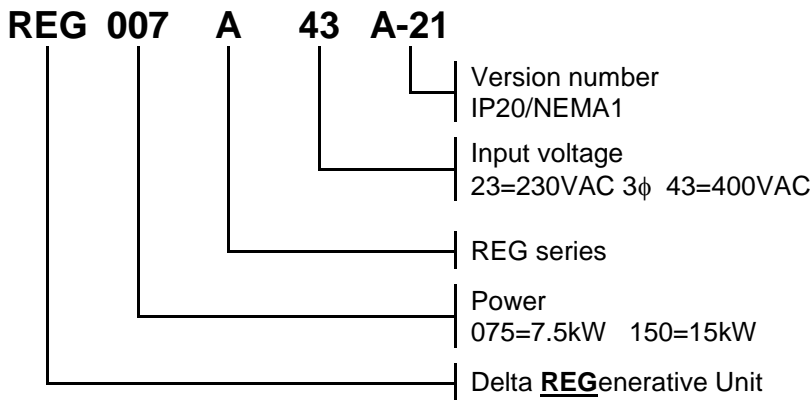
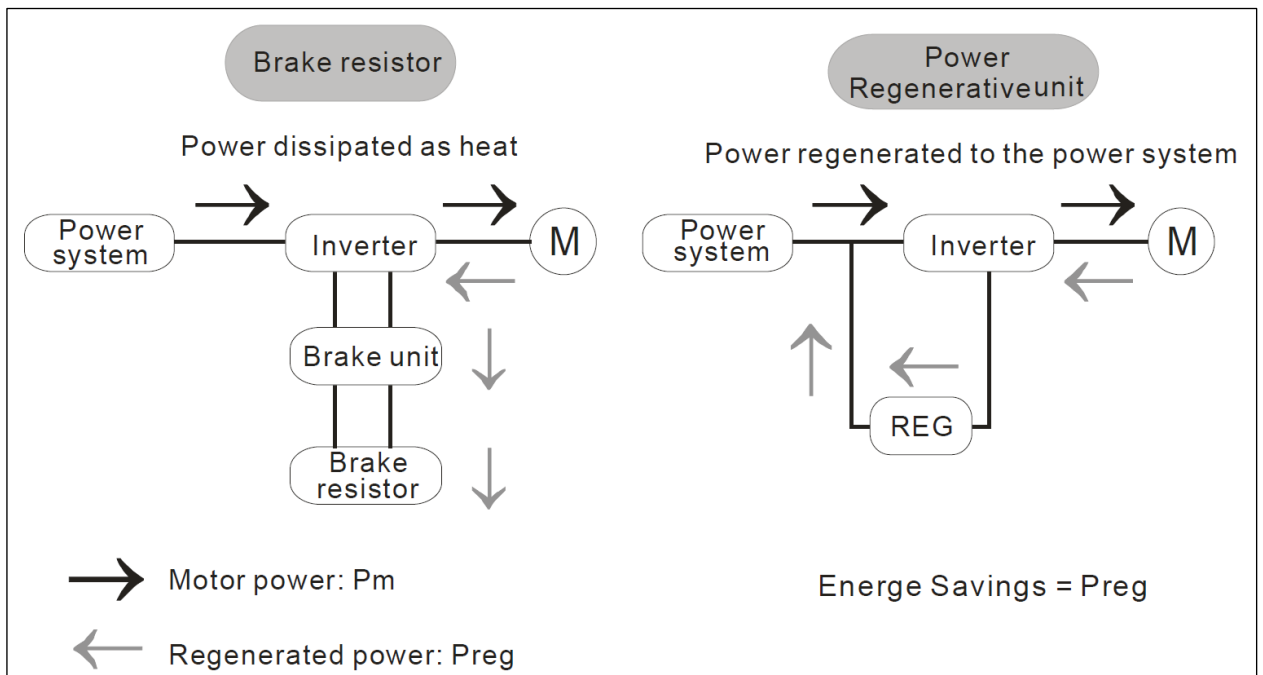


Type number key



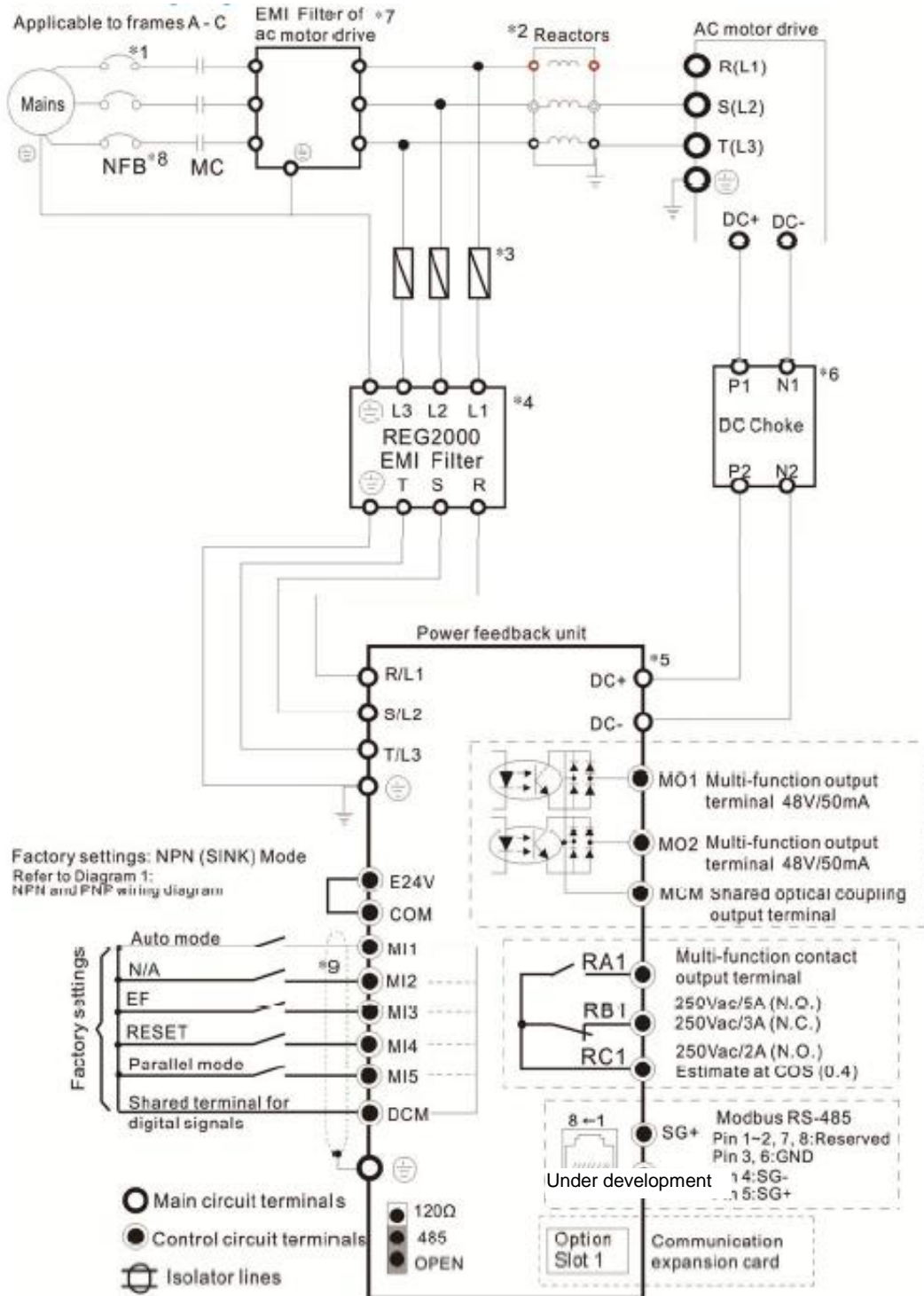
The REG2000 is an energy-saving replacement for the traditional brake resistor. The necessary AC-Reactor is built-in and the required RG-RC Reactor is included in the package.



For dimensioning and set-up, please refer to the application note:

[REG2000 dimensioning and set-up.pdf](#)

Basic wiring diagram



230V 3-phase 7.5 ~ 11kW

Type number	REG□□□□□□□□-21	075E23A	110E23A
Rated power	kW	7.5	11
Rated input current	A RMS	20	32
Mains input voltage	V RMS	200 ~ 240 ^{+10%} / _{-15%}	
Activation voltage	VDC	300 ~ 360	
Overload	%	150% 10s	
Mains fuse	A	50	80
Dimensions HxWxD	mm	370x130x190	
Frame size ****		A	
Weight	kg	7.9 ±0.5	
Section of power cables	mm ²	5.3 ~ 8.4	8
Cooling		Fan	
Carrier frequency	kHz	8	
Losses at rated load		213	324
RG-RC Reactor (included)		RG-RC110D2	
Option EMI LC Filter		RG-EF110A2	
Fan flow rate	m ³ /h	75	

**** See dimensional drawing on Page 7~9.

230V 3-phase 15 ~ 22kW

Type number	REG□□□□□□□□-21	150E23A	185E23A	220E23A
Rated power	kW	15	18.5	22
Rated input current	A RMS	38	49	60
Mains input voltage	V RMS	200 ~ 240 ^{+10%} / _{-15%}		
Activation voltage	VDC	300 ~ 360		
Overload	%	150% 10s		
Mains fuse	A	100	125	150
Dimensions HxWxD	mm	500x190x205		
Frame size ****		B		
Weight	kg	14.2 ±0.5		
Section of power cables	mm ²	13.3 ~ 21.2	21.2	
Cooling		Fan		
Carrier frequency	kHz	8		
Losses at rated load		380	439	552
RG-RC Reactor (included)		RG-RC220D2		
Option EMI LC Filter		RG-EF220A2		
Fan flow rate	m ³ /h	155		

**** See dimensional drawing on Page 7~9.

230V 3-phase 30 ~ 37kW

Type number	REG□□□□□□□-21	300E23A	370E23A
Rated power	kW	30	37
Rated input current	A RMS	80	100
Mains input voltage	V RMS	200 ~ 240 ^{+10%} / _{-15%}	
Activation voltage	VDC	300 ~ 360	
Overload	%	150% 10s	
Mains fuse	A	200	250
Dimensions HxWxD	mm	650x250x210	
Frame size ****		C	
Weight	kg	26.4 ±0.5	28.0 ±0.5
Section of power cables	mm ²	5.3 ~ 8.4	8
Cooling		Fan	
Carrier frequency	kHz	8	
Losses at rated load		620	898
RG-RC Reactor (included)		RG-RC370D2	
Option EMI LC Filter		RG-EF370A2	
Fan flow rate	m ³ /h	206	226

**** See dimensional drawing on Page 7~9

400V 3-phase 7.5 ~ 15kW

Type number	REG□□□□□□□-21	075E43A	110E43A	150E43A
Rated power	kW	7.5	11	15
Rated input current	A RMS	10.5	17	20
Mains input voltage	V RMS	380 ~ 480 ^{+10%} / _{-15%}		
Activation voltage	VDC	580 ~ 720		
Overload	%	150% 10s		
Mains fuse	A	100	125	150
Dimensions HxWxD	mm	370x130x190		
Frame size ****		A		
Weight	kg	7.5 ±0.5		
Section of power cables	mm ²	2.1 ~ 8.4	5.3 ~ 8.4	
Cooling		Fan		
Carrier frequency	kHz	8		
Losses at rated load		204	291	362
RG-RC Reactor (included)		RG-RC150D4		
Option EMI LC Filter		RG-EF150A4		
Fan flow rate	m ³ /h	75		

**** See dimensional drawing on Page 7~9.

400V 3-phase 18.5 ~ 30kW

Type number	REG□□□□□□□-21	185E43A	220E43A	300E43A
Rated power	kW	18.5	22	30
Rated input current	A RMS	25	32	43
Mains input voltage	V RMS	380 ~ 480 ^{+10%} / _{-15%}		
Activation voltage	VDC	580 ~ 720		
Overload	%	150% 10s		
Mains fuse	A	60	80	100
Dimensions HxWxD	mm	500x190x205		
Frame size ****		B		
Weight	kg	14.2 ±0.5		
Section of power cables	mm ²	8.4 ~ 21.2		13.3 ~ 21.2
Cooling		Fan		
Carrier frequency	kHz	8		
Losses at rated load		429	526	657
RG-RC Reactor (included)		RG-RC300D4		
Option EMI LC Filter		RG-EF300A4		
Fan flow rate	m ³ /h	155		

**** See dimensional drawing on Page 7~9.

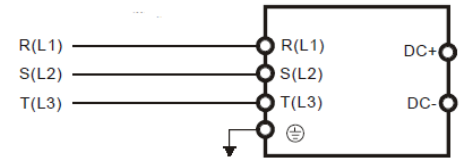
400V 3-phase 37 ~ 55kW

Type number	REG□□□□□□□-21	370E43A	450E43A	550E43A
Rated power	kW	37	45	55
Rated input current	A RMS	49	60	75
Mains input voltage	V RMS	380 ~ 480 ^{+10%} / _{-15%}		
Activation voltage	VDC	580 ~ 720		
Overload	%	150% 10s		
Mains fuse	A	125	150	200
Dimensions HxWxD	mm	650x250x210		
Frame size ****		C		
Weight	kg	26.2 ±0.5	26.3 ±0.5	27.8 ±0.5
Section of power cables	mm ²	8.4 ~ 21.2		13.3 ~ 21.2
Cooling		Fan		
Carrier frequency	kHz	8		
Losses at rated load		692	882	1176
RG-RC Reactor (included)		RG-RC550D4		
Option EMI LC Filter		RG-EF550A4		
Fan flow rate	m ³ /h	206	226	

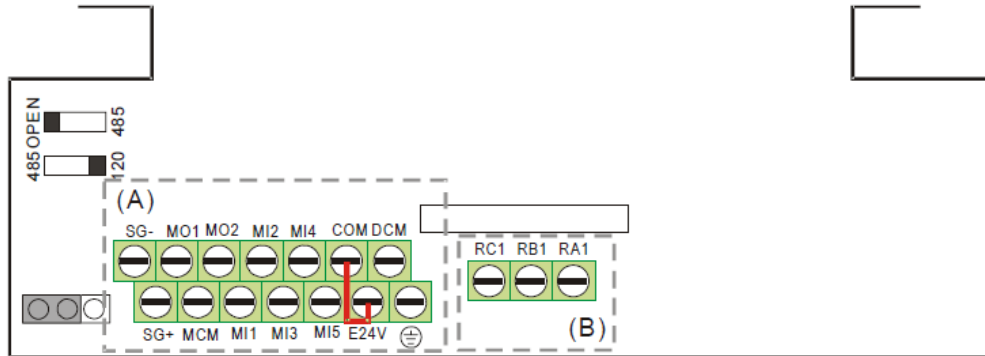
**** See dimensional drawing on Page 7~9.

Power terminals

Terminals	Function
R(L1), S(L2), T(L3)	Mains input terminals
DC+, DC-	DC output (connects to drive DC-bus)
	PE, connect to ground acc. to local regulations



Control terminals



Common data REG2000

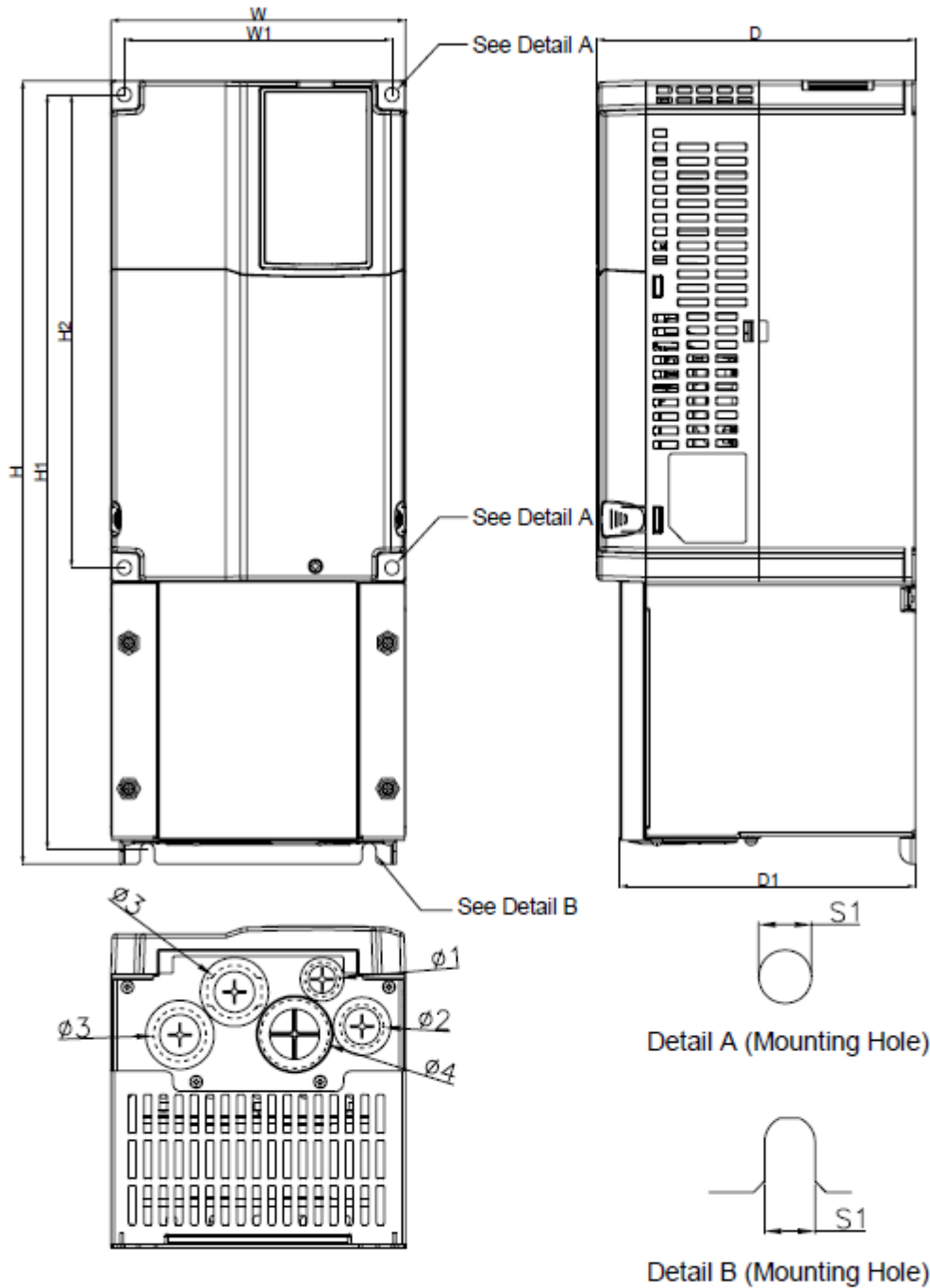
Mains voltage range	VAC	200V: 170 ~ 250	400V: 340 ~ 500
Mains frequency	Hz	50 ~ 60 ±5%	
DC Activation voltage range	VDC	200V: 300 ~ 360	400V: 580 ~ 720
Operating temperature	°C	-10 ~ +40 (-10 ~+50 with cover removed) *	
Storage temperature	°C	-25 ~ +70	
Atmospheric pressure	kPa	86 ~ 106	
Relative humidity	%	≤90 (non condensing)	
Vibration		2~13.2Hz: 1mm, 13.2~55Hz: 0.6~1.0G, 55~512Hz: 1.0G	
Degree of protection		IP20/NEMA1	
Pollution degree		2	
Altitude	m	≤1000 **	
Keypad		Standard display	
Signal cable section	mm ²	0.13 ~ 1.3	
Digital inputs	5x MIx	SINK or SOURCE	Via jumper
		Range	24VDC
		Scan time	1ms~30s
		Pull-up (internal)	ca. 3kΩ (6.5mA)
Digital outputs	2x MOx	Optocoupler OC	48VDC/50mA
Relays	1x	Change-over	
		NO: R _A ~R _C	Resistive 5A/250VAC-30VDC
			Inductive 2A/250VAC-30VDC
		NC: R _B ~R _C	Resistive 3A/250VAC-30VDC
			Inductive 1.2A/250VAC-30VDC
Signal supply	1x	+24VDC±5%/200mA	
Fault memory		Last 6 faults	
Serial communication	SG+ SG- 2x RJ45	Modbus RS485	
		Baudrate	4800 ~ 115200
		Address	1 ~ 254
		Mode	ASCII 7N1/7N2/7E1/7O1/7E2/7O2/ 8N1/8N2/8E1/8O1/8E2/8O2
		Modbus RTU	8N1/8N2/8E1/8O1/8E2/8O2

* Derate 2%/°C up to 60°C max

** Derate 2%/100m or 0.5°C/100m up to 3000m

Sizes and dimensions in mm [inches]

Frame A



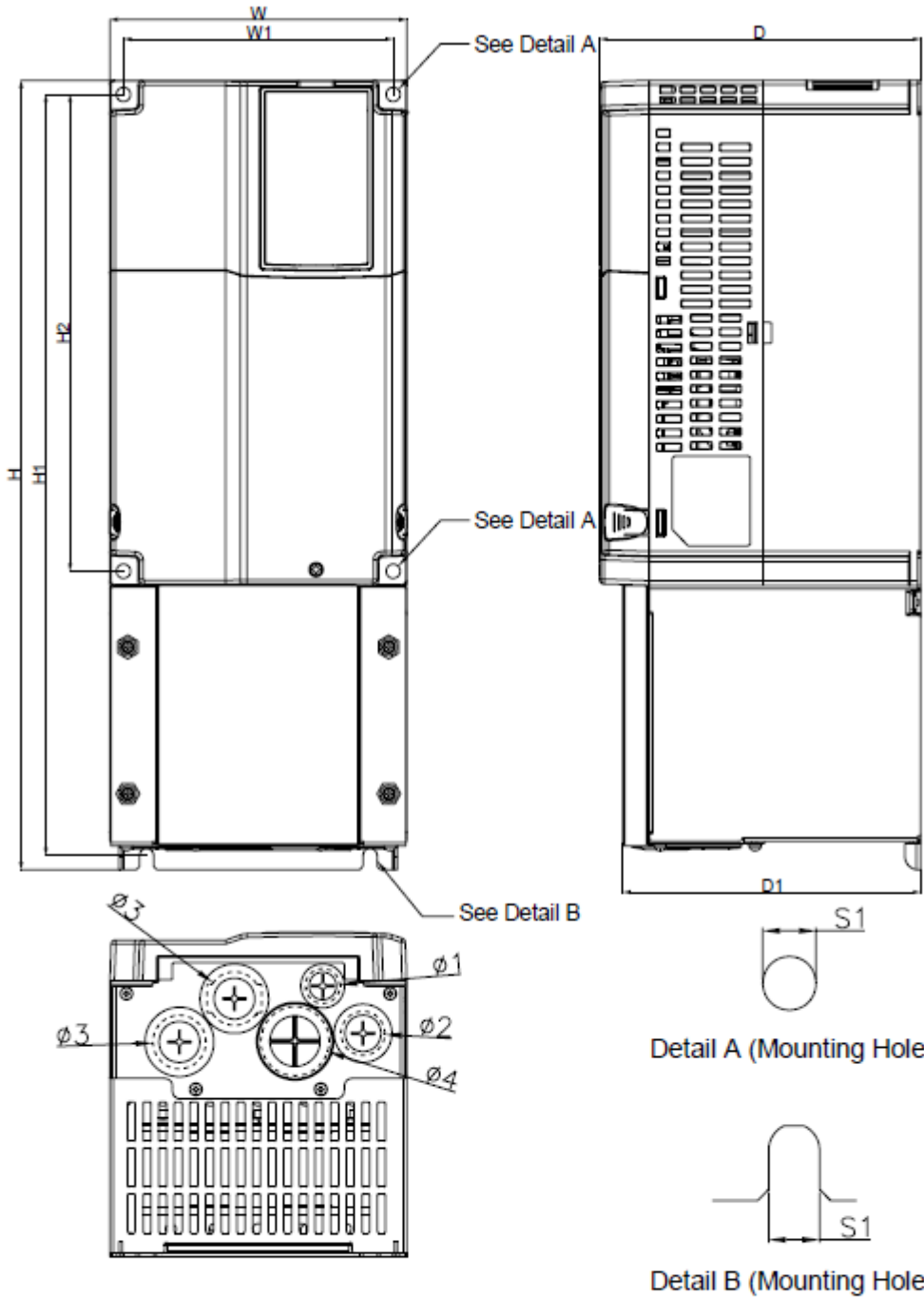
Detail A (Mounting Hole)

Detail B (Mounting Hole)

Unit: mm [inch]

Frame	W	H	D	W1	H1	H2	D1	S1	Φ1	Φ2	Φ3	Φ4
B1	190.0 [7.48]	500.0 [19.68]	205.0 [8.09]	172.5 [6.79]	482.0 [18.98]	302.0 [11.89]	190.5 [7.50]	9.0 [0.35]	22.2 [0.87]	28.0 [1.10]	34.0 [1.34]	43.8 [1.72]

Frame B



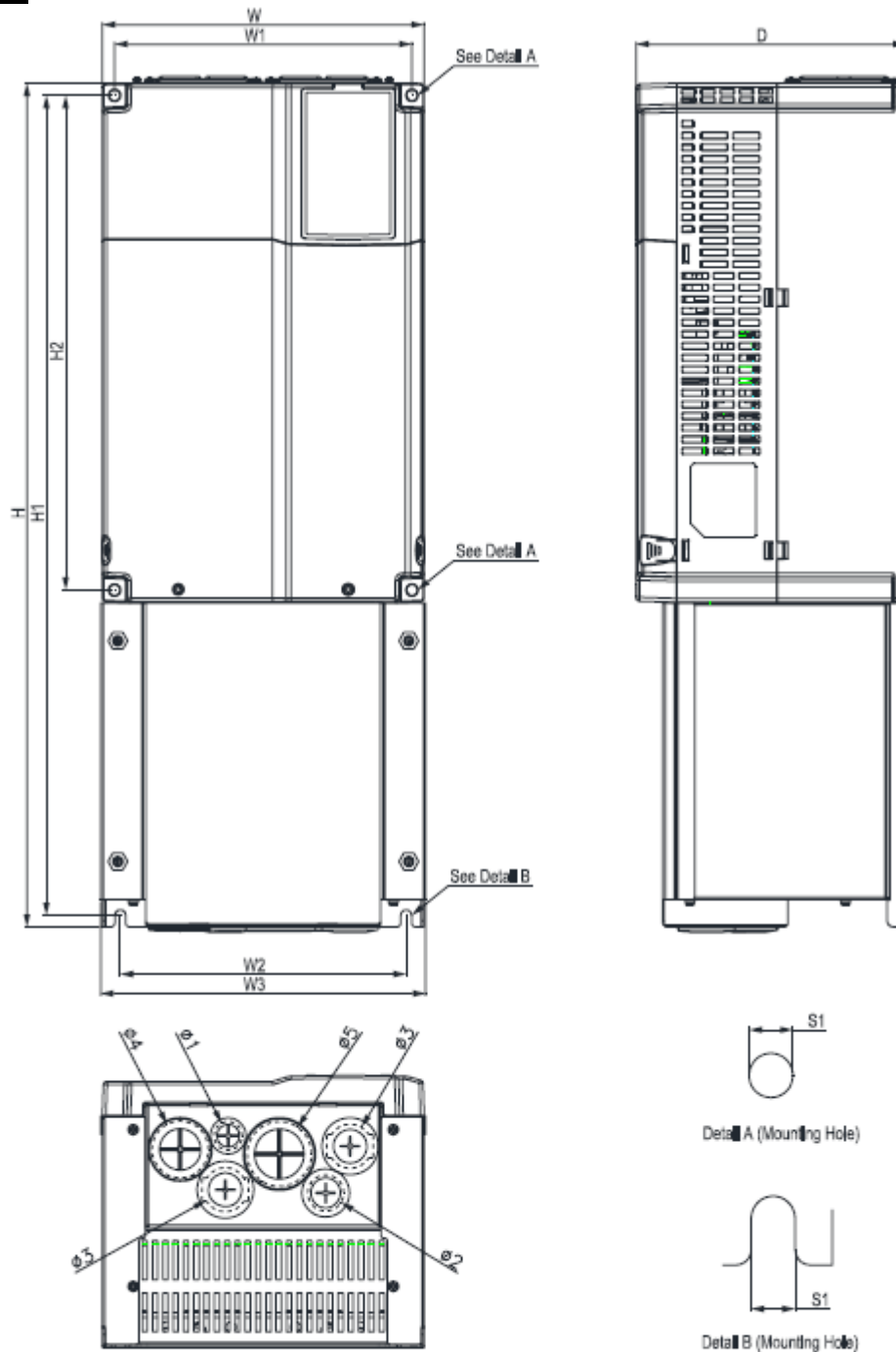
Detail A (Mounting Hole)

Detail B (Mounting Hole)

Unit: mm [inch]

Frame	W	H	D	W1	H1	H2	D1	S1	$\Phi 1$	$\Phi 2$	$\Phi 3$	$\Phi 4$
B1	190.0 [7.48]	500.0 [19.68]	205.0 [8.09]	172.5 [6.79]	482.0 [18.98]	302.0 [11.89]	190.5 [7.50]	9.0 [0.35]	22.2 [0.87]	28.0 [1.10]	34.0 [1.34]	43.8 [1.72]

Frame C



Unit: mm [inch]

Frame	W	H	D	W1	W2	W3	H1	H2	S1	$\phi 1$	$\phi 2$	$\phi 3$	$\phi 4$	$\phi 5$
C1	250.0 [9.84]	650.0 [25.59]	210.0 [8.27]	231.0 [9.09]	220.0 [8.74]	252.5 [9.94]	631.5 [24.86]	381.0 [15.00]	8.5 [0.33]	22.2 [0.87]	28.0 [1.10]	34.0 [1.34]	44.0 [1.73]	50.1 [1.97]

RG-RC reactor specification

Type	For REG type	Inductance μH	Rated current A_{rms}	Dimensions (see Drawing page 11)							Lug \O mm	Weight kg
				A	B	C	E	F	G	Fix		
RG-RC110D2	REG075E23A-21	1650	32	95	70	86	32	85	83		4.2	0.84
	REG110E23A-21											
RG-RC220D2	REG150E23A-21	580	60	105	75	96	20	85	93	M5	6.2	0.9
	REG185E23A-21											
	REG220E23A-21											
RG-RC370D2	REG300E23A-21	190	100	105	85	96	20	85	93		8.3	1.1
	REG370E23A-21											
RG-RC150D4	REG075E43A-21	3950	20	95	70	86	32	85	83		4.2	0.84
	REG110E43A-21											
	REG150E43A-21											
RG-RC300D4	REG185E43A-21	1300	43	105	75	96	20	85	93	M5	6.2	1.1
	REG220E43A-21											
	REG300E43A-21											
RG-RC550D4	REG370E43A-21	490	75	105	85	96	20	85	93		8.3	1.2
	REG450E43A-21											
	REG550E43A-21											

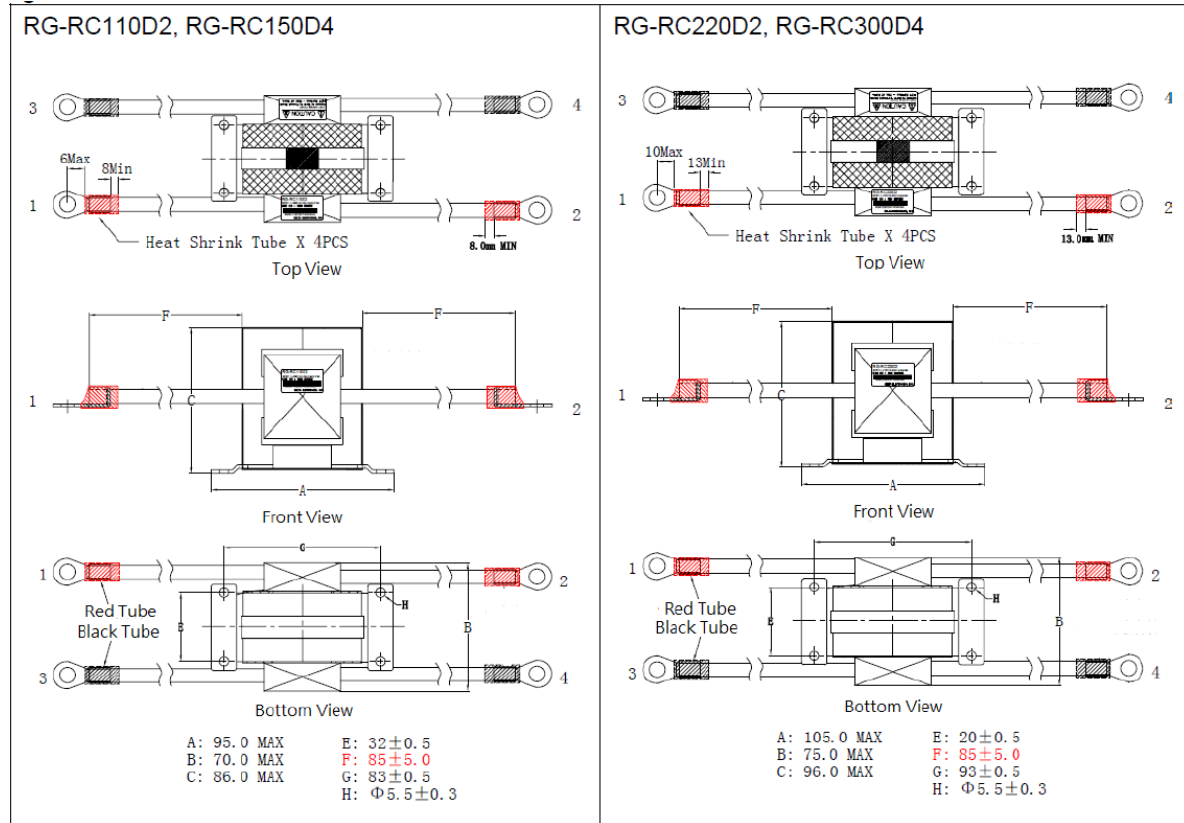
This reactor is included in the package.

RG-EF filters specification

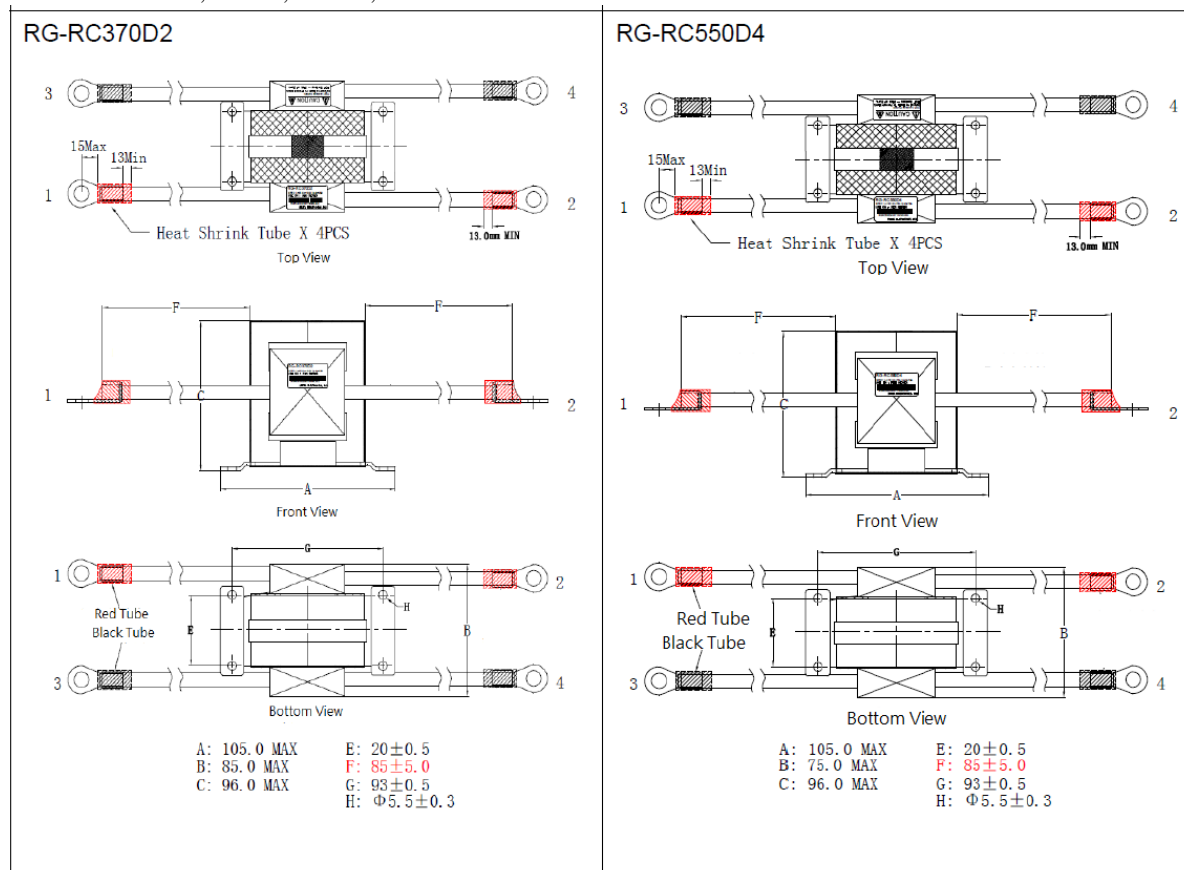
Type	For REG type	Rated current A_{rms}	Class/ motor cable length	Dimensions (see Drawing page 12)				Wire section mm^2	Weight kg
				H	W	D	Fix		
RG-EF110A2	REG075E23A-21	25.6	C3 / 3m	310	130	80		8.4	3.2
	REG110E23A-21								
RG-EF220A2	REG150E23A-21	48		380	155	80	M5	21.2	4.8
	REG185E23A-21								
	REG220E23A-21								
RG-EF370A2	REG300E23A-21	80						53.5	6.0
	REG370E23A-21								
RG-EF150A4	REG075E43A-21	16	95	70	86		5.3~ 8.4	3.2	
	REG110E43A-21								
	REG150E43A-21								
RG-EF300A4	REG185E43A-21	34.4	105	75	96	M5	13.3~ 21.2	4.8	
	REG220E43A-21								
	REG300E43A-21								
RG-EF550A4	REG370E43A-21	60	105	85	96		33.6~ 53.5	6.0	
	REG450E43A-21								
	REG550E43A-21								

RG-RC reactors dimensions

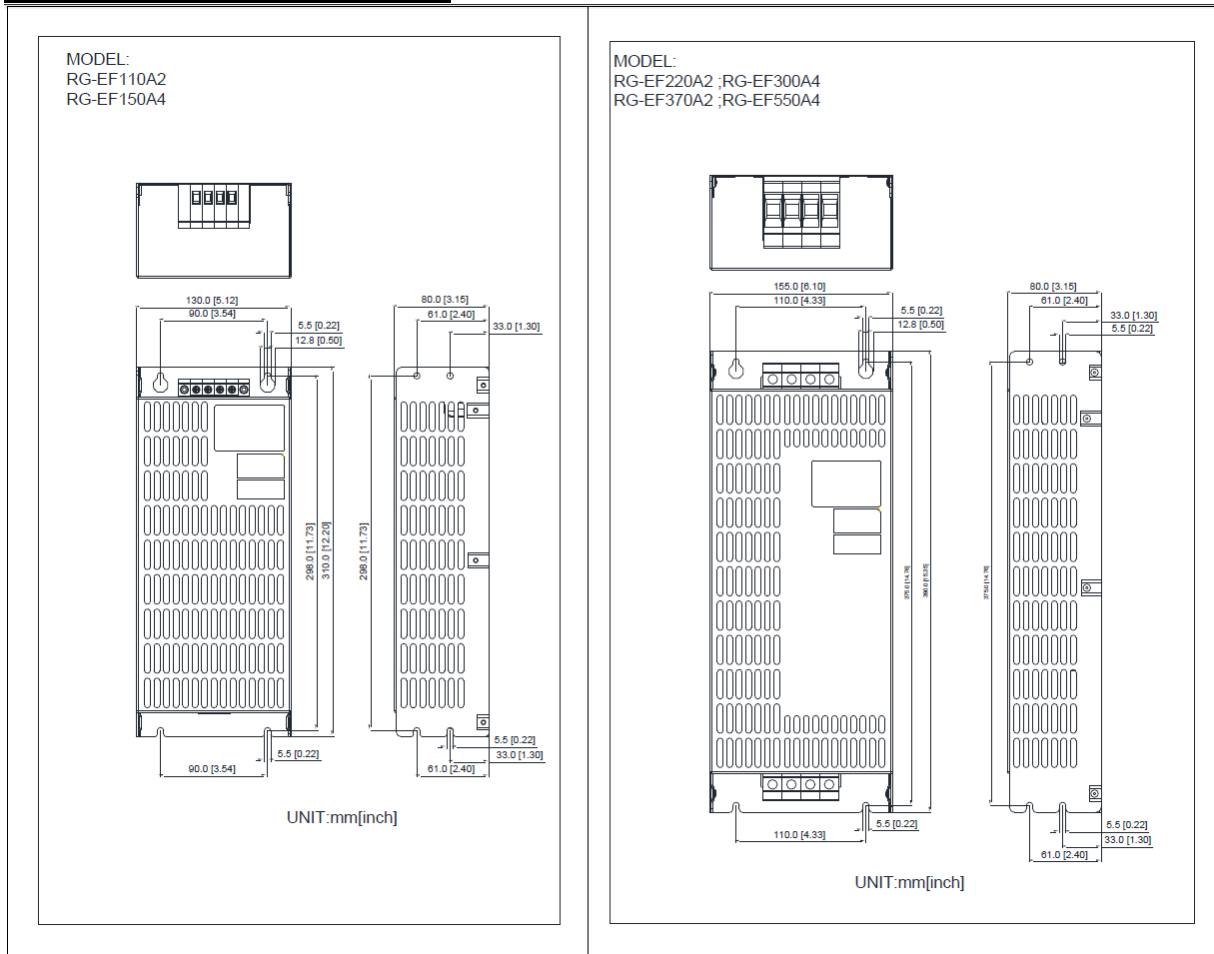
Terminals: #1=P1, #2=P2, #3=N1, #4=N2



Terminals: #1=P1, #2=P2, #3=N1, #4=N2



RG-EF filters dimensions



Options

Keypad&Cables KPC-CC01 and KPC-CE01 (option)
Extension cables and MKC-KPPK for cabinet door mounting.

Software To read, save, copy, and change parameters, download VFDSOft from www.delta-emea.com.

Parameters

- Group 00-xx** **Display Parameters**
Drive ID, Software version, Display of status and values, Fault memory, etc.
- Group 01-xx** **Basic Parameters**
Parameter reset, Start-up display, Password, Operation, DC Iutput, Reactor, etc.
- Group 02-xx** **Digital I/O Parameters**
Function and setting of digital inputs, outputs and relays.
- Group 03-xx** **Special Protection Parameters**
Protection settings, Auto-restart, Fan, kWh price, etc.
- Group 04-xx** **Communication Parameters**
Protocol, Address, Transmission speed, etc.

www.delta-emea.com

