

EKLER

DEEP BLUE 3.0

Mono

550W MBB Half-cell Module
JAM72S30 525-550/MR Series

Introduction

Assembled with 11BB PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



Higher output power



Lower LCOE



Less shading and lower resistive loss

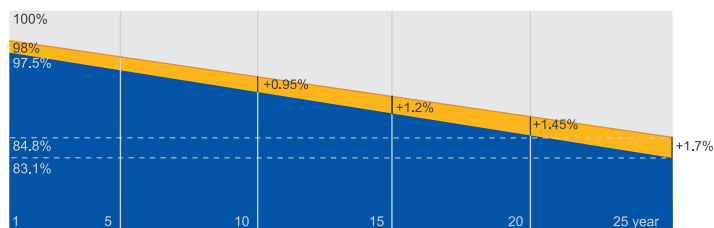


Better mechanical loading tolerance

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty

0.55% Annual Degradation
Over 25 years



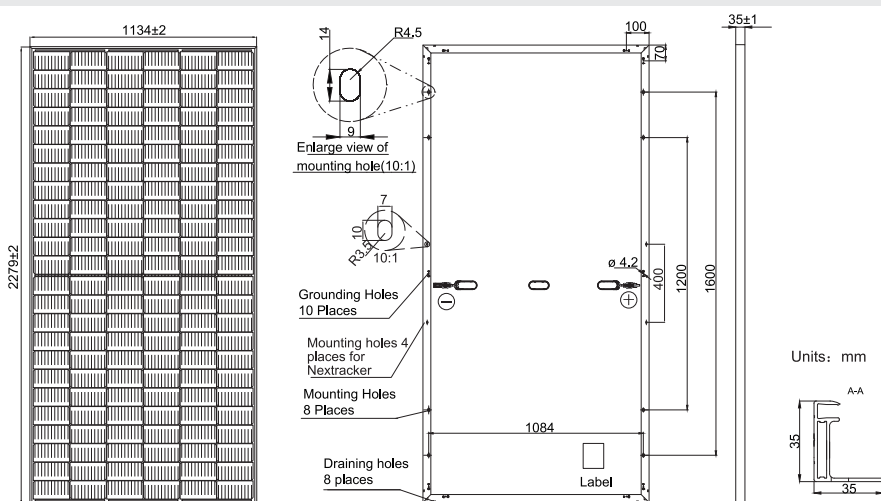
■ New linear power warranty ■ Standard module linear power warranty

Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval



MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	28.6kg±3%
Dimensions	2279±2mm×1134±2mm×35±1mm
Cable Cross Section Size	4mm ² (IEC) , 12 AWG(UL)
No. of cells	144(6×24)
Junction Box	IP68, 3 diodes
Connector	QC 4.10(1000V) QC 4.10-35(1500V)
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1300mm(+)/1300mm(-)
Packaging Configuration	31pcs/Pallet, 620pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72S30 -525/MR	JAM72S30 -530/MR	JAM72S30 -535/MR	JAM72S30 -540/MR	JAM72S30 -545/MR	JAM72S30 -550/MR
Rated Maximum Power(P _{max}) [W]	525	530	535	540	545	550
Open Circuit Voltage(V _{oc}) [V]	49.15	49.30	49.45	49.60	49.75	49.90
Maximum Power Voltage(V _{mp}) [V]	41.15	41.31	41.47	41.64	41.80	41.96
Short Circuit Current(I _{sc}) [A]	13.65	13.72	13.79	13.86	13.93	14.00
Maximum Power Current(I _{mp}) [A]	12.76	12.83	12.90	12.97	13.04	13.11
Module Efficiency [%]	20.3	20.5	20.7	20.9	21.1	21.3
Power Tolerance	0~+5W					
Temperature Coefficient of I _{sc} (α _{Isc})	+0.045%/°C					
Temperature Coefficient of V _{oc} (β _{Voc})	-0.275%/°C					
Temperature Coefficient of P _{max} (γ _{Pmp})	-0.350%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

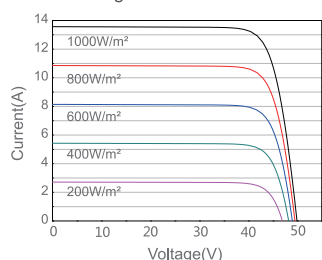
ELECTRICAL PARAMETERS AT NOCT

TYPE	JAM72S30 -525/MR	JAM72S30 -530/MR	JAM72S30 -535/MR	JAM72S30 -540/MR	JAM72S30 -545/MR	JAM72S30 -550/MR	OPERATING CONDITIONS	
Rated Max Power(P _{max}) [W]	397	401	405	408	412	416	Maximum System Voltage	1000V/1500V DC
Open Circuit Voltage(V _{oc}) [V]	46.05	46.18	46.31	46.43	46.55	46.68	Operating Temperature	-40 °C ~+85 °C
Max Power Voltage(V _{mp}) [V]	38.36	38.57	38.78	38.99	39.20	39.43	Maximum Series Fuse Rating	25A
Short Circuit Current(I _{sc}) [A]	10.97	11.01	11.05	11.09	11.13	11.17	Maximum Static Load, Front* Maximum Static Load, Back*	5400Pa(112lb/ft ²) 2400Pa(50lb/ft ²)
Max Power Current(I _{mp}) [A]	10.35	10.39	10.43	10.47	10.51	10.55	NOCT	45±2 °C
NOCT	Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G						Safety Class	Class II
							Fire Performance	UL Type 1

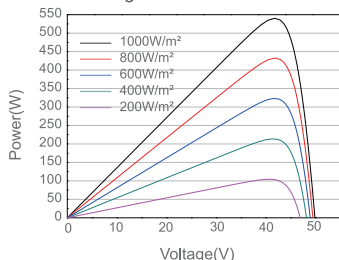
*For NexTracker installations, Maximum Static Load, Front is 2400Pa while Maximum Static Load, Back is 2400Pa.

CHARACTERISTICS

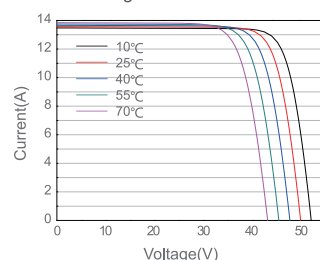
Current-Voltage Curve JAM72S30-540/MR



Power-Voltage Curve JAM72S30-540/MR



Current-Voltage Curve JAM72S30-540/MR





Product Service

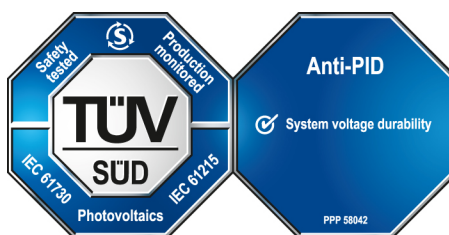
CERTIFICATE

No. Z2 072092 0300 Rev. 08

Holder of Certificate: Shanghai JA Solar Technology Co., Ltd.

No. 118, Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 704061900211-08

Valid until: 2025-10-14

Date, 2020-10-15

(Zhulin Zhang)

CERTIFICATE

No. Z2 072092 0300 Rev. 08

Model(s):

Maximum System Voltage: 1000 V DC

JAM6(K)-72-xxx/PR, xxx=345 to 370 in step of 5
 JAM6(K)-60-xxx/PR, xxx=285 to 310 in step of 5
 JAM6(K)-72-xxx/4BB, xxx=320 to 345 in step of 5
 JAM6(K)-60-xxx/4BB, xxx=265 to 285 in step of 5
 JAM72S01-xxx/SC/1000V, xxx=320 to 365 in step of 5
 JAM60S01-xxx/SC/1000V, xxx=265 to 305 in step of 5
 JAM72S01-xxx/PR/1000V, xxx=345 to 390 in step of 5
 JAM60S01-xxx/PR/1000V, xxx=285 to 325 in step of 5
 JAM72S03-xxx/PR/1000V, xxx=360 to 395 in step of 5
 JAM60S03-xxx/PR/1000V, xxx=300 to 330 in step of 5
 JAM72S09-xxx/PR/1000V, xxx=370 to 405 in step of 5
 JAM60S09-xxx/PR/1000V, xxx=310 to 335 in step of 5
 JAM72S09-xxx/BP/1000V, xxx=375 to 385 in step of 5
 JAM60S09-xxx/BP/1000V, xxx=315 to 320 in step of 5
 JAM72S10-xxx/PR/1000V, xxx=380 to 410 in step of 5
 JAM60S10-xxx/PR/1000V, xxx=315 to 345 in step of 5
 JAM72S10-xxx/BP/1000V, xxx=385 to 400 in step of 5
 JAM60S10-xxx/BP/1000V, xxx=320 to 330 in step of 5
 JAM72S10-xxx/MR/1000V, xxx=390 to 420 in step of 5
 JAM60S10-xxx/MR/1000V, xxx=325 to 345 in step of 5
 JAM78S10-xxx/MR/1000V, xxx=435 to 455 in step of 5
 JAM66S10-xxx/MR/1000V, xxx=345 to 380 in step of 5
 JAM72S17-xxx/MR, xxx= 390 to 395 in step of 5
 JAM60S17-xxx/MR, xxx= 315 to 335 in step of 5
 JAM72S17-xxx/MR/1000V, xxx= 390 to 395 in step of 5
 JAM60S17-xxx/MR/1000V, xxx= 315 to 335 in step of 5
 JAM72S10-xxx/MB/1000V, xxx=395 to 415 in step of 5
 JAM60S10-xxx/MB/1000V, xxx=330 to 345 in step of 5
 JAM72S20-xxx/MR/1000V, xxx=430 to 470 in step of 5
 JAM60S20-xxx/MR/1000V, xxx=355 to 390 in step of 5
 JAM72S30-xxx/MR/1000V, xxx= 510 to 550 in steps of 5
 JAM66S30-xxx/MR/1000V, xxx= 470 to 505 in steps of 5
 JAM60S30-xxx/MR/1000V, xxx= 435 to 460 in steps of 5
 JAM60S21-xxx/MR/1000V, xxx= 355 to 375 in steps of 5

Maximum System Voltage: 1500 V DC

JAM72D00-xxx/BP/1500V, xxx=330 to 385 in step of 5
 JAM72D00-xxx/BP, xxx=330 to 385 in step of 5
 JAM60D00-xxx/BP/1500V, xxx=275 to 320 in step of 5
 JAM60D00-xxx/BP, xxx=275 to 320 in step of 5
 JAM72D00-xxx/PR/1500V, xxx=340 to 385 in step of 5
 JAM72D00-xxx/PR, xxx=340 to 385 in step of 5
 JAM60D00-xxx/PR/1500V, xxx=285 to 320 in step of 5
 JAM60D00-xxx/PR, xxx=285 to 320 in step of 5
 JAM72D09-xxx/BP/1500V, xxx=360 to 400 in step of 5
 JAM72D09-xxx/BP, xxx=360 to 400 in step of 5
 JAM60D09-xxx/BP/1500V, xxx=300 to 340 in step of 5
 JAM60D09-xxx/BP, xxx=300 to 340 in step of 5
 JAM72D10-xxx/MB/1500V, xxx=385 to 420 in step of 5
 JAM72D10-xxx/MB, xxx=385 to 420 in step of 5
 JAM60D10-xxx/MB/1500V, xxx=320 to 350 in step of 5
 JAM60D10-xxx/MB, xxx=320 to 350 in step of 5
 JAM72D10-xxx/BP/1500V, xxx=385 to 415 in step of 5
 JAM72D10-xxx/BP, xxx=385 to 415 in step of 5
 JAM60D10-xxx/BP/1500V, xxx=320 to 345 in step of 5
 JAM60D10-xxx/BP, xxx=320 to 345 in step of 5
 JAM66D10-xxx/MB, xxx=360 to 380 in step of 5
 JAM66D10-xxx/MB/1500V, xxx=360 to 380 in step of 5
 JAM78D10-xxx/MB, xxx=435 to 455 in step of 5
 JAM78D10-xxx/MB/1500V, xxx=435 to 455 in step of 5

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JAM72D20-xxx/MB, xxx=430 to 465 in step of 5
 JAM72D20-xxx/MB/1500V, xxx=430 to 465 in step of 5
 JAM60D20-xxx/MB, xxx=355 to 385 in step of 5
 JAM60D20-xxx/MB/1500V, xxx=355 to 385 in step of 5
 JAM6(K)-72-xxx/PR/1500V, xxx=345 to 370 in step of 5
 JAM6(K)-60-xxx/PR/1500V, xxx=285 to 310 in step of 5
 JAM6(K)-72-xxx/4BB/1500V, xxx=320 to 345 in step of 5
 JAM6(K)-60-xxx/4BB/1500V, xxx=265 to 285 in step of 5
 JAM72S01-xxx/SC/1500V, xxx=320 to 365 in step of 5
 JAM60S01-xxx/SC/1500V, xxx=265 to 305 in step of 5
 JAM72S01-xxx/PR, xxx=345 to 390 in step of 5
 JAM60S01-xxx/PR/1500V, xxx=285 to 325 in step of 5
 JAM72S03-xxx/PR/1500V, xxx=360 to 395 in step of 5
 JAM60S03-xxx/PR/1500V, xxx=300 to 330 in step of 5
 JAM72S09-xxx/PR/1500V, xxx=370 to 405 in step of 5
 JAM60S09-xxx/PR/1500V, xxx=310 to 335 in step of 5
 JAM72S10-xxx/PR/1500V, xxx=380 to 410 in step of 5
 JAM60S10-xxx/PR/1500V, xxx=315 to 345 in step of 5
 JAM78S10-xxx/MR/1500V, xxx=435 to 455 in step of 5
 JAM66S10-xxx/MR/1500V, xxx=345 to 380 in step of 5
 JAM72S09-xxx/BP/1500V, xxx=375 to 385 in step of 5
 JAM60S09-xxx/BP/1500V, xxx=315 to 320 in step of 5
 JAM72S10-xxx/BP/1500V, xxx=385 to 400 in step of 5
 JAM60S10-xxx/BP/1500V, xxx=320 to 330 in step of 5
 JAM72S10-xxx/MB/1500V, xxx=395 to 415 in step of 5
 JAM60S10-xxx/MB/1500V, xxx=330 to 345 in step of 5
 JAM72S20-xxx/MR/1500V, xxx=430 to 470 in step of 5
 JAM60S20-xxx/MR/1500V, xxx=355 to 390 in step of 5
 JAM72S30-xxx/MR/1500V, xxx= 510 to 550 in steps of 5
 JAM66S30-xxx/MR/1500V, xxx= 470 to 505 in steps of 5
 JAM60S30-xxx/MR/1500V, xxx= 435 to 460 in steps of 5
 JAM60S21-xxx/MR/1500V, xxx= 355 to 375 in steps of 5
 JAM72D30-xxx/MB, xxx= 505 to 545 in steps of 5
 JAM72D30-xxx/MB/1500V, xxx= 505 to 545 in steps of 5
 JAM66D30-xxx/MB, xxx= 465 to 500 in steps of 5
 JAM66D30-xxx/MB/1500V, xxx= 465 to 500 in steps of 5
 JAM60D30-xxx/MB, xxx= 435 to 455 in steps of 5
 JAM60D30-xxx/MB/1500V, xxx= 435 to 455 in steps of 5

Maximum System Voltage: 1000 or 1500 V DC

JAM72S01-xxx/SC, xxx=320 to 365 in step of 5
 JAM60S01-xxx/SC, xxx=265 to 305 in step of 5
 JAM60S01-xxx/PR, xxx=285 to 325 in step of 5
 JAM72S03-xxx/PR, xxx=360 to 395 in step of 5
 JAM60S03-xxx/PR, xxx=300 to 330 in step of 5
 JAM72S09-xxx/PR, xxx=370 to 405 in step of 5
 JAM60S09-xxx/PR, xxx=310 to 335 in step of 5
 JAM72S10-xxx/PR, xxx=380 to 410 in step of 5
 JAM60S10-xxx/PR, xxx=315 to 345 in step of 5
 JAM72S10-xxx/MR, xxx=390 to 420 in step of 5
 JAM60S10-xxx/MR, xxx=325 to 345 in step of 5
 JAM78S10-xxx/MR, xxx=435 to 455 in step of 5
 JAM66S10-xxx/MR, xxx=345 to 380 in step of 5
 JAM72S09-xxx/BP, xxx=375 to 385 in step of 5
 JAM60S09-xxx/BP, xxx=315 to 320 in step of 5
 JAM72S10-xxx/BP, xxx=385 to 400 in step of 5
 JAM60S10-xxx/BP, xxx=320 to 330 in step of 5
 JAM72S10-xxx/MB, xxx=395 to 415 in step of 5
 JAM60S10-xxx/MB, xxx=330 to 345 in step of 5
 JAM72S20-xxx/MR, xxx=430 to 470 in step of 5
 JAM60S20-xxx/MR, xxx=355 to 390 in step of 5
 JAM78S10-xxx/MR-J, xxx= 435 to 455 in step of 5

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JAM72S30-xxx/MR, xxx= 510 to 550 in steps of 5
JAM66S30-xxx/MR, xxx= 470 to 505 in steps of 5
JAM60S30-xxx/MR, xxx= 435 to 460 in steps of 5
JAM60S21-xxx/MR, xxx= 355 to 375 in steps of 5
xxx is standing for rated output power at STC

Parameters:

Construction:	Framed or Frameless, with Junction box, cable and Connectors.
Fire Safety Class:	Class C or Class A according to UL790.
Safety Class:	Class II
Maximum System Voltage:	1000 V DC or 1500V DC
PID Test Condition:	±1000 V DC, 96h, 60°C, 85% RH or 96h, 85°C, 85% RH ±1500 V DC, 96h, 85°C, 85% RH
PID testing method according to IEC TS 62804-1:2015	

Tested according to:

IEC 61215-1(ed.1)
IEC 61215-1-1(ed.1)
IEC 61215-2(ed.1)
IEC 61730-1(ed.2)
IEC 61730-2(ed.2)
PPP 58042B:2015

Production Facility(ies):

001783, 068988, 072056, 072092, 078439, 079395, 079922,
082738, 084671, 090968, 096558, 096716, 101572, 102627,
102852, 103323, 104704, 105674, 107160, 108228, 108746,
108820, 095903, 104585, 078488, 092177, 101631, 108941,
109998, 002225, 076053, 078666, 090075, 105673, 105721,
108293

SG250HX Yeni

SUNGROW
Clean power for all

1500 Vdc sistemler için Multi-MPPT dizi inverter



YÜKSEK KAZANÇ

- 99% Maksimum verimlilik ile 12 MPPT
- Bifacial modüller ile uyumlu
- Anti-PID ve PID Recovery Fonksiyonu

AKILLI O&M

- Temassız devreye alma ve uzaktan yazılım güncelleme
- Online IV Curve tarama ve hata belirleme*
- Akıllı string akım izleme ile sigortasız dizayn

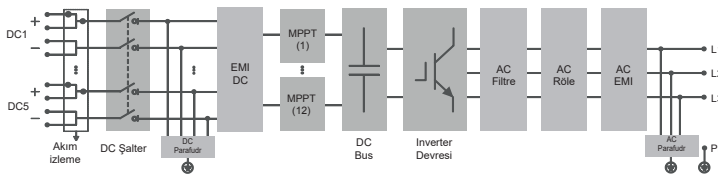
DÜŞÜK MALİYET

- Alüminyum ve Bakır AC kablolar ile uyumlu
- DC 2 in 1 string paralelleme uygun
- Power line communication (PLC)
- Q at night fonksiyonu

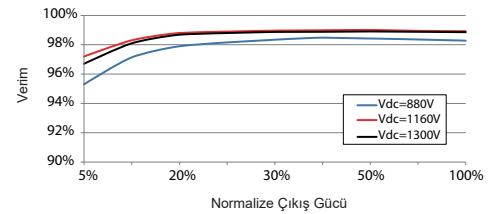
KANITLANMIŞ GÜVENLİK

- IP66 ve C5 anti-korozyon sınıfı
- Hem DC hem de AC için Type II parafudr
- Global güvenlik ve yönetmeliklere uyumlu

DEVRE ŞEMASI



VERİMLİLİK EĞRİSİ



Ürün Tanımı	SG250HX
Giriş (DC)	
Maks. PV Giriş Voltajı	1500 V
Min. PV Giriş Voltajı/ Başlangıç Giriş Voltajı	600 V / 600 V
Nominal PV Giriş Voltajı	1080 V
MPP Voltaj Aralığı	600 V – 1500 V
Nominal Güç için MPP Voltaj Aralığı	860 V – 1300 V
Bağımsız MPP Giriş Sayısı	12
MPPT Başına Maks. Giriş Adedi	2
Maks. PV Giriş Akımı	26 A * 12
Maks. Konnektör Giriş Akımı	30 A
Maks. DC Kısa Devre Akımı	50 A * 12
Çıkış (AC)	
AC Çıkış Gücü	250 kVA @ 30 °C / 225 kVA @40 °C/200 kVA @50°C
Maks. AC Çıkış Akımı	180.5 A
Nominal AC Voltajı	3 / PE, 800 V
AC Voltaj Aralığı	680 – 880V
Nominal Şebeke Frekansı/Şebeke Frekansı Aralığı	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (Nominal Güçte)
DC Akım Enjeksiyonu	< 0.5 % In
Nominal Güçteki Güç Faktörü/ Ayarlanabilir Güç Faktörü	> 0.99 / 0.8 leading – 0.8 lagging
Faz Girişi / Faz Bağlantısı	3 / 3
Verim	
Maks. Verim	99.0 %
Avrupa Verimi	98.7 %
Koruma	
DC Ters Bağlantı Koruması	Var
AC Kısa Devre Koruması	Var
Kaçık Akım Koruması	Var
Şebeke İzleme	Var
Topraklama Hatası İzleme	Var
DC Şalter / AC Şalter	Var / Yok
PV Dizi Akım İzleme	Var
Q at night fonksiyonu	Var
Anti PID ve PID Recovery Fonksiyonu	Var
Aşırı Gerilim Koruması	DC Tip II / AC Tip II
Genel Bilgiler	
Boyutlar (E*B*D)	1051 * 660 * 363 mm
Ağırlık	95kg
İzolasyon Metodu	Trafosuz
IP Koruması Sınıfı	IP66
Gece Güç Tüketimi	< 2 W
Çalışma Sıcaklığı Aralığı	-30 to 60 °C
Bağıl Nem Aralığı	0 – 100 %
Soğutma Metodu	Akıllı Fan
Maks. Çalışma Yüksekliği	5000 m (> 4000 m derating)
Gösterge	LED, Bluetooth+APP
Haberleşme	RS485 / PLC
DC Bağlantı Tipi	MC4-Evo2 (Maks. 6 mm ² , Opsiyonel 10mm ²)
AC Bağlantı Tipi	OT/DT Terminal (Max. 300 mm ²)
Uyumluluk	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, IEC 61000-6-3, EN 50438, UNE 206007-1:2013, P.O.12.3, UTE C15-712-1:2013, UL1741, UL1741SA, IEEE1547, IEEE1547.1, CSA C22.2 107.1-01-2001, CEI 0-16, FCC Part15 Sub-part B Class A Limits, California Rule 21
Şebeke Desteği	Q at night fonksiyonu, LVRT, HVRT, aktif & reaktif güç kontrolü and ani güç oranı kontrolü

DC/AC Ratio Declaration For Sungrow Inverter

To Whom It May Concern:

Sungrow Power Supply Co. Ltd., as a manufacturer of Photovoltaic Inverters, hereby confirms that the Sungrow CX, HX and HV series inverters, meet the following conditions while all the installation, commissioning and maintenance should be strictly abided Sungrow CX, HX and HV series inverters' user manual.

Scope of Declaration:

Sungrow CX, HX and HV series inverter including:
SG250HX, SG125HV, SG125HV-20, SG110CX, SG50CX, SG40CX and SG33CX.

Definition:

Layout Factor : DC Input Power / AC Input Power.

Confirmation:

The layout Factor of Sungrow CX, HX and HV series inverters can reach 1.5.
The design parameters of the power plant should refer to the restrictions in the product data sheet.



Sean Li
System Solution Manager of
EMEA team
Sungrow Power Supply Co., Ltd.

**SUNGROW**

Sungrow Power Supply Co., Ltd.
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Tel: +86 551 65327834
Fax: +86 551 65327856

BARA AKIM TAŞIMA KAPASİTELERİ

(Ortam Sıcaklığı 35 °C - Isınma 30 °C)

BAKIR BARALAR (Boyalı)					
BOYUT (mm x mm)	KESİT mm ²	AKIM TAŞIMA KAP			AĞIRLIK (kg/m)
		I	II	III	
30 x 3	89,5	350	600	-	0,797
40 x 3	119	460	780	-	1,059
40 x 5	199	600	1000	-	1,769
40 x 10	399	835	1500	2060	3,547
50 x 5	249	720	1200	1750	2,214
50 x 10	499	1025	1800	2450	4,436
60 x 10	599	1200	2100	2800	5,325
80 x 10	799	1540	2600	3300	7,103
100 x 10	999	1880	3100	4000	8,881
120 x 10	1200	2200	3500	4600	10,668

Yoğunluk: 8,89 gr/cm³ (8,9 alındı)

ALÜMİNYUM BARALAR (Boyalı)					
BOYUT (mm x mm)	KESİT mm ²	AKIM TAŞIMA KAP			AĞIRLIK (kg/m)
		I	II	III	
30 x 3	89,5	265	455	-	0,242
40 x 3	119	350	600	-	0,321
40 x 5	199	435	760	-	0,537
40 x 10	399	635	1140	1570	1,077
50 x 5	249	530	920	1330	0,672
50 x 10	499	780	1370	1860	1,347
60 x 10	599	910	1600	2170	1,617
80 x 10	799	1190	2030	2720	2,157
100 x 10	999	1440	2420	3250	2,697
120 x 10	1200	1710	2850	3650	3,240

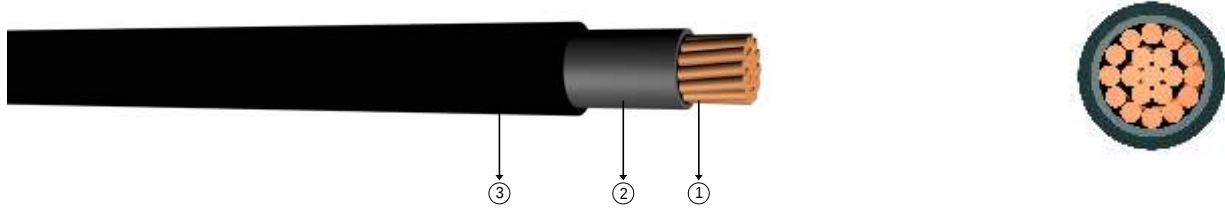
Yoğunluk: 2,703 gr/cm³ (2,7 alındı)

YATAY ŞEKİLDE DÖŞELİ BARALAR İÇİN

AKIM TAŞIMA KAPASİTE DÜZELTME FAKTÖRLERİ

İLETKEN SAYISI	BARA GENİŞLİĞİ	ARA AÇIKLIK	DÜZETME K.S	
			Boyalı	Boyasız
	-	50 - 10 mm	0,90	0,85
	50 - 200 mm		0,85	0,80
	50 - 80 mm 100 - 120 mm		0,85 0,80	0,80 0,75
	160 mm 200 mm		0,75 0,70	0,70 0,65

0.6/1 kV PVC izoleli, tek damarlı, bakır iletkenli kablolar



Kod: YVV-U, YVV-R, CU/PVC/PVC,NYY

U: Som iletken
R: Örgülü Rijit iletken

Standartlar: TS IEC 60502 - 1, VDE 0276

Teknik Veriler

Maksimum çalışma sıcaklığı : 70 °C
Maksimum kısa devre sıcaklığı : (max. 5 sn.)
Kesit < 300 mm² : 160 °C
Kesit > 300 mm² : 140 °C
Anma gerilimi : 0.6/1 kV
Minimum bükülme yarıçapı : 12 x D
D : Kablo çapı

Kullanıldığı Yerler

Güç merkezlerinde, şalt ve endüstri tesislerinde, yerel enerji dağıtımında güç kablosu olarak mekanik hasar riskinin olmadığı yerlerde (hariçte, dahilde), toprak altında ve kablo kanallarında kullanılır.

Yapısı

- 1 Bir veya çok telli bakır iletken. 3 PVC dış kılıf.
2 PVC izole.

BOYUT VE AĞIRLIKLAR			ELEKTRİKSEL ÖZELLİKLER					
Normal Kesit	Dış Çap (Yaklaşık)	Net Ağırlık (Yaklaşık)	Sevk Uzunluğu	İletken DC Direnci 20 °C Max	Akım Taşıma Kapasitesi (A)			
mm ²	mm	kg/km	m	ohm/km	Toprakta 20 °C		Havada 30 °C	
					***	**	***	**
1x1,5	5.8	50	1000	12.1	-	30	25	20
1x2,5	6.2	60	1000	7.41	-	39	34	27
1x4	7.0	85	1000	4.61	-	50	45	37
1x6	7.5	105	1000	3.08	-	62	57	48
1x10	9.0	160	1000	1.83	-	83	78	66
1x16	10.0	215	1000	1.15	127	107	103	89
1x25	11.5	320	1000	0.727	163	137	137	118
1x35	12.5	420	1000	0.524	195	165	169	145
1x50	14.0	570	1000	0.387	230	195	206	176
1x70	15.5	780	1000	0.268	282	239	261	224
1x95	18.0	1050	1000	0.193	336	287	321	271
1x120	19.5	1300	1000	0.153	382	326	374	314
1x150	21.0	1600	1000	0.124	428	366	428	361
1x185	23.5	1950	1000	0.0991	483	414	494	412
1x240	27.0	2550	1000	0.0754	561	481	590	484
1x300	30.5	3150	1000	0.0601	632	542	678	549
1x400	34.0	4200	1000	0.0470	730	624	817	657
1x500	37.0	5200	1000	0.0366	823	698	940	749
1x630	42.0	6450	500	0.0283	866	775	1042	858

Not: Akım taşıma kapasiteleri aşağıdaki şartlarda geçerlidir;

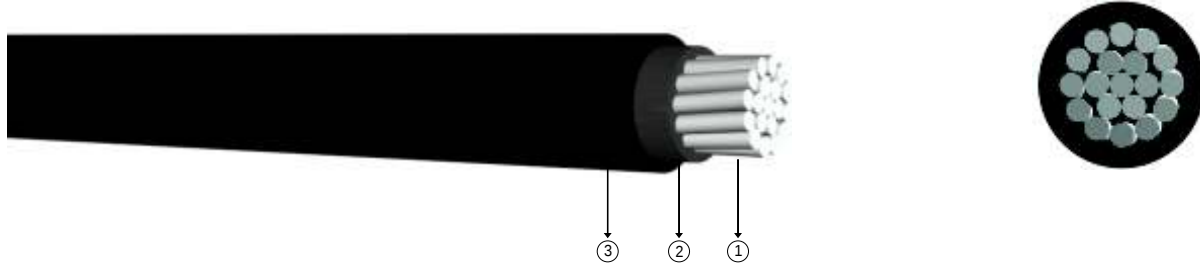
Toprakta : 20 °C' de, 70 cm derinlikte, toprak termik direnci 1 K.m/W, yük faktörü 0.7

Havada : 30 °C' de, yük faktörü 1.0

*** : Yan yana, kablolar arası mesafe; havada = 1 x kablo çapı, toprakta = 7 cm

** : Üçgen demet şeklinde döşeme

Sistem Sayısı : 1



Kod: YAVV-R, AL/PVC/PVC, NAYY

R: Örgülü Rijit İletken

Standartlar: TS IEC 60502 - 1, VDE 0276

Teknik Veriler

Maksimum çalışma sıcaklığı	: 70 °C
Maksimum kısa devre sıcaklığı	: (max. 5 sn.)
Kesit < 300 mm ²	: 160 °C
Kesit > 300 mm ²	: 140 °C
Anma gerilimi	: 0.6/1 kV
Minimum bükülme yarıçapı	: 12 x D
D	: Kablo çapı

Kullanıldığı Yerler

Güç merkezlerinde, şalt endüstri tesislerinde, yerel enerji dağıtımında güç kablosu olarak mekanik hasar riskinin yüksek olduğu yerlerde (hariçte, dahilde), toprak altında veya kablo kanallarında kullanılır.

Yapısı

- ① Çok telli alüminyum iletken.
- ② PVC izole.
- ③ PVC dış kılıf.

BOYUT VE AĞIRLIKLAR			ELEKTRİKSEL ÖZELLİKLER					
Normal Kesit	Dış Çap (Yaklaşık)	Net Ağırlık (Yaklaşık)	Sevk Uzunluğu	İletken DC Direnci 20 °C Max	Akım Taşıma Kapasitesi (A)			
mm ²	mm	kg/km	m	ohm/km	Toprakta 20 °C		Havada 30 °C	
					***	**	***	**
1x16	10.0	130	1000	1.91	75	84	80	66
1x25	11.5	160	1000	1.20	125	105	87	75
1x35	12.5	200	1000	0.868	151	127	131	113
1x50	14.0	280	1000	0.641	179	151	160	138
1x70	16.0	350	1000	0.443	218	186	202	174
1x95	18.0	450	1000	0.320	261	223	249	210
1x120	20.0	550	1000	0.253	297	254	291	244
1x150	22.0	700	1000	0.206	332	285	333	281
1x185	24.0	800	1000	0.164	376	323	384	320
1x240	27.0	1050	1000	0.125	437	378	460	378
1x300	30.0	1300	1000	0.100	494	427	530	433
1x400	34.0	1700	1000	0.0778	572	496	642	523
1x500	37,5	2050	1000	0.0605	649	562	744	603

Not: Akım taşıma kapasiteleri aşağıdaki şartlarda geçerlidir;

Toprakta : 20 °C' de, 70 cm derinlikte, toprak termik direnci 1 K.m/W, yük faktörü 0.7

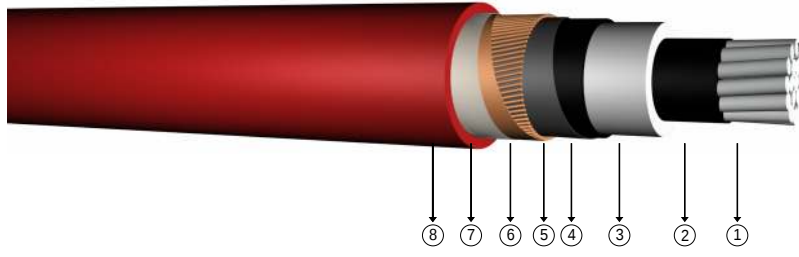
Havada : 30 °C' de, yük faktörü 1.0

*** : Yan yana, kablolar arası mesafe; havada = 1 x kablo çapı, toprakta = 7 cm

** : Üçgen demet şeklinde döşeme

Sistem Sayısı : 1

20.3/35 kV veya 20.8/36 kV XLPE izoleli, tek damarlı, alüminyum iletkenli kablolar



Kod: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Örgülü Rijit İletken

Standartlar: TS HD 620 S2i TSEK

Teknik Veriler

Maksimum çalışma sıcaklığı	: 90 °C
Maksimum kısa devre sıcaklığı	: 250 °C (max. 5 sn.)
Anma gerilimi	: 20.3/35 kV 20.8/36 kV
Minimum bükülme yarıçapı	: 15 x D
D	: Kablo çapı

Kullanıldığı Yerler

Dielektrik kayıpları çok düşük olan bu kablolar; güç merkezlerinde, şalt ve endüstri tesislerinde, yerel enerji dağıtımında güç kablosu olarak mekanik hasar riskinin olmadığı yerlerde (hariçte, dahilde), toprak altında veya kablo kanallarında kullanılır.

Yapısı

- ❶ Çok telli alüminyum iletken.
- ❸ XLPE izole.
- ❺ Yarı iletken bant.
- ❹ Polyester bant.
- ❷ İç yarı iletken.
- ❹ Dış yarı iletken.
- ❻ Bakır ekran.
- ❽ PVC dış kılıf.

BOYUT VE AĞIRLIKLAR			ELEKTRİKSEL ÖZELLİKLER									
Normal Kesit	Dış Çap	Net Ağırlık	Sevk Uzunluğu	İletken DC 20 °C Max	İletken DC 90 °C Max	Çalışma İndüktansı		İşletme Kapasitesi	Akım Taşıma Kapasitesi (A)			
mm ²	mm	kg/km	m	ohm/km	ohm/km	*** mH/km	*** mH/km	µF/km	Toprakta 20 °C		Havada 30 °C	
									***	***	***	***
1x25/16	33.5	1050	1000	1.20	1.5360	0.683	0.486	0.105	-	-	-	-
1x35/16	34.5	1100	1000	0.868	1.1110	0.657	0.464	0.115	-	-	-	-
1x50/16	36.0	1200	1000	0.641	0.8205	0.632	0.444	0.125	196	175	217	187
1x70/16	37.5	1350	1000	0.443	0.5670	0.601	0.420	0.140	238	214	270	232
1x95/16	39.5	1500	1000	0.320	0.4096	0.577	0.402	0.153	284	256	328	281
1x120/16	41.5	1650	1000	0.253	0.3238	0.558	0.388	0.165	322	290	378	323
1x150/25	43.0	1900	1000	0.206	0.2637	0.541	0.376	0.178	355	324	425	365
1x185/25	44.5	2050	1000	0.164	0.2099	0.525	0.365	0.191	400	366	485	418
1x240/25	47.5	2350	1000	0.125	0.1600	0.506	0.351	0.209	461	426	572	494
1x300/25	49.5	2600	1000	0.100	0.1280	0.490	0.341	0.226	516	479	649	564
1x400/35	53.0	3150	1000	0.0788	0.1009	0.471	0.328	0.252	572	545	737	654
1x500/35	56.0	3600	1000	0.0605	0.0774	0.456	0.318	0.274	638	614	835	747
1x630/35	60.0	4150	1000	0.0469	0.0600	0.440	0.308	0.300	728	690	950	851

Not: Akım taşıma kapasiteleri aşağıdaki şartlarda geçerlidir;

Toprakta : 20 °C' de, 70 cm derinlikte, toprak termik direnci 1 K.m/W, yük faktörü 0.7

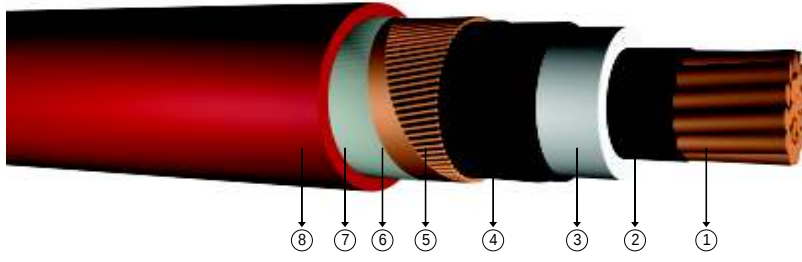
Havada : 30 °C' de, yük faktörü 1.0

*** : Yan yana, kablolar arası mesafe; havada = 1 x kablo çapı, toprakta = 7 cm

*** : Üçgen demet şeklinde döşeme

Sistem Sayısı : 1

20.3/35 kV veya 20.8/36 kV XLPE izoleli, tek damarlı, bakır iletkenli kablolar



Kod: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Örgülü Rijit İletken

Standartlar: TS HD 620 S2, TSEK

Teknik Veriler

Maksimum çalışma sıcaklığı	: 90 °C
Maksimum kısa devre sıcaklığı	: 250 °C (max. 5 sn.)
Anma gerilimi	: 20.3/35 kV 20.8/36 kV
Minimum bükülme yarıçapı	: 15 x D
D	: Kablo çapı

Kullanıldığı Yerler

Dielektrik kayıpları çok düşük olan bu kablolar; güç merkezlerinde, şalt ve endüstri tesislerinde, yerel enerji dağıtımında güç kablosu olarak mekanik hasar riskinin yüksek olduğu yerlerde (hariçte, dahilde), toprak altında veya kablo kanallarında kullanılır.

Yapısı

- | | | | |
|----------------------------|---------------------|----------------------|-------------------|
| ① Çok telli bakır iletken. | ③ XLPE izole. | ⑤ Yarı iletken bant. | ⑦ Polyester bant. |
| ② İç yarı iletken. | ④ Dış yarı iletken. | ⑥ Bakır ekran. | ⑧ PVC dış kılıf. |

BOYUT VE AĞIRLIKLAR			ELEKTRİKSEL ÖZELLİKLER									
Normal Kesit	Dış Çap	Net Ağırlık	Sevk Uzunluğu	İletken DC 20 °C Max	İletken DC 90 °C Max	Çalışma İndüktansı		İşletme Kapasitesi	Akım Taşıma Kapasitesi (A)			
mm ²	mm	kg/km	m	ohm/km	ohm/km	*** mH/km	*** mH/km	µF/km	Toprakta 20 °C		Havada 30 °C	
									***	***	***	***
1x25/16	33.5	1200	1000	0.727	0.9306	0.711	0.486	0.105	-	-	-	-
1x35/16	34.5	1300	1000	0.524	0.6707	0.685	0.464	0.115	214	192	233	202
1x50/16	36.0	1550	1000	0.387	0.4954	0.659	0.444	0.125	251	226	279	241
1x70/16	37.5	1800	1000	0.268	0.3430	0.628	0.420	0.140	306	276	348	299
1x95/16	39.5	2100	1000	0.193	0.2470	0.604	0.402	0.153	363	329	421	362
1x120/16	41.5	2400	1000	0.153	0.1958	0.585	0.388	0.165	410	373	483	416
1x150/25	43.0	2850	1000	0.124	0.1587	0.567	0.376	0.178	449	415	540	469
1x185/25	44.5	3200	1000	0.0991	0.1268	0.551	0.365	0.191	503	468	615	536
1x240/25	47.5	3800	1000	0.0754	0.0965	0.531	0.351	0.209	576	541	718	630
1x300/25	49.5	4500	1000	0.0601	0.0769	0.514	0.341	0.226	641	608	812	717
1x400/35	53.0	5650	500	0.0470	0.0602	0.493	0.328	0.252	697	684	904	823
1x500/35	56.0	6700	500	0.0366	0.0468	0.477	0.318	0.274	768	762	1011	929
1x630/35	60.0	8000	500	0.0283	0.0362	0.460	0.308	0.300	858	847	1128	1043

Not: Akım taşıma kapasiteleri aşağıdaki şartlarda geçerlidir;

Toprakta : 20 °C' de, 70 cm derinlikte, toprak termik direnci 1 K.m/W, yük faktörü 0.7

Havada : 30 °C' de, yük faktörü 1.0

*** : Yan yana, kablolar arası mesafe; havada = 1 x kablo çapı, toprakta = 7 cm

*** : Üçgen demet şeklinde döşeme

Sistem Sayısı : 1

PVC izoleli, kılıfsız tek damarlı bükülgen bakır iletkenli kablolar

*PVC insulated non-sheathed single core cables
with flexible copper conductors*



Kod

H05V-K, H07V-K (NYAF), CU/PVC

K : Bükülgen İletken.

Standartlar

TS 9758, VDE 0281, IEC 60227, BS 6004, HD 21.3 S3

Teknik Veriler

Maksimum çalışma sıcaklığı : 70°C
Maksimum kısa devre sıcaklığı : 160°C (max.5 sn.)
Anma gerilimi : 300/500 V, 450/750 V

Kullanıldığı Yerler

Hareketli cihazların bağlantılarında, bina içinde kuru yerlerde, sıva altı veya sıva üstünde boru içinde kullanılır.

Yapısı

1. Bükülgen bakır iletken.
2. PVC izole.

Code

H05V-K, H07V-K (NYAF), CU/PVC

K : Flexible Conductor.

Standards

TS 9758, VDE 0281, IEC 60227, BS 6004, HD 21.3 S3

Technical Data

Max. operating temperature : 70°C
Short circuit temperature : 160°C (max.5 sec.)
Rated voltage : 300/500 V, 450/750 V

Application

For protected installation and lighting fitting. Also for in conduit, on and under plaster.

Construction

1. Flexible copper conductor.
2. PVC insulation.

BOYUT VE AĞIRLIKLAR (DIMENSIONS AND WEIGHTS)				ELEKTRİKSEL ÖZELLİKLER (ELECTRICAL PROPERTIES)		
Nominal Kesit Nominal Cross - Section	Dış Çap (yaklaşık) Overall Diameter (approx.)	Net Ağırlık (yaklaşık) Net Weight (approx.)	Sevk Uzunluğu Delivery Length	İletken DC Direnci 20°C'de max. DC Conductor Resistance at 20°C	Akım Taşıma Kapasitesi Current Carrying Capacity	
mm ²	mm	kg/km	m	ohm/km	Toprakta 20°C'de In ground at 20°C	Havada 30°C'de In Air at 30°C
0.5 *	2.1	9	100	39.0	-	11
0.75 *	2.3	11	100	26.0	-	16
1.0 *	2.5	14	100	19.5	11	20
1.5	3.0	20	100	13.3	15	24
2.5	3.6	32	100	7.98	20	32
4	4.2	50	100	4.95	25	42
6	4.8	70	100	3.30	33	54
10	6.5	115	100	1.91	45	73
16	8.0	175	100	1.21	61	98
25	10.0	270	1000	0.780	83	129
35	11.0	370	1000	0.554	103	158
50	13.5	525	1000	0.386	132	198
70	15.0	700	1000	0.272	165	245
95	17.5	970	1000	0.206	197	292
120	19.5	1200	1000	0.161	235	344
150	22.0	1500	1000	0.129	-	391
185	24.0	1860	1000	0.106	-	448
240	27.5	2400	1000	0.0801	-	528

* 300/500V H05V-K

Termal Parametreler / Thermal parameters

Maksimum İletken İşletme Sıcaklığı / Max. Operating Temperature of the Conductor

İletkende max. 90°C (EN 50618 standardına göre 25 yıl, Arrhenius diagramına göre 30 yıl ömür) / Max. 90°C at conductor (lifetime acc. to EN 50618 = 25 years; lifetime acc. to Arrhenius-Diagram PRYSMIAN = 30 years).
Maksimum 20.000 saate kadar çalışma durumunda, iletken sıcaklığında max. 120°C, ortam sıcaklığında ise max. 90°C'ye kadar kullanılabilir. / For a maximum of 20.000 hours a max. conductor temperature of 120 °C at a max. ambient temperature of 90 °C is permitted.
250°C (5 san.) / 250 °C (5 s.)

Kısa Devre Sıcaklığı / Max. Short Circuit Temperature of the Conductor
Ortam Sıcaklığı (Sabit ve Esnek Kurulum/tesisat için) / Ambient Temperature (for fixed and flexible Installation)
Soğuğa Dayanıklılık / Resistance to Cold

Taşıma ve montaj -25°C'den +60°C'ye kadar / Installation and handling: -25°C up to 60°C
Çalışma sırasında -40°C'den +90°C'ye kadar / In operation: -40°C up to +90°C

EN 50618, Tablo 2'ye göre: / Acc. to EN 50618, Table 2:
• DIN EN 60811-504 standardına göre -40°C'de Soğuk Bükme Testi / Cold Bending Test at -40°C acc. to DIN EN 60811-504;
• DIN EN 60811-505 standardına göre -40°C'de Soğuk Uzama Testi / Cold Elongation Test at -40°C acc. to DIN EN 60811-505;
• DIN EN 60811-506 ve EN 60811 Annex C'ye göre -40°C'de Soğuk Darbe Testi
Nemli ısı testi / Cold Impact Test at -40°C acc. to DIN EN 60811-506 and EN 50618 Annex C.
• EN 50618, Tablo 2'ye göre, / Acc. to EN 50618, Table 2:
90°C'de ve %85 nem altında 1.000 saat. / 1.000h at 90°C and 85% humidity (test acc. to EN 60068-2-78).

Nemli Isı Testi / Damp-Heat Test

Mekanik Parametreler / Mechanical parameters

Gerilme Değeri / Tensile Rating

HD 516 DIN VDE 0298 3 - 7.1 ve kısım 300 - 5.4.1 standardına göre, işletmede 15 N/mm², yükleme sırasında 50 N/mm² / 15 N/mm² in operation, 50 N/mm² during installation per HD 516 DIN VDE 0298 Section 3 § 7.1 and Section 300 § 5.4.1
EN 50565-1 standardına göre / Acc. to EN 50565-1

Minimum Bükme Yarıçapı / Minimum Bending Radius
Aşınma / Abrasion Resistance

Prysmian dahili testi / Internal test
DIN EN 53516 standardını karşılar:
• Zımpara kağıdına değecek şekilde / Against abbreasive paper
• Kılıf kılıfa değecek şekilde, / Sheath against sheath;
• Kılıf metale değecek şekilde, / Sheath against metal;
• Kılıf plastiğe değecek şekilde / Sheath against plastics.
EN 50618, Tablo 2'ye göre / Acc. to EN 50618, Table 2:
• EN 60811-503'e göre maksimum çekme <%2 olmalıdır / Maximum Shrinkage <2% (test acc. to EN 60811-503).

Çekme Testi / Shrinkage Test

Yüksek Sıcaklıkta Basınç Testi / Pressure Test at High Temperature
Dinamik Geçirgenlik Testi / Dynamic Penetration Test
Shore Sertliği / Shore Hardness

Prysmian dahili testi / Internal Test:
• EN 60811-508'e göre <%50 olmalıdır. / <50% acc. to EN 60811-508.
EN 50618 Annex D'ye göre / Acc. to EN 50618, Annex D:
• EN 50618 şartlarını karşılamalıdır / Meets requirements of EN 50618.
Prysmian dahili testi / Internal Test:
• A DIN EN 53505'e göre 85 / Type A: 85 acc. to DIN EN ISO 868
EN 50618'e göre / Acc. to EN 50618:
• EN 50396 şartlarını sağlamalıdır / Test acc. to EN 50396

Güvenlik, kablolar eğrilerek veya örgülü metalik kaplamalarla koruma sağlanarak optimize edilebilir. / Safety can be optimized by utilizing protective hoses and cables with spinning or braid metallic coatings

Kılıf Baskı Kalıcılığı / Durabilty of Print

Kemirgen Direnci / Rodent Resistance

Damar Sayısı ve Kesiti / Number of Cores x Cross Section	İletken Çapı / Conductor Diamater (max. mm)	Kablo Çapı / Outer diameter (min. mm)	Kablo Çapı / Outer Diameter (max. mm)	Minimum Bükme Yarıçapı / Bending Radius Fixed (max. mm)	Ağırlık / Weight (ca.) kg/km	20°C Maksimum İletken Direnci / Conductor Resistance at 20°C max. (Ω/km)	60°C Ortam Sıcaklığında, Havada Tek Kablo için Akım Taşıma Kapasitesi / Current Carrying Capacity for Single Cable Free in Air (60°C Ambient temp.) (A)	60°C Ortam Sıcaklığında, Yüzeyde Tek kablo için Akım Taşıma Kapasitesi / Current Carrying Capacity for Single Cable on a Surface (60°C Ambient temp.) (A)	Kısa devre akımı (90°C'den 250°C'ye kadar 1 sn. için) / Short Circuit Current (1s. from 90°C to 250°C) (kA)
1x1,5	1.6	4.4	5	15	40	13.7	30	29	0.21
1x2,5	1.9	4.8	5.4	17	50	8.21	41	39	0.36
1x4	2.4	5.3	5.9	18	70	5.09	55	52	0.57
1x6	2.9	5.8	6.4	20	80	3.39	70	67	0.86
1x10	4	7	7.6	23	130	1.95	98	93	1.43
1x16	5.6	9	9.8	30	200	1.24	132	125	2.29
1x25	6.4	10.4	11.2	34	290	0.795	176	167	3.58
1x35	7.5	11.7	12.5	50	400	0.565	218	207	5.01
1x50	9	13.5	14.5	58	550	0.393	276	262	7.15
1x70	10.8	15.5	16.5	66	750	0.277	347	330	10.01
1x95	12.6	17.7	18.7	75	970	0.21	416	395	13.59
1x120	14.2	19.2	20.4	82	1220	0.164	488	464	17.16
1x150	15.8	21.4	22.6	91	1510	0.132	566	538	21.45
1x185	17.4	23.7	25.1	101	1850	0.108	644	612	26.46
1x240	20.4	27.1	28.5	114	2400	0.082	775	736	34.32

Standart sevk uzunluğu 500 m.dir. İstenmesi durumunda, diğer uzunluklar için görüşülebilir. Bütün kesitlerde siyah, kırmızı ve mavi renkler mevcuttur.

Standard delivery lenght is 500mt. Other lenghts are available on request.
All cross sections are available in black, red and blue colors.