

SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 80 – Forced ventilation

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HD	HE
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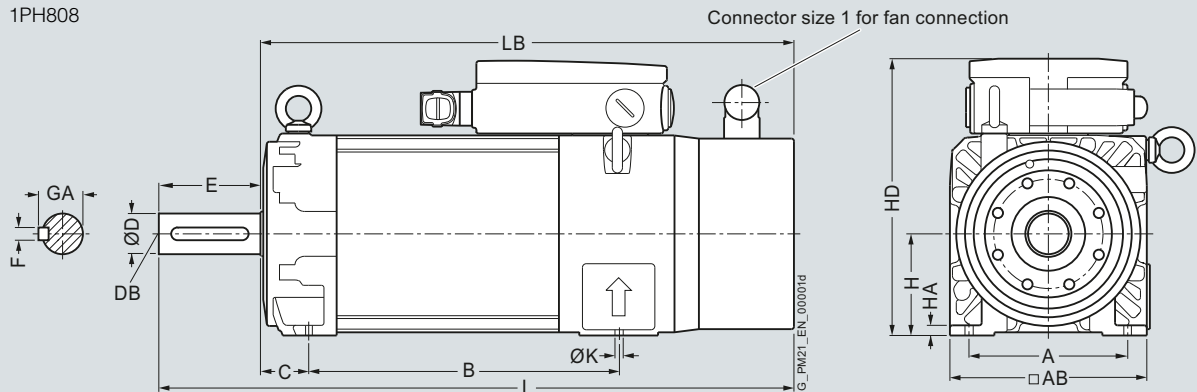
1PH8, type of construction IM B3, forced ventilation

80	1PH8083	125 (4.92)	155 (6.10)	194 (7.64)	38 (1.50)	80 (3.15)	8 (0.31)	216 (8.50)	253.5 (9.98)
	1PH8087			244 (9.61)					

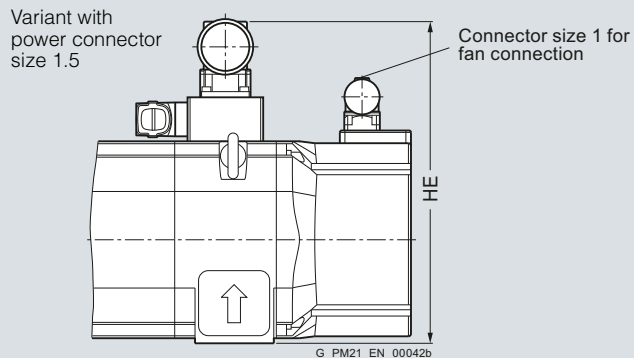
Shaft height	Type	IEC L	LB	K	Shaft extension DE		E	F	GA
					D	DB			

80	1PH8083	455 (17.91)	375 (14.76)	10 (0.39)	32 (1.26)	M12	80 (3.15)	10 (0.39)	35 (1.38)
	1PH8087	505 (19.88)	425 (16.73)						

1PH808



Variant with power connector size 1.5



SIMOTICS main motors

Dimensional drawings

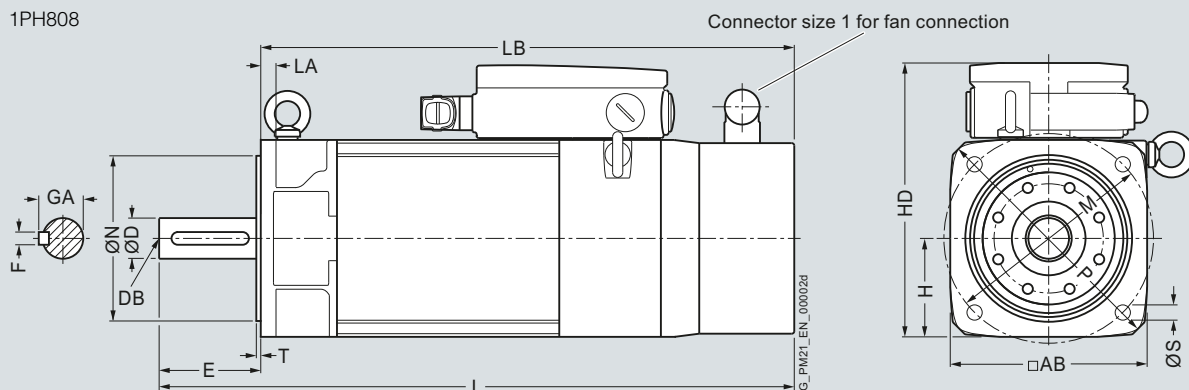
SIMOTICS M-1PH8 asynchronous motors Shaft height 80 – Forced ventilation

Dimensional drawings

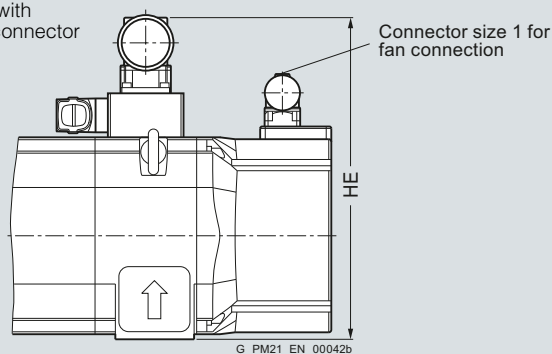
For motor		Dimensions in mm (inches)								
Shaft height	Type	IEC AB	H	HD	HE	L	LA	LB	M	N
1PH8, type of construction IM B5, forced ventilation										
80	1PH8083	155 (6.10)	77.5 (3.05)	213.5 (8.41)	251 (9.88)	455 (17.91)	12 (0.47)	375 (14.76)	165 (6.50)	130 (5.12)
	1PH8087					505 (19.88)		425 (16.73)		

Shaft height	Type	IEC P	S	T	Shaft extension DE				
					D	DB	E	F	GA
80	1PH8083	200 (7.87)	12 (0.47)	3.5 (0.14)	32 (1.26)	M12	80 (3.15)	10 (0.39)	35 (1.38)
	1PH8087								

1PH808



Variant with power connector size 1.5



5

SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 80 – Water cooling

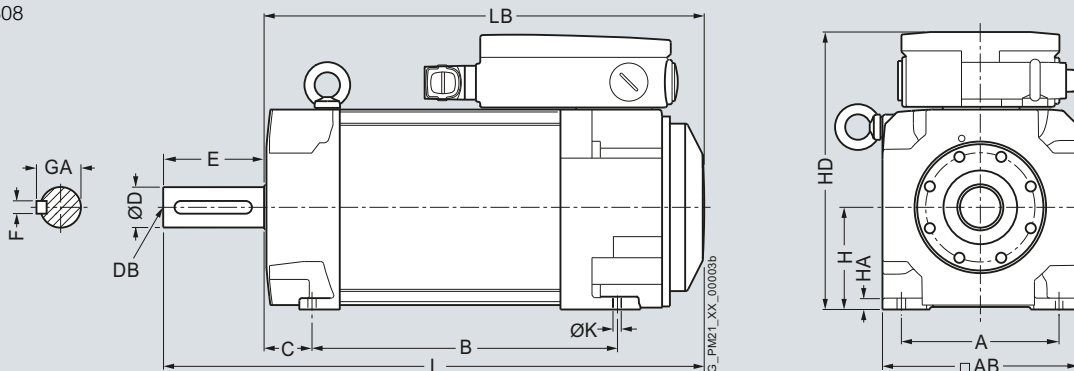
Dimensional drawings

For motor Dimensions in mm (inches)

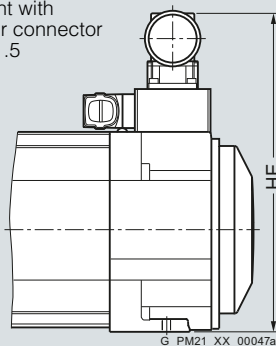
Shaft height	Type	IEC A	AB	B	C	H	HA	HD	HE
1PH8, type of construction IM B3, water cooling									
80	1PH8083	125 (4.92)	155 (6.10)	194 (7.64)	38 (1.50)	80 (3.15)	8 (0.31)	216 (8.50)	253.5 (9.98)
	1PH8087			244 (9.61)					

Shaft height	Type	IEC K	L	LB	Shaft extension DE		E	F	GA
					D	DB			
80	1PH8083	10 (0.39)	381.5 (15.02)	301.5 (11.87)	32 (1.26)	M12	80 (3.15)	10 (0.39)	35 (1.38)
	1PH8087		431.5 (16.99)	351.5 (13.84)					

1PH808



Variant with power connector size 1.5



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 80 – Water cooling

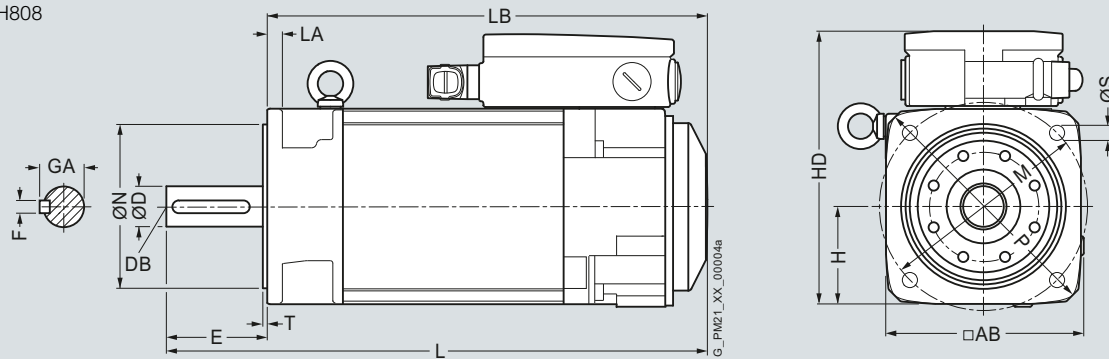
Dimensional drawings

For motor Dimensions in mm (inches)

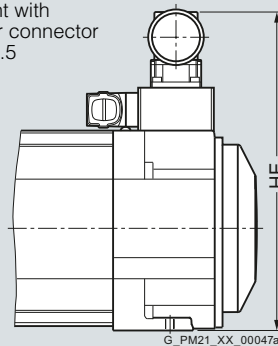
Shaft height	Type	IEC AB	H	HD	HE	L	LA	LB	M	N
1PH8, type of construction IM B5, water cooling										
80	1PH8083	155 (6.10)	77.5 (3.05)	213.5 (8.41)	251 (9.88)	381.5 (15.02)	12 (0.47)	301.5 (11.87)	165 (6.50)	130 (5.12)
	1PH8087					431.5 (16.99)		351.5 (13.84)		

Shaft height	Type	IEC P	S	T	Shaft extension DE				
					D	DB	E	F	GA
80	1PH8083	200 (7.87)	12 (0.47)	3.5 (0.14)	32 (1.26)	M12	80 (3.15)	10 (0.39)	35 (1.38)
	1PH8087								

1PH808



Variant with power connector size 1.5



SIMOTICS main motors

Dimensional drawings

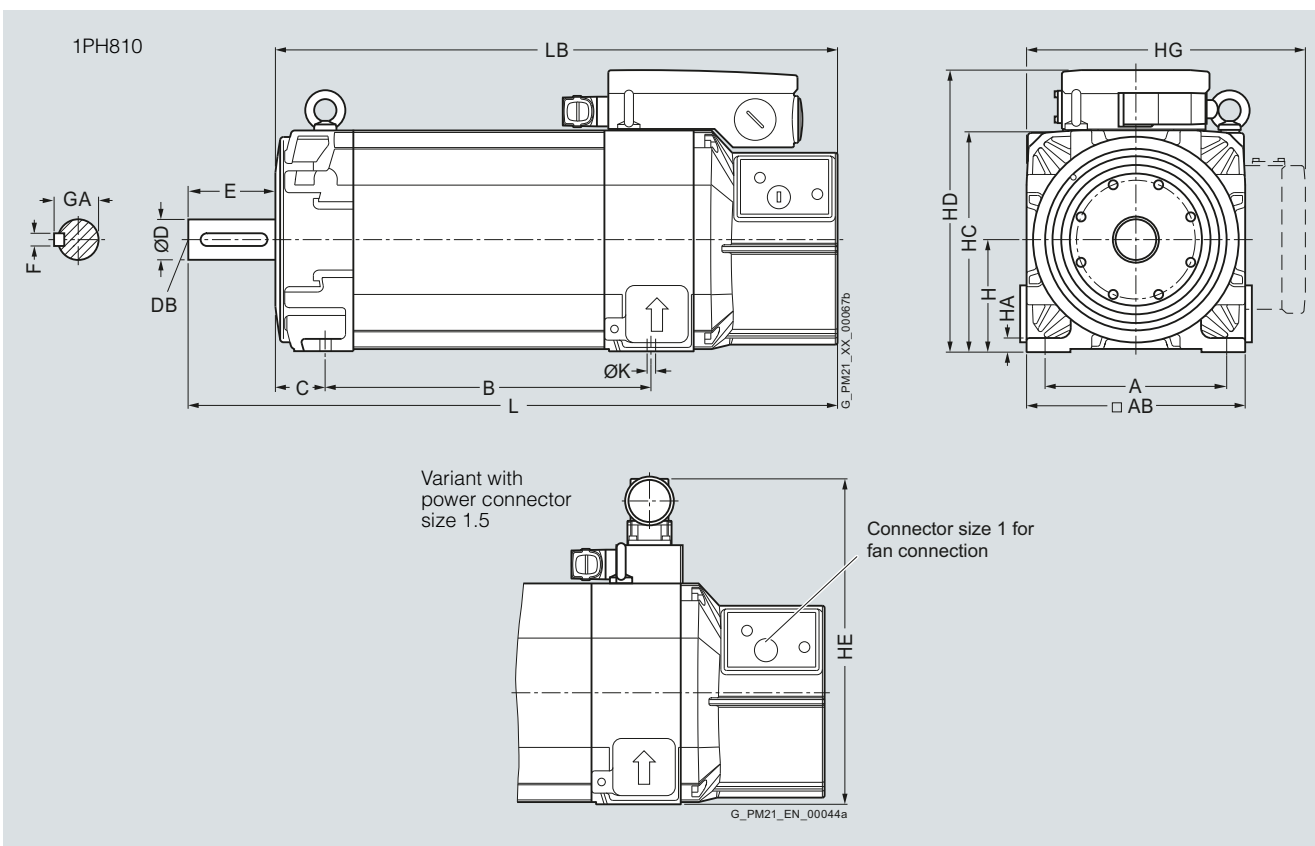
SIMOTICS M-1PH8 asynchronous motors Shaft height 100 – Forced ventilation

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	C	B	H	HA	HC	HD	HE
1PH8, type of construction IM B3, forced ventilation										
100	1PH8101	160 (6.30)	196 (7.72)	43 (1.69)	167 (6.57)	100 (3.94)	11 (0.43)	198 (7.80)	252 (9.92)	294 (11.57)
	1PH8103				202.5 (7.97)					
	1PH8105				262 (10.31)					
	1PH8107				297.5 (11.71)					

Shaft height	Type	IEC HG	L	K	LB	Shaft extension DE				
						D	DB	E	F	GA
100	1PH8101	276.5 (10.89)	449.5 (17.70)	12 (0.47)	369.5 (14.55)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)
	1PH8103		485 (19.09)		405 (15.94)					
	1PH8105		544.5 (21.44)		464.5 (18.29)					
	1PH8107		580 (22.83)		500 (19.69)					



SIMOTICS main motors

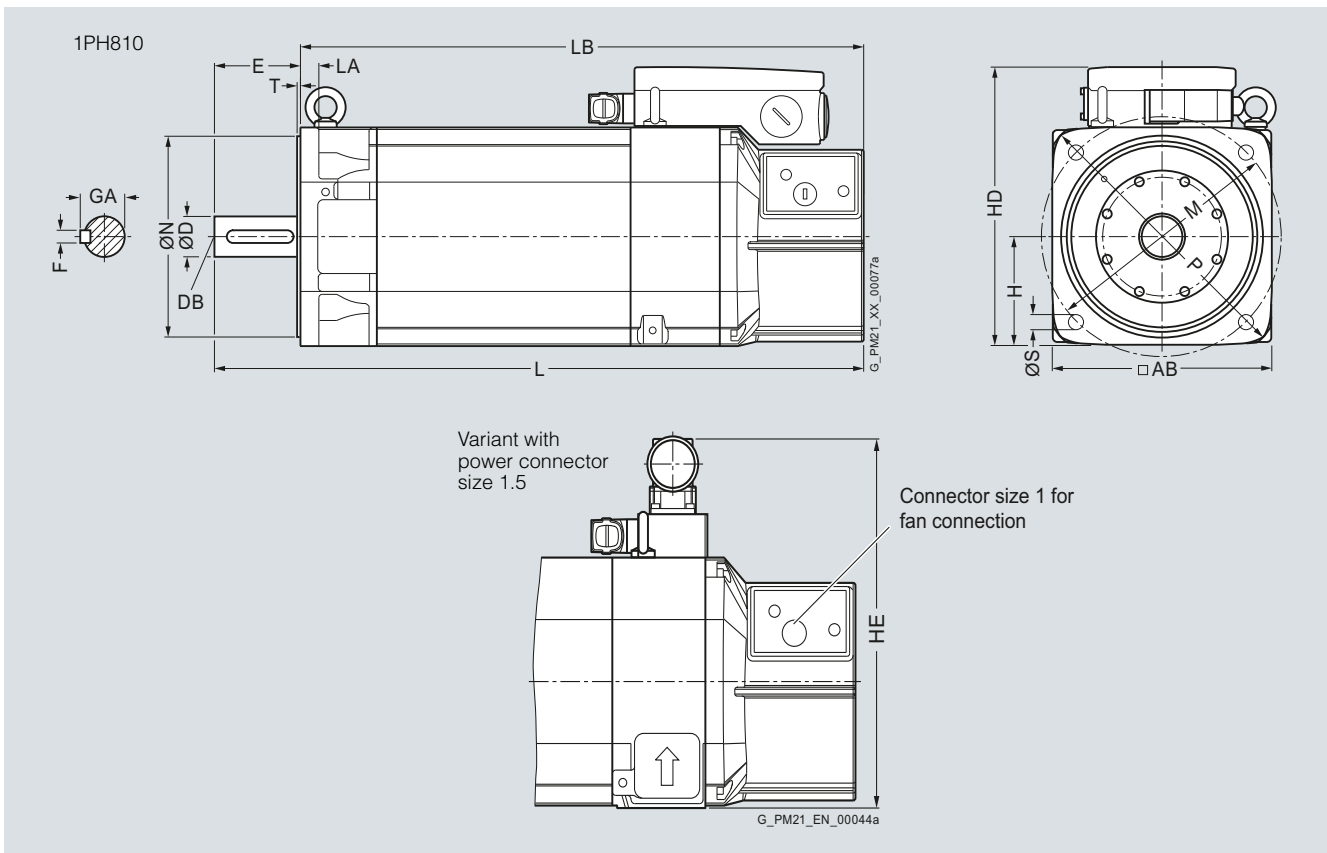
Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 100 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)								
Shaft height	Type	IEC AB	H	HD	HE	L	LA	LB	M	N
1PH8, type of construction IM B5, forced ventilation										
100	1PH8101	196 (7.72)	98 (3.86)	250 (9.84)	292 (11.50)	449.5 (17.70)	16 (0.63)	369.5 (14.55)	215 (8.46)	180 (7.09)
	1PH8103					485 (19.09)		405 (15.94)		
	1PH8105					544.5 (21.44)		464.5 (18.29)		
	1PH8107					580 (22.83)		500 (19.69)		

Shaft height	Type	IEC P	S	T	Shaft extension DE				
					D	DB	E	F	GA
100	1PH8101	250 (9.84)	14 (0.55)	4 (0.16)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)
	1PH8103								
	1PH8105								
	1PH8107								



SIMOTICS main motors

Dimensional drawings

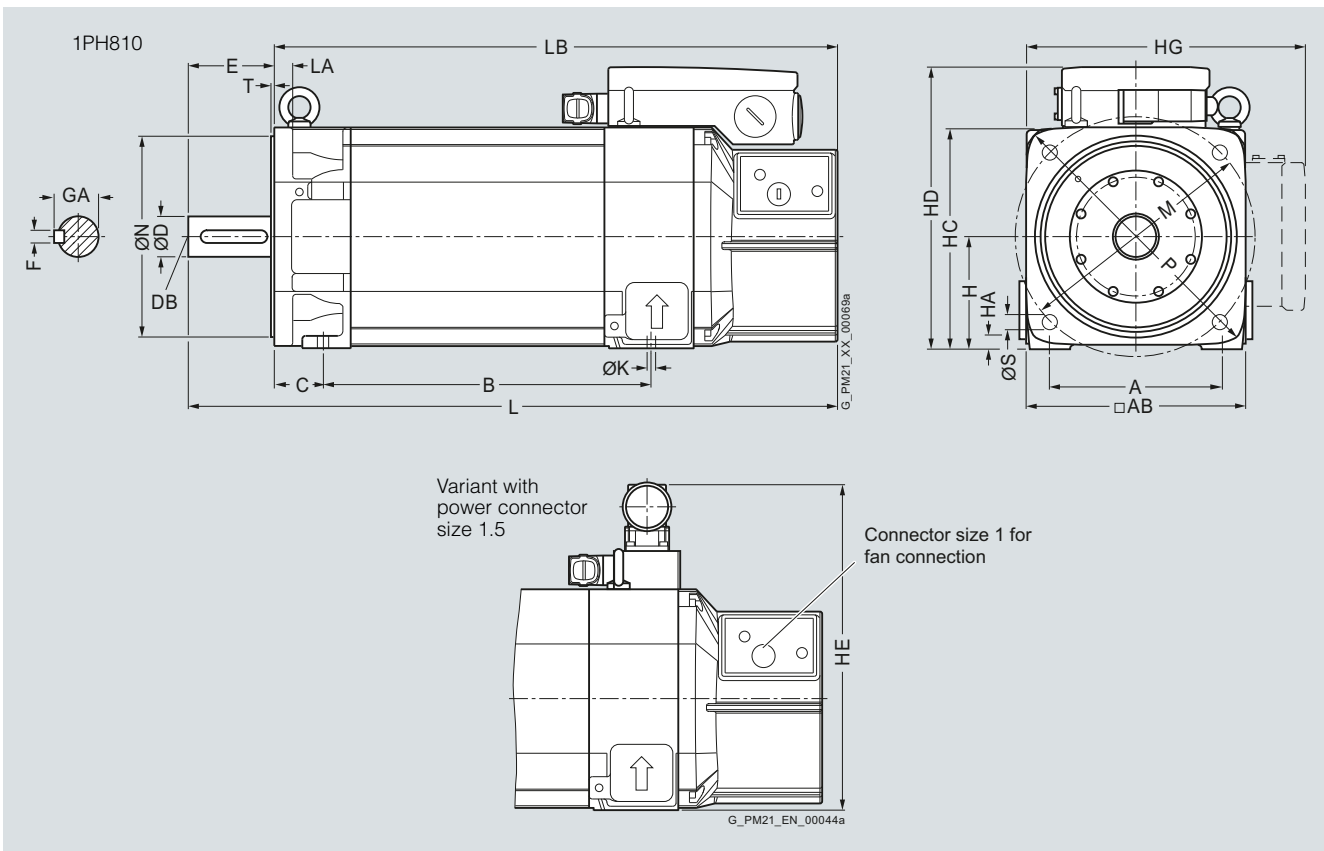
SIMOTICS M-1PH8 asynchronous motors Shaft height 100 – Forced ventilation

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE	HG	K	L
1PH8, type of construction IM B35, forced ventilation													
100	1PH8101	160 (6.30)	196 (7.72)	167 (6.57)	43 (1.69)	100 (3.94)	11 (0.43)	198 (7.80)	252 (9.92)	294 (11.57)	276.5 (10.89)	12 (0.47)	449.5 (17.70)
	1PH8103			202.5 (7.97)									485 (19.09)
	1PH8105			262 (10.31)									544.5 (21.44)
	1PH8107			297.5 (11.71)									580 (22.83)

Shaft height	Type	IEC	Shaft extension DE										
			LA	LB	M	N	P	S	T	D	DB	E	F
100	1PH8101	16 (0.63)	369.5 (14.55)	215 (8.46)	180 (7.09)	250 (9.84)	14 (0.55)	4 (0.16)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)
	1PH8103		405 (15.94)										
	1PH8105		464.5 (18.29)										
	1PH8107		500 (19.69)										



SIMOTICS main motors

Dimensional drawings

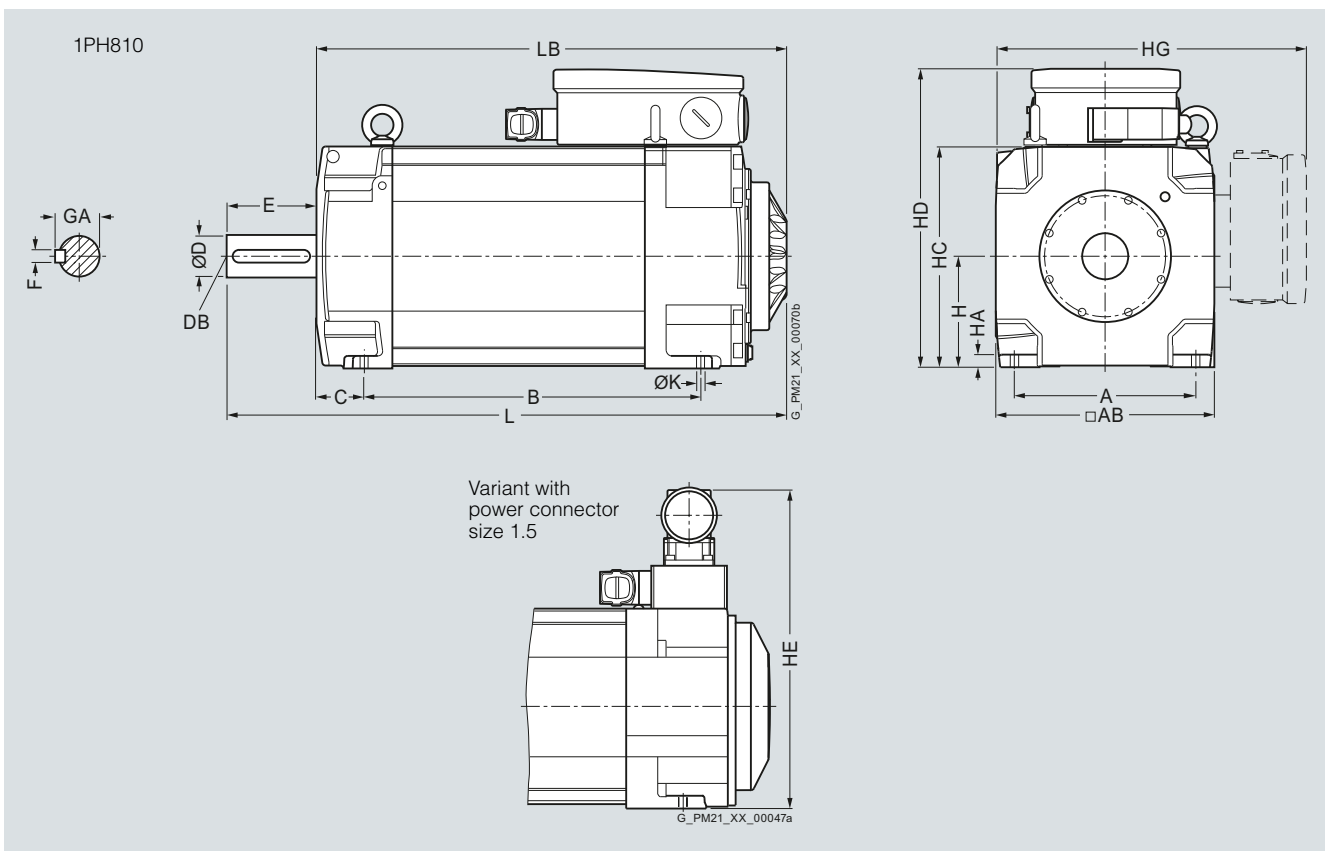
SIMOTICS M-1PH8 asynchronous motors Shaft height 100 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE
1PH8, type of construction IM B3, water cooling										
100	1PH8101	160 (6.30)	196 (7.72)	167 (6.57)	43 (1.69)	100 (3.94)	11 (0.43)	198 (7.80)	266.5 (10.49)	294 (11.57)
	1PH8103			202.5 (7.97)						
	1PH8105			262 (10.31)						
	1PH8107			297.5 (11.71)						

Shaft height	Type	IEC HG	K	L	LB	Shaft extension DE				
						D	DB	E	F	GA
100	1PH8101	276.5 (10.89)	12 (0.47)	369.5 (14.55)	289.5 (11.40)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)
	1PH8103			405 (15.94)	325 (12.80)					
	1PH8105			464.5 (18.29)	384.5 (15.14)					
	1PH8107			500 (19.69)	420 (16.54)					



SIMOTICS main motors

Dimensional drawings

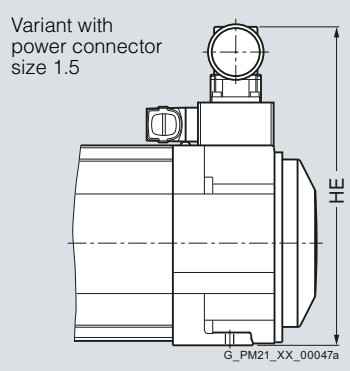
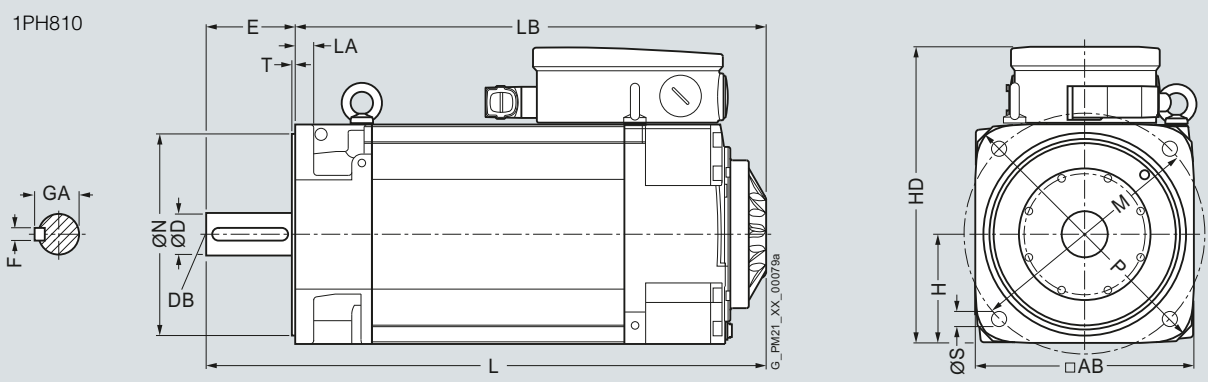
SIMOTICS M-1PH8 asynchronous motors Shaft height 100 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC AB	H	HD	HE	L	LA	LB	M	N
1PH8, type of construction IM B5, water cooling										
100	1PH8101	196 (7.72)	98 (3.86)	264.5 (10.41)	292 (11.50)	369.5 (14.55)	16 (0.63)	289.5 (11.40)	215 (8.46)	180 (7.09)
	1PH8103					405 (15.94)		325 (12.80)		
	1PH8105					464.5 (18.29)		384.5 (15.14)		
	1PH8107					500 (19.69)		420 (16.54)		

Shaft height	Type	IEC P	S	T	Shaft extension DE				
					D	DB	E	F	GA
100	1PH8101	250 (9.84)	14 (0.55)	4 (0.16)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)
	1PH8103								
	1PH8105								
	1PH8107								



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SIMOTICS main motors

Dimensional drawings

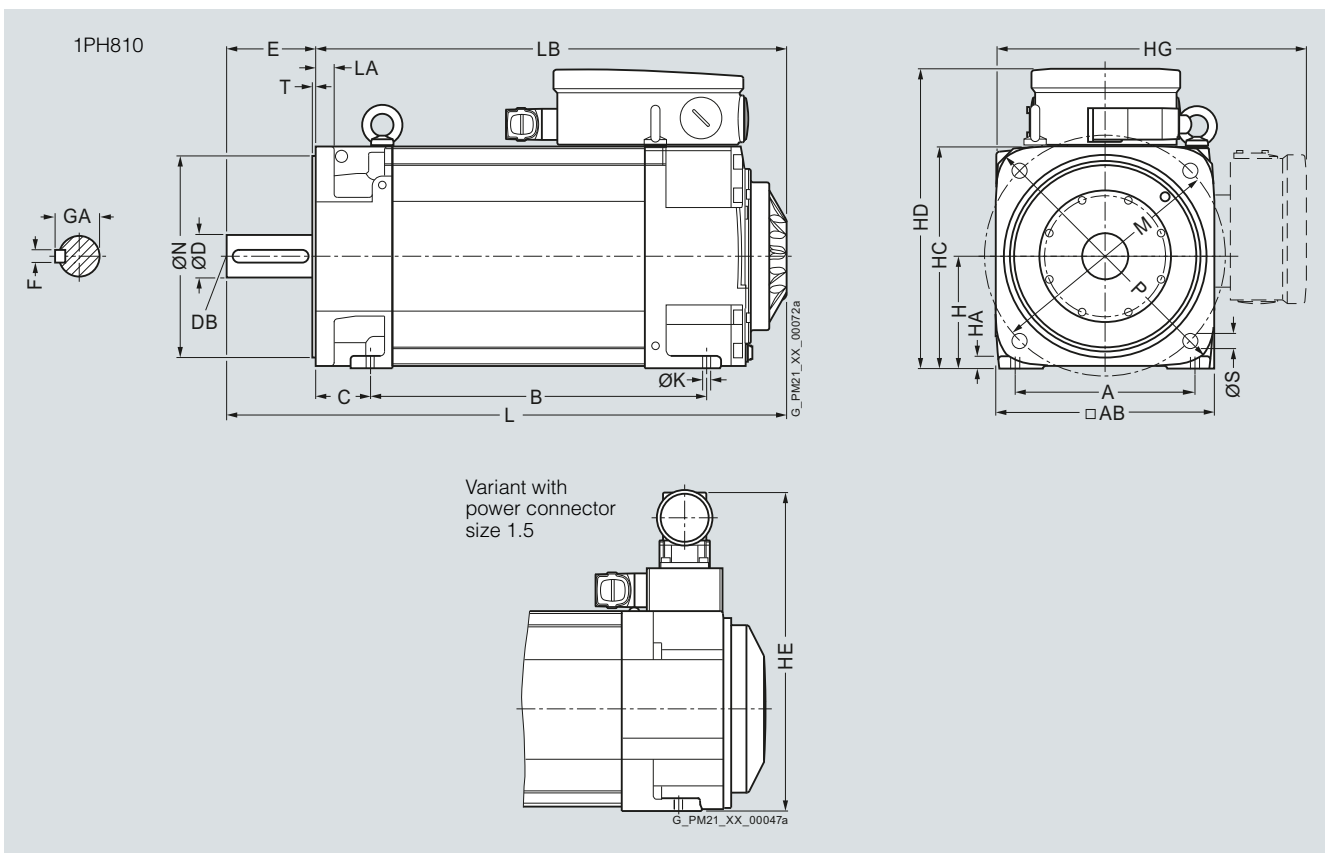
SIMOTICS M-1PH8 asynchronous motors Shaft height 100 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE	HG	K	L
1PH8, type of construction IM B35, water cooling													
100	1PH8101	160 (6.30)	196 (7.72)	167 (6.57)	43 (1.69)	100 (3.94)	11 (0.43)	198 (7.80)	266.5 (10.49)	294 (11.57)	276.5 (10.89)	12 (0.47)	369.5 (14.55)
	1PH8103			202.5 (7.97)									405 (15.94)
	1PH8105			262 (10.31)									464.5 (18.29)
	1PH8107			297.5 (11.71)									500 (19.69)

Shaft height	Type	IEC LA	LB	M	N	P	S	T	Shaft extension DE				
									D	DB	E	F	GA
100	1PH8101	16 (0.63)	289.5 (11.40)	215 (8.46)	180 (7.09)	250 (9.84)	14 (0.55)	4 (0.16)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)
	1PH8103		325 (12.80)										
	1PH8105		384.5 (15.14)										
	1PH8107		420 (16.54)										



SIMOTICS main motors

Dimensional drawings

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

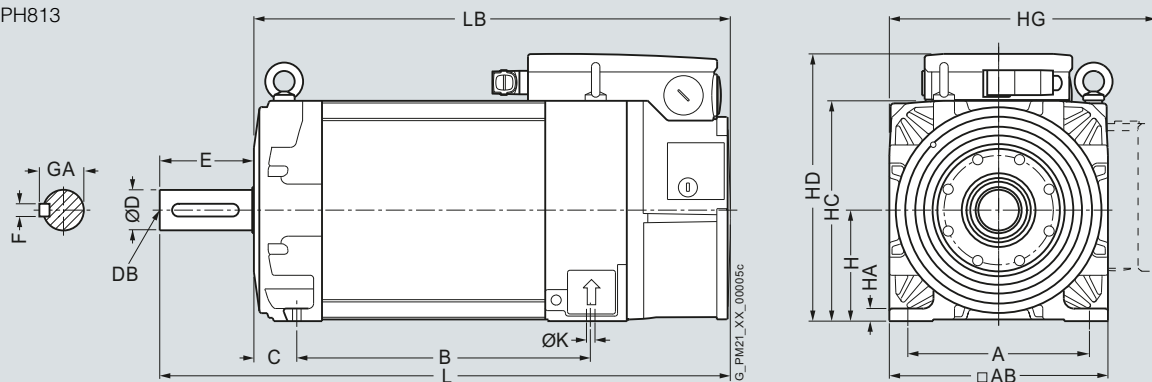
Dimensional drawings

For motor Dimensions in mm (inches)

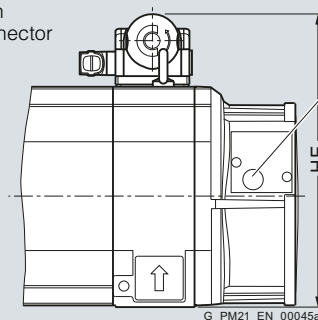
Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE
1PH8, type of construction IM B3, forced ventilation										
132	1PH8131	216 (8.50)	260 (10.24)	220.5 (8.68)	53 (2.09)	132 (5.20)	15 (0.59)	262 (10.31)	317.5 (12.50)	347 (13.66)
	1PH8133			265.5 (10.45)						
	1PH8135			310.5 (12.22)						
	1PH8137			350.5 (13.80)						

Shaft height	Type	IEC HG	K	L	LB	Shaft extension DE				
						D	DB	E	F	GA
132	1PH8131	357.5 (14.07)	12 (0.47)	549 (21.61)	439 (17.28)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)
	1PH8133			594 (23.39)	484 (19.06)					
	1PH8135			639 (25.16)	529 (20.83)					
	1PH8137			679 (26.73)	569 (22.40)					

1PH813



Variant with
power connector
size 3



Connector size 1 for
fan connection

G_PM21_EN_00045a

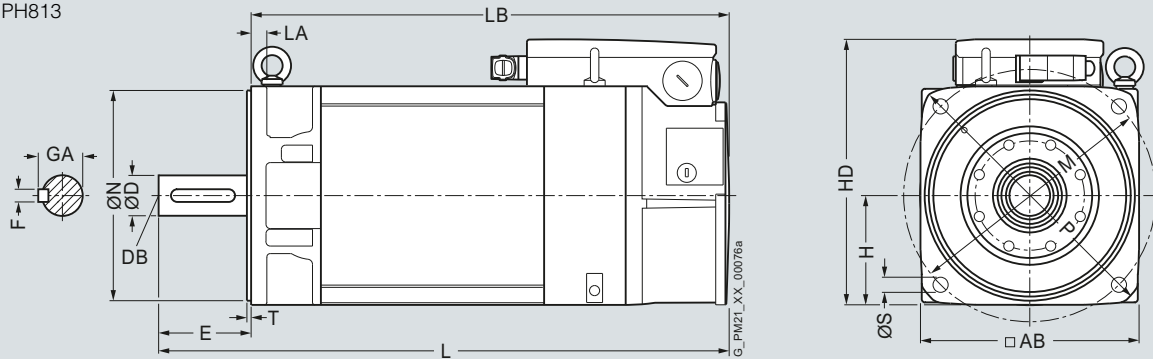
SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 132 – Forced ventilation

Dimensional drawings

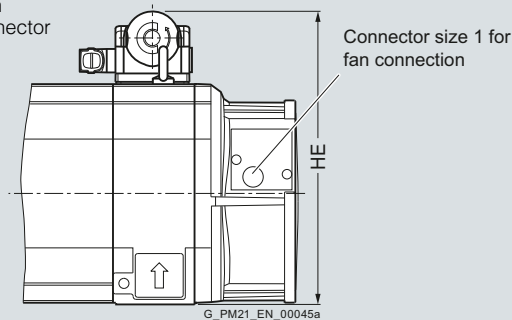
For motor		Dimensions in mm (inches)								
Shaft height	Type	IEC AB	H	HD	HE	L	LA	LB	M	N
1PH8, type of construction IM B5, forced ventilation										
132	1PH8131	260 (10.24)	130 (5.12)	315.5 (12.42)	345 (13.58)	549 (21.61)	18 (0.71)	439 (17.28)	300 (11.81)	250 (9.84)
	1PH8133					594 (23.39)		484 (19.06)		
	1PH8135					639 (25.16)		529 (20.83)		
	1PH8137					679 (26.73)		569 (22.40)		

Shaft height	Type	IEC P	S	T	Shaft extension DE				
					D	DB	E	F	GA
132	1PH8131	340 (13.39)	18 (0.71)	5 (0.20)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)
	1PH8133								
	1PH8135								
	1PH8137								

1PH813



Variant with power connector size 3



SIMOTICS main motors

Dimensional drawings

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

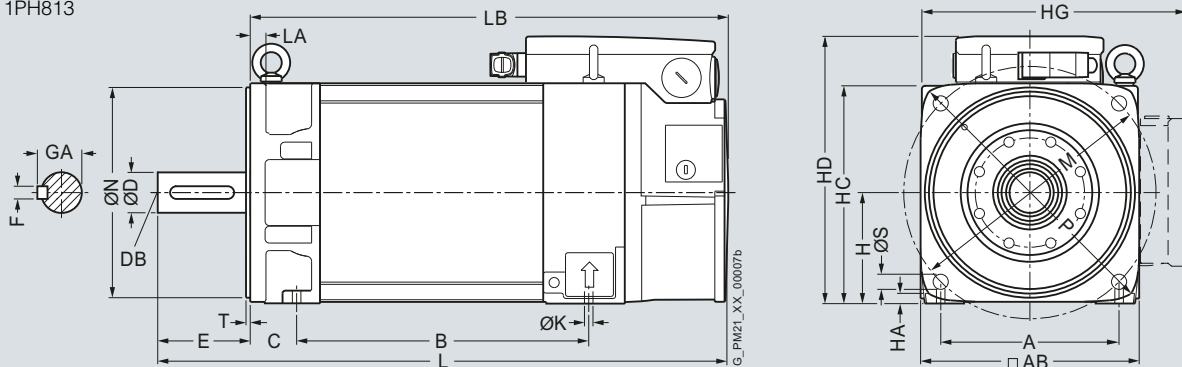
Dimensional drawings

For motor Dimensions in mm (inches)

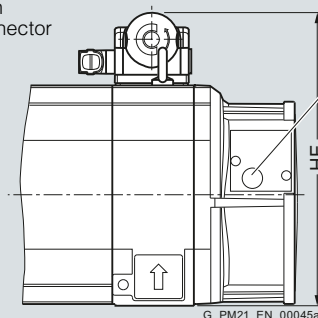
Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE	HG	K	L
1PH8, type of construction IM B35, forced ventilation													
132	1PH8131	216 (8.50)	260 (10.24)	220.5 (8.68)	53 (2.09)	132 (5.20)	15 (0.59)	262 (10.31)	317.5 (12.50)	347 (13.66)	357.5 (14.07)	12 (0.47)	549 (21.61)
	1PH8133			265.5 (10.45)									594 (23.39)
	1PH8135			310.5 (12.22)									639 (25.16)
	1PH8137			350.5 (13.80)									679 (26.73)

Shaft height	Type	IEC LA	LB	M	N	P	S	T	Shaft extension DE				
									D	DB	E	F	GA
132	1PH8131	18 (0.71)	439 (17.28)	300 (11.81)	250 (9.84)	340 (13.39)	18 (0.71)	5 (0.20)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)
	1PH8133		484 (19.06)										
	1PH8135		529 (20.83)										
	1PH8137		569 (22.40)										

1PH813



Variant with
power connector
size 3



Connector size 1 for
fan connection

G_PM21_EN_00045a

SIMOTICS main motors

Dimensional drawings

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

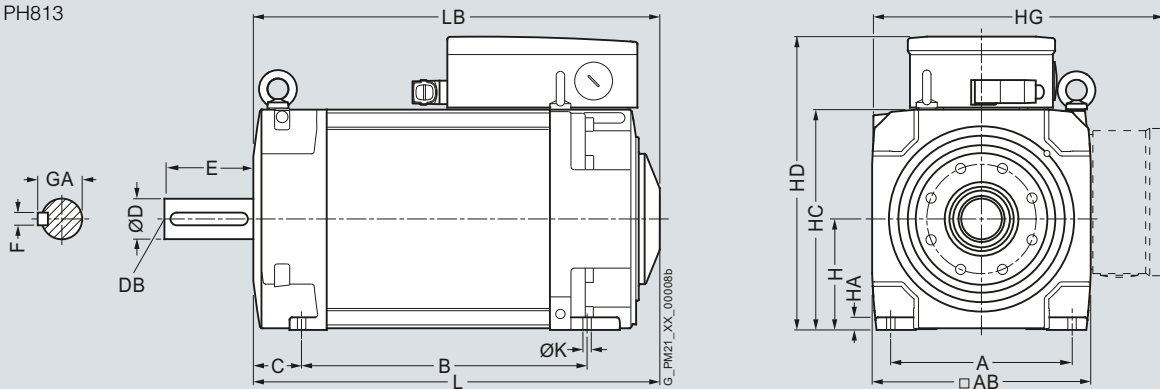
Dimensional drawings

For motor Dimensions in mm (inches)

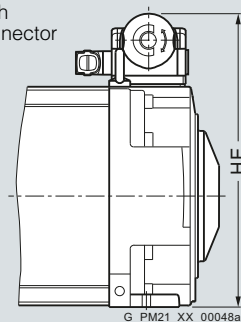
Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE
1PH8, type of construction IM B3, water cooling										
132	1PH8131	216 (8.50)	260 (10.24)	220.5 (8.68)	53 (2.09)	132 (5.20)	15 (0.59)	262 (10.31)	347.5 (13.68)	347 (13.66)
	1PH8133			265.5 (10.45)						
	1PH8135			310.5 (12.22)						
	1PH8137/ 1PH8138			350.5 (13.80)						

Shaft height	Type	IEC HG	K	L	LB	Shaft extension DE				
						D	DB	E	F	GA
132	1PH8131	357.5 (14.07)	12 (0.47)	457.5 (18.01)	347.5 (13.68)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)
	1PH8133			502.5 (19.78)	392.5 (15.45)					
	1PH8135			547.5 (21.56)	437.5 (17.22)					
	1PH8137/ 1PH8138			587.5 (23.13)	477.5 (18.80)					

1PH813



Variant with
power connector
size 3



SIMOTICS main motors

Dimensional drawings

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

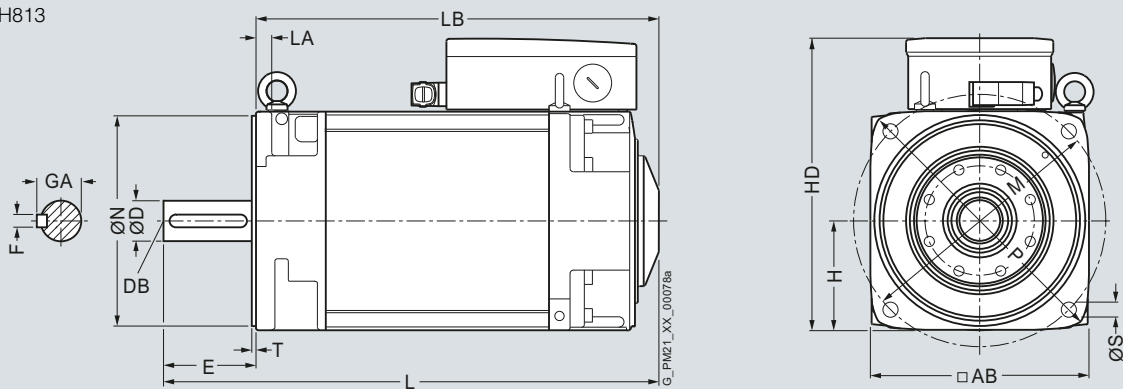
Dimensional drawings

For motor Dimensions in mm (inches)

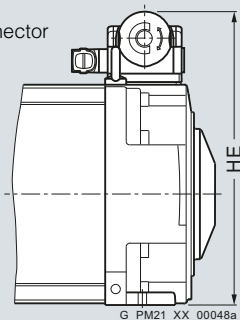
Shaft height	Type	IEC AB	H	HD	HE	L	LA	LB	M	N
1PH8, type of construction IM B5, water cooling										
132	1PH8131	260 (10.24)	132 (5.20)	345.5 (13.60)	345 (13.58)	457.5 (18.01)	18 (0.71)	347.5 (13.68)	300 (11.81)	250 (9.84)
	1PH8133					502.5 (19.78)		392.5 (15.45)		
	1PH8135					547.5 (21.56)		437.5 (17.22)		
	1PH8137/ 1PH8138					587.5 (23.13)		477.5 (18.80)		

Shaft height	Type	IEC P	S	T	Shaft extension DE		E	F	GA
					D	DB			
132	1PH8131	340 (13.39)	18 (0.71)	5 (0.20)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)
	1PH8133								
	1PH8135								
	1PH8137/ 1PH8138								

1PH813



Variant with power connector size 3



5

SIMOTICS main motors

Dimensional drawings

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

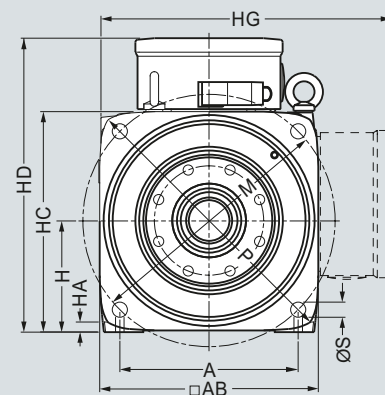
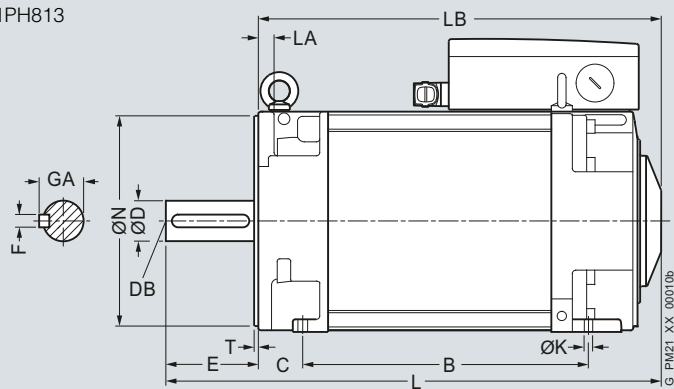
Dimensional drawings

For motor Dimensions in mm (inches)

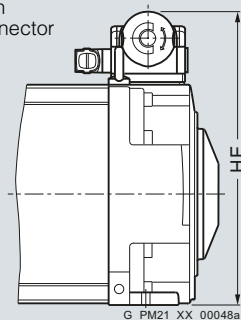
Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HE	HG	K	L
1PH8, type of construction IM B35, water cooling													
132	1PH8131	216 (8.50)	260 (10.24)	220.5 (8.68)	53 (2.09)	132 (5.20)	15 (0.59)	262 (10.31)	347.5 (13.68)	347 (13.66)	357.5 (14.07)	12 (0.47)	457.5 (18.01)
	1PH8133			265.5 (10.45)									502.5 (19.78)
	1PH8135			310.5 (12.22)									547.5 (21.56)
	1PH8137/ 1PH8138			350.5 (13.80)									587.5 (23.13)

Shaft height	Type	IEC LA	LB	M	N	P	S	T	Shaft extension DE				
									D	DB	E	F	GA
132	1PH8131	18 (0.71)	347.5 (13.68)	300 (11.81)	250 (9.84)	340 (13.39)	18 (0.71)	5 (0.20)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)
	1PH8133		392.5 (15.45)										
	1PH8135		437.5 (17.22)										
	1PH8137/ 1PH8138		477.5 (18.80)										

1PH813



Variant with
power connector
size 3



SIMOTICS main motors

Dimensional drawings

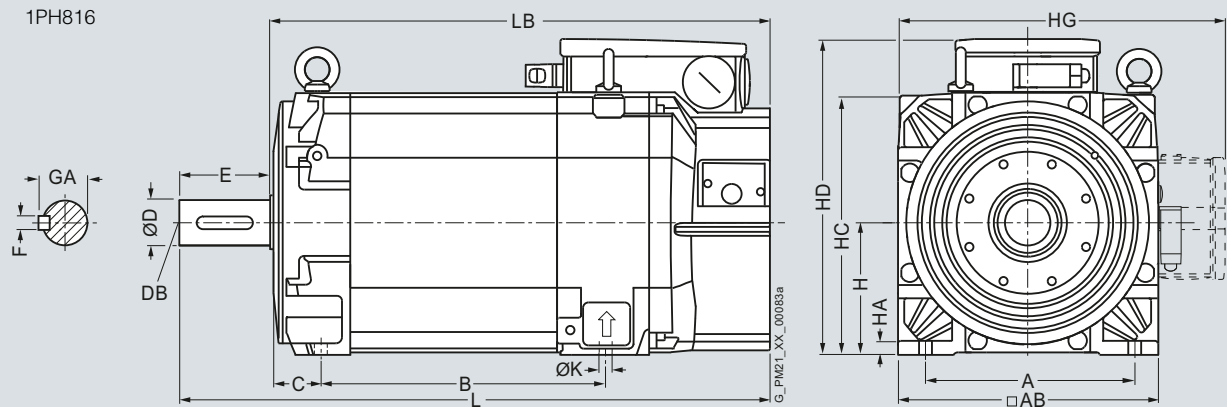
SIMOTICS M-1PH8 asynchronous motors Shaft height 160 – Forced ventilation

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HG
1PH8, type of construction IM B3, forced ventilation										
160	1PH8163	254 (10.00)	314 (12.36)	346.5 (13.64)	61 (2.40)	160 (6.30)	17 (0.67)	317 (12.48)	382.5 (15.06)	412.5 (16.24)
	1PH8165			406.5 (16.00)						

Shaft height	Type	IEC K	L	LB	Shaft extension DE				
					D	DB	E	F	GA
160	1PH8163	14 (0.55)	720.5 (28.37)	610.5 (24.04)	55 (2.17)	M20	110 (4.33)	16 (0.63)	59 (2.32)
	1PH8165		780.5 (30.73)	670.5 (26.40)					



SIMOTICS main motors

Dimensional drawings

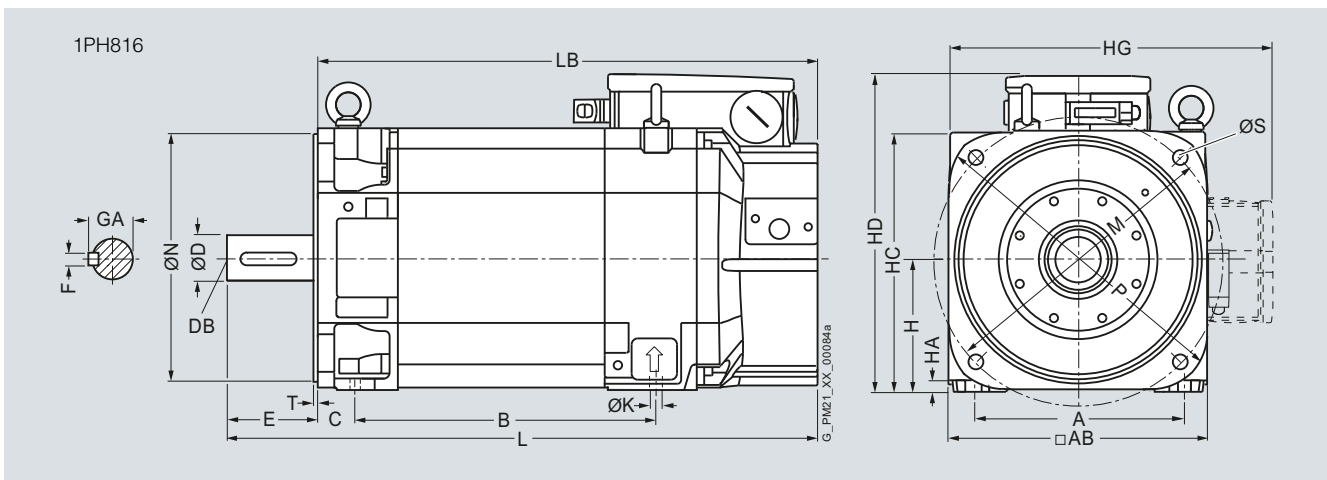
SIMOTICS M-1PH8 asynchronous motors Shaft height 160 – Forced ventilation

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HG	K	L
1PH8, type of construction IM B5/IM B35, forced ventilation												
160	1PH8163	254 (10.00)	314 (12.36)	346.5 (13.64)	61 (2.40)	160 (6.30)	17 (0.67)	317 (12.48)	382.5 (15.06)	412.5 (16.24)	14 (0.55)	720.5 (28.37)
	1PH8165			406.5 (16.00)								780.5 (30.73)

Shaft height	Type	IEC LB	M	N	P	S	T	Shaft extension DE				
								D	DB	E	F	GA
160	1PH8163	610.5 (24.04)	350 (13.78)	300 (11.81)	393 (15.47)	18 (0.71)	5 (0.20)	55 (2.17)	M20	110 (4.33)	16 (0.63)	59 (2.32)
	1PH8165	670.5 (26.40)										



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 160 – Water cooling

Dimensional drawings

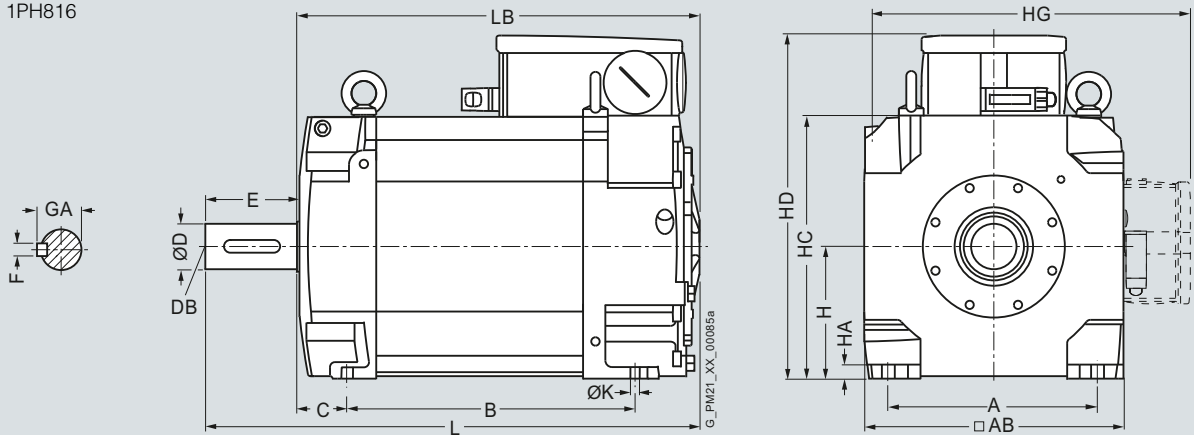
For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HG
1PH8, type of construction IM B3, water cooling										
160	1PH8163/ 1PH8164	254 (10.00)	314 (12.36)	346.5 (13.64)	61 (2.40)	160 (6.30)	17 (0.67)	317 (12.48)	415.5 (16.36)	412.5 (16.24)
	1PH8165/ 1PH8166			406.5 (16.00)						
	1PH8168			446.5 (17.58)						

5

Shaft height	Type	IEC K	L	LB	Shaft extension DE				
					D	DB	E	F	GA
160	1PH8163/ 1PH8164	14 (0.55)	598.5 (23.56)	488.5 (19.23)	55 (2.17)	M20	110 (4.33)	16 (0.63)	59 (2.32)
	1PH8165/ 1PH8166		658.5 (25.93)	548.5 (21.59)					
	1PH8168		698.5 (27.50)	588.5 (23.17)					

1PH816



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 160 – Water cooling

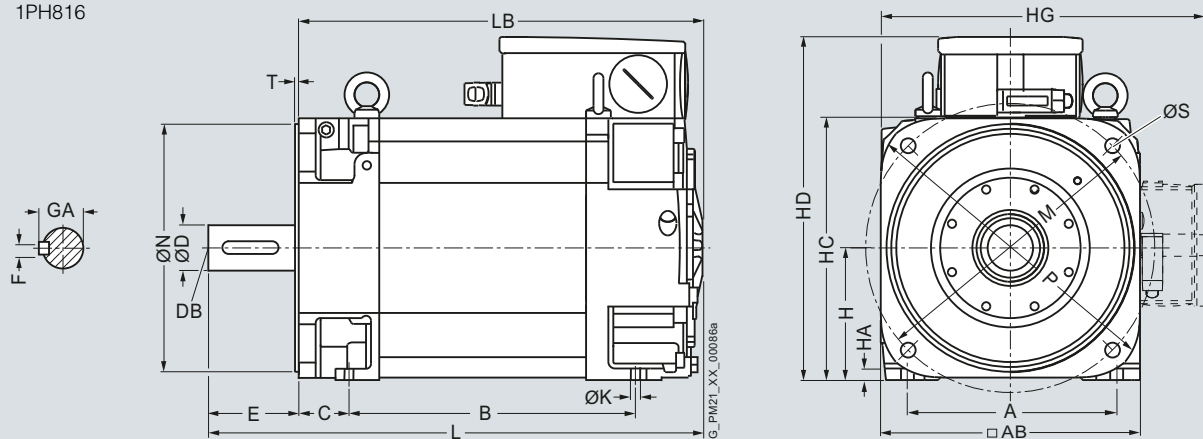
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	B	C	H	HA	HC	HD	HG	K	L
1PH8, type of construction IM B5/IM B35, water cooling												
160	1PH8163/ 1PH8164	254 (10.00)	314 (12.36)	346.5 (13.64)	61 (2.40)	160 (6.30)	17 (0.67)	317 (12.48)	415.5 (16.36)	412.5 (16.24)	14 (0.55)	598.5 (23.56)
	1PH8165/ 1PH8166			406.5 (16.00)								658.5 (25.93)
	1PH8168			446.5 (17.58)								698.5 (27.50)

Shaft height	Type	IEC LB	M	N	P	S	T	Shaft extension DE				
								D	DB	E	F	GA
160	1PH8163/ 1PH8164	488.5 (19.23)	350 (13.78)	300 (11.81)	393 (15.47)	18 (0.71)	5 (0.20)	55 (2.17)	M20	110 (4.33)	16 (0.63)	59 (2.32)
	1PH8165/ 1PH8166	548.5 (21.59)										
	1PH8168	588.5 (23.17)										

1PH816



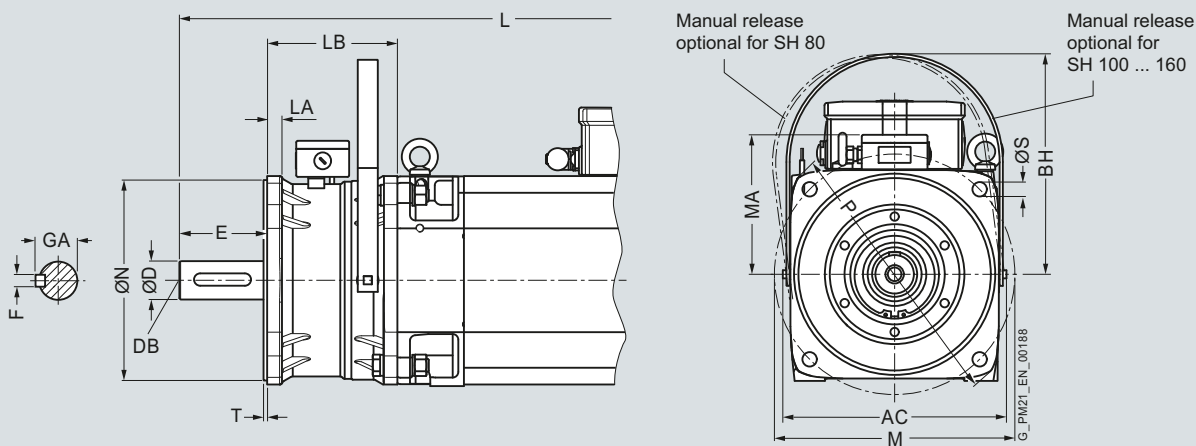
SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors with holding brake, shaft heights 80 to 160
SIMOTICS M-1PH8 synchronous motors with holding brake, shaft heights 132 and 160

Dimensional drawings

For motor		Dimensions in mm (inches)														Shaft extension DE				
Shaft height	Type	IEC	AC	BH	L	LA	LB	M	MA	N	P	S	T	D	DB	E	F	GA		
																			Forced ventilation	Water cooling
1PH8 shaft heights 80 to 132, types of construction IM B5 and IM B35, forced ventilation and water cooling – Brake mounting																				
80	1PH8083	164 (6.46)	162 (6.38)	586 (23.07)	506.5 (19.94)	12 (0.47)	125 (4.92)	165 (6.50)	162 (6.38)	130 (5.12)	200 (7.87)	12 (0.47)	3.5 (0.14)	32 (1.26)	M12	80 (3.15)	10 (0.39)	35 (1.38)		
	1PH8087			636 (25.04)	556.5 (21.91)															
100	1PH8101	220.5 (8.68)	224 (8.82)	579.5 (22.81)	499.5 (19.67)	16 (0.63)	130 (5.12)	215 (8.46)	224 (8.82)	180 (7.09)	250 (9.84)	14 (0.55)	4 (0.16)	38 (1.50)	M12	80 (3.15)	10 (0.39)	41 (1.61)		
	1PH8103			615 (24.21)	535 (21.06)															
	1PH8105			674.5 (26.56)	594.5 (23.41)															
	1PH8107			710 (27.95)	630 (24.80)															
132	1PH8131	278.5 (10.96)	269 (10.59)	711 (27.99)	619.5 (24.39)	18 (0.71)	162 (6.38)	300 (11.81)	269 (10.59)	250 (9.84)	340 (13.39)	18 (0.71)	5 (0.20)	48 (1.89)	M16	110 (4.33)	14 (0.55)	51.5 (2.03)		
	1PH8133			756 (29.76)	664.5 (26.16)															
	1PH8135			801 (31.54)	709.5 (27.93)															
	1PH8137/ 1PH8138			841 (33.11)	749.5 (29.51)															
1PH8 shaft height 160, type of construction IM B35, forced ventilation and water cooling – Brake mounting																				
160	1PH8163/ 1PH8164	319 (12.56)	328 (12.91)	888.5 (34.98)	766.5 (30.18)	23 (0.91)	168 (6.61)	350 (13.78)	328 (12.91)	300 (11.81)	393 (15.47)	18 (0.71)	5 (0.20)	55 (2.17)	M20	110 (4.33)	16 (0.63)	59 (2.32)		
	1PH8165/ 1PH8166			948.5 (37.34)	826.5 (32.54)															
	1PH8167/ 1PH8168			988.5 (38.92)	866.5 (34.11)															



SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft heights 80 to 160 – Forced ventilation with pipe connection

Dimensional drawings

For motor Dimensions in mm (inches)

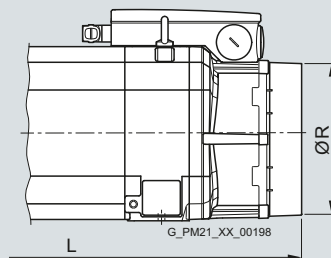
Shaft height	Type	IEC L	R
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1PH8 asynchronous motors shaft heights 80 and 100, forced ventilation – Pipe connection (option K80)

80	1PH8083	503 (19.80)	143 (5.63)
	1PH8087	553 (21.77)	
100	1PH8101	496.5 (19.55)	158 (6.22)
	1PH8103	532 (20.94)	
	1PH8105	591.5 (23.29)	
	1PH8107	627 (24.68)	

1PH8 asynchronous and synchronous motors shaft heights 132 and 160, forced ventilation – Pipe connection (option K80)

132	1PH8131	595.5 (23.44)	222 (8.74)
	1PH8133	640.5 (25.22)	
	1PH8135	685.5 (26.99)	
	1PH8137	725.5 (28.56)	
160	1PH8163	792 (31.18)	276 (10.87)
	1PH8165	852 (33.54)	
	1PH8167	892 (35.12)	



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 180 – Forced ventilation

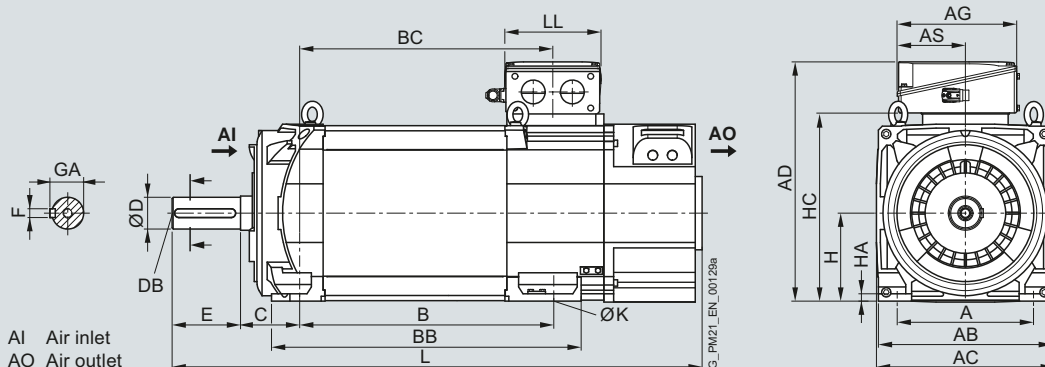
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	Dimensions in mm (inches)												Shaft extension DE				
		IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	D	DB	E	F	GA	
1PH8, type of construction IM B3, forced ventilation – direction of air flow DE → NDE																		
180	1PH8184	279 (10.98)	356 (14.02)	364 (14.33)	430 (16.93)	545 (21.46)	121 (4.76)	180 (7.09)	15 (0.59)	383 (15.08)	14.5 (0.57)	995 (39.17)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)	
	1PH8186				520 (20.47)	635 (25.00)							1085 (42.72)					

Terminal box Dimensions in mm (inches)

Shaft height	Type	Dimensions in mm (inches)				
		IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
180	1PH8184	490 (19.29)	245 (9.65)	140 (5.51)	429 (16.89)	196 (7.72)
	1PH8186				519 (20.43)	
Terminal box type 1XB7422						
180	1PH8184	533 (20.98)	281 (11.06)	176 (6.93)	429 (16.89)	233 (9.17)
	1PH8186				519 (20.43)	
Terminal box type 1XB7700						
180	1PH8184	586 (23.07)	297 (11.69)	156 (6.14)	429 (16.89)	310 (12.20)
	1PH8186				519 (20.43)	



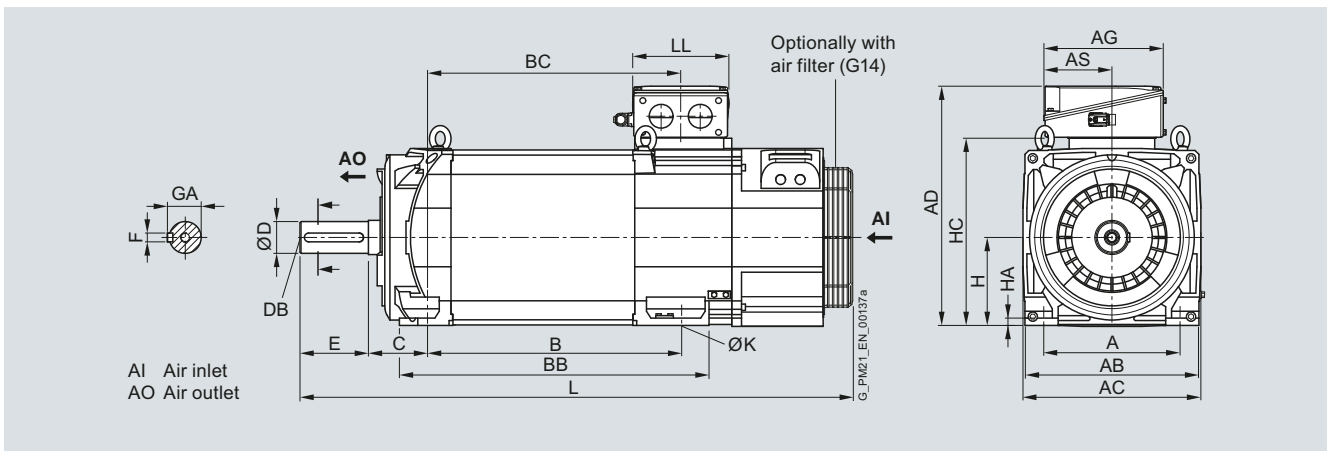
SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 180 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)												Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	D	DB	E	F	GA	
1PH8, type of construction IM B3, forced ventilation – direction of air flow NDE → DE																		
180	1PH8184	279 (10.98)	356 (14.02)	364 (14.33)	430 (16.93)	545 (21.46)	121 (4.76)	180 (7.09)	15 (0.59)	383 (15.08)	14.5 (0.57)	1047 (41.22)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)	
	1PH8186				520 (20.47)	635 (25.00)							1137 (44.76)					
Terminal box		Dimensions in mm (inches)																
Shaft height	Type	IEC AD	AG	AS	BC	LL												
Terminal box type 1XB7322																		
180	1PH8184	490 (19.29)	245 (9.65)	140 (5.51)	429 (16.89)	196 (7.72)												
	1PH8186				519 (20.43)													
Terminal box type 1XB7422																		
180	1PH8184	533 (20.98)	281 (11.06)	176 (6.93)	429 (16.89)	233 (9.17)												
	1PH8186				519 (20.43)													
Terminal box type 1XB7700																		
180	1PH8184	586 (23.07)	297 (11.69)	156 (6.14)	429 (16.89)	310 (12.20)												
	1PH8186				519 (20.43)													



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 180 – Forced ventilation

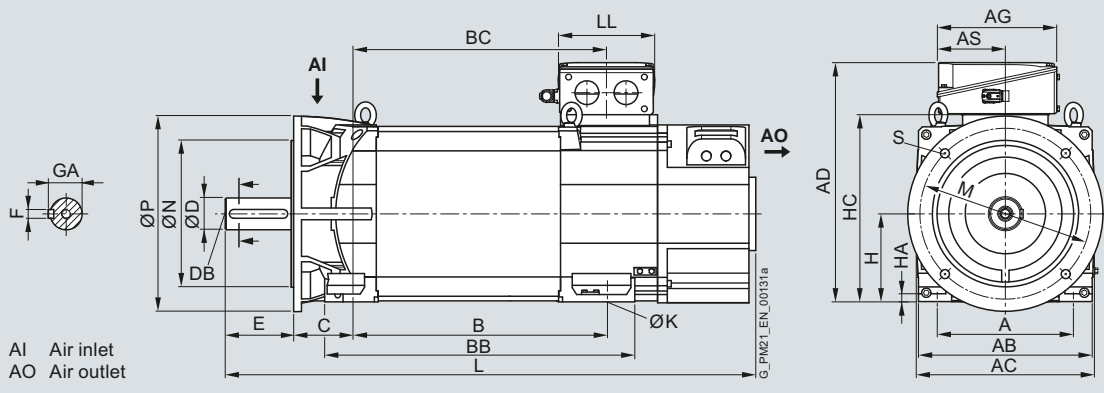
Dimensional drawings

For motor		Dimensions in mm (inches)															Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	M	N	P	S	D	DB	E	F	GA
1PH8, type of construction IM B35, forced ventilation – direction of air flow DE → NDE, flange A400 (option K90)																					
180	1PH8184	279 (10.98)	356 (14.02)	364 (14.33)	430 (16.93)	545 (21.46)	121 (4.76)	180 (7.09)	15 (0.59)	383 (15.08)	14.5 (0.57)	995 (39.17)	350 (13.78)	300 (11.81)	400 (15.75)	18.5 (0.73)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)
	1PH8186				520 (20.47)	635 (25.00)						1085 (42.72)									

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
180	1PH8184	490 (19.29)	245 (9.65)	140 (5.51)	429 (16.89)	196 (7.72)
	1PH8186				519 (20.43)	

Terminal box type 1XB7422						
180	1PH8184	533 (20.98)	281 (11.06)	176 (6.93)	429 (16.89)	233 (9.17)
	1PH8186				519 (20.43)	

Terminal box type 1XB7700						
180	1PH8184	586 (23.07)	297 (11.69)	156 (6.14)	429 (16.89)	310 (12.20)
	1PH8186				519 (20.43)	



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 180 – Forced ventilation

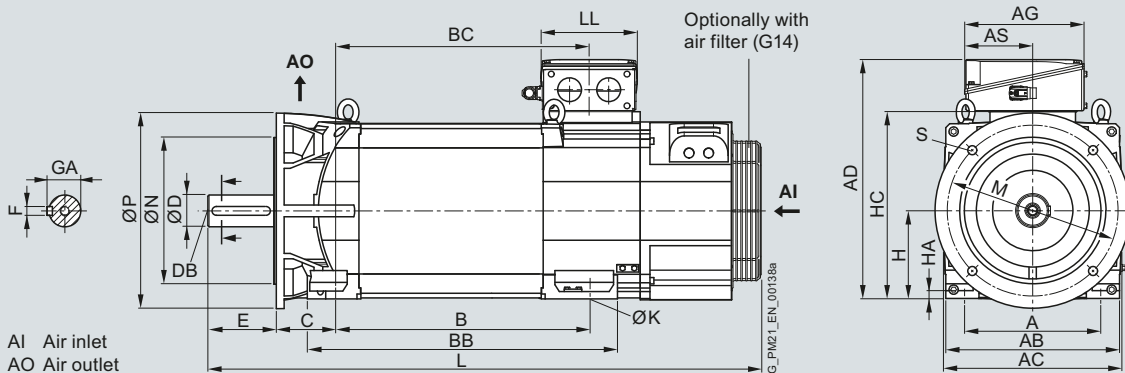
Dimensional drawings

For motor		Dimensions in mm (inches)															Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	M	N	P	S	D	DB	E	F	GA
1PH8, type of construction IM B35, forced ventilation – direction of air flow NDE → DE, flange A400 (option K90)																					
180	1PH8184	279 (10.98)	356 (14.02)	364 (14.33)	430 (16.93)	545 (21.46)	121 (4.76)	180 (7.09)	15 (0.59)	383 (15.08)	14.5 (0.57)	1047 (41.22)	350 (13.78)	300 (11.81)	400 (15.75)	18.5 (0.73)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)
	1PH8186				520 (20.47)	635 (25.00)						1137 (44.76)									

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
180	1PH8184	490 (19.29)	245 (9.65)	140 (5.51)	429 (16.89)	196 (7.72)
	1PH8186				519 (20.43)	

Terminal box type 1XB7422						
180	1PH8184	533 (20.98)	281 (11.06)	176 (6.93)	429 (16.89)	233 (9.17)
	1PH8186				519 (20.43)	

Terminal box type 1XB7700						
180	1PH8184	586 (23.07)	297 (11.69)	156 (6.14)	429 (16.89)	310 (12.20)
	1PH8186				519 (20.43)	



5

SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 180 – Forced ventilation

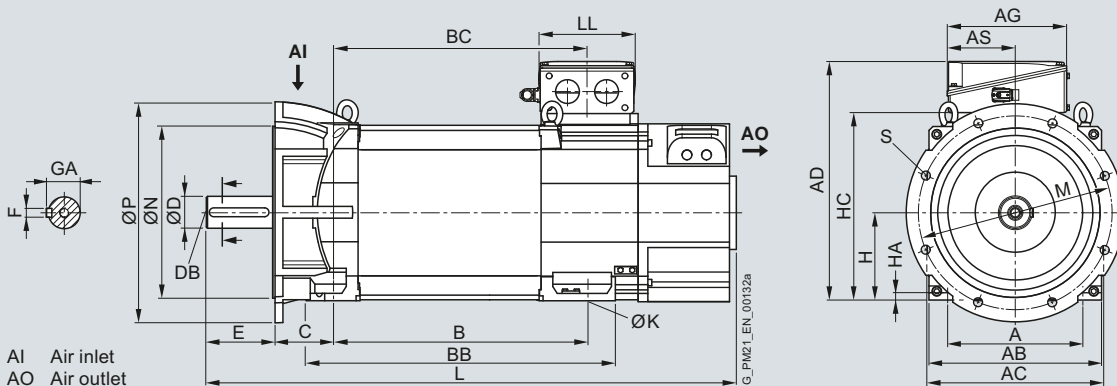
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type																Shaft extension DE				
		IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	M	N	P	S	D	DB	E	F	GA
1PH8, type of construction IM B35, forced ventilation – direction of air flow DE → NDE, flange A450																					
180	1PH8184	279 (10.98)	356 (14.02)	364 (14.33)	430 (16.93)	545 (21.46)	121 (4.76)	180 (7.09)	15 (0.59)	383 (15.08)	14.5 (0.57)	995 (39.17)	400 (15.75)	350 (13.78)	450 (17.72)	18.5 (0.73)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)
	1PH8186				520 (20.47)	635 (25.00)						1085 (42.72)									

Terminal box Dimensions in mm (inches)

Shaft height	Type					
		IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
180	1PH8184	490 (19.29)	245 (9.65)	140 (5.51)	429 (16.89)	196 (7.72)
	1PH8186				519 (20.43)	
Terminal box type 1XB7422						
180	1PH8184	533 (20.98)	281 (11.06)	176 (6.93)	429 (16.89)	233 (9.17)
	1PH8186				519 (20.43)	
Terminal box type 1XB7700						
180	1PH8184	586 (23.07)	297 (11.69)	156 (6.14)	429 (16.89)	310 (12.20)
	1PH8186				519 (20.43)	



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 180 – Forced ventilation

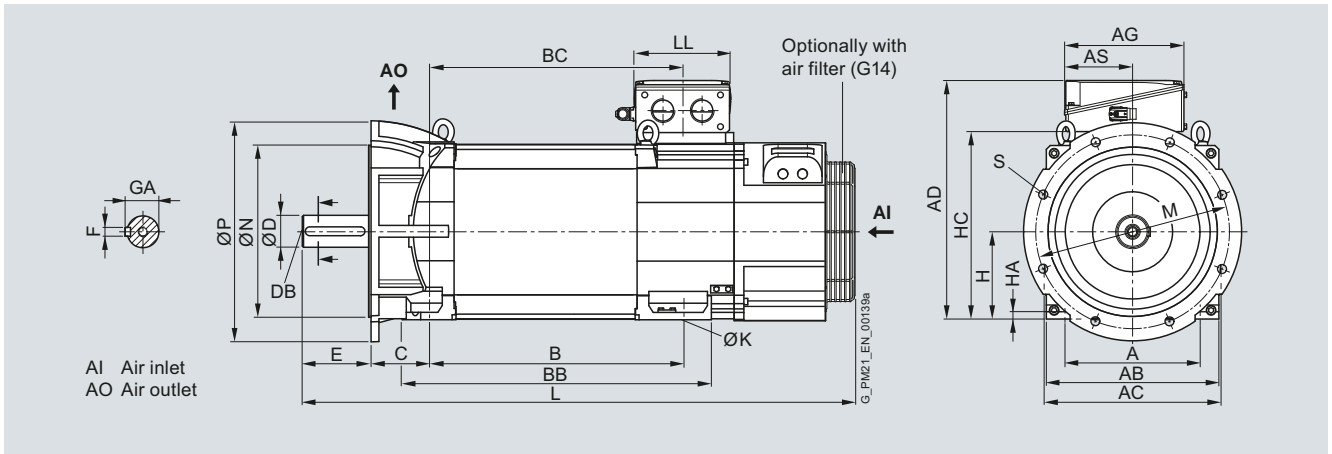
Dimensional drawings

For motor		Dimensions in mm (inches)																Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	M	N	P	S	D	DB	E	F	GA	
1PH8, type of construction IM B35, forced ventilation – direction of air flow NDE → DE, flange A450																						
180	1PH8184	279 (10.98)	356 (14.02)	364 (14.33)	430 (16.93)	545 (21.46)	121 (4.76)	180 (7.09)	15 (0.59)	383 (15.08)	14.5 (0.57)	1047 (41.22)	400 (15.75)	350 (13.78)	450 (17.72)	18.5 (0.73)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)	
	1PH8186				520 (20.47)	635 (25.00)						1137 (44.76)										

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
180	1PH8184	490 (19.29)	245 (9.65)	140 (5.51)	429 (16.89)	196 (7.72)
	1PH8186				519 (20.43)	

Terminal box type 1XB7422						
180	1PH8184	533 (20.98)	281 (11.06)	176 (6.93)	429 (16.89)	233 (9.17)
	1PH8186				519 (20.43)	

Terminal box type 1XB7700						
180	1PH8184	586 (23.07)	297 (11.69)	156 (6.14)	429 (16.89)	310 (12.20)
	1PH8186				519 (20.43)	



5

SIMOTICS main motors

Dimensional drawings

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

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	AC	B	C	H	HA	HC	K	L	LA	LB	A400	A450	A400	A450
														M	N		
1PH8, types of construction IM B5/IM B35/IM V15, water cooling																	
180	1PH8184	279 (10.98)	356 (14.02)	384 (15.12)	430 (16.93)	121 (4.76)	180 (7.09)	15 (0.59)	372 (14.65)	14.5 (0.57)	810 (31.89)	16 (0.63)	670 (26.38)	350 (13.78)	400 (15.75)	300 (11.81)	350 (13.78)
	1PH8186				520 (20.47)						900 (35.43)		760 (29.92)				

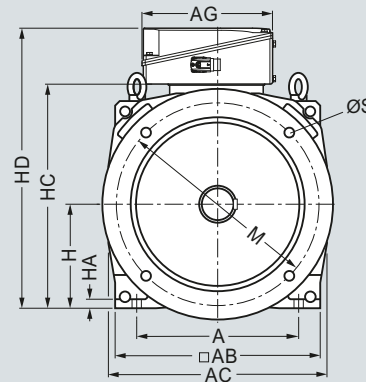
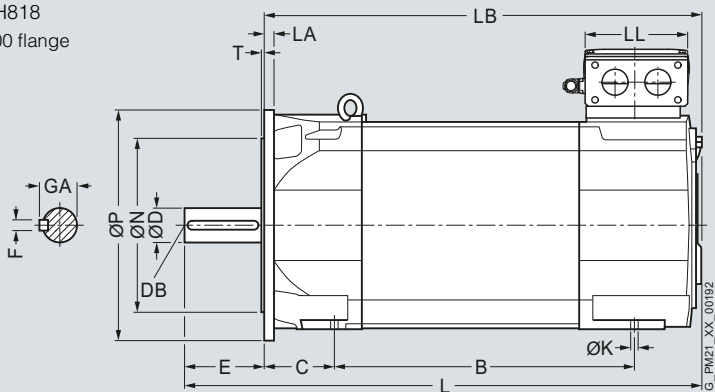
Shaft extension DE

Terminal box type 1XB7322, 1XB7422, 1XB7700

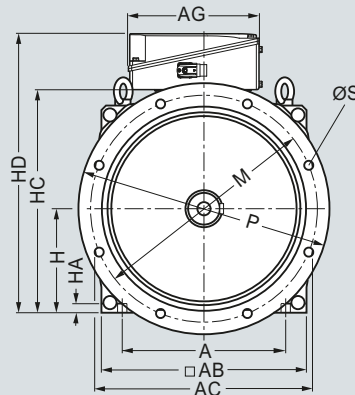
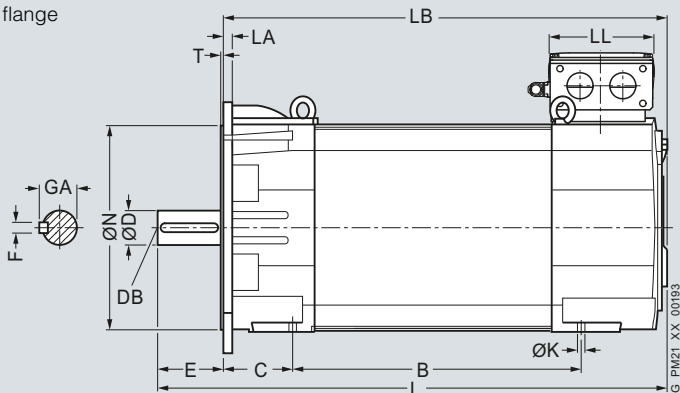
Dimensions as for types of construction IM B3/IM V5

Shaft height	Type	IEC P	A400		A450		S	T	D	DB	E	F	GA
			P	S									
180	1PH8184	400 (15.75)	450 (17.72)	18.5 (0.73)	5 (0.20)	65 (2.56)	M20	140 (5.51)	18 (0.71)	69 (2.72)			
	1PH8186												

1PH818
A400 flange



A450 flange



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 225 – Forced ventilation

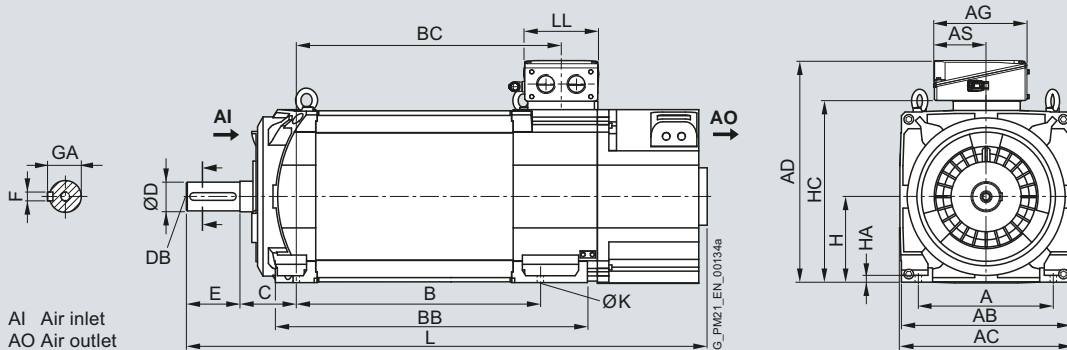
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type												Shaft extension DE				
		IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	D	DB	E	F	GA
1PH8, type of construction IM B3, forced ventilation – direction of air flow DE → NDE																	
225	1PH8224	356 (14.02)	446 (17.56)	454 (17.87)	445 (17.52)	625 (24.61)	149 (5.87)	225 (8.86)	18 (0.71)	475 (18.70)	18.5 (0.73)	1171 (46.10)	75 (2.95)	M20	140 (5.51)	20 (0.79)	79.5 (3.13)
	1PH8226				545 (21.46)	725 (28.54)						1271 (40.04)					
	1PH8228				635 (25.00)	815 (32.09)						1361 (53.58)					

Terminal box Dimensions in mm (inches)

Shaft height	Type					
		IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
225	1PH8224	582 (22.91)	245 (9.65)	140 (5.51)	481 (18.94)	196 (7.72)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	
Terminal box type 1XB7422						
225	1PH8224	625 (24.61)	281 (11.06)	176 (6.93)	481 (18.94)	233 (9.17)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	
Terminal box type 1XB7700						
225	1PH8224	678 (26.69)	297 (11.69)	156 (6.14)	481 (18.94)	310 (12.20)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 225 – Forced ventilation

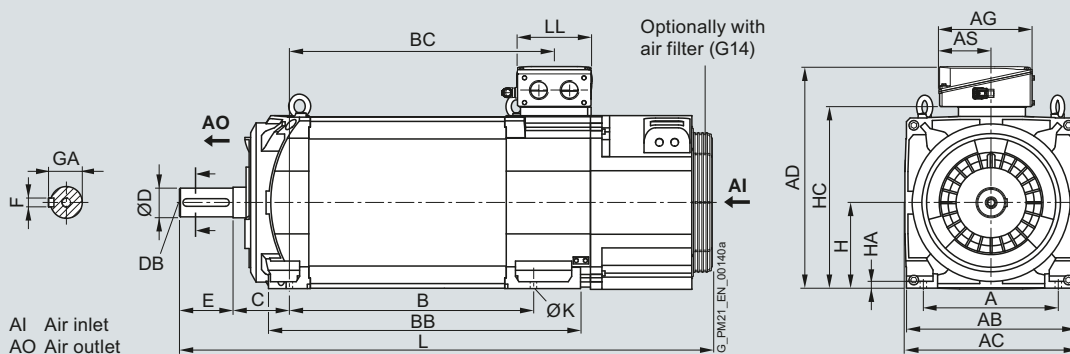
Dimensional drawings

For motor		Dimensions in mm (inches)												Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	D	DB	E	F	GA	
1PH8, type of construction IM B3, forced ventilation – direction of air flow NDE → DE																		
225	1PH8224	356 (14.02)	446 (17.56)	454 (17.87)	445 (17.52)	625 (24.61)	149 (5.87)	225 (8.86)	18 (0.71)	475 (18.70)	18.5 (0.73)	1206 (47.48)	75 (2.95)	M20	140 (5.51)	20 (0.79)	79.5 (3.13)	
	1PH8226				545 (21.46)	725 (28.54)						1306 (51.42)						
	1PH8228				635 (25.00)	815 (32.09)						1396 (54.96)						

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
225	1PH8224	582 (22.91)	245 (9.65)	140 (5.51)	481 (18.94)	196 (7.72)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	

Terminal box type 1XB7422		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
225	1PH8224	625 (24.61)	281 (11.06)	176 (6.93)	481 (18.94)	233 (9.17)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	

Terminal box type 1XB7700		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
225	1PH8224	678 (26.69)	297 (11.69)	156 (6.14)	481 (18.94)	310 (12.20)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 225 – Forced ventilation

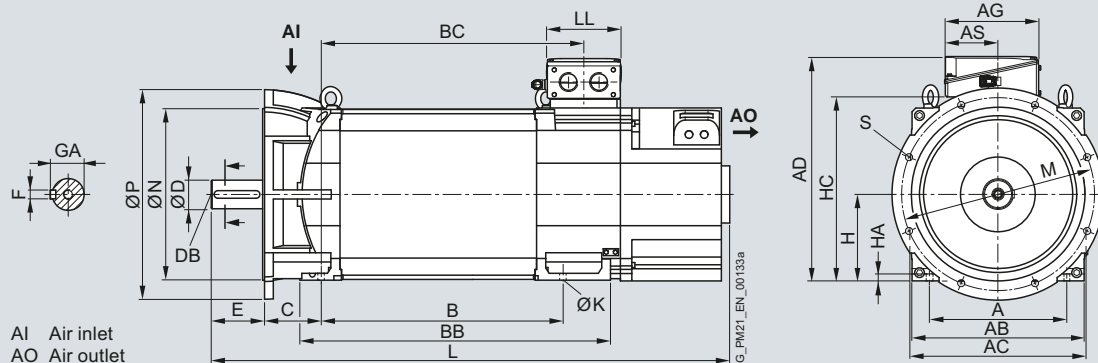
Dimensional drawings

For motor		Dimensions in mm (inches)															Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	M	N	P	S	D	DB	E	F	GA
1PH8, type of construction IM B35, forced ventilation – direction of air flow DE → NDE, flange A550																					
225	1PH8224	356 (14.02)	446 (17.56)	454 (17.87)	445 (17.52)	625 (24.61)	149 (5.87)	225 (8.86)	18 (0.71)	475 (18.70)	18.5 (0.73)	1171 (46.10)	500 (19.69)	450 (17.72)	550 (21.65)	18.5 (0.73)	75 (2.95)	M20	140	20	79.5 (3.13)
	1PH8226				545 (21.46)	725 (28.54)						1271 (50.04)									
	1PH8228				635 (25.00)	815 (32.09)						1361 (53.58)									

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
225	1PH8224	582 (22.91)	245 (9.65)	140 (5.51)	481 (18.94)	196 (7.72)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	

Terminal box type 1XB7422		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
225	1PH8224	625 (24.61)	281 (11.06)	176 (6.93)	481 (18.94)	233 (9.17)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	

Terminal box type 1XB7700		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
225	1PH8224	678 (26.69)	297 (11.69)	156 (6.14)	481 (18.94)	310 (12.20)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft height 225 – Forced ventilation

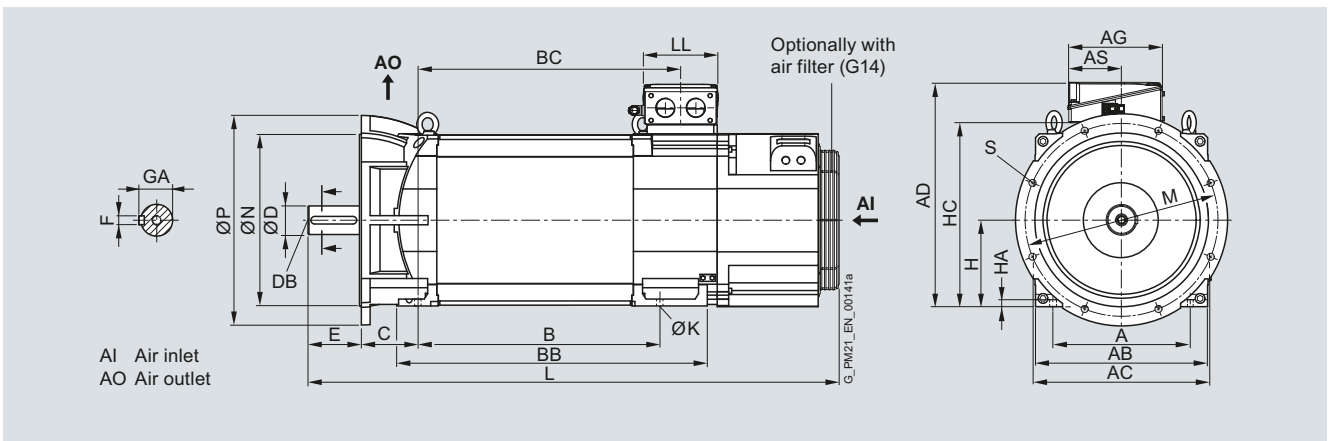
Dimensional drawings

For motor		Dimensions in mm (inches)																Shaft extension DE				
Shaft height	Type	IEC A	AB	AC	B	BB	C	H	HA	HC	K	L	M	N	P	S	D	DB	E	F	GA	
1PH8, type of construction IM B35, forced ventilation – direction of air flow NDE → DE, flange A550																						
225	1PH8224	356 (14.02)	446 (17.56)	454 (17.87)	445 (17.52)	625 (24.61)	149 (5.87)	225 (8.86)	18 (0.71)	475 (18.70)	18.5 (0.73)	1206 (47.48)	500 (19.69)	450 (17.72)	550 (21.65)	18.5 (0.73)	75 (2.95)	M20	140 (5.51)	20 (0.79)	79.5 (3.13)	
	1PH8226				545 (21.46)	725 (28.54)						1306 (51.42)										
	1PH8228				635 (25.00)	815 (32.09)						1396 (54.96)										

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7322						
225	1PH8224	582 (22.91)	245 (9.65)	140 (5.51)	481 (18.94)	196 (7.72)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	

Terminal box type 1XB7422		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
225	1PH8224	625 (24.61)	281 (11.06)	176 (6.93)	481 (18.94)	233 (9.17)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	

Terminal box type 1XB7700		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
225	1PH8224	678 (26.69)	297 (11.69)	156 (6.14)	481 (18.94)	310 (12.20)
	1PH8226				581 (22.87)	
	1PH8228				671 (26.42)	



5

SIMOTICS main motors

Dimensional drawings

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

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	AC	B	C	H	HA	HC	K	L	LB
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1PH8, types of construction IM B3/IM V5, water cooling

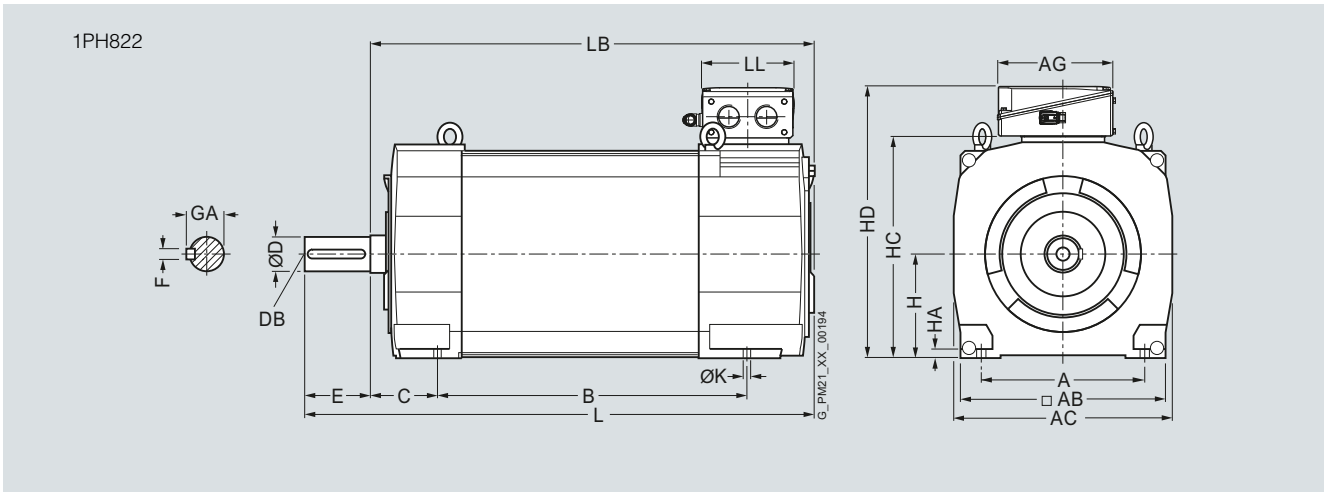
225	1PH8224	356 (14.02)	446 (17.56)	474 (18.66)	445 (17.52)	149 (5.87)	225 (8.86)	18 (0.71)	462 (18.19)	18.5 (0.73)	915 (36.02)	775 (30.51)
	1PH8226				545 (21.46)						1015 (39.96)	875 (34.45)
	1PH8228				635 (25.0)						1105 (43.50)	965 (37.99)

5

Shaft height	Type	Shaft extension DE					Terminal box type								
		IEC D	DB	E	F	GA	1XB7322			1XB7422			1XB7700		

IEC D	DB	E	F	GA	AG	HD	LL	AG	HD	LL	AG	HD	LL
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225	1PH8224	75 (2.95)	M20	140 (5.51)	20 (0.79)	79.5 (3.13)	245 (9.65)	585 (23.03)	196 (7.72)	281 (11.06)	628 (24.72)	233 (9.17)	297 (11.69)	677 (26.65)	310 (12.20)
	1PH8226														
	1PH8228														



SIMOTICS main motors

Dimensional drawings

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

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	AC	B	C	H	HA	HC	K	L	LA	LB	M	N	P	S	T
1PH8, types of construction IM B5/IM B35/IM V15, water cooling, A550 flange																		
225	1PH8224	356 (14.02)	446 (17.56)	474 (18.66)	445 (17.52)	149 (5.87)	225 (8.86)	18 (0.71)	462 (18.19)	18.5 (0.73)	910 (35.83)	20 (0.79)	770 (30.31)	500 (19.69)	450 (17.72)	550 (21.65)	18.5 (0.73)	5 (0.20)
	1PH8226				545 (21.46)						1012 (39.84)		872 (34.33)					
	1PH8228				635 (25.00)						1102 (43.39)		962 (37.87)					

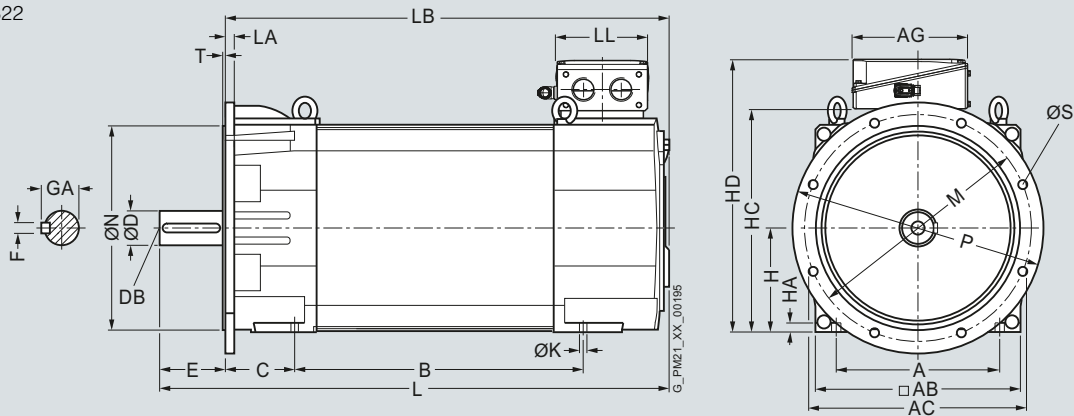
Shaft extension DE

Terminal box type 1XB7322, 1XB7422, 1XB7700

Dimensions as for types of construction IM B3/IM V5

Shaft height	Type	IEC D	DB	E	F	GA
225	1PH8224	75 (2.95)	M20	140 (5.51)	20 (0.79)	79.5 (3.13)
	1PH8226					
	1PH8228					

1PH822



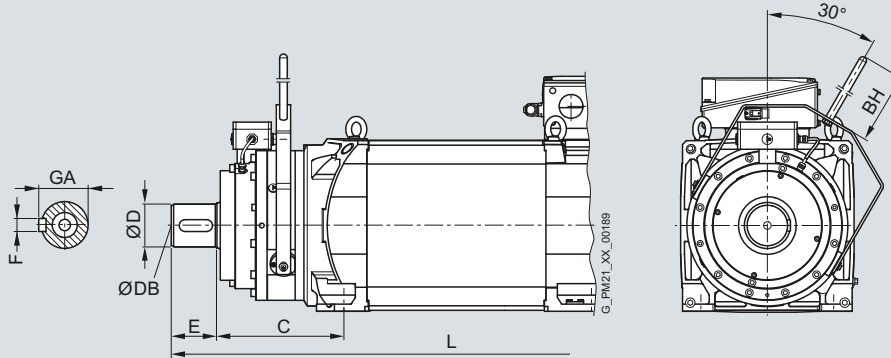
SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous and synchronous motors with holding brake Shaft heights 180 and 225

Dimensional drawings

For motor		Dimensions in mm (inches)									
Shaft height	Type	IEC BH	C	Forced ventilation		Water cooling	Shaft extension DE				
				L DE → NDE	L NDE → DE	L	D	DB	E	F	GA
1PH8, type of construction IM B3, forced ventilation – directions of air flow DE → NDE and NDE → DE, water cooling; brake mounting (option U63)											
180	1PH8184	252 (9.92)	268 (10.55)	1096 (43.15)	1148 (45.20)	911 (35.87)	90 (3.54)	M20	95 (3.74)	25 (0.98)	95 (3.74)
	1PH8186			1186 (46.69)	1238 (48.74)	1001 (39.41)					
225	1PH8224	493 (19.41)		1295 (50.98)	1330 (52.36)	1040 (40.94)	95 (3.74)	M20	105 (4.13)	25 (0.98)	100 (3.94)
	1PH8226			1395 (54.92)	1430 (56.30)	1140 (44.88)					
	1PH8228			1495 (58.86)	1520 (59.84)	1230 (48.43)					



SIMOTICS M-1PH8 asynchronous and synchronous motors Shaft heights 180 and 225 – Forced ventilation with pipe connection

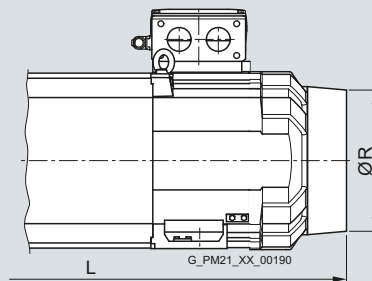
Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC L	R
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1PH8 forced ventilation – pipe connection (option K80)

180	1PH8184	993 (39.09)	300 (11.81)
	1PH8186	1083 (42.64)	
225	1PH8224	1084 (42.68)	350 (13.78)
	1PH8226	1184 (46.61)	
	1PH8228	1274 (50.16)	



SIMOTICS main motors

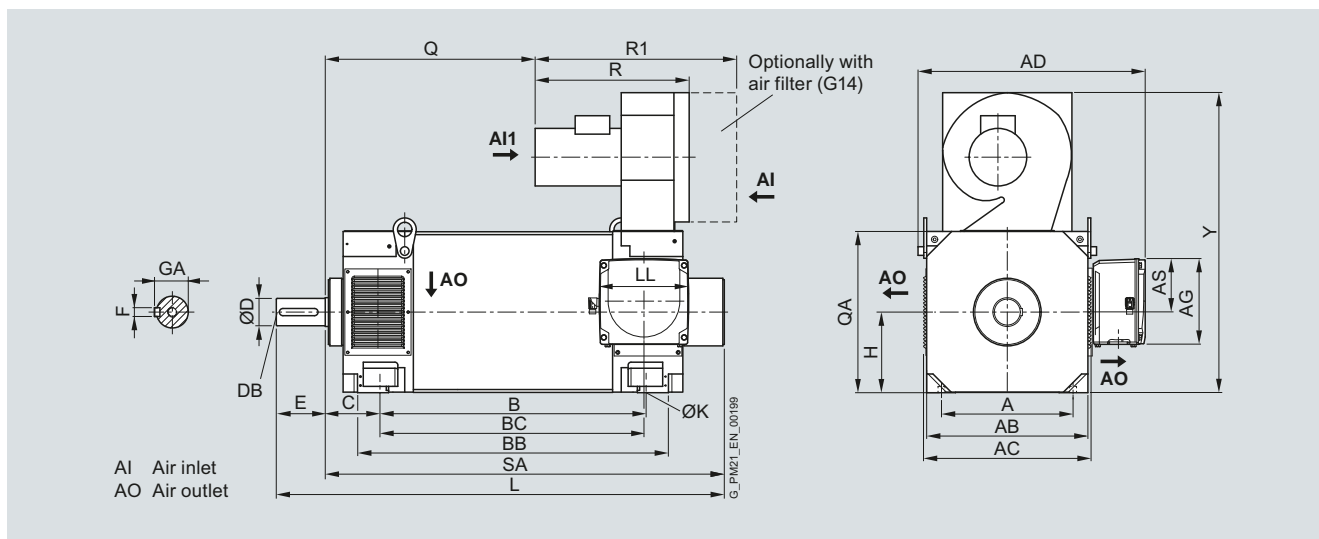
Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 280 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)									
Shaft height	Type	IEC A	AB	AC	B	BB	C	D	DB	E	F
1PH8, type of construction IM B3, forced ventilation – direction of air flow NDE → DE											
280	1PH8284	457 (17.99)	560 (22.05)	582 (22.91)	684 (26.93)	840 (33.07)	190 (7.48)	95 (3.74)	M24	170 (6.69)	25 (0.98)
	1PH8286				794 (31.26)	950 (37.40)					
	1PH8288				924 (36.38)	1080 (42.52)					
		GA	H	K	L	Q	QA	R	R1	SA	Y
	1PH8284	100 (3.94)	280 (11.02)	24 (0.94)	1316 (51.81)	489 (19.25)	560 (22.05)	546 (21.50)	700 (27.56)	1146 (45.12)	1042 (41.02)
	1PH8286				1426 (56.14)	599 (23.58)				1256 (49.45)	
	1PH8288				1556 (61.26)	729 (28.70)				1386 (54.57)	

Terminal box		Dimensions in mm (inches)				
Shaft height	Type	IEC AD	AG	AS	BC	LL
Terminal box type 1XB7700						
280	1PH8284	789 (31.06)	297 (11.69)	186 (7.32)	677 (26.65)	310 (12.20)
	1PH8286				787 (30.98)	
	1PH8288				917 (36.10)	
Terminal box type 1XB7712						
280	1PH8284	836 (32.91)	371 (14.61)	201 (7.91)	691 (27.20)	370 (14.57)
	1PH8286				801 (31.54)	
	1PH8288				931 (36.65)	



SIMOTICS main motors

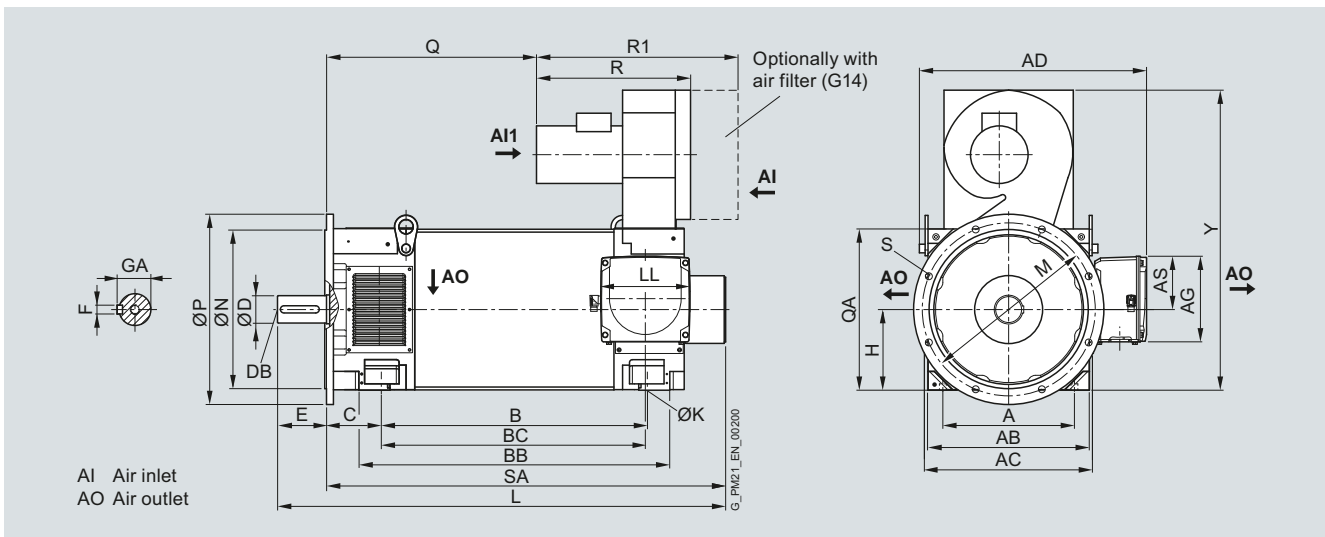
Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 280 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)											
Shaft height	Type	IEC A	AB	AC	B	BB	C	D	DB	E	F	GA	H
1PH8, type of construction IM B35, forced ventilation – direction of air flow NDE → DE, flange A660													
280	1PH8284	457 (17.99)	560 (22.05)	582 (22.91)	684 (26.93)	840 (33.07)	190 (7.48)	95 (3.74)	M24	170 (6.69)	25 (0.98)	100 (3.94)	280 (11.02)
	1PH8286				794 (31.26)	950 (37.40)							
	1PH8288				924 (36.38)	1080 (42.52)							
		K	L	M	N	P	Q	QA	R	R1	S	SA	Y
	1PH8284	24 (0.94)	1316 (51.81)	600 (23.62)	550 (21.65)	660 (25.98)	489 (19.25)	560 (22.05)	546 (21.50)	700 (27.56)	24 (0.94)	1146 (45.12)	1042 (41.02)
	1PH8286		1426 (56.14)				599 (23.58)					1256 (49.45)	
	1PH8288		1556 (61.26)				729 (28.70)					1386 (54.57)	

Terminal box		Dimensions in mm (inches)					
Shaft height	Type	IEC AD	AG	AS	BC	LL	
Terminal box type 1XB7700							
280	1PH8284	789 (31.06)	297 (11.69)	186 (7.32)	677 (26.65)	310 (12.20)	
	1PH8286				787 (30.98)		
	1PH8288				917 (36.10)		
Terminal box type 1XB7712							
280	1PH8284	836 (32.91)	371 (14.61)	201 (7.91)	691 (27.20)	370 (14.57)	
	1PH8286				801 (31.54)		
	1PH8288				931 (36.65)		



SIMOTICS main motors

Dimensional drawings

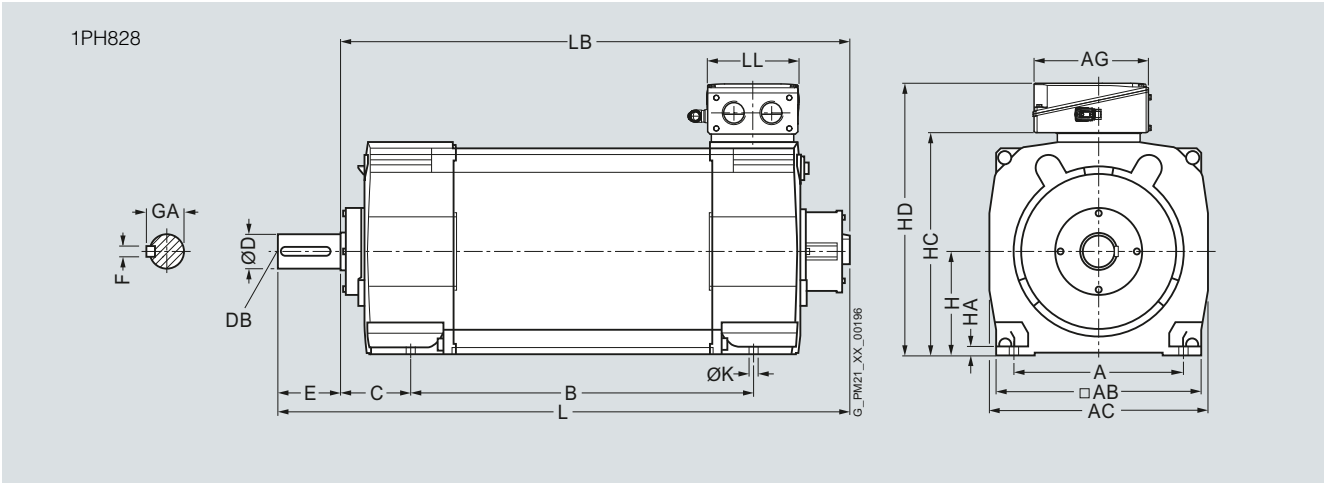
SIMOTICS M-1PH8 asynchronous motors Shaft height 280 – Water cooling

Dimensional drawings

For motor		Dimensions in mm (inches)											Shaft extension DE					
Shaft height	Type	IEC A	AB	AC	B	C	H	HA	HC	K	LB	D	DB	E	F	GA	L	
1PH8, types of construction IM B3/IM V5, water cooling																		
280	1PH8284	457 (17.99)	556 (21.89)	588 (23.15)	684 (26.93)	190 (7.48)	280 (11.02)	21 (0.83)	574 (22.60)	24 (0.94)	1134 (44.65)	95 (3.74)	M24	170 (6.69)	25 (0.98)	100 (3.94)	1304 (51.34)	
	1PH8286				794 (31.26)						1244 (48.98)						1414 (55.67)	
	1PH8288				924 (36.38)						1374 (54.09)						1544 (60.79)	

5

Shaft height	Type	IEC	Terminal box type			1XB7422			1XB7700			1XB7712		
			AG	HD	LL	AG	HD	LL	AG	HD	LL	AG	HD	LL
280	1PH8284	245 (9.65)	674 (26.54)	196 (7.72)	281 (11.06)	717 (28.23)	233 (9.17)	297 (11.69)	751 (29.57)	310 (12.20)	371 (14.61)	813 (32.01)	370 (14.57)	
	1PH8286													
	1PH8288													



SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 280 – Water cooling

Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	IEC A	AB	AC	B	C	H	HA	HC	K	L	LA	LB	M	N	P
1PH8, types of construction IM B5/IM B35/IM V15 D660, water cooling																
280	1PH8284	457 (17.99)	556 (21.89)	588 (23.15)	684 (26.93)	190 (7.48)	280 (11.02)	21 (0.83)	574 (22.60)	24 (0.94)	1304 (51.34)	24 (0.94)	1134 (44.65)	600 (23.62)	550 (21.65)	660 (25.98)
	1PH8286				794 (31.26)						1414 (55.67)		1244 (48.98)			
	1PH8288				924 (36.38)						1544 (60.79)		1374 (54.09)			

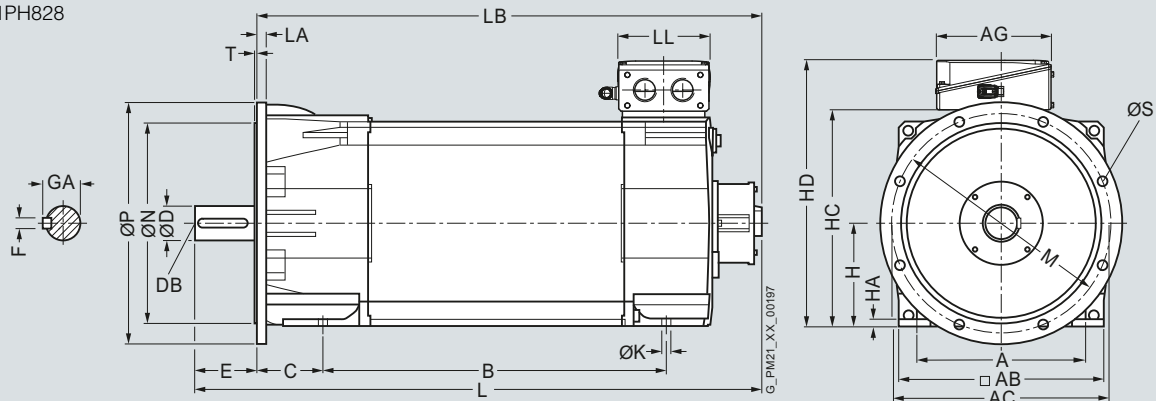
Shaft extension DE

Terminal box type 1XB77322, 1XB7422, 1XB7700, 1XB7712

Dimensions as for types of construction IM B3/IM V5

Shaft height	Type	IEC S	T	D	DB	E	F	GA
280	1PH8284	24 (0.94)	6 (0.24)	95 (3.74)	M24	170 (6.69)	25 (0.98)	100 (3.94)
	1PH8286							
	1PH8288							

1PH828



SIMOTICS main motors

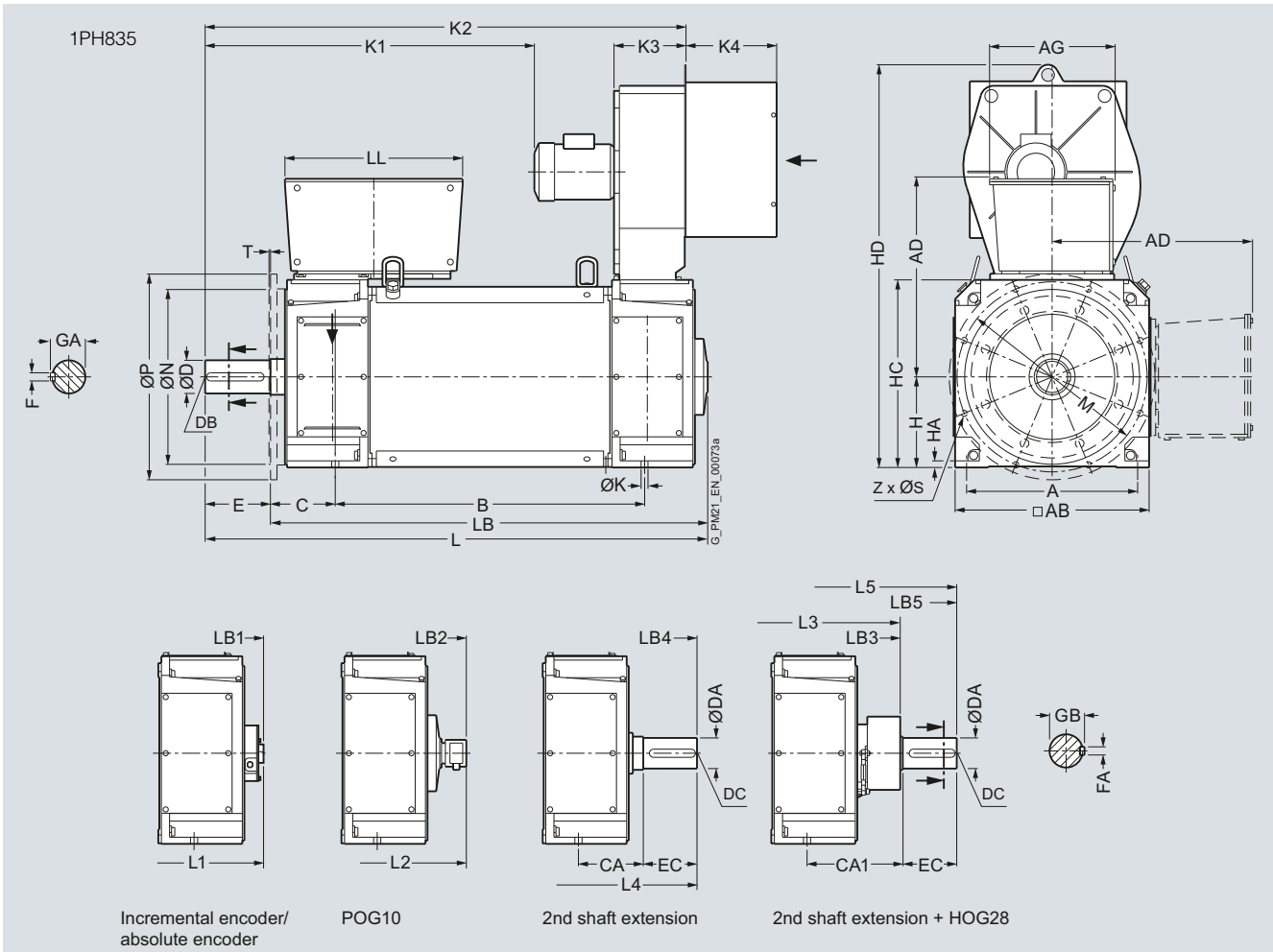
Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 355 – Forced ventilation

Dimensional drawings

For motor		Dimensions in mm (inches)															
Shaft height	Type	IEC A	AB	B	C/CA	CA1	H	HA	HC	HD	K	K1	K2	K3	K4	L	L1
1PH8, type of construction IM B35, forced ventilation																	
355	1PH8350/ 1PH8351	670 (26.38)	760 (29.92)	772 (30.39)	254 (10.00)	375 (14.76)	355 (13.98)	26 (1.02)	735 (28.94)	1269 (49.96)	28 (1.10)	855 (33.66)	1412 (55.59)	200 (7.87)	355 (13.98)	1523 (59.96)	1549 (60.98)
	1PH8352			862 (33.94)								945 (37.20)	1502 (59.13)			1613 (63.50)	1639 (64.53)
	1PH8354			972 (38.27)								1055 (41.54)	1612 (63.46)			1723 (67.83)	1749 (68.86)
	1PH8356			1092 (42.99)								1175 (46.26)	1732 (68.19)			1843 (72.56)	1869 (73.58)
	1PH8358			1212 (47.72)								1295 (50.98)	1852 (72.91)			1963 (77.28)	1989 (78.31)

Shaft height	Type	IEC L2	L3	L4	L5	LB	LB1	LB2	LB3	LB4	LB5	M	N	P	S	T	Z
355	1PH8350/ 1PH8351	1625 (63.98)	1644 (64.72)	1740 (68.50)	1861 (73.72)	1273 (50.12)	1299 (51.14)	1375 (54.13)	1394 (54.88)	1490 (58.66)	1611 (63.43)	740 (29.13)	680 (26.77)	800 (31.50)	24 (0.94)	6 (0.24)	8 (0.31)
	1PH8352	1715 (67.52)	1734 (68.27)	1830 (72.05)	1951 (76.81)	1363 (53.66)	1389 (54.68)	1465 (57.68)	1484 (58.43)	1580 (62.20)	1701 (66.97)						
	1PH8354	1825 (71.85)	1844 (72.60)	1940 (76.38)	2061 (81.14)	1473 (57.99)	1499 (59.02)	1575 (62.01)	1594 (62.76)	1670 (66.54)	1746 (71.30)						
	1PH8356	1945 (76.57)	1964 (77.32)	2060 (81.10)	2181 (85.87)	1593 (62.72)	1619 (63.74)	1695 (66.73)	1714 (67.48)	1790 (71.26)	1866 (76.02)						
	1PH8358	2065 (81.30)	2084 (82.05)	2180 (85.83)	2301 (90.59)	1713 (67.44)	1739 (68.46)	1815 (71.46)	1834 (72.20)	1910 (75.98)	1986 (80.75)						



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

SIMOTICS main motors

Dimensional drawings

SIMOTICS M-1PH8 asynchronous motors Shaft height 355 – Forced ventilation

Dimensional drawings

Shaft height	Type	Shaft extension DE									Terminal box type					
		IEC D	DA	DB/DC E	EC	F	FA	GA	GB	1XB7712 AD	AG	LL	1XB7820 AD	AG	LL	
355	1PH8350/ 1PH8351	130 (5.12)	120 (4.72)	M24	250 (9.84)	180 (7.09)	32 (1.26)	32 (1.26)	119 (4.69)	114 (4.49)	640 (25.20)	377 (14.84)	370 (14.57)	784 (30.87)	492 (19.37)	696 (27.40)
	1PH8352															
	1PH8354															
	1PH8356															
	1PH8358															

5

