Safety Power and Connection Limits

Safety limits for connecting devices

Do not exceed the maximum safety limits given in the following tables.

Martin P3 PowerPort 1500™ safety limits

If you supply VDO Sceptron fixtures with DC power from a Martin P3 PowerPort 1500™:

- Do not connect more than one chain of fixtures to one DC output on the P3 PowerPort 1500™. Since the P3 PowerPort 1500™ has four DC outputs, you can connect a maximum of four chains of fixtures to one P3 PowerPort 1500™.
- Do not exceed the maximum total length of fixtures that you can include in one chain (see Table 1).
- Do not exceed a maximum total length of 50 m (164 ft.) for a chain, including fixtures and cable, measured from the P3 PowerPort 1500™ to the end of the chain (see Table 1).

Table 1: Maximum length of VDO Sceptron fixtures and chain per P3 PowerPort 1500™ output

Type of fixture in chain	Maximum total length of fixtures in chain	Maximum total length of chain (fixtures and cable)
VDO Sceptron 10	10 m	50 m
VDO Sceptron 20	20 m	50 m
VDO Sceptron 40	40 m	50 m

Besides the above limits, each output of a P3 PowerPort 1500™ can drive a maximum of 63 fixtures regardless of the length of the fixtures. This may affect the VDO Sceptron 40. If you are creating a chain containing VDO Sceptron 40 320 mm fixtures, you must stop and create a new chain if you reach 63 fixtures.

Martin P3 PowerPort 1000 IP™ safety limits

If you supply VDO Sceptron fixtures with DC power from an output on a Martin P3 PowerPort 1000 IP™:

- Do not connect more than one linked chain of VDO Sceptron fixtures to one DC output. Since the P3 PowerPort 1000 IP™ has four DC outputs, you can connect a maximum of four chains of fixtures to one P3 PowerPort 1000 IP™.
- Do not exceed the maximum total length of fixtures that you can include in one chain given (see Table 2).
- Do not exceed a maximum total length of 50 m (164 ft.) for a chain, including fixtures and cable, measured from the P3 PowerPort 1000 IP™ to the end of the chain (see Table 2).

Table 2: Maximum number of VDO Sceptron fixtures per P3 PowerPort 1000 IP™ output

Type of fixture in chain	Maximum total length of fixtures in chain	Maximum total length of chain (fixtures and cable)
VDO Sceptron 10	7 m	50 m
VDO Sceptron 20	14 m	50 m
VDO Sceptron 40	27 m	50 m

Besides the above limits, each output of a P3 PowerPort 1000™ can drive a maximum of 63 fixtures regardless of the length of the fixtures. This may affect the VDO Sceptron 40. If you are creating a chain containing VDO Sceptron 40 320 mm fixtures, you must stop and create a new chain if you reach 63 fixtures.

Martin™ IP66 PSU 240W safety limits

You can supply VDO Sceptron fixtures with DC power from a Martin™ IP66 PSU 240W external power supply unit (this unit was previously called the 'Martin™ Tripix Power IP66'). If you use this unit to supply DC power:

- Do not connect more than one linked chain of VDO Sceptrons to the DC power output of the Martin™ IP66 PSU 240W.
- Do not exceed the maximum total length of fixtures that you can include in one chain (see Table 3).
- Do not exceed a maximum total length of 50 m (164 ft.) for a chain, including fixtures and cable, measured from the Martin™ IP66 PSU 240W to the end of the chain (see Table 3).

Table 3: Maximum number of VDO Sceptron fixtures per Martin™ IP66 PSU 240W

Type of fixture in chain	Maximum total length of fixtures in chain	Maximum total length of chain (fixtures and cable)
VDO Sceptron 10	7 m	50 m
VDO Sceptron 20	14 m	50 m
VDO Sceptron 40	27 m	50 m

Generic 48 VDC external PSU safety limits

If you supply a chain of VDO Sceptron fixtures with DC power from a 48 VDC external PSU (power supply unit) that you obtain yourself, you must not exceed the lowest of these limits:

- Do not create a chain that will exceed the maximum power rating of the PSU output used to supply that chain with power (to find the power consumption of the chain, multiply the number of fixtures in the chain with the wattage per fixture according to Table 4).
- Do not exceed the maximum total length of fixtures and the maximum total length of cable that you can connect in one chain (see Table 4).
- Do not create a chain with a total length of more than 50 m (164 ft.).

Each time you reach (a) the maximum total length of fixtures in one chain, or (b) 50 m (164 ft.) total length of the chain, or (c) the PSU output's maximum power rating – whichever you reach first – you must create a new chain of fixtures that is connected to a new 48 VDC power output.

Table 4: Maximum number of VDO Sceptron fixtures per 48 VDC external PSU (provided that PSU rating in watts is not exceeded).

Type of fixture in chain	Wattage per fixture	Maximum total length of fixtures in chain	Maximum total length of chain (fixtures and cable)
VDO Sceptron 10, 1000 mm	33 W	10 m	50 m
VDO Sceptron 10, 320 mm	11 W		
VDO Sceptron 20, 1000 mm	16.5 W	20 m	50 m

VDO Sceptron 20, 320 mm	5.5 W		
VDO Sceptron 40, 1000 mm	8.5 W	40 m	50 m
VDO Sceptron 40, 320 mm	3 W		