

Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 80 – Forced ventilation

Dimensional drawings

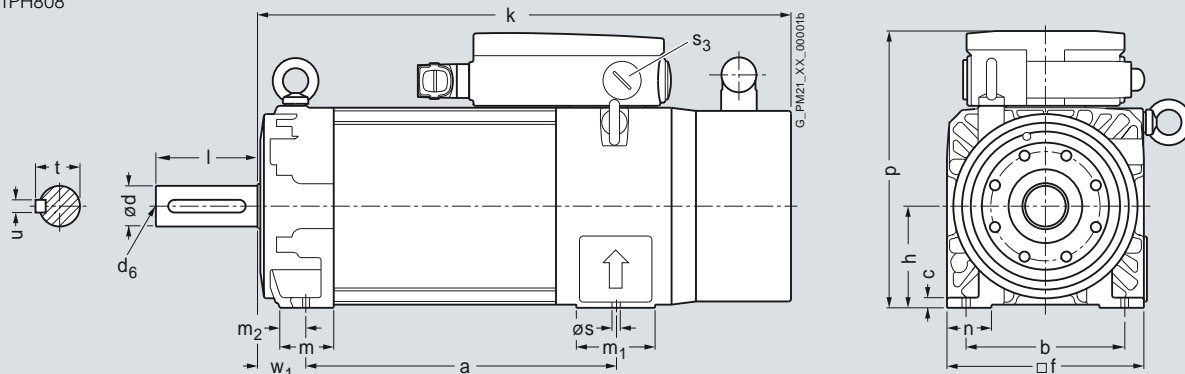
For motor Dimensions in mm (inches)

Shaft height	Type	DIN a IEC B	b A	c HA	f AB	h H	k LB	m BA	m ₁ –	m ₂ –	n AA	p HD	p ₁ –
1PH8, type of construction IM B3, forced ventilation													
80	1PH8083	194 (7.64)	125 (4.92)	8 (0.31)	155 (6.10)	80 (3.15)	375 (14.76)	42 (1.65)	62 (2.44)	20 (0.79)	35 (1.38)	216 (8.50)	253.5 (9.98)
	1PH8087	244 (9.61)					425 (16.73)						

Shaft extension DE

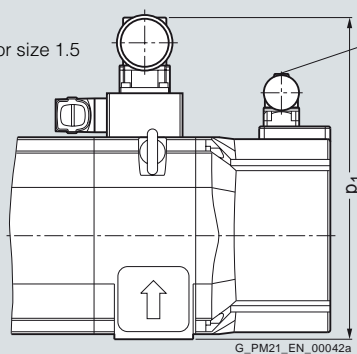
Shaft height	Type	DIN s IEC K	s ₃ –	w ₁ C	d D	d ₆ –	l E	t GA	u F
80	1PH8083	10 (0.39)	M25 × 1.5	38 (1.50)	32 (1.26)	M12	80 (3.15)	35 (1.38)	10 (0.39)
	1PH8087								

1PH808



Variant with
power connector size 1.5

Connector size 1 for
fan connection



Main motors Dimensional drawings

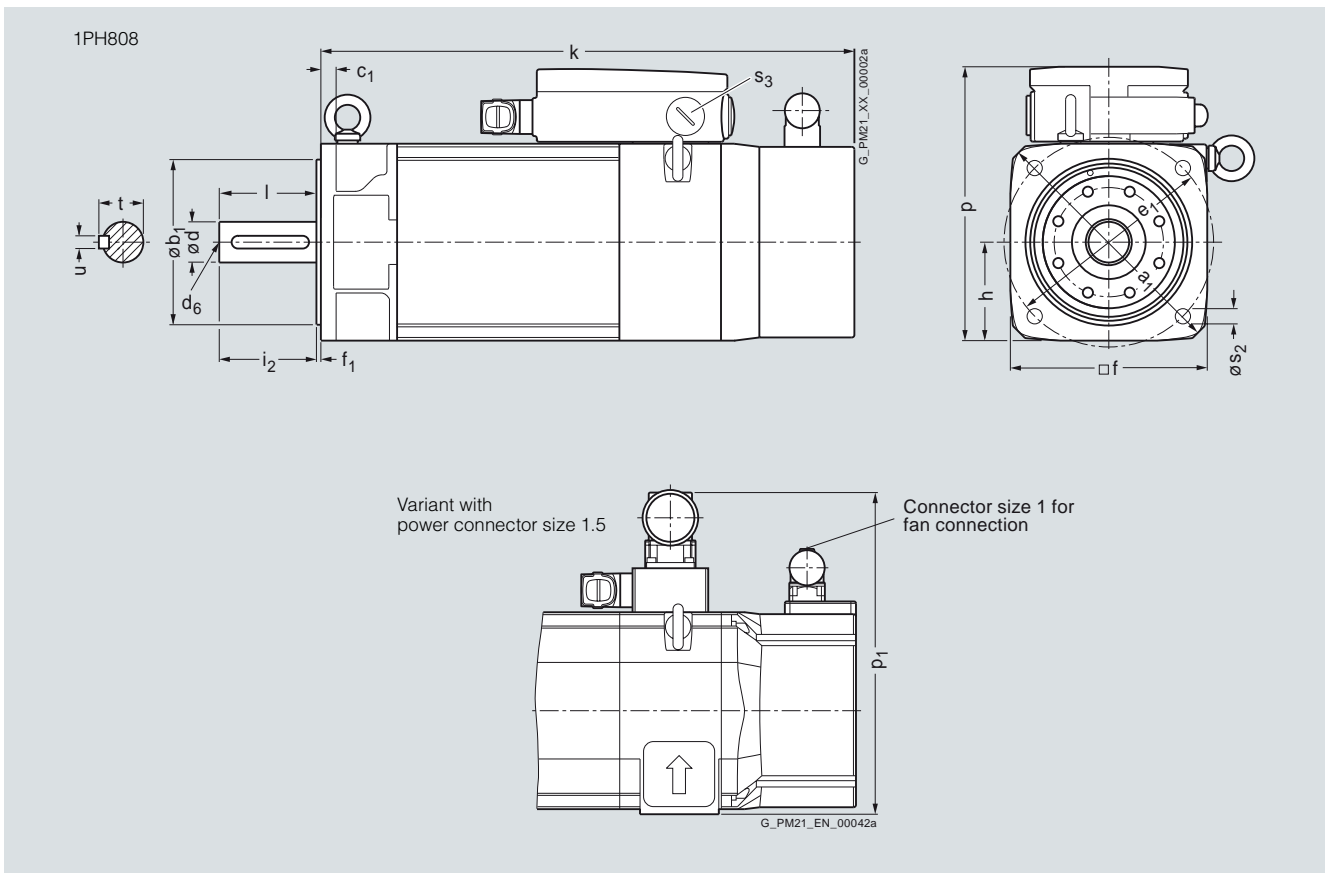
1PH8 asynchronous motors Shaft height 80 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)												
Shaft height	Type	DIN IEC P	a ₁ N	b ₁ N	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	p HD	p ₁ -	s ₂ -	s ₃ -
1PH8, type of construction IM B5, forced ventilation														
80	1PH8083	200 (7.87)	130 (5.12)	12 (0.47)	165 (6.50)	155 (6.10)	3.5 (0.14)	77.5 (3.05)	375 (14.76)	213.5 (8.41)	251 (9.88)	12 (0.47)		M25 × 1.5
	1PH8087								425 (16.73)					

		Shaft extension DE				
Shaft height	Type	DIN IEC D	d ₆ -	i ₂ E	t GA	u F
80	1PH8083	32 (1.26)	M12	80 (3.15)	35 (1.38)	10 (0.39)
	1PH8087					

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Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 80 – Water cooling

Dimensional drawings

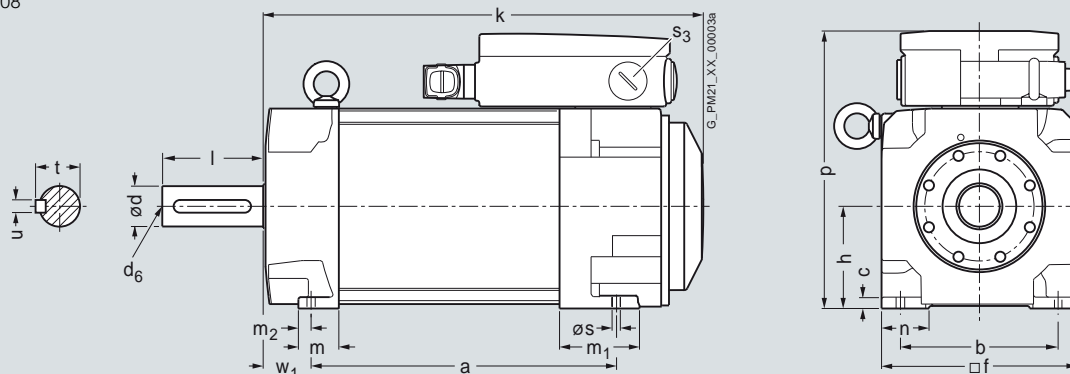
For motor Dimensions in mm (inches)

Shaft height	Type	DIN a IEC B	b A	c HA	f AB	h H	k LB	m BA	m ₁ –	m ₂ –	n AA	p HD	p ₁ –
1PH8, type of construction IM B3, water cooling													
80	1PH8083	194 (7.64)	125 (4.92)	8 (0.31)	155 (6.10)	80 (3.15)	301.5 (11.87)	37 (1.46)	63.5 (2.50)	15 (0.59)	35 (1.38)	216 (8.50)	253.5 (9.98)
	1PH8087	244 (9.61)					351.5 (13.84)						

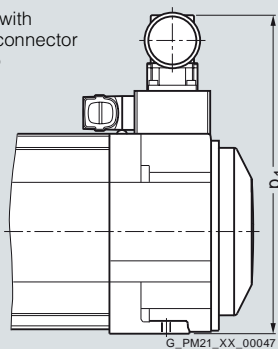
Shaft extension DE

Shaft height	Type	DIN s IEC K	s ₃ –	w ₁ C	d D	d ₆ –	l E	t GA	u F
80	1PH8083	10 (0.39)	M25 × 1.5	38 (1.50)	32 (1.26)	M12	80 (3.15)	35 (1.38)	10 (0.39)
	1PH8087								

1PH808



Variant with
power connector
size 1.5



Main motors Dimensional drawings

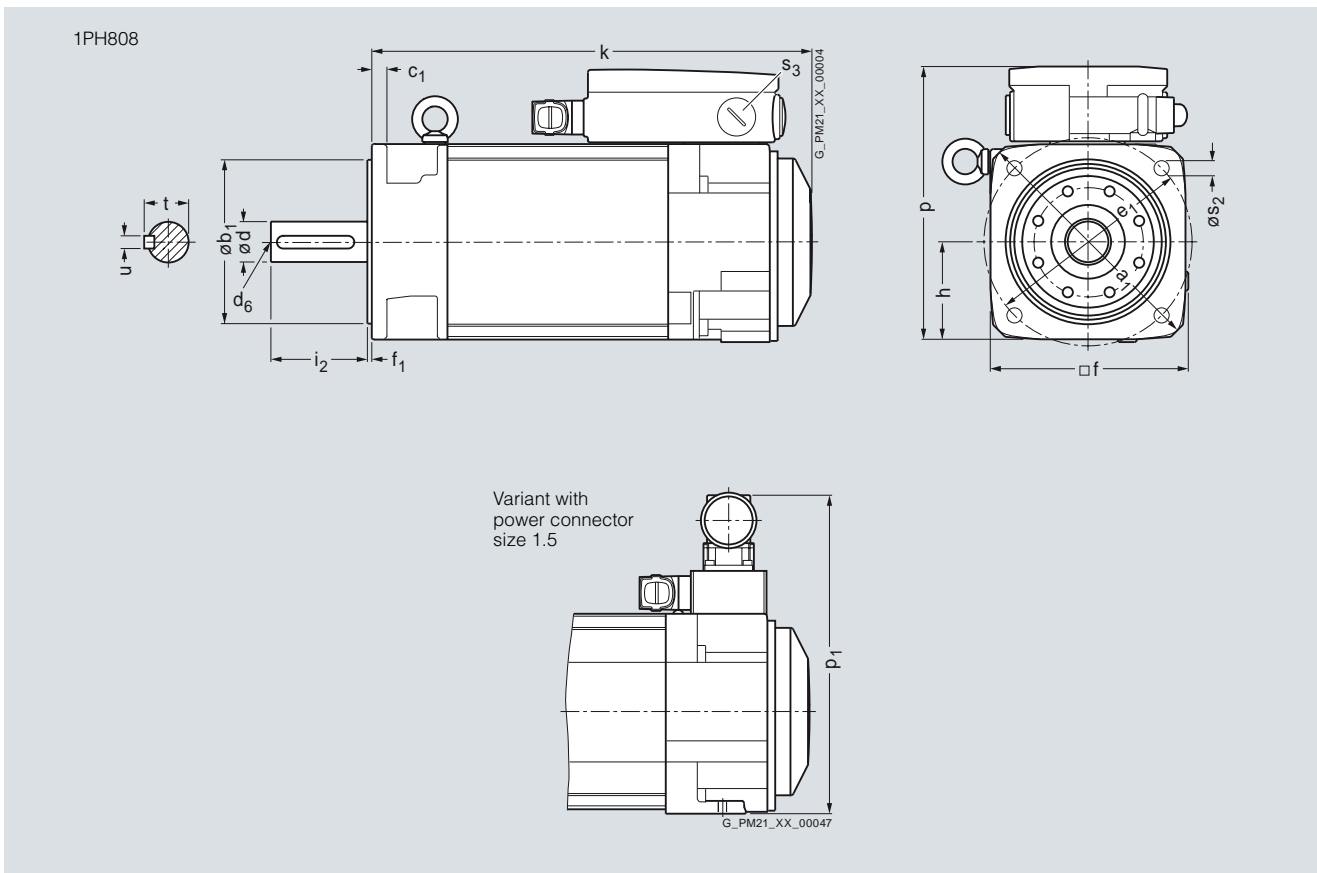
1PH8 asynchronous motors Shaft height 80 – Water cooling

Dimensional drawings

For motor		Dimensions in mm (inches)												
Shaft height	Type	DIN IEC	a ₁ P	b ₁ N	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	p HD	p ₁ -	s ₂ -	s ₃ -
1PH8, type of construction IM B5, water cooling														
80	1PH8083		200 (7.87)	130 (5.12)	12 (0.47)	165 (6.50)	155 (6.10)	3.5 (0.14)	77.5 (3.05)	301.5 (11.87)	213.5 (8.41)	251 (9.88)	12 (0.47)	M25 × 1.5
	1PH8087									351.5 (13.84)				

		Shaft extension DE					
Shaft height	Type	DIN IEC	d D	d ₆ -	i ₂ E	t GA	u F
80	1PH8083		32 (1.26)	M12	80 (3.15)	35 (1.38)	10 (0.39)
	1PH8087						

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Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 100 – Forced ventilation

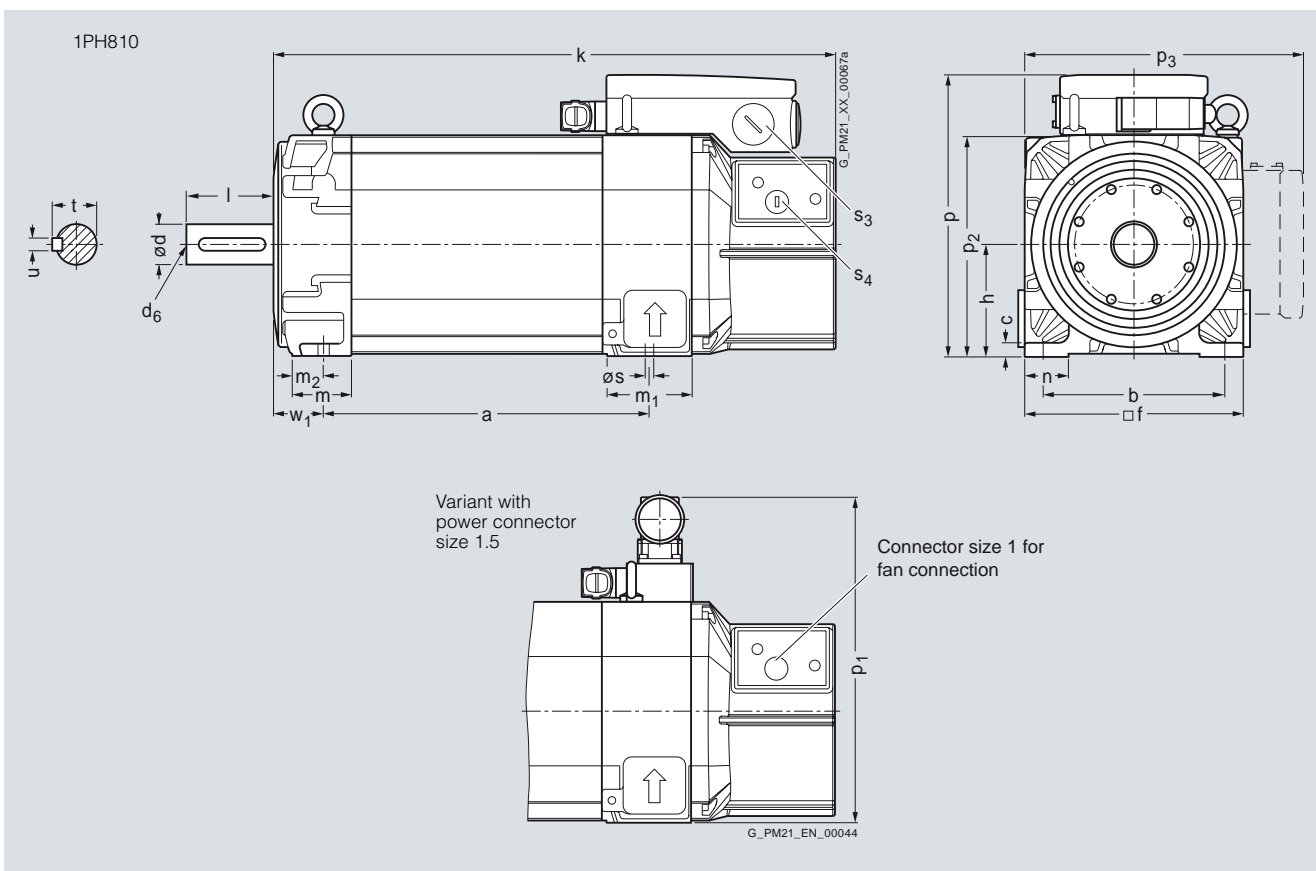
Dimensional drawings

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																		
100	1PH8101		167 (6.57)	–	160 (6.30)	–	11 (0.43)	–	–	196 (7.72)	–	100 (3.94)	369.5 (14.55)	49 (1.93)	74 (2.91)	24 (0.94)	40 (1.57)	
	1PH8103		202.5 (7.97)										405 (15.94)					
	1PH8105		262 (10.31)										464.5 (18.29)					
	1PH8107		297.5 (11.71)										500 (19.69)					

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Shaft height	Type	DIN IEC	p HD	Shaft extension DE							d D	Shaft extension DE							
				p ₁ –	p ₂ –	p ₃ –	s K	s ₃ –	s ₄ –	w ₁ C		d ₆ –	l E	t GA	u F				
100	1PH8101		252 (9.92)	294 (11.57)	198 (7.80)	276.5 (10.89)	12 (0.47)	M32 × 1.5	M20 × 1.5	43 (1.69)	38 (1.50)	M12	80 (3.15)	41 (1.61)	10 (0.39)				
	1PH8103																		
	1PH8105																		
	1PH8107																		



Main motors

Dimensional drawings

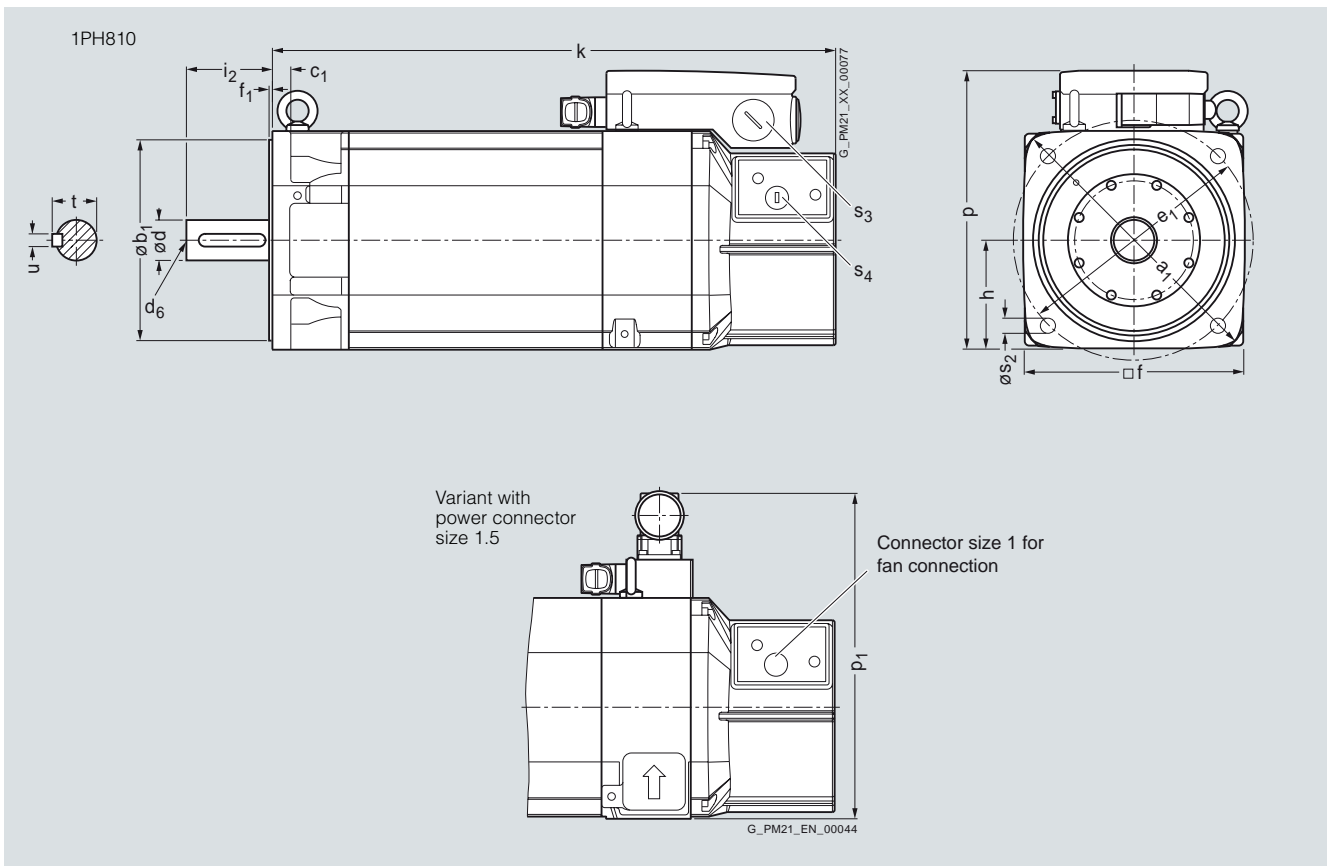
1PH8 asynchronous motors Shaft height 100 – Forced ventilation

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN a ₁ IEC P	b ₁ N	c ₁ LA	e ₁ M	f AB	f ₁ T	h H	k LB	p HD	p ₁ –	p ₂ –	p ₃ –
1PH8, type of construction IM B5, forced ventilation													
100	1PH8101	250 (9.84)	180 (7.09)	16 (0.63)	215 (8.46)	196 (7.72)	4 (0.16)	98 (3.86)	369.5 (14.55)	250 (9.84)	292 (11.50)	–	–
	1PH8103								405 (15.94)				
	1PH8105								464.5 (18.29)				
	1PH8107								500 (19.69)				

Shaft height	Type	DIN s ₂ IEC –	Shaft extension DE			d D	d ₆ –	i ₂ E	t GA	u F
			s ₃ –	s ₄ –	s ₄ –					
100	1PH8101	14 (0.55)	M32 × 1.5	M20 × 1.5	38 (1.50)	M12	80 (3.15)	41 (1.61)	10 (0.39)	
	1PH8103									
	1PH8105									
	1PH8107									



Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 100 – Forced ventilation

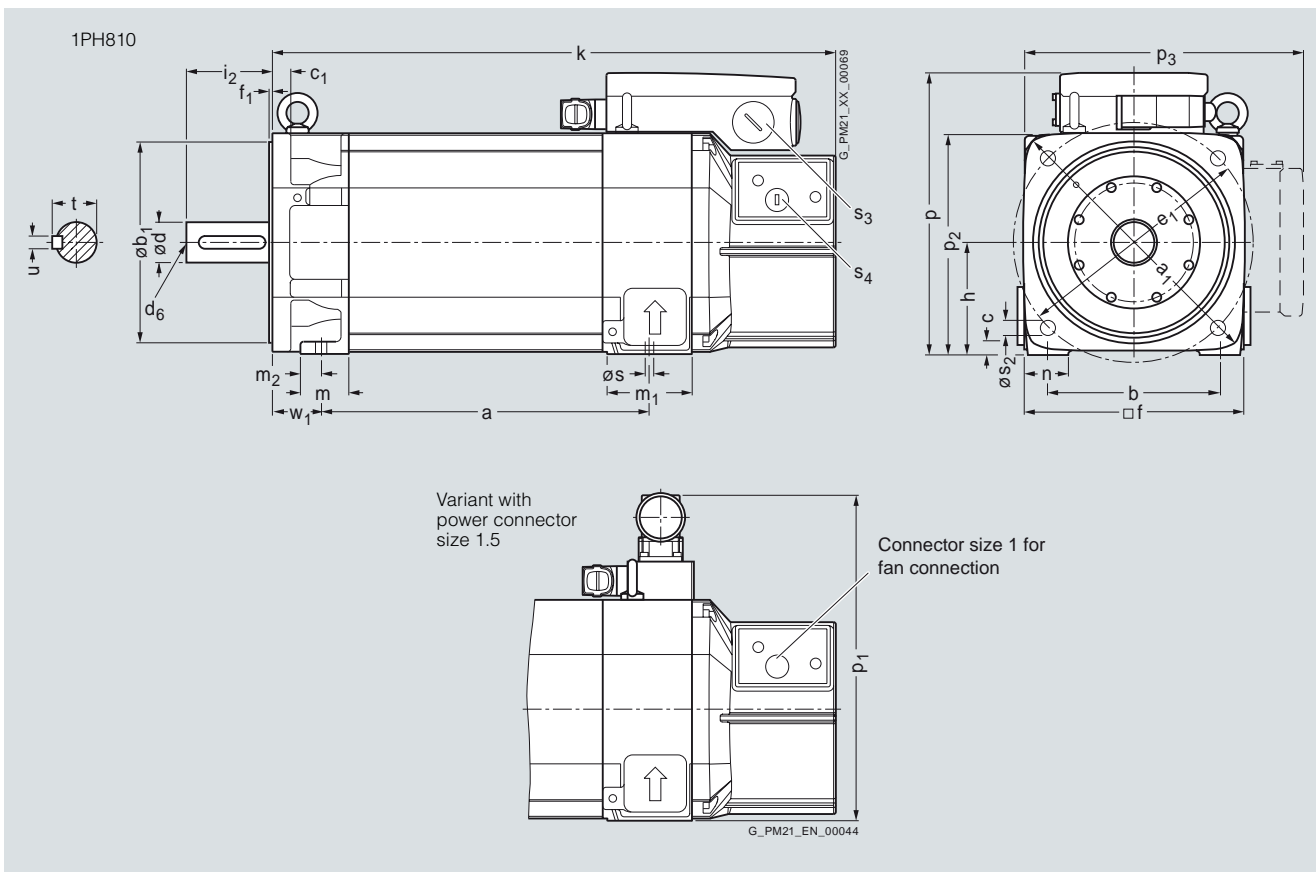
Dimensional drawings

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 B35, forced ventilation																		
100	1PH8101		167 (6.57)	250 (9.84)	160 (6.30)	180 (7.09)	11 (0.43)	16 (0.63)	215 (8.46)	196 (7.72)	4 (0.16)	100 (3.94)	369.5 (14.55)	44 (1.73)	74 (2.91)	19 (0.75)	40 (1.57)	
	1PH8103			202.5 (7.97)									405 (15.94)					
	1PH8105			262 (10.31)									464.5 (18.29)					
	1PH8107			297.5 (11.71)									500 (19.69)					

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Shaft height	Type	DIN IEC HD	p	Shaft extension DE							w ₁	d	Shaft extension DE			
				p ₁	p ₂	p ₃	s	s ₂	s ₃	s ₄			D	d ₆	i ₂	t
100	1PH8101		252 (9.92)	294 (11.57)	198 (7.80)	276.5 (10.89)	12 (0.47)	14 (0.55)	M32 × 1.5	M20 × 1.5	43 (1.69)	38 (1.50)	M12	80 (3.15)	41 (1.61)	10 (0.39)
	1PH8103															
	1PH8105															
	1PH8107															



Main motors

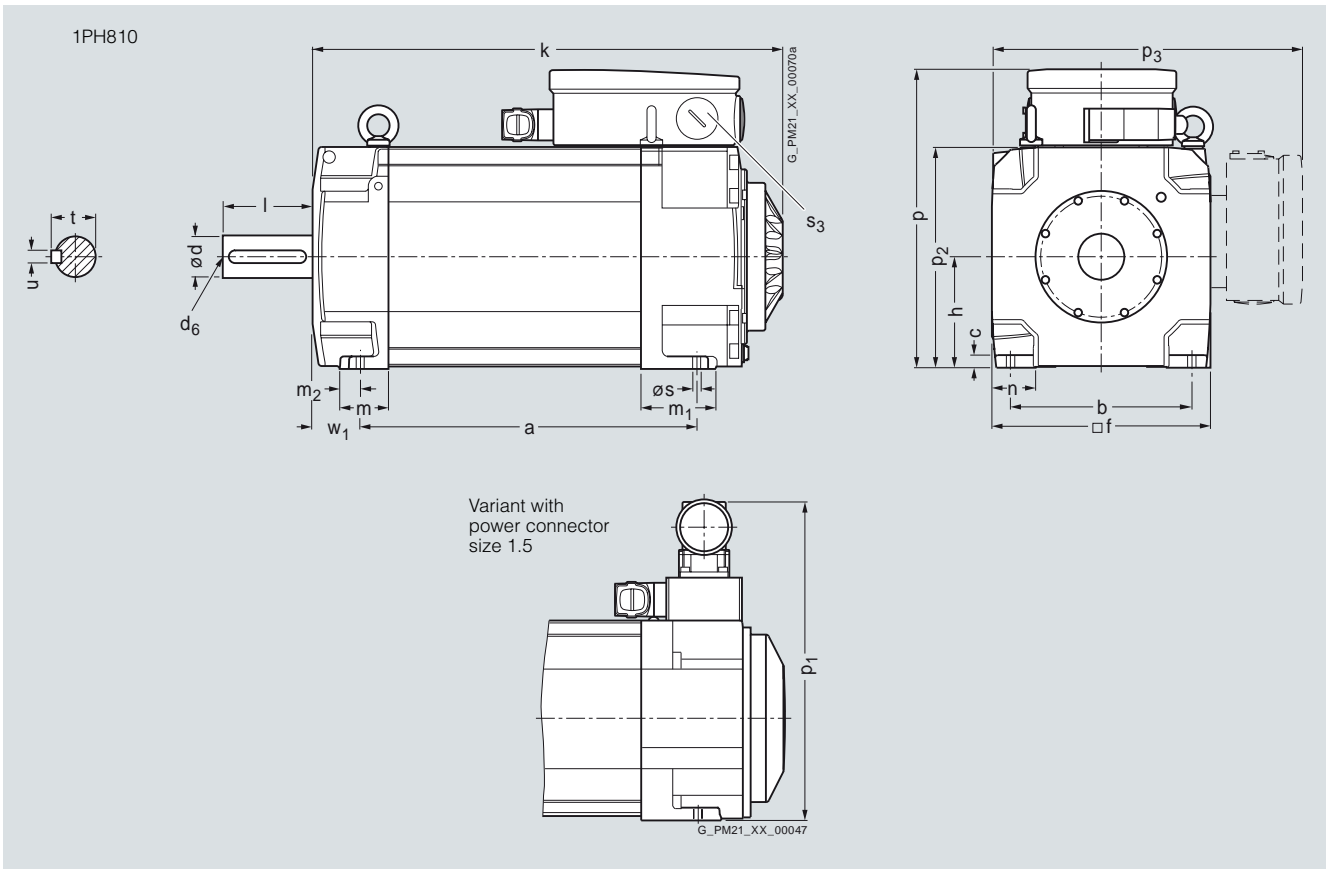
Dimensional drawings

1PH8 asynchronous motors Shaft height 100 – 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																		
100	1PH8101	167	–	160	–	11	–	–	196	–	100	289.5	44	68	19	43		
		(6.57)		(6.30)		(0.43)			(7.72)		(3.94)	(11.40)	(1.73)	(2.68)	(0.75)	(1.69)		
	1PH8103	202.5										325						
		(7.97)										(12.80)						
	1PH8105	262										384.5						
		(10.31)										(15.14)						
	1PH8107	297.5										420						
		(11.71)										(16.54)						

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
100	1PH8101	266.5	294	198	276.5	12	–	M32 x 1.5	43	38	M12	80	41	10
		(10.49)	(11.57)	(7.80)	(10.89)	(0.47)			(1.69)	(1.50)		(3.15)	(1.61)	(0.39)
	1PH8103													
	1PH8105													
	1PH8107													



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Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 100 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC B	a P	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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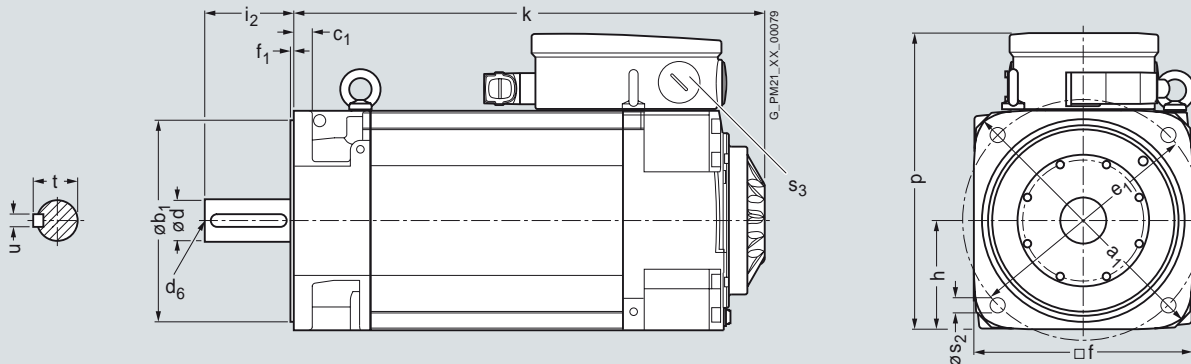
1PH8, type of construction IM B5, water cooling

100	1PH8101	–	250 (9.84)	–	180 (7.09)	–	16 (0.63)	215 (8.46)	196 (7.72)	4 (0.16)	98 (3.86)	289.5 (11.40)	–	–	–	–	–
	1PH8103											325 (12.80)					
	1PH8105											384.5 (15.14)					
	1PH8107											420 (16.54)					

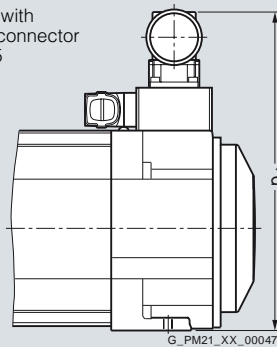
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Shaft height	Type	DIN IEC HD	p	Shaft extension DE					w ₁ C	d D	d ₆ –	i ₂ E	t GA	u F	
				p ₁ –	p ₂ –	p ₃ –	s K	s ₂ –							s ₃ –
100	1PH8101	264.5 (10.41)	292 (11.50)	–	–	–	–	14 (0.55)	M32 × 1.5	–	38 (1.50)	M12	80 (3.15)	41 (1.61)	10 (0.39)
	1PH8103														
	1PH8105														
	1PH8107														

1PH810



Variant with
power connector
size 1.5



Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 100 – Water cooling

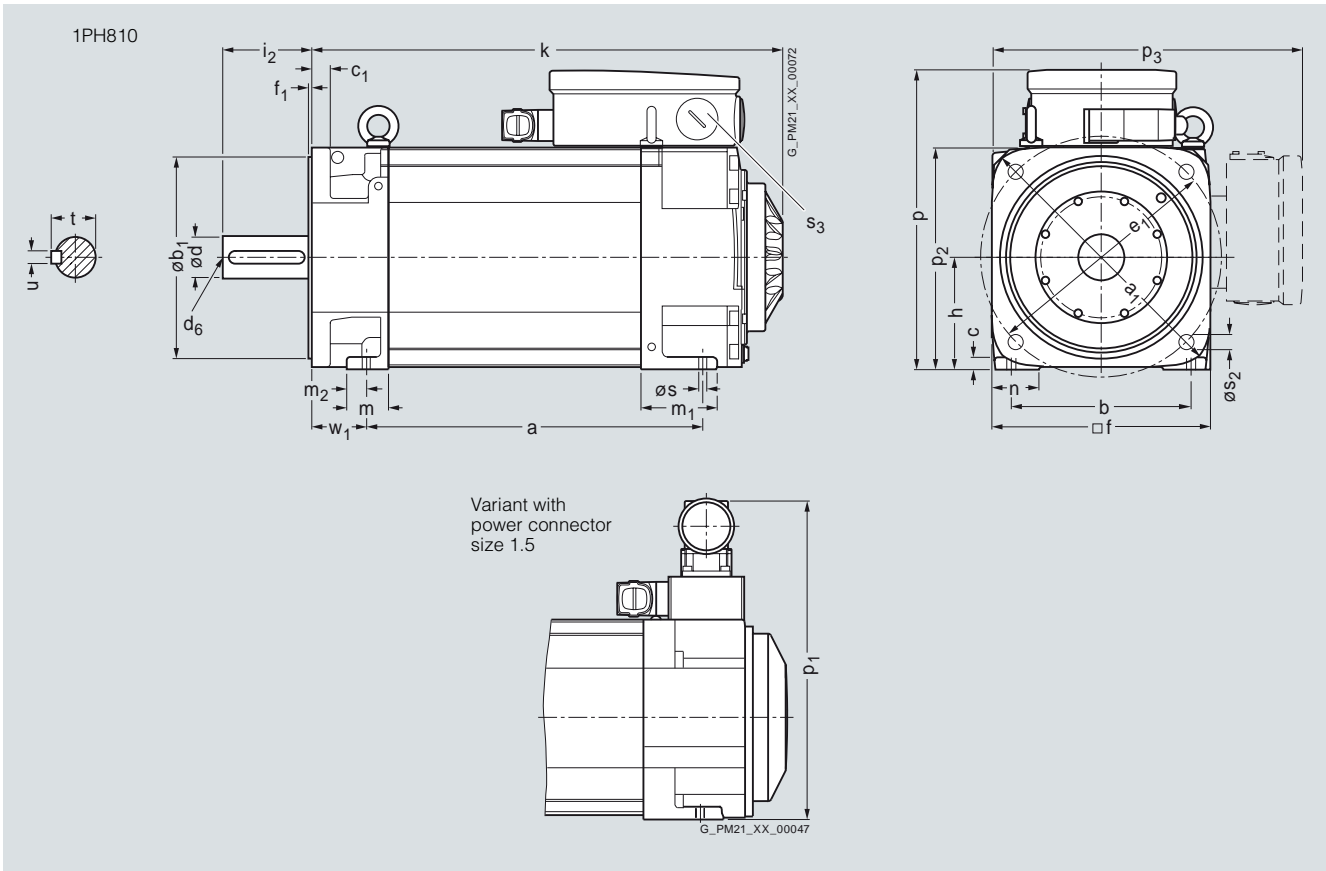
Dimensional drawings

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																		
100	1PH8101		167	250	160	180	11	16	215	196	4	100	289.5	37	68	12	43	
			(6.57)	(9.84)	(6.30)	(7.09)	(0.43)	(0.63)	(8.46)	(7.72)	(0.16)	(3.94)	(11.40)	(1.46)	(2.68)	(0.47)	(1.69)	
	1PH8103		202.5										325					
			(7.97)										(12.80)					
	1PH8105		262										384.5					
			(10.31)										(15.14)					
	1PH8107		297.5										420					
			(11.71)										(16.54)					

Shaft height	Type	DIN IEC HD	Shaft extension DE						w ₁	C	Shaft extension DE							
			p	p ₁	p ₂	p ₃	s	s ₂			s ₃	d	d ₆	i ₂	t	u		
100	1PH8101		266.5	294	198	276.5	12	14	M32 x 1.5	43	38	M12	80	41	10			
			(10.49)	(11.57)	(7.80)	(10.89)	(0.47)	(0.55)		(1.69)	(1.50)		(3.15)	(1.61)	(0.39)			
	1PH8103																	
	1PH8105																	
	1PH8107																	

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Main motors

Dimensional drawings

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

Dimensional drawings

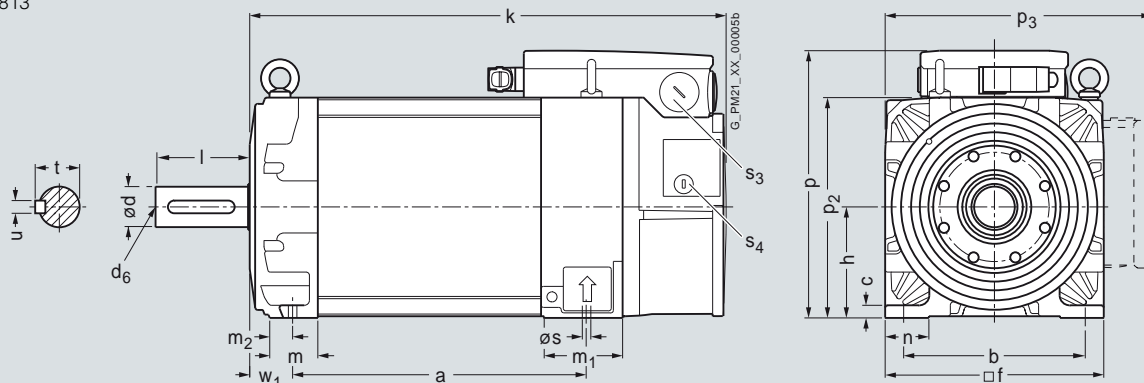
For motor Dimensions in mm (inches)

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)					

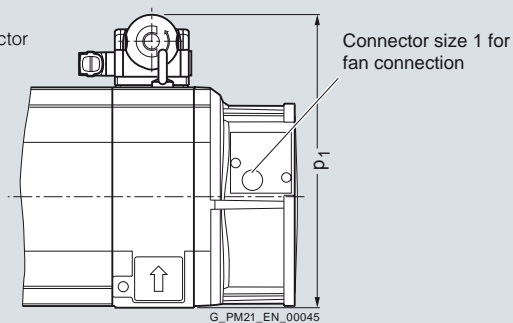
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Shaft height	Type	DIN IEC HD	Shaft extension DE								w ₁ C	Shaft extension DE			
			ρ	p ₁ –	p ₂ –	p ₃ –	s K	s ₂ –	s ₃ –	s ₄ –		d D	d ₆ –	l E	t GA
132	1PH8131	317.5 (12.50)	347 (13.66)	262 (10.31)	357.5 (14.07)	12 (0.47)	–	M40 × 1.5	M20 × 1.5	53 (2.09)	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

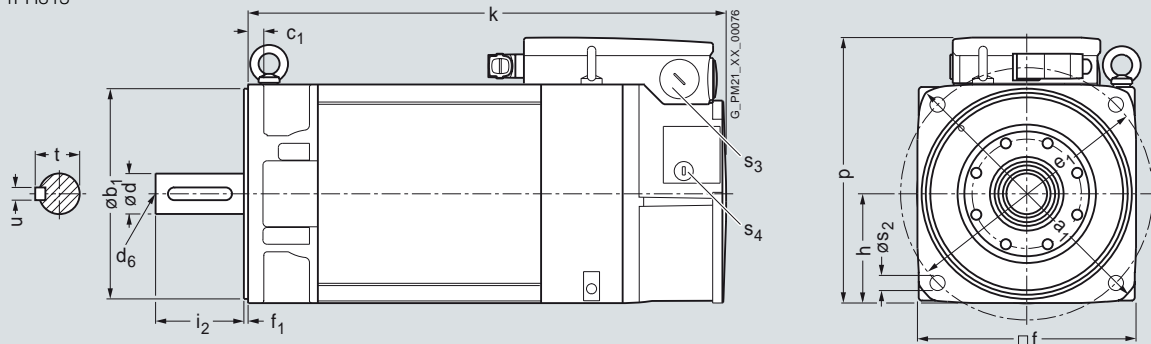
1PH8 asynchronous and synchronous motors Shaft height 132 – Forced ventilation

Dimensional drawings

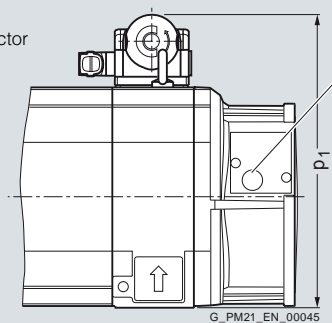
For motor		Dimensions in mm (inches)														
Shaft height	Type	DIN IEC B	a P	a ₁ A	b N	b ₁ HA	c LA	c ₁ M	e AB	f T	f ₁ H	h LB	k BA	m ₁	m ₂	n AA
1PH8, type of construction IM B5, forced ventilation																
132	1PH8131	-	340 (13.39)	-	250 (9.84)	-	18 (0.71)	300 (11.81)	260 (10.24)	5 (0.20)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

Shaft height	Type	DIN IEC HD	Shaft extension DE										d D	d ₆	i ₂ E	t GA	u F
			p	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



Connector size 1 for fan connection

Main motors

Dimensional drawings

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

Dimensional drawings

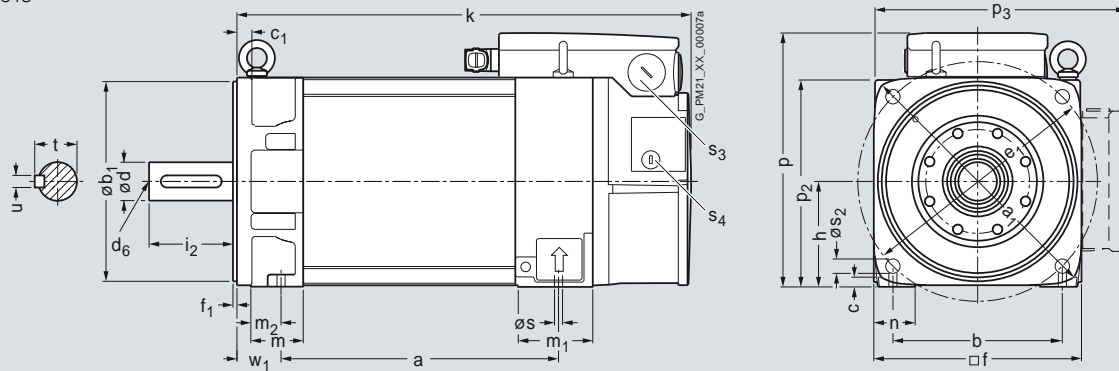
For motor Dimensions in mm (inches)

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	
				P	A	N	HA	LA	M	AB	T	H	LB	BA	-	-	AA	
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)					

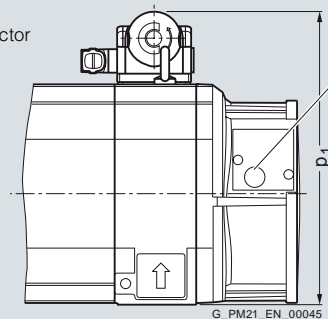
5

Shaft height	Type	DIN IEC HD	Shaft extension DE																
			p	p ₁	p ₂	p ₃	s	s ₂	s ₃	s ₄	w ₁	d	d ₆	i ₂	t	u			
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

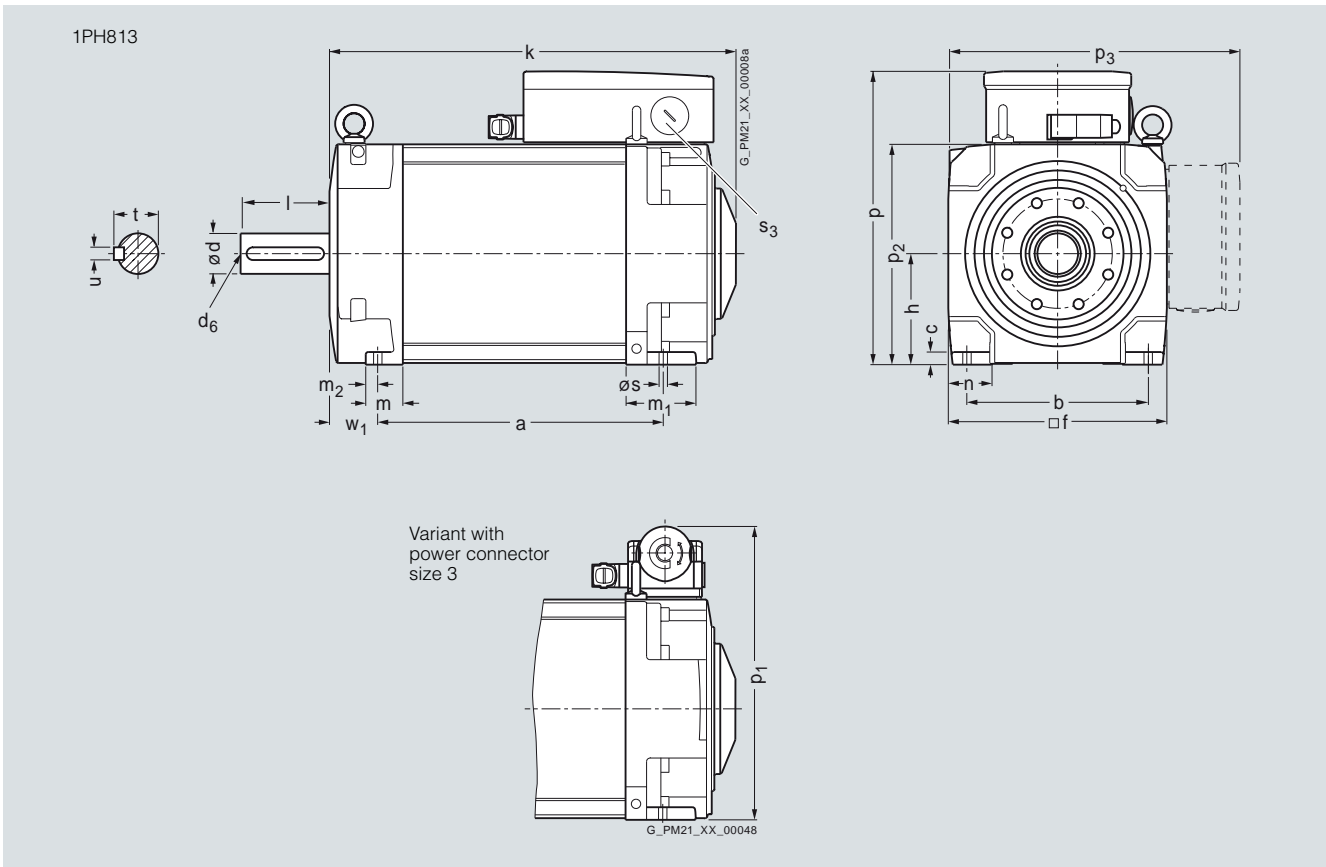
Dimensional drawings

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	d D	d ₆ –	l E	t GA	u F
			p ₁ –	p ₂ –	p ₃ –	s K	s ₂ –	s ₃ –						
132	1PH8131	347.5 (13.68)	347 (13.66)	262 (10.31)	357.5 (14.07)	12 (0.47)	–	M50 × 1.5	53 (2.09)	48 (1.89)	M16	110 (4.33)	51.5 (2.03)	14 (0.55)
	1PH8133													
	1PH8135													
	1PH8137													



5

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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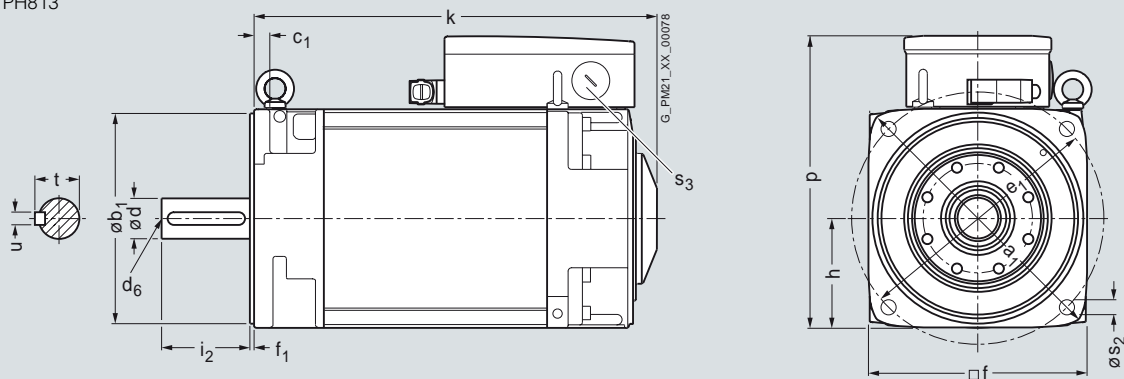
1PH8, type of construction IM B5, water cooling

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)				

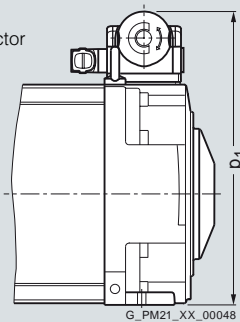
5

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

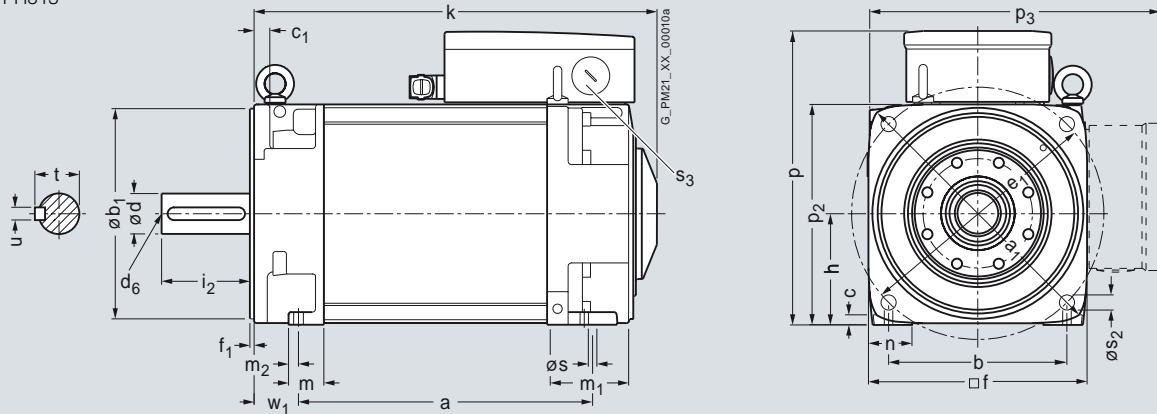
1PH8 asynchronous and synchronous motors Shaft height 132 – Water cooling

Dimensional drawings

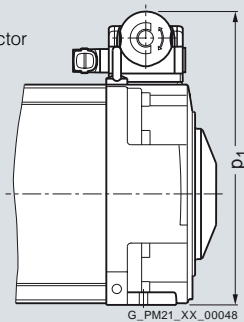
For motor		Dimensions in mm (inches)															
Shaft height	Type	DIN IEC B	a	a ₁	b	b ₁	c	c ₁	e ₁	f	f ₁	h	k	m	m ₁	m ₂	n
			P	A	N	HA	LA	M	AB	T	H	LB	BA	-	-	AA	
1PH8, type of construction IM B35, water cooling																	
132	1PH8131	220.5 (8.68)	340 (13.39)	216 (8.50)	250 (9.84)	15 (0.59)	18 (0.71)	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	GA	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 asynchronous motors Shaft height 160 – Forced ventilation

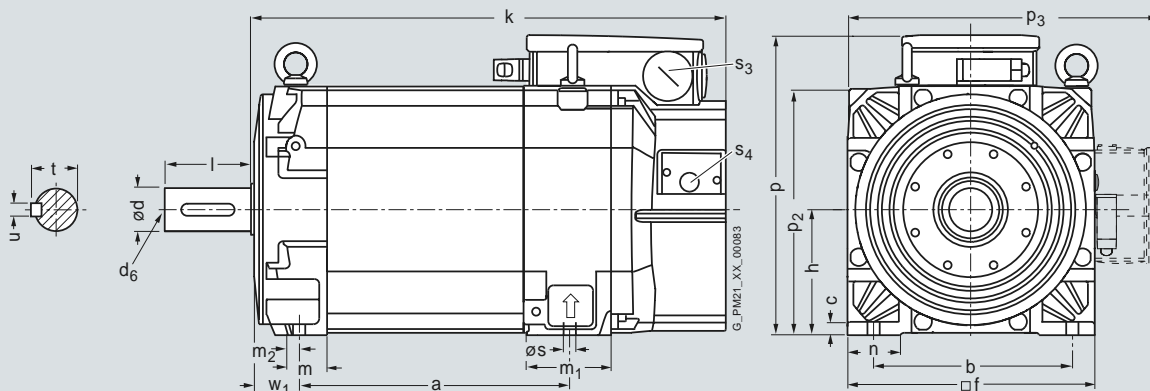
Dimensional drawings

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	1PH8163		346.5 (13.64)	–	254 (10.00)	–	17 (0.67)	23 (0.91)	–	314 (12.36)	–	160 (6.30)	610.5 (24.04)	64 (2.52)	99.5 (3.92)	28 (1.10)	70 (2.76)	
	1PH8165		406.5 (16.00)										670.5 (26.40)					

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
	1PH8163		382.5 (15.06)	–	317 (12.48)	412.5 (16.24)	14 (0.55)	–	M50 × 1.5	M20 × 1.5	61 (2.40)	55 (2.17)	M20	110 (4.33)	59 (2.32)	16 (0.63)
	1PH8165															

1PH816



Main motors Dimensional drawings

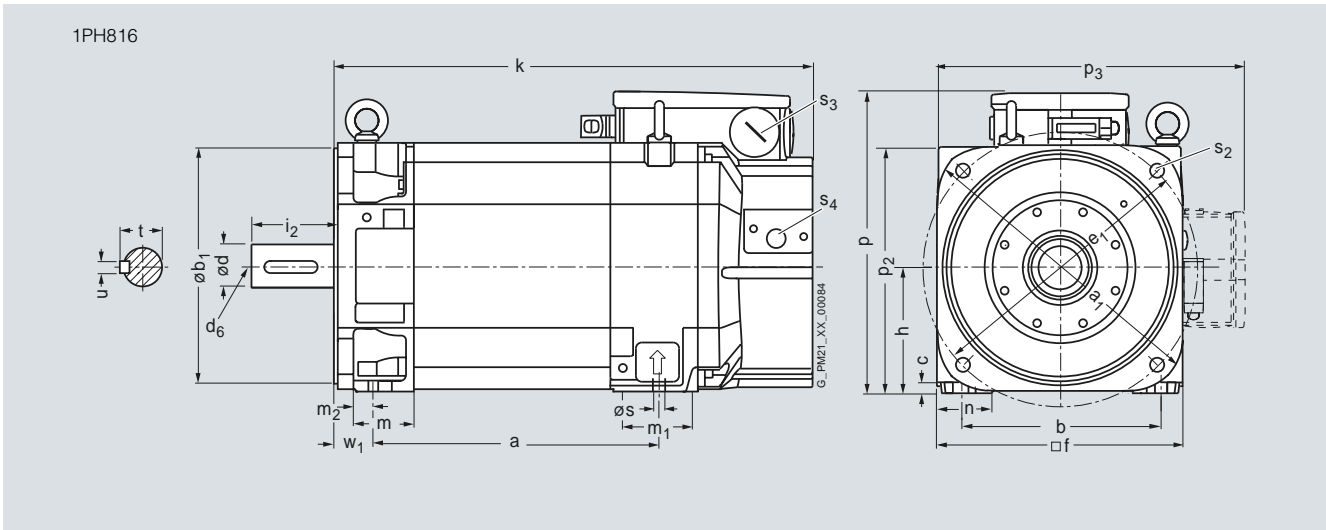
1PH8 asynchronous motors Shaft height 160 – Forced ventilation

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 B5/IM B35, forced ventilation																			
160	1PH8163		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)	610.5 (24.04)	55 (2.17)	99.5 (3.92)	19 (0.75)	70 (2.76)		
	1PH8165												670.5 (26.40)						

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 -										
	1PH8163		382.5 (15.06)	-	317 (12.48)	412.5 (16.24)	14 (0.55)	18 (0.71)	M50 × 1.5	M20 × 1.5	61 (2.40)	55 (2.17)	M20	110 (4.33)	59 (2.32)	16 (0.63)			
	1PH8165																		



Main motors

Dimensional drawings

1PH8 asynchronous 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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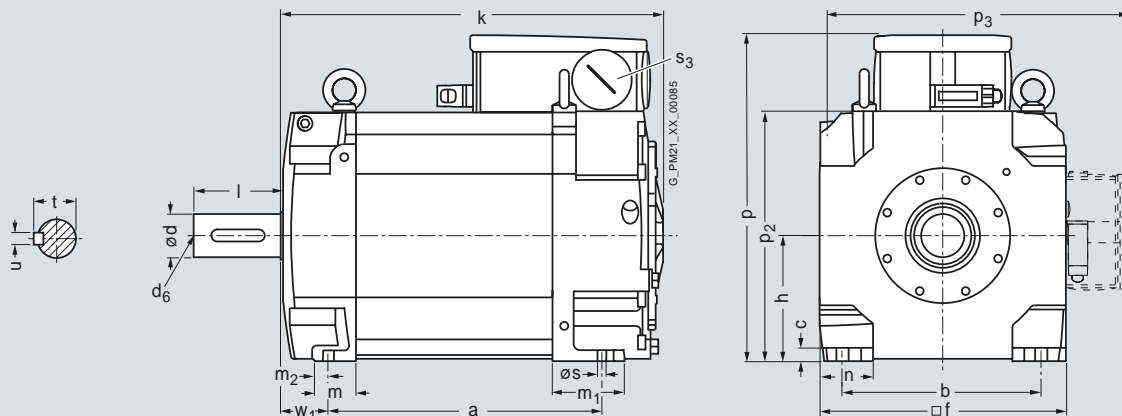
1PH8, type of construction IM B3, water cooling

160	1PH8163	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)	
	1PH8165	406.5 (16.00)											548.5 (21.59)				
	1PH8166																

5

Shaft height	Type	DIN IEC HD	Shaft extension DE												
			p	p ₁	p ₂	p ₃	s K	s ₂	s ₃	s ₄	w ₁ C	d D	d ₆	l L	t GA
	1PH8163	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)
	1PH8165														
	1PH8166														

1PH816



Main motors

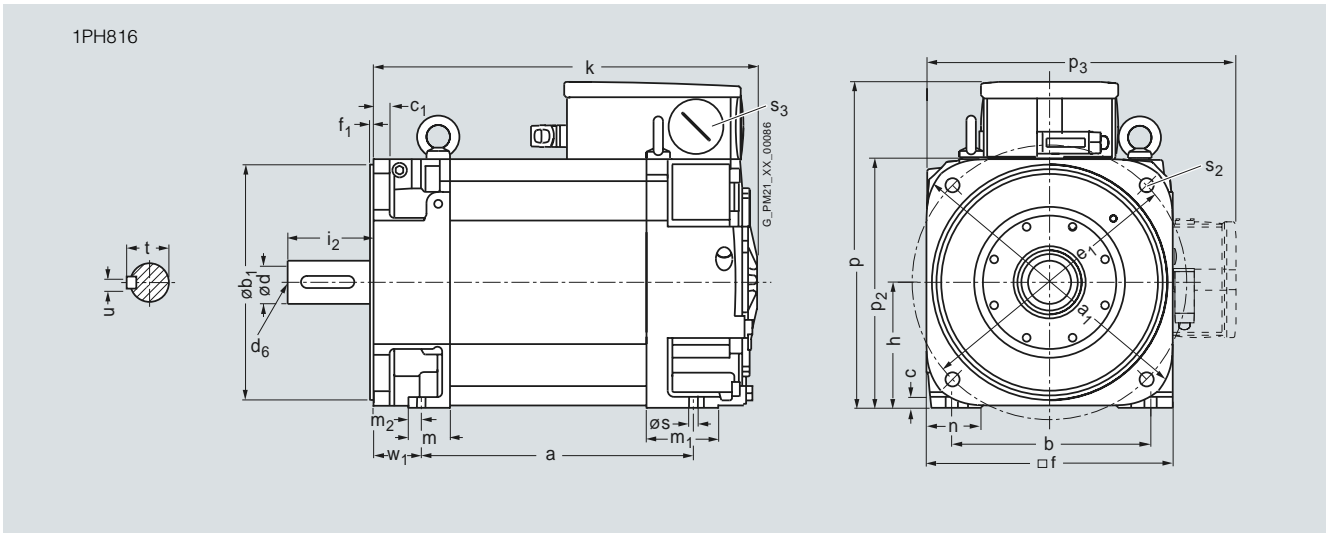
Dimensional drawings

1PH8 asynchronous motors Shaft height 160 – 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 B5/IM B35, water cooling																		
160	1PH8163	346.5	393	254	300	17	-	350	314	5	160	488.5	53	91	17	70		
		(13.64)	(15.47)	(10.00)	(11.81)	(0.67)		(13.78)	(12.36)	(0.20)	(6.30)	(19.23)	(2.09)	(3.58)	(0.67)	(2.76)		
	1PH8165	406.5											548.5					
		(16.00)											(21.59)					
	1PH8166																	

Shaft height	Type	DIN IEC HD	p	p ₁	p ₂	p ₃	s	s ₂	s ₃	s ₄	w ₁	Shaft extension DE				
												d	d ₆	i ₂	t	u
							K				C	D		E	GA	F
	1PH8163	415.5	-	317	412.5	14	18	M63 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)	
	1PH8165															
	1PH8166															



Main motors

Dimensional drawings

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

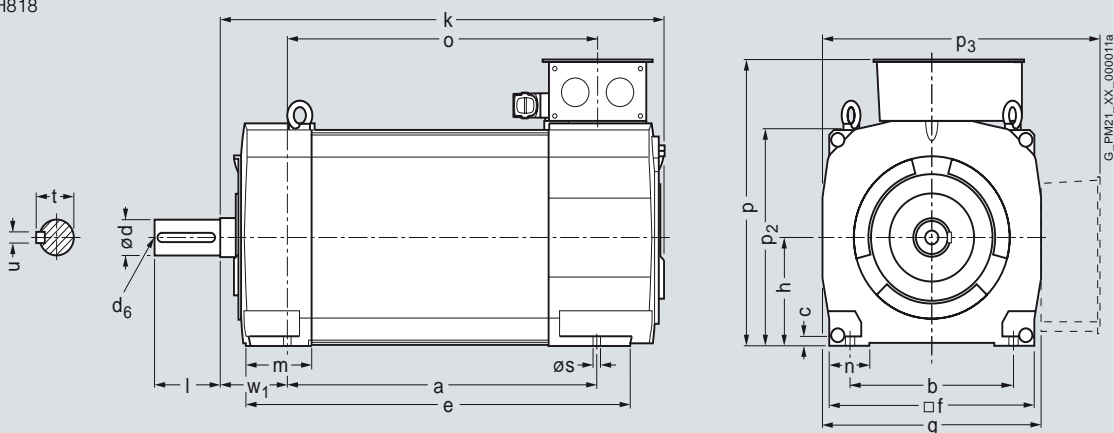
Dimensional drawings

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

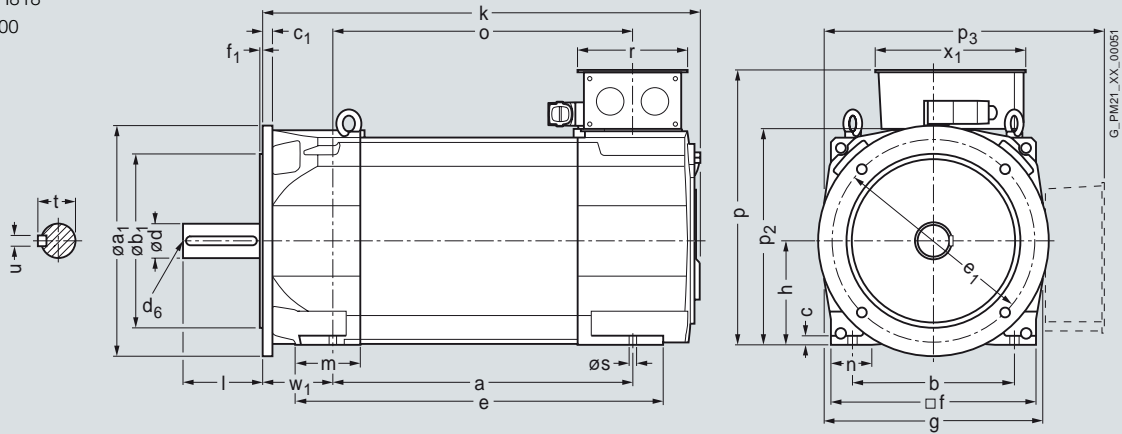
1PH8 asynchronous and synchronous motors Shaft height 180 – Water cooling

Dimensional drawings

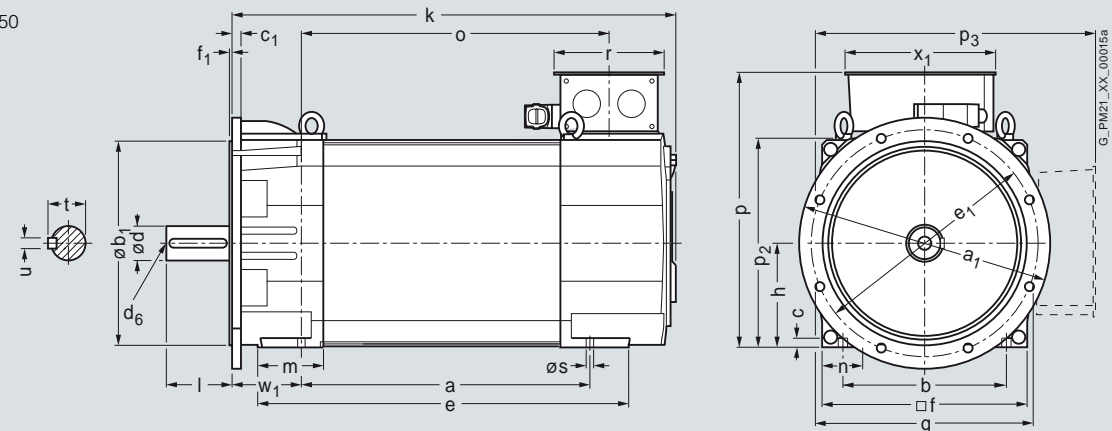
For motor		Dimensions in mm (inches)																			
Shaft height	Type	DIN IEC	a B	D400		D450		D400		D450		D400		D450		f AB	f ₁ T	g AC	h H	k LB	m BA
				a ₁ P	b A	b ₁ N	c HA	c ₁ LA	e ₁ M												
1PH8, types of construction IM B5/IM B35/IM V15, water cooling																					
180	1PH8184		430 (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

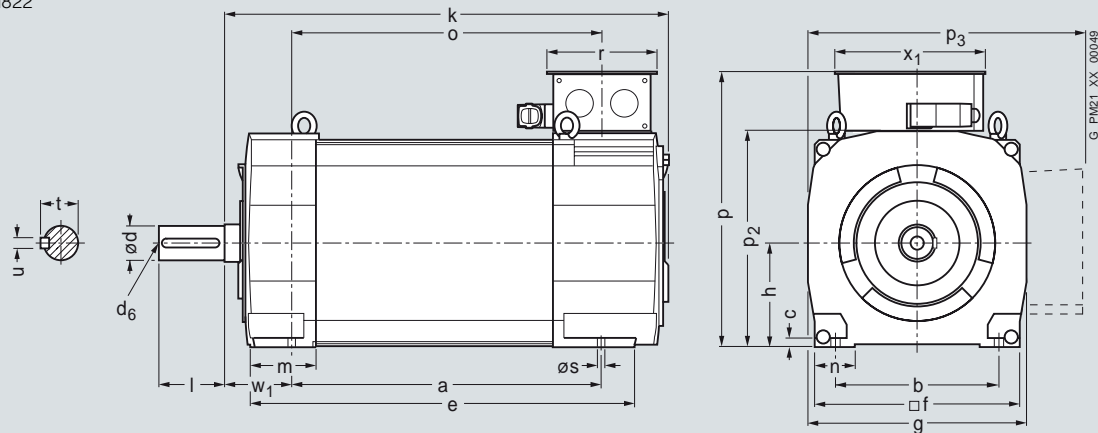
Dimensional drawings

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)				

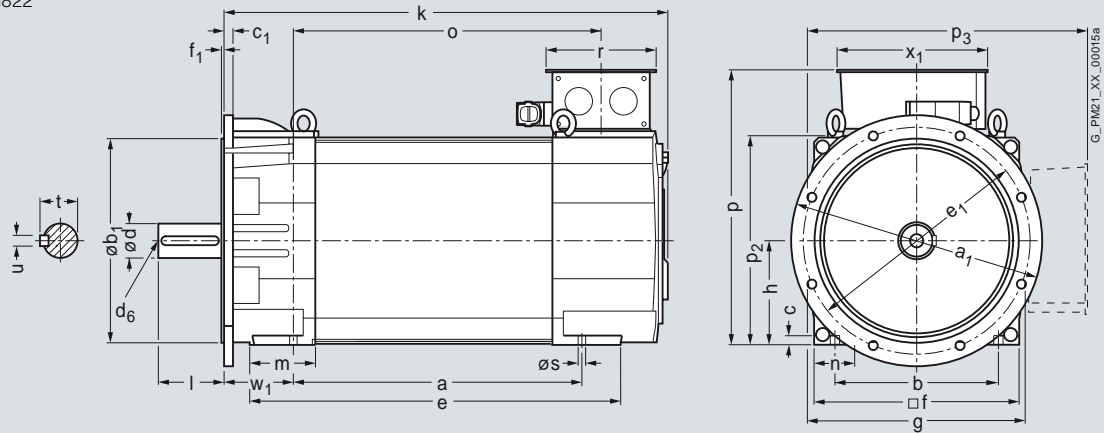
Shaft extension DE

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



Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 280 – Water cooling

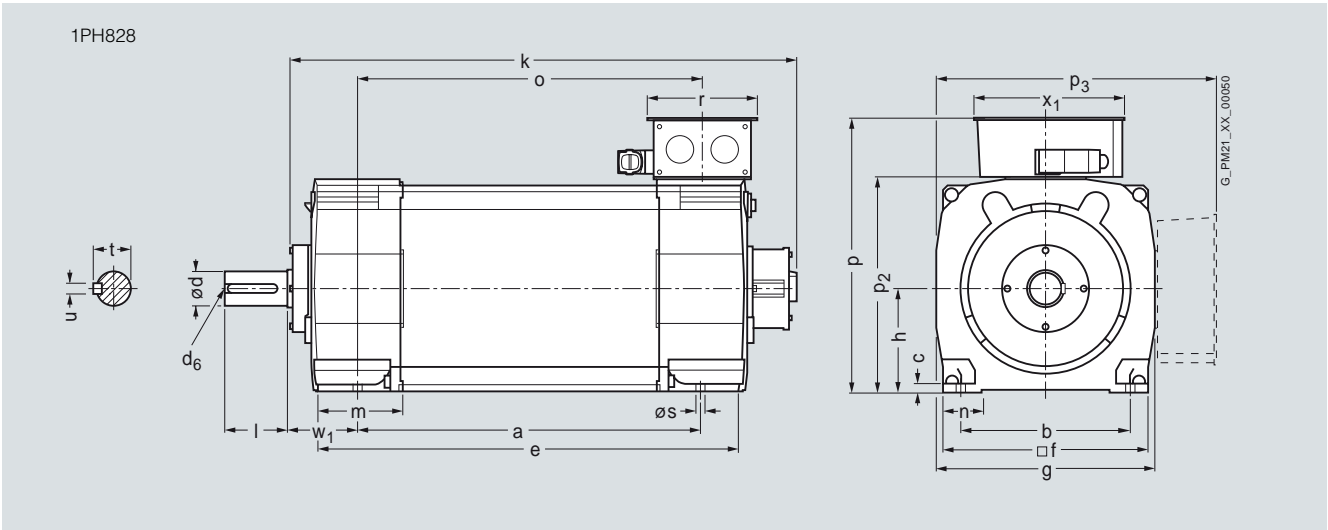
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC	a B	b A	c LA/HA	f AB	g AC	h H	k LB	m BA	n AA	p ₂ -	s K	w ₁ C	Shaft extension DE				
															d D	d ₆ -	l E	t GA	u F
1PH8, types of construction IM B3/IM V5, water cooling																			
280	1PH8284		684 (26.93)	457 (17.99)	21 (0.83)	556 (21.89)	588 (23.15)	280 (11.02)	1134 (44.65)	220 (8.66)	105 (4.13)	574 (22.60)	24 (0.94)	190 (7.48)	95m6	M24	170 (6.69)	100 (3.94)	25 (0.98)
	1PH8286		794 (31.26)						1244 (48.98)										
	1PH8288		924 (36.38)						1374 (54.09)										

5

Shaft height	Type	DIN IEC	Terminal box type															
			1XB7322				1XB7422				1XB7700				1XB7712			
			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	p HD	p ₃ -	r LL	x ₁ AG
280	1PH8284		709 (27.91)	716 (28.19)	197 (7.76)	258 (10.16)	724 (28.5)	731 (28.78)	230 (9.06)	303 (11.93)	770 (30.31)	777 (30.59)	310 (12.2)	318 (12.52)	820 (32.28)	827 (32.56)	377 (14.84)	370 (14.57)
	1PH8286																	
	1PH8288																	



Main motors

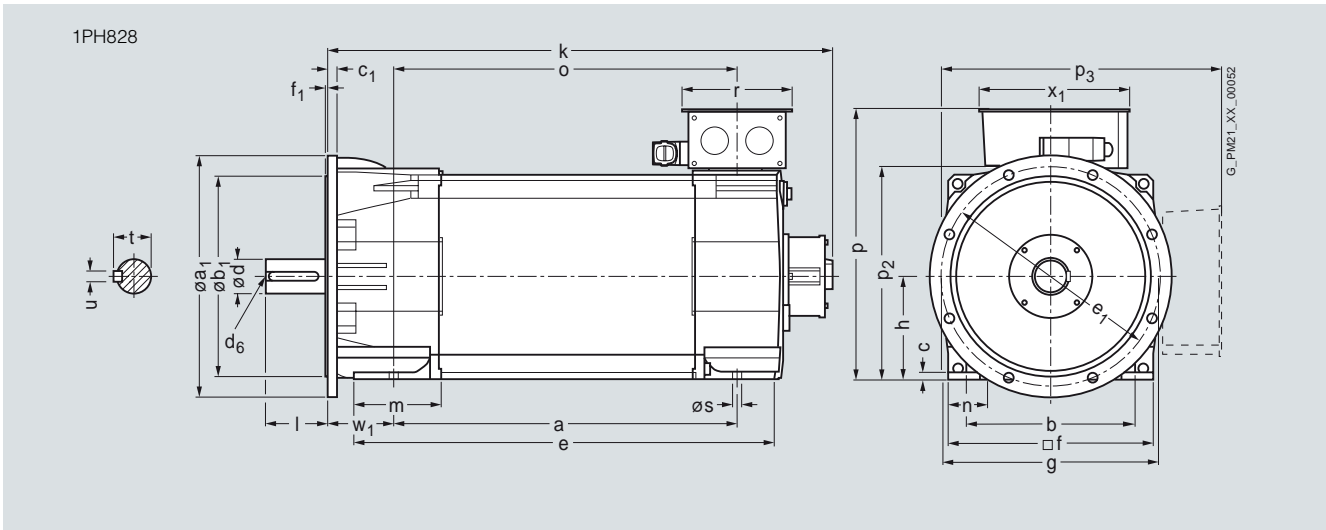
Dimensional drawings

1PH8 asynchronous motors Shaft height 280 – 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	i ₂ EB	k LB	m BA	n AA	p ₂ -	s K
1PH8, types of construction IM B5/IM B35/IM V15 D660, water cooling																			
280	1PH8284		684 (26.93)	660 (25.98)	457 (17.99)	550 (21.65)	21 (0.83)	24 (0.94)	600 (23.62)	556 (21.89)	6 (0.24)	588 (23.15)	280 (11.02)	140 (5.51)	1134 (44.65)	220 (8.66)	105 (4.13)	574 (22.60)	24 (0.94)
	1PH8286		794 (31.26)												1244 (48.98)				
	1PH8288		924 (36.38)												1374 (54.09)				

Shaft extension DE												Terminal box type	
Shaft height	Type	DIN IEC	m BA	n AA	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	
280	1PH8284		220 (8.66)	105 (4.13)	24 (0.94)	190 (7.48)	95m6	M24	170 (6.69)	100 (3.94)	25 (0.98)		
	1PH8286												
	1PH8288												



Main motors

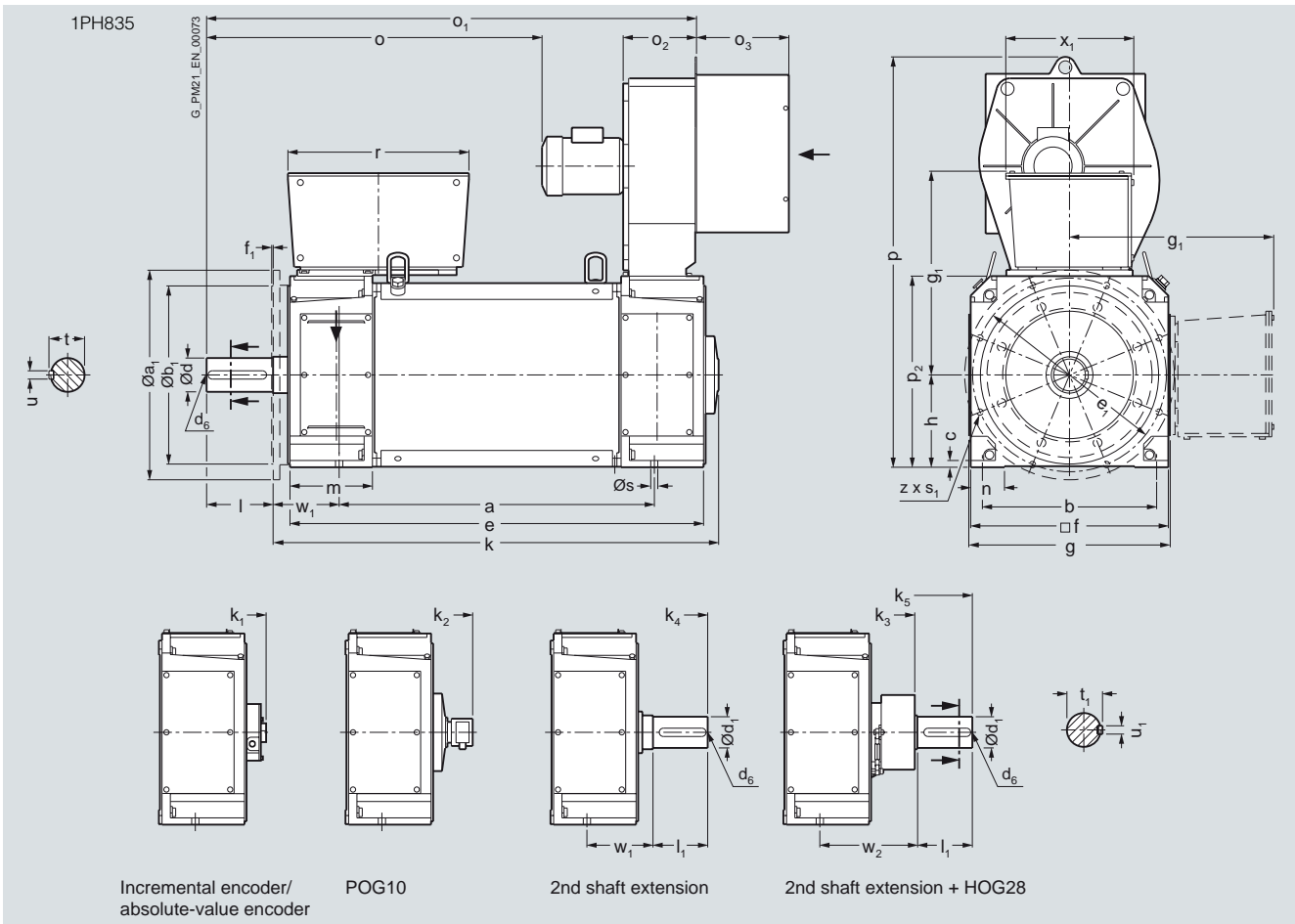
Dimensional drawings

1PH8 asynchronous motors Shaft height 355 – 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	e ₁ M	f AB	f ₁ T	h H	k L	k ₁	k ₂	k ₃	k ₄	k ₅	
1PH8, type of construction IM B35, forced ventilation																		
355	1PH8350		772	800	670	680	26	740	760	6	355	1273	1549	1625	1644	1740	1861	
	1PH8351		(30.39)	(31.50)	(26.38)	(26.77)	(1.02)	(29.13)	(29.92)	(0.24)	(13.98)	(50.12)	(60.98)	(63.98)	(64.72)	(68.50)	(73.27)	
	1PH8352		862									1363	1639	1715	1734	1830	1951	
			(33.94)									(53.66)	(64.53)	(67.52)	(68.27)	(72.05)	(76.81)	
	1PH8354		972									1473	1749	1825	1844	1940	2061	
			(38.27)									(57.99)	(68.86)	(71.85)	(72.60)	(76.38)	(81.14)	
	1PH8356		1092									1593	1869	1945	1964	2060	2181	
			(42.99)									(62.72)	(73.58)	(76.57)	(77.32)	(81.10)	(85.87)	
	1PH8358		1212									1713	1989	2065	2084	2180	2301	
			(47.72)									(67.44)	(78.31)	(81.30)	(82.05)	(85.83)	(90.59)	

Shaft height	Type	DIN IEC	m BA	n AA	p HD	p ₂ HC	o K1	o ₁ K2	o ₂ K3	o ₃ K4	s K	s ₁ S	w ₁ C/CA	w ₂ CA1	z Z
355	1PH8350		317	130	1269	735	900	1412	200	355	28	24	254	375	8
	1PH8351		(12.48)	(5.12)	(49.96)	(28.94)	(35.43)	(55.59)	(7.87)	(13.98)	(1.10)	(0.94)	(10.00)	(14.76)	
	1PH8352						990	1502							
							(38.98)	(59.13)							
	1PH8354						1110	1612							
							(43.70)	(63.46)							
	1PH8356						1220	1732							
							(48.03)	(68.19)							
	1PH8358						1340	1852							
							(52.76)	(72.91)							



For dimensions of shaft extension and terminal box, see page 5/139.

Main motors

Dimensional drawings

1PH8 asynchronous motors Shaft height 355 – Forced ventilation

Dimensional drawings

Shaft height	Type	DIN IEC	Shaft extension DE									Terminal box type					
			d D	d ₁ DA	d ₆ DB/DC	l E	l ₁ EC	t G	t ₁ GB	u F	u ₁ FA	g ₂ AD	r LL	x ₁ AG	g ₂ AD	r LL	x ₁ AG
355	1PH8350		130	120	M24	250	180	119	114	32	32	640	370	377	784	696	492
	1PH8351		(5.12)	(4.72)		(9.84)	(7.09)	(4.69)	(4.49)	(1.26)	(1.26)	(25.20)	(14.57)	(14.84)	(30.87)	(27.40)	(19.37)
	1PH8352																
	1PH8354																
	1PH8356																
	1PH8358																

