General comparison:

Parameter	VR3	EMC-20H	Aladin TEC	Rem.
				according to manuals
# gases	10	3	1	
max. depth [m]	150	130	120	
max. time	9999 min. (166 h)	9 h 59 min.	199 min. (3 h)	
max. deco time	9999 min.	9 h 59 min.	199 min.	
# log entries / h	100 / 22 h	1024 / 1,500 h	/ 25 h	
algorithm	conservativ	liberal	0	cf. table A / B
				according to tests:
Handbook	-	0	0	
Armstrap	-	+	+	
Transportbox	-	+	0	
Displayprotector	-	+	0	
Handling	-	0	+	
Menuestructure	0	0	+	
Display	0	+	0	
Batterychange	- (!)	+	0	
Energy Consumption	-	0	0	
Support	-	+	0	
Bugs, Hardware	0	0	0	
Bugs, Software	-	0	0	
Feature Richness	0	+	0	
Adaptability	-	+	+	
deep stop	--	+	+	
Price/Performance Ratio	-	+	0	
# of Points	**0 / 16**	**10 / 16**	**5 / 16**	
final remark	**0 -> -**	**+ -> ++**	**+ !**	Aladin: n.a.

Explanation:
- :bad, clearly below average
0 :normal, average
+ :good, excellent or clearly higher-than-average

Parameters:
- Algorithm: overall consequences for a dive
- Handbook: completeness, understandable, clear, precise specs, back ground infos
- Armstrap: robust, ease of use
- Transportbox: extra item, does it protect the computer
- Displayprotector: extra item, does it work
- Handling: of kobs, contacts, etc., smooth running, useability with thick glooves

- Menuestructure: ease of navigation, consistent useage in all menue trees, ease of use concerning gaschanges or mixchanges
- Display: readability, contrast, background light
- Batterychange: how easy is that, loss of stored data
- Support: reactiontime, competence and helpfulness on questions per e-mail
- Bugs, Hardware: did the box perform well underwater
- Bugs, Software: problems with the desktop software
- Feature Richness: as such, # of features
- Adaptability: fitness levels, conservatism levels, adaption to temperature or workload
- deep stop calculation: how are they calculated / displayed? What happens at a violation? (pls. cf. remark below)
- Price/Performance Ratio: the list prices of the 3 boxes in comparison of what you get, overall

Table A: Simulation of a Dive to 42 m, Bottom Time 25 min.
Mix: Heliox 20 / 80

Type / Model / Version	**time-to-surface (TTS) [min.]**
VR3 3.03 aC	295
Proplanner	206
Professional Analyst 4.01.j Cochran EMC-20H	159; Cons.= 50.0
Zplan v1.03	113
M-Plan V 1.03	95; with Pyle Stops
Professional Analyst 4.01.j Cochran EMC-20H	87; Cons.= 0.0
M-Plan V 1.03	72
Deco Planner 2.0.40	70
Multilevel 1.6	65
GAP 2.1	63; ZH-L 16 C
Heliox A	54, J- & GF-Factors: ZH-L 16 (as per “C”)
GAP 2.1	53; RGBM
Heliox Beta 1	45; original ZH-L 16 (as per “A”)

Table B:
Testdive: air, 42 m, 25 min. bottom time

Method:	24 m	21 m	18 m	15 m	12 m	9 m	6 m	3 m	**TTS min**	Rem.:
U.S.N.							2	14	**20**	
DECO 2000					1	4	8	16	**33**	
DCIEM						7	8	17	**36**	
VR3	2	-	2	-	-	2	8	22	**40**	3 m @ 4,5 m
TEC						3	n.a.	n.a.	**36**	L0 (Level Stop)
TEC					1	n.a.	n.a.	n.a.	**40**	L1
TEC					3	n.a.	n.a.	n.a.	**45**	L2
TEC				1	k.A.	n.a.	n.a.	n.a.	**50**	L3
TEC				3	n.a.	n.a.	n.a.	n.a.	**57**	L4
TEC			2	n.a.	n.a.	n.a.	n.a.	n.a.	**65**	L5
EMC					2	2	3	8	**19**	Conservativ = 0
EMC			2	1	3	4	8	19	**41**	Conservativ = 50

Remark: deep stop calculations
The manufacturers normally do not disclose any parameters or details of the algorithms. So we have to rely on conjectures, subjective interpretations of the manuals, and our own tests!

VR3: ZH-L method, „by foot“.
The difference between ceiling and the deepest point in the dive is halved. If you omit this one, the box goes nuts.

EMC-20H: via super-fast compartments and adapted M-values, part of the regular deco calculation.

Aladin TEC: individual input from the diver, prior to dive. If you omit a deep stop, simply the next one is displayed.