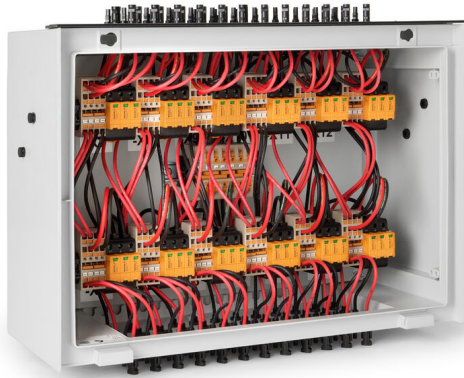


## PV 118SFXCXXV101TXPX15LWW

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

www.weidmueller.com



다중 MPPT 스트링 인버터용 표준 포트폴리오  
과전압으로부터 스트링과 인버터를 보호합니다.  
긴 케이블과 스트링 인버터 입력(MPPT)을 보호하는 것은  
옥상이든 유틸리티 스케일 발전소든 태양광 플랜트가  
매끄럽게 작동하는 데 아주 중요합니다. 이를 위해  
바이드물러는 발생할 수 있는 과전압에 대해 케이블  
및/또는 DC 입력 인버터 측면을 보호하는 데 도움이  
되는 일련의 서로 다른 캐비닛들이 있는 포트폴리오를  
개발했습니다. 이러한 솔루션을 통해 설치자와 개발자는  
바이드물러의 태양광 PV 경험과 고품질 표준에 대한  
헌신을 누릴 수 있습니다. Multi-MPPT

### 일반 주문 데이터

|            |                                                                              |
|------------|------------------------------------------------------------------------------|
| 버전         | 태양광 발전, 조립 인클로저, 접속반, 1500 V, 서지 보호 I / II, WM4C, 벽면 장착용, 가로, 스트링 인버터, 9 MPP |
| 주문 번호      | <a href="#">8000126426</a>                                                   |
| 유형         | PV 118SFXCXXV101TXPX15LWW                                                    |
| GTIN (EAN) | 4099986907355                                                                |
| 수량         | 1 items                                                                      |

PV 118SXFXCXXV101TXPX15LWW

Weidmüller Interface GmbH & Co. KG  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

www.weidmueller.com

기술 데이터

승인

승인



ROHS 준수

치수 및 중량

|     |           |         |              |
|-----|-----------|---------|--------------|
| 길이  | 300 mm    | 길이 (인치) | 11.811 inch  |
| 높이  | 536 mm    | 높이 (인치) | 21.1023 inch |
| 너비  | 747 mm    | 폭 (인치)  | 29.4094 inch |
| 순중량 | 8955.79 g |         |              |

온도

|       |                |       |                |
|-------|----------------|-------|----------------|
| 주변 온도 | -20 °C...45 °C | 작동 온도 | -20°C to +45°C |
|-------|----------------|-------|----------------|

환경 제품 규정 준수

|            |                     |
|------------|---------------------|
| RoHS 준수 상태 | 준수                  |
| REACH SVHC | 0.1 wt% 이상의 SVHC 없음 |

DC 스트링 모니터링

|         |           |
|---------|-----------|
| 모니터링 기능 | 모니터 대상 없음 |
|---------|-----------|

DC 입력

|                  |                  |            |        |
|------------------|------------------|------------|--------|
| DC 입력 수          | 18               |            |        |
| 결선 유형, DC 입력 케이블 | WM4C 플러그인 커넥터    |            |        |
| 결선 DC 입력 케이블(-)  | WM4C 플러그인 커넥터    |            |        |
| 최대 전력점 수 (MPP)   | 9                |            |        |
| 기능성 접지 커넥터       | 케이블 인입           | 케이블 인입부 수  | 1      |
|                  |                  | 케이블 직경, 최소 | 6 mm   |
|                  |                  | 케이블 직경, 최대 | 12 mm  |
|                  | 와이어 결선           | 결선 유형      | 스크류 결선 |
| 입력 수             | 18               |            |        |
| 도관 입구 수          | 3                |            |        |
| 결선 DC 입력 케이블(+)  | WM4C 플러그인 커넥터    |            |        |
| 퓨즈 유형            | 퓨즈 카트리지 또는 홀더 없음 |            |        |
| 퓨즈 유형            | 퓨즈 카트리지 또는 홀더 없음 |            |        |

DC 전기 속성

|            |                            |    |          |
|------------|----------------------------|----|----------|
| 정격 전압      | 1500 V                     | 접지 | VPU에서 직접 |
| 서지 보호 DC 측 | 1500 V 타입 I + II, 원격 접점 포함 |    |          |

DC 출력

|              |               |                  |               |
|--------------|---------------|------------------|---------------|
| DC 출력 케이블 결선 | WM4C 플러그인 커넥터 | 결선 유형, DC 출력 케이블 | WM4C 플러그인 커넥터 |
| DC 출력 수      | 18            |                  |               |

**PV 118SFXCXXV101TXPX15LWW**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

[www.weidmueller.com](http://www.weidmueller.com)

기술 데이터

정격 및 표준

|       |                                     |
|-------|-------------------------------------|
| 표준 규격 | IEC 61439-2 ed 3.0, EN 61439-2:2020 |
|-------|-------------------------------------|

하우징

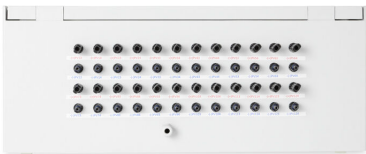
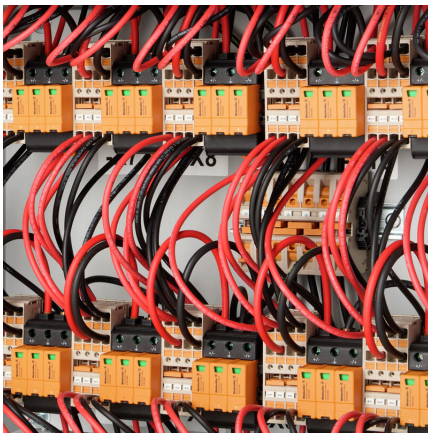
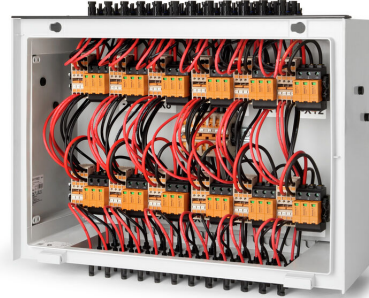
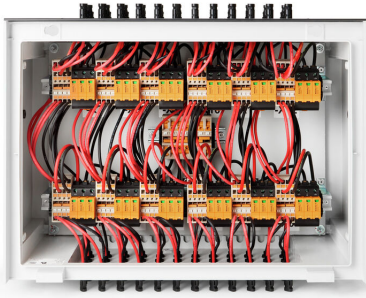
|       |       |       |      |
|-------|-------|-------|------|
| 장착 유형 | 벽면 장착 | 보호 등급 | IP65 |
|-------|-------|-------|------|

보증

|       |    |
|-------|----|
| 시간 간격 | 5년 |
|-------|----|

분류

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC003857    | ETIM 9.0    | EC003857    |
| ETIM 10.0   | EC003857    | ECLASS 14.0 | 22-57-02-92 |
| ECLASS 15.0 | 22-57-02-92 |             |             |



### Combiner Box Name Description

PV 2 24 50 FX CXX VX OX TXPX 15 P F ES

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PV 1:</b> PV DC L0 Industrial<br><b>PV 2:</b> PV DC L1 Industrial<br><b>PV 3:</b> PV DC L2 Industrial<br><b>Number of Inputs (15-36)</b><br><b>S0:</b> Switch-disconnector<br>S0 → Switch-disconnector (S0)<br>S1 → Switch-disconnector with remote disconnection (S0+K)<br>S2 → Molded Case Circuit Breaker (MCCB)<br>S3 → Molded Case Switch-Disconnector (S0+K)<br>S4 → Switch-disconnector with Contactor (S0+K)<br>S5 → No Switch-disconnector needed (N/A)<br><b>FX:</b> Fuses / Fuseholders position<br>F1 → Fuses both sides<br>F2 → Only Positive Fuses<br>F3 → Only Negative Fuses<br>F4 → Only Fuse holders<br>F5 → Only Fuse holder in positive (+)<br>F6 → Only Fuse holder in negative (-)<br>F7 → No Fuse holder needed (N/A) | <b>CX:</b> CX Fuses Type → C 10/15/20/25/30/40/50/63/80/100/125/160/200/250/315/400/500/630/800/1000/1250/1600/2000/2500/3150/4000/5000/6300/8000/10000/12500/16000/20000/25000/31500/40000/50000/63000/80000/100000/125000/160000/200000/250000/315000/400000/500000/630000/800000/1000000/1250000/1600000/2000000/2500000/3150000/4000000/5000000/6300000/8000000/10000000/12500000/16000000/20000000/25000000/31500000/40000000/50000000/63000000/80000000/100000000/125000000/160000000/200000000/250000000/315000000/400000000/500000000/630000000/800000000/1000000000/1250000000/1600000000/2000000000/2500000000/3150000000/4000000000/5000000000/6300000000/8000000000/10000000000/12500000000/16000000000/20000000000/25000000000/31500000000/40000000000/50000000000/63000000000/80000000000/100000000000/125000000000/160000000000/200000000000/250000000000/315000000000/400000000000/500000000000/630000000000/800000000000/1000000000000/1250000000000/1600000000000/2000000000000/2500000000000/3150000000000/4000000000000/5000000000000/6300000000000/8000000000000/10000000000000/12500000000000/16000000000000/20000000000000/25000000000000/31500000000000/40000000000000/50000000000000/63000000000000/80000000000000/100000000000000/125000000000000/160000000000000/200000000000000/250000000000000/315000000000000/400000000000000/500000000000000/630000000000000/800000000000000/1000000000000000/1250000000000000/1600000000000000/2000000000000000/2500000000000000/3150000000000000/4000000000000000/5000000000000000/6300000000000000/8000000000000000/10000000000000000/12500000000000000/16000000000000000/20000000000000000/25000000000000000/31500000000000000/40000000000000000/50000000000000000/63000000000000000/80000000000000000/100000000000000000/125000000000000000/160000000000000000/200000000000000000/250000000000000000/315000000000000000/400000000000000000/500000000000000000/630000000000000000/800000000000000000/1000000000000000000/1250000000000000000/1600000000000000000/2000000000000000000/2500000000000000000/3150000000000000000/4000000000000000000/5000000000000000000/6300000000000000000/8000000000000000000/10000000000000000000/12500000000000000000/16000000000000000000/20000000000000000000/25000000000000000000/31500000000000000000/40000000000000000000/50000000000000000000/63000000000000000000/80000000000000000000/100000000000000000000/125000000000000000000/160000000000000000000/200000000000000000000/250000000000000000000/315000000000000000000/400000000000000000000/500000000000000000000/630000000000000000000/800000000000000000000/1000000000000000000000/1250000000000000000000/1600000000000000000000/2000000000000000000000/2500000000000000000000/3150000000000000000000/4000000000000000000000/5000000000000000000000/6300000000000000000000/8000000000000000000000/10000000000000000000000/12500000000000000000000/16000000000000000000000/20000000000000000000000/25000000000000000000000/31500000000000000000000/40000000000000000000000/50000000000000000000000/63000000000000000000000/80000000000000000000000/100000000000000000000000/125000000000000000000000/160000000000000000000000/200000000000000000000000/250000000000000000000000/315000000000000000000000/400000000000000000000000/500000000000000000000000/630000000000000000000000/800000000000000000000000/1000000000000000000000000/1250000000000000000000000/1600000000000000000000000/2000000000000000000000000/2500000000000000000000000/3150000000000000000000000/4000000000000000000000000/5000000000000000000000000/6300000000000000000000000/8000000000000000000000000/10000000000000000000000000/12500000000000000000000000/16000000000000000000000000/20000000000000000000000000/25000000000000000000000000/31500000000000000000000000/40000000000000000000000000/50000000000000000000000000/63000000000000000000000000/80000000000000000000000000/100000000000000000000000000/125000000000000000000000000/160000000000000000000000000/200000000000000000000000000/250000000000000000000000000/315000000000000000000000000/400000000000000000000000000/500000000000000000000000000/630000000000000000000000000/800000000000000000000000000/1000000000000000000000000000/1250000000000000000000000000/1600000000000000000000000000/2000000000000000000000000000/2500000000000000000000000000/3150000000000000000000000000/4000000000000000000000000000/5000000000000000000000000000/6300000000000000000000000000/8000000000000000000000000000/10000000000000000000000000000/12500000000000000000000000000/16000000000000000000000000000/20000000000000000000000000000/25000000000000000000000000000/31500000000000000000000000000/40000000000000000000000000000/50000000000000000000000000000/63000000000000000000000000000/80000000000000000000000000000/100000000000000000000000000000/125000000000000000000000000000/160000000000000000000000000000/200000000000000000000000000000/250000000000000000000000000000/315000000000000000000000000000/400000000000000000000000000000/500000000000000000000000000000/630000000000000000000000000000/800000000000000000000000000000/1000000000000000000000000000000/1250000000000000000000000000000/1600000000000000000000000000000/2000000000000000000000000000000/2500000000000000000000000000000/3150000000000000000000000000000/4000000000000000000000000000000/5000000000000000000000000000000/6300000000000000000000000000000/8000000000000000000000000000000/10000000000000000000000000000000/12500000000000000000000000000000/16000000000000000000000000000000/20000000000000000000000000000000/25000000000000000000000000000000/31500000000000000000000000000000/40000000000000000000000000000000/50000000000000000000000000000000/63000000000000000000000000000000/80000000000000000000000000000000/100000000000000000000000000000000/125000000000000000000000000000000/160000000000000000000000000000000/200000000000000000000000000000000/250000000000000000000000000000000/315000000000000000000000000000000/400000000000000000000000000000000/500000000000000000000000000000000/630000000000000000000000000000000/800000000000000000000000000000000/1000000000000000000000000000000000/1250000000000000000000000000000000/1600000000000000000000000000000000/2000000000000000000000000000000000/2500000000000000000000000000000000/3150000000000000000000000000000000/4000000000000000000000000000000000/5000000000000000000000000000000000/6300000000000000000000000000000000/8000000000000000000000000000000000/10000000000000000000000000000000000/12500000000000000000000000000000000/16000000000000000000000000000000000/20000000000000000000000000000000000/25000000000000000000000000000000000/31500000000000000000000000000000000/40000000000000000000000000000000000/50000000000000000000000000000000000/63000000000000000000000000000000000/80000000000000000000000000000000000/100000000000000000000000000000000000/125000000000000000000000000000000000/160000000000000000000000000000000000/200000000000000000000000000000000000/250000000000000000000000000000000000/315000000000000000000000000000000000/400000000000000000000000000000000000/500000000000000000000000000000000000/630000000000000000000000000000000000/800000000000000000000000000000000000/1000000000000000000000000000000000000/1250000000000000000000000000000000000/1600000000000000000000000000000000000/2000000000000000000000000000000000000/2500000000000000000000000000000000000/3150000000000000000000000000000000000/4000000000000000000000000000000000000/5000000000000000000000000000000000000/6300000000000000000000000000000000000/8000000000000000000000000000000000000/10000000000000000000000000000000000000/12500000000000000000000000000000000000/16000000000000000000000000000000000000/20000000000000000000000000000000000000/25000000000000000000000000000000000000/31500000000000000000000000000000000000/40000000000000000000000000000000000000/50000000000000000000000000000000000000/63000000000000000000000000000000000000/80000000000000000000000000000000000000/100000000000000000000000000000000000000/125000000000000000000000000000000000000/160000000000000000000000000000000000000/200000000000000000000000000000000000000/250000000000000000000000000000000000000/315000000000000000000000000000000000000/400000000000000000000000000000000000000/500000000000000000000000000000000000000/630000000000000000000000000000000000000/800000000000000000000000000000000000000/1000000000000000000000000000000000000000/1250000000000000000000000000000000000000/1600000000000000000000000000000000000000/2000000000000000000000000000000000000000/2500000000000000000000000000000000000000/3150000000000000000000000000000000000000/4000000000000000000000000000000000000000/5000000000000000000000000000000000000000/6300000000000000000000000000000000000000/8000000000000000000000000000000000000000/10000000000000000000000000000000000000000/12500000000000000000000000000000000000000/16000000000000000000000000000000000000000/20000000000000000000000000000000000000000/25000000000000000000000000000000000000000/31500000000000000000000000000000000000000/40000000000000000000000000000000000000000/50000000000000000000000000000000000000000/63000000000000000000000000000000000000000/80000000000000000000000000000000000000000/100000000000000000000000000000000000000000/125000000000000000000000000000000000000000/160000000000000000000000000000000000000000/200000000000000000000000000000000000000000/250000000000000000000000000000000000000000/315000000000000000000000000000000000000000/400000000000000000000000000000000000000000/500000000000000000000000000000000000000000/630000000000000000000000000000000000000000/800000000000000000000000000000000000000000/1000000000000000000000000000000000000000000/1250000000000000000000000000000000000000000/1600000000000000000000000000000000000000000/2000000000000000000000000000000000000000000/2500000000000000000000000000000000000000000/3150000000000000000000000000000000000000000/4000000000000000000000000000000000000000000/5000000000000000000000000000000000000000000/6300000000000000000000000000000000000000000/8000000000000000000000000000000000000000000/10000000000000000000000000000000000000000000/12500000000000000000000000000000000000000000/16000000000000000000000000000000000000000000/20000000000000000000000000000000000000000000/25000000000000000000000000000000000000000000/31500000000000000000000000000000000000000000/40000000000000000000000000000000000000000000/50000000000000000000000000000000000000000000/63000000000000000000000000000000000000000000/80000000000000000000000000000000000000000000/100000000000000000000000000000000000000000000/125000000000000000000000000000000000000000000/160000000000000000000000000000000000000000000/200000000000000000000000000000000000000000000/250000000000000000000000000000000000000000000/315000000000000000000000000000000000000000000/400000000000000000000000000000000000000000000/500000000000000000000000000000000000000000000/630000000000000000000000000000000000000000000/800000000000000000000000000000000000000000000/1000000000000000000000000000000000000000000000/1250000000000000000000000000000000000000000000/1600000000000000000000000000000000000000000000/2000000000000000000000000000000000000000000000/2500000000000000000000000000000000000000000000/3150000000000000000000000000000000000000000000/4000000000000000000000000000000000000000000000/5000000000000000000000000000000000000000000000/6300000000000000000000000000000000000000000000/8000000000000000000000000000000000000000000000/10000000000000000000000000000000000000000000000/1250000 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|