

Technical data

Type MS325, MS45x, MS49x

Manual motor starter type	MS325	MS450/451	MS495/496/497
Auxiliary circuits			
Load rating of the auxiliary circuits			
Minimum load at:			5 mA at 17 VDC
24 VDC mA	5		—
12 VDC mA	10		—
Rated operating at AC 15 to 24 VAC A	2.5		—
current I_e			3 / 0.5 / 6
230 VAC A	2		1.5 / — / 3
400 VAC A	1		①②
Rated operating at DC 13 to 24 VDC A	2.5		— / — / —
current I_e			— / 0.15 / —
60 VDC A	2.5		0.22 / — / 0.5
110 VDC A	0.6		0.1 / — / 0.25
220 VDC A	0.25		— / — 0.1
440 VDC A	—		—
Short circuit protection back up fuse			
gLA	10		gL / gG 10 A
aMA	6		—
Release			
Device for phase failure protection	With		With
Electromagnetic trips			
Response value set ex-works	7.5 – 12 I_n ① 9 – 14 I_n ② 10 – 15 I_n ③ 12.5 – 17.5 I_n ④		10.4 I_n – 15.6 I_n
Undervoltage release			
Pick-up value % of U_c	≥ 85		≥ 85
Drop-out value % of U_c	35 – 75		35 – 70
Power consumption - Pick-up VA	0.9		20.2
Power consumption - Hold VA	0.9		7.2
Open circuit shunt release			
Pick-up value % of U_c	≥ 85		≥ 70
Relative duty consumption % ED	—		100 at voltages 50 / 60 Hz to Power
Pick-up VA	110 - 240V: 13 - 61 ③		Consult factory
Hold VA	—		Consult factory

① Correction factors for other frequencies on request.

② On front side 1 chageover contact / on front side 1 NO + 1 NC / at side, 1 NO + 1 NC, 2 NO, 2 NC

③ 24 - 60V: 14.4 - 90vA