




TeSys motor starters - Type 2 coordination

Direct-on-Line starters with circuit-breaker and overload protection built into the circuit-breaker

0.06 to 110 kW at 400/415 V, 50/60 Hz

Short Circuit Current (I_q) = 50kA

Standard power ratings of 3-phase motors	400/415 V	Circuit-breaker	Setting range of thermal trips	Contactor
P	I _e	Reference (1)		Reference
kW	A	A		
0.06	0.2	GV2 P02 or GV2 ME02	0.16...0.25	LC1 D09
0.09	0.3	GV2 P03 or GV2 ME03	0.25...0.4	LC1 D09
0.12	0.44	GV2 P04 or GV2 ME04	0.4...0.63	LC1 D09
0.18	0.6	GV2 P04 or GV2 ME04	0.4...0.63	LC1 D09
0.25	0.85	GV2 P05 or GV2 ME05	0.63...1	LC1 D09
0.37	1.1	GV2 P05 or GV2 ME05	0.63...1	LC1 D09
0.55	1.5	GV2 P06 or GV2 ME06	1...1.6	LC1 D09
0.75	1.9	GV2 P07 or GV2 ME07	1.6...2.5	LC1 D09
1.1	2.7	GV2 P08 or GV2 ME08	2.5...4	LC1 D09
1.5	3.6	GV2 P08 or GV2 ME08	2.5...4	LC1 D09
2.2	4.9	GV2 P10 or GV2 ME10	4...6.3	LC1 D09
3	6.5	GV2 P14 or GV2 ME14	6...10	LC1 D09
4	8.5	GV2 P14 or GV2 ME14	6...10	LC1 D09
5.5	11.5	GV2 P16	9...14	LC1 D25
7.5	15.5	GV2 P20	13...18	LC1 D25
9	18.1	GV2 P21	17...23	LC1 D25
11	22	GV2 P22	20...25	LC1 D25
15	29	GV2 P32	25...40	LC1 D32
18.5	35	GV3 P40	30...40	LC1 D50A
22	41	GV3 P50	37...50	LC1 D50A
30	55	GV3 P65	48...65	LC1 D65A
37	66	GV3 P73 	62...73	LC1 D80A
45	80	GV4P115N 	65...115	LC1 D115
55	97	GV4P115N 	65...115	LC1 D115
55	97	GV7 RS150	90...150	LC1 D150
75	132	GV7 RS150	90...150	LC1 D150
90	160	GV7 RS220	132...220	LC1 F185
110	195	GV7 RS220	132...220	LC1 F225

(1) The breaking performance of circuit-breakers GV2 P can be increased by adding a current limiter GV1 L3

TeSys motor starters - Type 2 coordination

Direct-on-Line starters with circuit-breaker and thermal overload relay

0.06 to 250 kW at 400/415 V, 50/60 Hz

Short circuit current (I_q)= 50kA

Standard power ratings of 3-phase motors	400/415 V	Circuit-breaker		Contactor	Thermal Overload relay		
		P	Reference	Rating	Reference	Reference	Setting Range
		kW	I _e	A	A	A	A
0.06	0.2	GV2 L03 or LE03	0.4	LC1 D09	LRD 02	0.16...0.25	
0.09	0.3	GV2 L03 or LE03	0.4	LC1 D09	LRD 03	0.25...0.40	
0.12	0.44	GV2 L04 or LE04	0.63	LC1 D09	LRD 04	0.4...0.63	
0.18	0.6	GV2 L04 or LE04	0.63	LC1 D09	LRD 04	0.4...0.63	
0.25	0.85	GV2 L05 or LE05	1	LC1 D09	LRD 05	0.63...1	
0.37	1.1	GV2 L05 or LE05	1	LC1 D09	LRD 05	0.63...1	
0.55	1.5	GV2 L06 or LE06	1.6	LC1 D09	LRD 06	1...1.7	
0.75	1.9	GV2 L07 or LE07	2.5	LC1 D09	LRD 07	1.6...2.5	
1.1	2.7	GV2 L08 or LE08	4	LC1 D09	LRD 08	2.5...4	
1.5	3.6	GV2 L08 or LE08	4	LC1 D09	LRD 08	2.5...4	
2.2	4.9	GV2 L10 or LE10	6.3	LC1 D09	LRD 10	4...6	
3	6.5	GV2 L14 or LE14	10	LC1 D09	LRD 12	5.5...8	
4	8.5	GV2 L14 or LE14	10	LC1 D09	LRD 14	7...10	
5.5	11.5	GV2 L16	14	LC1 D25	LRD 16	9...13	
7.5	15.5	GV2 L20	18	LC1 D25	LRD 21	12...18	
9	18.1	GV2 L22	25	LC1 D25	LRD 22	16...24	
11	22	GV2 L22	25	LC1 D25	LRD 22	16...24	
15	29	GV3 L32	32	LC1 D40A	LRD 332	23...32	
18.5	35	GV3 L40	40	LC1 D50A	LRD 340	30...40	
22	41	GV3 L50	50	LC1 D50A	LRD 350	37...50	
30	55	GV3 L65	65	LC1 D65A	LRD 365	48...65	
37	66	GV4L80N New	80	LC1 D80	LRD 3363	63...80	
45	80	GV4L115N New	115	LC1 D115	LR9 D5367	60...100	
55	97	GV4L115N New	115	LC1 D115	LR9 D5369	90...150	
75	132	NSX160*MA (2)	150	LC1 D150	LR9 D5369	90...150	
90	160	NSX250*MA (2)	220	LC1 F185	LR9 F5371	132...220	
110	195	NSX250*MA (2)	220	LC1 F225	LR9 F5371	132...220	
132	230	NSX400* + Mic 1.3M (2)	320	LC1 F265	LR9 F7375	200...330	
160	280	NSX400* + Mic 1.3M (2)	320	LC1 F330	LR9 F7375	200...330	
200	350	NSX630* + Mic 1.3M (2)	500	LC1 F400	LR9 F7379	300...500	
220	388	NSX630* + Mic 1.3M (2)	500	LC1 F500	LR9 F7379	300...500	
250	430	NSX630* + Mic 1.3M (2)	500	LC1 F500	LR9 F7379	300...500	

(1) For reversing operation, replace the prefix LC1 with LC2.

(2) Reference to be completed by replacing the * with the breaking performance code:

Breaking performance I _q (kA)	NSX100*MA	NSX160*MA, NSX250*MA	NSX400* NSX630*
400/415 V	50	50	50
Code	N	N	N

TeSys motor starters - Type 2 coordination

Direct-on-Line starters with circuit-breaker and electronic thermal overload relay

0.06 to 30 kW at 400/415 V, 50/60 Hz

Short Circuit current (I_q) = 50kA

Selectable Trip class - 5, 10, 20, 30

Standard power ratings of 3-phase motors	400/415 V	Circuit-breaker		Contactor	Electronic Thermal Overload relay	
		Reference	Rating		Reference (1)	Setting Range
			A			A
P	I _e	Reference	Rating	Reference	Reference (1)	Setting Range
kW	A		A			A
0.06	0.2	GV2 L03	0.4	LC1 D09	LR9D 01	0.1...0.5
0.09	0.3	GV2 L03	0.4	LC1 D09	LR9D 01	0.1...0.5
0.12	0.44	GV2 L04	0.63	LC1 D18	LR9D 02	0.4...2.0
0.18	0.6	GV2 L04	0.63	LC1 D18	LR9D 02	0.4...2.0
0.25	0.85	GV2 L05	1	LC1 D18	LR9D 02	0.4...2.0
0.37	1.1	GV2 L05	1	LC1 D18	LR9D 02	0.4...2.0
0.55	1.5	GV2 L06	1.6	LC1 D18	LR9D 02	0.4...2.0
0.75	1.9	GV2 L07	2.5	LC1 D18	LR9D 08	1.6...8.0
1.1	2.7	GV2 L08	4	LC1 D18	LR9D 08	1.6...8.0
1.5	3.6	GV2 L08	4	LC1 D18	LR9D 08	1.6...8.0
2.2	4.9	GV2 L10	6.3	LC1 D18	LR9D 08	1.6...8.0
3	6.5	GV2 L14	10	LC1 D25	LR9D 32	6.4...32
4	8.5	GV2 L14	10	LC1 D25	LR9D 32	6.4...32
5.5	11.5	GV2 L16	14	LC1 D25	LR9D 32	6.4...32
7.5	15.5	GV2 L20	18	LC1 D25	LR9D 32	6.4...32
11	22	GV2 L22	25	LC1 D25	LR9D 32	6.4...32
15	29	GV3 L32	40	LC1 D65A	LR9D 110S	22...110
18.5	35	GV3 L40	40	LC1 D65A	LR9D 110S	22...110
22	41	GV3 L50	50	LC1 D65A	LR9D 110S	22...110
30	55	GV3 L65	65	LC1 D65A	LR9D 110S	22...110

(1) Ambient insensitive Overload Protection.

Type 2 coordination (IEC 60947-4-1) 415 V

Direct-on-Line Starter with Electronic Circuit Breaker

0.18 to 55 kW at 415 V, 50/60 Hz

Short Circuit current (I_q) = 50kA

Selectable Trip class - 10, 20

Standard power ratings of 3-phase motors	400/415 V	Circuit-breaker	Setting range of thermal trips	Contactor
P	I _e	Reference		Reference
kW	A			
0,18	0,58	GV4P, PE or PEM02N	0.8...2	LC1D25
0,25	0,82	GV4P, PE or PEM02N	0.8...2	LC1D25
0,37	1,06	GV4P, PE or PEM02N	0.8...2	LC1D25
0,55	1,45	GV4P, PE or PEM02N	0.8...2	LC1D25
0,75	1,83	GV4P, PE or PEM02N	0.8...2	LC1D25
1.1	2,60	GV4P, PE or PEM03N	1.4...3.5	LC1D32
1.5	3,5	GV4P, PE or PEM07N	2.9...7	LC1D50A
2.2	4,7	GV4P, PE or PEM07N	2.9...7	LC1D50A
3	6,3	GV4P, PE or PEM07N	2.9...7	LC1D50A
4	8,2	GV4P, PE or PEM12N	5...12.5	LC1D50A
5.5	11,1	GV4P, PE or PEM12N	5...12.5	LC1D50A
7.5	15	GV4P, PE or PEM25N	10...25	LC1D65A
10	18	GV4P, PE or PEM25N	10...25	LC1D65A
11	21	GV4P, PE or PEM25N	10...25	LC1D65A
15	28	GV4P, PE or PEM25N	10...25	LC1D65A
18.5	34	GV4P, PE or PEM50N	20...50	LC1D65A
22	40	GV4P, PE or PEM50N	20...50	LC1D65A
30	53	GV4P, PE or PEM80N	40...80	LC1D65A
37	64	GV4P, PE or PEM80N	40...80	LC1D80
45	77	GV4P, PE or PEM115N	65...115	LC1D115
55	94	GV4P, PE or PEM115N	65...115	LC1D115

*Ambient Insensitive Overload Protection

*Advanced motor protection & fault differentiation with add on module

TeSys motor starters - Type 2 coordination

Star Delta starters with circuit-breaker and overload protection by separate thermal overload relay

5.5 to 250 kW at 400/415 V: 50/60 Hz

Short Circuit Current (I_q) =50kA

Standard power ratings of 3-phase motors	400/415 V	Circuit-breaker		Contactor (line)	Contactor (delta)	Contactor (star)	Thermal Overload relay	
		Reference	Rating	Reference(1)	Reference(1)	Reference(1)	Reference	Setting Range
P kW	I _e A		A					A
5.5	11.5	GV2 L16	14	LC1 D25	LC1 D25	LC1 D09	LRD 12	5.5...8
7.5	15.5	GV2 L20	18	LC1 D25	LC1 D25	LC1 D09	LRD 14	7...10
9	18.1	GV2 L22	25	LC1 D25	LC1 D25	LC1 D09	LRD 16	9...13
11	22	GV2 L22	25	LC1 D25	LC1 D25	LC1 D09	LRD 21	12...18
15	29	GV3 L32	32	LC1 D40A	LC1 D40A	LC1 D09	LRD 318	12...18
18.5	35	GV3 L40	40	LC1 D50A	LC1 D50A	LC1 D09	LRD 325	17...25
22	41	GV3 L50	50	LC1 D50A	LC1 D50A	LC1 D18	LRD 332	23...32
30	55	GV3 L65	65	LC1 D65A	LC1 D65A	LC1 D18	LRD 340	30...40
37	66	GV3 L73	80	LC1 D80A	LC1 D80A	LC1 D32	LRD 3357	37...50
45	80	GV4 LE115N	115	LC1 D115	LC1 D115	LC1 D32	LRD 3357	37...50
55	97	GV4 LE115N	115	LC1 D115	LC1 D115	LC1 D65A	LR D3359	48...65
75	132	NSX160*MA150	150	LC1 D150	LC1 D150	LC1 D65A	LR9 D5367	60...100
90	160	NSX250*MA220	220	LC1 F185	LC1 F185	LC1 D80	LR9 F5367	60...100
110	195	NSX250*MA220	220	LC1 F185	LC1 F185	LC1 D115	LR9 F5369	90...150
132	230	NSX400*Mic 1.3M	320	LC1 F265	LC1 F265	LC1 D115	LR9 F5369	90...150
160	280	NSX400*Mic 1.3M	320	LC1 F330	LC1 F330	LC1 D150	LR9 F5371	132...220
200	350	NSX630*Mic 1.3M	500	LC1 F400	LC1 F400	LC1 F185	LR9 F5371	132...220
220	388	NSX630*Mic 1.3M	500	LC1 F400	LC1 F400	LC1 F185	LR9 F7375	200...330
250	430	NSX630*Mic 1.3M	500	LC1 F500	LC1 F500	LC1 F225	LR9 F7375	200...330

(1) For contactor mounting accessories refer page 20"

(2) Reference to be completed by replacing the * with the breaking performance code:

Breaking performance I _q (kA)	NSX100*MA	NSX160*MA, NSX250*MA	NSX400* NSX630*
400/415 V	50	50	50
Code	N	N	N