	p ₃ –	s K	s ₂ –	s ₃ –	s ₄ –	w ₁ C							
132	1PH8131	317.5 (12.50)	347 (13.66)	262 (10.31)	357.5 (14.07)	12 (0.47)	–	M40 × 1.5	M20 × 1.5	53 (2.09)	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)		
	1PH8133																
	1PH8135																
	1PH8137																

1PH813



Variant with
power connector
size 3



Main motors

Dimensional drawings

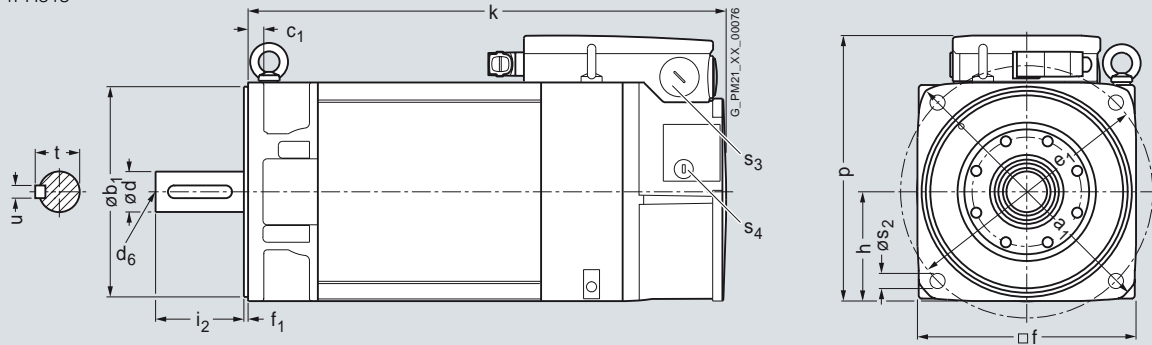
1PH8 asynchronous and synchronous motors Shaft height 132 – Forced ventilation

Dimensional drawings

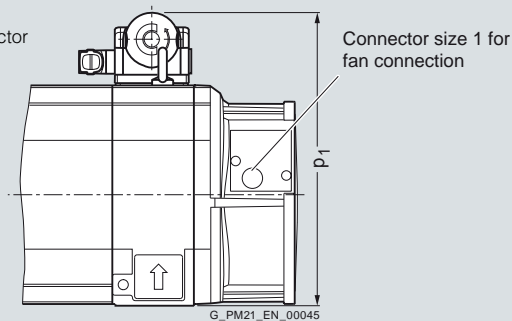
For motor		Dimensions in mm (inches)														
Shaft height	Type	DIN IEC B	a P	a ₁ A	b N	b ₁ HA	c LA	c ₁ M	e AB	f T	f ₁ H	h LB	k BA	m ₁	m ₂	n AA
1PH8, type of construction IM B5, forced ventilation																
132	1PH8131	-	340 (13.39)	-	250 (9.84)	-	18 (0.71)	300 (11.81)	260 (10.24)	5 (0.20)	130 (5.12)	439 (17.28)	-	-	-	-
	1PH8133											484 (19.06)				
	1PH8135											529 (20.83)				
	1PH8137											569 (22.40)				

Shaft height	Type	DIN IEC HD	p	Shaft extension DE										d D	d ₆	i ₂ E	t GA	u F
				p ₁	p ₂	p ₃	s K	s ₂	s ₃	s ₄	w ₁ C							
132	1PH8131	315.5 (12.42)	345 (13.58)	-	-	-	-	18 (0.71)	M40 × 1.5	M20 × 1.5	-	-	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)	
	1PH8133																	
	1PH8135																	
	1PH8137																	

1PH813



Variant with power connector size 3



Main motors

Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 132 – Forced ventilation

Dimensional drawings

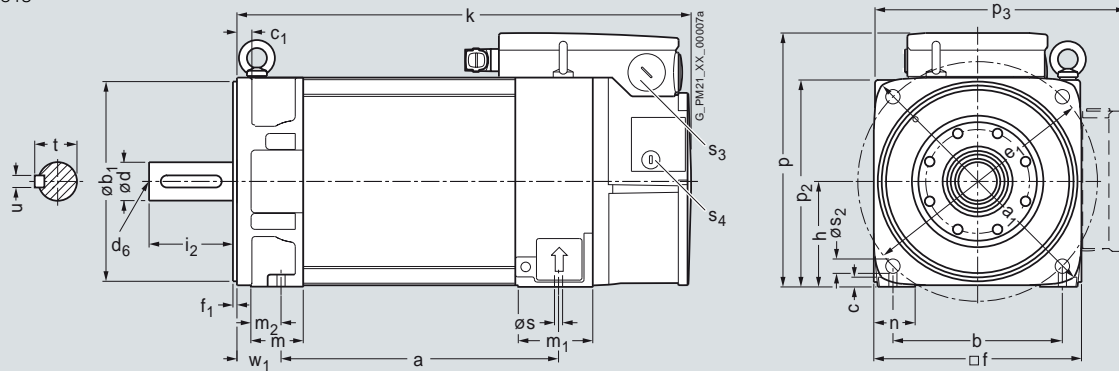
For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC B	a	a ₁	b	b ₁	c	c ₁	e ₁	f	f ₁	h	k	m	m ₁	m ₂	n	
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
1PH8, type of construction IM B35, forced ventilation																		
132	1PH8131		220.5 (8.68)	340 (13.39)	216 (8.50)	250 (9.84)	15 (0.59)	18 (0.71)	300 (11.81)	260 (10.24)	5 (0.20)	132 (5.20)	439 (17.28)	65 (2.56)	93 (3.66)	35 (1.38)	52 (2.05)	
	1PH8133		265.5 (10.45)										484 (19.06)					
	1PH8135		310.5 (12.22)										529 (20.83)					
	1PH8137		350.5 (13.80)										569 (22.40)					

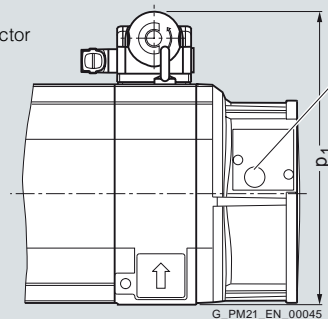
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Shaft height	Type	DIN IEC	Shaft extension DE													
			p HD	p ₁	p ₂	p ₃	s K	s ₂	s ₃	s ₄	w ₁ C	d D	d ₆	i ₂ E _h	t GA	u F
132	1PH8131		317.5 (12.50)	347 (13.66)	262 (10.31)	357.5 (14.07)	12 (0.47)	18 (0.71)	M40 × 1.5	M20 × 1.5	53 (2.09)	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)
	1PH8133															
	1PH8135															
	1PH8137															

1PH813



Variant with
power connector
size 3



Connector size 1 for
fan connection

G_PM21_EN_00045

Main motors

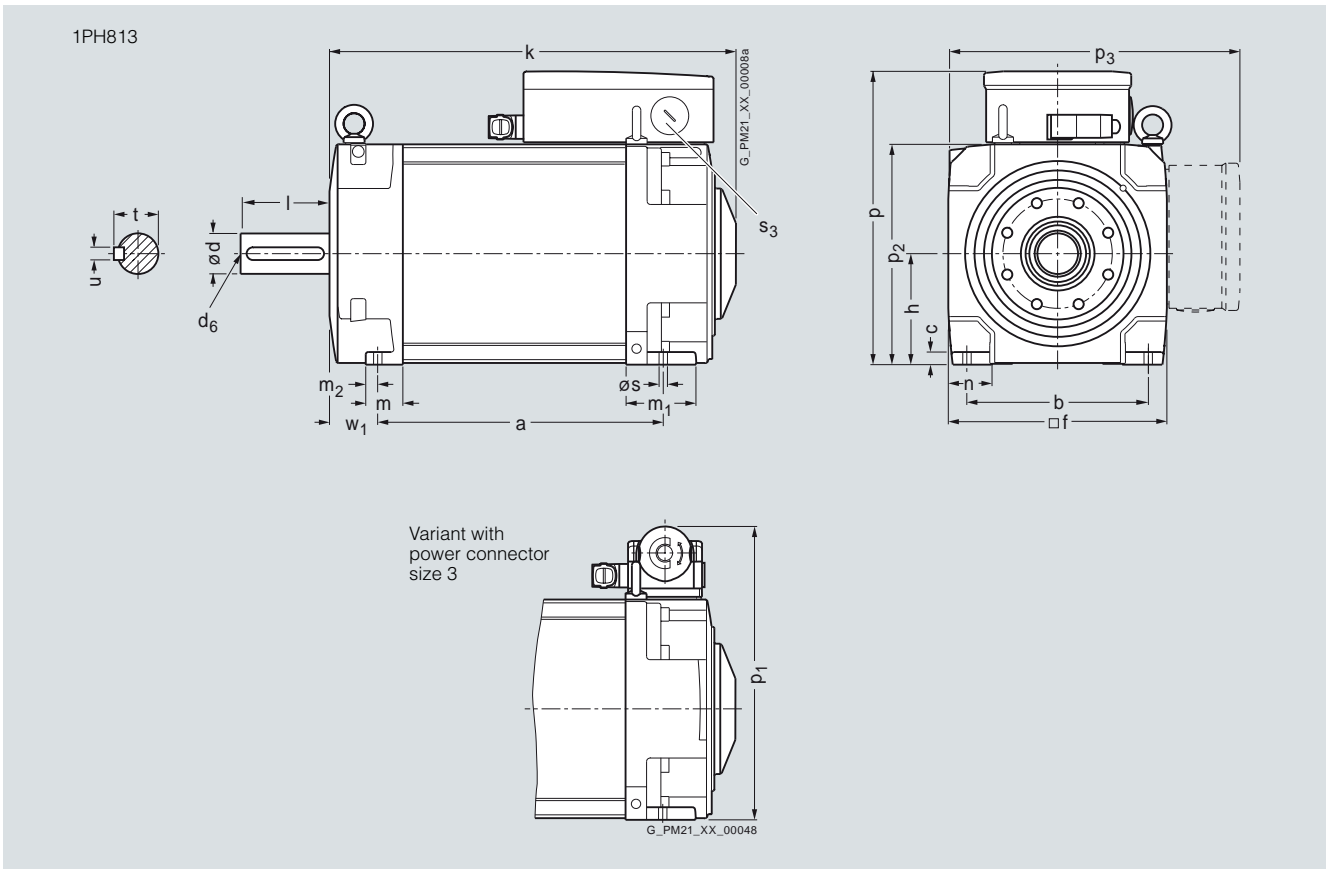
Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 132 – Water cooling

Dimensional drawings

For motor		Dimensions in mm (inches)																
Shaft height	Type	DIN IEC B	a	a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	m BA	m ₁ –	m ₂ –	n AA	
1PH8, type of construction IM B3, water cooling																		
132	1PH8131	220.5 (8.68)	–	216 (8.50)	–	15 (0.59)	–	–	260 (10.24)	–	132 (5.20)	347.5 (13.68)	42 (1.65)	81 (3.19)	12 (0.47)	43 (1.69)		
	1PH8133	265.5 (10.45)											392.5 (15.45)					
	1PH8135	310.5 (12.22)											437.5 (17.22)					
	1PH8137	350.5 (13.80)											477.5 (18.80)					

Shaft height	Type	DIN IEC HD	Shaft extension DE						w ₁ C	Shaft extension DE				
			p ₁ –	p ₂ –	p ₃ –	s K	s ₂ –	s ₃ –		d D	d ₆ –	l E	t GA	u F
132	1PH8131	347.5 (13.68)	347 (13.66)	262 (10.31)	357.5 (14.07)	12 (0.47)	–	M50 x 1.5	53 (2.09)	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)
	1PH8133													
	1PH8135													
	1PH8137													



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Main motors

Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 132 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC B	a P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	m BA	m ₁	m ₂	n AA
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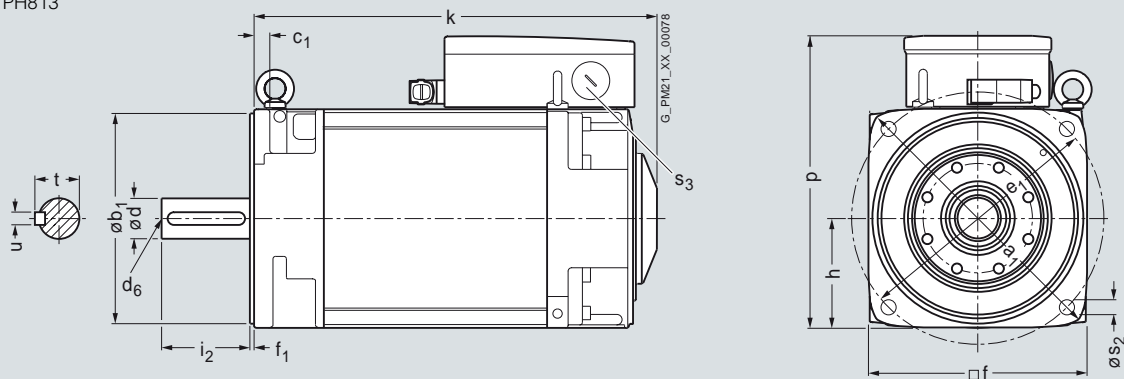
1PH8, type of construction IM B5, water cooling

132	1PH8131	-	340 (13.39)	-	250 (9.84)	-	18 (0.71)	300 (11.81)	260 (10.24)	5 (0.20)	132 (5.20)	347.5 (13.68)	-	-	-	-
	1PH8133											392.5 (15.45)				
	1PH8135											437.5 (17.22)				
	1PH8137											477.5 (18.80)				

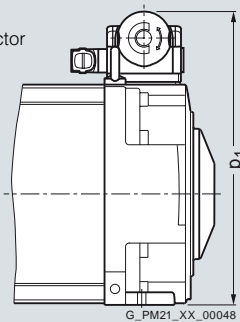
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Shaft height	Type	DIN IEC HD	p	p ₁	p ₂	p ₃	s K	s ₂	s ₃	w ₁ C	Shaft extension DE				
											d D	d ₆	i ₂ E	t GA	u F
132	1PH8131		345.5 (13.60)	345 (13.58)	-	-	-	18 (0.71)	M50 x 1.5	-	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)
	1PH8133														
	1PH8135														
	1PH8137														

1PH813



Variant with
power connector
size 3



Main motors

Dimensional drawings

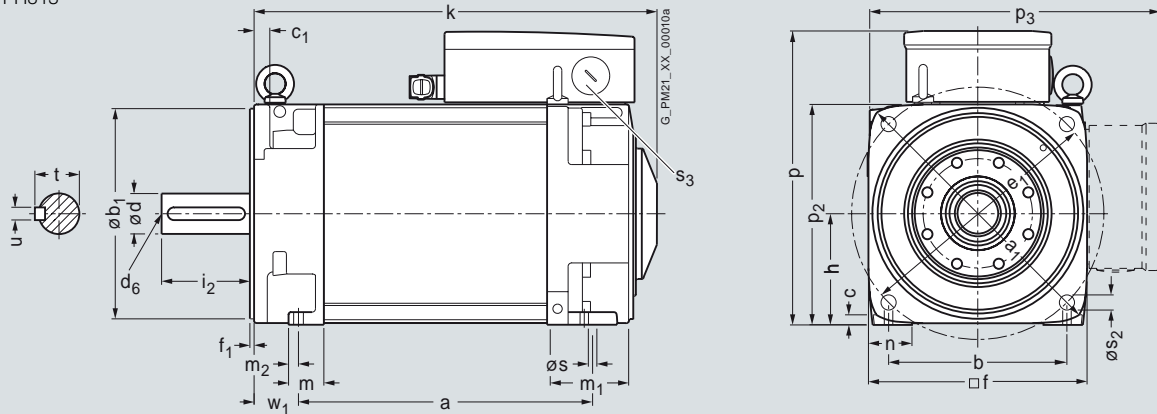
1PH8 asynchronous and synchronous motors Shaft height 132 – Water cooling

Dimensional drawings

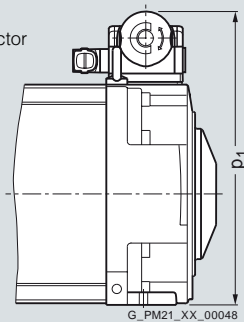
For motor		Dimensions in mm (inches)															
Shaft height	Type	DIN IEC B	a	a ₁	b	b ₁	c	c ₁	e ₁	f	f ₁	h	k	m	m ₁	m ₂	n
			P	A	N	HA	LA	M	AB	T	H	LB	BA	-	-	AA	
1PH8, type of construction IM B35, water cooling																	
132	1PH8131	220.5 (8.68)	340 (13.39)	216 (8.50)	250 (9.84)	15 (0.59)	18 (0.71)	300 (11.81)	260 (10.24)	5 (0.20)	132 (5.20)	347.5 (13.68)	42 (1.65)	81 (3.19)	12 (0.47)	43 (1.69)	
	1PH8133	265.5 (10.45)											392.5 (15.45)				
	1PH8135	310.5 (12.22)											437.5 (17.22)				
	1PH8137	350.5 (13.80)											477.5 (18.80)				

Shaft height	Type	DIN IEC HD	p	p ₁	p ₂	p ₃	s	s ₂	s ₃	w ₁	Shaft extension DE							
											d	d ₆	i ₂	t	u			
			C	D	E	F												
132	1PH8131	347.5 (13.68)	347 (13.66)	262 (10.31)	357.5 (14.07)	12 (0.47)	18 (0.71)	M50 x 1.5	53 (2.09)	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)				
	1PH8133																	
	1PH8135																	
	1PH8137																	

1PH813



Variant with power connector size 3



Main motors

Dimensional drawings

1PH8 synchronous motors Shaft height 160 – Forced ventilation

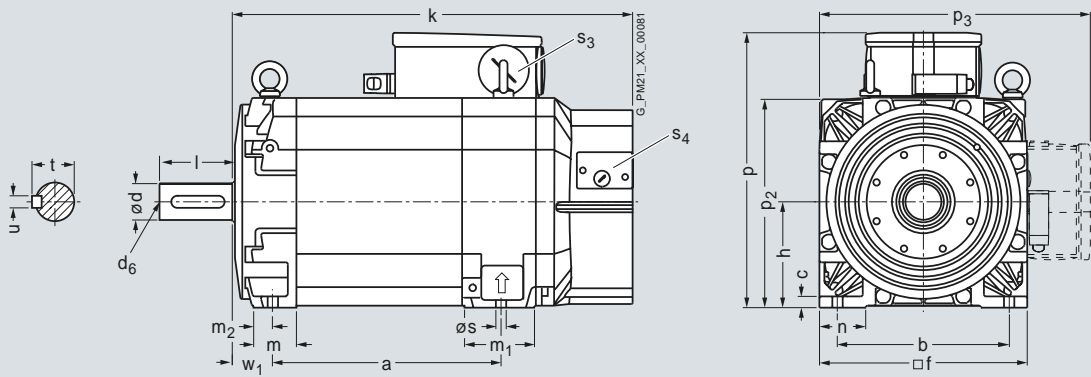
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC	a B	a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	m BA	m ₁ -	m ₂ -	n AA	
1PH8, type of construction IM B3, forced ventilation																		
160	1PH8165		406.5 (16.00)	-	254 (10.00)	-	17 (0.67)	23 (0.91)	-	314 (12.36)	-	160 (6.30)	670.5 (26.40)	64 (2.52)	99.5 (3.92)	28 (1.10)	70 (2.76)	
	1PH8167		446.5 (17.58)										710.5 (27.97)					

Shaft height	Type	DIN IEC	p HD	p ₁ -	p ₂ -	p ₃ -	s K	s ₂ -	s ₃ -	s ₄ -	w ₁ C	Shaft extension DE				
												d D	d ₆ -	l L	t GA	u F
	1PH8165		415.5 (16.36)	-	317 (12.48)	412.5 (16.24)	14 (0.55)	-	M63 x 1.5	M20 x 1.5	61 (2.40)	55 (2.17)	M20	110 (4.33)	59 (2.32)	16 (0.63)
	1PH8167															

1PH816



Main motors Dimensional drawings

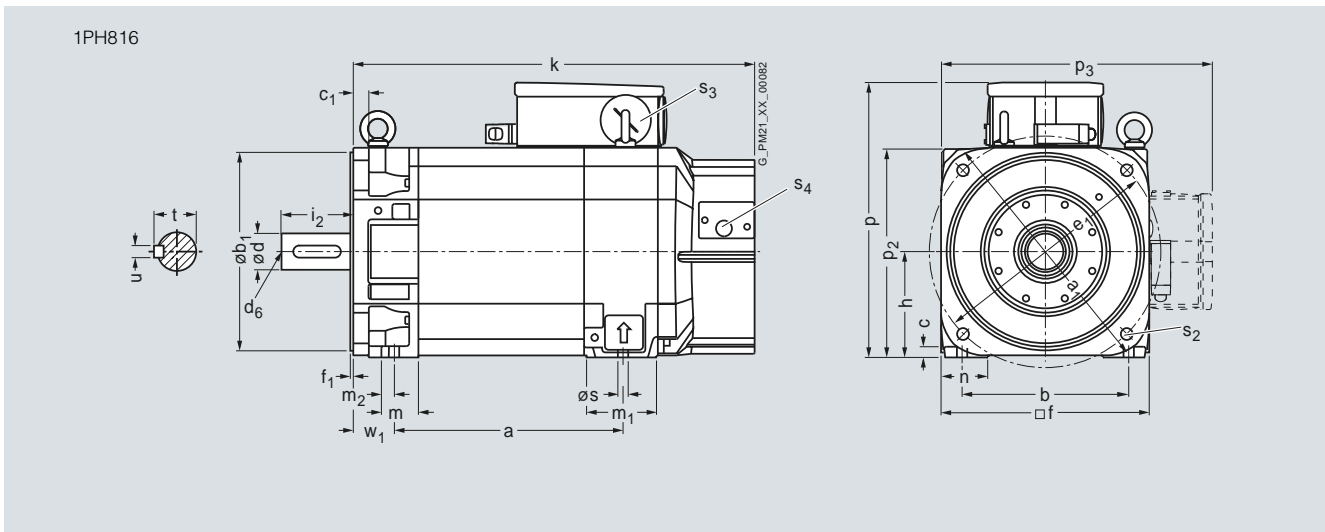
1PH8 synchronous motors Shaft height 160 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)															
Shaft height	Type	DIN IEC B	a	a ₁	b	b ₁	c	c ₁	e ₁	f	f ₁	h	k	m	m ₁	m ₂	n
			P	A	N	HA	LA	M	AB	T	H	LB	BA	-	-	AA	
1PH8, type of construction IM B5/IM B35, forced ventilation																	
160	1PH8165	406.5	393	254	300	17	-	350	314	5	160	670.5	55	99.5	19	70	
		(16.00)	(15.47)	(10.00)	(11.81)	(0.67)		(13.78)	(12.36)	(0.20)	(6.30)	(26.40)	(2.17)	(3.92)	(0.75)	(2.76)	
	1PH8167	446.5										710.5					
		(17.58)										(27.97)					

Shaft height	Type	DIN IEC HD	Shaft extension DE							W ₁ C	d D	d ₆	i ₂ E	t GA	u F
			p ₁	p ₂	p ₃	s K	s ₂	s ₃	s ₄						
160	1PH8165	415.5	-	317	412.5	14	18	M63 x 1.5	M20 x 1.5	61	55	M20	110	59	16
		(16.36)		(12.48)	(16.24)	(0.55)	(0.71)			(2.40)	(2.17)		(4.33)	(2.32)	(0.63)
	1PH8167														

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Main motors

Dimensional drawings

1PH8 synchronous motors Shaft height 160 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC B	a	a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	m BA	m ₁	m ₂	n AA
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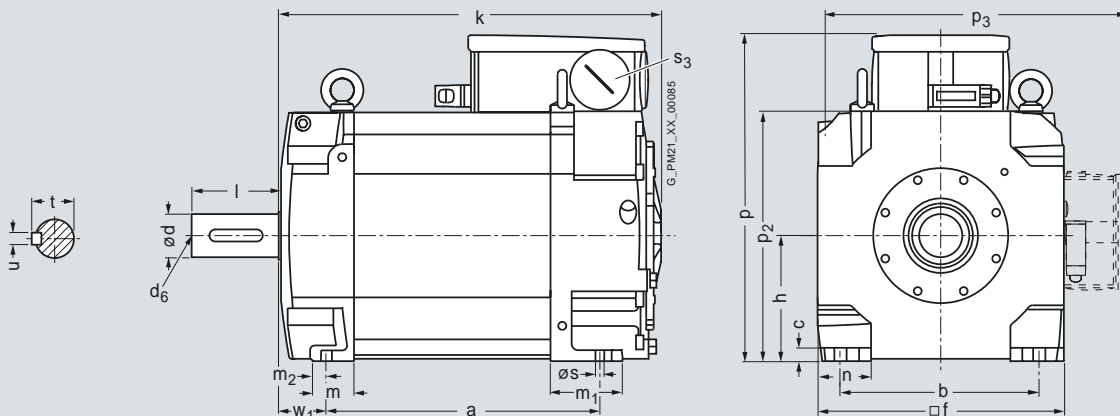
1PH8, type of construction IM B3, water cooling

160	1PH8164	346.5 (13.64)	–	254 (10.00)	–	17 (0.67)	23 (0.91)	–	314 (12.36)	–	160 (6.30)	488.5 (19.23)	53 (2.09)	91 (3.58)	17 (0.67)	70 (2.76)	
	1PH8166	406.5 (16.00)											548.5 (21.59)				
	1PH8168	446.5 (17.58)											588.5 (23.17)				

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Shaft height	Type	DIN IEC HD	p	p ₁	p ₂	p ₃	s K	s ₂	s ₃	s ₄	w ₁ C	Shaft extension DE				
												d D	d ₆	l L	t GA	u F
	1PH8164	415.5 (16.36)	–	317 (12.48)	412.5 (16.24)	14 (0.55)	–	–	M63 × 1.5	–	61 (2.40)	55 (2.17)	M20	110 (4.33)	59 (2.32)	16 (0.63)
	1PH8166															
	1PH8168															

1PH816



Main motors

Dimensional drawings

1PH8 synchronous motors Shaft height 160 – Water cooling

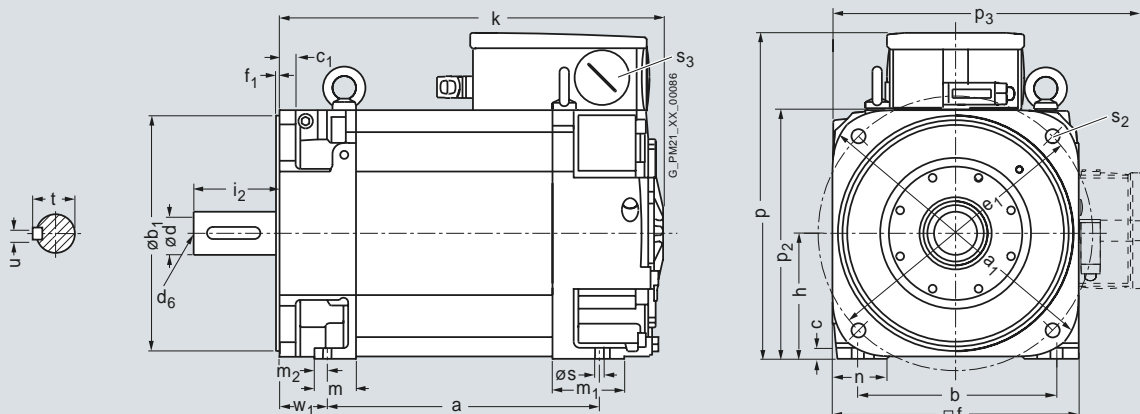
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC B	a	a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	m BA	m ₁ –	m ₂ –	n AA	
1PH8, type of construction IM B5/IM B35, water cooling																		
160	1PH8164	346.5 (13.64)	393 (15.47)	254 (10.00)	300 (11.81)	17 (0.67)	–	–	350 (13.78)	314 (12.36)	5 (0.20)	160 (6.30)	488.5 (19.23)	53 (2.09)	91 (3.58)	17 (0.67)	70 (2.76)	
	1PH8166	406.5 (16.00)											548.5 (21.59)					
	1PH8168	446.5 (17.58)											588.5 (23.17)					

Shaft height	Type	DIN IEC HD	Shaft extension DE										w ₁ C	d D	d ₆ –	i ₂ E	t GA	u F
			p ₁ –	p ₂ –	p ₃ –	s K	s ₂ –	s ₃ –	s ₄ –									
	1PH8164	415.5 (16.36)	–	317 (12.48)	412.5 (16.24)	14 (0.55)	18 (0.71)	M63 × 1.5	–	–	–	–	61 (2.40)	55 (2.17)	M20	110 (4.33)	59 (2.32)	16 (0.63)
	1PH8166																	
	1PH8168																	

1PH816



Main motors

Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 180 – Water cooling

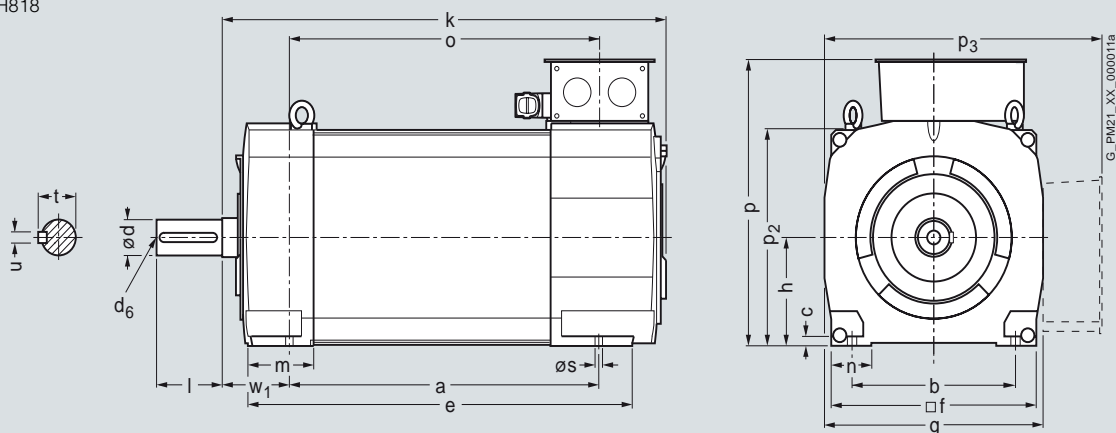
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC	a B	b A	c HA	f AB	g AC	h H	k LB	m BA	n AA	p ₂ -	s K	w ₁ C
1PH8, types of construction IM B3/IM V5, water cooling														
180	1PH8184		430 (16.93)	279 (10.98)	15 (0.59)	356 (14.02)	384 (15.12)	180 (7.09)	670 (26.38)	138 (5.43)	73 (2.87)	372 (14.65)	14.5 (0.57)	121 (4.76)
	1PH8186		520 (20.47)						760 (29.92)					

Shaft height	Type	DIN IEC	Shaft extension DE					Terminal box type											
			d D	d ₆ -	l E	t GA	u F	1XB7322				1XB7422				1XB7700			
							p HD	p ₃ -	r LL	x ₁ AG	p HD	p ₃ -	r LL	x ₁ AG	p HD	p ₃ -	r LL	x ₁ AG	
180	1PH8184		65m6	M20	140 (5.51)	69 (2.72)	18 (0.71)	484 (19.06)	485 (19.09)	197 (7.76)	258 (10.16)	539 (21.22)	540 (21.26)	230 (9.06)	303 (11.93)	588 (23.15)	574 (22.60)	310 (12.20)	295 (11.61)
	1PH8186																		

1PH818



Main motors

Dimensional drawings

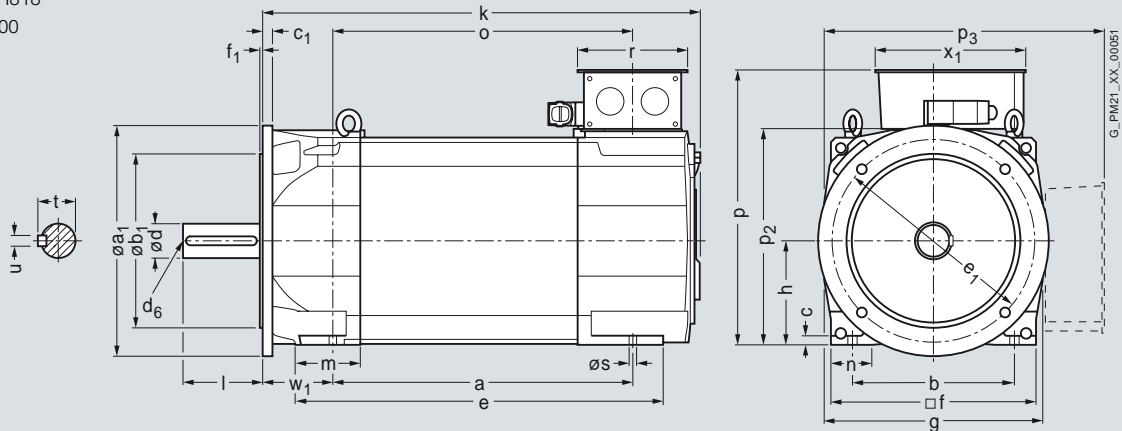
1PH8 asynchronous and synchronous motors Shaft height 180 – Water cooling

Dimensional drawings

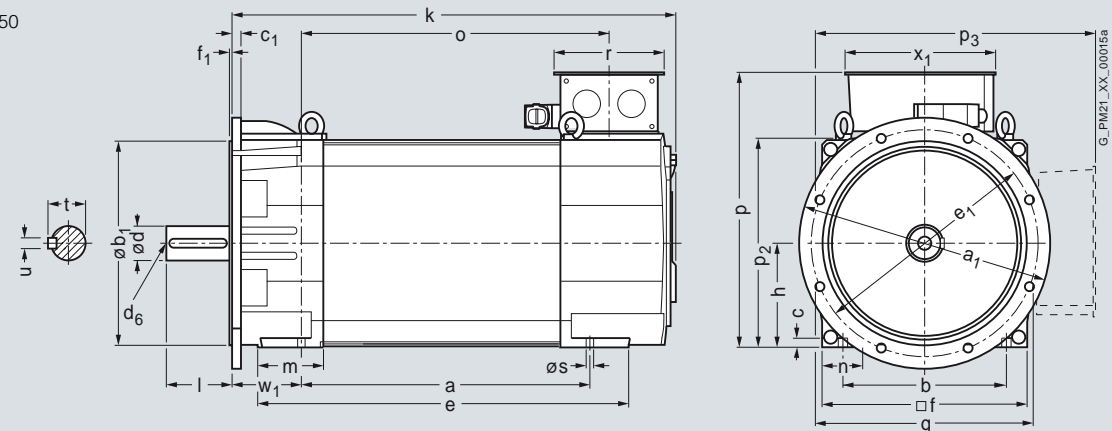
For motor		Dimensions in mm (inches)																			
Shaft height	Type	DIN IEC	a B	D400		D450		D400		D450		D400		D450		f AB	f ₁ T	g AC	h H	k LB	m BA
				a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f ₁ AB	f ₁ T	g AC	h H	k LB	m BA						
1PH8, types of construction IM B5/IM B35/IM V15, water cooling																					
180	1PH8184		430 (16.93)	400 (15.75)	450 (17.72)	279 (10.98)	300 (11.81)	350 (13.78)	15 (0.59)	16 (0.63)	350 (13.78)	400 (15.75)	356 (14.02)	5 (0.20)	384 (15.12)	180 (7.09)	670 (26.38)	123 (4.84)			
	1PH8186		520 (20.47)																760 (29.92)		

Shaft height	Type	DIN IEC	Shaft extension DE								Terminal box type		
			n AA	p ₂ -	s K	w ₁ C	d D	d ₆ -	l E	t GA	u F	Dimensions as for types of construction IM B3/IM V5	
180	1PH8184		73 (2.87)	372 (14.65)	14.5 (0.57)	121 (4.76)	65m6	M20	140 (5.51)	69 (2.72)	18 (0.71)		
	1PH8186												

1PH818
D400



D450



Main motors

Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 225 – Water cooling

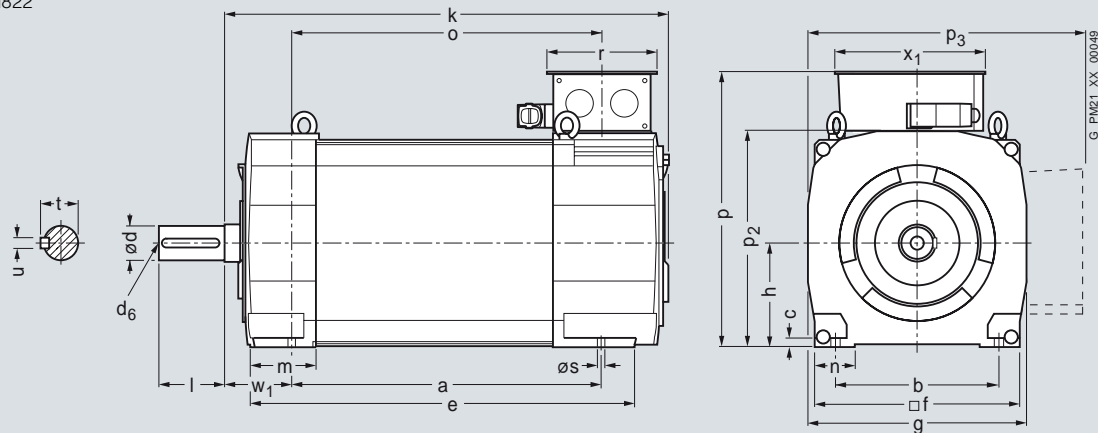
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC	a B	b A	c HA	f AB	g AC	h H	k LB	m BA	n AA	p ₂ -	s K	w ₁ C
1PH8, types of construction IM B3/IM V5, water cooling														
225	1PH8224		445 (17.52)	356 (14.02)	18 (0.71)	446 (17.56)	474 (18.66)	225 (8.86)	775 (30.51)	154 (6.06)	88 (3.46)	462 (18.19)	18.5 (0.73)	149 (5.87)
	1PH8226		545 (21.46)						875 (34.45)					
	1PH8228		635 (25.0)						965 (37.99)					

Shaft height	Type	DIN IEC	Shaft extension DE					Terminal box type											
			d D	d ₆ -	l E	t GA	u F	1XB7322				1XB7422			1XB7700				
							p HD	p ₃ -	r LL	x ₁ AG	p HD	p ₃ -	r LL	x ₁ AG	p HD	p ₃ -	r LL	x ₁ AG	
225	1PH8224		75m6	M20	140 (5.51)	79.5 (3.13)	20 (0.79)	579 (22.80)	577 (22.72)	197 (7.76)	258 (10.16)	634 (24.96)	632 (24.88)	230 (9.06)	303 (11.93)	683 (26.89)	666 (26.22)	310 (12.20)	295 (11.61)
	1PH8226																		
	1PH8228																		

1PH822



Main motors

Dimensional drawings

1PH8 asynchronous and synchronous motors Shaft height 225 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC	a B	a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M	f AB	f ₁ T	g AC	h H	k LB	m BA	n AA	p ₂ -	w ₁ C
1PH8, types of construction IM B5/IM B35/IM V15 D550, water cooling																		
225	1PH8224		445 (17.52)	550 (21.65)	356 (14.02)	450 (17.72)	18 (0.71)	20 (0.79)	500 (19.69)	446 (17.56)	5 (0.20)	474 (18.66)	225 (8.86)	770 (30.31)	144 (5.67)	88 (3.46)	462 (18.19)	149 (5.87)
	1PH8226		545 (21.46)											872 (34.33)				
	1PH8228		635 (25.00)											962 (37.87)				

Shaft extension DE

Terminal box type

Dimensions as for types of construction IM B3/IM V5

Shaft height	Type	DIN IEC	d D	d ₆ -	l E	t GA	u F
225	1PH8224		75m6	M20	140 (5.51)	79.5 (3.13)	20 (0.79)
	1PH8226						
	1PH8228						

1PH822

