

Data sheet for Smart Line Modules Booksize

Article No. : 6SL3131-6AE21-0AA1

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :



Figure similar

Electrical data

Input	
Number of phases	3 AC
Line voltage	342 ... 528 V
Line frequency	47 ... 63 Hz
Short-circuit strength ¹⁾	65 kA
Line power factor	
Fundamental power factor, minimal	0.96
Total	0.65 ... 0.90
Overvoltage category	Class III
DC link voltage ²⁾	
DC-link voltage	1.35 × line voltage
Electronics power supply with DC	24 V (-15 % / 20 %)

Connections

Line side	
Design	screw-type terminal (X1)
Conductor cross-section	2.5 ... 6 mm ² (AWG 14 ... AWG 10)
PE conductor	M5 screw
Shield connecting kit	Cable shield connection plate integrated into the connector
Line length, max.	
Shielded	350 m (1,148.29 ft)
Unshielded	560 m (1,837.27 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Type of construction	Booksize
Net weight	5.4 kg (11.91 lb)
Dimensions	
Width	50 mm (1.97 in)
Height	380 mm (14.96 in)
Depth ³⁾	226 mm (8.90 in)

Standards

Compliance with standards	CE, cULus
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Rated data

Infeed power	
Rated value	10.0 kW (10.0 hp)
for S6 duty	13.0 kW
Maximum	20.0 kW
Regenerative feedback power	
Rated value	10.0 kW (10.0 hp)
for S6 duty	13.0 kW
Maximum	20.0 kW
DC-link current	
at 540 V DC	18.5 A
at 600 V DC	16.6 A
for S6 duty	22.0 A
Maximum	33.2 A
Input current	
at 380 V AC 3-phase	17.0 A
at 400 V AC 3-phase	16.2 A
at 480 V AC 3-phase	12.8 A
at 400 V S6 duty	21.1 A
at 400 V, maximum	31.2 A
Current requirement at 24 V DC, maximum	0.90 A
Ampacity of the busbars	
for electronics power supply at 24 V DC	20 A
for DC-link connection	100 A
DC link capacitance	
of the Smart Line Module	330 µF
of the drive system, maximum	6,000 µF

General technical specifications

Sound pressure level	60 dB
Losses ⁴⁾	0.140 kW

Ambient conditions

Ambient temperature in operation	0 ... 40 °C (32 ... 104 °F)
Cooling air throughput	0.008 m ³ /s (0.283 ft ³ /s)
Installation altitude	1,000 m (3,280.84 ft)
Type of cooling ⁵⁾	External air cooling
RI suppression	Standard: No radio interference suppression; With line filter: Category C2 to EN 61800-3 Total cable length up to 350 m (1148 ft) (shielded)

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- ¹⁾in conjunction with the recommended Class J fuse, or circuit breaker according to UL489 / CSA 22.2 No. 5-02
- ²⁾The DC link voltage is maintained at the mean value of the rectified line voltage.
- ³⁾At installation level
- ⁴⁾Power loss of the Smart Line Module with rated power including losses of the 24 V DC electronics power supply
- ⁵⁾Power units with intensified air cooling thanks to integrated fan