

For Use in the Control Cabinet

ET 200S Motor Starters and Safety Motor Starters

Safety modules local and PROFIsafe

Technical specifications

Safety modules PM-D F1, F2, F3, F4 and F5		
Mechanical endurance	Operating cycles	10 x 10 ⁶
Electrical endurance	Operating cycles	200 000 at I_e
Utilization category		DC-13
Control times		
• Minimum command duration	ms	200
• Recovery time	s	< 1
• OFF-delay	ms	30
Control circuit U_1		
• Rated control supply voltage U_S	V DC	24
• Operating range DC up to 60 °C		0.85 ... 1.2 x U_S
• Power consumption	W	2.4
• Recommended short-circuit protection		gG 2 A
• Output OUT+/OUT- for control of expansion modules		24 V DC/< 50 mA (PTC fuse)
Switched auxiliary circuit U_2		
• Rated control supply voltage U_S	V DC	24
• Operating range DC up to 60 °C		0.85 ... 1.2 x U_S
• Rated operational current I_e (13 ... 24 V DC)	A	4
• Uninterrupted thermal current I_{th}	A	5
Recommended short-circuit protection for enabling and signaling circuits		Fuse links: LV HRC type 3NA, DIAZED type 5SB, NEOZED type 5SE Operating class gG 6 A
Supply of		
• Motor starters		Yes
• Electronic modules		No
• Ex(i) modules		No
• BG certification		Yes
• UL, CSA certification		Yes
Cable length for EMERGENCY-STOP and ON buttons	m	max. 1 000
Mounting dimensions (W x H x D)	mm	30 x 196.5 x 117.5 (incl. terminal module)
Enabling circuits with PM-D F5		4 (floating)
PM-D FX1 safety module (infeed terminal module)		
Dimensions		
Mounting dimensions (W x H x D)	mm	30 x 196.5 x 117.5 (incl. terminal module)
Module-specific specifications		
Ambient temperature	°C	0 ... +60
Degree of protection		IP20
Maximum achievable safety classes		SIL 3
• IEC 62061		Tripping class 5 and 6
• DIN V 19250		PL e
• ISO 13849-1		
Safety characteristics		
Proof-test interval		10 years
Voltages, currents, potentials		
Rated control supply voltage U_S	V DC	21.6 ... 26.4 to 60 °C
Rated operational current I_e	A	6
Recommended upstream short-circuit protection	A	Internal fuse protection 7 A (quick-response) Melting fuse gG 6.3
Supply of		
• Failsafe motor starters		Yes
• Failsafe frequency converters		Yes
• Electronic modules		No
• Ex[i] modules		No
Power consumption		
• From the backplane bus	mA	≤ 10
• From U_1	mA	≤ 35
• From SGx	mA	≤ 15
Status, alarms, diagnostics		
Alarms		None
Diagnostics functions		
• Group fault/device fault		Red LED SF
• Monitoring of the electronics power supply U_1 (PWR)		Green LED PWR
• Monitoring of six switch-off groups		Green LED SG1 ... SG6
• Diagnostics information can be read out		Yes
Standards, approvals		
• TÜV		Yes
• UL, CSA certification		Yes