Catalog | June 2021



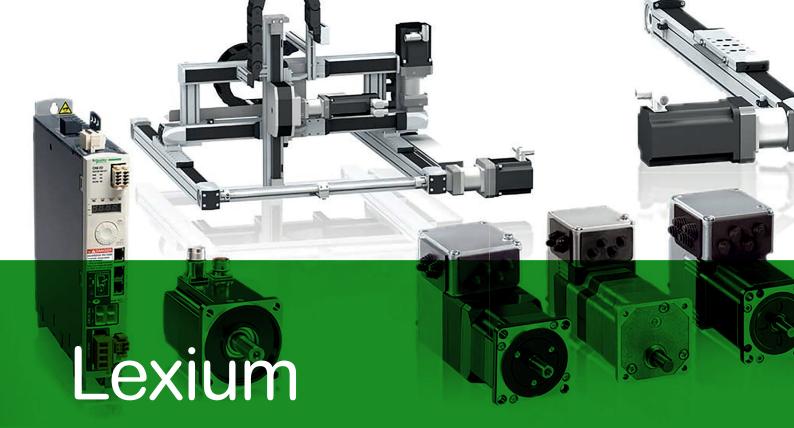
Lexium 62 & Motors

Multi axis servo system and servo motors for PacDrive 3



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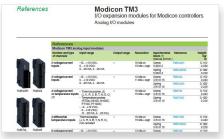
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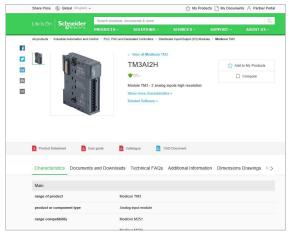


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Lexium 62 & Motors

Multi axis servo system and servo motors for PacDrive 3

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Lexium 62 & Motors Multi axis servo system and servo motors for

PacDrive 3



Lexium 62 multi-axis servo drive system



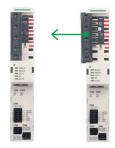
Catalogue ref. DIA7ED2160308EN



Power (Motor) and encoder connection



Connection of the Sercos ring



Connection to DC bus

2

Flexible Drive Design

An innovative drive design allows flexible drive architectures: a multi-axis system, in which single and dual-axis servo drives are connected to a shared power supply, reduces costs and space requirements in systems with more than four servo axes. Pluggable interconnects and a quick-connect front-side bus also reduce installation costs.

- The servo drives of the Lexium 62 series are consisting of:
- Single (1 axis) and Double (2 axes) drives, Standard type,
 Single (1 axis) and Double (2 axes) drives, Standard type with embedded safety
- Single (1 axis) and bodble (2 axes) arrest, ota
 Single (1 axis) drives, Advanced type (1)
- Power supplies,

and as an option, DC Link support module with DC Link terminal.

The single and double drives in a group use a shared power supply. Multiple groups are possible, with the number of axes being limited by the type of controller used.

The Lexium SH3, MH3, and the SHS stainless steel servo motors form the basis for servo solutions with Lexium 62 and cover a wide range of performance and flange sizes. All motors are equipped with electronic name plates, which is making them an integral component of the PacDrive 3 automation system. Please consult our catalogue ref. DIA7ED2160308EN

Specificities of the Lexium 62 multi-axis drive system

- > Less space required in the control cabinet
- > Minimal assembly/installation time
- > Optimized feedback loops minimize contouring errors
- > Embedded safety on drives with STO, SS1, SOS, SS2, SMS, SLS, SDI (according to IEC 61508, EN/ISO13849-1)
- > Automatic motor detection
- > DC Link connection combines benefits of multi-axis drive with flexibility of standalone drives

Fast Connection

The Lexium 62 components offer easy handling and installation, startup, and replacement: the quick front-side connection to the power supply automatically includes integration into the DC bus as well.

> Flexible choice for motor connection

Lexium 62 servo drives support the servo motor connection through:

- "Two-Motor Cable connectivity" figuring two distinct cables, for Power and for Encoder, with SH3 and MH3 servo motors
- "One-Motor Cable connectivity" figuring hybrid cables combining Power and Encoder signals in one cable for SH3 (2) and SHS servo motors.

On drive side, the Power and the Encoder cables exit from the bottom of the device. This leaves room at the front of the device for rapid assembly/disassembly of Lexium 62 components.

> Connection to the Sercos ring via Sercos interface module

The Sercos ring can be connected quickly via the Sercos interface on the power module and the drive modules. Single and double drives are integrated into the Sercos ring with short cable bridges.

> Connection to DC bus

The servo drives are coupled at front side: no backplane connections are required. A module can be coupled to the adjacent modules in less than two minutes, using a quick front-side connection with locking screws. When the connection is made, LEDs indicate the correct power supply with the 24 V control voltage. The DC bus can provide a 120 A continuous current (maximum).

The servo drives have an electronic type plate. Upon first use or exchange of the device, it is identified by the centralized controller and configured based upon the specified parameters. The servo drives themselves in turn detect connected motors by their type plates.

To connect to the DC bus, 24 V power supply, and ground wire: Move the slide to the left and tighten the screws.

(1) Advanced types are delivered with an additional machine encoder input and an incremental encoder output interface.

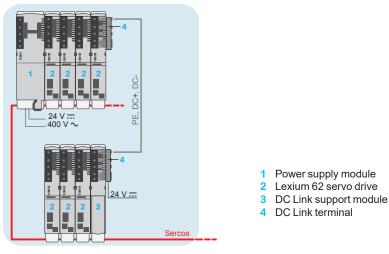
(2) Available for SH3070 ee and SH3100 ee motors.

Lexium 62 & Motors Multi axis servo system and servo motors for PacDrive 3

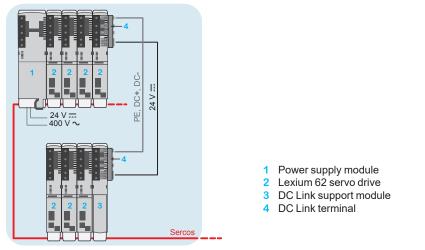
Fast Connection (continued)

> Flexible Connection

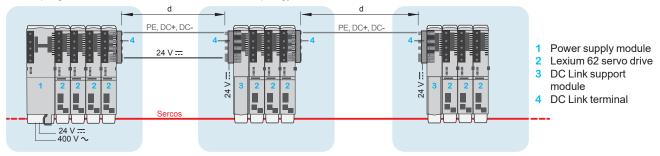
- The Main component is the DC Link terminal: It is mandatory to create DC Link connections.
- The DC Link : DC link connection module is an auxiliary module required for some configurations, e.g. cable length > 3 m. It allows to connect Lexium 62 devices in a single cabinet or to connect Lexium 62 devices distributed over several cabinets, with an easy and fast connection thanks to the DC Link terminal wich can be mounted on each Lexium 62 servo drive or power supply. The DC Link terminal can be mounted to both sides of Lexium 62 devices.
- Line and star topologies supported
- Typical applications:
 - Coupling of two (or more) islands in control cabinet with a separate 24V supply



Coupling of two (or more) islands in control cabinet without a separate 24V supply



Coupling of more than two control cabinets in line topology



d: cable length (< 15 m).Sum of cable length \leq 50m Max. cable lengths:

- up to 15 m (49,21 ft) between islands with DC Link support module
- up to 3 m (9.84 ft) between islands without DC Link support module
- up to 50 m (164,04 ft) total between all islands

Presentation

Lexium 62 & Motors

Multi axis servo system and servo motors for PacDrive 3

Lexium 62 servo drives

	Single servo	drives				Double serve	drives	
Standard	LXM62D U60C21000	LXM62D D15C21000	LXM62D D27C21000	LXM62D D45C21000	LXM62D C13C21000	LXM62D U60D21000	LXM62D D15D21000	LXM62D D27D21000
Advanced	LXM62D U60G21000	LXM62D D15G21000	LXM62D D27G21000	LXM62D D45G21000	LXM62D C13G21000	-	-	-
Rated current (4 kHz) A	2	5	9	20	50	2x 2	2x 5	2x 9
Peak current (4 kHz) A	6	15	27	45	130	2x 6	2x 15	2x 27
Continuous output kW/ <i>hp</i>	0.95/ 1.273	2.4/ 3.217	4.3/ 5.764	9.6/ 12.868	24/ 32.171	2x 0.95/ 2x 1.273	2x 2.4/ 2x 3.217	2x 4.3/ 2x 5.764
DC bus voltage VDC	250700							
Supply frequency Hz	4862							
Control voltage VDC	24 (-20%+2	5%)						
Motion bus	Sercos							
Encoder	Hiperface [®] or \$	SinCos						
Inverter Enable	1 input (two ch	annels)				2 inputs (two o	hannels for eac	h input)
Digital input	2					2 x 2		
Touchprobe input	2					2 x 2		
Digital input or output	2					2 x 2		
Housing dimensions: mm <i>(in.)</i> (D x W x H)	270 x 44 x 310 (10.630 x 1.73				270 x 89 x 310 (10.630 x 3.504 x 12.205)	270 x 44 x 310 (10.630 x 1.73		
Protection rating	IP20							
Certifications	C€, ULus, CSA	, TÜV, EAC						

	Single servo	drives				Double serve	o drives	
Standard	LXM62D U60E21000	LXM62D D15E21000	LXM62D D27E21000	LXM62D D45E21000	LXM62D C13E21000	LXM62D U60F21000	LXM62D D15F21000	LXM62D D27F21000
Safe functions via Sercos bus (SF_SafeMotionControl)	 Safe Stop 2 Safe Maxim Safely-Limition 	(SS1) ting Stop (SOS	/IS) S)					
Rated current (4 kHz) A	2	5	9	20	50	2x 2	2x 5	2x 9
Peak current (4 kHz) A	6	15	27	45	130	2x 6	2x 15	2x 27
Continuous output kW/hp	0.95/ 1.273	2.4/ 3.217	4.3/ 5.764	9.6/ 12.868	24/ 32.171	2x 0.95/ 2x 1.273	2x 2.4/ 2x 3.217	2x 4.3/ 2x 5.764
DC bus voltage VDC	250700							
Supply frequency Hz	4862							
Control voltage VDC	24 (-20%+2	5%)						
Motion bus	Sercos							
Encoder	Hiperface [®] or \$	SinCos						
Inverter Enable	1 input (two ch	annels)				2 inputs (two	channels for eac	ch input)
Digital input	2					2 x 2		
Touchprobe input	2					2 x 2		
Digital input or output	2					2 x 2		
Housing dimensions: mm <i>(in.)</i> (D x W x H)	270 x 44 x 310 (10.630 x 1.73				270 x 89 x 310 (10.630 x 3.504 x 12.205)	270 x 44 x 31 (10.630 x 1.7	-	
Protection rating	IP20							
Certifications	CE, ULus, CSA	A. TÜV. EAC						

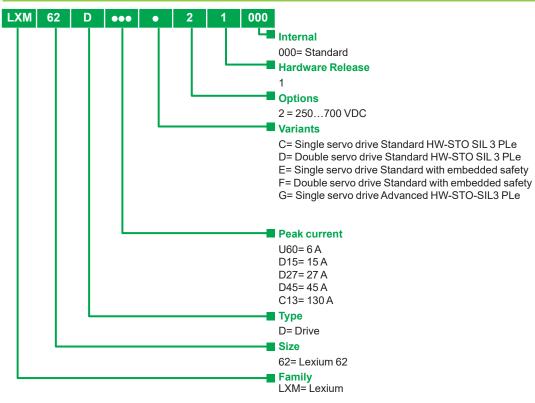
Function, type code

Lexium 62 & Motors

Multi axis servo system and servo motors for PacDrive 3 Lexium 62 servo drives

Servo drive type	Single servo drive		Double servo drive	Single servo drive with embbedded safety	Double servo drive with embbedded safety
	Standard	Advanced	Standard	Standard	Standard
	LXM62DU60C21000	LXM62DU60G21000	LXM62DU60D21000	LXM62DU60E21000	LXM62DU60F21000
	LXM62DD15C21000	LXM62DD15G21000	LXM62DD15D21000	LXM62DD15E21000	LXM62DD15F21000
	LXM62DD27C21000	LXM62DD27G21000	LXM62DD27D21000	LXM62DD27E21000	LXM62DD27F21000
	LXM62DD45C21000	LXM62DD45G21000		LXM62DD45E21000	
	LXM62DC13C21000	LXM62DC13G21000		LXM62DC13E21000	
Safe-Torque-Off hardwired	yes	yes	yes	yes	yes
Safety over Sercos		_	-	ves	yes
				yes	y03
Acceleration adaptive torque mitation	yes	yes	yes	yes	yes
lechanical overload protection	yes	yes	yes	yes	yes
Brake release check	yes	yes	yes	yes	yes
Encoderless velocity control with BMP motors	yes	yes	yes	-	-
lachine encoder input	_	yes	-	-	-
ncremental encoder output encoder simulation)	_	yes	-	-	-
Dne-Motor cable onnectivity for SH3 motors vith Hiperface [®] DSL ncoder	yes	yes	yes	-	-

Lexium 62 servo drives

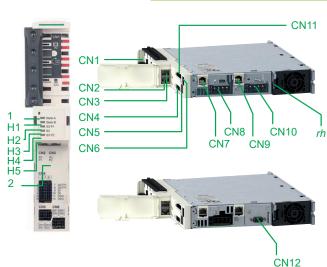


Description, references

Lexium 62 & Motors

Multi axis servo system and servo motors for PacDrive 3

Lexium 62 servo drives



Lexium 62 servo drives

Item	Function
1	Reset button
H1	Status LED for axis A
H2	Status LED for axis B (only for double drive)
H3	S3 Port 1 LED
H4	S3 LED
H5	S3 Port 2 LED
2	QR code: direct access to product information
Connector	Function
CN1	Busbar module
CN2, CN3	Sercos communication
CN4	Digital input/output
CN5	24 V supply for digital input/output
CN6	Inverter Enable
CN7, CN9	Encoder connector CN7 – axis A CN9 – axis B (only for double drive Standard) CN9 – additional machine encoder input (only for single drive Advanced)
CN8, CN10	Motor phases CN8 – axis A CN10 – axis B (only for double drive Standard)
CN11	Inverter Enable 2-channel
CN12	Encoder output (only for single drive Advanced)
rh	Shielded connector for functional earth



LXM62D ••• C21000 LXM62D•••D21000



LXM62DC13G21000



LXM62D00F21000

		rh		Snielded	connector for fu	inctional earth	
Lexium 62 servo d	Irives	(1)					
Designation	Contin power		Continuous output current	Peak current	Туре	Reference	Weight kg/ <i>lb</i>
	kW	hp	A (@ 4 kHz)	Α			
Lexium 62 servo drives	S						
Single servo drives	0.95	1.273	2	6	Standard	LXM62DU60C21000	3.000 6.613
					Advanced (2)	LXM62DU60G21000	3.900 6.614
	2.4	3.217	5	15	Standard	LXM62DD15C21000	3.000 6.613
					Advanced (2)	LXM62DD15G21000	3.900 6.614
	4.3	5.764	9	27	Standard	LXM62DD27C21000	3.000 6.613
					Advanced (2)	LXM62DD27G21000	3.900 6.614
	9.6	12.868	20	45	Standard	LXM62DD45C21000	3.000 6.613
					Advanced (2)	LXM62DD45G21000	3.900 6.614
	24	32.171	50	130	Standard	LXM62DC13C21000	6.800 13.228
					Advanced (2)	LXM62DC13G21000	6.800 13.228
Double servo drives	2x 0.95	2x 1.273	2x 2	2x 6	Standard	LXM62DU60D21000	3.000
	2x 2.4	2x 3.217	2x 5	2x 15	Standard	LXM62DD15D21000	6.613
	2x 4.3	2x 5.764	2x 9	2x 27	Standard	LXM62DD27D21000	
Lexium 62 servo drives	s with e	mbedded	safety				
Single servo drives with	0.95	1.273	2	6	Standard	LXM62DU60E21000	3.000
embedded safety	2.4	3.217	5	15	Standard	LXM62DD15E21000	6.613
	4.3	5.764	9	27	Standard	LXM62DD27E21000	
	9.6	12.868	20	45	Standard	LXM62DD45E21000	
	24	32.171	50	130	Standard	LXM62DC13E21000	6.800 13.228
Double servo drives with	2x 0.95	2x 1.273	2x 2	2x6 A	Standard	LXM62DU60F21000	3.000
embedded safety	2x 2.4	2x 3.217	2x 5	2x15A	Standard	LXM62DD15F21000	6.613
		2x 5.764		2x27 A	Standard	LXM62DD27F21000	

(1) The Lexium 62 servo drives include a Sercos cable for connection on Sercos bus.
 (2) Advanced servo drives are delivered with an additional machine encoder input and an incremental encoder output.

Presentation, description, references



Multi axis servo system and servo motors for PacDrive 3

Accessories for servo drives, DC Link connection

VW3E6001
VW3E6002

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LXM62LS18A01000

LXM62LT00A01000

Designation	Description	Reference	Weight
Designation	Description	Kelefende	kg / Ib
Single drive connector kit	Connectors and Sercos cable 0.09 m (0.30 ft)	VW3E6001	0.027/ 0.06
Double drive connector kit	Connectors and Sercos cable 0.09 m (0.30 ft)	VW3E6002	0.033/ 0.07
Torque indicator	Limited torque 2.5 N.m (1.843 ft-lbf)	VW3E6016	0.160/ <i>0.35</i>
Single drive connector kit	Connectors for one LXM62DC13C21000 or one LXM62DC13E21000 servo drive and Sercos cable 0.09 m (0.30 ft)	VW3E6052	0.250/ <i>0.55</i>
External shielding connection kits	For single and double drives	VW3E6005	0.090/ <i>0.20</i>
	For LXM62DC13C21000 or LXM62DC13E21000 servo drives	VW3E6053	0.027/ 0.06
5 V encoder adapter	For connection of third-party engines (e.g. linear, torque, asynchronous) Note: third-party engines must meet requirements of overvoltage category 3 (according to IEC 61800-5-1)	VW3E6027	0.200/ 0.44
Bleeder module	Optional intelligent external braking resistor	VPM03000000	3.140/ 6.92
Feedback adapter	For connection of SHe motors to Lexium 62 servo drives Equipped with a Sub-D 9 connector and an RJ45 connector Lenght: 0.5 m (1.64 ft.)	VW3E2092R005	0.105/ <i>0.23</i>

Lexium 62 DC Link support module				
	LXM62LS18A01000			
DC Bus Voltage	max. 700 V dc			
Control Voltage	24 V (- 20%+ 25%)			
Capacity	1.76 mF			
Housing dimensions (D x W x H)	270 x 44 x 310 mm (<i>10.630 x 1.73 x 12.205 in.</i>)			
Protection rating	IP20			
Certifications	C€, ULus, and CSA			

Lexium 62 DC Link support module				
Item	Function			
CN1	Busbar Module			
	Shielded connector for functional earth			

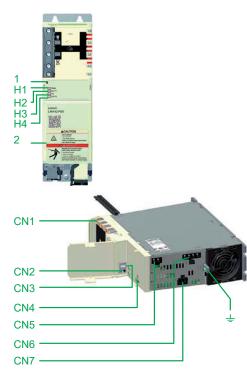
DC Link connection	on		
Designation	Description	Reference	Weight kg <i>Ib</i>
DC Link support module	Capacity 1.76 mF Can also be used standalone Status LED indicating DC Link voltage	LXM62LS18A01000	3.100 6.83
DC Link terminal	Max.continuous current: 120 A Cable diameters: 1035 mm² (flexible wire with a cable end AWG 82) 1050mm² (rigid wire AWG 81) Can be mounted on left and on right side of device Including strain relief for cable support	LXM62LT00A01000	0.500 <i>1.10</i>

Presentation, description, references

Lexium 62 & Motors Multi axis servo system and servo motors for PacDrive 3 Power supply modules

	LXM62PD84A11000	LXM62PD20A11000				
Rated voltage VAC 1-phase nominal 230 / 208 (-10%)270 (+10%)						
	3-phase nominal 230 / 208 (-10%)360 (+10%)					
	3-phase nominal 400 / 380 (-10%)480 (+10%)					
ated supply current (A)	Max. 40	Max. 10				
ower frequency	4863 Hz	· · · ·				
ontrol voltage VDC	24 (-20%+25%)					
ontrol current A	Max. 50 (no overload permissible)					
C Bus voltage VDC	270700					
ated current A	21 (1-phase)	10 (1-phase)				
	42 (3-phase)	10 (3-phase)				
Peak current A	42 (1-phase)	20 (1-phase)				
	84 (3-phase)	20 (3-phase)				
ontinuous output kW (hp)	22.1 (0.03 hp) at 3-phase 400 V AC	5.2 (0.007 hp) at 3-phase 400 V AC				
eak output kW/hp	44.2 (0.06hp) at 3-phase 400 V AC	10.4 (0.014 hp) at 3-phase 400 V AC				
ercos interface	Integrated					
leeder	Integrated					
MC filter	Integrated					
lousing dimensions D x W x H)	270 x 89 x 310 mm (10.630 x 3.504 x 12.205 in.)					
Protection rating	IP20					
ertifications	CE, ULus, and CSA	CE, ULus, and CSA				

(1) an external mains filter is required when total Power (Motor) cable lengths > 150 m (492.13 ft).







Power supply modules			
Item	Function		
1	Reset button		
H1	Status LED		
H2	S3 Port 1 LED		
H3	S3 LED		
H4	S3 Port 2 LED		
2	QR code: direct access to product information		
Connector	Function		
CN1	Busbar Module		
CN2, CN3	Sercos communication		
CN4	Ready relay output		
CN5	24 VDC		
CN6	Mains connection		
CN7	DC bus output		

Performance for parallel connection				
Number of power	Intermediate circuit	Allowed DC bus		
supply modules	Continuous current	Peak current	capacitance	
1	42 A	84 A	12.5 mF	
2	73.9 A	147 A	21.9 mF	
3	110.9A	189 A	31.3 mF	

Power supply and accessory Designation Description

			kg/lb
Power supply modules for Lexium 62 servo drives and Lexium 62 ILM servo modules	 22.1/44.2 kW (0.03/0.06 hp) @ 400 VAC Continuous current 42 A/84 A Pulse energy 4000 Ws 	LXM62PD84A11000	6.300/ 13.89
	 5.2 /10.4 kW (0.007 / 0.014 hp) @ 400 VAC Continuous current 10 A / 20 A Pulse energy 4000 Ws 	LXM62PD20A11000	6.300/ 13.89
Accessory kit	 1 connection cable for Sercos bus 1 connector, CN4 1 connector, CN5 for 24 V DC power supply 1 connector, CN6 for power supply 1 connector, CN7 for DC bus 	VW3E6003	0.090/ 0.20

Reference

Weight



Presentation, references

Lexium 62 & Motors Multi axis servo system and servo motors for PacDrive 3

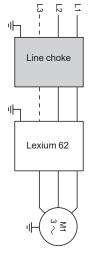
Line chokes (option)

Option: Line choke

A line choke can be used to provide improved protection against overvoltages on the line supply and to reduce harmonic distortion of the current produced by the servo drive.

The recommended chokes limit the line current.

One line choke can be connected to a number of servo drives. In such cases, the current consumption of the group of servo drives at nominal voltage is \geq the nominal current of the line choke.



Lexium62 servo drive with line choke



VW3A455•

Designation	Line Current		Certification		Reference	Weight
	Single-phase supply voltage	Three-phase supply voltage	CE	UL us/ CSA		kg/ <i>lb</i>
Line choke for Lexium 62 servo	-	4 A			VW3A4551	1.500/ 3.31
drive	_	10 A			VW3A4552	3.000/ 6.61
	_	16 A			VW3A4553	3.500/ 7.72
	_	30 A			VW3A4554	6.000/ 13.23
	_	60 A			VW3A4555	11.000/ 24.25

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Lexium 62 & Motors

Multi axis servo system and servo motors for PacDrive 3 Product reference index

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LXM62DD15F21000	5 6
LXM62DD15G21000	5 6
LXM62DD27C21000	5 6
LXM62DD27D21000	5 6
LXM62DD27E21000	5 6
LXM62DD27F21000	5 6
LXM62DD27G21000	5 6
LXM62DD45C21000	5 6
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