Motor Starters for Use in the Field, High Degree of Protection
ET 200pro Motor Starters

General data

Technical specifications

Type		Stand. motor starters	High-Feature motor starters	
		Mechanically switching without inputs	Mechanically switching with inputs	Mechanically switching with inputs and soft starter function
Technology designation[1]		DSe, RSe	DSe, RSe	sDSSte, sDSte, sRSSte, sRSte
Mechanics and environment				
Motor starters or modules that can be connected to ET 200pro With width of 110 mm		Max. 8		
Mounting dimensions (W x H x D)				
• Direct-on-line starters and reversing starters	mm	110 x 230 x 150		110 x 230 x 160
Permissible ambient temperature				
• During operation	°C	-25 ... +55 from +40 with derating		
• During storage	°C	-40 ... +70		
Permissible mounting position		Vertical, horizontal		
Vibration resistance acc. to IEC 60068, Part 2-6	*g*	2		
Shock resistance acc. to IEC 60068 Part 2-27	*g*/ms	Half-sine 15/11		
Degree of protection		IP65		
Pollution degree		3, IEC 60664 (IEC 61131)		
Electrical specifications				
Power consumption at 24 V DC				
• From auxiliary circuit L+/M (U1)	mA	Approx. 40		
• From auxiliary circuit A1/A2 (U2)	mA	Approx. 200		
Rated operational current I_e for power bus	A	25		
Rated operational voltage U_e	V AC	400 (50/60 Hz)		
• Approval according to EN 60947-1, Appendix N	V AC	Up to 400 (50/60 Hz)		Up to 400 (50/60 Hz)
• Approval according to CSA and UL	V AC	Up to 600 (50/60 Hz)		Up to 480 (50/60 Hz)
Approval				
• DIN VDE 0106, Part 101	V	Up to 400		Up to 480
• CSA and UL approval	V	Up to 600		Up to 480
Conductor cross-sections				
• Incoming power supply	mm^2	Max. 6 x 4		
Touch protection		Finger-safe		
Rated impulse withstand voltage U_{imp}	kV	6		
Rated insulation voltage U_i	V	400		
Rated operational current I_e for starters				
• AC-1/2/3 at 40 °C				
- At 400 V	A	0.15 ... 2.0/1.5 ... 12.0		0.15 ... 2.0/1.5 ... 12.0[2]
- At 500 V	A	0.15 ... 2.0/1.5 ... 9.0		
• AC-4 at 40 °C				
- At 400 V	A	0.15 ... 2.0/1.5 ... 4.0		
Rated short-circuit breaking capacity	kA	100 at 400 V		
Type of coordination acc. to IEC 60947-4-1		1		
Power of three-phase motors at 400 V	kW	Max. 5.5		Max. 5.5/4[3]
Utilization categories		AC-1, AC-2, AC-3, AC-4		AC-53a[4] (max. 9 A with deactivated soft start function up to CLASS 10)
Protective separation between main and auxiliary circuits	V	400, acc. to EN 60947-1, Appendix N		
Endurance of contactor				
• Mechanical	Operating cycles	30 million		--
• Electrical	Operating cycles	Up to 10 million; depending on the current loading (see manual[5])		--
Permissible switching frequency		Depending on the current load, motor starting time, and relative ON period (see manual[5])		
Operating times for 0.85 ... 1.1 x U_e				
• Closing delay	ms	11 ... 50		--
• Opening delay	ms	5 ... 45		--

1) DS .... Direct-on-line starter
RS .... Reversing starter
DSS .. Direct soft starter
RSS .. Reversing soft starter
e ..... Electronic motor protection
te ..... Full motor protection (thermal + electronic)
s ..... Electronic switching with semiconductor.

2) Note:
If the soft starter control function is deactivated, the permissible rated operational current is reduced to 9 A up to CLASS 10.

3) With parameterization as electronic starter max. 4 kW.

4) 8-hour operation.

5) http://support.automation.siemens.com/WW/view/en/22332388

More information

Notes on safety

System networking requires suitable protective measures (including network segmentation for IT security) in order to ensure safe plant operation.

More information about the subject of Industrial Security, see www.siemens.com/industrialsecurity.