



Two compartment electronics cabinet

# HSS

**ENGINEERING®**  
WARNING SYSTEM SOLUTIONS



*The TWS-290 siren series is the most reliable warning siren system on the market for both warning tones and voice communication*

## ALL HAZARD HIGH-POWER SIREN SYSTEM TWS-293

The combination of powerful high efficiency alarm tones and clear, intelligible voice broadcast ensures an excellent warning during any emergency. This enables the operator to notify and direct a warning to the affected population. The superior design of the TWS speaker cluster provides a true 360° sound output throughout the entire frequency range. The TWS-290 series, with its high-efficiency amplifiers and durable EZ-PULL™ speaker drivers, can provide continuous warning for a minimum of 30 minutes at full output power, solely from battery power. All electronics are built into a high-quality corrosion resistant aluminum cabinet.

This makes the TWS-290 siren series the preferred Mass Notification Solution by our customers worldwide.

### FEATURES

- 3 omni-directional speaker cells assembled in a vertical column
- IP 66 rated aluminum cabinet with separate battery compartment
- 119 dB(C) @ 100' / 30 m
- TWS-293 speaker includes 3 pcs high efficiency EZ-PULL™ speaker drivers
- 600 Watts per speaker driver rated max. output power for superior durability
- 15 m speaker cable included
- Battery powered, minimum of 30 minutes of full power output with batteries of our recommendation
- Temperature compensated 3-stage switch mode battery charger
- Local or remote control / status
- 3 pcs high efficiency power amplifiers
- Electronic siren controller featuring SI TEST® - Silent self-test / diagnostics
- Alarm tone generator, automatic and live voice broadcast
- Full status monitoring including low battery alarm, amplifier / speaker status
- AC lightning arrestor included (antenna lightning arrestor included with TWS-RADIO option)
- Six standard warning tones – Wail, Whoop, Attack, Hi-Lo, Alert, Airhorn
- Optional customized warning tones

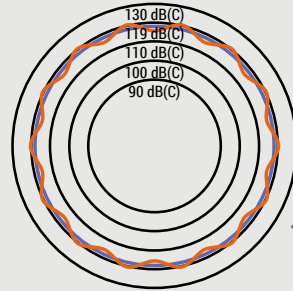


## ACOUSTIC PERFORMANCE

<b>SPL @ 1 m:</b>	149 dB(C)
<b>SPL @ 30 m:</b>	119 dB(C)
<b>70dB range ISO 13475-1*:</b>	9,110 m
<b>70dB range FEMA standard**:</b>	914 m

\* ISO: 6 dB sound pressure reduction pr. doubling of distance (as per ISO 13475-1)

\*\* FEMA: 10 dB sound pressure reduction pr. doubling of distance (as per FEMA guidelines)



## ENVIRONMENTAL

<b>Operating temperature</b>	-35° C to + 70° C
<b>Storage temperature</b>	-65° C to + 125° C
<b>Humidity, non-condensing</b>	0 to 95 %

The superior design of the speaker cluster provides a true 360° high sound output throughout the entire frequency range.

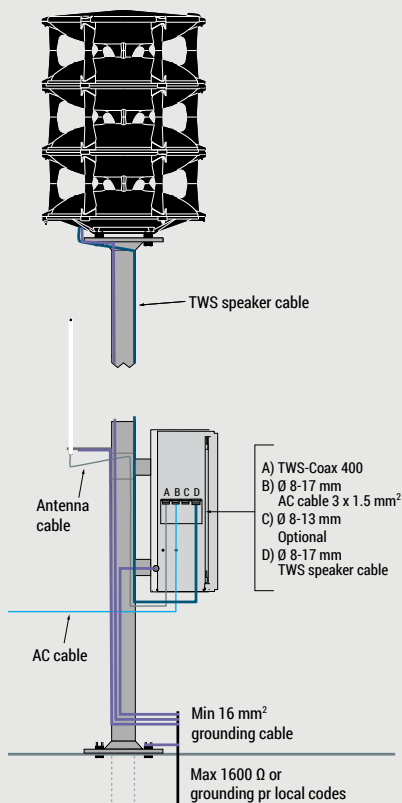
## ELECTRICAL

<b>Battery charger input</b>	Option of 120/240 VAC or 50/60 Hz
<b>Battery charger output</b>	28 VDC, 10A*
<b>Batteries</b>	2 pcs 12 V, AGM sealed. 100 AH. Sold separately
<b>Standby current</b>	82 mA, 24 VDC
<b>Operating current</b>	23 A, 24 VDC
<b>Normal amplifier output power</b>	400 Watts during tone / 500 Watts during voice
<b>Rated total max. output power</b>	1800 Watts

# U.L. recognized component

Component	Height cm (inches)	Width cm (inches)	Depth cm (inches)	Weight kg (lbs.)
<b>TWS-293 speaker</b>	115.3 (45.4)	84.8 (33.4)		93 (205)
<b>Electronics cabinet</b>	84.5 (33.3)	58.0 (22.8)	35.0 (13.8)	36.4 (80.1)*

\* Less batteries. Two batteries: 12 V, sealed, lead-calcium, add 24 kg pr. battery. Less optional radio kit. Add 2.5 kg, if this option is selected.



## ORDERING INFORMATION

Product Description	Order No.
Speaker assembly and electronics cabinet	TWS-293
<b>Options</b>	
Auxiliary activation / status control board for contact closure activation and status	AUXCS
Auxiliary activation board for contact closure	AUXIN
High efficient AC direct power supply unit	TWS-AC-PSU
GSM module	GV-GSM-RTU
Ethernet control / status interface	GV-IP
Giant Voice® Two way landline control / status monitoring	GV-LLM
High standard radios in both analogue and digital versions with wide frequency range within both VHF and UHF	TWS-RADIO
Omni-directional visual lighting	TWS-VISUALERT
Top mounted strobe light	TWS-TL31R
Giant Voice® Paging interface to interface TWS warning with existing paging systems	GV-PGINT
Intrusion alarm	TWS-INTRU
Solar power	TWS-SBC100
Two pairs of batteries	TWSBATT
Sun shield for electronic cabinet	TWS SUN SHIELD
Customized warning tones	GV-TONES

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Laegaardsvej 12 · 8520 Lystrup · Denmark  
Phone + 45 7022 8844  
Fax + 45 7022 8866  
www.hss.dk · info@hss.dk