Low voltage Extract from TeSys Catalogue | 2022

# **TeSys** Control

**Open motor starters** 





## **TeSys** Control Open, pre-cabled motor starters



Open motor starters

Direct-on-line and reversing starters		
Composition	Range	Page
Motor circuit breaker + contactor (direct-on-line) Coordination type 1	Up to <b>4 kW</b>	A2/2
Motor circuit breaker + 2 contactors (reversing) Coordination type 1	Up to <b>5.5 kW</b>	A2/3
Motor circuit breaker + contactor (direct-on-line) Coordination type 1	Up to <b>15 kW</b>	A2/4
Motor circuit breaker + 2 contactors (reversing) Coordination type 1	Up to <b>15 kW</b>	A2/5
Motor circuit breaker + contactor (direct-on-line) Coordination type 2 to be assembled by customer	Up to <b>30 kW</b>	A2/6
Motor circuit breaker + 2 contactors (reversing) Coordination type 2 to be assembled by customer	Up to <b>30 kW</b>	A2/7
Star-delta starters		
3 contactors + 1 time delay aux. block	Up to <b>132 kW</b>	A2/8
Star-delta starters for customer assembly		
Separated components and mounting kits for suggested motor starter components combinations - on plate or mounting rail	Up to <b>132 kW</b>	A2/10
Separated components for suggested motor starter combinations - on chassis	Up to <b>315 kW</b>	A2/14

A2/17

# D.O.L. starters, non-reversing, from 0.37 to 4 kW at 400/415 V, type 1 coordination

This pre-assembled combination comprises:

- 1 motor circuit breaker GV2ME,
- 1 3-pole contactor LC1K,
- 1 combination block GV2AF01.

Characteristics									
Starter type		GV2		ME06K1	ME07K1	ME08K1	ME10K1	ME14K1	
Breaking capacity (Iq)	Conforming to IEC 60947-4-1	400/415 V	kA	50	50	50	50	50	
(1)		440 V	kA	50	50	50	50	15	
		500 V	kA	50	50	50	50	10 (4 kW) 6 (5.5 kW)	

#### References



GV2ME08K1.

D.O.L	. starters	s, non-re	versing					
Standard power ratings of 3-phase motors 50/60 Hz in AC-3		Setting range of thermal	Fixed magnetic tripping	For custome	r assembly	Pre-assembled	Weight	
400/ 415 V	440 V	500 V	trips	current 13 lrth	Motor circuit- breaker Reference	Contactor Reference to be completed	Basic reference, to be completed by adding the voltage code	_
kW	kW	kW	Α	A				kg
0.37 0.55 —	0.37 0.55 -	0.37 0.55 0.75	11.6	22.5	GV2ME06	LC1K06	GV2ME06K1●●	0.460
0.75 -	0.75 1.1	- 1.1	1.62.5	33.5	GV2ME07	LC1K06	GV2ME07K1●●	0.460
1.1 1.5	_ 1.5	1.5 2.2	2.54	51	GV2ME08	LC1K06	GV2ME08K1●●	0.460
2.2	2.2 3	-3	46.3	78	GV2ME10	LC1K06	GV2ME10K1●●	0.460
3 4	_ 4	4 5.5	610	138	GV2ME14	LC1K09	GV2ME14K1●●	0.460

Add-on blocks		
Description	Sold in lots of	Unit reference
Combination block between circuit breaker and contactor	10	GV2AF01

(1) The breaking performance of circuit breakers GV2ME can be increased by adding a current limiter GV1L3, see page B6/21.
 (2) Please consult your Regional Sales Office.

(3) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used.

Volts	24	110	220/230	230	230/240	380/400
$\sim$ 50/60 Hz	B7	F7	M7	P7	U7	Q7
(4)	BW3	-	-	-	-	-

(4) Coil: low consumption (1.5 W), wide range (0.7...1.3 Uc) with integral suppression device as standard.

# D.O.L. starters, reversing, from 0.37 to 4 kW at 400/415 V, type 1 coordination

This pre-assembled combination comprises:

- 1 motor circuit breaker GV2ME,
- 1 3-pole reversing contactor LC2K,
- 1 combination block GV2AF01.

Character	ristics							
Starter type		GV2		ME06K2	ME07K2	ME08K2	ME10K2	ME14K2
Breaking capacity (lq)	Conforming to IEC 60947-4-1	400/415 V	kA	50	50	50	50	50
(1)		440 V	kA	50	50	50	50	15
		500 V	kA	50	50	50	50	10 (4 kW) 6 (5.5 kW)

#### References



GV2ME06K2.

D.O.L	. starter	s, revers	ing					
Standa of 3-ph 50/60 H	Standard power ratings of 3-phase motors 50/60 Hz in AC-3		Setting range of thermal	Fixed magnetic tripping	For custome	r assembly	Pre-assembled	Weight
400/ 415 V	440 V	500 V	trips	current 13 Irth	Motor circuit- breaker Reference	Contactor Reference to be completed	Basic reference, to be completed by adding the voltage code	
kW	kW	kW	Α	Α				kg
0.37 0.55 -	0.37 0.55 -	0.37 0.55 0.75	11.6	22.5	GV2ME06	LC2K06	GV2ME06K2●●	0.460
0.75	0.75 1.1	– 1.1	1.62.5	33.5	GV2ME07	LC2K06	GV2ME07K2●●	0.460
1.1 1.5	_ 1.5	1.5 2.2	2.54	51	GV2ME08	LC2K06	GV2ME08K2	0.460
2.2	2.2 3	-3	46.3	78	GV2ME10	LC2K06	GV2ME10K2••	0.460
3 4	4	4 5.5	610	138	GV2ME14	LC2K09	GV2ME14K2ee	0.460

Add-on blocks		
Description	Sold in lots of	Unit reference
Combination block between circuit breaker and contactor	10	GV2AF01

The breaking performance of circuit breakers GV2ME can be increased by adding a current limiter GV1L3, see page B6/21.
 Please consult your Regional Sales Office.

(3) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used.

Volts	24	110	220/230	230	230/240	380/400
$\sim$ 50/60 Hz	B7	F7	M7	P7	U7	Q7
(4)	BW3	-	-	-	-	-

(4) Coil: low consumption (1.5 W), wide range (0.7...1.3 Uc) with integral suppression device as standard.

Note: The combinations are valid for IE2 motors and IE3 with maximum starting current = 7.5 x motor rating current (see pages A5/4 and A5/5).

# D.O.L. starters, non-reversing, from 0.06 to 15 kW at 400/415 V, type 1 coordination

This pre-assembled combination comprises:

- 1 motor circuit breaker GV2ME,
- 1 3-pole contactor LC1D,
- 1 combination block GV2AF3.

Characteristics										
	Starter type		GV2		DM102 to DM110	DM114	DM116	DM132		
ers	Breaking	Conforming to	400/415 V	kA	50	50	15	10		
arte	capacity (lq)	IEC 60947-4-1	440 V	kA	50	15	8	6		
st	(1)		500 V	kA	50	6	6	4		

References



GV2DM102..

D.O.L	. starters	s, non-re	versing					
Standard power ratings of 3-phase motors 50/60 Hz in AC-3		Setting range of thermal	Setting range of thermal	Fixed magnetic tripping	For custome	r assembly	Pre-assembled	Weight
400/ 415 V	440 V	500 V	trips	current 13 Irth	Motor circuit- breaker Reference	Contactor Reference to be completed	Basic reference, to be completed by adding the voltage code (2) (3)	_
kW	kW	kW	Α	Α				kg
0.06	0.06	-	0.160.25	2.4	GV2ME02	LC1D09ee	GV2DM102ee (4)	0.596
0.75 -	0.75 1.1	_ 1.1	1.62.5	33.5	GV2ME07	LC1D09●●	GV2DM107 • (4)	0.596
1.1 1.5	- 1.5	1.5 2.2	2.54	51	GV2ME08	LC1D09ee	GV2DM108ee (4)	0.596
2.2	2.2 3	- 3	46.3	78	GV2ME10	LC1D09ee	GV2DM110 • (4)	0.596
3 4	_ 4	4 5.5	610	138	GV2ME14	LC1D09ee	GV2DM114ee (4)	0.596
5.5	5.5	7.5	914	170	GV2ME16	LC1D1200	GV2DM116ee	0.601
15	15	18.5	2432	416	GV2ME32	LC1D3200	GV2DM132ee	0.651

Add-on blocks				
Description	Mounting of GV2	Sold in lots of	Unit reference	
Combination block between circuit breaker and contactor	רד rail	10	GV2AF3	
	Mounting plate	10	GV2AF4	

The breaking performance of circuit breakers GV2ME can be increased by adding a current limiter GV1L3, see page B6/21.
 Standard control circuit voltages (for other voltages, please consult your Regional Sales Office):

Volts	24	220	230	
$\sim$ 50/60 Hz	B7	M7	P7	
(5)	BD	-	-	

(3) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used.

(4) Type 2 coordination also possible, see page A5/11.

(5) Only available for GV2DM. Coil with integral suppression device as standard.

Note: The combinations are valid for IE2 motors and IE3 with maximum starting current = 7.5 x motor rating current (see pages A5/4 and A5/5).

# D.O.L. starters, reversing, from 0.12 to 15 kW at 400/415 V, type 1 coordination

This pre-assembled combination comprises:

- 1 motor circuit breaker GV2 ME,
- 1 3-pole reversing contactor LC2 D,
- 1 combination block GV2AF3.

Characteristics													
Starter type		GV2		DM202 to DM210	DM214	DM216	DM220	DM221	DM222	DM232			
Breaking	Conforming to IEC 60947-4-1	400/415 V	kA	50	50	15	15	15	15	10			
capacity (lq)		440 V	kA	50	15	8	8	6	6	6			
(1)		500 V	kA	50	10	6	6	4	4	4			

#### References

PB121683.



GV2DM202...

D.O.L	starter	s, revers	sing (2)					
Standard power ratings of 3-phase motors 50/60 Hz in AC-3		Setting range of thermal	Fixed magnetic tripping	For custome	Weight			
400/ 415V	440 V	500 V	trips	current 13 Irth	Motor circuit- breaker Reference	Contactor Reference to be completed <sup>(3)</sup>	Basic reference, to be completed by adding the voltage code <sup>(4) (5)</sup>	_
kW	kW	kW	Α	A				kg
0.12 0.18	_ 0.18	_	0.400.63	8	GV2ME04	LC2D09	GV2DM204	0.963
0.25 0.37	0.25 0.37	_	0.631	13	GV2ME05	LC2D09	GV2DM205ee	0.963
- 0.55 -	- 0.55 -	0.37 0.55 0.75	11.6	22.5	GV2ME06	LC2D09ee	GV2DM206●●	0.963
1.1 1.5	_ 1.5	1.5 2.2	2.54	51	GV2ME08	LC2D09ee	GV2DM208ee	0.963
9	11	11	1723	327	GV2ME21	LC2D25	GV2DM221ee	1.063
15	15	18.5	2432	416	GV2ME32	LC2D32	GV2DM232ee	1.073
Add-	on block	s						

	Add-off blocks			
	Description	Mounting of GV2	Sold in lots of	Unit reference
Combination block	Combination block between	∵rail	10	GV2AF3
	circuit breaker and contactor	Mounting plate LAD 311	10	GV2AF4

(1) The breaking performance of circuit breakers GV2ME can be increased by adding a current limiter GV1L3, see page B6/21.
 (2) Type 2 coordination also possible, see page B6/21.

(3) See page B8/22.

(4) Standard control circuit voltages (for other voltages, please consult your Regional Sales Office):										
Volts	24	220	230							
$\sim$ 50/60 Hz	B7	M7	P7							
(6)	BD	_	_							

(5) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used.

(6) Coil with integral suppression device as standard.

Note: The combinations are valid for IE2 motors and IE3 with maximum starting current = 7.5 x motor rating current (see pages A5/4 and A5/5).

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#### D.O.L. starters, non-reversing, from 0.06 to 30 kW at 400/415 V, type 2 coordination

To be assembled by customer, using:

- 1 motor circuit breaker GV2P,
- 1 3-pole contactor LC1D,
- 1 combination block GV2AF3.

	Characteri	haracteristics														
	Starter type		GV2		P02 to P110	P14	P16	P20	P21	P22	P32					
လ	Breaking	Conforming to	400/415 V	kA	130	130	130	50	50	50	50					
LIE	(1)	IEC 60947-4-1	440 V	kA	130	130	50	20	20	20	20					
sla			500 V	kA	130	50	42	10	10	10	10					

References



GV2P•• + LC1D09 + GV2AF3







GV3P651 LC1D65A.

D.O.L. 310		reversing					
Standard power ratings of 3-phase motors 50/60 Hz in AC-3			Setting range of thermal	Fixed magnetic tripping	For customer	assembly	Weight
400/ 415 V	440 V	500 V	trips	current 13 Irth	Motor circuit- breaker Reference	Contactor Reference to be completed	_
kW	kW	kW	Α	A			kg
0.06	0.06	-	0.160.25	2.4	GV2P02	LC1D09ee	0.686
- ).09	0.09 0.12	-	0.250.40	5	GV2P03	LC1D09ee	0.686
).12	- 0.18	_	0.400.63	8	GV2P04	LC1D09ee	0.686
).25 ).37	0.25 0.37		0.631	13	GV2P05	LC1D09ee	0.686
- ).55 -		0.37 0.55 0.75	11.6	22.5	GV2P06	LC1D09ee	0.686
).75 -	0.75 1.1	- 1.1	1.62.5	33.5	GV2P07	LC1D09ee	0.686
l.1 l.5	- 1.5	1.5 2.2	2.54	51	GV2P08	LC1D09ee	0.696
2.2	2.2 3	- 3	46.3	78	GV2P10	LC1D09	0.736
3 4	_ 4	4 5.5	610	138	GV2P14	LC1D09	0.736
5.5	5.5 7.5	7.5 9	914	170	GV2P16	LC1D25	0.741
7.5	9	_	1318	223	GV2P20	LC1D25ee	0.736
)	11	11	1723	327	GV2P21	LC1D2500	0.741
1	-	15	2025	327	GV2P22	LC1D2500	0.741
15	15	18.5	2432	416	GV2P32	LC1D3200	0.741
8.5	-	-	3040	560	GV3P401 (5)	LC1D50A.	1.725
_	18.5	22	3040	560	GV3P401 (5)	LC1D65A.	1.730
22	_	-	3750	700	GV3P501 (5)	LC1D50A.	1.725
-	22	30	3750	700	GV3P501 (5)	LC1D65A.	1.730
30	37	-	4865	910	GV3P651 (5)	LC1D65A.	1.730
Add-on b	locks						
Descriptio	n			Mounting of	Sold in	Unit	

Description	GV2	lots of	reference	
Combination block between circuit breaker and contactor	பாail	10	GV2AF3	

(1) The breaking performance of circuit breakers GV2P can be increased by adding a current limiter GV1L3, see page B6/11. (2) See page B8/22.

(3) Standard control circuit voltages (for other voltages, please consult your Regional Sales Office):

Volts 24 220 230  $\sim$  50/60 Hz B7 M7 P7 BD

(4) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used.

(5) Circuit breaker supplied without downstream **Ever**Link<sup>®</sup> power terminal block, which is required for vertical mounting. For side by side mounting, use a GV3P circuit breaker with terminal blocks and the GV3S set of S-shape busbars (see page B8/42).

(6) Coil with integral suppression device as standard.

Note: The combinations are valid for IE2 motors and IE3 with maximum starting current = 7.5 x motor rating current (see pages A5/4 and A5/5).

Dimensions Schemes pages A2/18 and A2/19 A2/6 Life Is On

page A2/21 Schneider Gelectric D.O.L. starters, reversing

Standard power ratings

# D.O.L. starters, reversing, from 0.06 to 30 kW at 400/415 V, type 2 coordination

To be assembled by customer, using:

- 1 motor circuit breaker GV2P,
- 1 3-pole reversing contactor LC2D,
- 1 combination block GV2AF3.

Character														
Starter type		GV2		P02 to P10	P14	P16	P20	P21	P22	P32				
Breaking capacity (lq)	Conforming to IEC 60947-4-1	400/415 V	kA	130	130	130	50	50	50	50				
		IEC 60947-4-1	440 V	kA	130	130	50	20	20	20				
		500 V	kA	130	50	42	10	10	10	10				

Setting

Fixed

For customer assembly

#### References



GV2P•• + LC1D09 + GV2AF3



GV3P651 + LC2D65A••



of 3-phase 50/60 Hz in	of 3-phase motors 50/60 Hz in AC-3			magnetic tripping			
400/ 415 V	440 V	500 V	trips	current 13 Irth	Motor circuit- breaker Reference	Contactor Reference to be completed	-
kW	kW	kW	Α	Α			kg
0.06	0.06	-	0.160.25	2.4	GV2P02	LC2D09ee	1.053
-	0.09	-	0.250.40	5	GV2P03	LC2D09.	1.053
0.03	-	_	0.400.63	8	GV2P04	LC2D09	1.053
0.18	0.18	_					
0.25 0.37	0.25 0.37		0.631	13	GV2P05	LC2D09●●	1.053
 0.55 	_ 0.55 _	0.37 0.55 0.75	11.6	22.5	GV2P06	LC2D09●●	1.053
0.75	0.75 1.1	- 1.1	1.62.5	33.5	GV2P07	LC2D09●●	1.053
1.1	- 15	1.5	2.54	51	GV2P08	LC2D09●●	1.073
2.2	2.2	- 3	46.3	78	GV2P10	LC2D09●●	1.153
3	- 4	4 5.5	610	138	GV2P14	LC2D09●●	1.153
5.5	5.5 7.5	7.5 9	914	170	GV2P16	LC2D25●●	1.163
7.5	9	_	1318	223	GV2P20	LC2D2500	1.153
9	11	11	1723	327	GV2P21	LC2D25	1.163
11	_	15	2025	327	GV2P22	LC2D25	1.163
15	15	18.5	2432	416	GV2P32	LC2D32	1.163
18.5	_	_	3040	560	GV3P401 (5)	LC2D50A.	2.750
_	18.5	22	3040	560	GV3P401 (5)	LC2D65A.	2.760
22	-	_	3750	700	GV3P501 (5)	LC2D50A.	2.750
_	22	30	3750	700	GV3P501 (5)	LC2D65A.	2.760
30	37	_	4865	910	GV3P651 (5)	LC2D65A.	2.760
Add-on b	locks						
Descriptio	n			Mounting of GV2	Sold in lots of	Unit reference	
Combination	h block betwe	een circuit brea	ker and contactor	பா rail	10	GV2AF3	
(1) The brea	king perform	nance of circuit	breakers GV2P can	be increased by a	adding a current	limiter GV1L3, see page	B6/11.
(2) See page	e B8/22.				-	, , ,	

3) Standard control circuit v	oltages (for other voltages, please	e consult your Regional Sales Offic	ce):
Volts	24	220	230
∽ 50/60 Hz	B7	M7	P7
(6)	<b>DD</b>		

(4) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used.

(5) Circuit breaker supplied without downstream EverLink® power terminal block, which is required for vertical mounting. For side by side mounting, use a GV3P circuit breaker with terminal blocks and the GV3S set of S-shape busbars (see page B8/42).

(6) Coil with integral suppression device as standard.

Note: The combinations are valid for IE2 motors and IE3 with maximum starting current = 7.5 x motor rating current (see pages A5/4 and A5/5).

A2/7

### TeSys Control Star-delta starters - up to 132 kW (1) Product references



LC3D32A.



Plat	e moi	unted	starte	ers v	vith	out is	sola	ting	devi	се		
Maxi	mum o	peratin	ng rate:	30 st	tarts	/hour. l	Maxiı	mum	startii	ng time: 30 se	econds.	
Stand of squ Mains	ard pov iirrel ca voltage	ver ratin ge moto e -	igs ors	Auxiliary contacts available on each contactor						Star delta mechanical interlock	Basic reference, to be completed by adding the voltage code <sup>(2) (3)</sup>	Weight
delta	connect	tion		line		delta	s	tar		_		
220/	380/	445.14	440.14	KM2	2	KM3		KM1				
230 V	400 V	415 V	440 V		Ļ		Ļ		Ļ			
kW	kW	kW	kW									kg
4	7.5	7.5	7.5	-	-	-	_ (4)	-	1	With	LC3D09A••	1.530
5.5	11	11	11	-	-	-	_ (4)	-	1	With	LC3D12A••	1.530
11	18.5	22	22	-	-	_	_ (4)	-	1	With	LC3D18A	1.730
15	25	30	30	-	-	-	_ (4)	-	1	With	LC3D32A••	2.030
37	75	75	75	_	1	1	_ (4)	_	_ (4)	Without	LC3D80ee	5.200
										With	LC3D80eeA64	5.400
63	110	110	110	_	1	1	_ (4)	_	_ (4)	Without	LC3D115ee (5)	11.800
										With	LC3D115●●A64 <sup>(5)</sup>	12.100
75	132	132	147	-	1	1	_ (4)	_	1 (4)	Without	LC3D150ee <sup>(5)</sup>	12.100
										With	LC3D150 • A64 (5)	12.100

Rail	mour	nted s	tarter	<b>'S</b> (35 mm	rail) WI <b>t</b> ب	nout isola	ating devic	e	
Standard power ratings of squirrel cage motors Mains voltage -		gs rs	Auxiliary available	contacts on each co	ntactor	Star delta mechanical interlock	Basic reference, to be completed by adding the voltage code <sup>(2) (3)</sup>	Weight	
delta d	lelta connection line delta s 220/ 380/ KM2 KM3 k		star						
220/			KM3	KM1	-				
230 V	400 V	415 V	440 V						
kW	kW	kW	kW						kg
Maxi	num o	peratin	g rate:	12 starts/	hour. Max	imum startii	ng time: 30 se	econds.	
4	7.5	7.5	7.5			- 1	With		0.740

With LC3K09•• 7.5 7.5 4 7.5 1

Ma	ximum o	operat	ing rate	e: 30 s	starts	/hour	. Maxir	nun	n start	ing time: 3	0 seconds	
4	7.5	7.5	7.5	-	-	-	_ (4)	-	1	With	LC3D090A.	1.530
5.5	11	11	11	-	-	-	_ (4)	-	1	With	LC3D120A.	1.530
11	18.5	22	22	-	_	_	_ (4)	-	1	With	LC3D180A	1.730
15	25	30	30	-	_	-	_ (4)	-	1	With	LC3D320A.	2.030

Protection must be provided by the addition of a thermal overload relay, to be ordered separately. Select appropriate overload relay for setting at 0.58 of the full load rated motor current (see pages B11/4 and B11/5).
 Standard control circuit voltages:

	agee.												
Volts $\sim$ 50/60 Hz	24	36	42	48	110	220	230	240	380	400	415	440	
Star-delta starters LC3K09													
Code	B7	C7	D7	E7	F7	M7	P7	U7	-	-	-	-	
Star-delta starters LC3D09A	D150	, LC3D0	90AC	320A									
Code	B7	-	D7	E7	F7	M7	P7	U7	Q7	V7	N7	R7	

For other voltages, please consult your Regional Sales Office. (3) Please check the availability of your variant in the index page A2/16. The SEARCH function of your viewer can be used. (4) One auxiliary contact block type LADN can also be fitted, see page B8/36. (5) These starters consist of contactors LC1D115 or D150 without connectors.

Introduction:	
page A2/22	
A2/8	

Open motor starters



#### Star-delta starters without mechanical interlock, for customer assembly on plate or on mounting rail<sup>(2)</sup>

Standa	rd nowor	Thormal	magnotic motor	Contactors	-			
ratings cage m Mains delta co	of squirrel otors <sup>(3)</sup> voltage- onnection	circuit bro Reference available i	eaker es in italics are n CEE zone only	(basic reference by adding the ve	(basic references, to be completed by adding the voltage code) <sup>(4)</sup>			
400/ 415 V	440 V			line	delta	star		
kW	kW			KM2	KM3	KM1		
7.5	7.5	GV2ME20	or GV2ME20AP	LC1D09ee	LC1D09ee	LC1D09ee		
-	9	GV2ME20	or GV2ME20AP	LC1D12ee	LC1D12ee	LC1D09ee	·	
9	11	GV2ME21	or GV2ME21AP	LC1D12ee	LC1D12ee	LC1D09ee		
11	_	GV2ME22	or GV2ME22AP	LC1D12ee	LC1D12ee	LC1D09ee		
15	15	GV2ME32	or GV2ME32AP	LC1D18ee	LC1D18●●	LC1D09ee		
Separ	ate compo	onent						
Descri	ption				Illustration item no.	Reference		
Mountin	a kit compri	isina:			2			
1 time de Start	elay contact ers for n	block LADS	<sup>2</sup> g separately	from upstre	am protection			
1 time de Start Maxim Standa of squi	elay contact ers for n num opera ard power ra rrel cage mo	block LADS nounting ting rate: tings otors <sup>(3)</sup>	2 g separately 30 starts/hour.	from upstre Maximum starti Contactors (basic reference	am protection ng time: 30 second	ds.	Separate	
1 time de Start Maxim Standa of squi Mains	elay contact ers for n num opera rrd power ra rrel cage mo voltage - del	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect	2 g separately 30 starts/hour. ion	from upstre Maximum starti Contactors (basic reference by adding the ve	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup>	ds.	Separate component (see below)	
1 time de Start Maxim Standa of squi Mains v 220/ 230 V	elay contact ers for n num opera ard power ra rrel cage m voltage - del 380/ 400 V	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V	2 g separately 30 starts/hour. ion 440 V	from upstre Maximum starti Contactors (basic reference by adding the vertice line	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta	ds. star	Separate component (see below)	
1 time de Start Maxim Standa of squi Mains v 220/ 230 V kW	elay contact ers for n num opera ird power ra rrel cage me voltage - del 380/ 400 V kW	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V kW	2 g separately 30 starts/hour. ion 440 V kW	from upstre Maximum starti Contactors (basic reference by adding the ve line KM2	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3	ds. star KM1	Separate component (see below) Component types	
1 time da Start Maxim Standa of squi Mains v 220/ 230 V kW	elay contact ers for n num opera ard power ra rrel cage me voltage - del 380/ 400 V kW 7.5	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V kW 7.5	2 g separately 30 starts/hour. ion 440 V kW 7.5	from upstre Maximum starti Contactors (basic reference by adding the vo line KM2 LC1D09ee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee	ds. star KM1 LC1D09●●	Separate component (see below) Component types D09	
1 time de Start Maxim Standa of squi Mains 220/ 230 V kW 4 5.5	elay contact ers for n num opera ard power ra rrel cage me voltage - del 380/ 400 V kW 7.5 11	block LADS nounting ting rate: tings otors <sup>(8)</sup> Ita connect 415 V kW 7.5 11	2 g separately 30 starts/hour. ion 440 V kW 7.5 11	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup>	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee	ds. star KM1 LC1D09ee LC1D09ee	Separate component (see below) Component types D09 D12	
1 time de Start Maxim Standa of squi Mains v 220/ 230 V kW 4 5.5 11	elay contact ers for n num opera ard power ra rrel cage me voltage - del 380/ 400 V kW 7.5 11 18.5	block LADS nounting ting rate: tings otors <sup>(8)</sup> Ita connect 415 V kW 7.5 11 22	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup>	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D12ee <sup>(7)</sup>	ds. star KM1 LC1D09ee LC1D09ee LC1D09ee	Separate component (see below) Component types D09 D12 D18	
1 time de Start Maxim Standa of squi Mains v 220/ 230 V kW 4 5.5 11 15	elay contact ers for n num opera ard power ra rrel cage me voltage - del 380/ 400 V kW 7.5 11 18.5 25	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V kW 7.5 11 22 30	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D12ee <sup>(7)</sup> LC1D32ee	ds. star KM1 LC1D09•• LC1D09•• LC1D09•• LC1D09••	Separate component (see below) Component types D09 D12 D18 D32	
1 time de Start Maxim Standa of squi Mains v 220/ 230 V kW 4 5.5 11 15 18.5	elay contact ers for n num opera rrel cage me voltage - del 380/ 400 V kW 7.5 11 18.5 25 37	block LADS nounting ting rate: tings otors <sup>(8)</sup> Ita connect 415 V kW 7.5 11 22 30 37	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30 37	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D12ee (7) LC1D32ee LC1D40Aee	star       KM1       LC1D09••       LC1D09••       LC1D09••       LC1D18••       LC1D40A••	Separate component (see below) Component types D09 D12 D18 D32 D40	
1 time de Start Maxim Standa of squi Mains v 220/ 230 V kW 4 5.5 11 15 18.5 30	elay contact ers for n num opera rrel cage me voltage - del 380/ 400 V kW 7.5 11 18.5 25 37 55	block LADS nounting ting rate: tings otors <sup>(8)</sup> Ita connect 415 V kW 7.5 11 22 30 37 59	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30 37 59	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee	ds. star KM1 LC1D09ee LC1D09ee LC1D09ee LC1D18ee LC1D40Aee LC1D40Aee	Separate component (see below) Componen types D09 D12 D18 D32 D40 D50	
1 time de Start Maxim Standa of squi Mains 220/ 230 V kW 4 5.5 11 15 18.5 30 37	elay contact ers for n num opera rrel cage me voltage - del 380/ 400 V kW 7.5 11 18.5 25 37 55 75	block LADS nounting ting rate: tings otors <sup>(8)</sup> Ita connect 415 V kW 7.5 11 22 30 37 59 75	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30 37 59 75	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D80ee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D80ee	star       KM1       LC1D09••       LC1D09••       LC1D09••       LC1D18••       LC1D40A••       LC1D40A••       LC1D50A••	Separate component (see below) Component types D09 D12 D18 D32 D40 D50 D80	
1 time de Start Maxim Standa of squi Mains 220/ 230 V kW 4 5.5 11 15 18.5 30 37 63	elay contact ers for n num opera rrel cage movoltage - del 380/ 400 V kW 7.5 11 18.5 25 37 55 75 110	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V kW 7.5 11 22 30 37 59 75 110	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30 37 59 75 110	from upstre Maximum starti Contactors (basic reference by adding the ver- line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D80ee LC1D115ee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D50Aee LC1D80ee LC1D115ee	star       KM1       LC1D09ee       LC1D09ee       LC1D09ee       LC1D18ee       LC1D40Aee       LC1D50Aee       LC1D80ee	Component (see below) Component types D09 D12 D18 D32 D40 D50 D50 D80 D115 <sup>(5)</sup>	
1 time de Start Maxim Standa of squi Mains 220/ 230 V kW 4 5.5 11 15 18.5 30 37 63 75	elay contact ers for n num opera rrel cage me voltage - del 380/ 400 V kW 7.5 11 18.5 25 37 55 75 110 132	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V kW 7.5 11 22 30 37 59 75 110 132	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30 37 59 75 110 147	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D115ee LC1D150e	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D80ee LC1D115ee LC1D150ee	star         KM1         LC1D09••         LC1D09••         LC1D09••         LC1D09••         LC1D40A••         LC1D40A••         LC1D50A••         LC1D80••         LC1D80••	Separate component (see below) Component types D09 D12 D18 D32 D40 D50 D50 D80 D115 <sup>(5)</sup> D150 <sup>(5)</sup>	
1 time de Start Maxim Standa of squi Mains 220/ 230 V kW 4 5.5 11 15 18.5 30 37 63 75 Separ	elay contact ers for n num opera rrel cage moveltage - del 380/ 400 V kW 7.5 11 18.5 25 37 55 75 110 132 ate compc	block LADS nounting ting rate: tings otors <sup>(3)</sup> Ita connect 415 V kW 7.5 11 22 30 37 59 75 110 132 onents	2 g separately 30 starts/hour. ion 440 V kW 7.5 11 22 30 37 59 75 110 147	from upstre Maximum starti Contactors (basic reference by adding the vol line KM2 LC1D09ee LC1D18ee <sup>(6)</sup> LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D150ee	am protection ng time: 30 second es, to be completed oltage code) <sup>(4)</sup> delta KM3 LC1D09ee LC1D12ee LC1D12ee LC1D25ee <sup>(7)</sup> LC1D32ee LC1D40Aee LC1D50Aee LC1D80ee LC1D115ee	ds. star KM1 LC1D09ee LC1D09ee LC1D09ee LC1D18ee LC1D40Aee LC1D40Aee LC1D40Aee LC1D50Aee LC1D50Aee LC1D15ee	Separate component (see below) Component types D09 D12 D18 D32 D40 D50 D50 D80 D115 ( <sup>5</sup> ) D150 ( <sup>5</sup> )	

Separate components					
Description	Illustration item no.	For components type (5)	Reference	Without timer LADS2	
Mounting kit comprising: - 1 time delay contact block LADS2	1 a	LC1D09 to D38 (8)	LAD91217	LAD91218	
(D09…D80) <sup>(3)</sup> , - power circuit connections (D09…D80),	1 b	LC1D09 to D38 <sup>(9)</sup>	LAD93217	LAD93218	
to the plate (D40D80).	1 c	D40 and D50	LA9D5017	-	
		D80	LA9D8017	-	
Equipment mounting plates	2	LC1D09 to D38	LA9D12974		
		D80	LA9D80973		

Protection must be provided by the addition of a thermal overload relay, to be ordered separately. Select appropriate overload relay for setting at 0.58 of the full load rated motor current, see pages B11/4 and B11/5.
 For mounting, assembly and cabling: please refer to installation instructions supplied with the equipment.

(3) See comments on page A2/22.

(4) See page B8/22.

(5) For D115 and D150 components, see illustration and separate parts on pages A2/12 and A2/13.

(6) A D12 component is adequate for the application, but use of a D18 is recommended.

(connection capacity, correct use of power connection kit and connections). (7) A D18 component is adequate for the application, but use of a D25 is recommended.

(connection capacity, correct use of power connection kit and connections).

(8) For assembly of 3 contactors of the same physical size (depth).

(9) For assembly of 3 contactors with star contactor physically smaller (depth).

A2/11 Life Is On Schneider

Open motoi tartei



## **TeSys** Control **TeSys** Control components for assembling Star-delta starters - up to 147 kW <sup>(1)</sup> Product references

Starters for m	ounting	separa <u>te</u> l	y fr	om ups	tream prot <u>ect</u> i	on
Separate compo	nents (con	tinued)				
Description	Illustration item no.	For use on	No.	Sold in lots of	Unit reference	Weight kg
Instantaneous auxiliary contact blocks 1 N/O	1	D115 (star)	1	1	LADN10	0.020
Control relay	3	D115, D150	1	1	CAD32	0.320
Time delay auxiliary contact blocks	4	D115, D150	1	1	LADT2	0.060
Lead sealing kit for time delay auxiliary contact blocks	5	D115, D150	1	1	LA9D901	0.005
Thermal magnetic circuit breaker for control circuit (200415 V)	6	D115, D150	2	6	GB2CB05	0.060
Set of 3 connectors for wider terminations (optional)	7	D115, D150	1	1	LA9FG980	0.200
Set of power connections with	8	D115	1	1	LA9D11517	0.800
fixing accessories		D150	1	1	LA9D15017	1.050
Spare volt free terminals	9	D115, D150	1	10	DZ3HA3	0.007
			2	10	DZ3GA3	0.006
Lug-connector terminal block	10	D115, D150	1	10	AB1BC9535	0.236
End stop	11	D115, D150	3	100	AB1AB8M35	0.005
Mounting rail ⊥r 35 mm	12	D115, D150	1	10	NSYDPR25	0.210
Pre-slotted mounting plate	13	D115, D150	1	1	AM3PA65	1.950
Screw with captive washer	14	D115, D150	12	100	AF1VA618	0.006
			2	100	AF1VA410	0.002

(1) Protection must be provided by the addition of a thermal overload relay, to be ordered separately. Select appropriate overload relay for setting at 0.58 of the full load rated motor current, see pages B11/4 and B11/5. i



#### Star-delta starters with mechanical interlock for customer assembly on back-panel

Maximum operating rate: 30 starts/hour. Maximum starting time: 30 seconds.

For selection of TeSys Giga Contactors <sup>(2)</sup>, overload relay <sup>(3)</sup> and circuit breaker <sup>(3)</sup> at different operating voltages, please refer to coordination tables pages A5/29, A5/38 and A5/39.

For Star-delta 'Power' and 'Control' circuit diagrams, please refer to page A2/26.

Description	Illuotration	For	No	Soldin	Unit
Description	item no.	use on	NO.	lots of	reference
Circuit breakers	1	G115G500	1	1	GV5P220GV6P500
			1	1	NSX250NSX630
			1	1	NS800NS1000
Electronic thermal overload relays	2	G115G500	1	1	LR9G115 LR9G500 <sup>(4)</sup>
Auxiliary contact blocks 1NO + 1NC	3	G115G500	3	-	LAG8N113P (Supplied with the contactor)
Timer	4	G115G500	1	1	RE17RMMWS
Mounting Rail	5	G115G500	1	10	NSYSDR200
Sets of power connections	6	G115G500 (LDY) (5)	1	1	LA9GQQ330
		G115G500 (LDY) (5)	1	1	LA9GSS330
		G115G500 (LDY) (5)	1	1	LA9GTT330
		LD: G265G500 <sup>(5)</sup> Y: G115G225 <sup>(5)</sup>	1	1	LA9GSQ331
Flexible terminal extensions for MCCB	7	G115G225	1	1	LA9G3111
		G265G500	1	1	LA9G3112
Mechanical interlock kit	8	G115G500	1	1	LA9G970
		G265G500 #G115G225	1	1	LA9G971
Thermal magnetic circuit breaker for 5 A control circuit	9	G115G500	2	6	GB2CB10

(1) Protection shall be provided by a thermal-magnetic circuit breaker or by a magnetic circuit breaker and an overload relay combination.

(2) The contactors are supplied with wide band AC/DC coils with 1 NO + 1 NC auxiliary contact block. Please refer to pages B9/10 to B9/13 for the complete references of the contactors.
(3) The protection device settings should be adjusted according to motor characteristics and conditions of use.
(4) Please refer to pages B11/11 to B11/14 for details on LR9G electronic overload relays.

(5) L-Line contactor/ D- Delta contactor/ Y- Star contactor.

## **TeSys** Control Open pre-cabled motor starters Product references

AB1AB8M35	G١
AB1AB8P35	G
AB1BC15035	G١
AB1BC9535	G
ACMGV1084	G١
ACMGV763	G
ACMGV973	G١
AE3FX122	G
AF1CD061	G١
AF1CD081	G
AF1VA410	G١
AF1VA618	G
AF1VC820	G١
AM3PA65	LA
CAD32	LA
GB2CB05	LA
GB2CB10	LA
GK2AX50	LA
GV2AF01	LA
GV2AF3	LA
GV2AF4	LA
GV2DM102BD	LA
GV2DM107BD	LA
GV2DM107P7	LA
GV2DM108B7	LÆ
GV2DM108BD	LA
GV2DM108P7	LÆ
GV2DM110BD	LA
GV2DM114B7	LÆ
GV2DM114BD	LA
GV2DM116BD	LA
GV2DM132B7	LA
GV2DM204B7	LA
GV2DM205BD	LA
GV2DM206BD	LA
GV2DM208BD	LA
GV2DM221M7	LÆ
GV2DM221P7	LA
GV2DM232P7	LA
GV2MC01	LA
GV2MC02	LA
GV2MC03	LC
GV2MCK04	LC

GV2ME06K1BW3	
GV2WEU6K2BW3	
GV2ME06K2M7	
GV2ME07K1BW3	
GV2ME07K2BW3	
GV2ME08K1BW3	
GV2ME08K1P7	
GV2ME10K1BW3	
GV2ME14K1B7	
GV2MP01	
GV2MP02	
GV2MP03	
GV2MP04	
LA9D11517	
LA9D115604	
LA9D115692	
LA9D11570	
LA9D115704	
LA9D12974	
LA9D15017	
LA9D5017	
LA9D730	
LA9D80973	
LA9D901	
LA9GQQ330	
LA9GSS330	
LA9GTT330	
LA9GSQ331	
LA9G3111	
LA9G3112	
LA9G970	
LA9G971	
LAD31	
LAD91217	
LAD91218	
LAD93217	
LAD93219	
LADN10	
LADN22	
LADT2	
LAG8N113P	
LC3D090AB7	
LC3D090AP7	

LC3D09AB7
LC3D09AP7
LC3D115F7A64
LC3D115M7A64
LC3D115P7
LC3D115P7A64
LC3D120AP7
LC3D12AB7
LC3D12AP7
LC3D150M7A64
LC3D150P7
LC3D150P7A64
LC3D180AB7
LC3D180AP7
LC3D18AB7
LC3D18AF7
LC3D18AP7
LC3D18AU7
LC3D320AG7
LC3D320AP7
LC3D32AB7
LC3D32AF7
LC3D32AP7
LC3D80B7
LC3D80B7A64
LC3D80E7A64
LC3D80F7
LC3D80F7A64
LC3D80M7
LC3D80P7
LC3D80P7A64
LC3D80U7A64
LC3K09P7
LC4D12AP7
LC4D12AV7
LC4D25AB7
LC4D25AP7
NSYDPR25
NSYSNM6
NSYSNM8
NSYSDR200
RE17RMMWS

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