

# Datasheet

Motor Starter 2,4A - 1145608-00000




The data sheet describes the technical features of the motor starter which has the following functional characteristics:

**Features:**

- current monitoring: NO
- Reversing switch: NO
- EXECUTION: ELR
- Switching characteristics: Right / Left
- communications system: AS-i Safety at Work
- Safety Integrity Level according to IEC 61508: SIL3

The function must be addressed and/or parameterized in advance for integration into the machine and system environment. The settings required for this must be made directly via the components used. The steps required for this can be found in the function-specific document "Operating instructions".

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25.03.2020-LH	Approval service	2.0		Designation	<b>Datasheet</b>	
21.11.2019-RSP	techn. approval	1.0		Motor Starter 2,4A	Created	Page
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# 1 General component properties

## 1.1 Electrical properties

DESIGNATION	VALUE	UNIT
Line protection back-up fuse	16	A
Input voltage Rated value	400 / 480	V AC
Input current Rated value	2,4	A
Rated frequency	50 / 60 (+/- 10%)	Hz
Surge voltage Rated value	2,5	kV
control voltage	24 (+/-20%)	V DC
Auxiliary current	85	mA
load voltage	42 - 550	V AC
load current	0,18 - 2,4 adjustable	A
starting current	max. 8x In (rated current)	
usage category	2,4A with AC-51 and AC-53a	
dissipation	4	W
switching frequency	<= 2	Hz
current monitoring	NO	
EXECUTION	ELR	
Switching characteristics	Right / Left	
Tripping class according to IEC 60947	Class 10	
Automatic reset (ready to start)	20 minutes after overload	
Electromagnetic compatibility	in accordance with EN 61000-4-2/3/4/5/6/8/11/29/39, EN 55011 Radiated, EN 55011 Conducted	
communications system	AS-i Safety at Work	
AS-i voltage	18 - 31,6	V DC
AS-i specification	3.0	
Safety Integrity Level according to IEC 61508	SIL3	
Performance Level according to ISO 13849	PLe	
Category according to ISO 13849	3	
MTTF at 40°C	39,3	year

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## 1.2 Mechanical properties

DESIGNATION	VALUE	UNIT
Interface Input	1x X-TEC 15 + 1x M12 A-Coded	
Interface Output	1x X-TEC 15	
Reversing switch	NO	
Installation altitude above normal zero	2000	m
TYPE OF PROTECTION	IP54	
Shock resistance according to EN 60068-2-27	15g/11ms	
Vibration according to EN 60068-2-6	10-500Hz, 0,35mm, 5g	
Vibration according to EN 60068-2-64	5-500Hz, 0,75g RMS	
Impact resistance Housing	IK08 as per DIN EN 5012/VDE 0470 Part 100	

## 1.3 Thermal properties


DESIGNATION	VALUE	UNIT
Ambient temperature (operation)	5 to +50	°C
Ambient temperature UL (operation)	5 to +40	°C
Ambient temperature (storage)	-25 to +80	°C

## 1.4 Chemical properties

DESIGNATION	VALUE	UNIT
Housing material	Polycarbonate, glass fibre reinforced	
Burning behaviour Housing	5VA in accordance with UL 50 / UL 746C, V-2 in accordance with UL 94, 960°C in accordance with VDE 0471 / EN 60695	
Max. relative humidity stability	95% in case of 25°C and 50% in case of 40°C UV/weather/weak acid/alcohol/mineral oil/ammonia gaseous/greases	

## 1.5 Approval

DESIGNATION	VALUE	UNIT
UL/CSA Standards	UL 508 C22.2 No. 14	
UL Certificate Number	NMTR/7.E506682	
SCCR (High-Fault)	50kA (480VAC (fuse 30A Class J or 30A Class CC))	
SCCR (Standard-Fault)	5kA	
policies	RoHS Directives, REACH Regulation	

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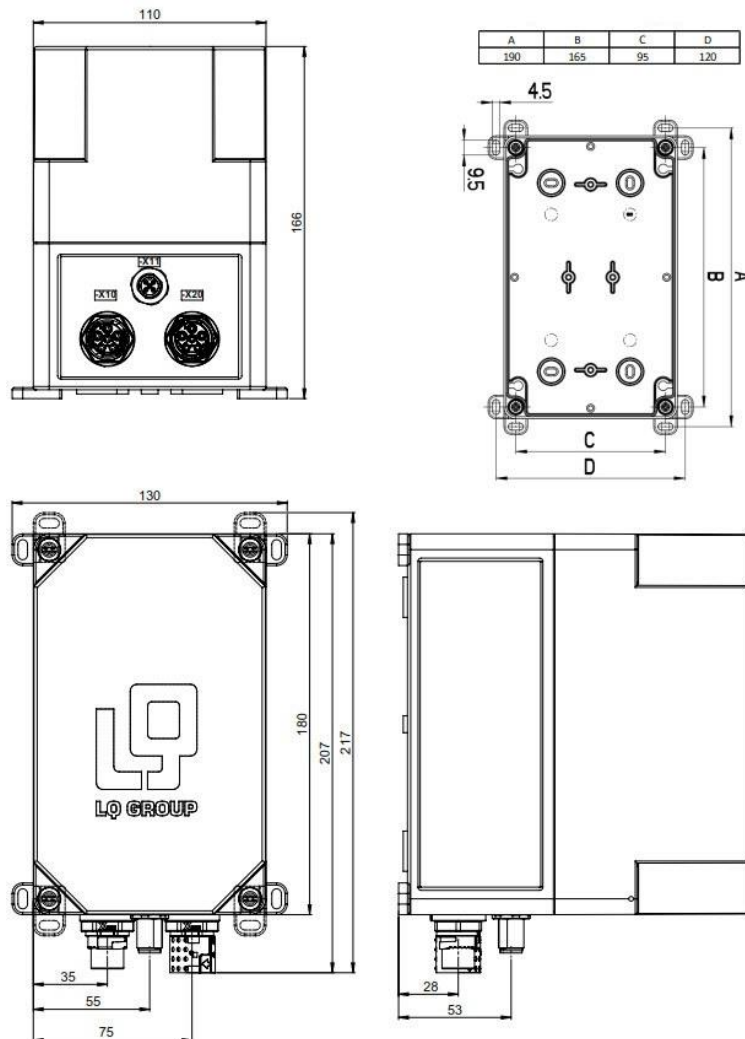
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## 2 Assembly

### 2.1 Housing dimensions

DESIGNATION	VALUE	UNIT
Size of construction (Width x Height x Depth)	130 x 217 x 166	mm
Distance to be maintained below	170	mm
Distance to be maintained laterally	30	mm
installation type	screw fastening	
installation position	vertical installation	

### 2.2 Dimensional drawing



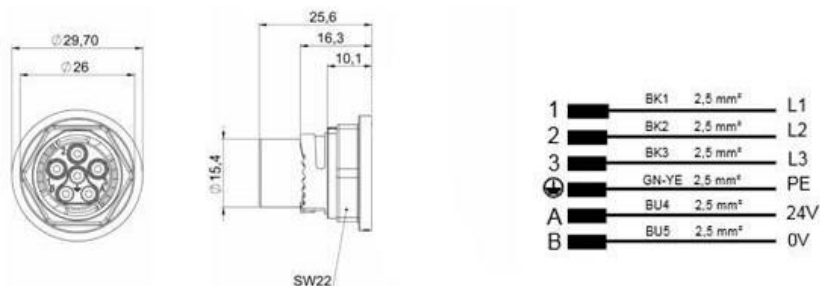
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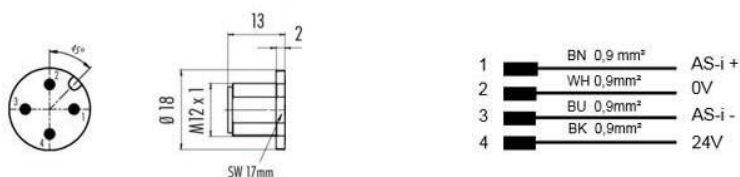
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### 3 Interface description

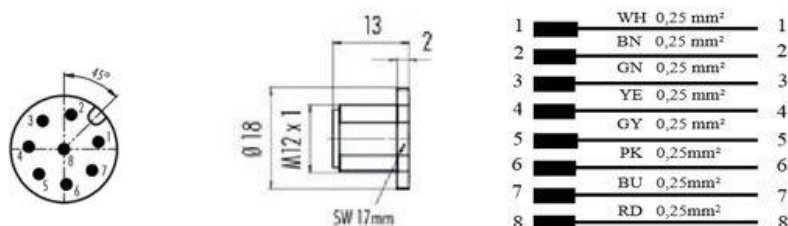
#### 3.1 -X10 X-TEC15 male - Input 400V AC / 24V DC



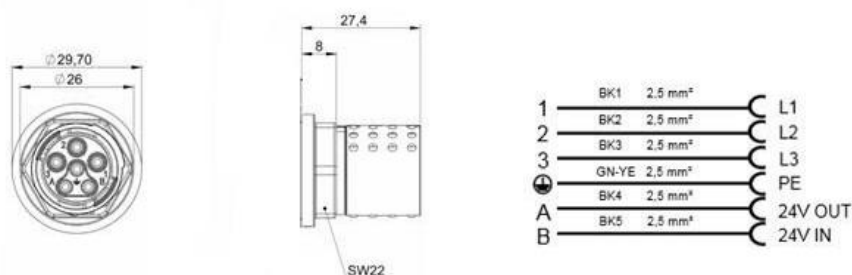
#### 3.2 -X11 M12 A- Coded - Communication AS-i




#### 3.3 -X11 M12 A- Coded - Communication Parallel



#### 3.4 -X20 X-TEC15 female - Output 400V AC



Pin A/B in interface -X20 is used for thermal monitoring of the motor temperature via a bimetal.


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#### 4 Version ELR: Nominal current setting

Code				Electrical rated [mA]		
PWR	ERR	L	R	Fkt. to 0,6A	Fkt. to 2,4A	Fkt. to 6,5A
0	0	0	0	75	180	1500
0	0	0	1	110	250	2000
0	0	1	0	145	410	2500
0	0	1	1	180	560	3000
0	1	0	0	215	710	3500
0	1	0	1	250	870	4000
0	1	1	0	185	1020	4500
0	1	1	1	320	1170	5000
1	0	0	0	355	1330	5500
1	0	0	1	390	1480	6000
1	0	1	0	425	1630	6500
1	0	1	1	460	1790	
1	1	0	0	495	1940	
1	1	0	1	530	2090	
1	1	1	0	565	2250	
1	1	1	1	600	2400	

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